



## City of Livermore, IA Step Down and Recovery Test

Beginning Static: 44' Date: 9/19/2017

### Pumping Step Down Test

	Percent	GPM	Pumping Level	Start Time	Stop Time
30 min each	50%	75.00	60.0'	11:30 AM	12:00 PM
	75%	112.50	66.0'	12:00 PM	12:30 PM
	100%	150.00	79.2'	12:30 PM	1:00 PM
	150%	225.00	103.0'	1:00 PM	1:30 PM

### Recovery

Start time: 1:30 PM Start Date: 9/19/2017

	Time	Pumping Level		Time	Pumping Level
1 minute	1:31 PM	51.0'	10 minutes	3:51 PM	47.3'
2 minutes	1:33 PM	58.0'	10 minutes	4:01 PM	47.1'
2 minutes	1:35 PM	58.0'	10 minutes	4:11 PM	46.8'
2 minutes	1:37 PM	58.0'	10 minutes	4:21 PM	46.7'
2 minutes	1:39 PM	57.5'	10 minutes	4:31 PM	46.6'
2 minutes	1:41 PM	57.0'	10 minutes	4:41 PM	46.4'
10 minutes	1:51 PM	54.9'	10 minutes	4:51 PM	46.2'
30 minutes	2:21 PM	51.4'	10 minutes	5:01 PM	46.2'
10 minutes	2:31 PM	50.6'	10 minutes	5:11 PM	46.0'
10 minutes	2:41 PM	49.9'	10 minutes	5:21 PM	45.8'
10 minutes	2:51 PM	49.3'	10 minutes	5:31 PM	45.7'
10 minutes	3:01 PM	48.9'	10 minutes	5:41 PM	45.6'
10 minutes	3:11 PM	48.5'	10 minutes	5:51 PM	45.4'
10 minutes	3:21 PM	48.2'	10 minutes	6:01 PM	45.3'
10 minutes	3:31 PM	47.9'	10 minutes	6:11 PM	45.3'
10 minutes	3:41 PM	47.6'	10 minutes	6:21 PM	45.2'

Stop time: 6:21 PM Stop Date: 9/19/2017

Note: During tests, other City well was running periodically, which caused some interference with our readings.



## City of Livermore, IA Step Down and Recovery Test

### Pumping Constant Rate Test @ 225 GPM

<b>Start time:</b> 6:30 PM	<b>Start Date:</b> 9/19/2017
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	Time	Pumping Level		Time	Pumping Level
1 minute	6:31 PM	75.1'	60 minutes	4:00 AM	114.9'
1 minute	6:32 PM	83.0'	60 minutes	5:00 AM	115.4'
1 minute	6:33 PM	90.0'	60 minutes	6:00 AM	115.9'
2 minutes	6:35 PM	90.9'	60 minutes	7:00 AM	116.5'
2 minutes	6:37 PM	91.0'	60 minutes	8:00 AM	116.8'
3 minutes	6:40 PM	91.7'	60 minutes	9:00 AM	117.2'
10 minutes	6:50 PM	95.7'	60 minutes	10:00 AM	117.6'
30 minutes	7:20 PM	100.0'	60 minutes	11:00 AM	118.0'
20 minutes	7:40 PM	101.5'	60 minutes	12:00 PM	117.7'
30 minutes	8:10 PM	103.5'	60 minutes	1:00 PM	118.9'
110 minutes	10:00 PM	108.3'	60 minutes	2:00 PM	119.0'
60 minutes	11:00 PM	109.7'	60 minutes	3:00 PM	119.5'
60 minutes	12:00 AM	110.9'	60 minutes	4:00 PM	119.6'
60 minutes	1:00 AM	111.9'	60 minutes	5:00 PM	119.8'
60 minutes	2:00 AM	112.8'	60 minutes	6:00 PM	120.0'
60 minutes	3:00 AM	114.3'	30 minutes	6:30 PM	120.1'

<b>Stop time:</b> 6:30 PM	<b>Stop Date:</b> 9/20/2017
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### Recovery

<b>Start time:</b> 6:30 PM	<b>Start Date:</b> 9/20/2017
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	Time	Pumping Level		Time	Pumping Level
Starting level	6:30 PM	120.1'	2 minutes	6:45 PM	74.0'
1 minute	6:31 PM	101.0'	3 minutes	6:48 PM	73.2'
1 minute	6:32 PM	100.6'	7 minutes	6:55 PM	71.4'
1 minute	6:33 PM	99.6'	25 minutes	7:20 PM	67.2'
2 minutes	6:35 PM	99.0'	20 minutes	7:40 PM	64.7'
3 minutes	6:38 PM	77.0'	30 minutes	8:10 PM	62.0'
2 minutes	6:40 PM	75.9'	20 minutes	8:30 PM	60.1'
3 minutes	6:43 PM	74.6'			

<b>Stop time:</b> 8:30 PM	<b>Stop Date:</b> 9/20/2017
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Note: During tests, other City well was running periodically, which caused some interference with our readings.