

Table 1: Water Sample Data

Sample ID	Latitude	Longitude	Collection Date	Location Description
Upgradient or Recharge Area				
Lodge	34.781667	-111.513767	10/24/2006	Well at Stoneman Lake Lodge
WBS-1	34.685891	-111.573820	5/19/2006	Hike into upper Wet Beaver Creek from USFS road south of Apache Maid off Stoneman Lake exit on I-17.
WB-Ranger	34.671733	-111.712333	10/19/2006	USFS Ranger Station well at Wet Beaver Creek
WB-Ranger	34.671733	-111.712333	4/ 18/ 2008	USFS Ranger Station well at Wet Beaver Creek
SW-Academy	34.678383	-111.690067	10/20/2006	Artesian well for Southwestern Academy
SW-Academy	34.678383	-111.690067	4/ 15/ 2008	Artesian well for Southwestern Academy
Soda-Well	34.648180	-111.740920	4/16/2008	Soda Springs Ranch well
WCS-1	34.685460	-111.767480	5/15/2006	Winter Cabin Spring west of I-17 and Rte 79 (Sedona Exchange) along USFS 9235
WCS-2	34.685460	-111.767480	10/19/2006	Winter Cabin Spring west of I-17 and Rte 79 (Sedona Exchange) along USFS 9235
WB@Ranger-Stream	34.668617	-111.714367	10/24/2006	Wet Beaver Creek near Ranger Station
Soda-Stream	34.647940	-111.738490	4/16/2008	Wet Beaver Creek at Soda Ranch road crossing
Addition of Deep Ground Water with Carbon Dioxide				
SODA-1	34.645630	-111.741540	5/16/2006	First spring near road and S of old swimming pool
Soda-A	36.645760	-111.742240	4/16/2008	First pool near road, same as SODA-1 sampled by Laurie Wirt
MOWE-East-130	34.648700	-111.751983	10/18/2006	East sand pool in Mont. Well at 130 ft.
MOWE-East-80	34.648700	-111.751983	10/18/2006	East sand pool in Mont. Well at 80 ft.
MOWE-East	34.648700	-111.751983	4/ 16/ 2008	East sand pool in Mont. Well at 80 ft.
MOWE-East-50	34.648700	-111.751983	10/18/2006	Just above East sand pool in Mont. Well at 50 ft.
MOWE-West-54	34.648700	-111.751983	10/18/2006	Just above West sand pool in Mont. Well at 54 ft.
MOWE-Swallet	34.648700	-111.751983	10/19/2006	At swallet in Montezuma Well
MOWE-Swallet-2	34.648700	-111.751983	10/23/2006	At swallet in Montezuma Well
MOWE-Swallet	34.648700	-111.751983	4/ 16/ 2008	At swallet in Montezuma Well
MOWE-West-118	34.648700	-111.751983	10/18/2006	West sand pool in Mont. Well at 118 ft.
MOWE-West-80	34.648700	-111.751983	10/18/2006	West sand pool in Mont. Well at 80 ft.
MOWE-West	34.648700	-111.751983	4/16/2008	West sand pool in Mont. Well at 80 ft.

Table 1: Water Sample Data

Sample ID	Latitude	Longitude	Collection Date	Location Description
SODA-2	34.645780	-111.741140	5/16/2006	Water collected near largest vent in main pool by wading out from edge.
Soda-C	34.645820	-111.741960	4/16/2008	Side of main pool, same as SODA-2 sampled by Laurie Wirt
SODA-3	34.645800	-111.741100	5/16/2006	Water collected from nearest vent at edge of main pool.
Soda-B	34.645790	-111.742020	4/16/2008	Offset edge of main pool, same as SODA-3 sampled by Laurie Wirt
Mixing Zone				
Mont. Haven #2	34.643850	-111.778833	10/20/2006	Shallow Arizona Water Co. well in Lake Montezuma
Mont. Haven #3	34.643783	-111.778717	10/20/2006	Deep Arizona Water Co. well in Lake Montezuma
Despain (RW-3 on map)	34.649270	-111.767650	4/14/2008	Home of Dean Despain
Russell Spring	34.619200	-111.760200	10/21/2006	Spring just outside of Lake Montezuma
Wagner (RW-4 on map)	34.651530	-111.790800	4/15/2008	Home of Penny Wagner
Bartling (RW-5 on map)	34.639580	-111.780590	4/14/2008	Home of Virginia Bartling
LMBridge-Seep	34.640930	-111.778820	4/16/2008	Seep at Lake Montezuma bridge
WB@LM	34.643800	-111.769700	10/24/2006	Wet Beaver Creek in Lake Montezuma
WB-LMBridge	34.640950	-111.778930	4/16/2008	Wet Beaver Creek at Lake Montezuma bridge
Shallow Verde Formation				
Sandy Allen (RW-1 on map)	34.660317	-111.770650	10/22/2006	Home of Sandy Allen on Thunder Ridge development
Allen (RW-1 on map)	34.660317	-111.770650	4/18/2008	Home of Sandy Allen on Thunder Ridge development
Duplicate (RW-1 on map)	34.660317	-111.770650	4/18/2008	Duplicate of Allen Well
Wood (RW-2 on map)	34.658660	-111.772770	4/18/2008	Home of Sherry Wood
MOWE-Residence	34.648467	-111.759700	10/20/2006	Well at Montezuma Well residence
MOWE-Residence	34.648467	-111.759700	4/15/2008	Well at Montezuma Well residence

Table 1: Water Sample Data

Sample ID	Latitude	Longitude	Collection Date	Location Description
Field Blanks				
FB-1			10/19/2006	Field blank using peristaltic pump and tubing
FB-2			10/24/2006	Field blank using syringe method
Blank			4/18/2008	Blank reference sample

Abbreviations:
Blank field = no data or not analyzed
ICP-AES = inductively coupled plasma, atomic emission spectroscopy
ICP-MS = inductively coupled plasma, mass spectroscopy
IC = Ion Chromatography
Field Param. = field parameter
Breit = Arsenic measurements done by George Breit
SI = saturation index
[Blue = 2008 data](#)
Orange field = probe was measuring sand and water
SD = standard deviation
‰ = per mil
mg//L = milligrams per liter
µg/L = micrograms per liter
pMC = post modern carbon
µS/cm = microSiemens per centimeter
°C = degrees Celcius
TU = tritium units
< is less than the detection limit

Table 1: Water Sample Data

Sample ID	Category	Source	Well number	Well Information
Upgradient or Recharge Area				
Lodge	upgradient	well		300 ft. deep, water level about 100 ft., owner information
WBS-1	upgradient	spring		
WB-Ranger	upgradient	well	ADWR#55-627282	129 ft. deep, drilled in 1958
WB-Ranger	upgradient	well	ADWR#55-627282	129 ft. deep, drilled in 1958
SW-Academy	upgradient	well		
SW-Academy	upgradient	well		Artesian well, capped and under pressure
Soda-Well	upgradient	well	ADWR#55-619167	26 feet deep, drilled in 1956
WCS-1	upgradient	spring		
WCS-2	upgradient	spring		
WB@Ranger-Stream	upgradient	stream		
Soda-Stream	upgradient	stream		
Addition of Deep Ground Water with Carbon Dioxide				
SODA-1	deep	spring		
Soda-A	deep	spring		
MOWE-East-130	deep	spring		
MOWE-East-80	deep	spring		
MOWE-East	deep	spring		
MOWE-East-50	deep	spring		
MOWE-West-54	deep	spring		
MOWE-Swallet	deep	spring		
MOWE-Swallet-2	deep	spring		
MOWE-Swallet	deep	spring		
MOWE-West-118	deep	spring		
MOWE-West-80	deep	spring		
MOWE-West	deep	spring		

Table 1: Water Sample Data

Sample ID	Category	Source	Well number	Well Information
SODA-2	deep	spring		
Soda-C	deep	spring		
SODA-3	deep	spring		
Soda-B	deep	spring		
Mixing Zone				
Mont. Haven #2	mix	well		Shallow, approximate 60 ft. deep, water company employee information, might be ADWR55-803288, 165 ft. deep with casing to 80 ft., drilled in 1968
Mont. Haven #3	mix	well	ADWR#55-591459	1,039 ft. deep, casing to 1,020 ft, drilled in 2003 (Arizona Department of Water resources records), pump at 600 ft.,water company employee information
Despain (RW-3 on map)	mix	well	ADWR#55-601110	Original 1981 well 205 ft. deep, casing to 65 feet, then redrilled to 310 ft. deep in 1999, owner information, had printed well records legal well description A1505036DAO
Russell Spring	mix	spring		
Wagner (RW-4 on map)	mix	well	ADWR#55-631802	260 feet deep, casing to 20 feet, drilled in 1978
Bartling (RW-5 on map)	mix	well		In Verde Formation, Depth unknown
LMBridge-Seep	mix	spring		
WB@LM	mix	stream		
WB-LMBridge	mix	stream		
Shallow Verde Formation				
Sandy Allen (RW-1 on map)	shallow	well		Approximately 600-700 ft., owner information, in Verde Formation
Allen (RW-1 on map)	shallow	well		Approximately 600-700 ft., owner information, in Verde Formation
Duplicate (RW-1 on map)	shallow	well		Approximately 600-700 ft., owner information, in Verde Formation
Wood (RW-2 on map)	shallow	well		In Verde Formation, Depth unknown
MOWE-Residence	shallow	well	ADWR#55-629123	372 feet deep, casing to 63 feet, drilled in 1996
MOWE-Residence	shallow	well	ADWR#55-629123	372 feet deep, casing to 63 feet, drilled in 1996

Table 1: Water Sample Data

Sample ID	Category	Source	Well number	Well Information
Field Blanks				
FB-1				
FB-2				
Blank				

Table 1: Water Sample Data

Sample ID	Field Param. Water Conductivity μS/cm	Field Param. Water pH	Field Param. Water Temperature °C	Field Param. Dissolved Oxygen mg/L	δ ¹⁸ O ‰	Duplicate δ ¹⁸ O ‰	δD ‰
Upgradient or Recharge Area							
Lodge	282	6.6	12.4	1.7	-11.7		-83.7
WBS-1	209	7.9	17.8		-11.6		-82.6
WB-Ranger	451	6.9	17.6	3.5	-10.9		-80.8
WB-Ranger	379	7.2	17.3	4.1			
SW-Academy	320	7.4	20.0	6.7	-11.5		-82.4
SW-Academy	320	7.3	19.7	5.6			
Soda-Well	517	7.4	16.5	2.6	-10.2		-79.9
WCS-1	732	7.6	23.3		-7.7		-65.8
WCS-2	641	7.7	16.6	6.3	-8.9		-70.1
WB@Ranger-Stream	271	8.3	15.2	9.5	-11.2	-11.1	-79.7
Soda-Stream	273	8.1	15.7	7.5	-10.3		-78.9
Addition of Deep Ground Water with Carbon Dioxide							
SODA-1	525	6.4	23.9	3.2	-11.7		-82.1
Soda-A	1268	6.4	24.0	4.1			
MOWE-East-130	182	6.4	23.9	7.3	-11.6		-83.7
MOWE-East-80	179	6.4	23.9	7.4	-11.6		-84.1
MOWE-East	1066	6.3	22.0	not available			
MOWE-East-50	815	6.4	22.9	6.9			
MOWE-West-54	713	6.4	22.6	7.2			
MOWE-Swallet	829	6.8	21.2	8.1	-11.5		-83.3
MOWE-Swallet-2	972	6.7	21.4	9.5			
MOWE-Swallet	979	7.0	22.3	7.9			
MOWE-West-118	188	6.4	23.2	7.7	-11.6		-83.0
MOWE-West-80	180	6.4	23.3	7.8	-11.7		-85.3
MOWE-West	878	6.7	22.4	not available			

Table 1: Water Sample Data

Sample ID	Field Param. Water Conductivity μS/cm	Field Param. Water pH	Field Param. Water Temperature °C	Field Param. Dissolved Oxygen mg/L	δ ¹⁸ O ‰	Duplicate δ ¹⁸ O ‰	δD ‰
SODA-2	705	6.5	23.1	5.3	-11.7		-82.1
Soda-C	816	6.7	23.0	6.1			
SODA-3	940	6.5	23.3	2.5	-11.6	-11.5	-81.1
Soda-B	806	6.6	22.9	6.2			
Mixing Zone							
Mont. Haven #2	768	7.3	19.8	8.0	-11.3		-81.9
Mont. Haven #3	813	7.2	20.9	6.7	-11.5	-11.5	-81.6
Despain (RW-3 on map)	821	6.8	20.3	3.8	-11.2	-11.3	-86.0
Russell Spring	942	6.9	17.1	0.4	-11.3		-81.5
Wagner (RW-4 on map)	781	7.2	19.9	5.3	-10.1		-79.2
Bartling (RW-5 on map)	669	7.4	18.4	5.0	-10.6		-84.0
LMBridge-Seep	634	7.1	15.0	0.5	-10.4		-75.7
WB@LM	553	8.4	17.6	8.4	-11.2		-80.3
WB-LMBridge	557	7.8	17.8	6.2	-9.9		-74.2
Shallow Verde Formation							
Sandy Allen (RW-1 on map)	746	7.0	21.6	0.1	-11.3		-81.1
Allen (RW-1 on map)	757	7.0	21.7	1.3	-10.9		-79.3
Duplicate (RW-1 on map)	750	7.1	21.6	1.3			
Wood (RW-2 on map)	829	7.0	22.1	2.4			
MOWE-Residence	786	7.2	21.4	0.5	-12.7		-91.9
MOWE-Residence	793	7.3	21.6	2.8	-11.6		-93.1

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Sample ID	Field Param. Water Conductivity μS/cm	Field Param. Water pH	Field Param. Water Temperature °C	Field Param. Dissolved Oxygen mg/L	δ ¹⁸ O ‰	Duplicate δ ¹⁸ O ‰	δD ‰
Field Blanks							
FB-1							
FB-2							
Blank							

Table 1: Water Sample Data

Sample ID	Duplicate δD ‰	Tritium TU	Tritium 1 SD error TU	C-14 pMC	C-14 1 SD error pMC	$\delta^{13}C$ measured during C-14 analysis ‰	$\delta^{13}C$ ‰
Upgradient or Recharge Area							
Lodge		1.6	0.25	72.8	0.4	-9.7	
WBS-1		<0.6		48.2	0.5	-11.7	
WB-Ranger		<1.0		95.3	0.4	-13.5	
WB-Ranger		1.58	0.19				-12.2
SW-Academy		<0.5					-9.3
SW-Academy							
Soda-Well	-77.4						-12.4
WCS-1				93.0	0.4	-9.9	
WCS-2							
WB@Ranger-Stream							
Soda-Stream							-8.9
Addition of Deep Ground Water with Carbon Dioxide							
SODA-1		<0.8		8.0	0.2	-1.1	
Soda-A		0.06	0.17				-2.1
MOWE-East-130		<0.5					
MOWE-East-80							
MOWE-East				4.8	0.10	-1.3	-2.5
MOWE-East-50							
MOWE-West-54							
MOWE-Swallet							
MOWE-Swallet-2							
MOWE-Swallet							-0.9
MOWE-West-118	-83.9	<0.4		5.1	0.1	-2.0	
MOWE-West-80							
MOWE-West		0.11	0.08				-2.3

Table 1: Water Sample Data

Sample ID	Duplicate δD ‰	Tritium TU	Tritium 1 SD error TU	C-14 pMC	C-14 1 SD error pMC	$\delta^{13}C$ measured during C-14 analysis ‰	$\delta^{13}C$ ‰
SODA-2		2.0	0.27				
Soda-C				6.0	0.1	-2.5	-3.4
SODA-3							
Soda-B							-2.8
Mixing Zone							
Mont. Haven #2		<0.5					
Mont. Haven #3	-82.8	<0.6					
Despain (RW-3 on map)	-79.8						-2.2
Russell Spring							
Wagner (RW-4 on map)	-79.6						-3.1
Bartling (RW-5 on map)							-1.5
LMBridge-Seep							-10.7
WB@LM							
WB-LMBridge							-7.3
Shallow Verde Formation							
Sandy Allen (RW-1 on map)		<0.6					
Allen (RW-1 on map)							-1.4
Duplicate (RW-1 on map)							-1.6
Wood (RW-2 on map)							
MOWE-Residence		<0.6		3.8	0.1	-1.8	
MOWE-Residence							-0.5

Table 1: Water Sample Data

Sample ID	Duplicate δD ‰	Tritium TU	Tritium 1 SD error TU	C-14 pMC	C-14 1 SD error pMC	$\delta^{13}C$ measured during C-14 analysis ‰	$\delta^{13}C$ ‰
Field Blanks							
FB-1							
FB-2							
Blank							

Table 1: Water Sample Data

Sample ID	Duplicate $\delta^{13}\text{C}$ ‰	$\delta^{34}\text{S}$ ‰	$^{87}\text{Sr}/^{86}\text{Sr}$	Duplicate $^{87}\text{Sr}/^{86}\text{Sr}$	ICP-MS Ag μg/L	ICP-AES Ag μg/L	ICP-MS Al μg/L	ICP-AES Al μg/L
Upgradient or Recharge Area								
Lodge			0.70554		<1	<5	<2	<20
WBS-1			0.70656		<3	<5	<2	<20
WB-Ranger			0.70673		<1	<5	<2	<20
WB-Ranger		8.6	0.70687	0.70682	<1	<5	<2	<20
SW-Academy			0.70685		<1	<5	<2	<20
SW-Academy					<1	<5	<2	<20
Soda-Well		7.7			<1	<5	<2	<20
WCS-1			0.70694		<3	<5	6.2	<20
WCS-2								
WB@Ranger-Stream			0.70667		<1	<5	<2	<20
Soda-Stream		10.1	0.70677		<1	<5	3.5	<20
Addition of Deep Ground Water with Carbon Dioxide								
SODA-1			0.70833		<3	<5	3.8	<20
Soda-A		10.8			<1	<5	3.5	<20
MOWE-East-130			0.70818		<1	<5	3.2	<20
MOWE-East-80			0.70813		<1	<5	4.1	<20
MOWE-East		10.7			<1	<5	220	316
MOWE-East-50					<1	<5	2.5	<20
MOWE-West-54					<1	<5	<2	<20
MOWE-Swallet			0.70809		<1	<5	2	<20
MOWE-Swallet-2					<1	<5	2	<20
MOWE-Swallet		10.6			<1	<5	<2	<20
MOWE-West-118			0.70795		<1	<5	<2	<20
MOWE-West-80			0.70800		<1	<5	<2	<20
MOWE-West		10.6			<1	<5	2.6	<20

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Sample ID	Duplicate $\delta^{13}\text{C}$ ‰	$\delta^{34}\text{S}$ ‰	$^{87}\text{Sr}/^{86}\text{Sr}$	Duplicate $^{87}\text{Sr}/^{86}\text{Sr}$	ICP-MS Ag μg/L	ICP-AES Ag μg/L	ICP-MS Al μg/L	ICP-AES Al μg/L
SODA-2			0.70792		<3	<5	2.2	<20
Soda-C		10.5			<1	<5	2.3	<20
SODA-3			0.70780		<3	<5	3.4	<20
Soda-B	-2.2				<1	<5	3.4	<20
Mixing Zone								
Mont. Haven #2		9.6	0.70742		<1	<5	2.4	<20
Mont. Haven #3		10.0	0.70741		<1	<5	<2	<20
Despain (RW-3 on map)		9.1	0.70768		<1	<5	<2	<20
Russell Spring			0.70821		<1	<5	<2	<20
Wagner (RW-4 on map)		8.7	0.70755		<1	<5	6.8	<20
Bartling (RW-5 on map)		10.1	0.70728		<1	<5	<2	<20
LMBridge-Seep		12.8	0.70864		<1	<5	2.2	<20
WB@LM			0.70731		<1	<5	2.2	<20
WB-LMBridge		10.9			<1	<5	<2	<20
Shallow Verde Formation								
Sandy Allen (RW-1 on map)			0.70601		<1	<5	4.1	<20
Allen (RW-1 on map)			0.70609		<1	<5	<2	<20
Duplicate (RW-1 on map)		10.7	0.70608		<1	<5	<2	<20
Wood (RW-2 on map)					<1	<5	<2	<20
MOWE-Residence			0.70621		<1	<5	<2	<20
MOWE-Residence		10.8			<1	<5	4.8	<20

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Sample ID	Duplicate $\delta^{13}\text{C}$ ‰	$\delta^{34}\text{S}$ ‰	$^{87}\text{Sr}/^{86}\text{Sr}$	Duplicate $^{87}\text{Sr}/^{86}\text{Sr}$	ICP-MS Ag μg/L	ICP-AES Ag μg/L	ICP-MS Al μg/L	ICP-AES Al μg/L
Field Blanks								
FB-1					<1	<5	<2	<20
FB-2					<1	<5	<2	<20
Blank					<1	<5	<2	<20

Table 1: Water Sample Data

Sample ID	Breit Arsenite (+3) µg/L	Breit Arsenate (+5) µg/L	Breit As µg/L	ICP-MS As µg/L	ICP-AES As µg/L	ICP-AES B µg/L	ICP-MS Ba µg/L	ICP-AES Ba µg/L
Upgradient or Recharge Area								
Lodge			<1	<1	<200	21	57.4	61
WBS-1				11.8	<200	11	248	235
WB-Ranger			5	6.4	<200	20	162	179
WB-Ranger				7.3	<50	19.4	134	132
SW-Academy	<1	6	6	7.2	<200	11	616	678
SW-Academy				8.1	<50	14.5	624	636
Soda-Well				3.8	<50	47.6	59.4	59.6
WCS-1				9	<200	78	26.9	27
WCS-2								
WB@Ranger-Stream			8	8.5	<200	8.8	241	259
Soda-Stream				5.6	<50	13	160	166
Addition of Deep Ground Water with Carbon Dioxide								
SODA-1				127	<200	1140	396	365
Soda-A				141	162	1220	357	356
MOWE-East-130	<1	107	107	114	<200	895	395	416
MOWE-East-80	<1	116	102	114	<200	912	401	427
MOWE-East				157	196	980	394	396
MOWE-East-50				104	<200	778	382	406
MOWE-West-54				105	<200	784	381	409
MOWE-Swallet	<1	110	96	105	<200	783	394	409
MOWE-Swallet-2				104	<200	780	388	413
MOWE-Swallet				112	129	855	388	378
MOWE-West-118	<1	119	89	94.4	<200	637	352	396
MOWE-West-80	<1	84	86	90.4	<200	642	344	402
MOWE-West				99.2	121	738	367	368

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Sample ID	Breit Arsenite (+3) µg/L	Breit Arsenate (+5) µg/L	Breit As µg/L	ICP-MS As µg/L	ICP-AES As µg/L	ICP-AES B µg/L	ICP-MS Ba µg/L	ICP-AES Ba µg/L
SODA-2				79.8	<200	622	432	405
Soda-C				85.1	89.8	620	395	399
SODA-3				59.1	<200	501	459	410
Soda-B				84.4	101	615	397	404
Mixing Zone								
Mont. Haven #2	<1	42	43	47.2	<200	548	423	450
Mont. Haven #3	<1	25	24	27.5	<200	578	347	369
Despain (RW-3 on map)				28.3	<50	778	441	430
Russell Spring			8	12	<200	275	107	192
Wagner (RW-4 on map)				51.4	60.7	691	345	361
Bartling (RW-5 on map)				52	60.9	461	282	282
LMBridge-Seep				16.9	<50	350	200	199
WB@LM	0.7	32	29	32.1	<200	272	252	273
WB-LMBridge				17.1	<50	275	222	223
Shallow Verde Formation								
Sandy Allen (RW-1 on map)	7	3	8	8.8	<200	418	108	116
Allen (RW-1 on map)				11.2	<50	504	121	118
Duplicate (RW-1 on map)				11.5	<50	491	124	123
Wood (RW-2 on map)				22.3	<50	685	112	108
MOWE-Residence	<1	11	10	12.2	<200	655	142	154
MOWE-Residence				12.8	<50	773	119	118

Table 1: Water Sample Data

Sample ID	Breit Arsenite (+3) µg/L	Breit Arsenate (+5) µg/L	Breit As µg/L	ICP-MS As µg/L	ICP-AES As µg/L	ICP-AES B µg/L	ICP-MS Ba µg/L	ICP-AES Ba µg/L
Field Blanks								
FB-1				<1	<200	<5	<0.2	<1
FB-2				<1	<200	<5	<0.2	<1
Blank				<1	<50	<5	<0.2	<1

Table 1: Water Sample Data

Sample ID	ICP-MS Be µg/L	ICP-AES Be µg/L	ICP-MS Bi µg/L	ICP-MS Ca mg/L	ICP-AES Ca mg/L	ICP-MS Cd µg/L	ICP-AES Cd µg/L	ICP-MS Ce µg/L	ICP-MS Co µg/L
Upgradient or Recharge Area									
Lodge	<0.05	<10	< 0.2	23.3	25.5	0.41	<5	< 0.01	0.11
WBS-1	<0.05	<10	< 0.2	21	20.2	<0.02	<5	< 0.01	<0.02
WB-Ranger	<0.05	<10	< 0.2	44.1	47.3	<0.02	<5	< 0.01	<0.02
WB-Ranger	<0.05	<10	< 0.2	39.1	40.5	<0.02	<5	< 0.01	<0.02
SW-Academy	<0.05	<10	< 0.2	26.8	29.4	<0.02	<5	< 0.01	<0.02
SW-Academy	<0.05	<10	< 0.2	28.8	30	<0.02	<5	< 0.01	<0.02
Soda-Well	<0.05	<10	< 0.2	63.8	63.6	<0.02	<5	< 0.01	<0.02
WCS-1	<0.05	<10	< 0.2	68.4	68.9	<0.02	<5	0.02	0.25
WCS-2									
WB@Ranger-Stream	<0.05	<10	< 0.2	25.3	26.7	<0.02	<5	< 0.01	0.03
Soda-Stream	<0.05	<10	< 0.2	27.9	28.5	<0.02	<5	< 0.01	0.12
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	<0.05	<10	< 0.2	157	144	0.08	<5	0.02	<0.02
Soda-A	<0.05	<10	< 0.2	170	138	0.06	<5	0.02	0.09
MOWE-East-130	<0.05	<10	< 0.2	128	122	0.06	<5	< 0.01	<0.02
MOWE-East-80	<0.05	<10	< 0.2	122	125	0.06	<5	< 0.01	<0.02
MOWE-East	0.2	<10	< 0.2	134	119	0.07	<5	1.02	<0.02
MOWE-East-50	<0.05	<10	< 0.2	110	111	0.05	<5	< 0.01	<0.02
MOWE-West-54	<0.05	<10	< 0.2	106	110	0.04	<5	< 0.01	<0.02
MOWE-Swallet	<0.05	<10	< 0.2	109	110	0.04	<5	< 0.01	<0.02
MOWE-Swallet-2	<0.05	<10	< 0.2	110	111	0.04	<5	< 0.01	<0.02
MOWE-Swallet	<0.05	<10	< 0.2	123	107	0.04	<5	0.01	<0.02
MOWE-West-118	<0.05	<10	< 0.2	90	99.3	0.05	<5	< 0.01	<0.02
MOWE-West-80	<0.05	<10	< 0.2	90	99.7	0.05	<5	< 0.01	<0.02
MOWE-West	<0.05	<10	< 0.2	97.7	97.5	0.04	<5	0.01	0.02

Table 1: Water Sample Data

Sample ID	ICP-MS Be µg/L	ICP-AES Be µg/L	ICP-MS Bi µg/L	ICP-MS Ca mg/L	ICP-AES Ca mg/L	ICP-MS Cd µg/L	ICP-AES Cd µg/L	ICP-MS Ce µg/L	ICP-MS Co µg/L
SODA-2	<0.05	<10	< 0.2	105	98.1	0.04	<5	< 0.01	<0.02
Soda-C	<0.05	<10	< 0.2	102	96	0.04	<5	< 0.01	0.03
SODA-3	<0.05	<10	< 0.2	99.7	89.4	0.02	<5	< 0.01	0.04
Soda-B	<0.05	<10	< 0.2	99.3	92.2	0.04	<5	< 0.01	0.02
Mixing Zone									
Mont. Haven #2	<0.05	<10	< 0.2	77.4	79.5	<0.02	<5	< 0.01	<0.02
Mont. Haven #3	<0.05	<10	< 0.2	83.1	84.4	<0.02	<5	< 0.01	<0.02
Despain (RW-3 on map)	<0.05	<10	< 0.2	84.3	84.2	<0.02	<5	< 0.01	<0.02
Russell Spring	<0.05	<10	< 0.2	78.2	112	<0.02	<5	< 0.01	0.1
Wagner (RW-4 on map)	<0.05	<10	< 0.2	82	83	<0.02	<5	0.03	0.04
Bartling (RW-5 on map)	<0.05	<10	< 0.2	70.6	70.1	<0.02	<5	< 0.01	<0.02
LMBridge-Seep	<0.05	<10	< 0.2	65.1	64.3	<0.02	<5	0.02	1.71
WB@LM	<0.05	<10	< 0.2	58	60.1	<0.02	<5	0.01	0.06
WB-LMBridge	<0.05	<10	< 0.2	62.6	62.8	<0.02	<5	< 0.01	0.28
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	<0.05	<10	< 0.2	65.4	67.7	<0.02	<5	< 0.01	0.12
Allen (RW-1 on map)	<0.05	<10	< 0.2	71.6	72.2	<0.02	<5	< 0.01	0.21
Duplicate (RW-1 on map)	<0.05	<10	< 0.2	74.3	70.9	<0.02	<5	< 0.01	0.16
Wood (RW-2 on map)	<0.05	<10	< 0.2	66.5	64.8	<0.02	<5	< 0.01	0.11
MOWE-Residence	<0.05	<10	< 0.2	50.8	53.3	<0.02	<5	< 0.01	<0.02
MOWE-Residence	<0.05	<10	< 0.2	52.9	54.4	<0.02	<5	0.02	<0.02

Table 1: Water Sample Data

Sample ID	ICP-MS Be µg/L	ICP-AES Be µg/L	ICP-MS Bi µg/L	ICP-MS Ca mg/L	ICP-AES Ca mg/L	ICP-MS Cd µg/L	ICP-AES Cd µg/L	ICP-MS Ce µg/L	ICP-MS Co µg/L
Field Blanks									
FB-1	<0.05	<10	< 0.2	<0.2	<0.1	<0.02	<5	< 0.01	<0.02
FB-2	<0.05	<10	< 0.2	<0.2	<0.1	<0.02	<5	< 0.01	<0.02
Blank	<0.05	<10	< 0.2	<0.2	<0.1	<0.02	<5	< 0.01	<0.02

Table 1: Water Sample Data

Sample ID	ICP-AES Co µg/L	ICP-MS Cr µg/L	ICP-AES Cr µg/L	ICP-MS Cs µg/L	ICP-MS Cu µg/L	ICP-AES Cu µg/L	ICP-MS Dy µg/L	ICP-MS Er µg/L	ICP-MS Eu µg/L
Upgradient or Recharge Area									
Lodge	<10	<1	<10	< 0.02	3.4	<10	< 0.005	< 0.005	0.006
WBS-1	<10	2.4	<10	0.44	<0.5	<10	< 0.005	< 0.005	0.02
WB-Ranger	<10	<1	<10	0.08	1.5	<10	< 0.005	< 0.005	0.02
WB-Ranger	<10	<1	<10	0.08	1.7	<10	< 0.005	< 0.005	0.02
SW-Academy	<10	2.6	<10	0.04	<0.5	<10	< 0.005	< 0.005	0.068
SW-Academy	<10	2.6	<10	0.04	0.5	<10	< 0.005	< 0.005	0.076
Soda-Well	<10	<1	<10	0.57	0.53	<10	< 0.005	< 0.005	0.007
WCS-1	<10	1.3	<10	< 0.02	<0.5	<10	< 0.005	< 0.005	< 0.005
WCS-2									
WB@Ranger-Stream	<10	1.1	<10	< 0.02	<0.5	<10	< 0.005	< 0.005	0.03
Soda-Stream	<10	1.2	<10	< 0.02	<0.5	<10	< 0.005	< 0.005	0.02
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	<10	3.5	<10	3.6	0.76	<10	0.04	0.03	0.04
Soda-A	<10	3.7	<10	3.2	0.77	<10	0.04	0.03	0.053
MOWE-East-130	<10	2.8	<10	2.75	0.53	<10	0.03	0.02	0.05
MOWE-East-80	<10	3	<10	2.76	0.81	<10	0.03	0.02	0.05
MOWE-East	<10	17.1	23.8	2.77	3.3	<10	0.59	0.29	0.2
MOWE-East-50	<10	2.3	<10	2.43	<0.5	<10	0.03	0.02	0.05
MOWE-West-54	<10	2.8	<10	2.39	<0.5	<10	0.02	0.02	0.04
MOWE-Swallet	<10	2.2	<10	2.44	<0.5	<10	0.02	0.02	0.04
MOWE-Swallet-2	<10	2.4	<10	2.45	<0.5	<10	0.02	0.02	0.04
MOWE-Swallet	<10	2.5	<10	2.43	<0.5	<10	0.03	0.02	0.054
MOWE-West-118	<10	3.6	<10	2.02	0.64	<10	0.02	0.01	0.04
MOWE-West-80	<10	2.8	<10	1.96	<0.5	<10	0.02	0.02	0.04
MOWE-West	<10	3	<10	2.12	<0.5	<10	0.02	0.02	0.05

Table 1: Water Sample Data

Sample ID	ICP-AES Co µg/L	ICP-MS Cr µg/L	ICP-AES Cr µg/L	ICP-MS Cs µg/L	ICP-MS Cu µg/L	ICP-AES Cu µg/L	ICP-MS Dy µg/L	ICP-MS Er µg/L	ICP-MS Eu µg/L
SODA-2	<10	3.9	<10	2.17	<0.5	<10	0.02	0.02	0.03
Soda-C	<10	3.3	<10	1.76	<0.5	<10	0.02	0.01	0.052
SODA-3	<10	2.3	<10	1.48	<0.5	<10	< 0.005	< 0.005	0.04
Soda-B	<10	3.3	<10	1.71	<0.5	<10	0.02	0.02	0.053
Mixing Zone									
Mont. Haven #2	<10	6.3	<10	0.22	1.5	<10	< 0.005	< 0.005	0.04
Mont. Haven #3	<10	1	<10	0.36	2.1	<10	< 0.005	< 0.005	0.04
Despain (RW-3 on map)	<10	<1	<10	0.52	5	<10	< 0.005	< 0.005	0.05
Russell Spring	<10	23.1	<10	0.16	<0.5	<10	< 0.005	< 0.005	0.01
Wagner (RW-4 on map)	<10	1.2	<10	0.13	7	<10	< 0.005	< 0.005	0.04
Bartling (RW-5 on map)	<10	2.3	<10	0.14	3.2	<10	< 0.005	< 0.005	0.03
LMBridge-Seep	<10	<1	<10	0.02	<0.5	<10	< 0.005	< 0.005	0.02
WB@LM	<10	<1	<10	0.25	<0.5	<10	< 0.005	< 0.005	0.03
WB-LMBridge	<10	1.6	<10	0.03	0.53	<10	< 0.005	< 0.005	0.03
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	<10	<1	<10	0.11	<0.5	<10	< 0.005	< 0.005	0.01
Allen (RW-1 on map)	<10	<1	<10	0.1	<0.5	<10	< 0.005	< 0.005	0.01
Duplicate (RW-1 on map)	<10	<1	<10	0.1	<0.5	<10	< 0.005	< 0.005	0.02
Wood (RW-2 on map)	<10	1	<10	0.23	8.1	<10	< 0.005	< 0.005	0.01
MOWE-Residence	<10	<1	<10	0.16	2	<10	< 0.005	< 0.005	0.01
MOWE-Residence	<10	<1	<10	0.16	2	<10	< 0.005	< 0.005	0.01

Table 1: Water Sample Data

Sample ID	ICP-AES Co µg/L	ICP-MS Cr µg/L	ICP-AES Cr µg/L	ICP-MS Cs µg/L	ICP-MS Cu µg/L	ICP-AES Cu µg/L	ICP-MS Dy µg/L	ICP-MS Er µg/L	ICP-MS Eu µg/L
Field Blanks									
FB-1	<10	<1	<10	< 0.02	<0.5	<10	< 0.005	< 0.005	< 0.005
FB-2	<10	<1	<10	< 0.02	<0.5	<10	< 0.005	< 0.005	< 0.005
Blank	<10	<1	<10	< 0.02	<0.5	<10	< 0.005	< 0.005	< 0.005

Table 1: Water Sample Data

Sample ID	ICP-MS Fe µg/L	ICP-AES Fe µg/L	ICP-MS Ga µg/L	ICP-MS Gd µg/L	ICP-MS Ge µg/L	ICP-MS Ho µg/L	ICP-MS K mg/L	ICP-AES K mg/L	ICP-MS La µg/L
Upgradient or Recharge Area									
Lodge	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	1.56	1.6	< 0.01
WBS-1	<50	<20	< 0.05	< 0.005	0.07	< 0.005	1.38	1.14	< 0.01
WB-Ranger	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	1.59	1.62	< 0.01
WB-Ranger	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	1.6	1.62	< 0.01
SW-Academy	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	1.54	1.64	< 0.01
SW-Academy	<50	<20	< 0.05	< 0.005	0.05	< 0.005	1.7	1.76	< 0.01
Soda-Well	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	2.28	2.37	< 0.01
WCS-1	<50	<20	< 0.05	< 0.005	0.1	< 0.005	1.86	1.84	< 0.01
WCS-2									
WB@Ranger-Stream	<50	35	< 0.05	< 0.005	< 0.05	< 0.005	1.34	1.32	< 0.01
Soda-Stream	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	1.61	1.71	0.01
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	<50	<20	< 0.05	0.03	0.25	0.008	7.79	6.83	0.05
Soda-A	<50	<20	< 0.05	0.03	0.28	0.009	7.77	7.61	0.04
MOWE-East-130	<50	<20	< 0.05	0.03	0.23	0.007	5.99	5.76	0.04
MOWE-East-80	<50	<20	< 0.05	0.03	0.23	0.007	6.01	5.78	0.04
MOWE-East	187	374	0.06	0.72	0.27	0.11	6.22	6.3	1.49
MOWE-East-50	<50	<20	< 0.05	0.02	0.2	0.006	5.43	5.12	0.03
MOWE-West-54	<50	<20	< 0.05	0.02	0.2	0.006	5.12	5.18	0.02
MOWE-Swallet	<50	<20	< 0.05	0.02	0.2	0.006	5.49	5.12	0.02
MOWE-Swallet-2	<50	<20	< 0.05	0.02	0.2	0.005	5.43	5.15	0.02
MOWE-Swallet	<50	<20	< 0.05	0.02	0.22	0.006	5.72	5.65	0.03
MOWE-West-118	<50	<20	< 0.05	0.02	0.2	< 0.005	4.3	4.62	0.02
MOWE-West-80	<50	<20	< 0.05	0.02	0.2	< 0.005	4.36	4.64	0.02
MOWE-West	<50	<20	< 0.05	0.02	0.21	< 0.005	4.86	5.17	0.03

Table 1: Water Sample Data

Sample ID	ICP-MS Fe µg/L	ICP-AES Fe µg/L	ICP-MS Ga µg/L	ICP-MS Gd µg/L	ICP-MS Ge µg/L	ICP-MS Ho µg/L	ICP-MS K mg/L	ICP-AES K mg/L	ICP-MS La µg/L
SODA-2	<50	<20	< 0.05	0.02	0.2	0.006	4.77	4.02	0.03
Soda-C	<50	<20	< 0.05	0.02	0.2	0.005	4.44	4.5	0.02
SODA-3	<50	<20	< 0.05	< 0.005	0.2	< 0.005	4.24	3.49	< 0.01
Soda-B	<50	<20	< 0.05	0.02	0.2	< 0.005	4.38	4.36	0.02
Mixing Zone									
Mont. Haven #2	<50	<20	< 0.05	< 0.005	0.22	< 0.005	3.74	3.66	< 0.01
Mont. Haven #3	<50	<20	< 0.05	< 0.005	0.2	< 0.005	4.44	4.23	< 0.01
Despain (RW-3 on map)	<50	<20	< 0.05	< 0.005	0.2	< 0.005	4.72	4.83	< 0.01
Russell Spring	<50	<20	< 0.05	< 0.005	0.08	< 0.005	4.53	4.33	< 0.01
Wagner (RW-4 on map)	<50	21.6	< 0.05	< 0.005	0.27	< 0.005	4.26	4.44	0.01
Bartling (RW-5 on map)	<50	<20	< 0.05	< 0.005	0.51	< 0.005	5.02	5.12	< 0.01
LMBridge-Seep	123	159	< 0.05	0.006	< 0.05	< 0.005	1.64	1.66	0.01
WB@LM	<50	<20	< 0.05	< 0.005	0.07	< 0.005	2.79	2.72	< 0.01
WB-LMBridge	<50	23.1	< 0.05	< 0.005	< 0.05	< 0.005	2.6	2.63	< 0.01
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	58	87	< 0.05	< 0.005	0.5	< 0.005	8.94	8.76	< 0.01
Allen (RW-1 on map)	<50	61.1	< 0.05	< 0.005	0.62	< 0.005	9.76	10.1	< 0.01
Duplicate (RW-1 on map)	<50	47.8	< 0.05	< 0.005	0.64	< 0.005	10.4	10.3	< 0.01
Wood (RW-2 on map)	<50	<20	< 0.05	< 0.005	0.47	< 0.005	11.3	11.2	< 0.01
MOWE-Residence	<50	<20	< 0.05	< 0.005	0.4	< 0.005	9.63	9.21	< 0.01
MOWE-Residence	<50	<20	< 0.05	< 0.005	0.45	< 0.005	10.5	10.8	0.01

Table 1: Water Sample Data

Sample ID	ICP-MS Fe µg/L	ICP-AES Fe µg/L	ICP-MS Ga µg/L	ICP-MS Gd µg/L	ICP-MS Ge µg/L	ICP-MS Ho µg/L	ICP-MS K mg/L	ICP-AES K mg/L	ICP-MS La µg/L
Field Blanks									
FB-1	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	<0.03	<0.1	< 0.01
FB-2	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	<0.03	<0.1	< 0.01
Blank	<50	<20	< 0.05	< 0.005	< 0.05	< 0.005	0.03	<0.1	< 0.01

Table 1: Water Sample Data

Sample ID	ICP-MS Li µg/L	ICP-AES Li µg/L	ICP-MS Lu µg/L	ICP-MS Mg mg/L	ICP-AES Mg mg/L	ICP-MS Mn µg/L	ICP-AES Mn µg/L	ICP-MS Mo µg/L	ICP-AES Mo µg/L
Upgradient or Recharge Area									
Lodge	1.6	<5	< 0.1	15.6	15.8	199	216	< 2	<20
WBS-1	3	<5	< 0.1	14.5	12.2	<0.2	<10	< 2	<20
WB-Ranger	3.8	<5	< 0.1	26	26	0.4	<10	< 2	<20
WB-Ranger	3.6	5.04	< 0.1	23.5	21.9	<0.2	<10	< 2	<20
SW-Academy	3.6	<5	< 0.1	20.5	21	1.6	<10	< 2	<20
SW-Academy	3.4	<5	< 0.1	22.2	21.1	0.7	<10	< 2	<20
Soda-Well	12.5	12.1	< 0.1	32	27.4	0.7	<10	< 2	<20
WCS-1	28.3	28	< 0.1	34.8	36.4	32.6	35	< 2	<20
WCS-2									
WB@Ranger-Stream	2.3	<5	< 0.1	16.7	16.5	2.8	<10	< 2	<20
Soda-Stream	2.9	<5	< 0.1	18.1	16.1	5.5	<10	< 2	<20
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	270	284	< 0.1	57.4	47.4	1.2	<10	< 2	<20
Soda-A	267	304	< 0.1	56.8	46.5	0.4	<10	< 2	<20
MOWE-East-130	213	213	< 0.1	43	40.6	0.6	<10	< 2	<20
MOWE-East-80	212	219	< 0.1	43.1	41.7	0.3	<10	< 2	<20
MOWE-East	216	239	< 0.1	43.3	40.4	0.7	<10	< 2	<20
MOWE-East-50	186	186	< 0.1	39.8	37.1	<0.2	<10	< 2	<20
MOWE-West-54	183	183	< 0.1	37.1	37	<0.2	<10	< 2	<20
MOWE-Swallet	186	184	< 0.1	40.3	37	<0.2	<10	< 2	<20
MOWE-Swallet-2	182	186	< 0.1	40.2	37.3	<0.2	<10	< 2	<20
MOWE-Swallet	192	207	< 0.1	41	36.4	0.2	<10	< 2	<20
MOWE-West-118	154	158	< 0.1	30.1	33.7	<0.2	<10	< 2	<20
MOWE-West-80	151	158	< 0.1	30.4	34	0.2	<10	< 2	<20
MOWE-West	161	178	< 0.1	34	33.4	<0.2	<10	< 2	<20

Table 1: Water Sample Data

Sample ID	ICP-MS Li µg/L	ICP-AES Li µg/L	ICP-MS Lu µg/L	ICP-MS Mg mg/L	ICP-AES Mg mg/L	ICP-MS Mn µg/L	ICP-AES Mn µg/L	ICP-MS Mo µg/L	ICP-AES Mo µg/L
SODA-2	149	154	< 0.1	41.4	33.5	<0.2	<10	< 2	<20
Soda-C	136	153	< 0.1	38.7	31.6	<0.2	<10	< 2	<20
SODA-3	125	124	< 0.1	39.6	30.7	7.5	<10	< 2	<20
Soda-B	134	148	< 0.1	37.9	31.5	<0.2	<10	< 2	<20
Mixing Zone									
Mont. Haven #2	115	112	< 0.1	33	32	0.5	<10	< 2	<20
Mont. Haven #3	131	126	< 0.1	36.4	34.8	0.3	<10	< 2	<20
Despain (RW-3 on map)	151	169	< 0.1	38.1	34.7	<0.2	<10	< 2	<20
Russell Spring	73.1	69	< 0.1	49.2	46.6	1.1	67	2.5	<20
Wagner (RW-4 on map)	128	143	< 0.1	35.5	32.5	0.5	<10	< 2	<20
Bartling (RW-5 on map)	103	114	< 0.1	31.4	28.7	<0.2	<10	2.9	<20
LMBridge-Seep	63.7	70.3	< 0.1	36.2	31.2	43.5	48.5	< 2	<20
WB@LM	65	63	< 0.1	27.1	26.1	7.9	<10	< 2	<20
WB-LMBridge	52.2	57.7	< 0.1	30.4	25.8	31	35.2	< 2	<20
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	118	115	< 0.1	34.5	33.6	163	160	< 2	<20
Allen (RW-1 on map)	119	130	< 0.1	35.9	33.6	155	170	< 2	<20
Duplicate (RW-1 on map)	121	136	< 0.1	39.1	33.6	163	172	< 2	<20
Wood (RW-2 on map)	147	162	< 0.1	44.4	38	50.8	56.5	< 2	<20
MOWE-Residence	181	182	< 0.1	31.8	30.6	0.5	<10	3.6	<20
MOWE-Residence	188	209	< 0.1	33	30.6	0.7	<10	2.5	<20

Table 1: Water Sample Data

Sample ID	ICP-MS Li µg/L	ICP-AES Li µg/L	ICP-MS Lu µg/L	ICP-MS Mg mg/L	ICP-AES Mg mg/L	ICP-MS Mn µg/L	ICP-AES Mn µg/L	ICP-MS Mo µg/L	ICP-AES Mo µg/L
Field Blanks									
FB-1	1.8	<5	< 0.1	<0.01	<0.1	<0.2	<10	< 2	<20
FB-2	1.8	<5	< 0.1	<0.01	<0.1	<0.2	<10	< 2	<20
Blank	2.4	<5	< 0.1	<0.01	<0.1	<0.2	<10	< 2	<20

Table 1: Water Sample Data

Sample ID	ICP-MS Na mg/L	ICP-AES Na mg/L	ICP-MS Nb µg/L	ICP-MS Nd µg/L	ICP-MS Ni µg/L	ICP-AES Ni µg/L	ICP-MS P mg/L	ICP-AES P mg/L	ICP-MS Pb µg/L
Upgradient or Recharge Area									
Lodge	9.84	9.59	< 0.2	< 0.01	0.6	<10	0.04	<0.5	0.4
WBS-1	6.79	5.46	< 0.2	< 0.01	<0.4	<10	< 0.01	<0.5	<0.05
WB-Ranger	9.57	9.34	< 0.2	< 0.01	0.6	<10	0.03	<0.5	0.2
WB-Ranger	8.45	8.99	< 0.2	< 0.01	0.5	<10	0.03	<0.5	0.1
SW-Academy	6.05	5.99	< 0.2	< 0.01	<0.4	<10	< 0.01	<0.5	0.08
SW-Academy	6.72	7.39	< 0.2	< 0.01	<0.4	<10	< 0.01	<0.5	<0.05
Soda-Well	13	13.4	< 0.2	< 0.01	0.6	<10	0.02	<0.5	<0.05
WCS-1	29	30.3	< 0.2	< 0.01	0.4	<10	< 0.01	<0.5	<0.05
WCS-2									
WB@Ranger-Stream	6.61	6.39	< 0.2	< 0.01	0.4	<10	0.01	<0.5	<0.05
Soda-Stream	6.84	7.71	< 0.2	0.01	0.9	<10	0.02	<0.5	<0.05
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	86.6	70.7	< 0.2	0.08	<0.4	<10	0.02	<0.5	<0.05
Soda-A	87	78.4	< 0.2	0.06	1.3	<10	0.01	<0.5	<0.05
MOWE-East-130	64	60.2	< 0.2	0.06	0.4	<10	0.02	<0.5	<0.05
MOWE-East-80	64	62.1	< 0.2	0.06	0.6	<10	0.02	<0.5	<0.05
MOWE-East	64.5	63.3	< 0.2	2.2	1.4	<10	0.07	<0.5	0.68
MOWE-East-50	56.7	53.5	< 0.2	0.04	0.5	<10	0.01	<0.5	<0.05
MOWE-West-54	53.4	52.7	< 0.2	0.04	0.5	<10	< 0.01	<0.5	<0.05
MOWE-Swallet	57.2	52.8	< 0.2	0.03	0.7	<10	< 0.01	<0.5	<0.05
MOWE-Swallet-2	56.9	53.5	< 0.2	0.03	0.5	<10	< 0.01	<0.5	<0.05
MOWE-Swallet	59.6	55.8	< 0.2	0.05	0.7	<10	< 0.01	<0.5	<0.05
MOWE-West-118	40.8	46.3	< 0.2	0.04	0.4	<10	< 0.01	<0.5	<0.05
MOWE-West-80	41.8	46.3	< 0.2	0.03	<0.4	<10	< 0.01	<0.5	<0.05
MOWE-West	47.1	49.1	< 0.2	0.04	0.7	<10	< 0.01	<0.5	<0.05

Table 1: Water Sample Data

Sample ID	ICP-MS Na mg/L	ICP-AES Na mg/L	ICP-MS Nb µg/L	ICP-MS Nd µg/L	ICP-MS Ni µg/L	ICP-AES Ni µg/L	ICP-MS P mg/L	ICP-AES P mg/L	ICP-MS Pb µg/L
SODA-2	50.6	41.2	< 0.2	0.04	<0.4	<10	0.01	<0.5	<0.05
Soda-C	47.5	43.5	< 0.2	0.03	0.8	<10	0.01	<0.5	<0.05
SODA-3	45.6	35	< 0.2	< 0.01	<0.4	<10	< 0.01	<0.5	<0.05
Soda-B	46.8	42.5	< 0.2	0.04	0.8	<10	0.01	<0.5	<0.05
Mixing Zone									
Mont. Haven #2	45.2	43.8	< 0.2	< 0.01	0.4	<10	0.02	<0.5	<0.05
Mont. Haven #3	46.6	43.6	< 0.2	< 0.01	0.5	<10	0.02	<0.5	0.06
Despain (RW-3 on map)	54.1	52.3	< 0.2	< 0.01	2	<10	0.02	<0.5	<0.05
Russell Spring	35.6	33.9	2.11	< 0.01	1.9	<10	0.03	<0.5	<0.05
Wagner (RW-4 on map)	49.6	49.1	< 0.2	0.01	1.3	<10	0.02	<0.5	<0.05
Bartling (RW-5 on map)	39.4	38.6	< 0.2	< 0.01	0.9	<10	0.01	<0.5	0.1
LMBridge-Seep	39.5	36.8	< 0.2	< 0.01	6.3	<10	< 0.01	<0.5	<0.05
WB@LM	24.7	23.7	0.59	< 0.01	0.8	<10	0.01	<0.5	0.08
WB-LMBridge	26.9	26.2	< 0.2	< 0.01	2.1	<10	0.01	<0.5	<0.05
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	48.7	46.3	0.28	< 0.01	<0.4	<10	0.02	<0.5	0.08
Allen (RW-1 on map)	50.6	49.6	< 0.2	< 0.01	1.1	<10	< 0.01	<0.5	<0.05
Duplicate (RW-1 on map)	54.7	50.8	< 0.2	< 0.01	1.2	<10	0.01	<0.5	<0.05
Wood (RW-2 on map)	81.4	72.9	< 0.2	< 0.01	0.7	<10	0.02	<0.5	0.3
MOWE-Residence	86.2	82.1	< 0.2	< 0.01	<0.4	<10	0.03	<0.5	0.09
MOWE-Residence	93	89	< 0.2	< 0.01	0.6	<10	0.02	<0.5	<0.05

Table 1: Water Sample Data

Sample ID	ICP-MS Na mg/L	ICP-AES Na mg/L	ICP-MS Nb µg/L	ICP-MS Nd µg/L	ICP-MS Ni µg/L	ICP-AES Ni µg/L	ICP-MS P mg/L	ICP-AES P mg/L	ICP-MS Pb µg/L
Field Blanks									
FB-1	<0.01	<0.1	0.22	< 0.01	<0.4	<10	< 0.01	<0.5	<0.05
FB-2	<0.01	<0.1	< 0.2	< 0.01	<0.4	<10	< 0.01	<0.5	<0.05
Blank	0.03	<0.1	< 0.2	< 0.01	<0.4	<10	< 0.01	<0.5	<0.05

Table 1: Water Sample Data

Sample ID	ICP-AES Pb µg/L	ICP-MS Pr µg/L	ICP-MS Rb µg/L	ICP-MS Sb µg/L	ICP-AES Sb µg/L	ICP-MS Sc µg/L	ICP-MS Se µg/L	ICP-AES Se µg/L	ICP-MS SiO ₂ mg/L
Upgradient or Recharge Area									
Lodge	<50	< 0.01	1.36	<0.3	<50	3.8	< 1		31
WBS-1	<50	< 0.01	1.13	<0.3	<50	1.7	< 1		22.7
WB-Ranger	<50	< 0.01	0.83	<0.3	<50	2.9	< 1		27.1
WB-Ranger	<50	< 0.01	0.83	<0.3	<50	3	< 1	< 200	25.1
SW-Academy	<50	< 0.01	1.34	<0.3	<50	2.2	< 1		19.6
SW-Academy	<50	< 0.01	1.39	<0.3	<50	2.3	< 1	< 200	20.5
Soda-Well	<50	< 0.01	2.88	<0.3	<50	3.6	< 1	< 200	30.6
WCS-1	<50	< 0.01	1.77	<0.3	<50	3.8	10.4		42
WCS-2									
WB@Ranger-Stream	<50	< 0.01	0.81	<0.3	<50	2.3	< 1		20.4
Soda-Stream	<50	< 0.01	0.61	<0.3	<50	2.2	< 1	< 200	19.8
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	<50	0.01	12.7	<0.3	<50	1.8	1.3		20.3
Soda-A	<50	0.01	12.7	<0.3	<50	2.4	1.9	< 200	19.8
MOWE-East-130	<50	0.01	10.6	<0.3	<50	2.1	1.2		17.8
MOWE-East-80	<50	0.01	10.4	<0.3	<50	2.1	1.1		18.3
MOWE-East	<50	0.47	10.6	<0.3	<50	2.6	1.6	< 200	18.8
MOWE-East-50	<50	< 0.01	9.3	<0.3	<50	2	1.1		17.2
MOWE-West-54	<50	< 0.01	9.33	<0.3	<50	1.9	1.1		16.4
MOWE-Swallet	<50	< 0.01	9.22	<0.3	<50	2	1		17.3
MOWE-Swallet-2	<50	< 0.01	9.18	<0.3	<50	1.9	1.2		16.8
MOWE-Swallet	<50	< 0.01	9.69	<0.3	<50	2.3	1.4	< 200	18.6
MOWE-West-118	<50	< 0.01	8.23	<0.3	<50	2	1.1		15.5
MOWE-West-80	<50	< 0.01	7.94	<0.3	<50	1.8	1.1		15.8
MOWE-West	<50	< 0.01	8.55	<0.3	<50	2.2	1.1	< 200	17.3

Table 1: Water Sample Data

Sample ID	ICP-AES Pb µg/L	ICP-MS Pr µg/L	ICP-MS Rb µg/L	ICP-MS Sb µg/L	ICP-AES Sb µg/L	ICP-MS Sc µg/L	ICP-MS Se µg/L	ICP-AES Se µg/L	ICP-MS SiO ₂ mg/L
SODA-2	<50	< 0.01	7.03	<0.3	<50	1.8	< 1		21.8
Soda-C	<50	< 0.01	7.14	<0.3	<50	2.4	1.3	< 200	20.7
SODA-3	<50	< 0.01	6.41	<0.3	<50	1.9	< 1		22.6
Soda-B	<50	< 0.01	7.05	<0.3	<50	2.4	1.3	< 200	20.9
Mixing Zone									
Mont. Haven #2	<50	< 0.01	5.64	<0.3	<50	3	1.5		25.9
Mont. Haven #3	<50	< 0.01	6.45	<0.3	<50	3	1.7		26.9
Despain (RW-3 on map)	<50	< 0.01	6.67	<0.3	<50	2.9	2.1	< 200	24.7
Russell Spring	<50	< 0.01	4.6	0.42	<50	2.5	1.5		24.4
Wagner (RW-4 on map)	<50	< 0.01	5.92	<0.3	<50	3	1.5	< 200	26.6
Bartling (RW-5 on map)	<50	< 0.01	7.08	<0.3	<50	3.3	1.3	< 200	27.2
LMBridge-Seep	<50	< 0.01	1.13	<0.3	<50	3.6	< 1	< 200	31.4
WB@LM	<50	< 0.01	3.22	0.68	<50	2.4	< 1		20.3
WB-LMBridge	<50	< 0.01	1.68	<0.3	<50	2.8	< 1	< 200	24.8
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	<50	< 0.01	8.79	<0.3	<50	4.1	< 1		35
Allen (RW-1 on map)	<50	< 0.01	9.22	<0.3	<50	4.2	< 1	< 200	35
Duplicate (RW-1 on map)	<50	< 0.01	9.32	<0.3	<50	4.5	< 1	< 200	38.2
Wood (RW-2 on map)	<50	< 0.01	10.6	<0.3	<50	4.2	1.1	< 200	37.2
MOWE-Residence	<50	< 0.01	10	<0.3	<50	3.5	1.7		29.9
MOWE-Residence	<50	< 0.01	10.7	<0.3	<50	3.8	2.4	< 200	31.9

Table 1: Water Sample Data

Sample ID	ICP-AES Pb µg/L	ICP-MS Pr µg/L	ICP-MS Rb µg/L	ICP-MS Sb µg/L	ICP-AES Sb µg/L	ICP-MS Sc µg/L	ICP-MS Se µg/L	ICP-AES Se µg/L	ICP-MS SiO ₂ mg/L
Field Blanks									
FB-1	<50	< 0.01	< 0.01	<0.3	<50	< 0.6	< 1		< 0.2
FB-2	<50	< 0.01	< 0.01	<0.3	<50	< 0.6	< 1		< 0.2
Blank	<50	< 0.01	< 0.01	<0.3	<50	< 0.6	< 1	< 200	< 0.2

Table 1: Water Sample Data

Sample ID	ICP-AES SiO ₂ mg/L	ICP-MS Sm µg/L	ICP-MS SO ₄ mg/L	ICP-AES SO ₄ mg/L	IC SO ₄ mg/L	ICP-MS Sr µg/L	ICP-AES Sr µg/L	ICP-MS Ta µg/L	ICP-MS Tb µg/L
Upgradient or Recharge Area									
Lodge	37.8	< 0.01	< 2	1.7	3	268	307	0.06	< 0.005
WBS-1	20.9	< 0.01	5	1.7	2.5	95.5	116	< 0.02	< 0.005
WB-Ranger	29.7	< 0.01	3	3.9	5	235	268	< 0.02	< 0.005
WB-Ranger	25.2	< 0.01	4	2.94	3.5	210	213	< 0.02	< 0.005
SW-Academy	20.7	< 0.01	2	2.9	5	127	152	< 0.02	< 0.005
SW-Academy	20.8	< 0.01	3	2.3	2.95	132	132	< 0.02	< 0.005
Soda-Well	31.1	< 0.01	5	3.65	5.2	331	322	< 0.02	< 0.005
WCS-1	50.3	< 0.01	42	43.1	43	895	891	< 0.02	< 0.005
WCS-2									
WB@Ranger-Stream	20.8	< 0.01	2	2.1	3	131	152	0.04	< 0.005
Soda-Stream	19.3	< 0.01	3	1.88	2.6	148	150	< 0.02	< 0.005
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	18.4	0.02	23	18.4	17	340	355	< 0.02	0.006
Soda-A	18.4	0.02	18	15.3	18.55	347	327	< 0.02	0.006
MOWE-East-130	18.1	0.02	13	15.5	13	295	320	< 0.02	< 0.005
MOWE-East-80	18.6	0.02	13	15.8	13	297	328	< 0.02	< 0.005
MOWE-East	18.2	0.59	14	12.6	16.75	303	301	< 0.02	0.11
MOWE-East-50	17.2	0.02	11	13.8	nd	270	295	< 0.02	< 0.005
MOWE-West-54	17.2	0.01	10	13.8	nd	270	295	< 0.02	< 0.005
MOWE-Swallet	16.9	0.01	12	13.9	18	273	295	< 0.02	< 0.005
MOWE-Swallet-2	16.7	0.01	12	14	18	267	297	< 0.02	< 0.005
MOWE-Swallet	17.8	0.01	13	11.1	15.25	280	274	< 0.02	< 0.005
MOWE-West-118	18.1	0.01	8	12.2	10.2	248	272	< 0.02	< 0.005
MOWE-West-80	18.4	0.01	8	12.1	10.4	239	274	< 0.02	< 0.005
MOWE-West	18.2	0.01	10	9.84	13.95	254	250	< 0.02	< 0.005

Table 1: Water Sample Data

Sample ID	ICP-AES SiO ₂ mg/L	ICP-MS Sm µg/L	ICP-MS SO ₄ mg/L	ICP-AES SO ₄ mg/L	IC SO ₄ mg/L	ICP-MS Sr µg/L	ICP-AES Sr µg/L	ICP-MS Ta µg/L	ICP-MS Tb µg/L
SODA-2	19.7	0.01	14	10.4	11	229	250	< 0.02	< 0.005
Soda-C	19.6	< 0.01	10	7.64	12.05	234	222	< 0.02	< 0.005
SODA-3	19.6	< 0.01	14	9	13	216	232	< 0.02	< 0.005
Soda-B	19.3	0.01	10	7.35	12.2	231	218	< 0.02	< 0.005
Mixing Zone									
Mont. Haven #2	27.5	< 0.01	10	11.9	16	394	432	< 0.02	< 0.005
Mont. Haven #3	27.9	< 0.01	12	13.8	18	366	398	< 0.02	< 0.005
Despain (RW-3 on map)	25	< 0.01	13	12.5	16.2	344	336	< 0.02	< 0.005
Russell Spring	19.6	< 0.01	24	28.6	30	329	384	0.73	< 0.005
Wagner (RW-4 on map)	27.4	< 0.01	12	11.6	15.15	402	393	< 0.02	< 0.005
Bartling (RW-5 on map)	28.8	< 0.01	11	10.1	11.95	521	506	< 0.02	< 0.005
LMBridge-Seep	31.3	< 0.01	10	8.93	11	244	240	< 0.02	< 0.005
WB@LM	20.8	< 0.01	5	6	9	202	222	0.04	< 0.005
WB-LMBridge	23.7	< 0.01	7	5.32	6.45	234	232	< 0.02	< 0.005
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	40.2	< 0.01	13	15.3	20	698	746	0.2	< 0.005
Allen (RW-1 on map)	37.6	< 0.01	15	15.3	18.9	780	768	< 0.02	< 0.005
Duplicate (RW-1 on map)	38.9	< 0.01	17	15.4	13.95	777	753	< 0.02	< 0.005
Wood (RW-2 on map)	36.7	< 0.01	19	18.2	21.3	719	693	< 0.02	< 0.005
MOWE-Residence	34.6	< 0.01	17	19	22	632	673	< 0.02	< 0.005
MOWE-Residence	33.9	< 0.01	18	18	20.9	670	643	< 0.02	< 0.005

Table 1: Water Sample Data

Sample ID	ICP-AES SiO ₂ mg/L	ICP-MS Sm μg/L	ICP-MS SO ₄ mg/L	ICP-AES SO ₄ mg/L	IC SO ₄ mg/L	ICP-MS Sr μg/L	ICP-AES Sr μg/L	ICP-MS Ta μg/L	ICP-MS Tb μg/L
Field Blanks									
FB-1	<0.1	< 0.01	< 2	< 1	<.08	< 0.5	<1	0.02	< 0.005
FB-2	<0.1	< 0.01	< 2	< 1	<.08	< 0.5	<1	< 0.02	< 0.005
Blank	<0.1	< 0.01	2	< 1	<.08	< 0.5	<1	< 0.02	< 0.005

Table 1: Water Sample Data

Sample ID	ICP-MS Th µg/L	ICP-MS Ti µg/L	ICP-AES Ti µg/L	ICP-MS Tl µg/L	ICP-MS Tm µg/L	ICP-MS U µg/L	ICP-MS V µg/L	ICP-AES V µg/L	ICP-MS W µg/L
Upgradient or Recharge Area									
Lodge	< 0.2	< 0.5	<50	<0.1	< 0.005	0.29	3	<10	< 0.5
WBS-1	< 0.2	< 0.5	<50	<0.1	< 0.005	0.34	12.1	12	< 0.5
WB-Ranger	< 0.2	< 0.5	<50	<0.1	< 0.005	0.49	6.5	<10	< 0.5
WB-Ranger	< 0.2	< 0.5	<50	<0.1	< 0.005	0.41	7.4	<10	< 0.5
SW-Academy	< 0.2	< 0.5	<50	<0.1	< 0.005	0.56	11.7	14	< 0.5
SW-Academy	< 0.2	< 0.5	<50	<0.1	< 0.005	0.67	13.2	13.7	< 0.5
Soda-Well	< 0.2	< 0.5	<50	<0.1	< 0.005	0.48	6.4	<10	< 0.5
WCS-1	< 0.2	0.6	<50	<0.1	< 0.005	2.72	31.3	32	< 0.5
WCS-2									
WB@Ranger-Stream	< 0.2	< 0.5	<50	<0.1	< 0.005	0.31	8.3	<10	< 0.5
Soda-Stream	< 0.2	< 0.5	<50	<0.1	< 0.005	0.36	6.1	<10	< 0.5
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	< 0.2	< 0.5	<50	<0.1	< 0.005	0.97	13.4	13	< 0.5
Soda-A	< 0.2	< 0.5	<50	<0.1	< 0.005	0.84	13.2	12.3	< 0.5
MOWE-East-130	< 0.2	< 0.5	<50	<0.1	< 0.005	0.74	12.1	12	< 0.5
MOWE-East-80	< 0.2	0.7	<50	<0.1	< 0.005	0.75	12.4	14	< 0.5
MOWE-East	< 0.2	21.4	<50	<0.1	0.04	0.88	15.5	16.9	< 0.5
MOWE-East-50	< 0.2	0.5	<50	<0.1	< 0.005	0.7	12	14	< 0.5
MOWE-West-54	< 0.2	< 0.5	<50	<0.1	< 0.005	0.67	12.3	14	< 0.5
MOWE-Swallet	< 0.2	0.5	<50	<0.1	< 0.005	0.7	12.3	13	< 0.5
MOWE-Swallet-2	< 0.2	0.5	<50	<0.1	< 0.005	0.69	12.3	12	< 0.5
MOWE-Swallet	< 0.2	0.6	<50	<0.1	< 0.005	0.73	13.6	13.8	< 0.5
MOWE-West-118	< 0.2	< 0.5	<50	<0.1	< 0.005	0.61	12.3	13	< 0.5
MOWE-West-80	< 0.2	< 0.5	<50	<0.1	< 0.005	0.6	11.9	14	< 0.5
MOWE-West	< 0.2	< 0.5	<50	<0.1	< 0.005	0.66	13	13.8	< 0.5

Table 1: Water Sample Data

Sample ID	ICP-MS Th µg/L	ICP-MS Ti µg/L	ICP-AES Ti µg/L	ICP-MS Tl µg/L	ICP-MS Tm µg/L	ICP-MS U µg/L	ICP-MS V µg/L	ICP-AES V µg/L	ICP-MS W µg/L
SODA-2	< 0.2	< 0.5	<50	<0.1	< 0.005	0.63	14.6	14	< 0.5
Soda-C	< 0.2	< 0.5	<50	<0.1	< 0.005	0.56	14.7	14.7	< 0.5
SODA-3	< 0.2	< 0.5	<50	<0.1	< 0.005	0.58	15.2	14	< 0.5
Soda-B	< 0.2	< 0.5	<50	<0.1	< 0.005	0.56	14.7	15.4	< 0.5
Mixing Zone									
Mont. Haven #2	< 0.2	< 0.5	<50	<0.1	< 0.005	0.95	7.6	<10	< 0.5
Mont. Haven #3	< 0.2	< 0.5	<50	<0.1	< 0.005	0.87	6.7	<10	< 0.5
Despain (RW-3 on map)	< 0.2	< 0.5	<50	<0.1	< 0.005	1.12	7.4	<10	< 0.5
Russell Spring	< 0.2	0.6	<50	<0.1	< 0.005	1.14	7.8	<10	1.97
Wagner (RW-4 on map)	< 0.2	0.5	<50	<0.1	< 0.005	0.92	8.2	<10	< 0.5
Bartling (RW-5 on map)	< 0.2	< 0.5	<50	<0.1	< 0.005	0.85	8.7	<10	< 0.5
LMBridge-Seep	< 0.2	< 0.5	<50	<0.1	< 0.005	0.87	3	<10	< 0.5
WB@LM	< 0.2	< 0.5	<50	<0.1	< 0.005	0.46	7.3	<10	0.73
WB-LMBridge	< 0.2	< 0.5	<50	<0.1	< 0.005	0.61	6.5	<10	< 0.5
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	< 0.2	0.6	<50	<0.1	< 0.005	0.81	<0.5	<10	< 0.5
Allen (RW-1 on map)	< 0.2	< 0.5	<50	<0.1	< 0.005	1.01	<0.5	<10	< 0.5
Duplicate (RW-1 on map)	< 0.2	< 0.5	<50	<0.1	< 0.005	0.97	<0.5	<10	< 0.5
Wood (RW-2 on map)	< 0.2	< 0.5	<50	<0.1	< 0.005	1.39	1.6	<10	< 0.5
MOWE-Residence	< 0.2	< 0.5	<50	<0.1	< 0.005	0.84	4.3	<10	< 0.5
MOWE-Residence	< 0.2	< 0.5	<50	<0.1	< 0.005	0.88	4.6	<10	< 0.5

Table 1: Water Sample Data

Sample ID	ICP-MS Th µg/L	ICP-MS Ti µg/L	ICP-AES Ti µg/L	ICP-MS Tl µg/L	ICP-MS Tm µg/L	ICP-MS U µg/L	ICP-MS V µg/L	ICP-AES V µg/L	ICP-MS W µg/L
Field Blanks									
FB-1	< 0.2	< 0.5	<50	<0.1	< 0.005	< 0.1	<0.5	<10	< 0.5
FB-2	< 0.2	< 0.5	<50	<0.1	< 0.005	< 0.1	<0.5	<10	< 0.5
Blank	< 0.2	< 0.5	<50	<0.1	< 0.005	< 0.1	<0.5	<10	< 0.5

Table 1: Water Sample Data

Sample ID	ICP-MS Y µg/L	ICP-MS Yb µg/L	ICP-MS Zn µg/L	ICP-AES Zn µg/L	ICP-MS Zr µg/L	IC Cl mg/L	IC F mg/L	IC NO ₃ mg/L	Mineral's Lab Alkalinity as CaCO ₃ mg/L
Upgradient or Recharge Area									
Lodge	0.01	< 0.005	570	589	< 0.2	3	0.4	4	411.1
WBS-1	< 0.01	< 0.005	1.4	<20	< 0.2	3	0.12	0.6	108.5
WB-Ranger	0.04	< 0.005	1.6	<20	< 0.2	8	0.9	3.6	223.9
WB-Ranger	0.03	< 0.005	1.5	<20	< 0.2	4.3	0.09	1.9	
SW-Academy	0.01	< 0.005	2.7	<20	< 0.2	5.2	0.23	1.8	161.8
SW-Academy	< 0.01	< 0.005	<0.5	<20	< 0.2	3.5	0.085	0.45	
Soda-Well	0.03	< 0.005	<0.5	<20	< 0.2	5.7	<.08	1.45	
WCS-1	0.02	< 0.005	2.2	<20	< 0.2	15	0.6	4.2	248.1
WCS-2									
WB@Ranger-Stream	0.02	< 0.005	<0.5	<20	< 0.2	4	0.5	<.08	214.6
Soda-Stream	0.02	< 0.005	<0.5	<20	< 0.2	3.7	<.08	<.08	
Addition of Deep Ground Water with Carbon Dioxide									
SODA-1	0.4	0.03	11.9	<20	< 0.2	46	0.3	<.08	247.5
Soda-A	0.46	0.03	9.8	<20	< 0.2	43	0.085	1	
MOWE-East-130	0.38	0.02	11.6	<20	< 0.2	45	0.27	1.4	508.9
MOWE-East-80	0.38	0.02	12.1	<20	< 0.2	46	0.3	1	517.7
MOWE-East	2.73	0.24	15.7	<20	0.2	38	0.1	1.1	
MOWE-East-50	0.34	0.02	9	<20	< 0.2				
MOWE-West-54	0.31	0.02	8.6	<20	< 0.2				
MOWE-Swallet	0.3	0.02	5.8	<20	< 0.2	37	0.56	4.3	227.3
MOWE-Swallet-2	0.29	0.02	6.8	<20	< 0.2	37	0.54	<.08	412.4
MOWE-Swallet	0.31	0.02	6.6	<20	< 0.2	34	0.1	<.08	
MOWE-West-118	0.27	0.01	8.3	<20	< 0.2	33	0.27	1.2	418.2
MOWE-West-80	0.25	0.01	7.1	<20	< 0.2	33	0.3	1	228.9
MOWE-West	0.27	0.01	6	<20	< 0.2	29	0.95	1	

Table 1: Water Sample Data

Sample ID	ICP-MS Y µg/L	ICP-MS Yb µg/L	ICP-MS Zn µg/L	ICP-AES Zn µg/L	ICP-MS Zr µg/L	IC Cl mg/L	IC F mg/L	IC NO ₃ mg/L	Mineral's Lab Alkalinity as CaCO ₃ mg/L
SODA-2	0.25	0.02	6.8	<20	< 0.2	26	0.3	<.08	241.8
Soda-C	0.22	0.02	4.5	<20	< 0.2	26	<.08	1.1	
SODA-3	0.07	< 0.005	4.2	<20	< 0.2	24	0.5	<.08	185.1
Soda-B	0.24	0.02	4.4	<20	< 0.2	26	<.08	1.3	
Mixing Zone									
Mont. Haven #2	0.02	< 0.005	32.6	34	< 0.2	36	0.6	<.08	369.1
Mont. Haven #3	0.02	< 0.005	10	<20	< 0.2	33	0.6	<.08	396.6
Despain (RW-3 on map)	0.03	< 0.005	7	<20	< 0.2	32	0.1	0.9	
Russell Spring	0.01	< 0.005	<0.5	<20	0.69	23	0.6	<.08	218.7
Wagner (RW-4 on map)	0.03	< 0.005	11.3	<20	< 0.2	31	0.2	<.08	
Bartling (RW-5 on map)	0.03	< 0.005	18.2	<20	< 0.2	21	0.3	1.6	
LMBridge-Seep	0.03	< 0.005	<0.5	<20	< 0.2	15	0.125	<.08	
WB@LM	0.03	< 0.005	<0.5	<20	< 0.2	17	0.3	<.08	168.8
WB-LMBridge	0.03	< 0.005	1.3	<20	< 0.2	13	<.08	<.08	
Shallow Verde Formation									
Sandy Allen (RW-1 on map)	0.05	< 0.005	200	212	< 0.2	14	0.6	<.08	308.6
Allen (RW-1 on map)	0.06	< 0.005	180	188	< 0.2	14	0.3	<.08	
Duplicate (RW-1 on map)	0.06	< 0.005	169	166	< 0.2	11	0.2	<.08	
Wood (RW-2 on map)	0.03	< 0.005	5	<20	< 0.2	17	0.2	<.08	
MOWE-Residence	0.03	< 0.005	26.4	27	< 0.2	13	0.7	<.08	403.9
MOWE-Residence	0.04	< 0.005	25.8	24.7	< 0.2	12	0.2	<.08	

Table 1: Water Sample Data

Sample ID	ICP-MS Y µg/L	ICP-MS Yb µg/L	ICP-MS Zn µg/L	ICP-AES Zn µg/L	ICP-MS Zr µg/L	IC Cl mg/L	IC F mg/L	IC NO ₃ mg/L	Mineral's Lab Alkalinity as CaCO ₃ mg/L
Field Blanks									
FB-1	< 0.01	< 0.005	<0.5	<20	< 0.2	<.08	0.1	<.08	228.5
FB-2	< 0.01	< 0.005	<0.5	<20	< 0.2	<.08	0.24	<.08	
Blank	< 0.01	< 0.005	<0.5	<20	< 0.2	<.08	<.08	<.08	

Table 1: Water Sample Data

Sample ID	Johnson titration Alkalinity as CaCO ₃ mg/L	Field Measured Alkalinity as CaCO ₃ mg/L	PHREEQC calculated Alkalinity as CaCO ₃ mg/L	PHREEQC pCO ₂ atm (SI)	PHREEQC CO ₂ atm (SI)
Upgradient or Recharge Area					
Lodge	143		143	-1.43	0.0368
WBS-1			108	-2.83	0.0015
WB-Ranger	181		227	-1.51	0.0307
WB-Ranger		190		-1.89	0.0129
SW-Academy	158		163	-2.14	0.0073
SW-Academy		153		-2.07	0.0086
Soda-Well		275		-1.94	0.0114
WCS-1			321	-2.05	0.0090
WCS-2					
WB@Ranger-Stream	130		141	-3.14	0.0007
Soda-Stream		143		-2.93	0.0012
Addition of Deep Ground Water with Carbon Dioxide					
SODA-1	580		635	-0.56	0.2777
Soda-A		628		-0.56	0.2756
MOWE-East-130	383		531	-0.63	0.2350
MOWE-East-80	278		546	-0.62	0.2410
MOWE-East		510		-0.56	0.2774
MOWE-East-50					
MOWE-West-54					
MOWE-Swallet	207		479	-1.09	0.0818
MOWE-Swallet-2			488	-0.98	0.1051
MOWE-Swallet		480		-1.28	0.0525
MOWE-West-118	377		434	-0.71	0.1930
MOWE-West-80	238		437	-0.71	0.1943
MOWE-West		425		-1.03	0.0937

Table 1: Water Sample Data

Sample ID	Johnson titration Alkalinity as CaCO ₃ mg/L	Field Measured Alkalinity as CaCO ₃ mg/L	PHREEQC calculated Alkalinity as CaCO ₃ mg/L	PHREEQC pCO ₂ atm (SI)	PHREEQC CO ₂ atm (SI)
SODA-2			431	-0.82	0.1522
Soda-C		403		-1.05	0.0898
SODA-3			388	-0.86	0.1380
Soda-B		404		-0.95	0.1134
Mixing Zone					
Mont. Haven #2	193		367	-1.71	0.0197
Mont. Haven #3	294		394	-1.57	0.0269
Despain (RW-3 on map)		358		-1.21	0.0612
Russell Spring	233		488	-1.20	0.0624
Wagner (RW-4 on map)		369		-1.60	0.0249
Bartling (RW-5 on map)		297		-1.90	0.0125
LMBridge-Seep		319		-1.59	0.0258
WB@LM	195		282	-2.95	0.0011
WB-LMBridge		285		-2.32	0.0047
Shallow Verde Formation					
Sandy Allen (RW-1 on map)	200		384	-1.37	0.0424
Allen (RW-1 on map)		386		-1.37	0.0426
Duplicate (RW-1 on map)		381		-1.48	0.0333
Wood (RW-2 on map)		419		-1.33	0.0463
MOWE-Residence	336		412	-1.54	0.0286
MOWE-Residence		410		-1.64	0.0227

Table 1: Water Sample Data

Sample ID	Johnson titration Alkalinity as CaCO ₃ mg/L	Field Measured Alkalinity as CaCO ₃ mg/L	PHREEQC calculated Alkalinity as CaCO ₃ mg/L	PHREEQC pCO ₂ atm (SI)	PHREEQC CO ₂ atm (SI)
Field Blanks					
FB-1					
FB-2					
Blank					

Table 1: Water Sample Data

Sample ID	PHREEQC Calcite SI	PHREEQC Dolomite SI	PHREEQC Barite SI	PHREEQC Chalcedony SI
Upgradient or Recharge Area				
Lodge	-1.34	-2.73	-1.23	0.50
WBS-1	-0.17	-0.31	-0.67	0.17
WB-Ranger	-0.54	-1.09	-0.62	0.33
WB-Ranger	-0.37	-0.77	-0.79	0.27
SW-Academy	-0.33	-0.51	-0.15	0.15
SW-Academy	-0.45	-0.77	-0.24	0.15
Soda-Well	0.14	0.14	-1.10	0.37
WCS-1	0.49	1.03	-0.57	0.49
WCS-2				
WB@Ranger-Stream	0.39	0.79	-0.58	0.20
Soda-Stream	0.24	0.45	-0.82	0.16
Addition of Deep Ground Water with Carbon Dioxide				
SODA-1	-0.15	-0.44	0.09	0.05
Soda-A	-0.16	-0.46	-0.02	0.05
MOWE-East-130	-0.27	-0.68	0.06	0.05
MOWE-East-80	-0.25	-0.64	0.07	0.06
MOWE-East	-0.42	-1.00	0.01	0.07
MOWE-East-50				
MOWE-West-54				
MOWE-Swallet	0.01	-0.14	0.09	0.05
MOWE-Swallet-2	-0.07	-0.31	0.08	0.04
MOWE-Swallet	0.22	0.29	-0.03	0.06
MOWE-West-118	-0.43	-1.00	-0.03	0.05
MOWE-West-80	-0.43	-0.99	-0.04	0.06
MOWE-West	-0.16	-0.46	-0.08	0.06

Table 1: Water Sample Data

Sample ID	PHREEQC Calcite SI	PHREEQC Dolomite SI	PHREEQC Barite SI	PHREEQC Chalcedony SI
SODA-2	-0.34	-0.81	0.00	0.09
Soda-C	-0.17	-0.50	-0.16	0.09
SODA-3	-0.41	-0.95	-0.02	0.09
Soda-B	-0.29	-0.71	-0.17	0.08
Mixing Zone				
Mont. Haven #2	0.27	0.42	0.14	0.27
Mont. Haven #3	0.23	0.38	0.08	0.27
Despain (RW-3 on map)	-0.21	-0.52	0.16	0.23
Russell Spring	0.07	-0.01	-0.10	0.16
Wagner (RW-4 on map)	0.19	0.25	0.03	0.27
Bartling (RW-5 on map)	0.22	0.31	-0.05	0.31
LMBridge-Seep	-0.13	-0.37	-0.18	0.39
WB@LM	1.10	2.09	-0.28	0.17
WB-LMBridge	0.55	0.97	-0.39	0.23
Shallow Verde Formation				
Sandy Allen (RW-1 on map)	-0.05	-0.10	-0.37	0.42
Allen (RW-1 on map)	-0.02	-0.07	-0.33	0.39
Duplicate (RW-1 on map)	0.06	0.11	-0.31	0.40
Wood (RW-2 on map)	-0.04	0.00	-0.31	0.37
MOWE-Residence	0.07	0.20	-0.15	0.35
MOWE-Residence	0.17	0.41	-0.26	0.34

Table 1: Water Sample Data

Sample ID	PHREEQC Calcite SI	PHREEQC Dolomite SI	PHREEQC Barite SI	PHREEQC Chalcedony SI
Field Blanks				
FB-1				
FB-2				
Blank				

Ag	Silver
Al	Aluminum
As	Arsenic
Ba	Barium
Be	Beryllium
Bi	Bismuth
Ca	Calcium
CaCO₃	Calcium Carbonate
Cd	Cadmium
Ce	Cerium
Cl	Chlorine
Co	Cobalt
CO₂	Carbon Dioxide
Cr	Chromium
Cs	Cesium
Cu	Copper
Dy	Dysprosium
Er	Erbium
Eu	Europium
F	Fluorine
Fe	Iron
Ga	Gallium
Gd	Gadolinium
Ge	Germanium
Ho	Holmium
K	Potassium
La	Lanthanum
Li	Lithium
Lu	Lutetium
Mg	Magnesium
Mn	Manganese
Mo	Molybdenum
Na	Sodium
Nb	Niobium
Nd	Neodymium
Ni	Nickel
NO₃	Nitrate
P	Phosphorus
Pb	Lead
pCO₂	Carbon Dioxide partial pressure
Pr	Praseodymium

Rb	Rubidium
Sb	Antimony
Sc	Scandium
Se	Selenium
SiO₂	Silicon Dioxide
Sm	Samarium
SO₄	Sulfate
Sr	Strontium
Ta	Tantalum
Tb	Terbium
Th	Thorium
Ti	Titanium
Tl	Thallium
Tm	Thulium
U	Uranium
V	Vanadium
W	Tungsten
Y	Yttrium
Yb	Ytterbium
Zn	Zinc
Zr	Zirconium

Rb	Rubidium
Sb	Antimony
Sc	Scandium
Se	Selenium
SiO₂	Silicon Dioxide
Sm	Samarium
SO₄	Sulfate
Sr	Strontium
Ta	Tantalum
Tb	Terbium
Th	Thorium
Ti	Titanium
Tl	Thallium
Tm	Thulium
U	Uranium
V	Vanadium
W	Tungsten
Y	Yttrium
Yb	Ytterbium
Zn	Zinc
Zr	Zirconium