



Your Measurement Device is your Cash Register. *Is Your Cash Register Accurate?*

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With the everchanging environment of the oil field there has remained one constant: All the natural gas produced on a location must first be measured before it is purchased.

Gas measurement devices have changed so much over the years, but whether you are measuring gas with a chart recorder or the most advanced electronic flow computer, they all have one specific function. ***Your measurement device is your Cash Register.*** Your measurement station is where money changes hands.

- Are you confident that your meters are accurate?
- Are you having your meters calibrated on a regular schedule?
- Are you collecting the volumes on electronic meters and having them processed so that you have an audit trail when questions arise?

When there is a downturn in the market, it seems that the first cut the producers make is in meter calibrations and meter collections. ***Is the accuracy of your cash register worth the risk?***

There are four different points of measurement:

1. **Sales Meter:** This is the purchaser's meter. Enlink, DCP, Markwest etc. This is the pay meter for the producer.
2. **Check Meter:** The check meter is measuring the same gas that the purchaser is measuring. Most of the time it is an entirely separate meter run, but it can also be piggybacked to the purchaser's meter. The producer is wanting to check volumes against the purchaser.
3. **CDP:** The CDP is the purchaser's meter, which is a Central Delivery Point. A producer or producers have multiple wells coming into one point of measurement.
4. **Allocation Meters*:**
 - a. When two or more wells are flowing into a CDP, the gas from each location must be measured and allocated back to the royalty owners. The purchaser pays the producer from the total volume produced at the CDP each month. It is the producer's responsibility to divide up and allocate the gas that was produced at each well.
 - b. The producer will have a meter run and meter at each location to measure the gas that each well produced. In some cases, if there are, for example, 3 wells coming into a CDP, the producer will only set two allocation meters and add those volumes up and subtract the two volumes from the total at the CDP. The left-over volume will be allocated to the third well. This situation, however, can cause

problems. If three wells are producing into one CDP, usually large plates are installed. If the two measured wells are shut in and only the well without a meter is producing, there is a chance with the large plate that all of the gas is not getting measured.

- c. If you have an allocation meter on location that is producing over 350mcf, I recommend testing the meter quarterly. I recommend testing all allocation meters semi-annually at a minimum.
- d. All allocation meters should be collected monthly, and the volume reports should be processed so that you have an audit trail. The audit trail is a legal document, and its accuracy is paramount. Having an accurate data base is critical and will hold up in court.

Risks With inaccurate Allocation Meters:

1. If allocation meters are not calibrated on a regular schedule, the producer may be overpaying the royalty owner. With inaccurate measurement, the volumes at the allocation meter may be higher than the producer is receiving at the CDP. The producer is paying out more than they receive.
2. The flow computers we have today are excellent, but without regular maintenance, problems can occur. Low volume wells, especially plunger lifts, can be the biggest problem. With low volume wells, errors get magnified.
3. **For example:** Most of the wells with plunger lifts have larger plates installed. Without regularly scheduled calibrations the DP zero can begin to float above the DP cutoff. We usually set the DP cutoff at .4". The DP cutoff is set so that if the DP zero does begin to float, it will not show flow until the DP hits .5". When this occurs, the meter will begin showing flow.
 - a. It is common that the person producing the volume statements does not realize that this well flows for 2 hours and has a 2 hour off time. They see flow 100% of the time.
 - b. If you have a 1.500 plate installed with 90 psia and a floating zero of .5" (which is over the DP cutoff) that flow calculates to 47mcf. You will have overpaid 1410mcf a month.
 - c. This type of scenario gets overlooked, and it is costing the producer a lot of money. If this was an allocation meter, the .1 of an inch error would cost the company approx. \$50,760.00 in a year @ \$3.00 gas. This is what it can cost when you don't have your meters calibrated regularly. The flip side is, if the meter is measuring low and the royalty owner is not receiving the correct amount, lawsuits can occur.

BLM

With the many rule changes and requirements, the BLM has made in the last few years, the BLM inspectors have been out in full force. We have received several calls from producers that have received **Incident of Non-Compliance** letters with fines attached.

Thurmond-McGlothlin and our sister company Energy Meter Systems can relieve your burdens. Whether it be Calibration Schedules, Testing Requirements, Labeling Requirements, Sample Frequency or meter tube Inspections, we have a knowledgeable staff that works closely with the BLM to make sure your meter station will become BLM compliant.

We also witness many of the purchaser's meter tests for the producer at the (FMP) Facility Measurement Point. This is to ensure that the purchasers are meeting all the regulations required by the BLM. The purchaser does not receive the fine, the producer does. Let Thurmond-McGlothlin be your representative at the FMP.