

APPENDIX 8

SUMMARY OF THERMAL DATA IN THE DIXIE VALLEY REGION

Summary of thermal regime data for surface and blind hydrothermal sites in the Dixie Valley Geothermal District, Nevada. The data is derived from Goff et al. (2002), which is presented in Appendix 7 of this report; Dixon et al. (2003); and Lutz et al. (2003). This table is after Blackwell et al. (2005)-Table 2.3.1. Referenced sites can be found on maps presented by Goff et al. (2002) and Shevenell and Garside (2005). Bolded data represent significant values as identified by Blackwell et al. (2005).

Surface Site	Features	Temp. Max.	Flow Rate	pH	Cl	Fluid	Geothermo-meters (°C)		Deposits	Comments	Deposits
		(°C)	(l/min)		(ppm)	°C	Gas	¹⁸ O-SO ₄			Age (ka)
Hot Spring											
Dixie Meadows	20 hot springs and seeps	84	200	8.0 - 8.4	162	≤120	No Gas	133?	None	End of hydrothermal plume?	
Hyder	2 principal springs	77	≤120	7.7 - 8.0	47	80	87	68	Travertine		
Jersey	1 large spring	59	200	7.4	38	≤120	No Gas	181?	Travertine	Extinct deposits to east	
Lower Ranch	5 hot springs; some seeps	41	400	7.9 - 8.1	30	60	No Gas	87 - 105?	Travertine	Minor sinter at base of deposit	39 - 54 ^a
McCoy	1 large spring	46	≥50	7.8 - 8.0	228	60	No Gas	74	None		
Sou	7 or more hot springs and pools	73	200	7.5 - 8.0	77	≤85	63	35	Travertine		
Mineral Springs											
Big Horn	Several seeps	20	≤1	7.8 - 7.9	≤1360	≤60	No Gas	57	None	Evaporated salts in muck	
Dead Travertine	Several small springs and seeps	22	≤5	7.7 - 8.0	≤630	≤40	No Gas	nd	Travertine	Very large, complex deposit	19 - 180
Fumarole Clusters											
Unnamed	3 weak vents	98	nd	nd	nd	nd	≥100	nd	Sinter	Minor Travertine	0.4 - 4.3 ^b
Senator	10 large to weak vents	98	nd	nd	nd	nd	≤270	nd	None	Sulfur and other sublimates	
Blind Thermal Aquifers or Reservoirs											
Bolivia Well	Artesian well	29	40	8.1	290	≤45	No Gas	90?	Fe-Oxides	Thermal gradient well	
DF 45-14	Artesian 2-phase well	125	nd	7.2	481	200	≥100 ^c	235	None	Geothermal wildcat	10.7 ^d
DF 62-21	Artesian well	76	140	7.8	80	≤150	No Gas	133	None	Geothermal wildcat	
DF 66-21	Artesian well	57	≤7	6.5 - 7.0	1476	210	No Gas	209	None	Geothermal wildcat	
Dixie Production Zone	Many 2-phase wells	250	na	8.0 - 9.0	550	≤255	≤199 ^e	248 ^f	None	Section 7, 18, and 33 wells	

^a Age of interbedded siliceous material at base of NW part of deposit; U-Th and U-Pr disequilibrium dates from Goff et al., 2002, Table 14.

^b Range of ¹⁴C and U/Th disequilibrium dates.

^c Gas geothermometers affected by severe air contamination.

^d Date is on sinter fragments at the Dixie Comstock Mine (Lutz et al., 2003).

^e Gases collected from production wells in late 1990s have been stripped of non-condensable components during flashing and power production; thus, the value shown is too low.

^f Value given is based on data obtained from archived samples. Present samples yield estimates that are too high due to steam loss during power production.