## \*\*\*\*\*\* LIQUID SPILLS - VOLUME CALCULATIONS \*\*\*\*\*\* COG - Admiral Federal Com #002H 13-Aug-2019 Date of Spill: Location of spill: If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: Input Data: WATER: If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: 0.0 BBL 0.0 BBL If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes. **Total Area Calculations Standing Liquid Calculations** wet soil **Total Surface Area** width length depth oil (%) Standing Liquid Area width length liquid depth oil (%) Rectangle Area #1 25 ft 45 ft 0 ft Rectangle Area #2 0.00 in 0 ft Χ 0 in 0% Rectangle Area #2 0 ft 0 ft Χ 09 Rectangle Area #3 0 ft X X 0.0 in 0% Rectangle Area #3 0 ft X Х 0 in 09 0 ft0 ft Rectangle Area #4 0 ft 0% Rectangle Area #4 Х 09 0 ft 0.0 in 0 ft 0 ft 0 in Rectangle Area #5 0% 0.0 in Rectangle Area #5 0 ft 0 ft 0 in 09 Rectangle Area #6 0 ft 0 in 0% Rectangle Area #6 0 ft 0 ft 0 in 0% Rectangle Area #7 0 ft 0 ft 0 in 0% Rectangle Area #7 0 ft 0 ft 0 in09 X Rectangle Area #8 0 ft 0 ft 0 in Rectangle Area #8 0 ft 0 ft 0 in 09 production system leak - DAILY PRODUCTION DATA REQUIRED Average Daily Production: 0 BBL Oil 0 BBL Water 0 Gas (MCFD) Total Hydrocarbon Content in gas: (percentage) H2S Content in Produced Gas: 0 PPM Did leak occur before the separator?: (place an "X") PPM H2S Content in Tank Vapors: 0 Amount of Free Liquid Percentage of Oil in Free Liquid 0% 0 BBL okay (percentage) Recovered: Recovered: 0.00 gal per gal Liquid holding factor \*: Use the following when the spill wets the grains of the soil. Use the following when the liquid completely fills the pore space of the soil: \* Sand = 0.08 gallon (gal.) liquid per gal. volume of soil. Occurs when the spill soaked soil is contained by barriers, natural (or not). \* Gravelly (caliche) loam = 0.14 gal. liquid per gal. volume of soil. \* Clay loam = 0.20 gal. liquid per gal. volume of soil. \* Sandy clay loam soil = **0.14** gal liquid per gal. volume of soil. \* Gravelly (caliche) loam = 0.25 gal, liquid per gal, volume of soil. \* Clay loam = 0.16 gal. liquid per gal. volume of soil. \* Sandy loam = 0.5 gal. liquid per gal. volume of soil. Total Solid/Liquid Volume: cu. ft. cu. ft. Total Free Liquid Volume: 1,125 sq. ft. 89 cu. ft. 28 cu. ft. sa. ft. Estimated Volumes Spilled **Estimated Production Volumes Lost** <u>H2O</u> OIL <u>H2O</u> OIL 0.0 BBL Liquid in Soil: 0.0 BBL Estimated Production Spilled: 0.0 BBL 0.0 BBL Free Liquid: 15.9 BBL 5.0 BBL 5.0 BBL Estimated Surface Damage Totals: 15.9 BBL Surface Area: 1,125 sq. ft. Total Liquid Spill Liquid: 15.9 BBL 5.01 BBL Surface Area: .0258 acre Estimated Weights, and Volumes Recovered Volumes Estimated oil recovered: BBL check - okay Saturated Soil = lbs cu. ft. cu. yds. Estimated water recovered: BBL check - okay Total Liquid = 21 BBL 877 gallon 7,293 lbs Air Emission of Reporting Requirements: Air Emission from flowline leaks: BBL Volume of oil spill: New Mexico Texas Separator gas calculated: HC gas release reportable? NO NO MCF Separator gas released: MCF H2S release reportable? NO NO Gas released from oil: lb H2S released: lb Total HC gas released: lb MCF Total HC gas released: