





## WELL INFORMATION - ROCK WELLS

**Layne®-Western**

a division of Layne Christensen Company

PROFESSIONAL SERVICES FOR WATER SYSTEMS

721 West Illinois Avenue • Aurora, Illinois 60506-2892 • Phone 630/897-6941  
229 West Indiana Avenue • Beecher, Illinois 60401 • Phone 708/946-2244Name Of Job City of North Liberty ASR Date May 29, 2009City North Liberty State IAWell No. ASR Drillers Derek Good #8011, S. Alwardt & G. Thomas #8012. Ed Hall, ToolpusherWell Location 380 ft. ( W ) and 1100 ft. ( S ) of the NE corner ofthe NE 1/4 of Section 24, Twp. 80 ( N ), Range 7 ( W ) Johnson CountyOtherwise located as 41°-43' 37.14"N, 91°-36' 01.32"W. West of Recreation Trail & Muddy Creek, approximately 350' N of  
C.L. Vandello DriveWork Began: 10/30/08 Work Completed: 5/29/09

## Casing Record:

Amount	Dia.	Wt. or Thickness	Material	with	Weld	joints from		to
<u>80'</u>	<u>30" OD</u>	<u>1/2" Wall</u>	<u>Steel</u>	with	<u>Weld</u>	joints from	<u>0</u>	<u>80'</u>
<u>1158'</u>	<u>24" OD</u>	<u>1/2" Wall</u>	<u>Steel</u>	with	<u>Weld</u>	joints from	<u>+2</u>	<u>1156'</u>
				with		joints from		
				with		joints from		

## Hole Record:

<u>34</u>	inch from	<u>0</u>	to	<u>80'</u>
<u>28-3/4</u>	inch from	<u>80'</u>	to	<u>1156'</u>
<u>22-3/4</u>	inch from	<u>1156'</u>	to	<u>1675'</u>
	inch from		to	
	inch from		to	bottom of hole

Cementing Record: 30" OD pressure grouted with 125 sacks neat cement in 34" hole.24" OD pressure grouted with 1,299 sacks neat cement in 28-3/4" hole.Well Test Data: Static Level 347'; pumping level 460' after 24 hours pumping at 1882 g.p.m.Length of test 24 hrs. See Well Test Data Sheet Dated May 20-21, 2009Remarks: Open hole drilled with reverse air lift method using 7" x 4" dual wall drill rod. Elevation 733.Layne Job No. 160210BWell Permit No.: W2007-724

## WELL LOG

Feet		Feet	Description
0	To	30	Sand
30	To	45	Sand gravel
45	To	60	Shale
60	To	82	Shale lime sandy
82	To	380	Lime gray
380	To	460	Sandy white lime
460	To	500	Gray lime
500	To	540	Gummy shale
540	To	710	Gray limey shale
710	To	950	Gray lime with white lime
950		955	Lime and shale
955	To	1010	Gray and tan lime
1010	To	1055	Sand with shaley lime
1055	To	1070	Gray brown shale
1070	To	1165	Gray lime
1165	To	1240	Gray tan limestone, sandstone
1240	To	1300	Gray tan lime
1300	To	1305	White lime with sandstone
1305	To	1355	Gray lime
1355	To	1365	Gray lime with sandstone
1365	To	1375	White tan lime
1375	To	1410	Brown lime
1410	To	1435	Light gray tan lime
1435	To	1455	Dark brown lime
1455	To	1465	Dark brown lime and gravel
1465	To	1475	White sandstone
1475	To	1495	Gray lime/sandstone
1495	To	1505	Tan sandstone
1505	To	1530	Tan lime
1530	To	1535	White sandstone

# WELL LOG

Feet		Feet	Description
<u>1535</u>	To	<u>1540</u>	<u>Tan lime, white sand</u>
<u>1540</u>	To	<u>1545</u>	<u>Red, green, brown lime, white sand</u>
<u>1545</u>	To	<u>1565</u>	<u>Red, green, brown, gray lime</u>
<u>1565</u>	To	<u>1600</u>	<u>Brown sandstone</u>
<u>1600</u>	To	<u>1605</u>	<u>White sand</u>
<u>1605</u>	To	<u>1625</u>	<u>White sand and white sandstone</u>
<u>1625</u>	To	<u>1635</u>	<u>Gray, tan lime</u>
<u>1635</u>	To	<u>1665</u>	<u>Dark brown lime</u>
<u>1665</u>	To	<u>1675</u>	<u>Red, gray brown lime</u>