

TEST HOLE REPORT

Layne-Western Company, Inc.



WATER SUPPLY SERVICES SINCE 1924

TEST DRILLING • WATER WELLS • PUMPS
 P. O. Box 686, W. Hwy. 50
 Garden City, Kansas 67846

Contract Name <u>City of Lakin</u>		TEST HOLE No. <u>2-78</u>																
Job No. <u>K-857</u>	Date <u>5-5-78</u>																	
City <u>Lakin</u>	State <u>Kansas</u>																	
Driller <u>Keeny</u>																		
Location of Test Hole <u>Approx. 100' N. of Test Hole 1-77 in</u>		Elevation of Test Hole _____ Static Water Level _____ Measured _____ Hours After Completion																
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<u>1/4 SW 1/4 Sec. 23 of T 24S</u> <u>R 36W, Kearny Co., Kansas</u>																		

From	To	Description of Strata	Water Bearing
0	4	Top soil	
4	27	Fine to coarse sand and medium gravel	
27	47	Tan clay	
47	82	Blue clay	
82	96	Fine to coarse sand and medium gravel	
96	156	Blue clay with sandy blue clay streaks	
156	178	Fine to coarse sand and medium gravel with clay streaks, tight with loose streaks	
178	204	Fine to coarse sand and medium gravel, clay streaks, loose	
204	216	Tan sandy clay with sand streaks and caliche streaks, loose	
216	290	Fine to coarse sand with clay streaks and caliche streaks, loose	
290	298	Tan sandy clay with caliche streaks, tight	
298	344	Fine to coarse sand with sandstone streaks, caliche streaks and clay streaks dirty	
344	415	Shale with sandstone streaks, hard	1
415	440	Sandstone, loose	2
440	446	Shale	
446	470	Sandstone with shale streaks, tight	
470	524	Shale, hard	
524	535	Sandstone with shale streaks, tight	
535	541	Shale	
541	556	Sandstone, loose	

Remarks: 556 585 Shale

July 18, 1978

City of Lakin
Lakin, Kansas 67860

Subject: City Municipal Well No. 8

Gentlemen:

This letter is written to provide you a report concerning the above subject well which we recently completed for you.

The well was drilled a total depth of 560', and it was screened and cased as shown below:

0 - 380'	Casing
380 - 400'	Doerr screen
400 - 440'	Johnson screen
440 - 446'	Casing
446 - 466'	Johnson
466 - 478'	Doerr
478 - 490'	Casing
490 - 498'	Doerr
498 - 508'	Casing
508 - 512'	Doerr
512 - 520'	Casing
520 - 536'	Doerr
536 - 556'	Johnson
556 - 560'	Casing

The Doerr screen is made of Armco iron metal and the Johnson is wire-wrapped stainless steel. The well was gravel-packed from the bottom up to a point 357' below ground level where a 3' clay and sand seal was placed. From 354' to the surface, the annulus between the 12" casing and the 28" drilled hole was filled with concrete.

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The well was bailed and pumped for developmental purposes and on June 5, 1978, the preliminary test was conducted. The static water level was 35', and the results of the two hour preliminary test were as follows:

805 gpm @ 274' Pumping Water Level (239' drawdown)

The final 24 hour pumping test was started on June 6, 1978, at a pumping rate of 652 gpm. After pumping 25½ hours at this rate, the well revealed a 254' Pumping Water Level (219' drawdown). Based upon this test, we have selected a pump which will yield from 600 gpm to 700 gpm depending upon the length of time that the unit is operated.

A sample of water was taken at the completion of the test pumping, and submitted to Wilson Laboratories for their chemical analysis. A copy of this analysis is attached and it shows an acceptable quality water for your use.

Very truly yours,

Robert L. Vincent, District Manager
LAYNE-WESTERN COMPANY, INC.

RLV/jh
Attachment