

*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press

C-2

Geologic Well Log For Soldotna Well
Drilled 3/3/08 to 3/5/08, Kraxberger Drilling – CGS Logging

Depth (feet)	Material Description	Aquifer Description
0-2	Fine sand with clay, low organics	Saturated/unconfined aquifer
2-5	Fine to very fine sand with increasing clay content, some woody debris	Saturated/unconfined aquifer
5-10	Coarse sand to gravel with fine sand and clay, low organics,	Saturated/unconfined
10-12	Coarse sand to gravel, cleaner (much lower in clay and very fine sand)	unsaturated
12-15	Coarse sand to gravel, clean, unsaturated	unsaturated
15-17	Very fine sand, with occasional coarse sand grains, clean and unsaturated	unsaturated
17-20	Fine to medium sand with coarse sand, unsaturated	unsaturated
20-21	Fine to medium sand with coarse sand, prevalent 5mm gravel	unsaturated
21-23	Fine to coarse sand and gravel to 15 mm, unsaturated	unsaturated
23-25	Fine to coarse sand and gravel to 15 mm, unsaturated	unsaturated
25-26	Very fine to fine sand with significant gravel to 0 mm and coarse sand, clean, unsaturated	unsaturated
26-28	Very fine to fine sand with significant occasional gravel to 5 mm, unsaturated	unsaturated
28-29	Coarse sand and gravel to 5mm, with fines, unsaturated	unsaturated
29-31	Very fine to medium sand with coarse sand, unsaturated some gravel to 3 mm	unsaturated
31-36.5	Medium and coarse sand and gravel to 10 mm, well sorted and clean; air escaping into formation at 35 feet: <i>hard drilling, adding water</i>	unsaturated
36.5-42	Medium and coarse sand and gravel to 20 mm, well sorted and clean	unsaturated
42-45	Medium and coarse sand, less gravel to 10 mm, well sorted and clean	unsaturated
45-50	Medium and coarse sand and gravel to 10mm, well sorted and clean	unsaturated
50-52	Medium and coarse sand and gravel, well sorted, gravel to 20 mm, clean	unsaturated
52-57	Gravel to 25mm, with medium and coarse sand, clean	unsaturated
57-60	Gravel, with some decreasing medium and coarse sand, clean	unsaturated
60-62	Gravel, medium to coarse to 20mm, unsaturated, clean	unsaturated
62-65	Medium to coarse sand and gravel to 20 mm with clay, gray	unsaturated
65-67	Medium to coarse sand and increasing gravel to 30 mm with clay, gray	unsaturated

67-70	Medium to coarse sand and increasing gravel to 10 mm with significant clay layers, gray	unsaturated
70-73	Gravel to 25mm with medium to coarse sand and clay, less clay and a little more sorted into clay layering	unsaturated

73-76	Clean medium to coarse sand with some gravel to 5 mm, unsaturated	unsaturated
76-78	Medium sand, clean, with some coarse sand and occasional gravel to 20 mm	unsaturated
78-80	Medium sand with some fine sand, well sorted and saturated (clean)	Saturated
80-81	Medium sand to gravel up to 10mm, with significant clay and silt	Saturated
81-85	Gravel, with gray clay, silt and medium to coarse sand	confining
85-87	Gravel to 10mm, and clay layers with fine to medium and coarse sand	confining
87-90	Gravel to 10mm, and clay layers with fine to medium and coarse sand, less clay	confining
90-92	Gravel to 20mm, and clay layers with fine to medium and coarse sand, much less clay	confining
92-98	Gray clay, plastic, with some coarse and medium sand	confining
98-105	Gray clay, plastic, and gravel to 10mm, with medium to coarse sand	confining
105-107	Gray clay, plastic, and gravel to 10mm, with medium to coarse sand	confining
107-110	Gravel to 10mm and gray clay layers, plastic with medium and coarse sand	confining
110-116	Gravel to 10mm and gray clay layers, plastic with medium and coarse sand	confining
116-120	Gravel to 10mm and gray clay layers, plastic with medium and coarse sand	confining
120-124	Gravel to 10mm and gray clay layers, plastic with medium and coarse sand, with increasing clay layers and medium sand	confining
124-126	Gravel to 5mm and gray clay layers, plastic with medium and coarse sand	confining
126-130	Gravel, some to 20mm, rounded, with some medium and coarse sand, little clay	confining
136-140	Gravel to 25mm, with silty gray clay (plastic)	confining
140-145	Rounded gravel to 20mm, with medium sand, pretty clean	Aquifer/saturated
145-150	Medium sand with some gravel to 40mm, clean, shell fragments	Aquifer/saturated
150-156	Medium sand with some gravel to 40mm, clean, shell fragments	confining
156-160	Medium sand with some gravel to 40mm, clean, shell fragments, with some clay	confining
160-165	Subrounded to subangular gravel with medium to fine sand, with clay	confining
165-170	Gravel and clay, gravel to 20mm, with some coarse sand to silt	confining
170-176	Gravel and clay, gravel to 20mm, with some coarse sand to silt	confining
176-180	Gray clay and gravel to 10mm	confining

180-185	Gray clay and gravel to 20mm	confining
185-190	Gray clay and gravel to 20mm	confining
190-194	Gray clay and gravel to 20mm	confining
194-196	Gray clay and gravel to 30mm	confining
196-200	Gray clay and gravel to 10mm	confining
200-205	Silty and sandy clay with some gravel to 5mm	confining
205-210	Gravel to 15mm and silty gray clay	confining
210-213	Gravel to 15mm and silty gray clay	confining
213-216	Clay layers, not too plastic, and gravel to 15mm, with coarse sand to silt	confining
216-220	Clay layers, not too plastic, and gravel to 15mm, with coarse sand to silt, more sandy	confining
220-225	Silty clay, with gravel to 20mm and coarse sand	confining
225-230	Clay layers and gravel to 15mm, with some coarse sand	confining
230-236	Clay layers and gravel to 15mm, with some coarse sand, with more gravel than clay layers	confining
236	Develops to a medium sand with some coarse sand	Saturated <i>aquitard</i>
236-239	Gravel to 10mm rounded and coarse sand with medium sand, clean	Saturated aquifer
239-242	Medium to coarse sand with some gravel to 10mm, rounded, clean	Saturated aquifer
242-244	Medium to coarse sand with some gravel to 10mm, rounded, clean	Saturated aquifer
244-245	Medium to coarse sand with occasional gravel, one to 70mm; clean	Saturated aquifer
245-247	Coarse sand and gravel, gravel to 30mm, clean	Saturated aquifer
247-249	Coarse sand and gravel, gravel to 30mm, clean	
249-250	Medium to coarse sand, uniform (well sorted) and clean	Saturated aquifer
250-252	Medium to coarse sand with occasional gravel to 20mm	Saturated aquifer
252-254	Medium to coarse sand with occasional gravel to 20mm, with increasing gravel content	Saturated aquifer
254-255	Coarse sand to gravel to 15mm, clean	Saturated aquifer
255-259	Coarse sand, very clean and well sorted, occasional gravel to 20mm, rounded	Saturated aquifer
259-260	Coarse sand, very clean and well sorted, occasional gravel to 20mm, rounded	Saturated aquifer
260-262	Gravel and coarse sand, gravel to 25mm rounded, clean	Saturated aquifer
262-264	Coarse sand and gravel, clean, gravel to 15mm	Saturated aquifer
264-267	Medium sand with some coarse sand, well sorted and clean, occasional gravel to 20mm	Saturated aquifer
267-270	Medium sand with some coarse sand and gravel, clean	Saturated aquifer
270-273	Medium sand with some coarse sand and gravel, clean, increasing gravel	Saturated aquifer
273-276	Medium sand with fine sand and coarse sand, less gravel, clean	Saturated aquifer