

Smart-Alek® Case Study #1

Inaccurate Chart Measurement at Gas Well



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Situation:

The subject Company had a number of intermittent gas wells (plunger lift wells) equipped with mechanical charts. Flow surges at plunger arrival created a spike on the differential pressure pen that could have likely been over-ranged. This clipping condition resulted in volumes not being recorded on the chart. As a result, the gas produced during the period when the pens were off scale was not being measured accurately, resulting in missed revenues.

Critical Issue:

- Missing revenue and poor prorations

Customer:

- Size: Tier 2
- Region: WCSB
- Production: Gas
- Title: Measurement Coordinator

Customer Requirement:

The Company said they needed an electronic flow meter (EFM) which has the ability to record differential pressures over a much wider range. For instance, the EFM could record a spike five times as large as an over-range on a mechanical chart, thereby ensuring that all the high gas rate flowing through is being measured.

What Zedi Provided:

Zedi installed a Smart-Alek system to capture a full range of pressure measurements. The producer, using this EFM, was able to effectively capture high volumes where a chart recorder could not.

Results:

Over a pilot period of four months, charts and the EFM were compared. The Company showed a +9% aggregated average volume for 19 wells compared to mechanical chart volumes (see Figure 1). This created an increase in allocated production and helped improve a critical business issue of inaccurate gas measurement.

Figure 1 – Volume Measurement Error with Chart vs. Zedi’s Smart-Alek

