UPPER RESERVOIR TROUBLE

PRV Standard Settings –

47-48 psi – Small 2" PRV. Model – Mustang – 1115-3 Watts.

43-44 psi – Large 6" PRV. Model – Mustang – 1115-3 Watts. (This is not a usual globe. It is an "Angle" PRV).

These settings are in conjunction with PID. settings at the Lower Reservoir from 83.9 to 84.7. The lower range at Lower Reservoir PID settings are a result of less leaks over time. The higher settings were a result of leaks present in system from 2015 – 2021.

Power or AC Loss

During A.C. loss, or power outage, the generator will be running. It is distinctive. Look for pump errors while on generator power. If there is a pump error, attempt to clear it using the LCD panel reset window. (red in color). This may trigger a pump to run that was not running previously. Do not be startled. If pump/pumps are running under generator power, with no errors, you are good to go. If no pumps are running while under generator power, and an LCD panel reset did not get a pump running, then open the panel using a small Phillips screw driver to bypass the power-off handle safety. Push down on the hole in the top of the power handle at the electrical panel. This will allow panel access without powering down. Check the breakers and anything that looks like a breaker, for trip outs and reset if necessary.

At this point, a pump should be running. If none of these procedures result in a pump running, the pressure, which is set at 46 PSI, may not have dropped enough to bring a pump online. If PSI is greater than 48 lbs. and Flow is less than 20 GPM, the pumps may shut down. Remember there are delays programmed in of up to 30 seconds. Things may happen after a 30 second time period, such as running too high a PSI. It has to do be in this mode for 30 seconds or more to trigger PUMP OFF.

Under normal operation settings, the PSI should be around 47 to 48 lbs. with a flow above 20 GPM. If the power is out at both reservoirs, and the Lower Reservoir is functioning and keeping your pressure up, then the role of the Upper Reservoir during a power outage is not as crucial. However, in a power outage it is best to have both Upper Reservoir, and Lower Reservoir functioning. This includes both AC operation and generator operation. It is also preferred to have both reservoirs fully functioning for fire flow during the summer.

The generator at the Upper Reservoir is preset and doesn't need to be reset unless its trouble lights are lit. Refer to the generator manual found in the cabinet at the Upper Reservoir.

During the winter months, one reservoir can handle fire flow with ease. There is much less demand with the irrigation systems turned off. During the summer months, it is preferable to rely on both reservoirs functioning for fire flow. At peak flows, the irrigation can demand three pumps from the lower reservoir and one large pump from the upper reservoir. This still leaves enough for fire flow throughout the system. With only the four boosters at the Lower Reservoir, fire flow to the higher end of Sunland may experience lower pressure without the Upper Reservoir pumps. Currently the highest points, such as Medsker, average around 44 – 50 lbs. Some homes may have regulators, which can affect pressure readings. Hydrants are a better PSI indicator.

There are PLC Parameter sheets printed and posted on the electrical panel, next to the LCD display for easy viewing of the various parameters set into the PLC. In the event the PLC settings are somehow lost, the settings can be re-entered via the LCD pad. They can also be changed via the LCD programming panel.

Manuals for the generator, transfer switch, and PLC settings are in the white parts cabinets at the Upper Reservoir.

PRV rebuilt parts are to be stocked each year as they are inspected and or torn down for maintenance.

It is recommended the operator read all manuals as time allows and to re-read them every year.