amalgam processor, to satisfy this need. As for teeth, these are accepted provided material arrives sealed in sterilization pouches and is noted as a hygiene precaution to ensure adequate protection for the refiner’s receiving personnel.

Special promotions refer to dental alloy suppliers who offer “buy back” programs for bullion coins previously taken back as a refining return, and credits for unused alloy, as well as pure platinum foils. If possible, it pays to keep these items out of the refining stream altogether, given more advantageous terms as a “clean return.”

THE BOTTOM LINE:

Having a better appreciation of the differences between the metallic and non-metallic characteristics of lab scrap, along with those materials that are potentially hazardous, will enhance your relationship with your refining partner and allow you to better assess its performance over time. However, by also abandoning any tendency to commingle scrap without forethought and adopting a well-disciplined scrap segregation practice in its place, the lab can vastly increase its prospects for estimating the range of recovery, and in doing so, can permanently replace uncertainty with increasingly predictable outcomes.

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The good, The Bad, and The Ugly

What you do not know can hurt your business. If your lab technicians and custodians are gathering up scrap as if it is all the same waste material, you are throwing away your chance at earning the best returns before you even get started. Dental labs generate a wide variety of waste materials, and it is vital to understand the different types of scrap your lab produces before you can set up an effective and efficient collection system. To guide you, we have outlined the most prevalent scrap categories and their descriptions below. Jensen encourages you to segregate and weigh your materials according to this breakdown:

**METALLICS**
- **Metallics**
  - Castings, buttons, sprues, trees, flashings, snips, solder wire, unwanted ingots and returned coins
- **Semi-Metallics**
  - Grindings and filings
- **Medium-Grade Combustibles**
  - Polishings and vacuum bags containing bench sweeps
- **Low-Grade Combustibles and Wet Sweeps**
  - Floor sweeps, low-grade vacuum bags, filters, sludge, non-toxic electro-cleaning residues and carpeting
- **Low-Grade Refractory**
  - Crucibles, refractory, aluminum oxide and dry investment
- **Deleterious or Hazardous**
  - Nickel beryllium, mercury, cyanide, sulfates and chrome

**SEMIMETALLICS**
- **Metallics**
  - Castings, buttons, sprues, trees, flashings, snips, solder wire, unwanted ingots and returned coins
- **Semi-Metallics**
  - Grindings and filings

**MEDIUM-GRADE COMBUSTIBLES**
- **Medium-Grade Combustibles**
  - Consist of polishing residuals and are commonly referred to as polishing dust, and include vacuum and filter bags. These items have relatively high concentrations of fiber, polishing rouge, rubber and other carbonaceous content. Metal recovery in this category typically falls below 60%-70%.

**LOW-GRADE COMBUSTIBLES AND WET SWEEPS**
- **Low-Grade Combustibles**
  - May not look valuable, but can offer a surprising bounty of low grade metal recovery, from 1% to 50%. Shop dust, floor sweeps, towing, papers, air filters, low-grade vacuum bags and carpeting have a high combustible content and usually cannot be tied back to a specific operation or collection device. For very low-grade items, when in doubt, send them for processing at least once to gauge their value.

**WET SWEEPS**
- Include wet filters, electro-cleaning silt, sink sludge and trap residues, and by-product waste from spent (galvanic) non-toxic electroplating solutions. Lab operators should dry these items prior to shipping them to the refiner. If drying is impractical, mix the wet materials with plain sawdust (not pressure-treated, which contains arsenic) to absorb any excess liquid. These materials should be double-bagged inside a well-sealed container and have no visible evidence of freestanding liquid.

**LIQUID CORROSIVES**
- Or poisons containing cyanide or high sulfate concentrations must be shipped to refineries licensed to process them, using a state-supplied hazardous materials manifest and shipped with a Department of Transportation-approved transporter.

**LOW-GRADE REFRACTORY**
- Including investment, crucibles, graphite and aluminum oxide, are not likely to contain material value, but sometimes do in trace levels that are payable. Metal recoveries generally fall well below 5%-5%, but are highly unpredictable. Freight charges and refining treatment charges often absorb most of the resulting metal value, but we recommend you ship and process at least once, or randomly sample these materials from time to time, to ensure peace of mind.

**HAZARDOUS SCRAP**
- Includes amalgams with mercury, base-metal scrap containing beryllium, and natural teeth. At Jensen, we do not accept the first two materials under any circumstances. These are hazardous if melt vapors are inhaled. It is important to note that, by law, the shipper is held liable for non-disclosure of hazards. Instead, lab operators should locate industrial processors, such as an EPA-approved