MANUAL TANK GAUGING RECORD

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WASTE MANAGEMENT-UNDERGROUND STORAGE TANK PROGRAM
SFN 59099 (6-2019)

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Tank Number	Tank Length	Tank Diameter	Capacity of Tank [3]	Month	Year

Facility Name	Address	City	State	ZIP Code

	Day of the Month Starting / Ending	Initial Stick Reading [1] (1)	Check Initial Stick Reading [1] (2)	Average Initial Reading [(1) + (2)] / 2 = (3)	Conversion to Gallons [2] (4)	Length of Test (Hours) (5)	End Stick Reading [1] (6)	Check End Stick Reading [1] (7)	Average End Reading [(6) + (7)] / 2 = (8)	Conversion to Gallons [2] (9)	Change in Tank Volume (+) or (-) (4) - (9) = (10)
1st Week	/										
2nd Week	/										
3rd Week	/										
4th Week	/										
Date of this Month's Water Level Check			Amount of Water: Stick Reading			Gallons [2]			**Total Change in Gallonage** gain (or loss)		(11)

Average of the four (4) weekly readings (11)/4 =

Tank Capacity	Weekly Standard (one test)	Monthly Standard (4-test average)	Minimum Duration of Test
Up to 550 gallons	10 gallons	5 gallons	36 hours
551 - 1,000 gal (when largest tank is 64"x73")	9 gallons	4 gallons	44 hours
1,000 gal. (if tank is 46"x128")	12 gallons	6 gallons	58 hours
1,001 - 2,000 gal.[3]	26 gallons	13 gallons	36 hours

Compare each weekly reading and the average of the four (4) weekly readings with the standards shown in the table on the left. If the calculated change (gain or loss) exceeds the weekly standard, the UST may be leaking. Also monthly averages of the four (4) weekly test results must be compared to the monthly standard in the same way. If the standards have been exceeded, the North Dakota Department of Environmental Quality - Underground Storage Tank Program **must** be contacted at 701.328.5166.

[1] Stick measurements must be taken with a gauge stick that is marked to measure liquid to the nearest one-eighth (1/8) of an inch.
[2] Appropriate calibration chart (supplied by the tank manufacturer) must be used.
[3] Manual Tank Gauging can only be used for small tanks. Tanks 1,000 gallons or less can use this method alone, but tanks from 1,001 - 2,000 gallons can only use manual tank gauging when it is combined with tank tightness testing. Manual tank gauging cannot be used for tanks over 2,000 gallons.

Calibration Chart Interpolation

1. The following interpolation is taken from the Eaton Gauge Chart for a 10,000 gallon tank with dimensions of 8x27 feet. The chart should be read directly for all gauge measurements which are to the exact inch or 1/16 inch above or below an exact inch mark.

2. For gauge measurements of 1/8 inch (or more) over or under the exact inch, the following procedure should be used:

    a. The chart should be read for the exact inch on the scale above and below the actual gauge stick reading. For example, on February 5th the gauge stick reading was 33 3/4 inches, the chart should be read at both 33 and 34 inches.

    b. The smaller gallonage shown on the scale at these two readings should be subtracted from the larger, i.e., for the 10,000 gallon tank (diameter 8 feet; length 27 feet):

Chart reading at 34 inches =	3148 gallons
Chart reading at 33 inches =	- 3023 gallons
Subtracting =	125 gallons

    c. This gallonage is then multiplied by the fraction of an inch shown on the original gauge measurement, i.e.:

    125 gallons times 3/4 = 94 gallons.

    d. This gallonage (calculated in step c) is added to the gallonage shown on the chart for the lower whole reading, i.e.:

Gallons at 33 inches =	3023 gallons
Gallons at 3/4 inch =	+ 94 gallons
Adding =	3117 gallons

    Therefore, a tank gauge measurement of 33 3/4 inches, for the given UST, represents 3117 gallons of product.