

TABLE 4B
Solubility of albite in supercritical water calculated from solubility equation: alumina

T (°A)	P (k bars)	V cm³/gm	-log X (calc)	ppm Al ₂ O ₃ (calc)	ppm Al ₂ O ₃ (observed)	T (°A)	P (k bars)	V cm³/gm	-log X (calc)	ppm Al ₂ O ₃ (calc)	ppm Al ₂ O ₃ (observed)
673	0.75	1.534	4.774	95	90	773	1.75	1.502	4.214	349	313
	1.00	1.444	4.659	124	127		2.00	1.444	4.131	418	397
	1.25	1.382	4.583	148	160		2.75	1.333	3.987	584	545
	1.50	1.333	4.516	172	185		3.00	1.305	3.953	628	600
	1.75	1.295	4.460	196	215		3.50	1.256	3.880	748	738
	2.00	1.264	4.418	216	230	823	0.75	2.989	5.378	24	27
	2.50	1.213	4.341	258	279		1.00	2.248	4.857	79	87
	3.00	1.178	4.286	293	304		1.25	1.932	4.577	150	160
723	3.50	1.146	4.236	329	324		1.50	1.751	4.394	229	243
	0.75	1.827	4.762	98	103		1.75	1.632	4.267	307	310
	1.00	1.631	4.556	157	155	873	2.00	1.549	4.171	382	410
	1.25	1.518	4.420	215	207		2.25	1.493	4.103	447	479
	1.50	1.447	4.330	275	256		2.50	1.445	4.043	512	532
	1.75	1.396	4.267	305	301		2.75	1.407	3.992	577	587
	2.00	1.354	4.212	347	328		0.75	3.618	5.719	11	11
	2.50	1.291	4.123	427	440		1.00	2.669	5.159	39	36
773	3.00	1.243	4.054	501	515		1.25	2.220	4.822	85	85
	3.50	1.202	3.991	579	606		1.50	1.953	4.585	147	159
	0.75	2.335	5.032	53	53		1.75	1.787	4.419	216	217
	1.00	1.896	4.638	130	126		2.00	1.676	4.304	281	281
	1.25	1.694	4.431	210	210		2.25	1.596	4.212	347	357
	1.50	1.576	4.300	284	259		2.50	1.535	4.140	410	400

Solubility equation

$$\log X \text{ Al}_2\text{O}_3 = 157.15 \frac{17160}{T} - 4.081 \log T - 4.241 \log V$$

TABLE 4C
Solubility of albite in supercritical water calculated from solubility equations: soda

T (°A)	P (k bars)	V cm³/gm	-log X (calc)	ppm Na (calc)	ppm Na (observed)	T (°A)	P (k bars)	V cm³/gm	-log X (calc)	ppm Na (calc)	ppm Na (observed)
673	0.75	1.534	4.659	79	79	773	1.75	1.502	4.259	190	189
	1.00	1.444	4.544	98	89		2.00	1.440	4.178	229	230
	1.25	1.382	4.463	118	112		2.75	1.333	4.025	325	325
	1.50	1.333	4.392	140	140		3.00	1.305	3.988	353	346
	1.75	1.295	4.330	160	152		3.50	1.256	3.808	537	545
	2.00	1.264	4.285	178	170	823	0.75	2.989	5.228	21	23
	2.50	1.213	4.200	217	218		1.00	2.248	4.802	59	67
	3.00	1.178	4.137	251	231		1.25	1.932	4.556	96	102
723	3.50	1.146	4.078	287	280		1.50	1.751	4.387	144	148
	0.75	1.827	4.778	57	62		1.75	1.632	4.263	188	178
	1.00	1.631	4.580	90	94	873	2.00	1.549	4.167	235	214
	1.25	1.518	4.446	123	125		2.25	1.493	4.102	273	263
	1.50	1.447	4.355	152	150		2.50	1.445	4.038	315	310
	1.75	1.396	4.287	178	177		2.75	1.407	3.986	355	355
	2.00	1.354	4.229	203	200		0.75	3.618	5.363	15	15
	2.50	1.291	4.135	253	241		1.00	2.669	4.932	40	40
773	3.00	1.243	4.058	301	290		1.25	2.220	4.652	77	77
	3.50	1.202	3.987	355	346		1.50	1.953	4.443	124	134
	0.75	2.355	5.015	33	33		1.75	1.787	4.291	176	165
	1.00	1.896	4.673	73	76		2.00	1.676	4.168	234	230
	1.25	1.694	4.478	113	111		2.25	1.596	4.091	279	286
	1.50	1.576	4.349	154	157		2.50	1.535	4.020	329	319

Solubility equation

$$\log X \text{ Na}_2\text{O} = \frac{1.324}{V} - 2.275 \log V - \frac{1884.7}{T} - 2.300$$