

Cross-tabulation of the results of the Tucson Basin sand petrofacies discriminant analysis model. Rows show the number of samples assigned to each petrofacies. Columns indicate the number of samples that were statistically predicted members of each petrofacies. Bold numbers on the diagonal indicate the number of correctly predicted samples for each petrofacies.^a

Petrofacies	Granitic generic groups										Volcanic generic groups									Row Total	Percent correct
	Granitic					Granitic + heavy minerals					Gran. + volc.		Volcanic			Volcanic + feldspars					
	A	G	K	O	P	B	E1	E2	E3	S	Bv	I	J1	J2	J3	L	M	Mw			
A	9	0	0	1	0	1	0	0	0	0	1	3	-	-	-	-	-	-	15	60%	
G	0	10	0	1	0	0	0	0	0	0	-	1	-	-	-	-	-	-	12	83%	
K	0	0	5	0	0	0	0	0	0	0	-	-	2	-	1	1	-	-	9	56%	
O	1	0	1	34	0	0	0	0	0	0	-	1	-	-	-	-	-	-	37	92%	
P	0	0	0	1	3	0	0	0	0	0	-	-	-	-	-	-	-	-	4	75%	
B	0	0	0	0	0	11	0	0	0	0	-	1	-	-	-	-	-	-	12	92%	
E1	0	0	0	0	0	1	5	0	2	0	-	-	-	-	-	-	-	-	8	63%	
E2	0	0	0	0	0	0	0	12	0	2	-	-	-	-	-	-	-	-	14	86%	
E3	1	0	0	0	0	0	1	0	12	0	-	-	-	-	-	-	-	-	14	86%	
S	0	0	0	0	0	1	0	0	1	9	-	-	-	-	-	-	-	-	11	82%	
Bv	1	-	-	-	-	-	-	-	-	-	3	0	0	0	0	0	0	0	4	75%	
I	-	-	-	-	-	-	-	-	-	-	0	34	0	0	0	0	0	0	34	100%	
J1	-	-	-	-	-	-	-	-	-	-	0	1	9	0	0	2	0	0	12	75%	
J2	-	-	-	-	-	-	-	-	-	-	0	0	0	12	0	0	0	0	12	100%	
J3	-	-	-	-	-	-	-	-	-	-	0	0	0	0	6	0	0	0	6	100%	
L	-	-	-	-	-	-	-	-	-	-	0	3	1	0	0	19	0	0	23	83%	
M	-	-	-	-	-	-	-	-	-	-	0	0	0	1	0	0	17	0	18	94%	
Mw	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	4	4	100%	
													Correctly predicted samples (diagonal sum)						214		
Col. Total	12	10	6	37	3	14	6	12	15	11	4	44	12	13	7	22	17	4	249		

Overall model accuracy 85.9%

^aAs an example, consider the Rincon Petrofacies, designated "A." This petrofacies has 15 samples, of which 9 were correctly predicted. One each was incorrectly placed in petrofacies O and B. These are petrofacies-level errors. One sample was incorrectly predicted to Petrofacies Bv while three were placed in Petrofacies I by the statistical model. These are generic-level errors. In the column for Petrofacies A, a single sample from Petrofacies Bv has been incorrectly predicted as a member of Petrofacies A, a generic-level error. See text for additional discussion.