National Atmospheric Deposition Program
Mercury Deposition Network (MDN)

MDN Data Fields

Field	Data Type	Description
siteID	Text	Site Identifier – 2 letter state or province designator followed by 2 digit number
sampleID	Char(8)	Sample Identifier
dateON	Date/Time	Date the sample was installed on the collector, reported in Greenwich Mean Time (GMT)YYYY-MM-DD hh:mm format
dateoff	Date/Time	Date the sample was removed from the collector, reported in Greenwich Mean Time (GMT)YYYY-MM-DD hh:mm format
yrmonth	Date	Year and Month of sample midpoint, in YYYYMM format Indicated the year and month at the midpoint of the sample. Used for determining which samples to use to compute annual and seasonal aggregates.
sampletype	Text	W: wet sample, measurable precipitation (> 0.01 in.) on the rain gauge (RG) or net bottle catch (BC) > 1.5 mL if RG data are missing. D: dry sample - the RG measured a 0 precipitation amount net, or if the RG is missing, the BC < 1.5 mL T: trace sample, used when the rain gage detects that an unmeasurable amount of precipitation occurred. --: unknown sample type. Precipitation amount is unknown.
qr	Text	Quality Rating Code: A: valid data B: valid data with minor problems C: invalid data
notes	Text	sample notes flags; see next page
rgPpT	Decimal	Precipitation amount as measured by the rain gage in millimeters. Trace amounts are indicated by -7 and missing amount by -9
sVol	Decimal	Sample Volume, ml. Missing amounts are indicated by a -9
subppt	Decimal	Rain gage precipitation amount, if available, in mm. If the rain gage value (RGPPT) is missing, the precipitation amount in mm is calculated from the net sample volume caught in the sample bottle. A value of 0.127 is inserted for Trace sample types. Missing amounts are indicated by a -9
subpptSrc		Source used for subppt p – primary gage n – NTN sample volume m – MDN sample volume b - backup gage u - unknown

HgConc	Decimal	Total mercury concentration reported by the lab in ng/L. Missing amounts are indicated by a -9
HgDep	Decimal	Total mercury deposition, ng/m2. The product of SUBPPT and HGCONC. Missing amounts are indicated by a -9
datemod	Date/Time	Date the record was last modified

MDN Notes Codes:

MDN Sample Condition Notes Codes		
Notes	**Description**	**QR Code[1]**
b	Bulk sample (sample exposed the whole time)	C
c	Contaminated sample	C
d	Visible debris in sample	B
e	Extended sampling period (> 194 hrs.)	B
f	Field protocol error (serious problems in field operations that compromise sample integrity)	C
h	Sample handling issue (one or more conditions may apply) - Sample handling issue in field, shipping, or laboratory	B
i	Low volume sample (sample volume < 10ml)	B
l	Laboratory error	C
m	Missing data	B
n	No sample submitted (no sample or sample receipt > 30 days after OFF date)	C
p	Precipitation value unknown (no precipitation data from rain gage or alternate source)	C
q	Minor quality control issue	B
u	Undefined sample (sample exposed for at least 6 hours without precipitation)	C
v	Precipitation amount indicates sufficient sample for analysis, but insufficient sample in bottle. (undercatch; sample volume < 1.5ml or sample volume is < 10% of rain gage precipitation amount)	C
z	Site operation issue (min temp < 32, max temp > 120 deg F)	B

[1]Quality Rating (QR) Code Definitions:
A – Valid data
B – Valid data with minor issues
C – Invalid data

MDN Sample Condition Notes Codes (updates starting 1/1/2022)		
e	Extended sampling period **> 360 hrs. (15 days)**	**C**
f	Field protocol error (one or more condition may apply) - Serious problems in field operations that compromise sample integrity - **Sample receipt > 60 days after OFF date**	C
n	- No sample submitted - ~~Sample receipt > 30 days after OFF date~~ (**not applicable starting 1/1/2022)**	C