BOILER & PROCESS HEATER TUNE-UP REPORT

Location: Ignacio Plant Package Boiler #3	**Tune-up Date:** 1-24-2018
Equipment Description (Make/Model): VOGT CL VV - 22.5	**Operating Permit Unit ID:** V-SUIT-0027-2017.00
Heat Input Capacity (MMBtu/hr): 18.00	

Tune-Up Tasks	**Record measurements below**
■ Measure the concentrations in the effluent stream of CO in parts per million (ppm) and oxygen in volume percent using a portable electrochemical cell emissions analyzer, before and after any adjustments are made, as required by tasks below. NOx measurement is not required but if measured should be recorded. If no adjustment required, post adjustment measurement can be the same as pre adjustment (as found) measurement.	Pre Adjustment Measurement Oxygen % 8.9 CO (ppm) 5 NOx (ppm) 33 Post Adjustment Measurement Oxygen % 8.9 CO (ppm) 5 NOx (ppm) 33 Measurement Location (Port or stack exit) Port
Conduct the following **during** unit operation. If inspection indicates components require cleaning or replacement, work should be conducted prior to the next required tune-up. ■ Inspect the burner(s) for signs of heat stress, corrosion or other signs of wear which may indicate burner malfunctioning. ■ Inspect the flame pattern during operation via viewing window/porthole. • Adjust the burner as necessary to optimize the flame pattern. • If flame isn't viewable, rely on emission measurements as performance indicator. ■ Inspect the system controlling the air to fuel ratio (oxygen trim system). If air to fuel ratio is controlled manually, no inspection is necessary. • Ensure that the system is correctly calibrated and functioning properly	**Record the following in tuning notes section below.** **Burner and oxygen trim system inspection results. As found flame pattern, color, length, impingement.** **If adjustments were made, note conditions of the following as left:** **Flame pattern, color, length, impingement; Damper or louver position, oxygen trim system settings, fuel pressure** **If maintenance issues or deficiencies arise during inspection, make note of work order request for further inspection/repair below.**

Tuning Notes:

Work Performed By: David Shupe & Steve Richardson

File report with air quality compliance records for facility