



Bobcat Company  
Arizona Proving Grounds  
Sahuarita, AZ 85629

May 5, 2016

Department of Aerospace and Mechanical Engineering  
The University of Arizona  
Tucson, AZ 85721

Professor Ara Arabyan,

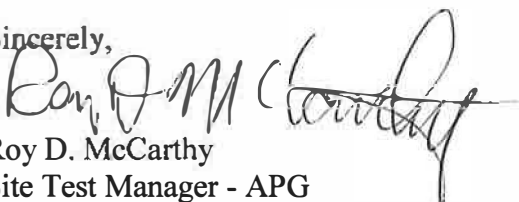
This letter is to confirm Doug Rohlfing's employment with the Bobcat Company as an engineering coop student at our Arizona Proving Grounds under my supervision. Doug's internship is a full time position (40 - 45 hours per week) beginning May 23, 2016 and ending in December of 2016.

Doug's duties and responsibilities are outlined below.

1. Support / assist test and design engineers in root cause analysis of test issues;
  - a. Troubleshooting and identification of failure mode on machines
  - b. Identification of fatigue failures and progression
  - c. Entering and Clarification of Log entries / Operator Comment sheets
  - d. Participation in engineering issue resolution and validation process
  - e. Communication with Suppliers / Vendors
2. Support / assist test and design engineers in developing duty cycles, test parameters and damage acceleration factors;
  - a. Data Acquisition – strain, force, pressure, etc. (sample and filter rates, transducer calibration, etc.)
  - b. Data Reduction – Strain and Stress Life Predictions, Histograms, Rainflow Analysis, etc.
  - c. Operating Heavy Equipment
3. Application of the Fundamentals of Hydraulic and Control Systems
4. Review part drawings and installations to identify correct test and replacement material(s).

Please feel free to contact me if you need any additional information or clarification of the above tasks.

Sincerely,



Roy D. McCarthy  
Site Test Manager - APG