



Water-Data Report 2006

**385333118461601 Local number 110A N12 E29 20BBC 1**

Basin and Range basin-fill aquifers  
 Undefined Aquifer  
 Mineral County, NV

LOCATION.--Lat 38°53'32.6", long 118°46'15.9" referenced to North American Datum of 1983, in SW ¼ NW ¼ NW ¼ sec.20, T.12 N., R.29 E., Mineral County, NV, Hydrologic Unit 16050303.

**WATER-QUALITY RECORDS**

WELL CHARACTERISTICS.--Depth 44 ft. Upper casing diameter 2. in; top of first opening 34 ft, bottom of last opening 44 ft.

DATUM.--Land-surface datum is 4065 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.0 ft above land-surface datum, April 5, 2005, to present.

REMARKS.--Walker Lake is a perennial, natural terminal lake that became at-risk because of upstream agricultural diversions. Between 1882 and 1994, upstream diversions caused Walker Lake to decline about 140 feet and the total dissolved solids (TDS) concentrations to increase from 2,500 mg/L to 13,300 mg/L. The Lahontan cutthroat trout (LCT), a threatened species that is native to Walker Lake, has adapted to the high TDS of terminal basins. However, diversions have lowered lake levels and increased TDS to concentrations that threaten the survival of the LCT. The objectives of this project are to develop (1) an improved water budget for Walker Lake and (2) the capability to predict how changes in irrigation practices in and below Mason Valley will affect flows in the lower Walker River so alternatives for supplementing flows can be evaluated.

**WATER-QUALITY DATA  
 WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 3

Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd std units (00400)	Specif. conductance, wat unf 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)
Aug 04...	1445	Environmental	44.	30.48	33.0	654	.3	7.2	1,770	36.0	24.0	54.3

**WATER-QUALITY DATA  
 WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 3

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit mg/L as CaCO3 (39086)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)
Aug 04...	53.3	40.6	236	338	.37	133	1.05	58.1	444	1,300	1,790	1,190	2,690

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 3

Date	Strontium, water, fltrd, ug/L (01080)	Deuterium/ Protium ratio, water, unfltrd per mil (82082)	Sr-87/ Sr-86 ratio, water, fltrd, per mil (75978)	U-234, water, fltrd, pCi/L (22610)	U-235, water, fltrd, pCi/L (22620)	U-238, water, fltrd, pCi/L (22603)	B11/B10 ratio, water, fltrd, per mil (62648)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	S34/S32 in sulfate water, fltrd, per mil (49932)
	<b>Aug</b> <b>04...</b>	1,870	-105	.70614	.006	.000	.010	4.06	-12.68