

REFINING SUCCESS STORY IV

A COMPELLING ARGUMENT FOR ADOPTING SCRAP TO ALLOY ANALYSIS

BACKGROUND:

A seasoned lab manager was recently asked to take over a 15-20 doctor in-house lab and was troubled early on to find an unstructured scrap collection process. Even though the lab had no prior affiliation with Jensen on either alloy or refining, the new manager turned to us for advice after establishing strong rapport with his Jensen sales consultant. Jensen's preliminary analysis of the lab's last 15-month refining activity revealed only \$11,000 in net payout from two different refiners, at a time when the lab was consistently procuring 200 troy ounces of alloy per annum. The lab immediately implemented Jensen's scrap collection recommendations.

PROCESS AND METHODOLOGY:

A thorough review of the lab's annual alloy purchases generated the following observations:

- The alloy analysis revealed only two alloys in play, a HN PFM and a HN C&B, used in a ratio of 3-to-1, with combined monthly purchases of 350 dwt.
- Not all alloys produce the same scrap rates, but experience tells us that the ratio of Au-to-Pd in the scrap recovery should have close proximity to the alloy at 1.5-to-1 and the anticipated assays should have fallen close to 45% Au and 30% Pd.
- Given that 200 troy ounces of alloy were purchased in a given year, Jensen would have predicted that the annual refining outcome would have generated 30-50 troy ounces of total metal recovery in the scrap, assuming a 15%-25% overall scrap rate.
- Instead of \$11,000 in scrap payout over the last 15-month period, Jensen predicted a theoretical annual scrap net outcome ranging from \$13,000 – \$22,000, along with the appropriate metal ratios.

- For the lab to be recovering \$11,000 from scrap and seeing different metal ratios implied that the lab was having collection problems, poor service from their refiners, or both.

RESULTS:

As agreed, the lab also took a semi-annual physical inventory of its alloy and shipped its first scrap lot to Jensen at the end of Q2. This scrap lot represented only five (5) months worth of scrap accumulation and consisted of 90 troy ounces of filter bags, grindings, sweeps, flash, and c&b with facings.

Within two weeks, Jensen reported its first scrap settlement reflecting:

- Metal Recovery = 17 troz
- Ratio Au-Pd = 1.5-to-1
- Assays = 43% Au; 29% Pd
- Net Payout = \$8,598

After just 5 months, not only did this represent a substantial improvement in scrap collection, but a lab that was in far greater control of its working capital and procedures.

BOTTOM LINE:

Scrap to Alloy analysis can play a much greater role in helping to optimize a lab's alloy consumption in relationship to its scrap generation. IT MAKES GOOD BUSINESS SENSE to know what is going on, and without additional insights, the outcomes will always be tentative. At Jensen Dental we have the education and resources to allow labs to introduce compelling checks and balances to ensure their profitability does not fall victim to sub-optimum work practices and techniques or poor business relationships.

SCRAP-TO-ALLOY-RATIO DEFINED?

The ratio of precious metal content of a known accumulation of dental lab scrap in relationship to the precious metal content of a known quantity of dental alloys consumed by the lab during the same scrap accumulation timeframe.

The amount of precious metal scrap that a lab generates in relationship to its dental alloy consumption is a perpetual indicator of its efficiency, and ultimately its profitability.

Scrap To Alloy	Alloy Yields
Less Than 10%	Suspect Yields
12% ↔ 18%	Optimum Yields
15% ↔ 25%	Typical Yields
20% ↔ 30%	Sub-Optimal Yields
Over 30%	Wasteful Yields

TIPS TO ENHANCE YOUR SCRAP RETURNS

- Collect and accumulate precious solids, grindings, and sweeps separately
- Collect and secure scrap from lab processes on a regular basis
- Avoid the commingling of non-precious and precious metal bearing scrap
- Avoid the commingling of all-ceramic waste and investment breakout or alumina with any precious metal-bearing scrap
- Limit access to centralized collection devices for the sake of security
- Institute effective housekeeping practices in and around casting and metal finishing areas
- Routinely maintain and inspect all suction collection equipment for reliability
- Weigh and list all material categories during packaging for shipment to the refinery
- If cash flow permits, prepare and ship scrap to refine in regular intervals to manage market risk and fluctuations, preferably at conclusion of the lab's physical inventory cycle
- Learn to calculate your true scrap rate

Footnote: Other tips and time-proven scrap handling techniques can be found at www.jensendental.com/refining

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