

PIT EVAPORATION CALCULATION FOR LINDA #2 SKIM PIT

Washington County Soil Survey Data:

Weld Silt Loam soil type: 67 inches evaporation from April – October (7 mo)

Estimates used in calculations:

Evaporation: 67 inches per year = 0.184 inches per day

Pit volume calculations:

$29' \times 26' \times 8' = 6,032 \text{ cu ft}$

$-1,810 \text{ cu ft (est. 30\% volume adjustment for side slopes)}$

$4,222 \text{ cu ft actual volume with 2' freeboard}$

$(5,544 \text{ cu ft total volume})$

assume 5.614 cubic ft per bbl

$4,222 \text{ cu ft} / 5.614 \text{ cu ft per bbl} = 752 \text{ bbls capacity}$

Evaporation calculations:

$29' \times 26' = 754' \text{ sq ft surface area (surface area of fluid with 2' freeboard)}$

$67 \text{ inches/yr} / 12 \text{ inches per ft} \times 754 \text{ sq ft} / 5.615 \text{ cf/bbl} = 749.28 \text{ bbl/yr}$

$2.05 \text{ bbl/day evaporation loss}$