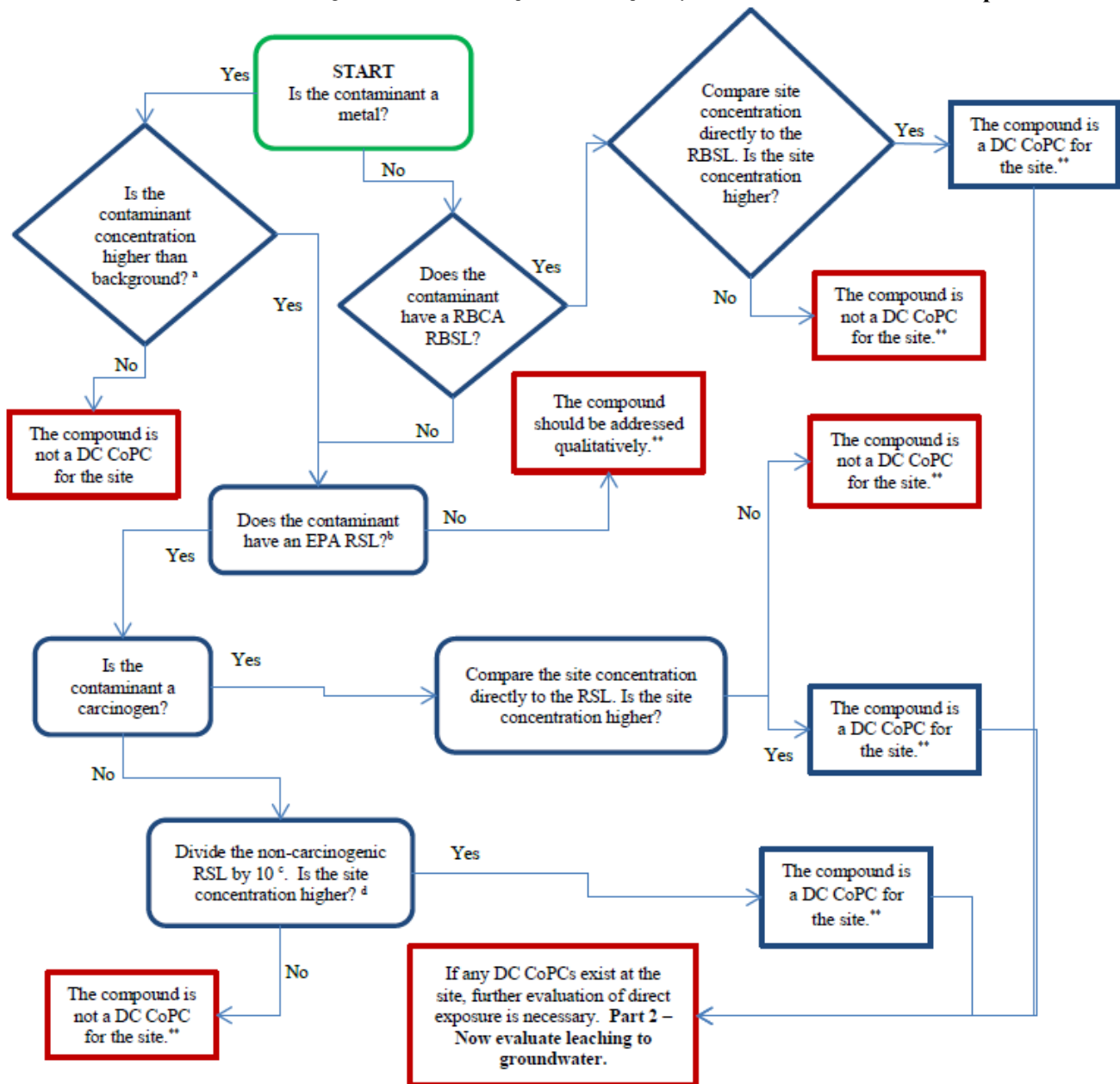


Surface and Subsurface Soil Screening Flowchart Part 1 – Direct Exposure

Note: For volatile contaminants in soil or groundwater, evaluate vapor intrusion separately.

Revised September 2025



**Now Evaluate Leaching to Groundwater (Part 2) for complete screening

a = 2013 MT DEQ Inorganic Background Study Background Threshold Values (BTVs) Table 4-4 applies to both surface and subsurface soil

b = Use residential EPA RSLs for screening of both surface and subsurface soils (where RBSLs do not exist) to ensure adequate protection of construction workers (commercial/industrial numbers are not adequately protective in many cases due to soil ingestion assumptions).

c = Assumes use of the HQ=1 version of the RSL Summary table and should be performed for all non-carcinogenic compounds except for lead (see footnote d). Pay attention to the "***" footnote in the RSL table, as it requires you to also look at the HQ=0.1 table; use the RSL that is the lesser value of the two tables. If using the HQ=0.1 RSL table for initial screening, do not divide non-carcinogenic compounds by 10.

d = For lead do not use the RSL: DEQ uses a 5 µg/dL blood lead level endpoint for the IEUBK model. For residential soil use 200 mg/kg, and for commercial/industrial and construction scenarios use 696 mg/kg.

CoPC = contaminant of potential concern

DC = Direct contact (i.e., ingestion, inhalation, and dermal exposure)

EPA = Environmental Protection Agency

RBCA = Montana Risk-Based Corrective Action Guidance for Petroleum Releases

RBSL = Most current risk-based screening level from Table 2 (All Soil RBSLs Table)

RSL = Most current EPA regional screening level for residential soil

References:

https://deq.mt.gov/Files/Land/StateSuperFund/Documents/FAQ/Table_4-4.pdf

<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

https://deq.mt.gov/files/Land/StateSuperFund/Documents/rbca/Update/Final%20RBCA%202024%20Update_Compiled%20PDF.pdf

<https://deq.mt.gov/Files/Land/StateSuperFund/Documents/2021LeadScreeningMemo.pdf>

Revised September 2025



a = 2013 MT DEO Inorganic Background Study Background Threshold Values (BTVs) Table 4-4 applies to both surface and subsurface soil

c = For PCBs the total concentration of PCBs for each sample is compared to 10 DAF MCL-based SSL. For chromium, the concentration is compared to total chromium 10 DAF MCL-based SSL. For lead, the concentration is compared to the 10 DAF MCL-based SSL because the MCL was reduced in 2024 and DEQ-7 has not yet been updated to reflect the change.

References:

<https://deq.mt.gov/Files/Land/StateSuperFund/Documents/FAQ/Table4-4.pdf>

<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>
https://deq.mt.gov/files/Land/StateSuperFund/Documents/rbca/Update/Final%20RBCA%202024%20Update_Compiled%20PDF.pdf
https://deq.mt.gov/Files/Land/StateSuperFund/Documents/DEQ-7_June2019_Final.pdf?ver=2019-07-16-085110-630