Chart 3-1. Linear Regression-Hg

The chart shows a linear regression analysis between laboratory (Lab) and field (XRF) XRF mercury levels. The regression line is given by the equation:

\[ y = 0.6169x + 11.091 \]

with an \( R^2 = 0.9209 \). The data points are plotted on a scatter plot with the X-axis representing LabTotal Hg (mg/kg) and the Y-axis representing XRF Hg (ppm). The points are connected by a line indicating the linear relationship. The R-squared value indicates a strong correlation between the two measurements.
**Chart 3-2. Linear Regression-As**

- **Equation:** $y = 0.8879x - 0.827$
- **$R^2$:** 0.9013

**Graph Description:**
- X-axis: Lab Total As (mg/kg)
- Y-axis: XRF As (ppm)
- Data points represent arsenic concentrations in lab and field XRF analyses.
- Linear regression line with equation $y = 0.8879x - 0.827$.
- Coefficient of determination $R^2 = 0.9013$. 

Legend:
- Blue diamonds: Arsenic
- Black line: Linear (Arsenic)
Lab vs Field XRF Antimony

\[ y = 1.1127x + 928.68 \]
\[ R^2 = 0.9072 \]

Chart 3-3. Linear Regression-Sb
Red Devil Mine
Surface Soil Samples
Mercury Fractions vs. Total Mercury vs. Sample Location

Chart 3-4. Mercury Fractions vs. Total Mercury vs. Sample Location
Chart 3-5. Arsenic Total vs. TCLP

- **Linear (Tailings/WR East):**
  - Equation: $y = 0.0014x$
  - $R^2 = -0.1167$

- **Linear (Tailings/WR West):**
  - Equation: $y = 0.001x - 0.6676$
  - $R^2 = 0.9194$

- **Linear (Tailings Settling Ponds):**
  - Equation: $y = 0.0005x - 3.0613$
  - $R^2 = 0.7243$

Legend:
- **Tailings/WR East**
- **Tailings/WR West**
- **Tailings Settling Ponds**
- **Red Calcines**

**Axes:**
- **X-axis:** Total As mg/kg
- **Y-axis:** TCLP As mg/L

**Ranges:**
- Total As mg/kg: 0 to 12000
- TCLP As mg/L: 0 to 35
Chart 3-6. Arsenic Total vs. SPLP

- **Arsenic Total vs SPLP**

  - Linear equation for Tailings/WR East:
    \[ y = 0.0006x - 0.1359 \]
    \[ R^2 = 0.8317 \]

  - Linear equation for Tailings/WR West:
    \[ y = 0.0004x - 1.7347 \]
    \[ R^2 = 0.5092 \]

  - Linear equation for Tailings Settling Ponds:
    \[ y = 0.0004x + 1.9183 \]
    \[ R^2 = 0.0773 \]