



INTERNATIONAL BOUNDARY & WATER COMMISSION  
**NUCLEAR GAUGE STANDARD COUNT**  
DAILY RECORD

Project: \_\_\_\_\_ Contract Number: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Date: \_\_\_\_\_  
Laboratory: \_\_\_\_\_ Technician: \_\_\_\_\_  
Gauge Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Unless gauge manufacturer allows less time, all gauges must be turned on for  
**at least 10 minutes prior to use** to warm up

Density Standard Reading (DSR): \_\_\_\_\_ Moisture Standard Reading (MSR) \_\_\_\_\_

Date of Readings	Last Four Standard Gauge Readings	Density Standard (DS)		Last Four Standard Gauge Readings	Moisture Standard (MS)
	1		NEWEST	1	
	2		↓	2	
	3		↓	3	
	4		OLDEST	4	
	Average (DSA)			Average (MSA)	

Use the previous four density and moisture standard count readings.  
These should be available in your log or in the gauge's memory.

$$\text{Density Error} = \left| \frac{DSR - DSA}{DSA} \right| \times 100 = \text{_____} \% \text{ (must be 1\% or less)*}$$

$$\text{Moisture Error} = \left| \frac{MSR - MSA}{MSA} \right| \times 100 = \text{_____} \% \text{ (must be 2\% or less)*}$$

**USIBWC will not accept test results from gauges that exceed the manufacturer's standard count error variation or from gauges where the error has not be calculated.**

*\*Troxler and Humboldt allow a 1% variation for DSR and a 2% variation for MSR.*

*Provide manufacturer manuals if these values vary for your manufacturer.*

Any gauge which fails the daily standard count verification may be retested up to four times. Follow manufacturer's instructions for retest and record all readings. If the additional tests also fail, the gauge shall be removed from the job site until certification is supplied that the gauge has been recalibrated by an independent source.



INTERNATIONAL BOUNDARY & WATER COMMISSION  
**NUCLEAR GAUGE STANDARD COUNT**  
DAILY RECORD

Project: \_\_\_\_\_ Contract Number: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Date: \_\_\_\_\_  
Laboratory: \_\_\_\_\_ Technician: \_\_\_\_\_  
Gauge Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Unless gauge manufacturer allows less time, all gauges must be turned on for  
**at least 10 minutes prior to use** to warm up

Density Standard Reading (DSR): \_\_\_\_\_ Moisture Standard Reading (MSR) \_\_\_\_\_

Date of Readings	Last Four Standard Gauge Readings	Density Standard (DS)		Last Four Standard Gauge Readings	Moisture Standard (MS)
	1		NEWEST	1	
	2		↓	2	
	3		↓	3	
	4		OLDEST	4	
	Average (DSA)			Average (MSA)	

Use the previous four density and moisture standard count readings.  
These should be available in your log or in the gauge's memory.

$$\text{Density Error} = \left| \frac{DSR - DSA}{DSA} \right| \times 100 = \text{_____} \% \text{ (must be 1\% or less)*}$$

$$\text{Moisture Error} = \left| \frac{MSR - MSA}{MSA} \right| \times 100 = \text{_____} \% \text{ (must be 2\% or less)*}$$

**USIBWC will not accept test results from gauges that exceed the manufacturer's standard count error variation or from gauges where the error has not be calculated.**

*\*Troxler and Humboldt allow a 1% variation for DSR and a 2% variation for MSR.*

*Provide manufacturer manuals if these values vary for your manufacturer.*

***Handwritten results are considered draft. Fill out Adobe pdf file for official version.***

Any gauge which fails the daily standard count verification may be retested up to four times. Follow manufacturer's instructions for retest and record all readings. If the additional tests also fail, the gauge shall be removed from the job site until certification is supplied that the gauge has been recalibrated by an independent source.



INTERNATIONAL BOUNDARY & WATER COMMISSION  
**NUCLEAR GAUGE STANDARD COUNT**  
DAILY RECORD

Project: Make Believe Levee Work Contract Number: 191BWC99C9999  
Contractor: ABC Excavation & Construction Date: 03/07/2023  
Laboratory: Precision Testing Lab Technician: John Smith  
Gauge Manufacturer: Troxler Model: 3411 Serial Number: 30911

Unless gauge manufacturer allows less time, all gauges must be turned on for  
**at least 10 minutes prior to use** to warm up

Density Standard Reading (DSR): 1,774 Moisture Standard Reading (MSR) 674

Date of Readings	Last Four Standard Gauge Readings	Density Standard (DS)		Last Four Standard Gauge Readings	Moisture Standard (MS)
03/06/2023	1	1,782	NEWEST	1	675
03/02/2023	2	1,782	↓	2	681
03/01/2023	3	1,801	↓	3	675
02/27/2023	4	1,796	OLDEST	4	672
	Average (DSA)	1,790.25		Average (MSA)	675.75

Use the previous four density and moisture standard count readings.  
These should be available in your log or in the gauge's memory.

$$\text{Density Error} = \left| \frac{DSR - DSA}{DSA} \right| \times 100 = \underline{0.91} \% \text{ (must be 1\% or less)*}$$

$$\text{Moisture Error} = \left| \frac{MSR - MSA}{MSA} \right| \times 100 = \underline{0.26} \% \text{ (must be 2\% or less)*}$$

**USIBWC will not accept test results from gauges that exceed the manufacturer's standard count error variation or from gauges where the error has not been calculated.**

*\*Troxler and Humboldt allow a 1% variation for DSR and a 2% variation for MSR.*

*Provide manufacturer manuals if these values vary for your manufacturer.*

Any gauge which fails the daily standard count verification may be retested up to four times. Follow manufacturer's instructions for retest and record all readings. If the additional tests also fail, the gauge shall be removed from the job site until certification is supplied that the gauge has been recalibrated by an independent source.