

**CIMARRON DISTRIBUTION COEFFICIENT EVALUATION  
2002 SOIL AND GROUNDWATER DATA - TRANSITION ZONE WELLS**

Well ID	2015 DTW (feet)	2002 Soil Data				2002 Groundwater Uranium Data (pCi/L)	Distribution Coefficient (mg/mL)
		Depth (feet)	Sample Length (feet)	Soil Type in Saturated Zone	Total U (pCi/g)		
02W01	7.25	8	4	Clay	6.1	3,530	1.3
		15	5		3.0		
02W02	7.2	7	1	Sand w/ Clay Lens	8.6	140	34.9
		8	1		8.0		
		9	1		7.7		
		10	1		5.8		
		11	1		5.1		
		12	1		3.2		
		13	1		3.1		
		14	1		4.1		
		15	1		3.1		
		16	1		2.6		
17	1	2.4					
02W09	9.69	8.5	5	Silty Clay	1.8	2.37	772.2
		17.5	5		1.9		
02W10	6.63	7.5	5	Clay	2.2	3.45	794.2
		15.5	5		3.3		
02W20	10.06	10	1	Clay	1.9	2.40	804.5
		11	1		2.3		
		12	1		2.6		
		13	1		2.5		
		14	1		2.8		
		15	1		0.4		
		16	1		2.0		
		17	1		1.8		
		18	1		1.8		
		19	1		2.8		
		20	1		0.4		
		21	1		1.9		
22	1	1.9					
02W26	12.31	10	5	Clay, Silt, and Sand	2.2	12.70	199.5
		15	5		2.8		
		20	4		2.6		
02W28	8.8	9.5	5	Clay, Silt, and Sand	4.3	141	22.7
		18	5		2.1		
02W29	10.82	9.5	5	Clay, Silt, and Sand	4.6	1,570	4.0
		14.5	5.3		8.1		

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		Depth (feet)	Sample Length (feet)	Soil Type in Saturated Zone	Total U (pCi/g)		
02W31	6.35	5.5	5	Clay, Silt, and Sand	6.2	469	11.0
		15	5		4.1		
02W39	11.31	10	5	Clayey Sand and Sand	3.5	934	4.9
		17	5		5.6		
02W46	7.73	10	5	Clay w/ Silt	2.8	1,810	1.7
		15	4		3.5		

Average $K_d$ for Transition Zone when uranium concentration is < 30 pCi/L.	642.6
Average $K_d$ for Transition Zone for all uranium concentrations.	241.0
Average $K_d$ for Transition Zone when uranium concentration is > 30 pCi/L.	11.5
Average $K_d$ for Transition Zone when uranium concentration is > 300 pCi/L.	4.6
Average $K_d$ for Transition Zone when uranium concentration is > 1,000 pCi/L.	2.4