



WATER ENERGY DISTRIBUTORS, INC.

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Residential Standing Column Well – Reference form 243r Technical Bulletin 2007-14

GENERAL	NOTES
<p>Actual well depth = Grade to bottom of rock hole Static water level = Grade to natural water level (no pumping)</p> <p>The static water level is always estimated on form 243r for new installations. The actual static water level is determined while drilling, and depending on the static water level, the total well depth must be adjusted accordingly.</p> <p>Foot Draw Down = the lowering of the static water level at a specified pumping rate.</p> <p>Form 243r estimates a zero foot draw down at an overflow (bleed) rate of 10% of the total flow of water specified for the heat pump. If a well does not supply 10% water flow at zero foot draw down then the draw down level must be determined and the total well depth must be adjusted accordingly. The other 90% of water flow for the heat pump is returned to the well and must be discharged into the water column. If water free falls into the well these is a potential for severe well scaling and system failure.</p> <p>Recirculation is the distance between the return pipe end and well pump intake.</p> <p>Tank draw down = The amount of water in the pressure tank that will get used by the heat pump before the pressure switch activates the well pump to maintain system pressure.</p> <p>A WX350 is generally specified to allow a 40 gallon tank draw down to give protection against well pump short cycling and incidental domestic water use without pump activity.</p> <p>Well pump rated = Total gpm required (heat pump plus house) at a calculated head loss in feet.</p> <p>The heat pump requires approximately 3 gpm/ton from the well pump and average house needs 5-7 gpm. Feet of head is a function of system pressure, lift above static or draw down level, and related piping frictional losses.</p>	