

Basin 128

NOI 51739

Churchill Co.

Well Log # 91738



Lahontan GeoScience, Inc.

Well Abandonment Log

Project: Water Well Closures in Dixie Valley

Project No.: NASF: 03140

Sheet 1 of 1

Contract No: 1.2 49162

Boring No.: 034A

Location (TRS): T. 21N, R. 35E, Sec. 9, NW¼, SW¼

Location (Lat/Lon): 39° 41.993' N, 118° 03.569' W

Elevation: 3394 ft

Permit No.: none

Well Log: none

Measured Depth: 194 ft

Perf. Date: 11/05/03

Borehole Dia.: unknown

Casing Size: 4", PVC

Measured Casing Size: 4", PVC

Plug Date: 11/20/03

Borehole Depth: unknown

Casing Depth: unknown

Static Water Level: Flowing

Supervised by: J. R. Humphrey

Perforations at time of construction: unknown

Additional Perforations: 30 - 185 ft

Driller: W. E. Knoblock

AB2213

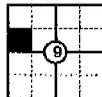
Depth (feet)	Lithology	Detail	Well Construction	
	*Recorded at time of drilling		*Recorded at time of drilling	Abandonment
0	No well log available			Well flowing at surface
				Knife snagged on casing and pulled the upper 30 ft out of hole.
50				Additional perforations: 30 - 185 ft Ripped casing in 10 ft Vertical cuts every 90°
100				plug date: 11/20/03 vol. of cement = 6.9 cu. yds nominal density = 18.6 lbs./gal.
150				
200				Measured Depth = 194 ft

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T. 21N, R. 35E, Sec. 9, NW¼, SW¼



the land surface. Approximately 1.4 cubic yards of grout weighing about 18 lbs/gal was placed in the well. The amount of grout used was 694 percent of the cylindrical well volume, indicating that the grout permeated the surrounding formation through the bottom of the casing and/or through existing perforations. Subsequent to grouting the well casing was cut down to 1 foot below land surface.

Well 31D

Well 31D was located in SW $\frac{1}{4}$, NE $\frac{1}{4}$, section 9, 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 used for crop irrigation. The 16-inch diameter steel casing was measured to a depth of 251 feet bgs. At the time of abandonment the static water level was at ground surface although it was clear that the well had been flowing at the surface recently.

An attempt to pull the casing failed. Perforation of the casing started on October 23, 2003. An obstruction or casing break at 115 feet bgs briefly hung up the perforation tool. At 148 feet bgs the tool could not be advanced further. This could be due to a casing break or bend, or it could have been the start of a screened interval in the well. The well sounder passed this depth without difficulty. Using the mills knife, 8 perforations per foot were cut into the casing from 10 feet to 148 feet. A waiver from NAC 534.420-5(b) was requested from DWR to allow sealing after perforating this interval. Waiver number R-453 was received on October 30, 2003, approving this approach.

Well sealing took place from November 3 to November 4, 2003, by placing 248 feet of 2-inch diameter steel pipe in the well and pumping neat cement grout to the land surface. Approximately 15 cubic yards of grout weighing about 18 pounds per gallon (lbs/gal) was placed in the well. The amount of grout used was 116 percent of the cylindrical well volume. Subsequent to grouting the well the casing was cut down to land surface.

Well 34A

Well 34A was located off Dempsey Lane in SW $\frac{1}{4}$, NW $\frac{1}{4}$, section 9, 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 used for pasture irrigation. The 4-inch diameter PVC casing was measured to a depth of 194 feet bgs. At the time of abandonment the well was flowing at the surface at a rate of about 20 gpm.

No obstructions, debris, or foreign materials were found in this well. An attempt to pull the casing failed. Perforation of the casing started on November 5, 2003. The PVC casing was ripped in 10-foot vertical cuts every 90 degrees from 185 feet to 30 feet bgs. At 30 feet the knife snagged on a coupling and pulled the remaining section of casing out of the hole. During perforation the flow increased significantly, ejecting sand and gravel from the well. An attempt was made

immediately to place 2-inch diameter poly pipe in the hole before it collapsed. The poly pipe hung up on top of the broken casing at 30 feet. Because the flow had increased significantly and was jeopardizing access to the wellhead, 0.4 cubic yards of cement was hand mixed and placed in the hole to try to form a temporary plug. Much of this grout was ejected from the well due to the high flow rate.

The well was abandoned on November 20, 2003, by pumping neat cement grout through the tremie pipe to the land surface. A total of 6.9 cubic yards of grout weighing about 18 lbs/gal was placed in the well. The amount of grout used was 1100 percent of the cylindrical well volume. Subsequent to grouting the well the casing was cut down to land surface.

Well 53A

Well 53A was located on Dempsey Lane in SE¼, NE¼, section 17, 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 domestic water supply. A small pump house was built over a concrete pad next to the well. This structure was pulled off the pad and set aside. The well was constructed using a 4-inch diameter steel casing. The depth of the well was measured at 81 feet bgs. At the time of abandonment the well was flowing at about 5 gpm at the surface.

No obstructions, debris, or foreign materials were found in this well. An attempt to pull the casing resulted in a separation at 4 feet bgs. The perforation tool could not be advanced past the break.

The well was abandoned on November 4, 2003, by placing 81 feet of 1.5-inch diameter poly pipe to the bottom of the hole and pumping neat cement grout to the land surface. Approximately 0.3 cubic yards of grout weighing about 18 pounds per gallon (lbs/gal) were placed in the well. The amount of grout used was 115 percent of the cylindrical well volume.

Well 54A

Well 54A was located on Dempsey Lane in SE¼, NE¼, section 17, 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 pasture irrigation. The 6-inch diameter steel casing was measured to a depth of 249 feet bgs. At the time of abandonment the well was flowing at about 10 gpm at the surface.

No obstructions, debris, or foreign materials were found in this well. An attempt to pull the casing failed. Casing perforation was completed on November 12, 2003. Using the mills knife, 4 perforations per foot were cut into the casing from 233 feet to 30 feet bgs. The presence of a screened interval from 200 feet to 249 feet bgs was interpreted from the lack of resistance to the mills knife. The presence of