



# SAN JUAN BASIN: SUBPART W & WELL-SITE DATA

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# OVERVIEW OF ANTICIPATED DATA COLLECTION

- **GHGRP Subpart W Submission** by well type
- **GHGRP Subpart W Supplemental Information**
  - Ideally, (A) Each producer's Subpart W calculation database
  - Or, (B) By source category supplemental information (see slides that follow)
- **Supporting Data**
  - Lab Analyses: Produced gas composition analysis by well type and sub-basin
  - Model Input/Output
    - Tanks: representative E&P Tank, HYSYS, or alternative model
    - Dehydrators: representative GlyCalc, HYSYS, or alternative model input/output by well type
- **Survey Data**
  - Representative survey data by category; or if more readily available, by category equipment database
  - Engines: well development and production phase (horsepower, hours, load factor, and engine technology)
  - Oil and condensate truck loading and water tanks

# SUBPART W SUPPLEMENTAL (1)

Source Category		Calculation parameters not included in Subpart W Submission
Pneumatic Devices		Annual hours of operation by device type (assume 8760 unless operators provide alternative data)
Natural Gas Driven Pneumatic Pump		Annual hours of operation (assume 8760 unless operators provide alternative data)
Dehydrators	Glycol dehydrators with throughput <0.4 mmscfd	Fraction of dehydrator emissions controlled by each control type, volume of emission gas sent to flare, fraction of gas sent to unlit flare
	Dehydrators of any size that use desiccant	Annual natural gas emissions (scf) at standard conditions
	Glycol dehydrators with throughput >= 0.4 mmscfd	Control Efficiency by control type (assume GHGRP defaults if no control information is provided), volume of emission gas sent to flare, fraction of gas sent to unlit flare
Associated Gas Venting and Flaring		Volume of oil produced from wells that don't send gas to pipeline, fraction of associated gas from wells that don't send gas to pipeline that is flared and vented
Fugitives (Equipment Leaks)		Annual hours of operation by component and media type (assume 8760 unless operators provide alternative data)

# SUBPART W SUPPLEMENTAL (2)

Source Category		Calculation parameters not included in Subpart W Submission
Well Testing		Average annual flow rate in barrels of oil per day for oil wells being tested, and average annual production rate in actual cubic feet per day for gas wells being tested, fraction of emitted gas by well type that is vented and sent to flares
Well Venting for Liquid Unloading	For operators that used GHGRP Calculation Methodology 1	Cumulative amount of time in hours of venting for all wells of the same tubing diameter group and pressure group combination by sub-basin (hours)
	For operators that used GHGRP Calculation Methodology 2	Average well depth, shut-in or surface pressure, number of unloading events per well per year, average flow-line rate, average hours that each well was left open to the atmosphere per event
	For operators that used GHGRP Calculation Methodology 3	Average tubing depth, average flow-line pressure, average flow-line rate, hours that well was left open per event

# SUBPART W SUPPLEMENTAL (3)

Source Category		Calculation parameters not included in Subpart W Submission
Gas from Produced Oil Sent to Atmospheric Tanks		Limited data is reported in operator submissions for this source category. Operator needs to supply supporting data needed to calculate emissions. This can be limited to VOC emission factors (lb/bbl or SCF/bbl) and the fraction of emissions controlled by flare and VRU.
Process Heaters	All heaters with heating capacity less than or equal to 5 mmbtu/hr	Number of heaters by well type, heating capacity, and annual hours of use.
	All heaters with heating capacity greater than 5 mmbtu/hr	None
Gas well completions and work overs		Limited data is available with respect to the volume of gas vented, flared, or controlled by green completion techniques. Operator needs to provide (1) representative gas volumes by gas fate (i.e. vented to atmosphere, flared, or sent to closed-loop system) per event by sub-basin, or (2) by event gas volumes by gas fate.

# QUESTIONS

## Emission Inventory Technical

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