	Location			32nd St. Bridge																
	Latitude			37.299991																
	Longitude			-107.868199																
	Sample ID		085M-1491		085M-1492		085M-1490													
	Date		8/5/2015		8/6/2015		8/6/2015													
	Sample Time		8:50 PM		12:40 AM		9:45 AM													
										Drinking Water CV (ppb)					**Irrigation Waters (ug/L) [NAS, 1972]**		**Utah WQ Standards for San Juan River [Dissolved metals]**			
Analyte	**CAS #**	**Units**	**Diss. Metals**	**Tot. Metals**	**Diss. Metals**	**Tot. Metals**	**Diss. Metals**	**Tot. Metals**	**EPA Drinking Water MCL [Total Metals]**	**Health-Based Comparison Value for Water Ingestion (CV) [Total Metals]**	**CV Type and Source**	**National Secondary Drinking Water Regulations (aesthetic effect)**	**Utah Water Criteria (Agricultural) [Dissolved Metals]**	**Livestock Water (ug/L)**	**Long-Term**	**Short-Term**	**1C (Domestic)**	**3B (warm water fish) [1-hour]**	**3B (warm water fish) [4-day]**	**4 (agriculture)**	
Hardness	-	mg/L	158		159		160						Not Determined	180 mg/L (UA)							Hardness
Aluminum	7429-90-5	µg/L	< 20 U	176	< 20 U	171	< 20 U	220	-	10,000	Child Intermediate EMEG	50-200	Not Determined	5,000 (NAS)	5,000	20,000		750	87		Aluminum
Antimony	7440-36-0	µg/L	< 0.5 U	< 2.5 U	< 0.5 U	< 2.5 U	< 0.5 U	< 2.5 U	6	4	Child RMEG	-	Not Determined	No Data Available	No Data Available	No Data Available					Antimony
Arsenic	7440-38-2	µg/L	0.628 J	< 2.5 U	0.603 J	< 2.5 U	< 0.5 U	< 2.5 U	10	3	Child RMEG & Chronic EMEG	-	100	200 (NAS)	100	2,000	10	340	150	100	Arsenic
Barium	7440-39-3	µg/L	48.2	49.9 J D	49.3	48.8 J D	45.7	46.8 J D	2,000	2,000	Child Intermediate EMEG	-	Not Determined	No Data Available	No Data Available	No Data Available	1000				Barium
Beryllium	7440-41-7	µg/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	4	20	Child RMEG & Chronic EMEG	-	Not Determined	No Data Available	No Data Available	No Data Available	<4				Beryllium
Cadmium	7440-43-9	µg/L	0.178 J	< 0.5 U	0.16 J	< 0.5 U	0.19 J	< 0.5 U	5	5	Child Intermediate EMEG	-	10	50 (NAS)	10	50	10	2	0.25	10	Cadmium
Calcium	7440-70-2	µg/L	51,200	52,000	51,400	52,200	52,200	51,600	-	-	No CVs available	-	Not Determined	500,000 (UA)	No Data Available	No Data Available					Calcium
										15,000	Child RMEG, Cr(III)	-									
										30,000	Child RSL, non-cancer, Cr(III)	-									
Chromium	7440-47-3	µg/L	3.06	< 5 U	3	< 5 U	2.47	< 5 U	100 (Total Cr)	50	Child Intermediate EMEG, Cr(VI)	-	100	1,000 (NAS)	100	1,000	50	16 (VI); 570 (III)	11 (VI); 74 (III)	100	Chromium
												-									
										60	Child RSL, non-cancer, Cr(VI)	-									
										0.05	Child RSL, carcinogenic, Cr(VI)	-									
Cobalt	7440-48-4	µg/L	0.321	< 0.5 U	0.332	< 0.5 U	0.307	< 0.5 U	-	100	Child Intermediate EMEG	-	Not Determined	1,000 (NAS)	50	5,000					Cobalt
Copper	7440-50-8	µg/L	1.7	2.7 J D	1.56	< 2.5 U	1.62	3.31 J D	-	100	Child Intermediate EMEG	1000	200	500 (NAS)	200	5,000		13	9	200	Copper
Iron	7439-89-6	µg/L	< 100 U	331	< 100 U	295	< 100 U	371	-	14,000	Child RSL, non-cancer	300	Not Determined	Limit Not Considered Necessary (NAS)	5,000	20,000		1000	1000		Iron
Lead	7439-92-1	µg/L	0.24	2.56 D	< 0.1 U	1.8 D	0.115 J	3.46 J D	-	15	Child non-carcinogenic RSL	-	100	100 (NAS)	5,000	10,000	15	65	2.5	100	Lead
Magnesium	7439-95-4	µg/L	7,280	7,140	7,350	7,160	7,120	7,050	-	-	No CVs available	-	Not Determined	250,000 (UA)	No Data Available	No Data Available					Magnesium
Manganese	7439-96-5	µg/L	105	118	105	113	97.8	120	-	500	Child RMEG	50	Not Determined	Limit Not Considered Necessary (NAS)	200	10,000					Manganese
Molyebdenum	7439-98-7	µg/L	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	-	50	Child RMEG	-	Not Determined	No Data Available	10	50					Molyebdenum
Nickel	7440-02-0	µg/L	< 0.5 U	< 2.5 U	< 0.5 U	< 2.5 U	< 0.5 U	< 2.5 U	-	200	Child RMEG	-	Not Determined	No Data Available	200	2,000		468	52		Nickel
Potassium	7440-22-4	µg/L	1,960	2,050	2,020	2,110	1,890	2,050	-	-	No CVs available	-	Not Determined	No Data Available	No Data Available	No Data Available					Potassium
Selenium	7782-49-2	µg/L	< 1 U	< 5 U	< 1 U	< 5 U	< 1 U	< 5 U	50	50	Child RMEG	-	50	50 (NAS)	20	20	50	18.4	4.6	50	Selenium
Silver	7440-22-4	µg/L	< 0.5 U	< 2.5 U	< 0.5 U	< 2.5 U	< 0.5 U	< 2.5 U	-	50	Child RMEG	100	Not Determined	No Data Available	No Data Available	No Data Available	50	1.6	-		Silver
Sodium	7440-23-5	µg/L	11,400	11,100	11,600	11,300	11,000	10,900	-	-	No CVs available	-	Not Determined	1,000,000 (UA)	No Data Available	No Data Available					Sodium
Thallium	7440-28-0	µg/L	< 0.5 U	12 D	< 0.5 U	13.2 D	< 0.5 U	< 2.5 U	2	0.2	Child non-carcinogenic RSL	-	Not Determined	No Data Available	No Data Available	No Data Available					Thallium
Vanadium	7440-62-2	µg/L	< 2 U	< 10 U	< 2 U	< 10 U	< 2 U	< 10 U	-	100	Child Intermediate EMEG	-	Not Determined	100 (NAS)	100	1,000					Vanadium
Zinc	7440-66-6	µg/L	43.5	71.9	37.8	67.7	49.1	79.8	-	3,000	Child Intermediate EMEG	5000	Not Determined	25,000 (NAS)	2,000	10,000		120	120		Zinc
			TM_Mercury 245.1																		
Mercury	7439-97-6	µg/L	<0.05 U		<0.05 U		<0.05 U		2	0.63	Child non-carcinogenic RSL, elemental Hg, µg/L			10 (NAS)	No Data Available	No Data Available	2	-	0.012		Mercury
TDS		mg/L										500 mg/L	1200 mg/L	1200 (Utah)	500,000-1,000,000 (NAS)						
pH												6.5-8.5	6.5-9	6.5-9 (Utah)	4.5-9 (NAS)						

U: Below the method detection limit
J: Estimated (also applied when higher than MDL, lower than reporting limit)
D: Diluted value

RMEG: ATSDR Reference Dose Media Evaluation Guide
EMEG: ATSDR Environmental Media Evaluation Guide
RSL: EPA Regional Screening Level
U: Below the method detection limit
J: Estimated (also applied when higher than MDL, lower than reporting limit)
D: Diluted value

References:

Utah Agriculture Water Criteria R317-2-14 UAC
NAS: National Academy of Sciences, Water Quality Criteria, 197
UA: University of Arkansas, Water Quality for Beef Cattle
UK: University of Kentucky, Drinking Water Quality Guidelines for Cattle