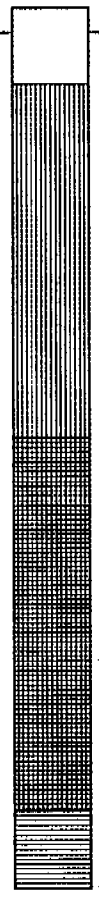
Basin 128 NOI 51732 Churchill Co. Well Log# 91755

Lahontan GeoScience, Inc.

Well Abandonment Log

Project:	Water Well Closures in Dixie Valley
Project No.:	NASF: 03140
Sheet	1 of 1
Contract No:	NV 49162
Boring No.:	094F

Location (TRS):	T. 21N, R. 34E, Sec. 24, SW¼, SW¼	Location (Lat/Lon):	39° 39.911' N, 118° 6.934' W
Elevation:	3445 ft		
Permit No.:	none	Well Log:	none
Measured Depth:	169 ft	Perf. Date:	10/28/03
Borehole Dia.:	unknown	Casing Size:	12", steel
Measured Casing Size:	12", steel	Plug Date:	11/04/03
Borehole Depth:	unknown	Casing Depth:	unknown
Static Water Level:	7.4 ft bgs	Supervised by:	J. R. Humphrey
Perforations at time of construction:	unknown	Additional Perforations:	10 - 152 ft
Driller:	W. E. Knoblock AB 2213		

Depth (feet)	Lithology *Recorded at time of drilling	Detail	Well Construction *Recorded at time of drilling	Abandonment
0	No well log available		Static water level = 7.4 ft bgs	
			Turbine pump: 160 ft long, 8 in dia. 1.75 in dia solid drive shaft water lubricated. Removed prior to perforation	
50				Additional perforations: 10 - 152 ft 6 perfs per foot
100				Original perforations: 80 - 169 ft Inferred from lack of resistance to mills knife.
150				Measured Depth = 169 ft
200				plug date: 11/04/03 vol. of cement = 6.0 cu. yds nominal density = 18.6 lbs./gal.

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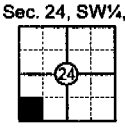
T. 21N, R. 34E,
Sec. 24, SW¼, SW¼



depth of 18 feet bgs. The well casing was bent at an angle of approximately 20 degrees from 6 feet to the surface. The well was dry at the time of abandonment.

An attempt to pull the casing failed. Compressed air and a jetting tool were used to clear the casing of any obstructions. Water was added to the casing to improve the suction of the jetting tool. Small amounts of sand and gravel were ejected from the well but the tool could not be advanced past 18 feet after 2 hours of jetting. The bend in the casing prevented use of the perforation tool past 6 feet bgs. A waiver from NAC 534.420 –5(b) was requested from DWR to allow sealing in place. Waiver number R-453 was received on October 30, 2003, approving this approach with the stipulation that the upper 6 feet be perforated. Because the mills knife is about 6 feet long and cannot operate outside the casing only one set of perforations (4 vertical cuts) from 5 to 6 feet could be made.

The well was abandoned on November 5, 2003, by placing 18 feet of 2-inch diameter poly pipe in the hole and pumping neat cement grout to the land surface. Approximately 1 cubic yard of grout weighing about 18 lbs/gal was placed in the well. The amount of grout used was 689 percent of the cylindrical well volume. This suggests a casing break at depth or perhaps a lateral run of pipe in addition to the perforations as an outlet for the grout. Subsequent to grouting the well the casing was cut down to 1 foot below land surface.

Well 94F

Well 94F was located in SW¼, SW¼, section 24, T21N, R3~~5~~4E. 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 169 feet bgs. The static water level was at 7.4 feet bgs at the time of abandonment.

An 8-inch diameter, 160-foot long turbine pump was removed from the well prior to abandonment. An attempt to pull the casing failed. Perforation of the casing was completed on October 28, 2003. Using the mills knife, 6 perforations per foot were cut into the casing from 10 to 152 feet. The presence of existing perforations from 80 to 169 feet was interpreted from the lack of resistance to the mills knife.

The well was abandoned on November 4, 2003, by placing 164 feet of 2-inch diameter steel pipe in the hole and pumping neat cement grout to the land surface. Approximately 6 cubic yards of grout weighing about 18 lbs/gal were placed in the well. The amount of grout used was 122 percent of the cylindrical well volume. Subsequent to grouting the well the casing was cut down to 1 foot below land surface.