APPENDIX 6

SELECT SEISMIC VELOCITY AND ROCK PROPERTIES

Depth (km)	Vp (km/s)	Vs (km/s)	Vp/Vs	Density (g/cm^3)	Pres-sure (Mpa)	Temp-erature (°C)	Lithology	Rock Porosity	Atten-uation	Location	Source	Reference
0.0 - 0.2	1.6			1.6			Unconsolidated sediments			Bakkahlaup field, Öxarfjördur region, NE-Iceland	seismic and gravity	Georgsson et al. (2000)
0.05 - 0.5	2.3 - 3						Sediments					
0.4-1	3.4 - 3.6			2		200						
0.6-1.4	4.4 -4.7			2.7			Unaltered/young basalts and/or sediments					
1-2.7	5.2 - 5.5			2.7			Basaltic lavas					
1.8-3	5.5			2.8			Altered basaltic lavas					
0-1	2.2 - 2.8	1.2-1.7								Solfatara, W12, Campi Flegrei caldera, Italy	seismic	Vanorio et al. (2010)
1.1-2	2.8 -3.4	1.7-2										
2.2-3	3.4 - 4.3	2-2.2										
3.1-4	4.3 - 4	2.2-3.4										
4.1-5	4 - 5.5	3.4-4.2										
5.1-6	6.5 - 6.4	4.2-3.9										
			1.44 / 1.36		5	350	tuffite	0.2/0.5		Campi Flegrei caldera, Italy	modeled data	Vanorio et al. (2010)
			1.45 / 1.37		10			0.2/0.5				
			1.46 / 1.38		15			0.2/0.5				
			1.47 / 1.39		20			0.2/0.5				
			1.48 / 1.395		25			0.2/0.5				
			1.49 / 1.42		30			0.2/0.5		Campi Flegrei caldera, Italy	modeled data	Vanorio et al. (2010)
			1.495 / 1.44		35	350	tuffite	0.2/0.5				
			1.52 / 1.465		40			0.2/0.5				
	0-1	3.3	1.64							Otake-Hatchobaru Geothermal Area at Kuju, Japan, a volcano in Central Kyushu	seismic tomo-graphy	Yoshikawa and Sudo (2004)
	1-3.5	3.43	1.64									
	3.5-5	4.14	1.64									
	5.1-8	5.56	1.64									

Depth (km)	Vp (km/s)	Vs (km/s)	Vp/Vs	Density (g/cm^3)	Pres-sure (Mpa)	Temp-erature (°C)	Lithology	Rock Porosity	Atten-uation	Location	Source	Reference
		6.02		2.5-3.5	100	20	granite, precambrian			Scandinavia	synthetic data	Rybach and Bunterbath (1984)
		5.97			100		gneiss					
		6.88			100		Amphibolite, Gabbro					
		8			100		Ultrabasic rock					
0.75 - 1.25	5.1								50	Siljan Ring survey, in the Baltic Shield	stochastic modeling of a variety of seismic data	Line et al. (1998)
0.7 - 1.5	5.6								125			
1 - 2.5	5.8								200			
1.5 - 2.5	5.9								500			
2.25 - 4	6								625			
4 - 5.25	6.3								700			
0 - 0.5	4.5	2.43								Coso Geothermal Area, Inyo County, California	seismic tomo-graphy	Lees and Wu (2000)
0.5 - 1	4.48	2.59										
1 - 1.5	4.86	2.96										
1.5 - 2	4.8	2.95										
2 - 2.5	5.25	3.14										
2.5 - 3	5.212	3.16										
3.5 - 4	5.51	3.27										
4 -5.5	5.59	3.42										
no depth info	4						Tertiary volcanic rocks			Dixie Valley, Nevada	reflection profiles	Catchings (1992)
no depth info	5.7-6.15						Upper crustal crystaline rocks in the felsic range					
1.0-10.0	6						granitic					
10.0-15.0	6.15				3 kBar		mylonites					
15-22	6.3				6-8Kbar	500-700	diorite					
22-25	6.6				8-10Kbar	700-1200	largely mafic (gabbro)					
25-39	7.4						Mafic/ultramafics					
29-36	8						Peridotite (Moho)					

Depth (km)	Vp (km/s)	Vs (km/s)	Vp/Vs	Density (g/cm^3)	Pres-sure (Mpa)	Temp-erature (°C)	Lithology	Rock Porosity	Atten-uation	Location	Source	Reference
0-2	4.7						hard rock			Dixie Valley, Nevada	seismic	Stauder and Ryal (1967)
0-2	3.3						alluvial fan			Dixie Valley, Nevada	seismic	Catchings (1992)
2.0-10.0	4-5.7						tertiary rocks					
no depth info	2.6-3.6						heavy oil-saturated Uwalde Carbonate			laboratory	labora-tory	Bazle et al. (2006)
no depth info	3-3.5						Foxhills Sandstone					
0-0.1				2.2			Modern basin fill			Dixie Valley, Nevada	gravity	Abbott et al. (2001)
0.1-1				2.3			middle Miocene (13-15 Ma) capping basalt					
1-2.4				2.5			late Oligocene-early Miocene volcanic tuffs, flows, and sediments					
2.4-3.2				2.67								