Anlage 14.3
Feststoffanalytik

UD4

DMT

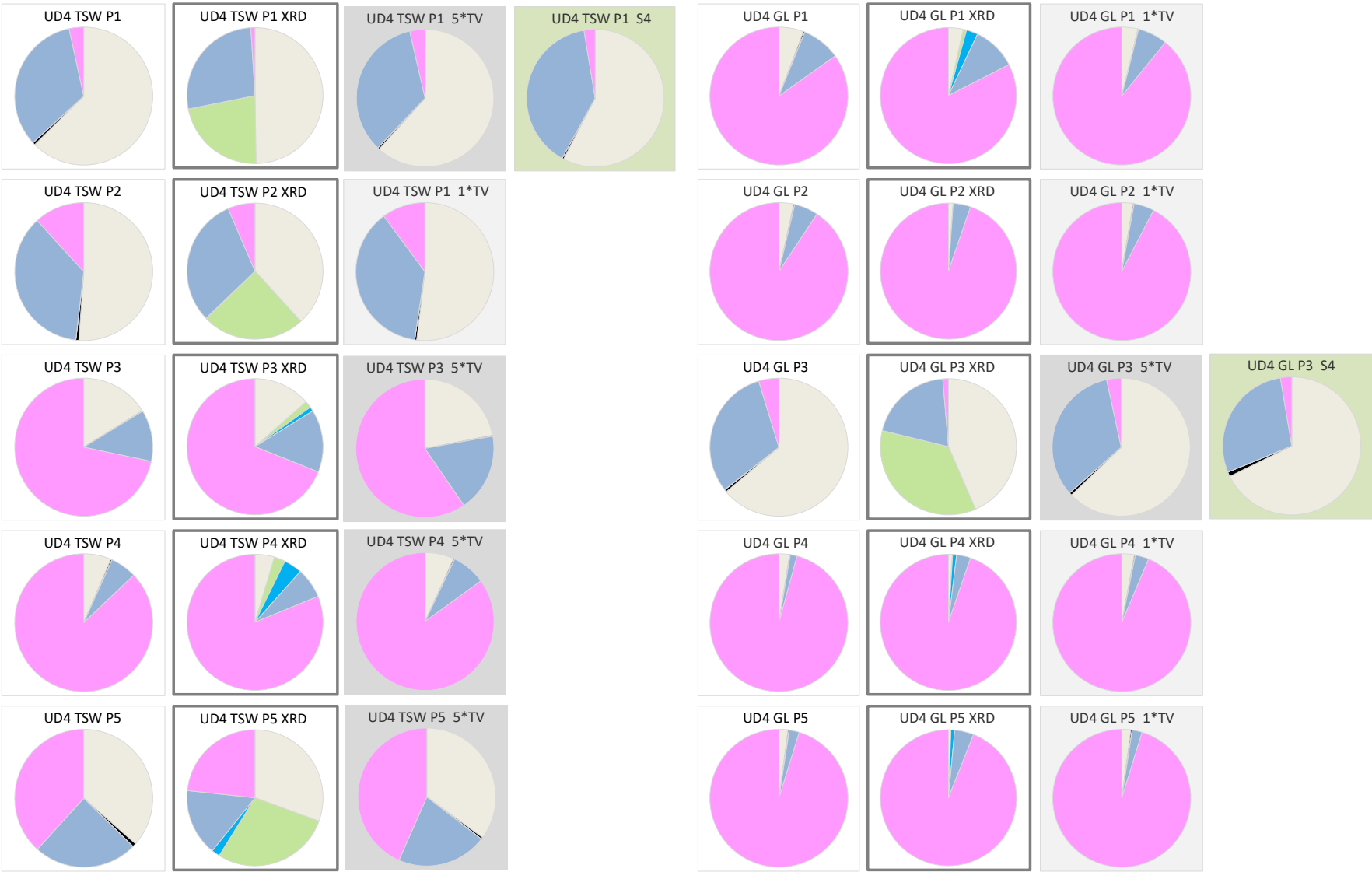
UD4		UD4 TSW P1	UD4 TSW P1-NE	UD4 TSW-P1-S4	UD4 TSW P2	UD4 TSW P2-NE	UD4 TSW P3	UD4 TSW P3-NE	UD4 TSW P4	UD4 TSW P4-NE	UD4 TSW P5	UD4 TSW P5-NE	UD4 GL P1	UD4 GL P1-NE	UD4 GL P2	UD4 GL P2-NE	UD4 GL P3	UD4 GL P3-NE	UD4 GL-P3-S4	UD4 GL P4	UD4 GL P4-NE
Trockenrückstand (TR) 40°C	%	98.1	99.4	97.9	99.0	99.4	99.9	99.8	99.8	99.8	99.3	99.4	99.9	99.9	99.9	99.9	98.7	99.3	90.1	99.9	99.9
Trockenrückstand (TR) 105°C	%	97.9	97.9	97.9	98.2	98.2	86.2	86.2	83.7	83.7	92.2	92.2	84.1	84.1	82.4	82.4	90.1	90.1	90.1	84.1	84.1
Glühverlust 550°C	%	3.7	4.4	3.5	3.9	4.5	1.8	3.1	2.8	4.7	3	4.4	2.6	3.8	2.4	4.1	3.4	3.6	4	6.1	2.6
Aluminium (Al)	mg/kg	68,000	65,600	68,600	60,900	62,000	15500	20800	7500	8000	47900	45000	6700	4200	4000	3400	72200	69600	78800	3200	4300
Calcium (Ca)	mg/kg	57,800	56,400	63,800	75,400	68,600	221000	180000	245000	232000	141000	129000	259000	248000	268000	250000	49500	50400	46900	265000	292000
Eisen (Fe)	mg/kg	25,600	25,100	29,200	29,500	30,000	4520	5500	4800	5800	21400	19400	3900	3000	2000	1700	33600	31600	36000	1900	1900
Kalium (K)	mg/kg	40,200	37,900	36,500	30,100	29,800	8740	12700	3000	3300	22700	20600	2800	1800	1500	1400	31600	34700	39900	1770	2100
Magnesium (Mg)	mg/kg	42,700	43,600	50,500	47,700	50,300	17600	26700	9200	12300	33700	29700	13600	10600	8800	7500	40000	41200	37300	2670	5400
Mangan (Mn)	mg/kg	<1000			<1000		130		<1000		<1000		<1000		<1000		<1000			24	
Natrium (Na)	mg/kg	<10000			<10000		3300		<10000		<10000		<10000		<10000		<10000			330	
P gesamt	mg/kg	<1000			<1000		170		<1000		<1000		<1000		<1000		1,000		1,100	140	
S gesamt	mg/kg	6,200	6,500	4,800	21,800	19,200	149000	123000	184000	185000	74900	86200	181000	192000	201000	205000	8600	5,900	4900	227000	225000
Silicium (Si)	mg/kg	193,000	191,000	171,000	156,000	164,000	64400	87000	24000	25600	116000	116000	22000	14200	14000	10200	199000	184000	209000	10200	12000
org. Gesamtkohlenst. (TOC)	%	1	0	0	1	1	0.2	0.2	0.3	0.3	0.9	0.5	0.4	0.2	0.3	0.3	0.6	0.6	1.1	0.2	0.3
Carbonat (TIC)	%	3	3	4	3	3	1.8	2.4	0.72	0.84	1.5	1.4	1.3	1.2	0.63	0.47	2.4	2.6	2	0.32	0.39
Chlorid	mg/L	3	3	1	5	2	3.3	2.9	1.4	1.1	2.8	1.1	1.4	13.7	0.5	0.5	5.9	1.1	0.5	0.5	0.5
Eisen (Fe)	%	2.55	2.47	2.92	2.93	2.96	0.39	0.48	0.40	0.49	1.99	1.80	0.33	0.25	0.16	0.14	3.07	2.87	3.60	0.16	0.16
Aluminium (Al)	%	6.79	6.46	6.86	6.04	6.13	1.34	1.80	0.63	0.67	4.45	4.17	0.56	0.35	0.33	0.28	6.59	6.32	7.88	0.27	0.36
Calcium (Ca)	%	5.77	5.55	6.38	7.48	6.78	19.07	15.55	20.55	19.46	13.09	11.97	21.80	20.88	22.11	20.62	4.52	4.57	4.69	22.31	24.58
Kalium (K)	%	4.01	3.73	3.65	2.99	2.94	0.75	1.10	0.25	0.28	2.11	1.91	0.24	0.15	0.12	0.12	2.88	3.15	3.99	0.15	0.18
Magnesium (Mg)	%	4.26	4.29	5.05	4.73	4.97	1.52	2.31	0.77	1.03	3.13	2.75	1.14	0.89	0.73	0.62	3.65	3.74	3.73	0.22	0.45
Mangan (Mn)	%																				
Natrium (Na)	%																				
Silicium (Si)	%	19.26	18.81	17.10	15.47	16.20	5.56	7.51	2.01	2.15	10.77	10.76	1.85	1.20	1.15	0.84	18.17	16.70	20.90	0.86	1.01
org. Gesamtkohlenst. (TOC)	%	0.60	0.39	0.40	0.69	0.49	0.17	0.17	0.25	0.25	0.84	0.46	0.34	0.17	0.25	0.25	0.55	0.54	1.10	0.17	0.25
C anorg. (TIC)	%	3.19	3.05	3.50	3.07	2.86	1.55	2.07	0.60	0.70	1.39	1.30	1.09	1.01	0.52	0.39	2.19	2.36	2.00	0.27	0.33
Chlorid (Cl)	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Schwefel	%	0.62	0.64	0.48	2.16	1.90	12.86	10.62	15.43	15.52	6.95	8.00	15.24	16.16	16.58	16.91	0.79	0.54	0.49	19.11	18.94
SiO_2	%	41.2	40.3	36.6	33.1	34.7	11.9	16.1	4.3	4.6	23.1	23.0	4.0	2.6	2.5	1.8	38.9	35.7	44.7	1.8	2.2
Al_2O_3	%	12.8	12.2	13.0	11.4	11.6	2.5	3.4	1.2	1.3	8.4	7.9	1.1	0.7	0.6	0.5	12.5	11.9	14.9	0.5	0.7
K	%	4.01	3.73	3.65	2.99	2.94	0.75	1.10	0.25	0.28	2.11	1.91	0.24	0.15	0.12	0.12	2.88	3.15	3.99	0.15	0.18
Fe	%	2.55	2.47	2.92	2.93	2.96	0.39	0.48	0.40	0.49	1.99	1.80	0.33	0.25	0.16	0.14	3.07	2.87	3.60	0.16	0.16
Cl	%	0.003	0.003	0.001	0.004	0.002	0.003	0.003	0.001	0.001	0.003	0.001	0.001	0.012	0.000	0.000	0.005	0.001	0.001	0.000	0.000
Na-Bedarf für Chlorid	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fe als Fe_2O_3	%																				
S als SO_3	%	1.55	1.60	1.20	5.40	4.74	32.10	26.53	38.53	38.74	17.37	19.97	38.05	40.36	41.40	42.22	1.96	1.34	1.22	47.72	47.30
CaO-Bedarf für SO3	%	1.08	1.12	0.84	3.78	3.32	22.49	18.58	26.99	27.14	12.16	13.99	26.65	28.27	29.00	29.58	1.37	0.94	0.86	33.43	33.13
Ca SO_4 (Anhydrit)	%	2.63	2.72	2.04	9.18	8.05	54.59	45.11	65.53	65.88	29.53	33.95	64.70	68.63	70.40	71.80	3.33	2.27	2.08	81.15	80.43
Wasserbedarf für Gips	%	0.70	0.72	0.54	2.43	2.13	14.45	11.94	17.34	17.44	7.82	8.99	17.12	18.16	18.63	19.00	0.88	0.60	0.55	21.48	21.29
CaSO4*2H2O Gips		3.32	3.44	2.58	11.61	10.19	69.04	57.05	82.87	83.32	37.35	42.94	81.83	86.80	89.03	90.80	4.22	2.87	2.63	102.62	101.72
CaO gesamt	%	8.07	7.77	8.93	10.46	9.48	26.68	21.75	28.75	27.22	18.32	16.74	30.50	29.21	30.93	28.85	6.32	6.40	6.56	31.21	34.39
Rest CaO ohne CaSO4	%	6.99	6.65	8.09	6.68	6.16	4.19	3.17	1.75	0.08	6.15	2.75	3.85	0.94	1.93	-0.73	4.95	5.46	5.70	-2.22	1.26
MgO	%	7.1	7.1	8.4	7.8	8.2	2.5	3.8	1.3	1.7	5.2	4.6	1.9	1.5	1.2	1.0	6.1	6.2	6.2	0.4	0.8
CaO-Bedarf für Dolomit CaMg(CO3)2		9.83	9.91	11.65	10.92	11.47	3.50	5.32	1.78	2.38	7.22	6.36	2.64	2.06	1.67	1.43	8.43	8.63	8.61	0.52	1.05
Rest CaO für Calcit		-2.84	-3.26	-3.57	-4.24	-5.30	0.69	-2.15	-0.03	-2.30	-1.07	-3.60	1.21	-1.12	0.25	-2.16	-3.48	-3.16	-2.90	-2.73	0.21
CO_2	%	11.70	11.19	12.82	11.27	10.50	5.69	7.60	2.21	2.58	5.10	4.76	4.01	3.70	1.90	1.42	8.03	8.64	7.33	0.99	1.20
CO2-Bedarf für MgO		7.72	7.78	9.14	8.57	9.00	2.75	4.18	1.40	1.87	5.67	4.99	2.07	1.62	1.31	1.12	6.61	6.77	6.75	0.41	0.82
CO2-Bedarf für Dolomit-CaO		7.72	7.78	9.14	8.57	9.00	2.75	4.18	1.40	1.87	5.67	4.99	2.07	1.62	1.31	1.12	6.61	6.77	6.75	0.41	0.82
Bilanz CO2		-3.73	-4.36	-5.46	-5.87	-7.50	0.19	-0.76	-0.58	-1.15	-6.23	-5.22	-0.14	0.47	-0.72	-0.82	-5.20	-4.89	-6.18	0.17	-0.44
CO2-Bedarf für Rest-CaO		-2.23	-2.56	-2.80	-3.32	-4.16	0.54	-1.69	-0.02	-1.80	-0.84	-2.83	0.95	-0.88	0.20	-1.69	-2.73	-2.48	-2.28	-2.15	0.16
C org.	%	0.6	0.4	0.4	0.7	0.5	0.2	0.2	0.3	0.3	0.8	0.5	0.3	0.2	0.2	0.2	0.5	0.5	1.1	0.2	0.3
Summe	%	90.3	87.5	88.4	88.6	87.7	97.2	92.9	94.5	94.6	90.2	90.1	97.5	96.7	97.7	95.4	81.1	77.4	90.2	104.6	108.4
Silikate	%	60.6	58.7	56.1	50.4	52.2	15.6	21.0	6.2	6.6	35.5	34.6	5.6	3.6	3.4	2.6	57.3	53.7	67.2	2.7	3.2
Organik	%	0.6	0.4	0.4	0.7	0.5	0.2	0.2	0.3	0.3	0.8	0.5	0.3	0.2	0.2	0.2	0.5	0.5	1.1	0.2	0.3
Eisen-Ox.	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NaCL	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kalzit	%																				
Dolomit	%	32.3	32.6	38.3	35.9	37.7	11.5	17.5	5.9	7.8	23.7	20.9	8.7	6.8	5.5	4.7	27.7	28.4	28.3	1.7	3.4
Gips	%	3.3	3.4	2.6	11.6	10.2	69.0	57.1	82.9	83.3	37.3	42.9	81.8	86.8	89.0	90.8	4.2	2.9	2.6	102.6	101.7
Gips normiert 100	%	3.4	3.6	2.6	11.8	10.1	71.7	59.6	87.1	85.0	38.3	43.4	84.8	89.1	90.7	92.3	4.7	3.4	2.7	95.8	93.7
Summe Hauptphasen	%	**96.9**	**95.1**	**97.4**	**98.7**	**100.5**	**96.3**	**95.8**	**95.1**	**98.0**	**97.5**	**98.9**	**96.4**	**97.4**	**98.2**	**98.3**	**89.8**	**85.5**	**99.2**	**107.2**	**108.6**
XRD Analysen																					
Gips	%	0.970			5.350		68.42		80.8		22.55		80.99		93.98		1.31			94.73	
Anhydrit	%																				
Dolomit	%	27.22			30.74		14.79		7.18		15.89		10.45		4.19		19.87			3.32	
Kalzit	%	0.05			0.21		1.04		4.33		1.99		2.75				0.08			0.95	
Quarz	%	12.08			9.64		5.58		2.76		9.42		2.2		1.1		16.6			0.96	
Muskovit	%	11.56			12.52		1.62		0.79		14.62		0.75				24.32			0.03	
Orthoklas	%	1.68			0.21		0.21		0.03		0.11		0.09				0.46				
Chlorit	%	10.47			11.89				1.84		13.65						10.97				
Mikroklin	%	29.54			23.17		5.77		1.24		18.07		0.96				22.23				
Albit	%	6.44			5.19		1.98		0.62		2.95		0.3				4.17				
Coelestin	%				1.09		0.59		0.42		0.74		1.52		0.73						
Summe		100			100		100		100		100		100		100		100			100	
Quarz / Feldspat		49.74			38.21		13.54		4.65		30.55		3.55		1.1		43.46			0.96	
Schichtsilikate		22.03			24.41		1.62		2.63		28.27		0.75		0		35.29			0.03	
Summe Silikate	%	71.77			62.62		15.16		7.28		58.82		4.3		1.1		78.75			0.99	
Kalzit	%	0.05			0.21		1.04		4.33		1.99		2.75		0		0.08			0.95	
Dolomit		27.22			30.74		14.79		7.18		15.89		10.45		4.19		19.87			3.32	
Summe Sulfate	%	0.97			6.44		69.01		81.22		23.29		82.51		94.71		1.31			94.73	
		Dünnschliff					Dünnschliff		Dünnschliff		Dünnschliff						Dünnschliff				

Anlage 14.3
Feststoffanalytik

UD4

Legende Phasen Chemie
- Silikate
- Organik
- Eisen-Ox.
- NaCL
- Kalzit
- Dolomit
- Gips

Legende Phasen XRD
- Quarz / Feldspat
- Schichtsilikate
- Kalzit
- Dolomit
- Summe Sulfate

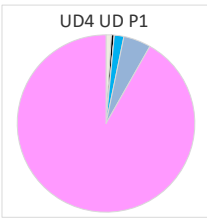
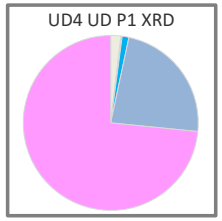
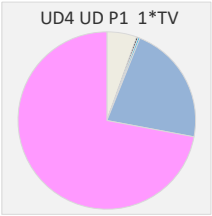
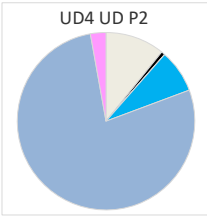
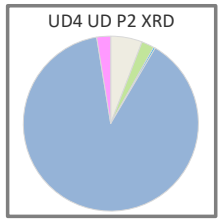
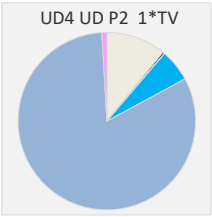
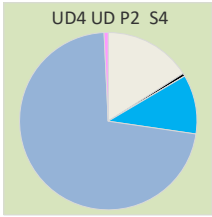
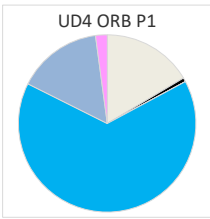
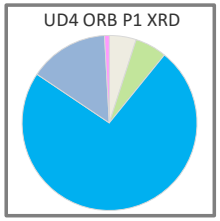
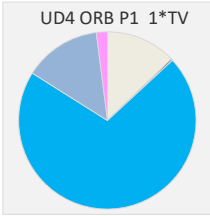
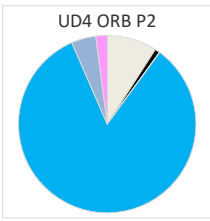
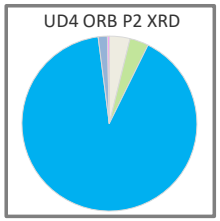
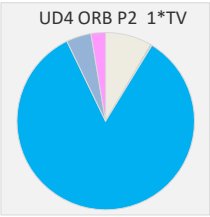
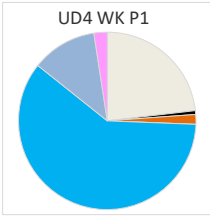
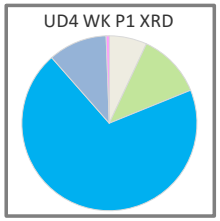
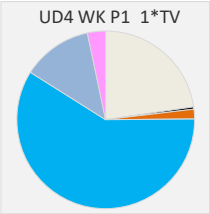
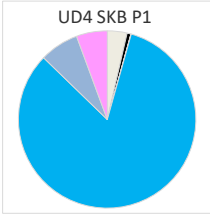
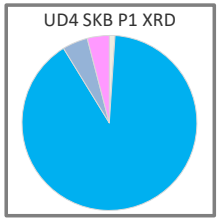
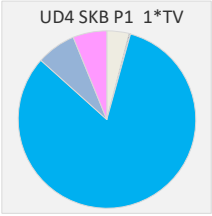
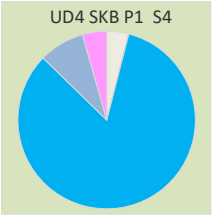


Anlage 14.3
Feststoffanalytik

UD4

UD4		UD4 GL P5	UD4 GL P5-NE	UD4 UD P1	UD4 UD P1-NE	UD4 UD P2	UD4 UD P2-NE	UD4 UD P2-S4	UD4 ORB P1	UD4 ORB P1-NE	UD4 ORB P2	UD4 ORB P2-NE	UD4 WK P1	UD4 WK P1-NE	UD4 SKB P1	UD4 SKB P1-NE	UD4 SKB P1_S4
Trockenrückstand (TR) 40°C	%	99.9	99.9	99.9	99.9	99.9	99.9	99.7	99.6	99.8	99.9	99.9	99.7	99.9	99.9	99	99.8
Trockenrückstand (TR) 105°C	%	84	84	87.6	87.6	99.7	99.7	99.7	99.3	99.3	99.9	99.9	99.6	99.6	99.8	99.8	99.8
Glühverlust 550°C	%	4.6	3.3	4.3	3.4	1.8	1.9	1.8	1.5	1.6	1.1	1.1	1.7	2.1	0.94	1.2	1.6
Aluminium (Al)	mg/kg	2600	2900	1700	7500	9700	9900	14600	20900	16700	10200	9600	29500	30300	2400	3000	2800
Calcium (Ca)	mg/kg	265000	267000	260000	239000	208000	202000	196000	300000	318000	342000	348000	273000	276000	347000	351000	352000
Eisen (Fe)	mg/kg	1400	2700	1600	4700	15900	14900	17700	8300	7100	4800	4600	12600	12800	9100	9100	11400
Kalium (K)	mg/kg	1400	1300	500	3200	3400	3900	5500	8000	5900	3600	3300	10200	10300	500	1100	500
Magnesium (Mg)	mg/kg	3600	15500	7400	31800	103000	107000	92200	20500	18500	5800	5900	15700	17100	9000	9200	10700
Mangan (Mn)	mg/kg	<1000		<1000		<1000		270	<1000		<1000		<1000		<1000		
Natrium (Na)	mg/kg	<10000		<10000		<10000			<10000		<10000		<10000		<10000		
P gesamt	mg/kg	<1000		<1000		<1000			<1000		<1000		<1000		<1000		
S gesamt	mg/kg	203000	190000	192000	148000	5300	1700	1400	3900	3700	3700	4900	4500	6200	10100	11300	7900
Silicium (Si)	mg/kg	7800	7100	2500	18000	33000	33000	49000	51000	39000	29000	27000	72000	70000	9700	11000	10000
org. Gesamtkohlenst. (TOC)	%	0.3	0.4	0.6	0.3	0.7	0.3	0.5	0.7	0.3	0.9	0.2	0.7	0.4	0.7	0.2	0.05
Carbonat (TIC)	%	0.71	1.2	2.8	3.2	11.3	11.3	10.7	9.7	10	10.5	10.6	8.8	8.5	11	10.9	11.1
Chlorid	mg/L	0.5	0.5	3.5	3.3	14	12.4	0.05	8.7	6.3	8.1	8	6.6	5.6	22.7	26.2	0.5
Eisen (Fe)	%	0.12	0.23	0.14	0.41	1.59	1.49	1.77	0.83	0.71	0.48	0.46	1.26	1.28	0.91	0.92	1.14
Aluminium (Al)	%	0.22	0.24	0.15	0.66	0.97	0.99	1.46	2.08	1.66	1.02	0.96	2.95	3.02	0.24	0.30	0.28
Calcium (Ca)	%	22.28	22.45	22.80	20.96	20.76	20.16	19.60	29.91	31.64	34.20	34.80	27.27	27.52	34.67	35.38	35.20
Kalium (K)	%	0.12	0.11	0.04	0.28	0.34	0.39	0.55	0.80	0.59	0.36	0.33	1.02	1.03	0.05	0.11	0.05
Magnesium (Mg)	%	0.30	1.30	0.65	2.79	10.28	10.68	9.22	2.04	1.84	0.58	0.59	1.57	1.70	0.90	0.93	1.07
Mangan (Mn)	%																
Natrium (Na)	%																
Silicium (Si)	%	0.66	0.60	0.22	1.58	3.29	3.29	4.90	5.08	3.88	2.90	2.70	7.19	6.98	0.97	1.11	1.00
org. Gesamtkohlenst. (TOC)	%	0.25	0.34	0.53	0.26	0.70	0.30	0.50	0.70	0.30	0.90	0.20	0.70	0.40	0.70	0.20	0.05
C anorg. (TIC)	%	0.60	1.01	2.46	2.81	11.28	11.28	10.70	9.67	9.95	10.50	10.60	8.79	8.47	10.99	10.99	11.10
Chlorid (Cl)	%	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.00
Schwefel	%	17.07	15.98	16.84	12.98	0.53	0.17	0.14	0.39	0.37	0.37	0.49	0.45	0.62	1.01	1.14	0.79
SiO_2	%	1.4	1.3	0.5	3.4	7.0	7.0	10.5	10.9	8.3	6.2	5.8	15.4	14.9	2.1	2.4	2.1
Al_2O_3	%	0.4	0.5	0.3	1.2	1.8	1.9	2.8	3.9	3.1	1.9	1.8	5.6	5.7	0.5	0.6	0.5
K	%	0.12	0.11	0.04	0.28	0.34	0.39	0.55	0.80	0.59	0.36	0.33	1.02	1.03	0.05	0.11	0.05
Fe	%	0.12	0.23	0.14	0.41	1.59	1.49	1.77	0.83	0.71	0.48	0.46	1.26	1.28	0.91	0.92	1.14
Cl	%	0.000	0.000	0.003	0.003	0.014	0.012	0.000	0.009	0.006	0.008	0.008	0.007	0.006	0.023	0.026	0.001
Na-Bedarf für Chlorid	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fe als Fe_2O_3	%												1.8	1.8			
S als SO_3	%	42.62	39.89	42.04	32.41	1.32	0.42	0.35	0.97	0.92	0.92	1.22	1.12	1.54	2.52	2.84	1.97
CaO-Bedarf für SO3	%	29.86	27.94	29.45	22.70	0.93	0.30	0.24	0.68	0.64	0.65	0.86	0.79	1.08	1.76	1.99	1.38
Ca SO_4 (Anhydrit)	%	72.48	67.84	71.49	55.11	2.25	0.72	0.59	1.65	1.56	1.57	2.08	1.91	2.62	4.28	4.84	3.35
Wasserbedarf für Gips	%	19.18	17.95	18.92	14.58	0.59	0.19	0.16	0.44	0.41	0.42	0.55	0.51	0.69	1.13	1.28	0.89
CaSO4*2H2O Gips		91.66	85.79	90.41	69.69	2.84	0.91	0.75	2.09	1.98	1.99	2.63	2.41	3.32	5.42	6.12	4.24
CaO gesamt	%	31.17	31.41	31.90	29.32	29.04	28.20	27.42	41.84	44.27	47.85	48.69	38.15	38.50	48.50	49.50	49.24
Rest CaO ohne CaSO4	%	1.32	3.46	2.45	6.62	28.12	27.91	27.18	41.16	43.62	47.20	47.83	37.37	37.42	46.73	47.51	47.86
MgO	%	0.5	2.2	1.1	4.6	17.0	17.7	15.3	3.4	3.1	1.0	1.0	2.6	2.8	1.5	1.5	1.8
CaO-Bedarf für Dolomit CaMg(CO3)2		0.70	3.01	1.50	6.43	23.72	24.64	21.27	4.72	4.25	1.34	1.36	3.62	3.93	2.07	2.14	2.47
Rest CaO für Calcit		0.62	0.46	0.95	0.18	4.40	3.27	5.90	36.45	39.37	45.86	46.47	33.75	33.48	44.66	45.37	45.39
CO_2	%	2.19	3.70	9.00	10.28	41.32	41.32	39.20	35.43	36.46	38.47	38.84	32.21	31.05	40.26	40.26	40.67
CO2-Bedarf für MgO		0.55	2.36	1.17	5.05	18.61	19.34	16.70	3.70	3.33	1.05	1.07	2.84	3.09	1.63	1.68	1.94
CO2-Bedarf für Dolomit-CaO		0.55	2.36	1.18	5.05	18.61	19.34	16.70	3.70	3.33	1.05	1.07	2.84	3.09	1.63	1.68	1.94
Bilanz CO2		1.09	-1.02	6.65	0.18	4.09	2.65	5.81	28.03	29.79	36.37	36.70	26.53	24.88	37.01	36.90	36.80
CO2-Bedarf für Rest-CaO		0.48	0.36	0.74	0.15	3.45	2.56	4.63	28.60	30.90	35.99	36.47	26.49	26.28	35.05	35.61	35.62
C org.	%	0.3	0.3	0.5	0.3	0.7	0.3	0.5	0.7	0.3	0.9	0.2	0.7	0.4	0.7	0.2	0.1
Summe	%	98.0	97.5	104.4	96.8	100.8	99.0	98.5	99.2	98.2	98.5	98.9	100.3	99.8	98.1	99.6	98.5
Silikate	%	2.1	2.1	0.9	5.3	10.8	10.8	15.6	16.4	12.7	9.0	8.4	23.2	22.9	3.5	4.0	3.9
Organik	%	0.3	0.3	0.5	0.3	0.7	0.3	0.5	0.7	0.3	0.9	0.2	0.7	0.4	0.7	0.2	0.1
Eisen-Ox.	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	0.0	0.0	0.0
NaCL	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kalzit	%			1.7	0.3	7.8	5.8	10.5	65.1	70.3	81.9	82.9	60.2	59.8	79.7	81.0	81.0
Dolomit	%	2.3	9.9	4.9	21.2	78.0	81.0	70.0	15.5	14.0	4.4	4.5	11.9	12.9	6.8	7.0	8.1
Gips	%	91.7	85.8	90.4	69.7	2.8	0.9	0.8	2.1	2.0	2.0	2.6	2.4	3.3	5.4	6.1	4.2
Gips normiert 100	%	95.2	87.5	91.8	72.0	2.8	0.9	0.8	2.1	2.0	2.0	2.7	2.4	3.3	5.6	6.2	4.4
Summe Hauptphasen	%	**96.3**	**98.1**	**98.5**	**96.8**	**100.2**	**98.9**	**97.3**	**99.8**	**99.3**	**98.1**	**98.6**	**100.3**	**101.2**	**96.2**	**98.3**	**97.3**
XRD Analysen																	
Gips	%	93.99		73.46		2.57			0.91		0.36		0.38		0.94		
Anhydrit	%												0.21		0.35		
Dolomit	%	4.54		23.21		88.99			14.68		1.71		10.86		4.7		
Kalzit	%	0.87		1.25		0.32			73.59		90.67		69.69		90.22		
Quarz	%	0.6		1.82		4.49			2.34		2.74		6.06		1		
Muskovit	%			0.02		2.3			5.85		3.45		10.16				
Orthoklas	%												0.86				
Chlorit	%			0.25									1.79				
Mikroklin	%					1.33			2.63		1.08						
Albit	%																
Coelestin	%														2.79		
Summe		100		100		100			100		100		100		100		
Quarz / Feldspat		0.6		1.82		5.82			4.97		3.82		6.92		1		
Schichtsilikate		0		0.27		2.3			5.85		3.45		11.95		0		
Summe Silikate	%	0.6		2.09		8.12			10.82		7.27		18.87		1		
Kalzit	%	0.87		1.25		0.32			73.59		90.67		69.69		90.22		
Dolomit		4.54		23.21		88.99			14.68		1.71		10.86		4.7		
Summe Sulfate	%	93.99		73.46		2.57			0.91		0.36		0.59		4.08		

UD4

Legende Phasen Chemie
- Silikate
- Organik
- Eisen-Ox.
- NaCL
- Kalzit
- Dolomit
- Gips

Legende Phasen XRD
- Quarz / Feldspat
- Schichtsilikate
- Kalzit
- Dolomit
- Summe Sulfate