Projekt: WV Feldafing Pöcking gKU - WRV Br. Garatshausen
Datum: 12.12.2023
Datei: ZFPG5DAT.WB1

Datenblatt: Bohrungen, GW-Meßstellen (geogr. + geol. Daten), GW-Spiegel

Lagedaten der GW-Aufschlüsse, Geologie

Meßstelle Name	Beschreibung	RW	HW	+-m	GOK (mNN)	POK (mNN)	PVC-ROK (mNN)	BrOK/SOK (mNN)	Bohrtiefe (m u.GOK)	OK-Kiese (Aquifer) (m u.GOK)	(mNN)	OK GW-Stauer (m u.GOK)	(mNN)	Geologie Qt/Tt	Bemerkung
						OK Brett PV		OK Sp.R.							
Br. G1	Br. Tutzing	4446498	5310017	*	644,50	645,82	---	**645,80**	43,2	18,7	625,8	39,1	605,4	**Qt+Tt**	OK Ngf. 0,8 m ü. OSM
						645,92	MPOK (6") ab 20.12.12								
Br. G2	Br. ZFP	4446308	5309722	*	649,92	650,94	---	**650,92**	48,0	24,0	625,9	44,7	605,2	**Tt**	UK X-Lage ü. OSM
						651,02	MPOK (6") ab 20.12.12								
Br. P1	Br. ZFP	4445510	5310350	2	678,70	679,67	679,44	**679,65**	75,5	51,3	627,4	73,5	605,2	**Tt**	Niv. Vermessungsbüro Bibl (15.3.13) und BGU (30.6.13)
						679,73	MPOK (2") ab 07.03.12								
							PVC								
P1	GWM	4446641	5309575	8	638,68	**639,53**	*638,98*	639,29	42,5	12,0	626,7	33,3	605,4	**Tt**	
P2	GWM	4446722	5310038	8	633,66	**634,16**	*633,64*	633,93	37,5	7,0	626,7	29,2	604,5	**Tt**	
P3	GWM	4446110	5310553	5	675,15	**675,89**	*675,34*	675,65	70,0	40,5	634,7	63,0	612,2	**Tt**	
P4	GWM	4445083	5309501	6	689,57	**690,26**	*689,24*	690,04	118,0	52,2	637,4	87,3	602,3	**Qt**	
												106,0	*583,6*	***Tt***	
P5	GWM	4445930	5310346	11	675,19	**675,94**	*674,95*	675,54	72,5	49,0	626,2	70,0	605,2	**Tt**	*prov. POK bis 9.8.04*
P6	GWM	4445518	5310356	5	678,26	***679,13***	678,32	678,85	74,2	50,8	627,5	73,3	605,0	**Tt**	PVC-ROK aktuell, ab 27.7.04 ("OK Muffe + 0,56 m")
					(alt: 678,18)	*(alt: 679,05)*	*677,76*								*PVC-OK Muffe unt. Rohr*
					(ab 9.8.04)		*679,73*								*PVC-ROK, 12.- 27.7.04 ("OK Muffe + 1,97 m)*
P7	GWM	4446531	5309951	*	645,55	**646,36**	*646,02*	645,99	43,3	20,3	625,3	40,5	605,1	**Tt**	
P8	GWM	4446350	5309668	*	645,18	**645,95**	*645,73*	645,62	42,5	17,4	627,8	40,4	604,8	**Tt**	*28.4.04, vor 15:00?: PVC nicht abgeschnitten: 646,61 (= GOK + 1,43)*
P9	GWM	4445250	5310025	3	690,77	**691,42**	*691,41*	691,11	85,0	60,8	630,0	83,5	607,3	**Tt**	
P10	GWM	4445080	5310550	3	680,85	**681,45**	*681,46*	681,19	76,0	54,0	626,9	74,0	606,9	**Tt**	
BE	Br. Eckert	4446183	5311140	5	663,11	**662,20**	*663,31*	SOK	37,1	28,0	635,1	>37,1	<626,4	**?**	*Br. noch nicht fertig: PVC-ROK --> ab 22.6.04: POK = BOK = 662,20 mNN*
BH	Br. Handel	4446000	5310918	*	665,94	664,95	---	665,94	51,0	35,0	630,9	41,0	624,9	**Qt**	POK = OK-Sperrohr, Br. zu, Wsp. nicht meßbar
VT1	VB1 Traubing	4444362	5312377	5	665,71	**666,78**	---	---	20,7	14,7	651,0	14,9	650,8	**Qt**	Kies+Stauer 2
VT2	VB2 Traubing	4444492	5312322	5	664,83	**665,90**	---	---	36,0	28,0	636,8	33,8	631,0	**Qt**	Kies+Stauer 2
QF	Qu. Garatsh.	4446865	5309753	*	---	**612,71**	---	612,71	---	---	---	---	602?	**Tt?**	OK Falz SE-Ecke Schacht
Bach b. QF	Säggraben	4446820	5309740	*	611,24	**(Sohle)**	---	---	---	---	---	---	---	**?**	
Quellbach 1	Ablauf Teiche	4446860	5309540	*	---	---	---	---	---	---	---	---	---	---	Graf-Arco-Str.
QK	Qu. Kalkgr.	4446520	5309205	*	ca. 607	---	---	---	---	---	---	---	605?	**Tt**	westl. Bahnlinie

(RW/HW mit GPS) *(*) aus TK25 oder BayernAtlas)*

GW-Spiegel 3 (2006-2013)

Meßstelle	RW	HW	GOK (mNN)	POK (mNN)	trocken+kalt seit 11/05 17./18.2.2006 Abstich (mNN)	GW-Sp. (mNN)	19.10.2006 Abstich (mNN)	GW-Sp. (mNN)	15.10.2007 Abstich (mNN)	GW-Sp. (mNN)	Ausbau Datenlogger 11.12.2008 Abstich (mNN)	GW-Sp. (mNN)	RWS vor DPV Br.P1 10.10.2011 Abstich (mNN)	GW-Sp. (mNN)	BWS Ende DPV Br.P1 20.12.2011, 15:00 Abstich (mNN)	GW-Sp. (mNN)	RWS nach DPV Br.P1 07.03.2012 Abstich (mNN)	GW-Sp. (mNN)	RWS vor DPV Br.G1+2 19.10.2012 Abstich (mNN)	GW-Sp. (mNN)	BWS Ende DPV Br.G1 03.12.2012, 08:00 Abstich (mNN)	GW-Sp. (mNN)	RWS nach DPV Br.G1+2 18.02.2013 Abstich (mNN)	GW-Sp. (mNN)	RWS, Nivellement 15.03.2013 Abstich (mNN)	GW-Sp. (mNN)	
				OK Brett PV																							
Br. G1	4446498	5310017	644,50	645,82	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32,79	613,03	37,23	608,59	32,55	613,27	---	---	**Br. G1**
			ab 20.12.12	645,92	---	---	---	---	---	---	---	---	---	---	---	---	---	---					32,65	613,27	---	---	
Br. G2	4446308	5309722	649,92	650,94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37,98	612,96	41,05	609,89	37,80	613,14	---	---	**Br. G2**
			ab 20.12.12	651,02	---	---	---	---	---	---	---	---	---	---	---	---	---	---					37,88	613,14	---	---	
Br. P1	4445510	5310350	678,70	679,67	---	---	---	---	---	---	---	---	52,92	626,75	58,05	621,62	53,37	626,30	53,10	626,63	53,05	626,68	53,12	626,61	---	---	**Br. P1**
			ab 07.03.12	679,73	---	---	---	---	---	---	---	---															
P1	4446641	5309575	638,68	639,53	28,45	611,08	28,45	611,08	28,30	611,23	28,57	610,96	28,53	611,00	28,65	610,88	28,49	611,04	28,44	611,09	28,87	610,66	28,34	611,19	---	---	**P1**
P2	4446722	5310038	633,66	634,16	21,48	612,68	21,37	612,79	21,25	612,91	21,53	612,63	21,48	612,68	21,65	612,51	21,42	612,74	21,38	612,78	22,12	612,04	21,23	612,93	---	---	**P2**
P3	4446110	5310553	675,15	675,89	44,67	631,22	44,76	631,13	44,86	631,03	44,97	630,92	45,22	630,67	45,21	630,68	45,30	630,59	45,35	630,54	45,29	630,60	45,37	630,52	45,42	630,47	**P3**
P4	4445083	5309501	689,57	690,26	---	---	---	---	---	---	---	---	25,67	664,59	25,89	---	25,59	664,67	25,53	664,73	---	---	25,27	664,99	---	---	**P4**
P5	4445930	5310346	675,19	675,94	49,05	626,89	49,24	626,70	49,54	626,40	49,49	626,45	49,59	626,35	51,33	624,61	50,02	625,92	49,65	626,29	49,62	626,32	49,75	626,19	49,69	626,25	**P5**
P6	4445518	5310356	***678,26***	***679,13***	52,07	627,06	52,06	627,07	52,35	626,78	52,31	626,82	52,42	626,71	54,77	624,36	52,87	626,26	52,48	626,65	---	---	(52,52)	(626,61)	52,51	626,62	**P6**
P7	4446531	5309951	645,55	646,36	33,59	612,77	33,48	612,88	33,34	613,02	33,63	612,73	33,58	612,78	33,78	612,58	33,54	612,82	33,51	612,85	34,40	611,96	33,34	613,02	---	---	**P7**
P8	4446350	5309668	645,18	645,95	33,22	612,73	33,05	612,90	32,77	613,18	33,25	612,70	33,16	612,79	33,43	612,52	33,14	612,81	33,01	612,94	34,48	611,47	32,88	613,07	---	---	**P8**
P9	4445250	5310025	690,77	691,42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	64,85	626,57	64,83	626,59	**P9**
P10	4445080	5310550	680,85	681,46	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54,66	626,80	54,62	626,84	**P10**
VT1	4444362	5312377	665,71	666,78	---	---	---	---	10,32	656,46	---	---	12,37	654,41	13,70	653,08	11,39	655,39	10,93	655,85	11,42	655,36	9,82	656,96	---	---	**VT1**
VT2	4444492	5312322	664,83	665,90	---	---	---	---	11,78	654,12	---	---	13,99	651,91	15,50	650,40	13,33	652,57	13,75	652,15	13,90	652,00	11,57	654,33	---	---	**VT2**
BE	4446183	5311140	663,11	662,20	---	---	---	---	---	---	---	---	30,06	632,14	30,19	632,01	**---**	**---**	---	**---**	---	---	**---**	**---**	---	---	**BE**
BH	4446000	5310918	665,94	664,95	---	---	---	---	---	---	---	---	---	---	---	---	**---**	**---**	---	---	---	---	**---**	**---**	---	---	**BH**
					Gde. TTZ, 17.2.06																						

Projekt: WV Feldafing Pöcking gKU - WRV Br. Garatshausen
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GW-Spiegel 1 (1991-2004 + LPV P7/P8)

Meßstelle	RW	HW	GOK (mNN)	POK (mNN)	Wsp (Erst-Messg.) Abstich (m u.GOK)	GW-Sp. (mNN)	Datum	NGW! 18.10.2003 Abstich (m u.POK)	GW-Sp. (mNN)	28.04.2004 Abstich (mNN)	GW-Sp. (mNN)	vor LPV P7/P8 05.05.2004 Abstich (mNN)	GW-Sp. (mNN)	Ende LPV P7/P8 11.05.2004 Abstich (mNN)	GW-Sp. (mNN)	Bemerkungen
P1	4446641	5309575	638,68	639,53	27,60	611,08	18.4.91	28,55	610,98	28,24	611,29	28,32	611,21	28,47	611,06	
P2	4446722	5310038	633,66	634,16	20,50	613,16	30.4.91	21,50	612,66	21,19	612,97	21,26	612,90	21,41	612,75	
P3	4446110	5310553	675,15	675,89	43,30	631,85	14.5.91	43,83	632,06	*43,80*	632,09	---	---	---	---	11.05.04 (44,18 incl. Überstand Peilschlauch 16 cm)
			o.Sebakappe	675,87	---	---	---	---	---	*29.4.04: abgesenkt? s.P5KP*		43,83	632,04	44,02	631,85	*POK o. Seba-Kappe
P4	4445083	5309501	689,57	690,26	25,50	664,07	12.1.93	---	---	---	---	---	---	25,82	664,44	
P5	4445930	5310346	675,19	675,94	48,50	626,69	12.4.04	---	---	---	---	---	---	---	---	ab Mitte 08/04
			OK HP	*676,75*	---	---	---	---	---	*50,07*		---	---	---	---	*28.4.04: u.OK HP (HP = PVC + 1,80 m)*
			PVC-ROK	*674,95*	---	---	---	---	---	---	---	*48,11*	*626,84*	*n. meßbar (Pumpe drin*		*05.05.04, u.PVC-ROK*
P6	4445518	5310356	678,18	679,05	51,80	626,38	2.6.04	---	---	---	---	---	---	(7,80)	(670,38)	Wsp u.GOK (im offenen Bohrloch!!), ist zu hoch
P7	4446531	5309951	645,55	646,36	32,50	613,05	14.4.04	---	---	33,26	613,10	33,32	613,04	35,90	610,46	
P8	4446350	5309668	645,18	645,95	31,91	613,27	26.4.04	---	---	---	---	32,82	613,13	37,96	607,99	
			PVC-ROK	*645,73*	---	---	---	---	---	*32,46*	*613,27*	---	---	---	---	
BE	4446183	5311140	663,11	662,20	28,80	634,31	29.7.03	*(18.8.03)*	---	---	---	28,94	634,37	28,94	634,37	bis 11.05.04, u.ROK-PVC, ab 22.6.04 POK = BOK
			PVC-ROK	*663,31*	---	---	---	*28,87*	*634,44*	---	---	---	---	---	---	
BH	4446000	5310918	665,94	664,95	15,70	650,24	16.4.91	---	---	---	---	---	---	---	---	
QF	4446865	5309753	---	612,71	---	---	---	---	---	2,27	610,44	2,25	610,46	2,27	610,44	
Bach b. QF	4446820	5309740	611,24	---	---	---	---	---	---	---	611,26	---	---	---	---	

GW-Spiegel 2 (2004: LPV P3, P5, P6)

Meßstelle	RW	HW	GOK (mNN)	POK (mNN)	vor LPV P6 20.07.2004 (09:00) Abstich (mNN)	GW-Sp. (mNN)	Ende LPV P6 (13:00) 26.07.2004, 12:00 Abstich (mNN)	GW-Sp. (mNN)	vor LPV P3/P5 28.07.2004 Abstich (mNN)	GW-Sp. (mNN)	Ende LPV P3 (14:00) 03.08.2004, 12:00 Abstich (mNN)	GW-Sp. (mNN)	Ende LPV P5 (14:00) 04.08.2004, 12:00 Abstich (mNN)	GW-Sp. (mNN)	10.08.2004 Abstich (mNN)	GW-Sp. (mNN)	09.09.2004 Abstich (mNN)	GW-Sp. (mNN)	Bemerkungen
P1	4446641	5309575	638,68	639,53	28,42	611,11	28,36	611,17	28,34	611,19	28,35	611,18	28,36	611,17	**28,37**	**611,16**	---	---	
P2	4446722	5310038	633,66	634,16	21,37	612,79	21,31	612,85	21,29	612,87	21,29	612,87	21,29	612,87	**21,31**	**612,85**	---	---	
P3	4446110	5310553	675,15	675,89	---	---	---	---	---	---	---	---	---	---	**45,69**	**630,20**	---	---	noch abgesenkt nach LPV
			o.Sebakappe	675,87	43,96	631,91	43,98	631,89	43,99	631,88	53,16	622,71	46,13	629,74	**---**	**---**	---	---	*POK o. Seba-Kappe
P4	4445083	5309501	689,57	690,26	29,41	660,85	26,70	663,56	26,59	663,67	26,17	664,09	26,14	664,12	**26,00**	**664,26**	---	---	KPV P4: 16.7.04
P5	4445930	5310346	675,19	675,94	---	---	---	---	---	---	---	---	---	---	**---**	**---**	49,45	626,49	
			PVC-ROK	*674,95*	*48,43*	*626,52*	*48,64*	*626,31*	*48,59*	*626,36*	*49,73*	*625,22*	*49,75*	*625,20*	***48,57***	***626,38***	---	---	
P6	4445518	5310356	678,18	679,05	---	---	---	---	---	---	---	---	---	---	**---**		52,25	626,80	POK ab 9.8.04
			PVC ab 27.7	*678,24*	---	---	---	---	*51,63*	*626,61*	*51,79*	*626,45*	*51,80*	*626,44*	***51,58***	***626,66***	---	---	Ende LPV P6: 26.7.04, 13:00
			PVC 12.-27.7.	*679,65*	*52,85*	*626,80*	*56,01*	*623,64*	*52,84*	*626,81*	---	---	---	---	**---**	**---**	---	---	
P7	4446531	5309951	645,55	646,36	33,46	612,90	33,39	612,97	33,40	612,96	33,39	612,97	33,39	612,97	**33,40**	**612,96**	---	---	
P8	4446350	5309668	645,18	645,95	32,98	612,97	32,95	613,00	32,96	612,99	32,89	613,06	32,90	613,05	**32,92**	**613,03**	---	---	
BE	4446183	5311140	663,11	662,20	27,86	634,34	27,89	634,31	27,92	634,28	27,91	634,29	27,91	634,29	**27,91**	**634,29**	---	---	
			vor 22.6.04	*663,31*															
BH	4446000	5310918	665,94	664,95	---	---	---	---	---	---	---	---	---	---	**---**	**---**	---	---	

Projekt: WV Feldafing Pöcking gKU - WRV Br. Garatshausen
Datum: 12.12.2023
Datei: ZFPG5DAT.WB1

OK Deckenschotter und Stauer-OK

Name	RW	HW	GOK [mNN]	OK-Kies [mNN]	StOK [mNN]	StOK [Geol.]	GOK-OK Kies [m]	
Bohrungen / Quellen:								
Br. P1	445510	310350	678,70	627,4	605,2	Tt	51	
Br. G1	446498	310017	644,50	625,8	605,4	Tt	19	
Br. G2	446308	309722	649,92	625,9	605,2	Tt	24	
P1	446641	309575	638,68	626,7	605,4	Tt	12	
P2	446722	310038	633,66	626,7	604,5	Tt	7	
P3	446110	310553	675,15	*634,7*	612,2	Tt	*41* *)	
P4	445083	309501	689,57	*637,4*	602,3	Qt	*52* *)	
P5	445930	310346	675,19	626,2	605,2	Tt	49	
P6	445518	310356	678,26	627,5	605,0	Tt	51	
P7	446531	309951	645,55	625,3	605,1	Tt	20	
P8	446350	309668	645,18	627,8	604,8	Tt	17	
P9	445250	310025	690,78	630,0	607,3	Tt	61	
P10	445080	310550	680,85	626,9	606,9	Tt	54	
Br.X	444467	312457	663,06	647,1	641,1	Qt	*) + Würm-Stt ab GOK	
VT1	444362	312377	665,71	651	650,8	Qt	*) + Würm-Stt ab GOK	
VT2	444492	312322	664,83	636,8	631,0	Qt	*) + Würm-Stt ab GOK	
BE	446183	311140	663,11	*635,1*	<626,4	Qt?	*28* *)	
BH	446000	310918	665,94	*630,9*	<615	Qt	*35* *)	
QF	446865	309753	613	---	602,0	Tt	---	
QK	446520	309205	607	---	605,0	Tt	---	
BG015428	445074	312466	662	646,0	601,0	Tt	16	UmweltAtlas (Bj. 1985)
Schuss-Seismik:								
U17	446000	311890	658	---	635	Tt	---	s.a. CONRADI (1986), S.16
U18	445840	311480	661	641	605	Qt+Tt	20	-- " --
U19	445620	311100	677	645	614	Tt	32	-- " --
U20	445730	310700	674	641	609	Tt	33	-- " --
U21	445500	310320	679	(644)	(611)	Tt	(s. P6/Br.P1)	-- " --
U22	445280	309945	688	640	605	Qt (U+G)	48	-- " --
U23	445160	309670	690	*670*	636	Qt?	*20* *)	-- " --
U24	445030	309400	691	*687*	608	Qt (Tt <590?)	*4* *)	-- " --
U25	444950	308840	694	*676*	600	Tt <610?	*18* *)	-- " --
U26	444700	308640	702	663	645	Tt	39 *)	-- " --
Geoelektrik-Tiefensondierung:								
S1	445350	309676	685	*667*	641	Qt?	*18* *)	(s. BGU, 07/1992)
S2	445550	309840	671	634	604	Tt?	37	-- " --
S3	445105	309320	687	*620*	601	Qt?	*67* *)	-- " --
S4	446110	310830	672	?	600	??	---	aus Krause (2001, S.60)
GTS4-p	446499	310603	662	640	615	Tt?	22	(WKG, 12/1990)
GTS16-p	446546	310778	661	640	615	Tt?	21	(WKG, 02/1991)
GTS2-t	443635	309897	702	632	?		70	(WKG, 01/1991)
GTS3-t	443635	309994	694	635	?		59	-- " --
GTS4-t	443780	310107	694	625	?		69	-- " --
Erdwärmesonden:								
EWS1	446493	312076	656	*654*	644	Qt	*2* *)	(SRHFFG01, 2007)
					636	Tt		
EWS2	446618	311550	660	*631*	623	Tt	*29* *)	(SRHFFG02, 2005)

*) Jüngere Schotter

Projekt: WV Feldafing Pöcking gKU - WRV Br. Garatshausen
Datei: ZFPGQV12-22.xls
Datum: 12.12.2023

WASSERVERSORGUNG FELDAFING PÖCKING

Fördermengen, Fremdbezug, Verkaufsmengen und Verluste (2012 - 2022)

(Berechnung der Wasserverluste nach DVGW-Arbeitsblatt W 392: 05/2003, ab 2021: W 392: 09/2017)

n. Angaben WV: *aus \t3b\: SEBAMquant*; *aus \t3d\: Zukauf OT Maising*; *aus \t3a\ und \t3c*

Q_F = geförderte Wassermenge; **Q_Z** = zugekaufte Wassermenge; **Q_N** = Rohrnetzeinspeisung, gesamt; bzw. **Q_E** = Netzeinspeisung, gesamt (W 392 neu)

Q_{AI} = in Rechnung gestellte Wasserabgabe; bzw. **Q_{AR}** = in Rechn. gest. Wasserabgabe (W392 neu); **Q_{Vb}** = nicht verkaufte Wassermenge, Brt.-Verlust; **Q_{AN}** = nicht in Rechnung gestellte Wasserabgabe

Q_A = (Rohr)Netzabgabe; **Q_V** = Wasserverluste; **Q_{VS}** = scheinbare Wasserverluste; **Q_{VR}** = reale Wasserverluste

L_N = Länge des Rohrnetzbezirks (ohne Anschlussleitungen); **q_{VR}** = spezif. reale Wasserverluste

Jahre	Q_F [m³/a]	Q_Z (Maising) [m³/a]	Q_N , Q_E (= Q_F + Q_Z) [m³/a]	Q_{AI} , Q_{AR} ges. Netz [m³/a]	Q_{Vb} (= Q_N - Q_{AI}) [m³/a]	[%]	Q_{AN} [m³/a]	Q_A (= Q_{AI} + Q_{AN}) [m³/a]	Q_V (= Q_N - Q_A) [m³/a]	Q_{VS} (2 % v. Q_A) [m³/a]	Q_{VR} (= Q_V - Q_{VS}) [m³/a]	[%]		L_N [km]	q_{VR} = Q_{VR} / (8760•L_N) [m³/(h•km)]	
2012	**686.910**	*16.620*	**703.530**	**609.833**	93.697	13,3	**15.246**	**625.079**	**78.451**	**12.502**	**65.949**	9,4		**78**	**0,097**	
2013	**717.759**	*19.853*	**737.612**	**620.071**	117.541	15,9	**25.420**	**645.491**	**92.121**	**12.910**	**79.211**	10,7		**78**	**0,116**	
2014	**678.902**	*22.998*	**701.900**	**580.820**	121.080	17,3	**14.521**	**595.341**	**106.559**	**11.907**	**94.652**	13,5		**78**	**0,139**	
2015	**665.534**	*22.258*	**687.792**	**628.872**	58.920	8,6	**15.722**	**644.594**	**43.198**	**12.892**	**30.306**	4,4		**78**	**0,044**	
2016	**646.317**	*26.801*	**673.118**	**627.457**	45.661	6,8	**15.686**	**643.143**	**29.975**	**12.863**	**17.112**	2,5		**78**	**0,025**	
2017	**642.750**	*22.009*	**664.759**	**613.800**	50.959	7,7	**12.629**	**626.429**	**38.330**	**12.529**	**25.801**	3,9		**78**	**0,038**	
2018	**661.596**	*25.245*	**686.841**	**637.398**	49.443	7,2	**15.935**	**653.333**	**33.508**	**13.067**	**20.441**	3,0		**78**	**0,030**	
2019	**667.624**	*24.078*	**691.702**	**642.231**	49.471	7,2	**16.056**	**658.287**	**33.415**	**13.166**	**20.249**	2,9		**78**	**0,030**	
2020	**688.853**	*23.488*	**712.341**	**662.311**	50.030	7,0	**16.558**	**678.869**	**33.472**	**13.577**	**19.895**	2,8		**78**	**0,029**	
2021	**668.080**	*23.834*	**691.914**	***612.364***	79.550	11,5	**24.344**	**636.708**	***55.206***	**0**	**55.206**	8,0		**78**	**0,081**	neu W 392:
2022	**686.953**	*22.133*	**709.086**	***634.823***	74.263	10,5	***33.342***	**668.165**	**40.921**	**0**	**40.921**	5,8		**79**	**0,059**	Q_{VS} geändert
				inkl. Q_{ARU} (geschätzt)			*inkl. Q_{ANU} (geschätzt)*		*(WV, 29.8.23: Rohrbrüche)*							
max	717.759	*26.801*	737.612	*628.872*	121.080	17,3	33.342	678.869	106.559	13.577	94.652	13,5			0,14	
Ø	**673.753**	***22.665***	**696.418**	**624.544**	**71.874**	**10,3**	**18.678**	**643.222**	**53.196**	**10.492**	**42.704**	**6,1**			**0,06**	
min	642.750	*16.620*	664.759	*580.820*	45.661	6,8	12.629	595.341	29.975	0	17.112	2,5			0,03	

Ø 2012-17	673.029		613.476	81.310	11,6
Ø 2018-22	674.621		637.825	60.551	8,7
Vergleich Tab.2c:					
Ø 2012-17	673.187		618.910	54.277	8,1
Ø 2018-22	674.621		637.683	36.938	5,5

