

Basin 128

NOI 51733

Churchill Co.

Well Log # 91759



Lahontan GeoScience, Inc.

Well Abandonment Log

Project: Water Well Closures in Dixie Valley

Project No.: NASF: 03140

Sheet 1 of 1

Contract No: Lic 49162

Boring No.: 081F

Location (TRS): T. 21N, R. 35E, Sec. 18, SW¼, SE¼

Location (Lat/Lon): 39° 40.984' N, 118° 5.470' W

Elevation: 3410 ft

Permit No.: none

Well Log: none

Measured Depth: 120 ft

Perf. Date: 10/28/03

Borehole Dia.: unknown

Casing Size: 12", steel

Measured Casing Size: 12", steel

Plug Date: 11/05/03

Borehole Depth: unknown

Casing Depth: unknown

Static Water Level: Flowing

Supervised by: J. R. Humphrey

Perforations at time of construction: unknown

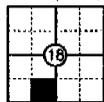
Additional Perforations: 10 - 40 ft

Driller: W. E. Knoblock

AG2213

Depth (feet)	Lithology	Detail	Well Construction	
	*Recorded at time of drilling		*Recorded at time of drilling	Abandonment
0	No well log available			Well flowing at surface
				Additional perforations: 10 - 40 ft 6 perms per foot
				Turbine pump: 120 ft long, 6 in dia. Drive shaft removed. Water lubricated.
50				Could not remove lower section of pump column.
				Plug date: 11/05/03 vol. of cement = 4.0 cu. yds nominal density = 18.6 lbs./gal.
				Waiver Number R-453
100				Measured Depth = 120 ft

T. 21N, R. 35E, Sec. 18, SW¼, SE¼



place. Waiver number R-454 was received on November 12, 2003, approving this approach.

The well was abandoned on November 20, 2003, by placing 63 feet of 2-inch diameter steel pipe in the hole and pumping neat cement grout to the land surface. Approximately 0.5 cubic yards of grout weighing about 18 lbs/gal were placed in the well. The amount of grout used was 221 percent of the cylindrical well volume, indicating that the grout permeated the surrounding formation through existing perforations and/or casing breaks. Subsequent to grouting the well the casing was cut down to 1 foot below land surface.

#### **Well 81F**

Well 81F was located in SE¼, SW¼, section 18, T21N, R35E. A search of the records archived at the Carson City office of DWR failed to identify a log that could be confidently associated with this well. This well was probably used for crop irrigation. The 12-inch diameter steel casing was measured to a depth of 120 feet bgs. At the time of abandonment the static water level was at the surface although it was apparent that the well had been flowing at the surface recently.

A 6-inch diameter turbine pump was installed in the well at the time of abandonment. As the pump column was being removed it parted at a slip joint at 40 feet bgs. The driller was not able to securely grasp the remaining string to lift it from the casing. Compressed air and a jetting tool were used to clear the casing of sand and gravel around the column. Seven hours of jetting in the casing over 2 days did not free the remaining pipe. As soon as the jetting operation was halted the well would start to sand in. With the pump column remaining in the hole the perforation tool could only operate in the upper 40 feet. This section of the well was perforated on October 28, 2003 by making 6 cuts per vertical foot. A waiver from NAC 534.420-5(b) was requested from DWR to allow sealing after perforating the upper 40 feet. Waiver number R-453 was received on October 30, 2003, approving this approach.

The well was abandoned on November 5, 2003, by placing 107 feet of 2-inch diameter steel pipe in the hole and pumping neat cement grout to the land surface. Approximately 4 cubic yards of grout weighing about 18 lbs/gal were placed in the well. The amount of grout used was 115 percent of the cylindrical well volume. Subsequent to grouting the well the casing was cut down to 1 foot below land surface.

#### **Well 94B**

Well 94B was located in SW¼, NW¼, section 24, T21N, R35E. A search of the records archived at the Carson City office of DWR failed to identify a log that could be confidently associated with this well. The prior use of this well is not clear. The casing top had a compression fitting on it that is not a normal feature of a water supply well. The 6-inch diameter steel casing was measured to a