

P-05-225

Supplement 1

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Oskarshamn site investigation

Difference flow logging of boreholes KLX07A and KLX07B

Subarea Laxemar

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Description

In the present supplement to SKB P-05-225 all groundwater head calculations for KLX07A have been redone on revised borehole elevation data (Z-coordinates).

The borehole coordinates that formed the basis for this revision of groundwater head data were retrieved from SKB Sicada 2007-03-07 EG154 (provided by SKB in file Krökdata_korrigerade_070307_KLX03-KLX29 utom KLX15, HLX13,15,26-28,32,36-38,43.xls) /Stenberg and Håkansson 2007/.

A slight displacement in the fracture frequency graph has also been fixed.

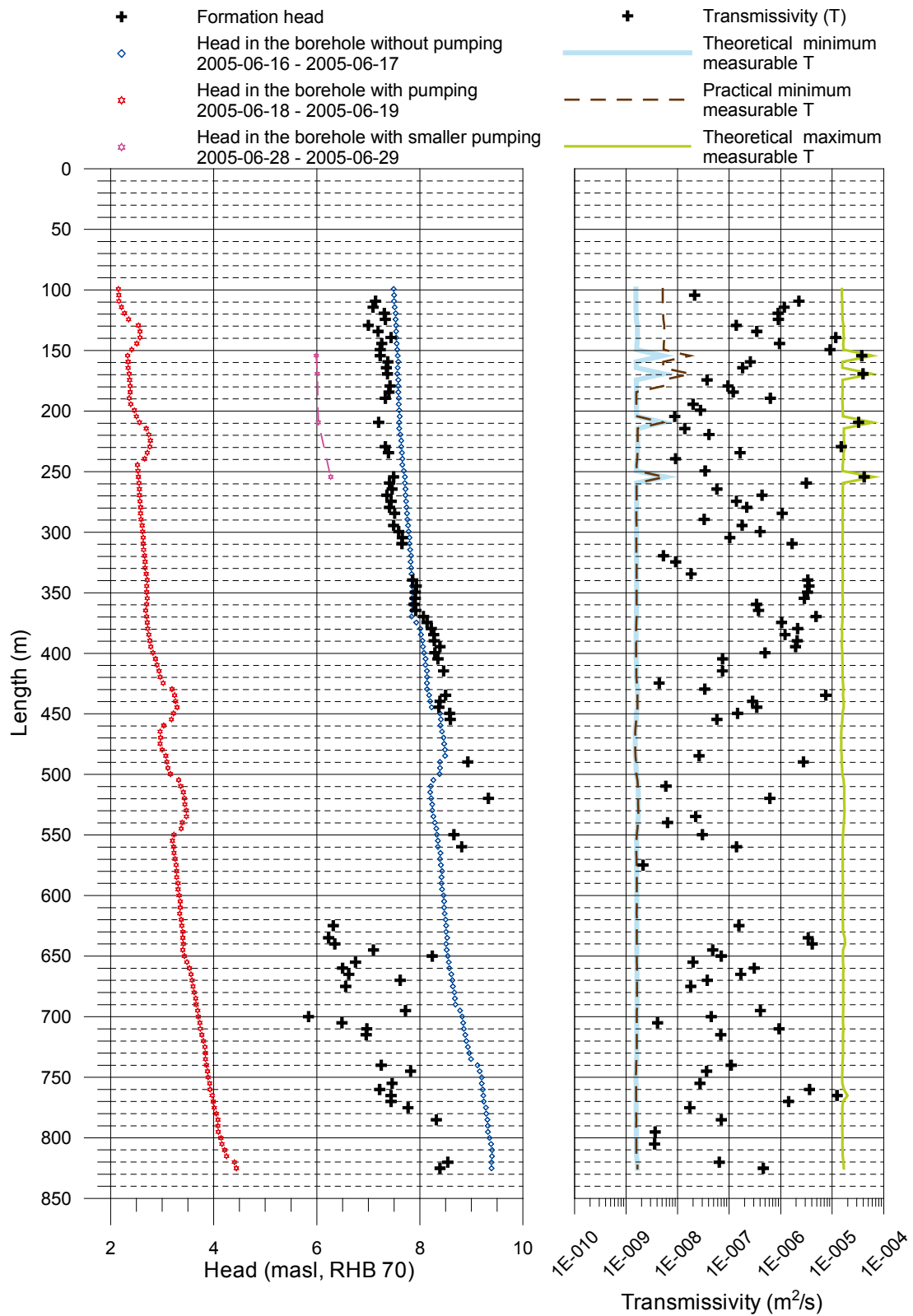
Specifically the following appendices are revised and included in this supplement:

Revised appendices	Appendix number
Transmissivity and head of 5 m sections	Appendix 4.2
Transmissivity and head of detected fractures	Appendix 5
Sequential flow logging	Appendices 7.1–7.5
Inferred flow anomalies from overlapping flow logging	Appendices 8.1–8.6
Plotted conductive fracture frequency	Appendix 11
Comparison between section transmissivity and fracture transmissivity	Appendix 12
Head in the borehole during flowlogging	Appendix 13.1
Air pressure, water level in borehole and pumping rate during flow logging	Appendix 13.2
Groundwater recovery after pumping	Appendix 13.3
Vertical flow along the borehole at 101.7 m	Appendix 13.4

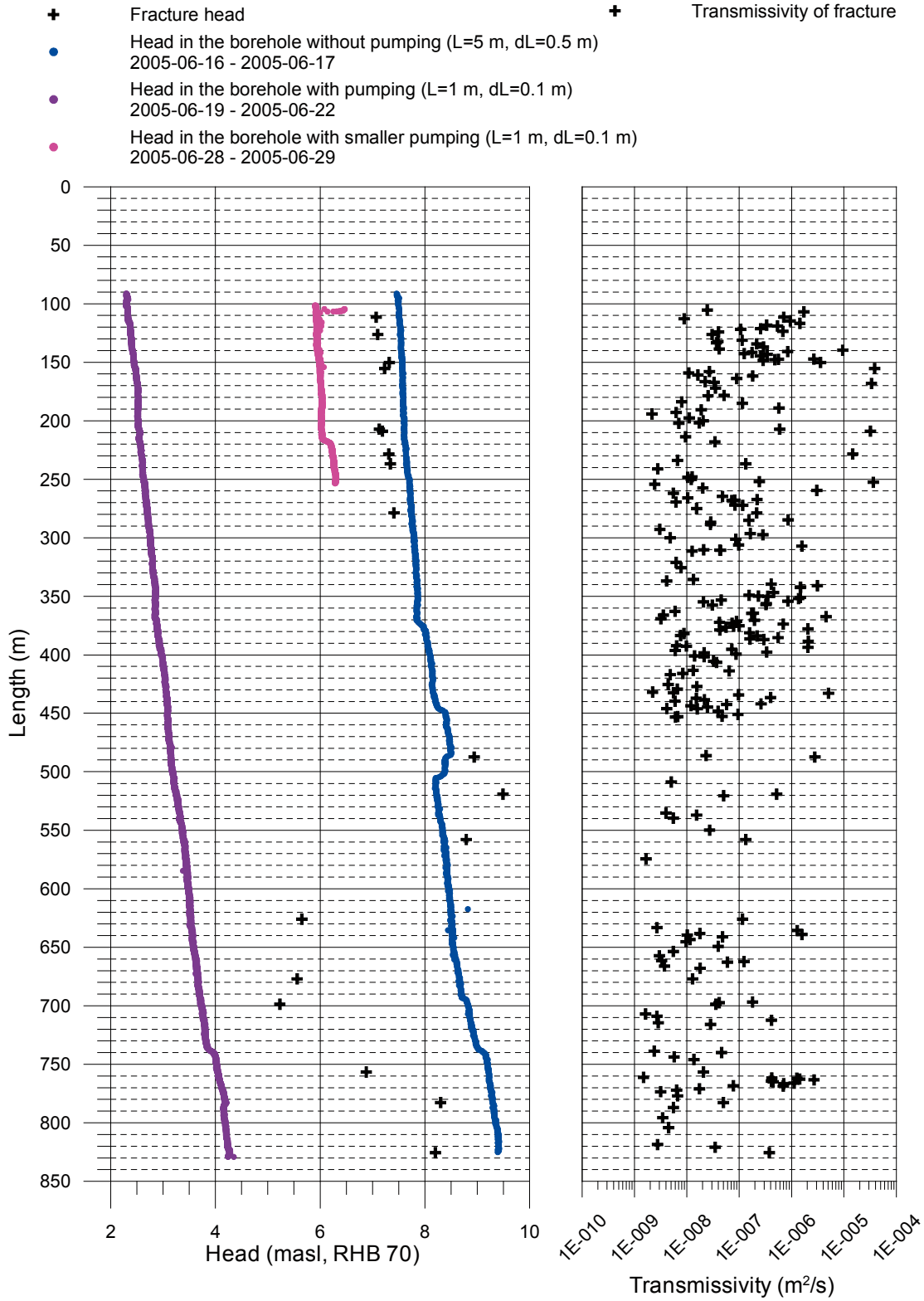
Reference

Stenberg L, Håkansson N, 2007. Revision of borehole deviation measurements in Oskarshamn, Svensk Kärnbränslehantering AB (in preparation).

Laxemar, borehole KLX07A Transmissivity and head of 5 m sections



Laxemar, borehole KLX07A Transmissivity and head of detected fractures



Appendix 7.1

Difference flow logging – Sequential flow logging

Borehole ID	Secup L (m)	Seclow L (m)	L _w (m)	Q ₀ (m ³ /s)	dh ₀ (m.a.s.l.)	Q ₁ (m ³ /s)	dh ₁ (m.a.s.l.)	T _D (m ² /s)	h ₁ (m.a.s.l.)	Q-lower limit P (mL/h)	TD-measl _{LT} (m ² /s)	TD-measl _{LP} (m ² /s)	TD-measl _U (m ² /s)	Comments
KLX07	96.78	101.78	5	–	7.49	–	2.15	–	–	100	1.5E–09	5.1E–09	1.5E–05	
KLX07	101.78	106.78	5	–	7.50	1.16E–07	2.16	2.1E–08	–	100	1.5E–09	5.1E–09	1.5E–05	
KLX07	106.79	111.79	5	–8.17E–07	7.50	1.14E–05	2.16	2.3E–06	7.1	100	1.5E–09	5.1E–09	1.6E–05	
KLX07	111.80	116.80	5	–5.00E–07	7.51	5.78E–06	2.21	1.2E–06	7.1	100	1.6E–09	5.2E–09	1.6E–05	
KLX07	116.80	121.80	5	–1.98E–07	7.53	4.56E–06	2.27	8.9E–07	7.3	100	1.6E–09	5.2E–09	1.6E–05	
KLX07	121.80	126.80	5	–1.83E–07	7.53	4.56E–06	2.35	9.0E–07	7.3	100	1.6E–09	5.3E–09	1.6E–05	
KLX07	126.81	131.81	5	–7.50E–08	7.54	6.22E–07	2.54	1.4E–07	7.0	100	1.6E–09	5.5E–09	1.7E–05	
KLX07	131.81	136.81	5	–1.21E–07	7.54	1.61E–06	2.57	3.5E–07	7.2	100	1.7E–09	5.5E–09	1.7E–05	
KLX07	136.82	141.82	5	–1.14E–06	7.54	5.78E–05	2.57	1.2E–05	7.4	100	1.7E–09	5.5E–09	1.7E–05	
KLX07	141.82	146.82	5	–2.74E–07	7.55	4.56E–06	2.51	9.5E–07	7.3	100	1.6E–09	5.5E–09	1.6E–05	
KLX07	146.82	151.82	5	–3.06E–06	7.56	4.42E–05	2.41	9.1E–06	7.2	100	1.6E–09	5.3E–09	1.7E–05	
KLX07	151.83	156.83	5	–1.27E–05	7.57	4.72E–05	5.99	3.8E–05	7.2	100	5.2E–09	1.7E–08	6.0E–05	**
KLX07	156.83	161.83	5	–5.28E–08	7.58	1.32E–06	2.34	2.6E–07	7.4	100	1.6E–09	5.2E–09	1.6E–05	
KLX07	161.84	166.84	5	–4.00E–08	7.57	9.28E–07	2.34	1.8E–07	7.3	100	1.6E–09	5.3E–09	1.6E–05	
KLX07	166.84	171.84	5	–7.61E–06	7.56	5.44E–05	6.01	4.0E–05	7.4	100	5.3E–09	1.8E–08	5.8E–05	**
KLX07	171.85	176.85	5	–	7.58	1.97E–07	2.37	3.7E–08	–	100	1.6E–09	5.3E–09	1.6E–05	
KLX07	176.86	181.86	5	–1.58E–08	7.58	4.86E–07	2.38	9.5E–08	7.4	100	1.6E–09	5.3E–09	1.6E–05	
KLX07	181.87	186.87	5	–2.17E–08	7.58	6.11E–07	2.38	1.2E–07	7.4	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	186.88	191.88	5	–1.68E–07	7.59	3.17E–06	2.36	6.3E–07	7.3	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	191.89	196.89	5	–	7.59	1.05E–07	2.39	2.0E–08	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	196.90	201.90	5	–	7.60	1.44E–07	2.46	2.8E–08	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	201.90	206.90	5	–	7.61	4.56E–08	2.50	8.8E–09	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	206.91	211.91	5	–1.33E–05	7.60	3.83E–05	6.03	3.3E–05	7.2	30	5.3E–09	5.3E–09	6.1E–05	**
KLX07	211.92	216.92	5	–	7.60	6.83E–08	2.69	1.4E–08	–	30	1.7E–09	1.7E–09	1.7E–05	
KLX07	216.92	221.92	5	–	7.62	2.01E–07	2.74	4.1E–08	–	30	1.7E–09	1.7E–09	1.7E–05	
KLX07	221.93	226.93	5	–	7.64	–	2.77	–	–	30	1.7E–09	1.7E–09	1.7E–05	
KLX07	226.93	231.93	5	–4.75E–06	7.64	6.94E–05	2.76	1.5E–05	7.3	30	1.7E–09	1.7E–09	1.8E–05	
KLX07	231.93	236.93	5	–4.36E–08	7.65	7.69E–07	2.71	1.6E–07	7.4	30	1.7E–09	1.7E–09	1.7E–05	
KLX07	236.93	241.93	5	–	7.66	4.61E–08	2.66	9.1E–09	–	30	1.6E–09	1.6E–09	1.6E–05	

Appendix 7.2

Borehole ID	Secup L (m)	Seclow L (m)	L _w (m)	Q ₀ (m ³ /s)	dh ₀ (m.a.s.l.)	Q ₁ (m ³ /s)	dh ₁ (m.a.s.l.)	T _D (m ² /s)	h _i (m.a.s.l.)	Q-lower limit P (mL/h)	TD-measl _{LT} (m ² /s)	TD-measl _{LP} (m ² /s)	TD-measl _U (m ² /s)	Comments
KLX07	241.93	246.93	5	–	7.66	–	2.52	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	246.93	251.93	5	–	7.69	1.79E–07	2.53	3.4E–08	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	251.93	256.93	5	–9.44E–06	7.71	5.11E–05	6.27	4.2E–05	7.5	30	5.7E–09	5.7E–09	6.4E–05	**
KLX07	256.93	261.93	5	–9.67E–07	7.71	1.55E–05	2.55	3.2E–06	7.4	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	261.95	266.95	5	–1.53E–08	7.72	2.86E–07	2.56	5.8E–08	7.5	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	266.96	271.96	5	–1.57E–07	7.72	2.12E–06	2.56	4.4E–07	7.4	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	271.97	276.97	5	–4.08E–08	7.73	6.81E–07	2.57	1.4E–07	7.4	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	276.97	281.97	5	–7.33E–08	7.74	1.08E–06	2.58	2.2E–07	7.4	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	281.98	286.98	5	–2.64E–07	7.75	5.33E–06	2.58	1.1E–06	7.5	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	286.98	291.98	5	–	7.76	1.71E–07	2.59	3.3E–08	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	291.99	296.99	5	–5.11E–08	7.77	8.78E–07	2.61	1.8E–07	7.5	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	296.99	301.99	5	–7.61E–08	7.78	2.02E–06	2.62	4.0E–07	7.6	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	302.00	307.00	5	–1.42E–08	7.80	5.25E–07	2.63	1.0E–07	7.7	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	307.00	312.00	5	–2.62E–07	7.80	8.50E–06	2.63	1.7E–06	7.7	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	312.00	317.00	5	–	7.81	–	2.64	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	317.00	322.00	5	–	7.83	2.78E–08	2.66	5.3E–09	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	322.00	327.00	5	–	7.82	4.78E–08	2.67	9.2E–09	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	326.99	331.99	5	–	7.83	–	2.67	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	331.99	336.99	5	–	7.84	9.56E–08	2.69	1.8E–08	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	336.99	341.99	5	4.50E–08	7.85	1.75E–05	2.71	3.4E–06	7.9	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	341.99	346.99	5	2.76E–07	7.85	1.88E–05	2.70	3.6E–06	7.9	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	347.00	352.00	5	1.75E–07	7.86	1.75E–05	2.70	3.3E–06	7.9	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	352.02	357.02	5	1.68E–07	7.85	1.51E–05	2.71	2.9E–06	7.9	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	357.05	362.05	5	1.86E–08	7.84	1.79E–06	2.70	3.4E–07	7.9	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	362.07	367.07	5	2.61E–08	7.85	1.97E–06	2.68	3.7E–07	7.9	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	367.10	372.10	5	1.15E–06	7.84	2.64E–05	2.70	4.9E–06	8.1	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	372.09	377.09	5	2.26E–07	7.93	5.72E–06	2.71	1.0E–06	8.1	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	377.09	382.09	5	4.44E–07	8.01	1.19E–05	2.72	2.1E–06	8.2	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	382.08	387.08	5	3.03E–07	8.02	6.81E–06	2.74	1.2E–06	8.3	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	387.07	392.07	5	4.92E–07	8.05	1.17E–05	2.76	2.1E–06	8.3	30	1.6E–09	1.6E–09	1.5E–05	

Appendix 7.3

Borehole ID	Secup L (m)	Seclow L (m)	L _w (m)	Q ₀ (m ³ /s)	dh ₀ (m.a.s.l.)	Q ₁ (m ³ /s)	dh ₁ (m.a.s.l.)	T _D (m ² /s)	h _i (m.a.s.l.)	Q-lower limit P (mL/h)	TD-meas _{LT} (m ² /s)	TD-meas _{LP} (m ² /s)	TD-meas _U (m ² /s)	Comments
KLX07	392.06	397.06	5	6.47E-07	8.06	1.11E-05	2.78	2.0E-06	8.4	30	1.6E-09	1.6E-09	1.5E-05	
KLX07	397.06	402.06	5	1.06E-07	8.08	2.74E-06	2.82	5.0E-07	8.3	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	402.06	407.06	5	1.83E-08	8.11	4.14E-07	2.87	7.5E-08	8.3	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	407.07	412.07	5	-	8.11	-	2.90	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	412.07	417.07	5	2.42E-08	8.14	4.14E-07	2.94	7.4E-08	8.5	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	417.07	422.07	5	-	8.14	-	2.96	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	422.07	427.07	5	-	8.14	2.28E-08	3.02	4.4E-09	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	427.08	432.08	5	-	8.14	1.68E-07	3.19	3.4E-08	-	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	432.08	437.08	5	2.47E-06	8.18	4.00E-05	3.24	7.5E-06	8.5	30	1.7E-09	1.7E-09	1.6E-05	
KLX07	437.08	442.08	5	5.33E-08	8.20	1.48E-06	3.26	2.8E-07	8.4	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	442.08	447.08	5	5.06E-08	8.23	1.78E-06	3.29	3.5E-07	8.4	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	447.07	452.07	5	2.81E-08	8.39	7.92E-07	3.22	1.5E-07	8.6	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	452.07	457.07	5	1.03E-08	8.41	3.17E-07	3.18	5.8E-08	8.6	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	457.08	462.08	5	-	8.40	-	3.03	-	-	30	1.5E-09	1.5E-09	1.5E-05	
KLX07	462.09	467.09	5	-	8.43	-	2.96	-	-	30	1.5E-09	1.5E-09	1.5E-05	
KLX07	467.10	472.10	5	-	8.46	-	2.97	-	-	30	1.5E-09	1.5E-09	1.5E-05	
KLX07	472.11	477.11	5	-	8.47	-	2.96	-	-	30	1.5E-09	1.5E-09	1.5E-05	
KLX07	477.12	482.12	5	-	8.49	-	3.00	-	-	30	1.5E-09	1.5E-09	1.5E-05	
KLX07	482.12	487.12	5	-	8.49	1.43E-07	3.07	2.6E-08	-	30	1.5E-09	1.5E-09	1.5E-05	
KLX07	487.13	492.13	5	1.51E-06	8.39	1.63E-05	3.09	2.8E-06	8.9	30	1.6E-09	1.6E-09	1.5E-05	
KLX07	492.14	497.14	5	-	8.39	-	3.11	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	497.14	502.14	5	-	8.38	-	3.16	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	502.15	507.15	5	-	8.26	-	3.32	-	-	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	507.16	512.16	5	-	8.21	2.92E-08	3.36	5.9E-09	-	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	512.17	517.17	5	-	8.20	-	3.41	-	-	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	517.18	522.18	5	6.94E-07	8.22	3.69E-06	3.43	6.2E-07	9.3	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	522.19	527.19	5	-	8.24	-	3.44	-	-	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	527.20	532.20	5	-	8.24	-	3.47	-	-	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	532.21	537.21	5	-	8.26	1.09E-07	3.47	2.2E-08	-	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	537.22	542.22	5	-	8.29	3.17E-08	3.39	6.4E-09	-	30	1.7E-09	1.7E-09	1.7E-05	

Appendix 7.4

Borehole ID	Secup L (m)	Seclow L (m)	L _w (m)	Q ₀ (m ³ /s)	dh ₀ (m.a.s.l.)	Q ₁ (m ³ /s)	dh ₁ (m.a.s.l.)	T _D (m ² /s)	h ₁ (m.a.s.l.)	Q-lower limit P (mL/h)	TD-measl _{LT} (m ² /s)	TD-measl _{LP} (m ² /s)	TD-measl _U (m ² /s)	Comments
KLX07	542.22	547.22	5	–	8.32	–	3.37	–	–	30	1.7E–09	1.7E–09	1.7E–05	
KLX07	547.23	552.23	5	1.00E–08	8.33	1.66E–07	3.23	3.0E–08	8.7	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	552.23	557.23	5	–	8.35	–	3.20	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	557.24	562.24	5	6.44E–08	8.35	7.86E–07	3.22	1.4E–07	8.8	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	562.25	567.25	5	–	8.40	–	3.23	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	567.26	572.26	5	–	8.39	–	3.25	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	572.27	577.27	5	–	8.41	1.11E–08	3.27	2.1E–09	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	577.28	582.28	5	–	8.43	–	3.28	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	582.29	587.29	5	–	8.42	–	3.28	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	587.30	592.30	5	–	8.42	–	3.31	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	592.31	597.31	5	–	8.43	–	3.31	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	597.31	602.31	5	–	8.46	–	3.33	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	602.32	607.32	5	–	8.47	–	3.35	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	607.32	612.32	5	–	8.47	–	3.35	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	612.33	617.33	5	–	8.48	–	3.34	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	617.33	622.33	5	–	8.50	–	3.37	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	622.34	627.34	5	–3.44E–07	8.51	4.61E–07	3.38	1.6E–07	6.3	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	627.35	632.35	5	–	8.51	–	3.40	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	632.35	637.35	5	–7.97E–06	8.53	9.81E–06	3.40	3.4E–06	6.2	30	1.6E–09	1.6E–09	1.8E–05	
KLX07	637.36	642.36	5	–8.97E–06	8.51	1.22E–05	3.41	4.1E–06	6.3	30	1.6E–09	1.6E–09	1.8E–05	
KLX07	642.38	647.38	5	–6.89E–08	8.52	1.79E–07	3.40	4.8E–08	7.1	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	647.39	652.39	5	–2.17E–08	8.54	3.42E–07	3.43	7.0E–08	8.2	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	652.41	657.41	5	–3.64E–08	8.56	6.56E–08	3.48	2.0E–08	6.8	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	657.41	662.41	5	–6.44E–07	8.57	9.25E–07	3.53	3.1E–07	6.5	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	662.41	667.41	5	–3.39E–07	8.61	5.19E–07	3.56	1.7E–07	6.6	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	667.42	672.42	5	–3.86E–08	8.63	1.54E–07	3.58	3.8E–08	7.6	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	672.42	677.42	5	–3.78E–08	8.64	5.39E–08	3.60	1.8E–08	6.6	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	677.43	682.43	5	–	8.67	–	3.62	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	682.43	687.43	5	–	8.68	–	3.65	–	–	30	1.6E–09	1.6E–09	1.6E–05	
KLX07	687.44	692.44	5	–	8.69	–	3.66	–	–	30	1.6E–09	1.6E–09	1.6E–05	

Appendix 7.5

Borehole ID	Secup L (m)	Seclow L (m)	L _w (m)	Q ₀ (m ³ /s)	dh ₀ (m.a.s.l.)	Q ₁ (m ³ /s)	dh ₁ (m.a.s.l.)	T _D (m ² /s)	h ₁ (m.a.s.l.)	Q-lower limit P (mL/h)	TD-meas _{LT} (m ² /s)	TD-meas _{LP} (m ² /s)	TD-meas _U (m ² /s)	Comments
KLX07	692.44	697.44	5	-4.33E-07	8.78	1.64E-06	3.69	4.0E-07	7.7	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	697.44	702.44	5	-1.35E-07	8.82	9.72E-08	3.70	4.5E-08	5.8	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	702.45	707.45	5	-9.72E-09	8.84	1.14E-08	3.73	4.1E-09	6.5	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	707.46	712.46	5	-1.78E-06	8.85	3.06E-06	3.74	9.4E-07	7.0	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	712.46	717.46	5	-1.33E-07	8.88	2.22E-07	3.77	6.9E-08	7.0	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	717.46	722.46	5	-	8.90	-	3.80	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	722.46	727.46	5	-	8.93	-	3.83	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	727.47	732.47	5	-	8.96	-	3.84	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	732.48	737.48	5	-	8.99	-	3.84	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	737.49	742.49	5	-2.08E-07	9.12	3.78E-07	3.86	1.1E-07	7.3	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	742.50	747.50	5	-4.97E-08	9.16	1.46E-07	3.88	3.7E-08	7.8	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	747.50	752.50	5	-	9.20	-	3.89	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	752.51	757.51	5	-4.81E-08	9.20	9.78E-08	3.92	2.7E-08	7.5	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	757.52	762.52	5	-7.36E-06	9.22	1.21E-05	3.93	3.6E-06	7.2	30	1.6E-09	1.6E-09	1.7E-05	
KLX07	762.52	767.52	5	-2.24E-05	9.23	4.36E-05	3.97	1.2E-05	7.4	30	1.6E-09	1.6E-09	2.0E-05	
KLX07	767.53	772.53	5	-2.60E-06	9.24	4.97E-06	3.99	1.4E-06	7.4	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	772.53	777.53	5	-2.64E-08	9.28	6.56E-08	4.01	1.7E-08	7.8	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	777.53	782.53	5	-	9.29	-	4.05	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	782.54	787.54	5	-7.06E-08	9.31	3.03E-07	4.08	7.1E-08	8.3	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	787.54	792.54	5	-	9.32	-	4.08	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	792.55	797.55	5	-	9.32	1.94E-08	4.09	3.7E-09	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	797.55	802.55	5	-	9.35	-	4.14	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	802.55	807.55	5	-	9.38	1.89E-08	4.16	3.6E-09	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	807.56	812.56	5	-	9.40	-	4.21	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	812.56	817.56	5	-	9.40	-	4.25	-	-	30	1.6E-09	1.6E-09	1.6E-05	
KLX07	817.56	822.56	5	-5.56E-08	9.39	2.69E-07	4.40	6.4E-08	8.5	30	1.7E-09	1.7E-09	1.7E-05	
KLX07	822.56	827.56	5	-4.64E-07	9.39	1.84E-06	4.44	4.6E-07	8.4	30	1.7E-09	1.7E-09	1.7E-05	

** Values from the measurement with smaller pumping (original flow over measurement limit).

Appendix 8.1

PFL – Difference flow logging – Inferred flow anomalies from overlapping flow logging

Borehole ID	Length to flow anom. L (m)	L_w (m)	dL (m)	Q_0 (m ³ /s)	dh_0 (m.a.s.l.)	Q_1 (m ³ /s)	dh_1 (m.a.s.l.)	T_D (m ² /s)	h_i (m.a.s.l.)	Comments
KLX07	105.4	1	0.1	–	7.51	1.29E–07	2.33	2.5E–08	–	*
KLX07	106.9	1	0.1	–	7.51	9.00E–06	2.33	1.7E–06	–	
KLX07	111.5	1	0.1	–3.08E–07	7.50	3.39E–06	2.34	7.1E–07	7.1	
KLX07	112.9	1	0.1	–	7.51	4.67E–08	2.33	8.9E–09	–	*
KLX07	114.7	1	0.1	–	7.52	4.94E–06	2.33	9.4E–07	–	*
KLX07	116.8	1	0.1	–	7.51	7.50E–06	2.37	1.4E–06	–	*
KLX07	118.2	1	0.1	–	7.52	1.74E–06	2.37	3.3E–07	–	*
KLX07	119.0	1	0.1	–	7.53	2.81E–06	2.38	5.4E–07	–	*
KLX07	121.3	1	0.1	–	7.53	1.33E–06	2.38	2.6E–07	–	
KLX07	121.9	1	0.1	–	7.54	5.56E–07	2.38	1.1E–07	–	*
KLX07	123.6	1	0.1	–	7.54	3.56E–06	2.39	6.8E–07	–	
KLX07	124.2	1	0.1	–	7.53	2.11E–07	2.38	4.0E–08	–	*
KLX07	126.3	1	0.1	–1.31E–08	7.52	1.45E–07	2.38	3.0E–08	7.1	
KLX07	131.2	1	0.1	–	7.54	5.92E–07	2.40	1.1E–07	–	
KLX07	132.3	1	0.1	–	7.55	2.04E–07	2.40	3.9E–08	–	*
KLX07	133.4	1	0.1	–	7.55	1.91E–07	2.40	3.7E–08	–	*
KLX07	134.3	1	0.1	–	7.54	1.13E–06	2.40	2.2E–07	–	
KLX07	137.0	1	0.1	–	7.54	1.51E–06	2.41	2.9E–07	–	
KLX07	138.6	1	0.1	–	7.55	2.16E–07	2.41	4.2E–08	–	*
KLX07	139.7	1	0.1	–	7.55	4.92E–05	2.42	9.5E–06	–	
KLX07	140.8	1	0.1	–	7.55	4.39E–06	2.42	8.5E–07	–	
KLX07	141.6	1	0.1	–	7.55	9.06E–07	2.43	1.8E–07	–	*
KLX07	142.6	1	0.1	–	7.56	6.50E–07	2.43	1.3E–07	–	*
KLX07	143.2	1	0.1	–	7.56	1.76E–06	2.43	3.4E–07	–	*
KLX07	144.6	1	0.1	–	7.55	1.32E–06	2.43	2.5E–07	–	*
KLX07	147.3	1	0.1	–	7.57	1.38E–05	2.44	2.7E–06	–	
KLX07	147.5	1	0.1	–	7.57	2.92E–06	2.44	5.6E–07	–	*
KLX07	147.8	1	0.1	–	7.57	2.48E–06	2.44	4.8E–07	–	
KLX07	148.3	1	0.1	–	7.57	1.49E–06	2.44	2.9E–07	–	
KLX07	150.2	1	0.1	–9.06E–07	7.57	1.77E–05	2.44	3.6E–06	7.3	
KLX07	155.3	1	0.1	–1.31E–05	7.57	4.86E–05	5.99	3.9E–05	7.2	**
KLX07	157.9	1	0.1	–	7.57	1.39E–07	2.48	2.7E–08	–	*
KLX07	159.2	1	0.1	–	7.58	5.64E–08	2.48	1.1E–08	–	*
KLX07	160.8	1	0.1	–	7.57	8.33E–08	2.48	1.6E–08	–	*
KLX07	161.8	1	0.1	–	7.57	9.31E–07	2.49	1.8E–07	–	
KLX07	163.9	1	0.1	–	7.58	4.61E–07	2.50	9.0E–08	–	
KLX07	166.5	1	0.1	–	7.57	1.15E–07	2.50	2.3E–08	–	*
KLX07	167.2	1	0.1	–	7.57	1.70E–07	2.50	3.3E–08	–	*
KLX07	168.1	1	0.1	–	7.58	5.33E–05	6.01	3.4E–05	–	**
KLX07	172.1	1	0.1	–	7.58	1.80E–07	2.53	3.5E–08	–	
KLX07	178.3	1	0.1	–	7.58	2.64E–07	2.52	5.2E–08	–	
KLX07	178.6	1	0.1	–	7.58	1.30E–07	2.52	2.5E–08	–	*
KLX07	183.9	1	0.1	–	7.58	4.08E–08	2.52	8.0E–09	–	*
KLX07	185.0	1	0.1	–	7.59	5.89E–07	2.52	1.2E–07	–	

Appendix 8.2

Borehole ID	Length to flow anom. L (m)	L_w (m)	dL (m)	Q_0 (m ³ /s)	dh_0 (m.a.s.l.)	Q_1 (m ³ /s)	dh_1 (m.a.s.l.)	T_D (m ² /s)	h_1 (m.a.s.l.)	Comments
KLX07	189.1	1	0.1	–	7.59	2.94E–06	2.53	5.8E–07	–	
KLX07	190.6	1	0.1	–	7.58	9.61E–08	2.52	1.9E–08	–	
KLX07	192.9	1	0.1	–	7.60	3.22E–08	2.52	6.3E–09	–	*
KLX07	194.2	1	0.1	–	7.60	1.11E–08	2.52	2.2E–09	–	*
KLX07	197.6	1	0.1	–	7.61	5.69E–08	2.52	1.1E–08	–	
KLX07	200.1	1	0.1	–	7.61	1.05E–07	2.53	2.1E–08	–	*
KLX07	201.8	1	0.1	–	7.60	8.89E–08	2.53	1.7E–08	–	
KLX07	202.2	1	0.1	–	7.60	3.61E–08	2.53	7.1E–09	–	*
KLX07	207.2	1	0.1	–2.81E–07	7.60	2.76E–06	2.54	5.9E–07	7.1	
KLX07	208.9	1	0.1	–1.34E–05	7.60	3.72E–05	6.04	3.2E–05	7.2	**
KLX07	213.7	1	0.1	–	7.61	4.86E–08	2.54	9.5E–09	–	*
KLX07	218.0	1	0.1	–	7.61	1.76E–07	2.55	3.4E–08	–	
KLX07	228.4	1	0.1	–4.92E–06	7.64	7.06E–05	2.58	1.5E–05	7.3	
KLX07	233.8	1	0.1	–	7.65	3.39E–08	2.61	6.7E–09	–	
KLX07	236.8	1	0.1	–4.11E–08	7.64	6.42E–07	2.60	1.3E–07	7.3	
KLX07	241.1	1	0.1	–	7.66	1.42E–08	2.61	2.8E–09	–	*
KLX07	247.9	1	0.1	–	7.68	6.44E–08	2.62	1.3E–08	–	
KLX07	248.4	1	0.1	–	7.68	5.33E–08	2.62	1.0E–08	–	
KLX07	250.1	1	0.1	–	7.71	6.22E–08	2.62	1.2E–08	–	*
KLX07	252.0	1	0.1	–	7.71	1.25E–06	2.63	2.4E–07	–	
KLX07	252.6	1	0.1	–	7.70	5.22E–05	6.29	3.7E–05	–	**
KLX07	254.3	1	0.1	–	7.71	1.25E–08	2.64	2.4E–09	–	*
KLX07	257.5	1	0.1	–	7.71	1.04E–07	2.65	2.0E–08	–	
KLX07	259.5	1	0.1	–	7.71	1.54E–05	2.66	3.0E–06	–	
KLX07	261.9	1	0.1	–	7.73	2.83E–08	2.66	5.5E–09	–	
KLX07	264.7	1	0.1	–	7.72	2.46E–07	2.67	4.8E–08	–	
KLX07	266.0	1	0.1	–	7.73	5.31E–08	2.68	1.0E–08	–	
KLX07	267.3	1	0.1	–	7.73	1.12E–06	2.68	2.2E–07	–	
KLX07	267.8	1	0.1	–	7.72	4.19E–07	2.69	8.3E–08	–	
KLX07	268.1	1	0.1	–	7.71	3.69E–07	2.68	7.3E–08	–	*
KLX07	269.5	1	0.1	–	7.72	3.17E–08	2.69	6.2E–09	–	
KLX07	272.0	1	0.1	–	7.74	4.22E–07	2.69	8.3E–08	–	*
KLX07	272.3	1	0.1	–	7.75	6.00E–07	2.68	1.2E–07	–	
KLX07	275.1	1	0.1	–	7.75	7.86E–08	2.69	1.5E–08	–	
KLX07	278.7	1	0.1	–7.50E–08	7.75	1.03E–06	2.70	2.2E–07	7.4	
KLX07	284.7	1	0.1	–	7.76	4.39E–06	2.72	8.6E–07	–	
KLX07	285.1	1	0.1	–	7.77	7.83E–07	2.71	1.5E–07	–	
KLX07	286.7	1	0.1	–	7.77	1.46E–07	2.72	2.9E–08	–	
KLX07	288.6	1	0.1	–	7.76	1.44E–07	2.72	2.8E–08	–	
KLX07	292.8	1	0.1	–	7.78	1.56E–08	2.74	3.1E–09	–	*
KLX07	296.4	1	0.1	–	7.78	8.28E–07	2.76	1.6E–07	–	
KLX07	297.4	1	0.1	–	7.79	1.45E–06	2.75	2.8E–07	–	
KLX07	300.0	1	0.1	–	7.80	2.44E–08	2.77	4.8E–09	–	*
KLX07	301.3	1	0.1	–	7.79	4.39E–07	2.76	8.6E–08	–	
KLX07	306.1	1	0.1	–	7.80	4.97E–07	2.76	9.8E–08	–	
KLX07	307.1	1	0.1	–	7.81	8.00E–06	2.77	1.6E–06	–	

Appendix 8.3

Borehole ID	Length to flow anom. L (m)	L_w (m)	dL (m)	Q_0 (m ³ /s)	dh ₀ (m.a.s.l.)	Q_1 (m ³ /s)	dh ₁ (m.a.s.l.)	T_D (m ² /s)	hi (m.a.s.l.)	Comments
KLX07	310.3	1	0.1	–	7.81	1.07E-07	2.78	2.1E-08	–	*
KLX07	310.5	1	0.1	–	7.82	2.18E-07	2.78	4.3E-08	–	
KLX07	310.7	1	0.1	–	7.81	2.25E-07	2.78	4.4E-08	–	
KLX07	311.5	1	0.1	–	7.81	6.42E-08	2.78	1.3E-08	–	*
KLX07	321.1	1	0.1	–	7.83	3.19E-08	2.79	6.3E-09	–	*
KLX07	325.7	1	0.1	–	7.84	3.94E-08	2.81	7.8E-09	–	
KLX07	335.6	1	0.1	–	7.85	6.78E-08	2.83	1.3E-08	–	
KLX07	336.9	1	0.1	–	7.85	2.08E-08	2.83	4.1E-09	–	*
KLX07	339.6	1	0.1	–	7.85	2.06E-06	2.85	4.1E-07	–	
KLX07	341.0	1	0.1	–	7.85	1.57E-05	2.85	3.1E-06	–	
KLX07	342.2	1	0.1	–	7.85	7.56E-06	2.85	1.5E-06	–	
KLX07	342.5	1	0.1	–	7.86	7.42E-06	2.86	1.5E-06	–	
KLX07	346.8	1	0.1	–	7.87	2.30E-06	2.85	4.5E-07	–	
KLX07	349.1	1	0.1	–	7.87	7.83E-07	2.86	1.6E-07	–	
KLX07	349.8	1	0.1	–	7.86	1.17E-06	2.86	2.3E-07	–	*
KLX07	350.1	1	0.1	–	7.86	1.77E-06	2.86	3.5E-07	–	
KLX07	351.0	1	0.1	–	7.86	7.50E-06	2.86	1.5E-06	–	
KLX07	352.0	1	0.1	–	7.86	6.86E-06	2.86	1.4E-06	–	
KLX07	353.2	1	0.1	–	7.86	2.31E-07	2.85	4.6E-08	–	*
KLX07	354.2	1	0.1	–	7.85	4.31E-06	2.86	8.5E-07	–	
KLX07	354.8	1	0.1	–	7.86	1.06E-07	2.84	2.1E-08	–	
KLX07	356.2	1	0.1	–	7.85	1.66E-06	2.85	3.3E-07	–	
KLX07	357.1	1	0.1	–	7.85	1.64E-06	2.86	3.3E-07	–	
KLX07	357.6	1	0.1	–	7.87	1.56E-07	2.86	3.1E-08	–	
KLX07	362.8	1	0.1	–	7.84	3.00E-08	2.86	6.0E-09	–	
KLX07	364.4	1	0.1	–	7.85	9.39E-07	2.86	1.9E-07	–	
KLX07	364.6	1	0.1	–	7.85	8.72E-07	2.85	1.7E-07	–	
KLX07	366.1	1	0.1	–	7.85	1.81E-08	2.84	3.6E-09	–	*
KLX07	367.4	1	0.1	–	7.83	2.30E-05	2.84	4.6E-06	–	
KLX07	369.1	1	0.1	–	7.84	1.61E-08	2.87	3.2E-09	–	*
KLX07	370.5	1	0.1	–	7.84	9.86E-07	2.87	2.0E-07	–	
KLX07	371.5	1	0.1	–	7.87	4.50E-07	2.88	8.9E-08	–	*
KLX07	372.3	1	0.1	–	7.88	2.13E-07	2.88	4.2E-08	–	*
KLX07	373.0	1	0.1	–	7.90	3.72E-07	2.88	7.3E-08	–	*
KLX07	373.8	1	0.1	–	7.92	3.56E-06	2.87	7.0E-07	–	
KLX07	375.2	1	0.1	–	7.95	5.08E-07	2.88	9.9E-08	–	*
KLX07	375.7	1	0.1	–	7.98	4.06E-07	2.88	7.9E-08	–	
KLX07	376.4	1	0.1	–	7.97	2.89E-07	2.89	5.6E-08	–	
KLX07	377.9	1	0.1	–	7.98	1.06E-05	2.88	2.1E-06	–	
KLX07	378.9	1	0.1	–	8.00	2.20E-07	2.91	4.3E-08	–	
KLX07	381.2	1	0.1	–	8.01	8.17E-07	2.90	1.6E-07	–	
KLX07	381.9	1	0.1	–	8.02	4.56E-08	2.91	8.8E-09	–	
KLX07	383.6	1	0.1	–	8.02	3.92E-08	2.90	7.6E-09	–	*
KLX07	383.9	1	0.1	–	8.03	1.14E-06	2.90	2.2E-07	–	
KLX07	385.4	1	0.1	–	8.03	2.86E-06	2.92	5.5E-07	–	
KLX07	386.5	1	0.1	–	8.03	8.31E-07	2.92	1.6E-07	–	

Appendix 8.4

Borehole ID	Length to flow anom. L (m)	L _w (m)	dL (m)	Q ₀ (m ³ /s)	dh ₀ (m.a.s.l.)	Q ₁ (m ³ /s)	dh ₁ (m.a.s.l.)	T _D (m ² /s)	h _i (m.a.s.l.)	Comments
KLX07	387.0	1	0.1	–	8.03	1.53E–06	2.93	3.0E–07	–	
KLX07	388.4	1	0.1	–	8.04	1.08E–05	2.92	2.1E–06	–	
KLX07	392.3	1	0.1	–	8.06	3.31E–08	2.93	6.4E–09	–	*
KLX07	392.6	1	0.1	–	8.05	5.08E–08	2.93	9.8E–09	–	
KLX07	393.7	1	0.1	–	8.06	1.07E–05	2.94	2.1E–06	–	
KLX07	395.3	1	0.1	–	8.07	3.72E–07	2.95	7.2E–08	–	
KLX07	396.3	1	0.1	–	8.08	3.11E–08	2.97	6.0E–09	–	
KLX07	397.7	1	0.1	–	8.08	1.74E–06	2.96	3.4E–07	–	
KLX07	398.4	1	0.1	–	8.09	1.11E–07	2.96	2.1E–08	–	
KLX07	399.5	1	0.1	–	8.09	4.53E–07	2.97	8.8E–08	–	
KLX07	401.0	1	0.1	–	8.11	7.31E–08	2.99	1.4E–08	–	
KLX07	401.7	1	0.1	–	8.11	1.11E–07	2.98	2.1E–08	–	
KLX07	405.5	1	0.1	–	8.11	1.68E–07	2.99	3.2E–08	–	
KLX07	406.5	1	0.1	–	8.12	1.91E–07	3.00	3.7E–08	–	
KLX07	413.3	1	0.1	–	8.14	6.83E–08	3.02	1.3E–08	–	*
KLX07	413.8	1	0.1	–	8.15	3.33E–07	3.02	6.4E–08	–	
KLX07	416.0	1	0.1	–	8.15	4.33E–08	3.03	8.4E–09	–	*
KLX07	417.0	1	0.1	–	8.14	2.50E–08	3.03	4.8E–09	–	*
KLX07	425.3	1	0.1	–	8.13	2.28E–08	3.04	4.4E–09	–	
KLX07	427.2	1	0.1	–	8.14	8.03E–08	3.06	1.6E–08	–	
KLX07	429.3	1	0.1	–	8.14	3.39E–08	3.05	6.6E–09	–	
KLX07	431.9	1	0.1	–	8.15	1.14E–08	3.07	2.2E–09	–	*
KLX07	432.4	1	0.1	–	8.16	2.86E–08	3.06	5.6E–09	–	*
KLX07	432.9	1	0.1	–	8.16	2.62E–05	3.07	5.1E–06	–	
KLX07	434.2	1	0.1	–	8.18	5.03E–07	3.07	9.7E–08	–	
KLX07	436.5	1	0.1	–	8.18	2.04E–06	3.08	4.0E–07	–	
KLX07	437.2	1	0.1	–	8.19	7.89E–08	3.07	1.5E–08	–	
KLX07	438.5	1	0.1	–	8.20	1.12E–07	3.08	2.2E–08	–	
KLX07	439.7	1	0.1	–	8.20	3.08E–08	3.08	6.0E–09	–	
KLX07	442.0	1	0.1	–	8.23	1.36E–06	3.07	2.6E–07	–	
KLX07	442.5	1	0.1	–	8.22	3.00E–07	3.07	5.8E–08	–	*
KLX07	443.5	1	0.1	–	8.23	6.22E–08	3.09	1.2E–08	–	
KLX07	444.7	1	0.1	–	8.24	1.30E–07	3.08	2.5E–08	–	
KLX07	446.0	1	0.1	–	8.27	2.17E–08	3.09	4.1E–09	–	*
KLX07	446.2	1	0.1	–	8.27	8.25E–08	3.10	1.6E–08	–	
KLX07	448.2	1	0.1	–	8.35	2.11E–07	3.09	4.0E–08	–	
KLX07	451.0	1	0.1	–	8.39	5.08E–07	3.08	9.5E–08	–	
KLX07	452.6	1	0.1	–	8.39	2.53E–07	3.09	4.7E–08	–	
KLX07	452.8	1	0.1	–	8.40	3.61E–08	3.08	6.7E–09	–	*
KLX07	453.2	1	0.1	–	8.41	3.28E–08	3.09	6.1E–09	–	
KLX07	486.1	1	0.1	–	8.47	1.26E–07	3.15	2.3E–08	–	
KLX07	487.4	1	0.1	1.50E–06	8.41	1.64E–05	3.15	2.8E–06	8.9	
KLX07	508.7	1	0.1	–	8.20	2.56E–08	3.20	5.1E–09	–	
KLX07	519.2	1	0.1	6.67E–07	8.22	3.28E–06	3.26	5.2E–07	9.5	
KLX07	520.5	1	0.1	–	8.23	2.54E–07	3.25	5.1E–08	–	
KLX07	535.3	1	0.1	–	8.25	2.00E–08	3.31	4.0E–09	–	*

Appendix 8.5

Borehole ID	Length to flow anom. L (m)	L_w (m)	dL (m)	Q_0 (m ³ /s)	dh_0 (m.a.s.l.)	Q_1 (m ³ /s)	dh_1 (m.a.s.l.)	T_D (m ² /s)	h_i (m.a.s.l.)	Comments
KLX07	537.0	1	0.1	–	8.26	7.64E–08	3.32	1.5E–08	–	
KLX07	539.6	1	0.1	–	8.29	2.78E–08	3.32	5.5E–09	–	*
KLX07	549.9	1	0.1	–	8.34	1.37E–07	3.36	2.7E–08	–	
KLX07	557.9	1	0.1	5.81E–08	8.36	7.28E–07	3.40	1.3E–07	8.8	
KLX07	574.4	1	0.1	–	8.41	8.33E–09	3.44	1.7E–09	–	*
KLX07	626.0	1	0.1	–3.36E–07	8.51	2.49E–07	3.53	1.2E–07	5.7	
KLX07	633.2	1	0.1	–	8.52	1.36E–08	3.54	2.7E–09	–	*
KLX07	635.7	1	0.1	–	8.49	6.39E–06	3.54	1.3E–06	–	
KLX07	638.2	1	0.1	–	8.52	8.89E–08	3.56	1.8E–08	–	
KLX07	639.1	1	0.1	–	8.53	7.92E–06	3.57	1.6E–06	–	
KLX07	639.6	1	0.1	–	8.53	5.11E–08	3.56	1.0E–08	–	*
KLX07	641.1	1	0.1	–	8.52	2.41E–07	3.56	4.8E–08	–	
KLX07	643.4	1	0.1	–	8.51	5.75E–08	3.56	1.2E–08	–	*
KLX07	645.3	1	0.1	–	8.53	4.86E–08	3.57	9.7E–09	–	*
KLX07	649.2	1	0.1	–	8.53	1.99E–07	3.57	4.0E–08	–	
KLX07	653.5	1	0.1	–	8.56	2.78E–08	3.59	5.5E–09	–	*
KLX07	657.3	1	0.1	–	8.57	1.50E–08	3.60	3.0E–09	–	*
KLX07	661.4	1	0.1	–	8.60	1.67E–08	3.64	3.3E–09	–	*
KLX07	662.2	1	0.1	–	8.60	6.19E–07	3.64	1.2E–07	–	
KLX07	662.7	1	0.1	–	8.61	3.00E–07	3.64	6.0E–08	–	
KLX07	666.0	1	0.1	–	8.62	1.89E–08	3.63	3.7E–09	–	*
KLX07	667.9	1	0.1	–	8.62	9.06E–08	3.64	1.8E–08	–	
KLX07	677.0	1	0.1	–4.06E–08	8.66	2.47E–08	3.67	1.3E–08	5.6	
KLX07	696.8	1	0.1	–	8.80	9.22E–07	3.72	1.8E–07	–	
KLX07	697.3	1	0.1	–	8.80	2.13E–07	3.72	4.2E–08	–	
KLX07	698.7	1	0.1	–1.30E–07	8.82	5.50E–08	3.72	3.6E–08	5.2	
KLX07	707.0	1	0.1	–	8.82	8.33E–09	3.75	1.6E–09	–	*
KLX07	709.0	1	0.1	–	8.85	1.39E–08	3.76	2.7E–09	–	
KLX07	712.4	1	0.1	–	8.86	2.13E–06	3.78	4.1E–07	–	
KLX07	714.5	1	0.1	–	8.88	1.47E–08	3.78	2.9E–09	–	
KLX07	715.9	1	0.1	–	8.89	1.46E–07	3.81	2.8E–08	–	
KLX07	738.7	1	0.1	–	9.09	1.25E–08	3.92	2.4E–09	–	*
KLX07	739.9	1	0.1	–	9.12	2.40E–07	3.96	4.6E–08	–	
KLX07	743.7	1	0.1	–	9.16	2.97E–08	4.01	5.7E–09	–	
KLX07	745.9	1	0.1	–	9.19	7.14E–08	4.01	1.4E–08	–	
KLX07	756.6	1	0.1	–4.89E–08	9.21	5.94E–08	4.05	2.1E–08	6.9	
KLX07	761.2	1	0.1	–	9.23	7.78E–09	4.07	1.5E–09	–	*
KLX07	761.7	1	0.1	–	9.23	2.19E–06	4.06	4.2E–07	–	
KLX07	761.9	1	0.1	–	9.22	6.58E–06	4.07	1.3E–06	–	
KLX07	762.6	1	0.1	–	9.22	7.44E–06	4.07	1.4E–06	–	
KLX07	763.3	1	0.1	–	9.23	1.40E–05	4.08	2.7E–06	–	
KLX07	764.4	1	0.1	–	9.22	2.14E–06	4.08	4.1E–07	–	
KLX07	765.0	1	0.1	–	9.24	2.32E–06	4.09	4.5E–07	–	*
KLX07	766.1	1	0.1	–	9.24	5.83E–06	4.09	1.1E–06	–	
KLX07	766.5	1	0.1	–	9.25	3.69E–06	4.10	7.1E–07	–	
KLX07	768.4	1	0.1	–	9.25	4.03E–07	4.11	7.8E–08	–	*

Appendix 8.6

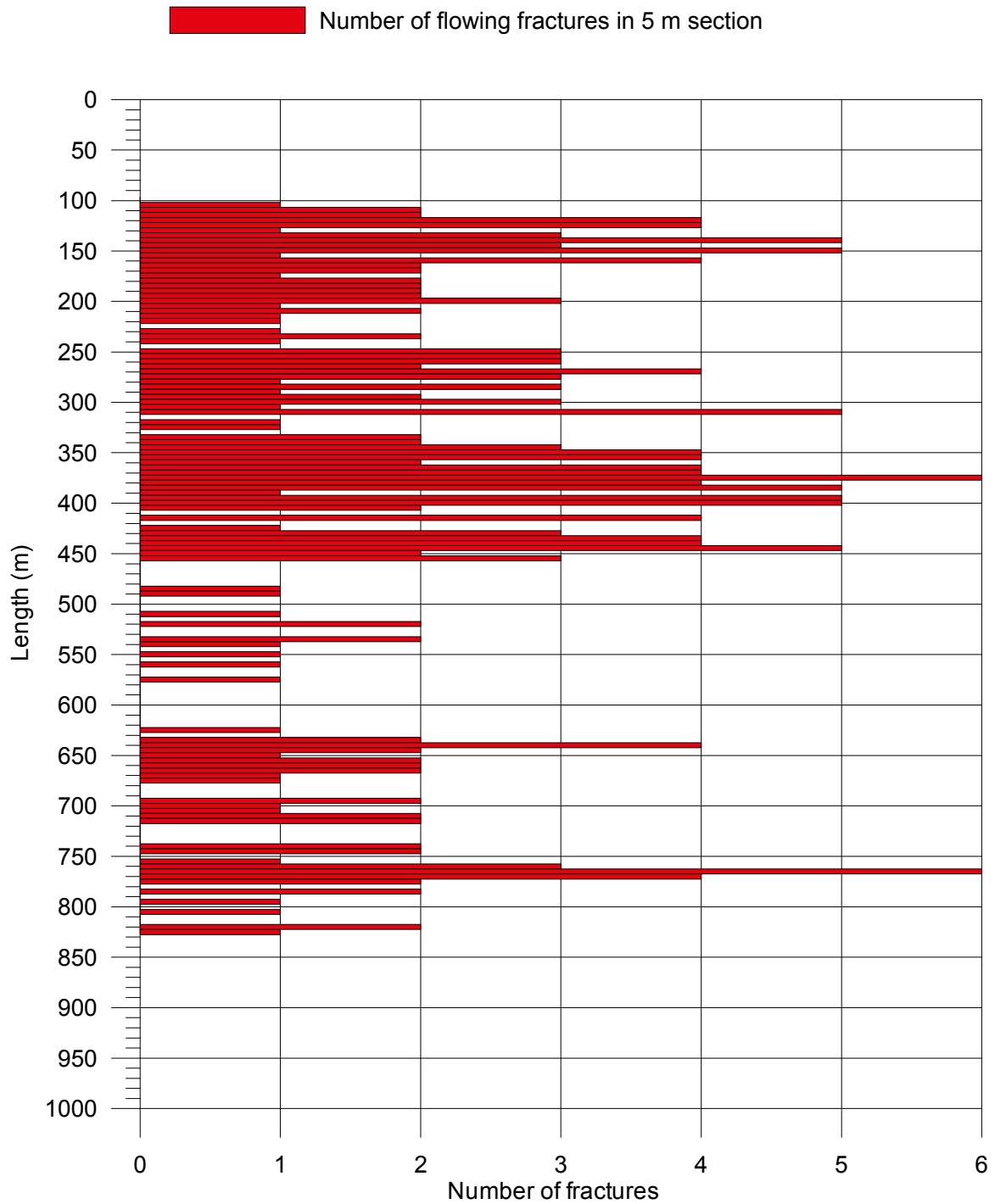
Borehole ID	Length to flow anom. L (m)	L_w (m)	dL (m)	Q_0 (m ³ /s)	dh_0 (m.a.s.l.)	Q_1 (m ³ /s)	dh_1 (m.a.s.l.)	T_D (m ² /s)	h_1 (m.a.s.l.)	Comments
KLX07	768.6	1	0.1	–	9.26	3.61E–06	4.11	6.9E–07	–	
KLX07	771.0	1	0.1	–	9.25	9.00E–08	4.13	1.7E–08	–	
KLX07	772.1	1	0.1	–	9.27	3.31E–08	4.14	6.4E–09	–	*
KLX07	773.4	1	0.1	–	9.26	1.64E–08	4.14	3.2E–09	–	*
KLX07	777.0	1	0.1	–	9.26	3.44E–08	4.17	6.7E–09	–	
KLX07	782.7	1	0.1	–4.97E–08	9.29	2.06E–07	4.21	5.0E–08	8.3	
KLX07	786.9	1	0.1	–	9.30	2.89E–08	4.15	5.6E–09	–	*
KLX07	795.7	1	0.1	–	9.33	1.81E–08	4.18	3.5E–09	–	*
KLX07	804.2	1	0.1	–	9.38	2.36E–08	4.19	4.5E–09	–	*
KLX07	818.6	1	0.1	–	9.41	1.44E–08	4.24	2.8E–09	–	*
KLX07	820.9	1	0.1	–	9.41	1.82E–07	4.24	3.5E–08	–	
KLX07	825.5	1	0.1	–4.64E–07	9.42	1.49E–06	4.28	3.8E–07	8.2	

* Uncertain = The flow rate is less than 30 mL/h or the flow anomalies are overlapping or they are unclear because of noise.

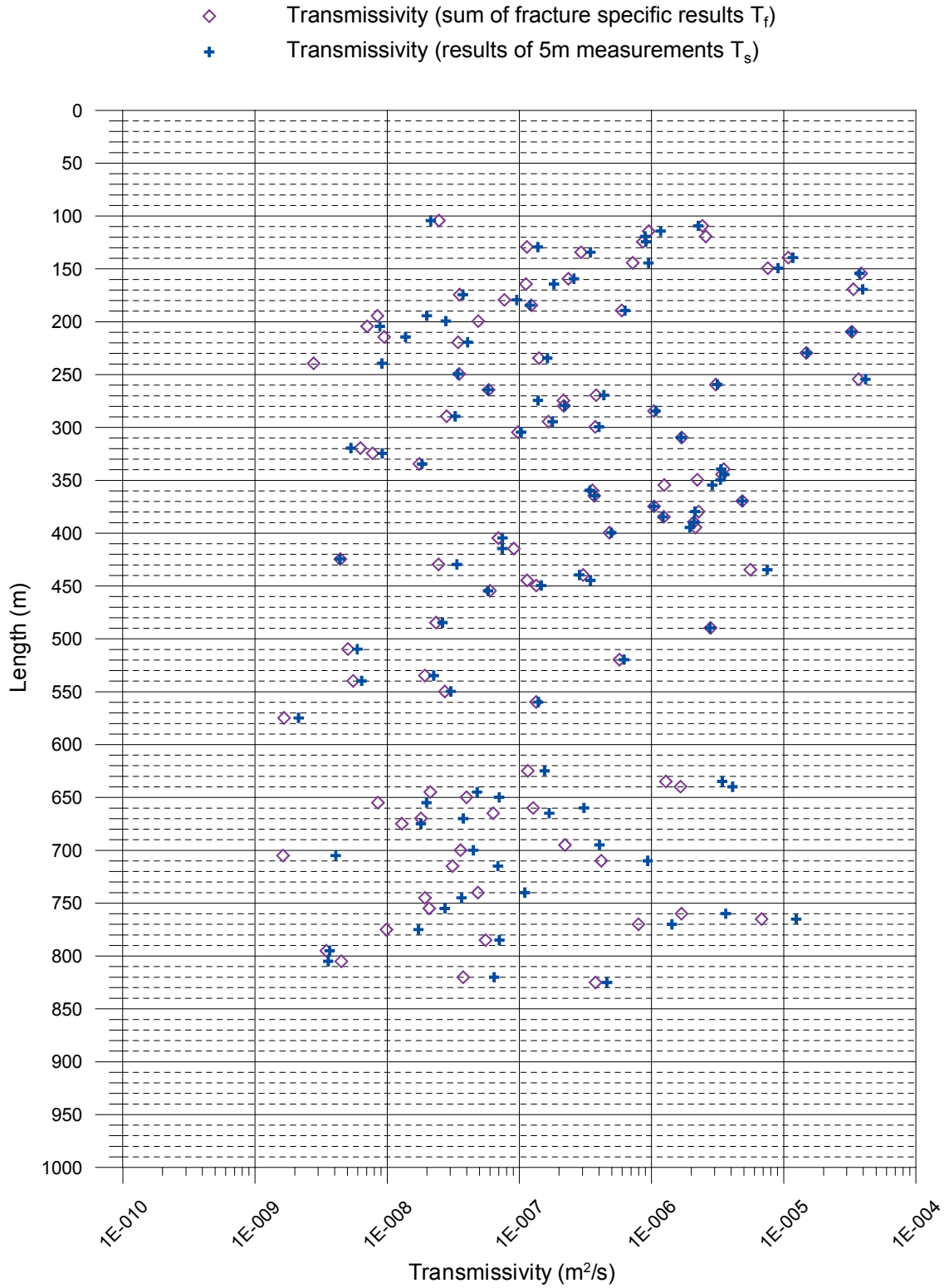
** Values from the measurement with smaller pumping (original pumped flow over measurement limit).

Appendix 11

Laxemar, borehole KLX07A
Calculation of conductive fracture frequency



Laxemar, borehole KLX07A
 Comparison between section transmissivity and fracture transmissivity

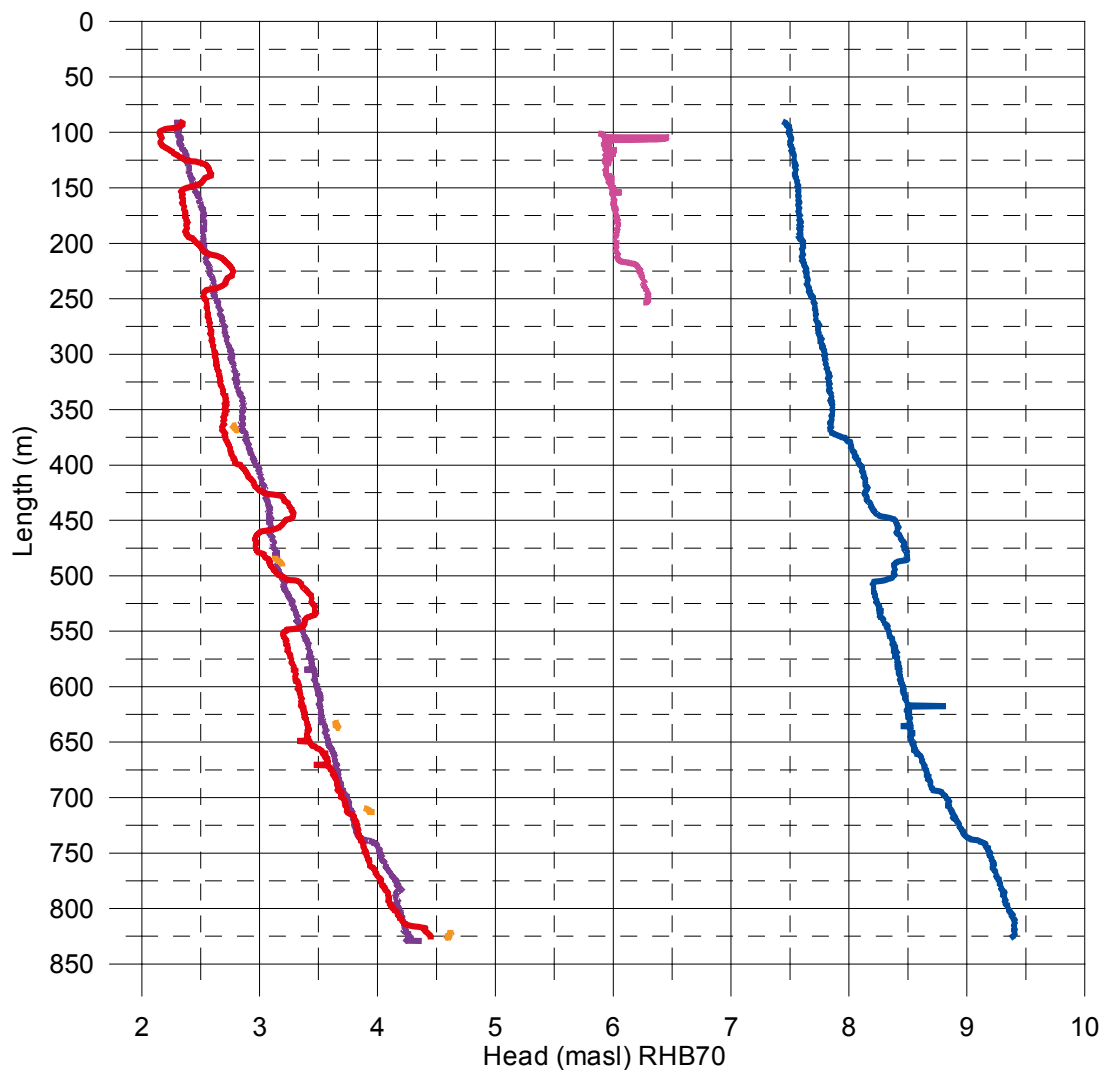


Appendix 13.1

Laxemar, borehole KLX07A Head in the borehole during flow logging

Head(masl) = (Absolute pressure (Pa) - Airpressure (Pa) + Offset) / (1000 kg/m³ * 9.80665 m/s²) + Elevation (m)
Offset = 2460 Pa (Correction for absolut pressure sensor)

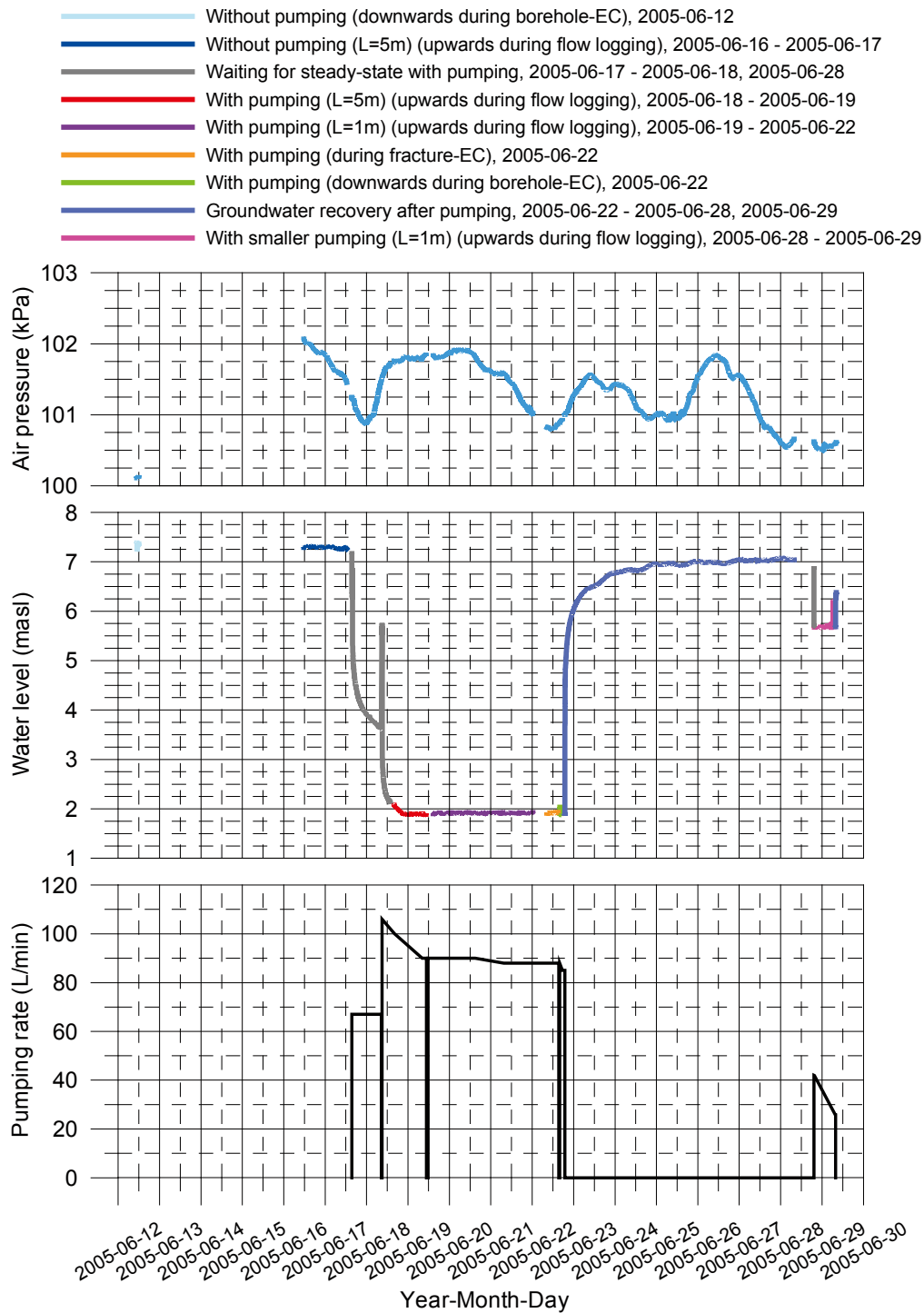
- Without pumping (upwards during flow logging, L=5 m, dL=0.5 m), 2005-06-16 - 2005-06-17
- With pumping (upwards during flow logging, L=5 m, dL=0.5 m), 2005-06-18 - 2005-06-19
- With pumping (upwards during flow logging, L=1 m, dL=0.1 m), 2005-06-19 - 2005-06-22
- With pumping (during fracture-EC), 2005-06-22
- With smaller pumping (upwards during flow logging, L=1 m, dL=0.1 m), 2005-06-28 - 2005-06-29



Appendix 13.2

Laxemar, borehole KLX07A

Air pressure, water level in the borehole and pumping rate during flow logging

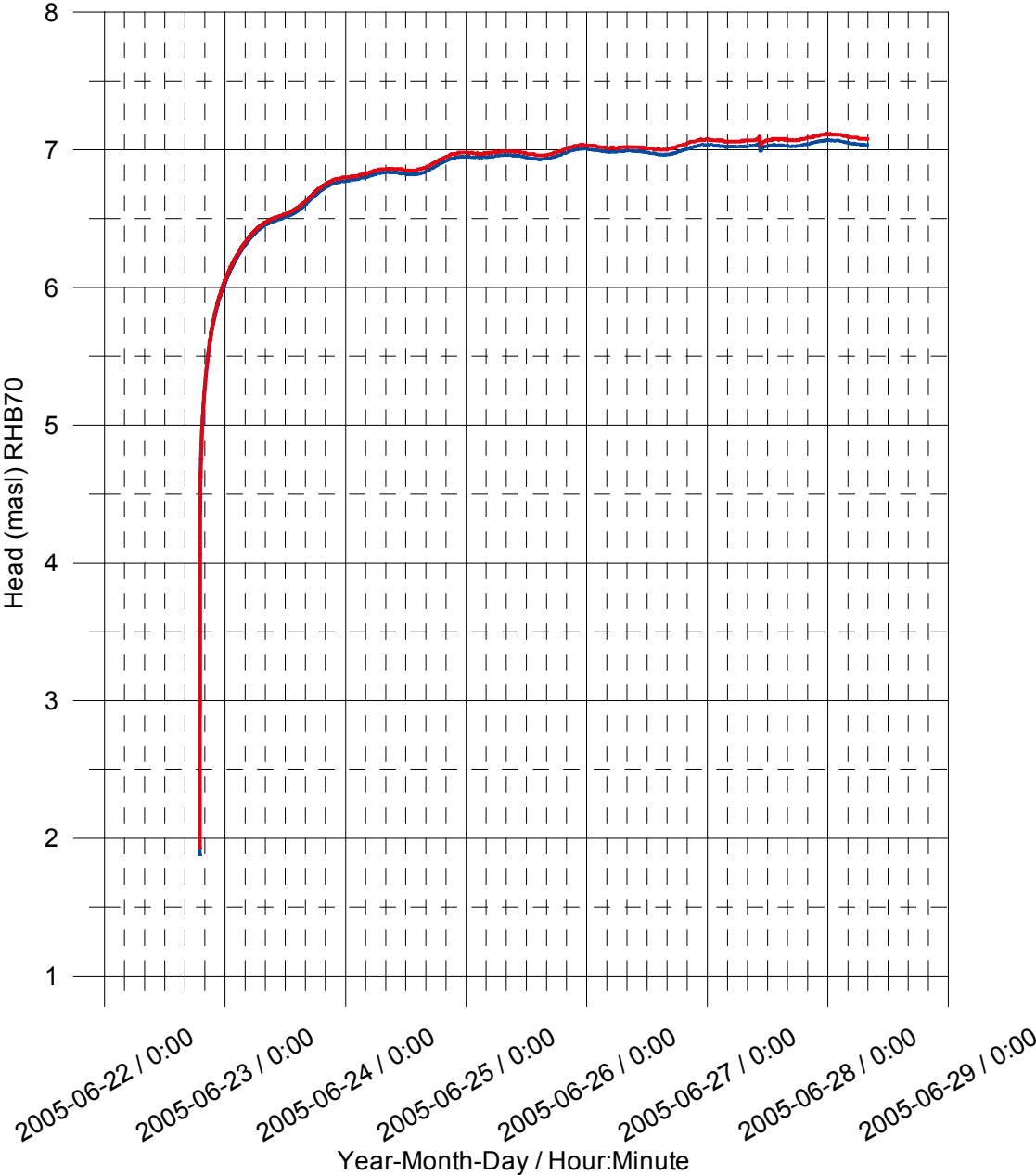


Appendix 13.3

Laxemar, borehole KLX07A Groundwater recovery after pumping

Head(masl) = (Absolute pressure (Pa) - Airpressure (Pa) + Offset) / (1000 kg/m³ * 9.80665 m/s²) + Elevation (m)
Offset = 2460 Pa (Correction for absolut pressure sensor)

- Measured at the length of 19.42 m using water level pressure sensor
- Corrected pressure measured at the length of 21.22 m using absolute pressure sensor



Appendix 13.4

Laxemar, borehole KLX07A
 Vertical flow along the borehole at the length of 101.7 m

