

Table 2. Peak position data (in Å) from oriented XRD preparations of glycolated and air-dry (47%RH) <0.2 µm fractions of studied smectites. The glycolated samples demonstrate the lack of mixed-layering by the integral series of 00l reflections, and the air-dry samples – the nature of water complex (see text for details). Trace mineral contaminants are also listed.

Sample	Ca - glycolated samples							8	Ca - air-dry samples		Na - air-dry samples	
	1	2	3	4	5	6	7		9	10	11	12
Data Column	$d_{(003)} \times 3$	$d_{(005)} \times 5$	$d_{(006)} \times 6$	$d_{(008)} \times 8$	$d_{(009)} \times 9$	Mean	Max error	Impurities	$d_{(001)}$	$d_{(005)} \times 5$	$d_{(001)}$	$d_{(004)} \times 4$
Wyoming	16.86	16.87	16.92	16.90	16.91	16.89	0.03	Q, Cr	15.36	15.38	12.80	12.54
Mont. #20	16.80	16.84	16.84	16.82	16.81	16.82	0.02	Q, Cr	15.23	15.28	12.89	12.50
Chambers	16.71	16.68	16.72	16.69	16.69	16.69	0.02	Q, Ksp	15.23	15.18	12.71	12.43
Texas	16.77	16.74	16.77	16.78	16.77	16.76	0.02	KS	15.63	15.92	13.08	12.43
Otay	16.77	16.74	16.79	16.78	16.77	16.76	0.02	Ab, H	14.36	16.09	12.35	12.54
Cheto	16.77	16.78	16.79	16.79	16.79	16.78	0.01	Ksp, 2.162?	14.24	16.15	12.89	12.41
Kinney	16.77	16.74	16.79	16.76	16.77	16.76	0.02	H	14.97	15.13	12.99	12.41
Ferr. Sm.	16.71	16.74	16.79	16.76	16.79	16.75	0.04	-	15.10	15.28	12.71	12.54
Garfield	16.56	16.56	16.59	16.58	16.56	16.56	0.02	-	15.23	15.18	12.80	12.52
Uley	16.86	16.87	16.90	16.87	16.88	16.87	0.01	Py, 9.45?	14.48	15.13	12.80	12.69
Hectorite	16.80	16.84	16.90	16.85	16.88	16.84	0.04	-	15.49	16.24	13.80	12.71
Saponite	16.65	16.65	16.69	16.66	16.70	16.67	0.03	Ja, H	15.49	16.09	14.24	12.20

Cr = cristoballite, Ksp = K-feldspar, Ja = jarosite, H = halite, KS = kaolinite-smectite, Ab = albite, Py = pyrite, ? = unidentified reflections.