Expressions

Expo_Used

1.8

Expo_Used is not a reference material value
Expo_Used is not a parameter value
Expo_Used is healthy
Expo_Used is not Squid Switch NU

Excel Expression String:

1.8

Notes:

No notes

Uncor_206Pb238U_CalibConst

$$\frac{206_{Pb}}{238_{U}}\left(\frac{254_{U}}{238_{U}}\right)^{Expo_Used}$$

Uncor_206Pb238U_CalibConst is not a reference material value
Uncor_206Pb238U_CalibConst is not a parameter value
Uncor_206Pb238U_CalibConst is healthy
Uncor_206Pb238U_CalibConst is Squid Switch NU

Excel Expression String:

["206/238"]["254/238"]^Expo_Used

Notes:

RM and Sample spots: 206Pb/238U calibration constant, uncorrected for common Pb, evaluated via Special U-Th-Pb Expression. Calculated by all Tasks, except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

232Th238U_RM

$$\boxed{\left(0.03446 * \frac{254_{\mathrm{UO}}}{238_{\mathrm{U}}} + 0.868\right) * \frac{248_{\mathrm{ThO}}}{254_{\mathrm{UO}}}}$$

232Th238U_RM is not a reference material value
232Th238U_RM is not a parameter value
232Th238U_RM is healthy
232Th238U_RM is Squid Switch NU

Excel Expression String:

(0.03446*["254/238"]+0.868)*["248/254"]

Notes:

RM spots: Calculated 232Th/238U. In dual-calibration Tasks (i.e. "Perm2" and "Perm4"), this value depends on the index isotope (204Pb or 207Pb) chosen for the common Pb correction.

232Th238U

$$\boxed{\left(0.03446 * \frac{254_{\mathrm{UO}}}{238_{\mathrm{U}}} + 0.868\right) * \frac{248_{\mathrm{ThO}}}{254_{\mathrm{UO}}}}$$

232Th238U is not a reference material value
232Th238U is not a parameter value
232Th238U is healthy
232Th238U is Squid Switch NU

Excel Expression String:

(0.03446*["254/238"]+0.868)*["248/254"]

Notes:

Sample spots: 232Th/238U. In dual-calibration Tasks (i.e. "Perm2" and "Perm4"), this value depends on the index isotope (204Pb or 207Pb) chosen for common Pb correction of the RM.

ParentElement_ConcenConst

$$\frac{238_c}{195.8_c}\left(\frac{254_{cc}}{238_c}\right)^{0.66}$$

ParentElement_ConcenConst is not a reference material value
ParentElement_ConcenConst is not a parameter value
ParentElement_ConcenConst is healthy
ParentElement_ConcenConst is Squid Switch NU

Excel Expression String:

["238/195.8"]["254/238"]^0.66

Notes:

RM and Sample spots: Parent Element concentration constant, for nominated Parent Element of Concentration RM, evaluated via Special U-Th-Pb Expression.

LnUOU

$$\boxed{\ln\left(\frac{254_{U}}{238_{U}}\right)}$$

LnUOU is not a reference material value
LnUOU is not a parameter value
LnUOU is healthy
LnUOU is Squid Switch NU

Excel Expression String:

ln(“254/238”)

Notes:

No notes

LnPbU

$$\boxed{\ln\left(\frac{206_{Pb}}{238_{U}}\right)}$$

LnPbU is not a reference material value
LnPbU is not a parameter value
LnPbU is healthy
LnPbU is Squid Switch NU

Excel Expression String:

Ln(“206/238”)

Notes:

No notes

lnUOU-sample

$$\boxed{\ln\left(\frac{254_{U}}{238_{U}}\right)}$$

lnUOU-sample is not a reference material value
lnUOU-sample is not a parameter value
lnUOU-sample is healthy
lnUOU-sample is Squid Switch NU

Excel Expression String:

ln(["254/238"])

Notes:

No notes

lnPbU-sample

$$\boxed{\ln\left(\frac{206_{Pb}}{238_{U}}\right)}$$

lnPbU-sample is not a reference material value
lnPbU-sample is not a parameter value
lnPbU-sample is healthy
lnPbU-sample is Squid Switch NU

Excel Expression String:

Ln(“206/238”)

Notes:

No notes

RefRad_206Pb238U_Age

$\boxed{5.591E8}$

RefRad_206Pb238U_Age is a reference material value
RefRad_206Pb238U_Age is not a parameter value
RefRad_206Pb238U_Age is healthy
RefRad_206Pb238U_Age is not Squid Switch NU

Excel Expression String:

5.591E8

Notes:

from Model: null

Reference radiogenic 206Pb/238U age of RM.

RefRad_208Pb232Th_Age

$\boxed{5.591E8}$

RefRad_208Pb232Th_Age is a reference material value
RefRad_208Pb232Th_Age is not a parameter value
RefRad_208Pb232Th_Age is healthy
RefRad_208Pb232Th_Age is not Squid Switch NU

Excel Expression String:

5.591E8

Notes:

from Model: null

Reference radiogenic 208Pb/232Th age of RM.

RefRad_207Pb206Pb_Age

$\boxed{5.591E8}$

RefRad_207Pb206Pb_Age is a reference material value
RefRad_207Pb206Pb_Age is not a parameter value
RefRad_207Pb206Pb_Age is healthy
RefRad_207Pb206Pb_Age is not Squid Switch NU

Excel Expression String:

5.591E8

Notes:

from Model: null

Reference radiogenic 207Pb/206Pb age of RM.

Present_238U235U

137.88

Present_238U235U is a reference material value
Present_238U235U is not a parameter value
Present_238U235U is healthy
Present_238U235U is not Squid Switch NU

Excel Expression String:

137.88

Notes:

from Model: null

null

Lambda238

$$1.55125E-10$$

Lambda238 is not a reference material value
Lambda238 is a parameter value
Lambda238 is healthy
Lambda238 is not Squid Switch NU

Excel Expression String:

1.55125E-10

Notes:

from Model: null

Decay constant for 238U.

RefRad_206Pb238U

$e^{(Lambda238*RefRad_206Pb238U_Age)} - 1$

RefRad_206Pb238U is a reference material value
RefRad_206Pb238U is not a parameter value
RefRad_206Pb238U is healthy
RefRad_206Pb238U is not Squid Switch NU

Excel Expression String:

EXP(Lambda238*RefRad_206Pb238U_Age)-1

Notes:

from Model: null

Reference radiogenic 206Pb/238U of RM.

Lambda232

$\boxed{4.9475E-11}$

Lambda232 is not a reference material value
Lambda232 is a parameter value
Lambda232 is healthy
Lambda232 is not Squid Switch NU

Excel Expression String:

4.9475E-11

Notes:

from Model: null

Decay constant for 232Th.

RefRad_208Pb232Th

$e^{(Lambda232*RefRad_208Pb232Th_Agr)} - 1$

RefRad_208Pb232Th is a reference material value
RefRad_208Pb232Th is not a parameter value
RefRad_208Pb232Th is healthy
RefRad_208Pb232Th is not Squid Switch NU

Excel Expression String:

EXP(Lambda232*RefRad_208Pb232Th_Agr)-1

Notes:

from Model: null

Reference radiogenic 208Pb/232Th of RM.

RefRad_207Pb206Pb

$$\mathrm{Pb76}\left(\mathrm{RefRad_207Pb206Pb_Age}\right)$$

RefRad_207Pb206Pb is a reference material value
RefRad_207Pb206Pb is not a parameter value
RefRad_207Pb206Pb is healthy
RefRad_207Pb206Pb is not Squid Switch NU

Excel Expression String:

Pb76(RefRad_207Pb206Pb_Age)

Notes:

from Model: null

Reference radiogenic 207Pb/206Pb of RM.

RefRad_208Pb206Pb_Factor

RefRad_208Pb232Th
RefRad_206Pb238U

RefRad_208Pb206Pb_Factor is a reference material value
RefRad_208Pb206Pb_Factor is not a parameter value
RefRad_208Pb206Pb_Factor is healthy
RefRad_208Pb206Pb_Factor is not Squid Switch NU

Excel Expression String:

RefRad_208Pb232Th/RefRad_206Pb238U

Notes:

from Model: null

Factor defined as (radiogenic 208Pb/206Pb) * (238U/232Th) for RM; determined arithmetically as (exp(Lambda232 * RefRad_208Pb232Th_Age) - 1) / (exp(Lambda238 * RefRad_206Pb238U_Age) - 1).

Ref_U_Concen

903.0

Ref_U_Concen is a reference material value
Ref_U_Concen is not a parameter value
Ref_U_Concen is healthy
Ref_U_Concen is not Squid Switch NU

Excel Expression String:

903.0

Notes:

from Model: null

Reference U content of CM.

Ref_Th_Concen

0.0

Ref_Th_Concen is a reference material value
Ref_Th_Concen is not a parameter value
Ref_Th_Concen is healthy
Ref_Th_Concen is not Squid Switch NU

Excel Expression String:

0.0

Notes:

from Model: null

Reference Th content of CM.

DefCom_206Pb204Pb

17.821

DefCom_206Pb204Pb is not a reference material value
DefCom_206Pb204Pb is a parameter value
DefCom_206Pb204Pb is healthy
DefCom_206Pb204Pb is not Squid Switch NU

Excel Expression String:

17.821

Notes:

from Model: null

Assumed 206Pb/204Pb of default common Pb, as applied to RM and (as first approximation of common Pb) to Samples.

DefCom_207Pb204Pb

15.5773361

DefCom_207Pb204Pb is not a reference material value
DefCom_207Pb204Pb is a parameter value
DefCom_207Pb204Pb is healthy
DefCom_207Pb204Pb is not Squid Switch NU

Excel Expression String:

15.5773361

Notes:

from Model: null

Assumed 207Pb/204Pb of default common Pb, as applied to RM and (as first approximation of common Pb) to Samples.

DefCom_208Pb204Pb

37.5933995

DefCom_208Pb204Pb is not a reference material value
DefCom_208Pb204Pb is a parameter value
DefCom_208Pb204Pb is healthy
DefCom_208Pb204Pb is not Squid Switch NU

Excel Expression String:

37.5933995

Notes:

from Model: null

Assumed 208Pb/204Pb of default common Pb, as applied to RM and (as first approximation of common Pb) to Samples.

DefCom_207Pb206Pb

$\boxed{0.8741}$

DefCom_207Pb206Pb is not a reference material value
DefCom_207Pb206Pb is a parameter value
DefCom_207Pb206Pb is healthy
DefCom_207Pb206Pb is not Squid Switch NU

Excel Expression String:

0.8741

Notes:

from Model: null

Assumed 207Pb/206Pb of default common Pb, as applied to RM and (as first approximation of common Pb) to Samples.

DefCom_208Pb206Pb

2.1095

DefCom_208Pb206Pb is not a reference material value
DefCom_208Pb206Pb is a parameter value
DefCom_208Pb206Pb is healthy
DefCom_208Pb206Pb is not Squid Switch NU

Excel Expression String:

2.1095

Notes:

from Model: null

Assumed 208Pb/206Pb of default common Pb, as applied to RM and (as first approximation of common Pb) to Samples.

DefCom_206Pb208Pb

$$\frac{1.0}{2.1095}$$

DefCom_206Pb208Pb is not a reference material value
DefCom_206Pb208Pb is a parameter value
DefCom_206Pb208Pb is healthy
DefCom_206Pb208Pb is not Squid Switch NU

Excel Expression String:

1.0/2.1095

Notes:

from Model: null

Assumed 206Pb/208Pb of default common Pb, as applied to RM and (as first approximation of common Pb) to Samples.

Lambda230

$$\boxed{9.1577E-6}$$

Lambda230 is not a reference material value
Lambda230 is a parameter value
Lambda230 is healthy
Lambda230 is not Squid Switch NU

Excel Expression String:

9.1577E-6

Notes:

from Model: null

Decay constant for 230Th.

Lambda234

$$\boxed{2.835E-6}$$

Lambda234 is not a reference material value
Lambda234 is a parameter value
Lambda234 is healthy
Lambda234 is not Squid Switch NU

Excel Expression String:

2.835E-6

Notes:

from Model: null

Decay constant for 234U.

Lambda235

$\boxed{9.8485E-10}$

Lambda235 is not a reference material value
Lambda235 is a parameter value
Lambda235 is healthy
Lambda235 is not Squid Switch NU

Excel Expression String:

9.8485E-10

Notes:

from Model: null

Decay constant for 235U.

4cor_206Pb238U_CalibConst

$$\text{ValueModel}\left(\left(1-\frac{204_{\text{Pb}}}{206_{\text{Pb}}}*\text{DefCom_206Pb204Pb}\right)*\text{Uncor_206Pb238U_CalibConst},\sqrt{\left(\left(\text{Uncor_206Pb238U_CalibConst}\right)^{\%}\right)^2+\left(\frac{\text{DefCom_206Pb204Pb}}{\left(\frac{1}{\frac{204_{\text{Pb}}}{206_{\text{Pb}}}}-\text{DefCom_206Pb204Pb}\right)}\right)^2*\left(\left(\frac{204_{\text{Pb}}}{206_{\text{Pb}}}\right)^{\%}\right)^2},FALSE\right)$$

4cor_206Pb238U_CalibConst is not a reference material value
4cor_206Pb238U_CalibConst is not a parameter value
4cor_206Pb238U_CalibConst is healthy
4cor_206Pb238U_CalibConst is not Squid Switch NU

Excel Expression String:

ValueModel((1-("204/206")*DefCom_206Pb204Pb)*["Uncor_206Pb238U_CalibConst"],sqrt(["Uncor_206Pb238U_CalibConst"]^2+(DefCom_206Pb204Pb/(1/("204/206")-DefCom_206Pb204Pb))^2*["%"204/206"]^2),false)

Notes:

RM spots: 204Pb-corrected 206Pb/238U calibration constant. Calculated for RMs in all Tasks except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

WtdAv_4cor_206Pb238U_CalibConst

$$\boxed{\mathrm{WtdMeanACalc}\left(4\mathrm{cor__206Pb238U__CalibConst}, (4\mathrm{cor__206Pb238U__CalibConst})^{\%}, FALSE, FALSE\right)}$$

WtdAv_4cor_206Pb238U_CalibConst is not a reference material value
WtdAv_4cor_206Pb238U_CalibConst is not a parameter value
WtdAv_4cor_206Pb238U_CalibConst is healthy
WtdAv_4cor_206Pb238U_CalibConst is not Squid Switch NU

Excel Expression String:

WtdMeanACalc(["4cor_206Pb238U_CalibConst"],[%"4cor_206Pb238U_CalibConst"],FALSE,FALSE)

Notes:

RM dataset: Weighted mean of 204Pb-corrected 206Pb/238U calibration constants. Calculated by all Tasks except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

4cor_206Pb238U_Ext1SigmaErr_Pct

$$\max\left(ExtPErr, \frac{\text{WtdAv_4cor_206Pb238U_CalibConst}[1]}{\text{WtdAv_4cor_206Pb238U_CalibConst}} * 100\right)$$

4cor_206Pb238U_Ext1SigmaErr_Pct is not a reference material value
4cor_206Pb238U_Ext1SigmaErr_Pct is not a parameter value
4cor_206Pb238U_Ext1SigmaErr_Pct is healthy
4cor_206Pb238U_Ext1SigmaErr_Pct is not Squid Switch NU

Excel Expression String:

Max(ExtPErr,{"WtdAv_4cor_206Pb238U_CalibConst"[1]}/{"WtdAv_4cor_206Pb238U_CalibConst"[0]}*100)

Notes:

RM dataset: Calculated external (spot-to-spot) 1sigma uncertainty (expressed as a percentage), derived from WtdAv_4cor_206Pb238U_CalibConst, subject to a user-defined minimum value. Calculated by all Tasks except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

4cor_Total_206Pb238U_RM

$$\text{ValueModel}\left(\frac{\text{Uncor_206Pb238U_CalibConst}}{\text{WtdAv_4cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}, \sqrt{\left(\left(\text{Uncor_206Pb238U_CalibConst}\right)^{2}\right)^{2} + \left(\text{4cor_206Pb238U_Ext1SigmaErr_Pct}\right)^{2}}, FALSE\right)$$

4cor_Total_206Pb238U_RM is not a reference material value
4cor_Total_206Pb238U_RM is not a parameter value
4cor_Total_206Pb238U_RM is healthy
4cor_Total_206Pb238U_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["Uncor_206Pb238U_CalibConst"]/["WtdAv_4cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,SQRT(["Uncor_206Pb238U_CalibConst"]^2+["4cor_206Pb238U_Ext1SigmaErr_Pct"]^2),false)

Notes:

RM spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

Total_206Pb238U_RM

$4cor__Total__206Pb238U__RM$

Total_206Pb238U_RM is not a reference material value
Total_206Pb238U_RM is not a parameter value
Total_206Pb238U_RM is healthy
Total_206Pb238U_RM is not Squid Switch NU

Excel Expression String:

["4cor_Total_206Pb238U_RM"]

Notes:

RM spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

4cor_Total_206Pb238U

$$\text{ValueModel}\left(\frac{\text{Uncor_206Pb238U_CalibConst}}{\text{WtdAv_4cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}, \sqrt{\left((\text{Uncor_206Pb238U_CalibConst})^{2}\right)^{2} + (\text{4cor_206Pb238U_Ext1SigmaErr_Pct})^{2}}, FALSE\right)$$

4cor_Total_206Pb238U is not a reference material value
4cor_Total_206Pb238U is not a parameter value
4cor_Total_206Pb238U is healthy
4cor_Total_206Pb238U is not Squid Swinch NU

Excel Expression String:

ValueModel(["Uncor_206Pb238U_CalibConst"]/["WtdAv_4cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,SQRT(1%^Uncor_206Pb238U_CalibConst")^2+(^4cor_206Pb238U_Ext1SigmaErr_Pct")^2),false)

Notes:

Sample spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for common Pb correction of the RM.

Total_206Pb238U

$\mathrm{4cor_Total_206Pb238U}$

Total_206Pb238U is not a reference material value
Total_206Pb238U is not a parameter value
Total_206Pb238U is healthy
Total_206Pb238U is not Squid Switch NU

Excel Expression String:

["4cor_Total_206Pb238U"]

Notes:

Sample spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for common Pb correction of the RM.

4cor_Total_208Pb232Th_RM

$$\mathrm{ValueModel}\left(\frac{\mathrm{Total_206Pb238U_RM} * \frac{208_{Pb}}{206_{Pb}}}{\mathrm{232Th238U_RM}}, \sqrt{\left(\left(\frac{208_{Pb}}{206_{Pb}}\right)^{\%}\right)^2 + \left(\left(\mathrm{Total_206Pb238U_RM}\right)^{\%}\right)^2 + \left(\left(\mathrm{232Th238U_RM}\right)^{\%}\right)^2}, FALSE\right)$$

4cor_Total_208Pb232Th_RM is not a reference material value
4cor_Total_208Pb232Th_RM is not a parameter value
4cor_Total_208Pb232Th_RM is healthy
4cor_Total_208Pb232Th_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["Total_206Pb238U_RM"]*["208/206"]/["232Th238U_RM"],SQRT([%'208/206']^2+[%'Total_206Pb238U_RM']^2+[%'232Th238U_RM']^2),false)

Notes:

RM spots: Calculated total 208Pb/232Th. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

Total_208Pb232Th_RM

$\boxed{\text{4cor_Total_208Pb232Th_RM}}$

Total_208Pb232Th_RM is not a reference material value
Total_208Pb232Th_RM is not a parameter value
Total_208Pb232Th_RM is healthy
Total_208Pb232Th_RM is not Squid 5-inch NU

Excel Expression String:

["4cor_Total_208Pb232Th_RM"]

Notes:

RM spots: Calculated total 208Pb/232Th. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

4cor_Total_208Pb232Th

$$\text{ValueModel}\left(\frac{\text{Total_206Pb238U} * \frac{208_{\%}}{206_{\%}}}{\text{232Th238U}}, \sqrt{\left(\left(\left(\frac{208_{\%}}{206_{\%}}\right)^{\%}\right)^{2} + \left(\left(\text{Total_206Pb238U}\right)^{\%}\right)^{2} + \left(\left(\text{232Th238U}\right)^{\%}\right)^{2}}, FALSE\right)$$

4cor_Total_208Pb232Th is not a reference material value
4cor_Total_208Pb232Th is not a parameter value
4cor_Total_208Pb232Th is healthy
4cor_Total_208Pb232Th is not Squid Switch NU

Excel Expression String:

ValueModel{["Total_206Pb238U"]*["208/206"]/["232Th238U"],SQRT(["%'208/206'"]^2+["%"Total_206Pb238U"]^2+["%"232Th238U"]^2),false}

Notes:

Sample spots: Calculated total 208Pb/232Th. ALways depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for common Pb correction of the RM.

Total_208Pb232Th

$$\text{4cor_Total_208Pb232Th}$$

Total_208Pb232Th is not a reference material value
Total_208Pb232Th is not a parameter value
Total_208Pb232Th is healthy
Total_208Pb232Th is not Squid Switch NU

Excel Expression String:

["4cor_Total_208Pb232Th"]

Notes:

Sample spots: Calculated total 208Pb/232Th. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for common Pb correction of the RM.

204Pb206Pb_From207Pb

$$\text{ValueModel}\left(\frac{\left(\frac{207_{\text{Pb}}}{206_{\text{Pb}}} - \text{RefRad_207Pb206Pb}\right)}{\left(\text{DefCom_207Pb204Pb} - \text{RefRad_207Pb206Pb} * \text{DefCom_206Pb204Pb}\right)}, \text{abs}\left(\frac{\left(\frac{207_{\text{Pb}}}{206_{\text{Pb}}}\right)^{\%} * \frac{207_{\text{Pb}}}{206_{\text{Pb}}}}{\left(\frac{207_{\text{Pb}}}{206_{\text{Pb}}} - \text{RefRad_207Pb206Pb}\right)}\right), FALSE\right)$$

204Pb206Pb_From207Pb is not a reference material value
204Pb206Pb_From207Pb is not a parameter value
204Pb206Pb_From207Pb is healthy
204Pb206Pb_From207Pb is not Squid Switch NU

Excel Expression String:

ValueModel([“207/206”]-RefRad_207Pb206Pb)/(DefCom_207Pb204Pb-(RefRad_207Pb206Pb*DefCom_206Pb204Pb)),ABS([%“207/206”]*[“207/206”])/[“207/206”]-RefRad_207Pb206Pb),false)

Notes:

none yet provided

7cor_206Pb238U_CalibConst

$$\mathrm{ValueModel}\left((1-204\mathrm{Pb}206\mathrm{Pb}_\mathrm{From}207\mathrm{Pb}*\mathrm{DefCom}_206\mathrm{Pb}204\mathrm{Pb})*\mathrm{Uncor}_206\mathrm{Pb}238\mathrm{U}_\mathrm{CalibConst}, \sqrt{\left(\left(\mathrm{Uncor}_206\mathrm{Pb}238\mathrm{U}_\mathrm{CalibConst}\right)^{\%}\right)^2+\left(\frac{\mathrm{DefCom}_206\mathrm{Pb}204\mathrm{Pb}}{\frac{1}{204\mathrm{Pb}206\mathrm{Pb}_\mathrm{From}207\mathrm{Pb}}-\mathrm{DefCom}_206\mathrm{Pb}204\mathrm{Pb}}\right)^2*\left(204\mathrm{Pb}206\mathrm{Pb}_\mathrm{From}207\mathrm{Pb}\right)^{\%}}, FALSE\right)$$

7cor_206Pb238U_CalibConst is not a reference material value
7cor_206Pb238U_CalibConst is not a parameter value
7cor_206Pb238U_CalibConst is healthy
7cor_206Pb238U_CalibConst is not Squid Switch NU

Excel Expression String:

ValueModel(1-("204Pb206Pb_From207Pb"*("DefCom_206Pb204Pb")*("Uncor_206Pb238U_CalibConst")*("Uncor_206Pb238U_CalibConst")^2+(DefCom_206Pb204Pb/(1/("204Pb206Pb_From207Pb")-DefCom_206Pb204Pb))^2*("%"204Pb206Pb_From207Pb")^2),false)

Notes:

RM spots: 207Pb-corrected 206Pb/238U calibration constant. Calculated by all Tasks except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

WtdAv_7cor_206Pb238U_CalibConst

$$\mathrm{WtdMeanACalc}\left(7\mathrm{cor__206Pb238U__CalibConst}, (7\mathrm{cor__206Pb238U__CalibConst})^{\%}, FALSE, FALSE\right)$$

WtdAv_7cor_206Pb238U_CalibConst is not a reference material value
WtdAv_7cor_206Pb238U_CalibConst is not a parameter value
WtdAv_7cor_206Pb238U_CalibConst is healthy
WtdAv_7cor_206Pb238U_CalibConst is not Squid Switch NU

Excel Expression String:

WtdMeanACalc(["7cor_206Pb238U_CalibConst"],[%"7cor_206Pb238U_CalibConst"],FALSE,FALSE)

Notes:

RM dataset: Weighted mean of 207Pb-corrected 206Pb/238U calibration constants. Calculated by all Tasks except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

7cor_206Pb238U_Ext1SigmaErr_Pct

$$\max\left(ExtPErr, \frac{\text{WtdAv_7cor_206Pb238U_CalibConst}[1]}{\text{WtdAv_7cor_206Pb238U_CalibConst}} * 100\right)$$

7cor_206Pb238U_Ext1SigmaErr_Pct is not a reference material value
7cor_206Pb238U_Ext1SigmaErr_Pct is not a parameter value
7cor_206Pb238U_Ext1SigmaErr_Pct is healthy
7cor_206Pb238U_Ext1SigmaErr_Pct is not Squid Switch NU

Excel Expression String:

Max(ExtPErr,["WtdAv_7cor_206Pb238U_CalibConst"][1]/["WtdAv_7cor_206Pb238U_CalibConst"][0]*100)

Notes:

RM dataset: Calculated external (spot-to-spot) 1sigma uncertainty (expressed as a percentage), derived from WtdAv_7cor_206Pb238U_CalibConst, subject to a user-defined minimum value. Calculated by all Tasks except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

204Pb206Pb_From208Pb

$$\frac{\left(\frac{^{206}Pb}{^{208}Pb} - \text{RefRad__208Pb206Pb__Factor} * 232\text{Th}238\text{U__RM}\right)}{(\text{DefCom__208Pb204Pb} - \text{RefRad__208Pb206Pb__Factor} * 232\text{Th}238\text{U__RM} * \text{DefCom__206Pb204Pb})}$$

204Pb206Pb_From208Pb is not a reference material value
204Pb206Pb_From208Pb is not a parameter value
204Pb206Pb_From208Pb is healthy
204Pb206Pb_From208Pb is not Squid Switch NU

Excel Expression String:

{{"208/206"}-RefRad_208Pb206Pb_Factor*{"232Th238U_RM"}}/{DefCom_208Pb204Pb-RefRad_208Pb206Pb_Factor*{"232Th238U_RM"}*DefCom_206Pb204Pb}

Notes:

none yet provided

8cor_206Pb238U_CalibConst

$$\mathrm{ValueModel}\left(\left(1-204\mathrm{Pb206Pb__From208Pb}*\mathrm{DefCom__206Pb204Pb}\right)*\mathrm{Uncor__206Pb238U__CalibConst},\sqrt{\left(\left(\left(\mathrm{Uncor__206Pb238U__CalibConst}\right)^{\%}\right)^{2}+\left(\frac{\mathrm{DefCom__206Pb204Pb}*\mathrm{Uncor__206Pb238U__CalibConst}*204\mathrm{Pb206Pb__From208Pb}}{\left(1-204\mathrm{Pb206Pb__From208Pb}*\mathrm{DefCom__206Pb204Pb}\right)*\mathrm{Uncor__206Pb238U__CalibConst}}\right)^{2}*\left(\left(\frac{\frac{208_{Pb}}{206_{Pb}}*\left(\frac{208_{Pb}}{206_{Pb}}\right)^{\%}}{\left(\frac{208_{Pb}}{206_{Pb}}-\mathrm{RefRad__208Pb206Pb__Factor}*232\mathrm{Th238U__RM}\right)}\right)^{2}+\left(\left(\frac{1}{\left(\frac{208_{Pb}}{206_{Pb}}-\mathrm{RefRad__208Pb206Pb__Factor}*232\mathrm{Th238U__RM}\right)}+\frac{\mathrm{DefCom__206Pb204Pb}}{\left(\mathrm{DefCom__208Pb204Pb}-\mathrm{DefCom__206Pb204Pb}*\mathrm{RefRad__208Pb206Pb__Factor}*232\mathrm{Th238U__RM}\right)}\right)*\mathrm{RefRad__208Pb206Pb__Factor}*232\mathrm{Th238U__RM}*\left(232\mathrm{Th238U__RM}\right)^{\%}\right)^{2}}\right),FALSE\right)$$

8cor_206Pb238U_CalibConst is not a reference material value
8cor_206Pb238U_CalibConst is not a parameter value
8cor_206Pb238U_CalibConst is healthy
8cor_206Pb238U_CalibConst is not Squid Switch NU

Excel Expression String:

ValueModel((1-("204Pb206Pb_From208Pb")*("DefCom_206Pb204Pb")*("Uncor_206Pb238U_CalibConst"LSQRT(((%"Uncor_206Pb238U_CalibConst")^2+(DefCom_206Pb204Pb*("Uncor_206Pb238U_CalibConst")*("204Pb206Pb_From208Pb")))/((1-("204Pb206Pb_From208Pb")*("DefCom_206Pb204Pb")*("Uncor_206Pb238U_CalibConst")))^2*(((("208/206")*(%"208/206")))^2+(((("208/206")-RefRad_208Pb206Pb_Factor*("232Th238U_RM")))/(("208/206")-RefRad_208Pb206Pb_Factor*("232Th238U_RM")))^2+((1/(("208/206")-RefRad_208Pb206Pb_Factor*("232Th238U_RM")))+DefCom_206Pb204Pb/(DefCom_208Pb204Pb-DefCom_206Pb204Pb*RefRad_208Pb206Pb_Factor*("232Th238U_RM")))*RefRad_208Pb206Pb_Factor*("232Th238U_RM")*(%"232Th238U_RM")^2)),false)

Notes:

RM spots: 208Pb-corrected 206Pb/238U calibration constant. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

WtdAv_Bcor_206Pb238U_CalibConst

$$\mathrm{WtdMeanACalc}\left(\mathrm{Scor_206Pb238U_CalibConst}, (\mathrm{Scor_206Pb238U_CalibConst})^{\%}, FALSE, FALSE\right)$$

WtdAv_Bcor_206Pb238U_CalibConst is not a reference material value
WtdAv_Bcor_206Pb238U_CalibConst is not a parameter value
WtdAv_Bcor_206Pb238U_CalibConst is healthy
WtdAv_Bcor_206Pb238U_CalibConst is not Squid Switch NU

Excel Expression String:

WtdMeanACalc(["Bcor_206Pb238U_CalibConst"],[%"Bcor_206Pb238U_CalibConst"],FALSE,FALSE)

Notes:

RM dataset: Weighted mean of 208Pb-corrected 206Pb/238U calibration constants. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

8cor_206Pb238U_Ext1SigmaErr_Pct

$$\max\left(ExtPErr, \frac{\text{WtdAv_8cor_206Pb238U_CalibConst}[1]}{\text{WtdAv_8cor_206Pb238U_CalibConst}} * 100\right)$$

8cor_206Pb238U_Ext1SigmaErr_Pct is not a reference material value
8cor_206Pb238U_Ext1SigmaErr_Pct is not a parameter value
8cor_206Pb238U_Ext1SigmaErr_Pct is healthy
8cor_206Pb238U_Ext1SigmaErr_Pct is not Squid Switch NU

Excel Expression String:

Max(ExtPErr,2*WtdAv_8cor_206Pb238U_CalibConst~[1]/(~WtdAv_8cor_206Pb238U_CalibConst~[0])*100)

Notes:

RM dataset: Calculated external (spot-to-spot) 1sigma uncertainty (expressed as a percentage), derived from WtdAv_8cor_206Pb238U_CalibConst, subject to a user-defined minimum value. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

Yb_bwt

$$\boxed{\mathrm{sqBiweightl}\left(\frac{190_{YLO}}{195.\,8_{Y_L}},9\right)}$$

Yb_bwt is not a reference material value
Yb_bwt is not a parameter value
Yb_bwt is healthy
Yb_bwt is not Squid Switch NU

Excel Expression String:

sqBiweightl("190/195.8",3)

Notes:

No notes

Ybsen

69.85
Yb__bwt

Ybsen is not a reference material value
Ybsen is not a parameter value
Ybsen is healthy
Ybsen is not Squid Switch NU

Excel Expression String:

69.85["Yb_bwt"]

Notes:

No notes

Ybsens1sigabserror

$$\frac{\text{Yb_bwt}[1]}{\text{Yb_bwt}} * \text{Ybsen}$$

Ybsens1sigabserror is not a reference material value
Ybsens1sigabserror is not a parameter value
Ybsens1sigabserror is healthy
Ybsens1sigabserror is not Squid Switch NU

Excel Expression String:

["Yb_bwt21"]["Yb_bwt"]*["Ybsen"]

Notes:

No notes

Hf_bwt

$$\boxed{\mathrm{sqBiweightt}\left(\frac{195.9_{\mathrm{HO}}}{195.8_{\mathrm{Pt}}}, 9\right)}$$

Hf_bwt is not a reference material value
Hf_bwt is not a parameter value
Hf_bwt is healthy
Hf_bwt is not Squid-Swinch NU

Excel Expression String:

sqBiweightt("195.9/195.8",9)

Notes:

No notes

Hfsens

8200
Hf_bwt

Hfsens is not a reference material value
Hfsens is not a parameter value
Hfsens is healthy
Hfsens is not Squid Switch NU

Excel Expression String:

8200["Hf_bwt"]

Notes:

No notes

Hfsens1sigabs

$$\frac{\text{Hf_bwt}[1]}{\text{Hf_bwt}} = \text{Hfsens}$$

Hfsens1sigabs is not a reference material value
Hfsens1sigabs is not a parameter value
Hfsens1sigabs is healthy
Hfsens1sigabs is not Squid Switch NU

Excel Expression String:

["Hf_bwt21"]["Hf_bwt"]*["Hfsens"]

Notes:

No notes

MassFract.Factor

$\boxed{Massfrac}$

MassFract.Factor is not a reference material value
MassFract.Factor is not a parameter value
MassFract.Factor is healthy
MassFract.Factor is not Squid Switch NU

Excel Expression String:

Massfrac

Notes:

No notes

7cor_Com206Pb_Pct_RM

$$100 * Def\{Com...206Pb204Pb * 204Pb206Pb\}...From207Pb$$

7cor_Com206Pb_Pct_RM is not a reference material value
7cor_Com206Pb_Pct_RM is not a parameter value
7cor_Com206Pb_Pct_RM is healthy
7cor_Com206Pb_Pct_RM is not Squid Switch NU

Excel Expression String:

100*Def{Com_206Pb204Pb*[204Pb206Pb_From207Pb^]

Notes:

RM spots: Common 206Pb as a percentage of total 206Pb, based on the 207Pb-correction.

8cor_Com206Pb_Pct_RM

$$100 * Def(Com_206Pb204Pb * 204Pb206Pb)_From208Pb$$

8cor_Com206Pb_Pct_RM is not a reference material value
8cor_Com206Pb_Pct_RM is not a parameter value
8cor_Com206Pb_Pct_RM is healthy
8cor_Com206Pb_Pct_RM is not Squid Switch NU

Excel Expression String:

100*Def(Com_206Pb204Pb*[204Pb206Pb_From208Pb^]

Notes:

RM spots: Common 206Pb as a percentage of total 206Pb, based on the 208Pb-correction. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

Total_207Pb206Pb

$$\frac{207_{Pb}}{206_{Pb}}$$

Total_207Pb206Pb is not a reference material value
Total_207Pb206Pb is not a parameter value
Total_207Pb206Pb is healthy
Total_207Pb206Pb is not Squid Switch NU

Excel Expression String:

["207/206"]

Notes:

Sample spots: Measured 207Pb/206Pb.

7cor_206Pb238U_Age

$$\boxed{\mathrm{Age7corrWithErr}\left(\mathrm{Total_206Pb238U},\ \frac{(\mathrm{Total_206Pb238U})^{[1]}}{100} * \mathrm{Total_206Pb238U},\ \mathrm{Total_207Pb206Pb},\ (\mathrm{Total_207Pb206Pb})^{[1]}\right)}$$

7cor_206Pb238U_Age is not a reference material value
7cor_206Pb238U_Age is not a parameter value
7cor_206Pb238U_Age is healthy
7cor_206Pb238U_Age is not Squid Switch NU

Excel Expression String:

Age7corrWithErr(["Total_206Pb238U"],["%"Total_206Pb238U"}/100*["Total_206Pb238U"],["Total_207Pb206Pb"],["Total_207Pb206Pb"])

Notes:

Sample spots: 207Pb-corrected 206Pb/238U age.

7cor_204Pb206Pb

$$\mathrm{Pb46cor7}\left(\frac{207_{Pb}}{206_{Pb}}, 7cor__206Pb238U__Age\right)$$

7cor_204Pb206Pb is not a reference material value
7cor_204Pb206Pb is not a parameter value
7cor_204Pb206Pb is healthy
7cor_204Pb206Pb is not Squid Switch NU

Excel Expression String:

Pb46cor7(["207/206"],["7cor_206Pb238U_Age"])

Notes:

Sample spots: 204Pb/206Pb corrected for biweight mean of overcounts at mass 204, based on counts at 207Pb in the RM dataset.

7cor_Com206Pb_Pct

$$100 * \mathrm{Def(Com_206Pb204Pb} * \mathrm{7cor_204Pb206Pb}$$

7cor_Com206Pb_Pct is not a reference material value
7cor_Com206Pb_Pct is not a parameter value
7cor_Com206Pb_Pct is healthy
7cor_Com206Pb_Pct is not Squid Switch NU

Excel Expression String:

100*Def(Com_206Pb204Pb*["7cor_204Pb206Pb"]

Notes:

Sample spots: Common 206Pb as a percentage of total 206Pb, based on the 207Pb-correction.

8cor_206Pb238U_Age

$$\boxed{\mathrm{AgeScorrWithErr}\left(\mathrm{Total_206Pb238U},\ \frac{(\mathrm{Total_206Pb238U})^{\%}}{100} * \mathrm{Total_206Pb238U},\ \mathrm{Total_208Pb232Th},\ \frac{(\mathrm{Total_208Pb232Th})^{\%}}{100} * \mathrm{Total_208Pb232Th},\ 232\mathrm{Th}238\mathrm{U},\ (232\mathrm{Th}238\mathrm{U})^{2}\right)}$$

8cor_206Pb238U_Age is not a reference material value
8cor_206Pb238U_Age is not a parameter value
8cor_206Pb238U_Age is healthy
8cor_206Pb238U_Age is not Squid Switch NU

Excel Expression String:

AgeScorrWithErr(["Total_206Pb238U"],["%"Total_206Pb238U"]/100*["Total_206Pb238U"],["Total_208Pb232Th"],["%"Total_208Pb232Th"]/100*["Total_208Pb232Th"],["232Th238U"],["232Th238U"]/[+"232Th238U"])

Notes:

Sample spots: 208Pb-corrected 206Pb/238U age.

8cor_204Pb206Pb

$$\boxed{\mathrm{Pb46cor8}\left(\frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}, 232\mathrm{Th}238\mathrm{U}, 8\mathrm{cor}_206\mathrm{Pb}238\mathrm{U}_\mathrm{Age}\right)}$$

8cor_204Pb206Pb is not a reference material value
8cor_204Pb206Pb is not a parameter value
8cor_204Pb206Pb is healthy
8cor_204Pb206Pb is not Squid Switch NU

Excel Expression String:

Pb46cor8(“208/206”;I(“232Th238U”);I(“8cor_206Pb238U_Age”))

Notes:

Sample spots: 204Pb/206Pb corrected for biweight mean of overcounts at /t mass 204, based on counts at 208Pb in the RM dataset.

8cor_Com206Pb_Pct

$$100 * \mathrm{Def}[\mathrm{Com_206Pb204Pb} * \$\mathrm{cor_204Pb206Pb}]$$

8cor_Com206Pb_Pct is not a reference material value
8cor_Com206Pb_Pct is not a parameter value
8cor_Com206Pb_Pct is healthy
8cor_Com206Pb_Pct is not Squid Switch NU

Excel Expression String:

100*Def[Com_206Pb204Pb*["8cor_204Pb206Pb"]

Notes:

Sample spots: Common 206Pb as a percentage of total 206Pb, based on the 208Pb-correction.

4cor_206Pb238U_Age_RM

$$\mathrm{ValueModel}\left(\frac{\ln\left(1.0+\frac{\mathrm{4cor_206Pb238U_CalibConst}}{\mathrm{WtdAv_4cor_206Pb238U_CalibConst}}*\mathrm{RefRad_206Pb238U}\right)}{\mathrm{Lambda238}},\frac{\frac{\left(\mathrm{4cor_206Pb238U_CalibConst}\right)^{2}}{100}*\left(e^{\left(\frac{\mathrm{Lambda230*ln}\left(1.0+\frac{\mathrm{4cor_206Pb238U_CalibConst}}{\mathrm{WtdAv_4cor_206Pb238U_CalibConst}}*\mathrm{RefRad_206Pb238U}\right)}{\mathrm{Lambda238}}\right)}-1\right)}{\mathrm{Lambda238}}}{e^{\left(\frac{\mathrm{Lambda230*ln}\left(1.0+\frac{\mathrm{4cor_206Pb238U_CalibConst}}{\mathrm{WtdAv_4cor_206Pb238U_CalibConst}}*\mathrm{RefRad_206Pb238U}\right)}{\mathrm{Lambda238}}\right)}},TRUE\right)$$

4cor_206Pb238U_Age_RM is not a reference material value
4cor_206Pb238U_Age_RM is not a parameter value
4cor_206Pb238U_Age_RM is healthy
4cor_206Pb238U_Age_RM is not Squid Switch NU

Excel Expression String:

ValueModel(LN(1.0+(["4cor_206Pb238U_CalibConst"]/["WtdAv_4cor_206Pb238U_CalibConst"])*["RefRad_206Pb238U"])/Lambda238,(%^4cor_206Pb238U_CalibConst^)/100*(EXP(Lambda230*LN(1.0+(["4cor_206Pb238U_CalibConst"]/["WtdAv_4cor_206Pb238U_CalibConst"])*["RefRad_206Pb238U"])/Lambda238)-1)/Lambda238/EXP(Lambda230*LN(1.0+(["4cor_206Pb238U_CalibConst"]/["WtdAv_4cor_206Pb238U_CalibConst"])*["RefRad_206Pb238U"])/Lambda238),true)

Notes:

RM spots: 204Pb-corrected 206Pb/238U age. Calculated for RMs in all Tasks except Th-Pb Tasks that calculate only a single 208Pb/232Th calibration ("Perm3").

7cor_206Pb238U_Age_RM

$$\text{ValueModel}\left(\frac{\ln\left(1.0+\frac{\text{7cor_206Pb238U_CalibConst}}{\text{WtdAv_7cor_206Pb238U_CalibConst}}*\text{RefRad_206Pb238U}\right)}{\text{Lambda238}},\frac{\frac{\left(\text{7cor_206Pb238U_CalibConst}\right)^{3}}{100}*\left(e^{\left(\frac{\text{Lambda238*ln}\left(1.0+\frac{\text{7cor_206Pb238U_CalibConst}}{\text{WtdAv_7cor_206Pb238U_CalibConst}}*\text{RefRad_206Pb238U}\right)}{\text{Lambda238}}\right)}-1\right)}{\text{Lambda238}}}{e^{\left(\frac{\text{Lambda238*ln}\left(1.0+\frac{\text{7cor_206Pb238U_CalibConst}}{\text{WtdAv_7cor_206Pb238U_CalibConst}}*\text{RefRad_206Pb238U}\right)}{\text{Lambda238}}\right)}},TRUE\right)$$

7cor_206Pb238U_Age_RM is not a reference material value
7cor_206Pb238U_Age_RM is not a parameter value
7cor_206Pb238U_Age_RM is healthy
7cor_206Pb238U_Age_RM is not Squid Switch NU

Excel Expression String:

ValueModel(LN(1.0+{"7cor_206Pb238U_CalibConst"}/{"WtdAv_7cor_206Pb238U_CalibConst"}[0]*RefRad_206Pb238U)/Lambda238,{%"7cor_206Pb238U_CalibConst"}/100*(EXP(Lambda238*LN(1.0+{"7cor_206Pb238U_CalibConst"}/{"WtdAv_7cor_206Pb238U_CalibConst"}[0]*RefRad_206Pb238U)/Lambda238)-1)/Lambda238/EXP(Lambda238*LN(1.0+{"7cor_206Pb238U_CalibConst"}/{"WtdAv_7cor_206Pb238U_CalibConst"}[0]*RefRad_206Pb238U)/Lambda238),true)

Notes:

RM spots: 207Pb-corrected 206Pb/238U age

8cor_206Pb238U_Age_RM

$$\text{ValueModel}\left(\frac{\ln\left(1.0 + \frac{\text{8cor_206Pb238U_CalibConst}}{\text{WtdAv_8cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}\right)}{\text{Lambda238}}, \frac{\frac{\left(\text{8cor_206Pb238U_CalibConst}\right)^{3}}{100} * \left(e^{\left(\frac{\text{Lambda238*ln}\left(1.0 + \frac{\text{8cor_206Pb238U_CalibConst}}{\text{WtdAv_8cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}\right)}{\text{Lambda238}}\right)} - 1\right)}{\text{Lambda238}}}{e^{\left(\frac{\text{Lambda238*ln}\left(1.0 + \frac{\text{8cor_206Pb238U_CalibConst}}{\text{WtdAv_8cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}\right)}{\text{Lambda238}}\right)}}, TRUE\right)$$

8cor_206Pb238U_Age_RM is not a reference material value
8cor_206Pb238U_Age_RM is not a parameter value
8cor_206Pb238U_Age_RM is healthy
8cor_206Pb238U_Age_RM is not Squid Switch NU

Excel Expression String:

ValueModel(LN(1.0+["8cor_206Pb238U_CalibConst"]/["WtdAv_8cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U)/Lambda238,(%^8cor_206Pb238U_CalibConst^)/100*(EXP(Lambda238*LN(1.0+["8cor_206Pb238U_CalibConst"]/["WtdAv_8cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U)/Lambda238)-1)/Lambda238/EXP(Lambda238*LN(1.0+["8cor_206Pb238U_CalibConst"]/["WtdAv_8cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U)/Lambda238),true)

Notes:

RM spots: 208Pb-corrected 206Pb/238U age. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

4cor_207Pb206Pb_RM

$$\mathrm{ValueModel}\left(\frac{\left(\frac{\frac{207_{Pb}}{206_{Pb}}}{\frac{204_{Pb}}{206_{Pb}}} - \mathrm{DefCom_207Pb204Pb}\right)}{\left(\frac{1}{\frac{204_{Pb}}{206_{Pb}}} - \mathrm{DefCom_206Pb204Pb}\right)} * \sqrt{\frac{\left(\left(\frac{207_{Pb}}{206_{Pb}} * \left(\frac{207_{Pb}}{206_{Pb}}\right)^{2}\right)^{2} + \left(\frac{204_{Pb}}{206_{Pb}} * \left(\frac{\left(\frac{\frac{207_{Pb}}{206_{Pb}}}{\frac{204_{Pb}}{206_{Pb}}} - \mathrm{DefCom_207Pb204Pb}\right)}{\left(\frac{1}{\frac{204_{Pb}}{206_{Pb}}} - \mathrm{DefCom_206Pb204Pb}\right)} * \mathrm{DefCom_206Pb204Pb} - \mathrm{DefCom_207Pb204Pb}\right) * \left(\frac{204_{Pb}}{206_{Pb}}\right)^{2}\right)^{2}\right)}{\left(\frac{207_{Pb}}{206_{Pb}} - \frac{204_{Pb}}{206_{Pb}} * \mathrm{DefCom_207Pb204Pb}\right)^{2}}}, FALSE\right)$$

4cor_207Pb206Pb_RM is not a reference material value
4cor_207Pb206Pb_RM is not a parameter value
4cor_207Pb206Pb_RM is healthy
4cor_207Pb206Pb_RM is not Squid Switch NU

Excel Expression String:

ValueModel(((["207/206"]/["204/206"]-DefCom_207Pb204Pb)/(1/["204/206"]-DefCom_206Pb204Pb),sqrt(((["207/206"]*["%"207/206"])^2+(["204/206"]*(((["207/206"]/["204/206"]-DefCom_207Pb204Pb)/(1/["204/206"]-DefCom_206Pb204Pb) * DefCom_206Pb204Pb-DefCom_207Pb204Pb) *["%"204/206"])^2)^2)/(["207/206"]-["204/206"]*DefCom_207Pb204Pb)^2),false)

Notes:

RM spots: 2044Pb-corrected 207Pb/206Pb ratio.

4cor_207Pb206Pb_Age_RM

$$\boxed{\mathrm{AgePb76WithErr}\left(4\mathrm{cor__207Pb206Pb__RM},\ \frac{4\mathrm{cor__207Pb206Pb__RM} * (4\mathrm{cor__207Pb206Pb__RM})^{\%}}{100}\right)}$$

4cor_207Pb206Pb_Age_RM is not a reference material value
4cor_207Pb206Pb_Age_RM is not a parameter value
4cor_207Pb206Pb_Age_RM is healthy
4cor_207Pb206Pb_Age_RM is not Squid Switch NU

Excel Expression String:

AgePb76WithErr(["4cor_207Pb206Pb_RM"],[["4cor_207Pb206Pb_RM"]*[%"4cor_207Pb206Pb_RM"]/100])

Notes:

RM spots: 2048Pb-corrected 207Pb/206Pb age.

204OvCts_From207Pb

$$\boxed{\mathrm{TotalCps}\left(204_{\mathrm{Pb}}\right) - \mathrm{TotalCps}\left(\mathrm{BKG}_{\mathrm{Bkgrnd}}\right) - 204\mathrm{Pb}206\mathrm{Pb__From207Pb} * \left(\mathrm{TotalCps}\left(206_{\mathrm{Pb}}\right) - \mathrm{TotalCps}\left(\mathrm{BKG}_{\mathrm{Bkgrnd}}\right)\right)}$$

204OvCts_From207Pb is not a reference material value
204OvCts_From207Pb is not a parameter value
204OvCts_From207Pb is healthy
204OvCts_From207Pb is not Squid Switch NU

Excel Expression String:

TotalCps["204"]-TotalCps["BKG"]-["204Pb206Pb_From207Pb"]*(TotalCps["206"]-TotalCps["BKG"]))

Notes:

RM spots: Overcounts per second at mass 204, based on counts at 207Pb.

BiWt_204OvCts_From207Pb

$\boxed{\text{sqBiweight}\ (204OvCts__From207Pb, 9)}$

BiWt_204OvCts_From207Pb is not a reference material value
BiWt_204OvCts_From207Pb is not a parameter value
BiWt_204OvCts_From207Pb is healthy
BiWt_204OvCts_From207Pb is not Squid Switch NU

Excel Expression String:

sqBiweight["204OvCts_From207Pb",9)

Notes:

RM dataset: Biweight mean of values of overcounts-per-second at mass 204, based on counts at 207Pb in the RM.

204OvCts_From208Pb

$$\boxed{\mathrm{TotalCps}\left(204_{\mathrm{Pb}}\right) - \mathrm{TotalCps}\left(\mathrm{BKG}_{\mathrm{Bkgrnd}}\right) - 204\mathrm{Pb206Pb__From208Pb} * \left(\mathrm{TotalCps}\left(206_{\mathrm{Pb}}\right) - \mathrm{TotalCps}\left(\mathrm{BKG}_{\mathrm{Bkgrnd}}\right)\right)}$$

204OvCts_From208Pb is not a reference material value
204OvCts_From208Pb is not a parameter value
204OvCts_From208Pb is healthy
204OvCts_From208Pb is not Squid Switch NU

Excel Expression String:

TotalCps["204"]-TotalCps["BKG"]-["204Pb206Pb_From208Pb"]*(TotalCps["206"]-TotalCps["BKG"]))

Notes:

RM spots: Overcounts per second at mass 204, based on counts at 208Pb. In dual-calibration Tasks (i.e. "Perm2" and "Perm4"), this value depends on the index isotope (204Pb or 207Pb) chosen for the common Pb correction.

BiWt_204OvCts_From208Pb

$\boxed{\text{sqBiweight}\ (204OvCts__From208Pb, 9)}$

BiWt_204OvCts_From208Pb is not a reference material value
BiWt_204OvCts_From208Pb is not a parameter value
BiWt_204OvCts_From208Pb is healthy
BiWt_204OvCts_From208Pb is not Squid Switch NU

Excel Expression String:

sqBiweight("204OvCts_From208Pb",9)

Notes:

RM dataset: Biweight mean of values of overcounts-per-second at mass 204, based on counts at 208Pb. In dual-calibration Tasks (i.e. "Perm2" and "Perm4"), this value depends on the index isotope (204Pb or 207Pb) chosen for the common Pb correction.

7cor_PrimaryCalibConstDelta_Pct

$$100 * \left(\frac{\left(1 - \text{DefCom_206Pb204Pb} * \frac{204_{\text{Pb}}}{206_{\text{Pb}}}\right)}{\left(1 - \text{DefCom_206Pb204Pb} * \text{204Pb206Pb_From207Pb}\right)} - 1 \right)$$

7cor_PrimaryCalibConstDelta_Pct is not a reference material value
7cor_PrimaryCalibConstDelta_Pct is not a parameter value
7cor_PrimaryCalibConstDelta_Pct is healthy
7cor_PrimaryCalibConstDelta_Pct is not Squid Switch NU

Excel Expression String:

100*((1-DefCom_206Pb204Pb*("204/206")/(1-DefCom_206Pb204Pb*("204Pb206Pb_From207Pb")-1)

Notes:

RM spots: Offset (expressed as a percentage) of the primary calibration constant, based on overcounts at mass 204 as calculated from counts at 207Pb.

BiWt_7cor_PrimaryCalibConstDelta_Pct

$\boxed{\text{sqBiweight}\,(\text{7cor_PrimaryCalibConstDelta_Pct}, 9)}$

BiWt_7cor_PrimaryCalibConstDelta_Pct is not a reference material value
BiWt_7cor_PrimaryCalibConstDelta_Pct is not a parameter value
BiWt_7cor_PrimaryCalibConstDelta_Pct is healthy
BiWt_7cor_PrimaryCalibConstDelta_Pct is not Squid Switch NU

Excel Expression String:

sqBiweight("7cor_PrimaryCalibConstDelta_Pct",9)

Notes:

RM dataset: Biweight mean of offsets (expressed as percentages) of the primary calibration constant, based on overcounts at mass 204 as calculated from counts at 207Pb.

8cor_PrimaryCalibConstDelta_Pct

$$100 * \left(\frac{\left(1 - \mathrm{DefCom_206Pb204Pb} * \frac{204_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)}{\left(1 - \mathrm{DefCom_206Pb204Pb} * \mathrm{204Pb206Pb_From208Pb}\right)} - 1 \right)$$

8cor_PrimaryCalibConstDelta_Pct is not a reference material value
8cor_PrimaryCalibConstDelta_Pct is not a parameter value
8cor_PrimaryCalibConstDelta_Pct is healthy
8cor_PrimaryCalibConstDelta_Pct is not Squid Switch NU

Excel Expression String:

100*((1-DefCom_206Pb204Pb*("204/206"))/(1-DefCom_206Pb204Pb*("204Pb206Pb_From208Pb")))-1)

Notes:

RM spots: Offset (expressed as a percentage) of the primary calibration constant, based on overcounts at mass 204 as calculated from counts at 208Pb. In dual-calibration Tasks (i.e. "Perm2" and "Perm4"), this value depends on the index isotope (204Pb or 207Pb) chosen for the common Pb correction.

BiWt_8cor_PrimaryCalibConstDelta_Pct

$$\boxed{\mathrm{sqBiweight}\ (8\mathrm{cor__PrimaryCalibConstDelta__Pct},\ 9)}$$

BiWt_8cor_PrimaryCalibConstDelta_Pct is not a reference material value
BiWt_8cor_PrimaryCalibConstDelta_Pct is not a parameter value
BiWt_8cor_PrimaryCalibConstDelta_Pct is healthy
BiWt_8cor_PrimaryCalibConstDelta_Pct is not Squid Switch NU

Excel Expression String:

sqBiweight["8cor_PrimaryCalibConstDelta_Pct",19)

Notes:

RM dataset: Biweight mean of offsets (expressed as percentages) of the primary calibration constant, based on overcounts at mass 204 as calculated from counts at 208Pb. In dual-calibration Tasks (i.e. "Perm2" and "Perm4"), this value depends on the index isotope (204Pb or 207Pb) chosen for the common Pb correction.

BiWt_4cor_207Pb206Pb_Age

$$\boxed{\mathrm{sqBiweight}\ (4cor_207Pb206Pb_Age_RM, 9)}$$

BiWt_4cor_207Pb206Pb_Age is not a reference material value
BiWt_4cor_207Pb206Pb_Age is not a parameter value
BiWt_4cor_207Pb206Pb_Age is healthy
BiWt_4cor_207Pb206Pb_Age is not Squid Switch NU

Excel Expression String:

sqBiweight["4cor_207Pb206Pb_Age_RM"],9)

Notes:

RM dataset: Biweight mean of 204Pb-corrected 207Pb/206Pb ages.

4cor_206Pb238U_RM

$$\text{ValueModel}\left(\frac{\text{4cor__206Pb238U__CalibConst}}{\text{WtdAv__4cor__206Pb238U__CalibConst}} * \text{RefRad__206Pb238U}, \left(\text{4cor__206Pb238U__CalibConst}\right)^{\%}, FALSE\right)$$

4cor_206Pb238U_RM is not a reference material value
4cor_206Pb238U_RM is not a parameter value
4cor_206Pb238U_RM is healthy
4cor_206Pb238U_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["4cor_206Pb238U_CalibConst"]{["WtdAv_4cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,[%"4cor_206Pb238U_CalibConst"],false}

Notes:

RM spots: 2048b-corrected 206Pb/238U.

7cor_Total_206Pb238U_RM

$$\text{ValueModel}\left(\frac{\text{Uncor_206Pb238U_CalibConst}}{\text{WtdAv_7cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}, \sqrt{\left(\left(\text{Uncor_206Pb238U_CalibConst}\right)^{\square}\right)^2 + \left(\text{7cor_206Pb238U_Ext1SigmaErr_Pct}\right)^2}, FALSE\right)$$

7cor_Total_206Pb238U_RM is not a reference material value
7cor_Total_206Pb238U_RM is not a parameter value
7cor_Total_206Pb238U_RM is healthy
7cor_Total_206Pb238U_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["Uncor_206Pb238U_CalibConst"]/["WtdAv_7cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,SQRT(1%*Uncor_206Pb238U_CalibConst"]^2+["7cor_206Pb238U_Ext1SigmaErr_Pct"]^2),false)

Notes:

RM spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

8cor_Total_206Pb238U_RM

$$\text{ValueModel}\left(\frac{\text{Uncor_206Pb238U_CalibConst}}{\text{WtdAv_8cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}, \sqrt{\left(\left(\text{Uncor_206Pb238U_CalibConst}\right)^{2}\right)^{2} + \left(\text{8cor_206Pb238U_Ext1SigmaErr_Pct}\right)^{2}}, FALSE\right)$$

8cor_Total_206Pb238U_RM is not a reference material value
8cor_Total_206Pb238U_RM is not a parameter value
8cor_Total_206Pb238U_RM is healthy
8cor_Total_206Pb238U_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["Uncor_206Pb238U_CalibConst"]/["WtdAv_8cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,SQRT(["Uncor_206Pb238U_CalibConst"]^2+["8cor_206Pb238U_Ext1SigmaErr_Pct"]^2),false)

Notes:

RM spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

Av_ParentElement_ConcenConst

CalculateMeanConcStd (ParentElement_ConcenConst)

Av_ParentElement_ConcenConst is not a reference material value
Av_ParentElement_ConcenConst is not a parameter value
Av_ParentElement_ConcenConst is healthy
Av_ParentElement_ConcenConst is not Squid Switch NU

Excel Expression String:

CalculateMeanConcStd(["ParentElement_ConcenConst"])

Notes:

CM spots: Arithmetic mean of Parent Element concentration constants (for nominated Parent Element), as measured SOLELY on CM.

U_Concen

$$\frac{_ParentElement__ConcenConst}{Av__ParentElement__ConcenConst} * Ref__U__Concen$$

U_Concen is not a reference material value
U_Concen is not a parameter value
U_Concen is healthy
U_Concen is not Squid Switch NU

Excel Expression String:

["ParentElement_ConcenConst"]/["Av_ParentElement_ConcenConst"]*Ref_U_Concen

Notes:

Sample spots: Calculated U content.

U_Concen_RM

$$\frac{\text{ParentElement_ConcenConst}}{\text{Av_ParentElement_ConcenConst}} * \text{Ref_U_Concen}$$

U_Concen_RM is not a reference material value
U_Concen_RM is not a parameter value
U_Concen_RM is healthy
U_Concen_RM is not Squid Switch NU

Excel Expression String:

["ParentElement_ConcenConst"]/["Av_ParentElement_ConcenConst"]*Ref_U_Concen

Notes:

RM spots: Calculated U content. In dual-calibration Tasks (i.e. "Perm2" and "Perm4") where the CM is defined in terms of its Th content, this value depends on the index isotope (204Pb or 207Pb) chosen for the common Pb correction.

Th_Concen_RM

$$\frac{\mathrm{U_Concen_RM} * 232\mathrm{Th}/238\mathrm{U_RM}}{L1033}$$

Th_Concen_RM is not a reference material value
Th_Concen_RM is not a parameter value
Th_Concen_RM is healthy
Th_Concen_RM is not Squid Switch NU

Excel Expression String:

["U_Concen_RM"]*["232Th/238U_RM"]/L1033

Notes:

RM spots: Calculated Th content. In dual-calibration Tasks (i.e. "Perm2" and "Perm4") where the CM is defined in terms of its U content, this value depends on the index isotope (204Pb or 207Pb) chosen for the common Pb correction.

Th_Concen

$\mathrm{U_Concen} * 232\mathrm{Th}238\mathrm{U}$
$J1033$

Th_Concen is not a reference material value
Th_Concen is not a parameter value
Th_Concen is healthy
Th_Concen is not Squid Switch NU

Excel Expression String:

["U_Concen"]*["232Th238U"]/L1033

Notes:

Sample spots: Calculated Th content.

4cor_207Pb235U_RM

$$\mathrm{ValueModel}\left(4\mathrm{cor__207Pb/206Pb__RM} * 4\mathrm{cor__206Pb/238U__RM} * \mathrm{Present__238U/235U}, \sqrt{\left((4\mathrm{cor__206Pb/238U__RM})^{\%}\right)^2 + \left((4\mathrm{cor__207Pb/206Pb__RM})^{\%}\right)^2}, FALSE\right)$$

4cor_207Pb/235U_RM is not a reference material value
4cor_207Pb/235U_RM is not a parameter value
4cor_207Pb/235U_RM is healthy
4cor_207Pb/235U_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["4cor_207Pb/206Pb_RM"]*["4cor_206Pb/238U_RM"]*Present_238U/235U,sqrt[[%'4cor_206Pb/238U_RM']^2+[%'4cor_207Pb/206Pb_RM']^2],false)

Notes:

RM spots: 204Pb-corrected 207Pb/235U ratio.

4cor_ErrCorrel_RM

$$\boxed{(4cor__206Pb/238U__RM)^{\%}}$$
$$\boxed{(4cor__207Pb/235U__RM)^{\%}}$$

4cor_ErrCorrel_RM is not a reference material value
4cor_ErrCorrel_RM is not a parameter value
4cor_ErrCorrel_RM is healthy
4cor_ErrCorrel_RM is not Squid Switch NU

Excel Expression String:

[%"4cor_206Pb/238U_RM"]/[%"4cor_207Pb/235U_RM"]

Notes:

RM spots: Error correlation (for Wetherill concordia plot) between 204Pb-corrected values of 207Pb/235U and 206Pb/238U.

7cor_206Pb238U_RM

$$\text{ValueModel}\left(\frac{\text{7cor__206Pb238U__CalibConst}}{\text{WtdAv__7cor__206Pb238U__CalibConst}} * \text{RefRad__206Pb238U}, \left(\text{7cor__206Pb238U__CalibConst}\right)^{\%}, FALSE\right)$$

7cor_206Pb238U_RM is not a reference material value
7cor_206Pb238U_RM is not a parameter value
7cor_206Pb238U_RM is healthy
7cor_206Pb238U_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["7cor_206Pb238U_CalibConst"]{"WtdAv_7cor_206Pb238U_CalibConst"}[0]*RefRad_206Pb238U,[%"7cor_206Pb238U_CalibConst"],false)

Notes:

RM spots: 207Pb-corrected 206Pb/238U

8cor_206Pb238U_RM

$$\text{ValueModel}\left(\frac{\text{8cor__206Pb238U__CalibConst}}{\text{WtdAv__8cor__206Pb238U__CalibConst}} * \text{RefRad__206Pb238U}, (\text{8cor__206Pb238U__CalibConst})^{\%}, FALSE\right)$$

8cor_206Pb238U_RM is not a reference material value
8cor_206Pb238U_RM is not a parameter value
8cor_206Pb238U_RM is healthy
8cor_206Pb238U_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["8cor_206Pb238U_CalibConst"]/["WtdAv_8cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,[%"8cor_206Pb238U_CalibConst"],false)

Notes:

RM spots: 208Pb-corrected 206Pb/238U. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

8cor_207Pb235U_RM

$$\mathrm{RadScorPb7U5WithErr}\left(\mathrm{Total_206Pb238U_RM},\ (\mathrm{Total_206Pb238U_RM})^{\%},\ \mathrm{8cor_206Pb238U_RM},\ \frac{\mathrm{Total_206Pb238U_RM} * \frac{207_{Pb}}{206_{Pb}}}{\mathrm{Present_238U235U}},\ \mathrm{232Th238U_RM},\ (\mathrm{232Th238U_RM})^{\%},\ \frac{207_{Pb}}{206_{Pb}},\ \left(\frac{207_{Pb}}{206_{Pb}}\right)^{\%},\ \frac{208_{Pb}}{206_{Pb}},\ \left(\frac{208_{Pb}}{206_{Pb}}\right)^{\%}\right)$$

8cor_207Pb235U_RM is not a reference material value
8cor_207Pb235U_RM is not a parameter value
8cor_207Pb235U_RM is healthy
8cor_207Pb235U_RM is not Squid Switch NU

Excel Expression String:

RadScorPb7U5WithErr(["Total_206Pb238U_RM"],[%"Total_206Pb238U_RM"],["8cor_206Pb238U_RM"],["Total_206Pb238U_RM"*["207/206"]/Present_238U235U],["232Th238U_RM"],[%"232Th238U_RM"],["207/206"],[%"207/206"],["208/206"],[%"208/206"])

Notes:

RM spots: 208Pb-corrected 207Pb/235U. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

8cor_ErrCorrel_RM

$$\mathrm{RadIscorConcRho}\left(\mathrm{Total__206Pb/238U__RM},\ (\mathrm{Total__206Pb/238U__RM})^{\%},\ \mathrm{8cor__206Pb/238U__RM},\ 232\mathrm{Th}/238\mathrm{U__RM},\ (232\mathrm{Th}/238\mathrm{U__RM})^{\%},\ \frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}},\ \left(\frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%},\ \frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}},\ \left(\frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}\right)$$

8cor_ErrCorrel_RM is not a reference material value
8cor_ErrCorrel_RM is not a parameter value
8cor_ErrCorrel_RM is healthy
8cor_ErrCorrel_RM is not Squid Switch NU

Excel Expression String:

RadIscorConcRho(["Total_206Pb/238U_RM"][%"Total_206Pb/238U_RM"]["8cor_206Pb/238U_RM"][%"232Th/238U_RM"][%"232Th/238U_RM"]["207/206"][%"207/206"]["208/206"][%"208/206"])

Notes:

RM spots: Error correlation (for Wetherill concordia plot) between 208Pb-corrected values of 207Pb/235U and 206Pb/238U. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

8cor_207Pb206Pb_RM

$$\text{ValueModel}\left(\frac{\text{8cor_207Pb235U_RM}}{\text{8cor_206Pb238U_RM}}\Big/\text{Present_238U/235U}\ ,\sqrt{\left(\left(\text{8cor_207Pb235U_RM}\right)^{\%}\right)^2+\left(\left(\text{8cor_206Pb238U_RM}\right)^{\%}\right)^2-2*\left(\text{8cor_207Pb235U_RM}\right)^{\%}*\left(\text{8cor_206Pb238U_RM}\right)^{\%}*\text{8cor_ErrCorrel_RM}},FALSE\right)$$

8cor_207Pb206Pb_RM is not a reference material value
8cor_207Pb206Pb_RM is not a parameter value
8cor_207Pb206Pb_RM is healthy
8cor_207Pb206Pb_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["8cor_207Pb235U_RM"]/["8cor_206Pb238U_RM"]/Present_238U/235U,SQRT(["8cor_207Pb235U_RM"]^2+(%"8cor_207Pb235U_RM"]^2-2*["8cor_207Pb235U_RM"]*["8cor_206Pb238U_RM"]*["8cor_ErrCorrel_RM"]),false)

Notes:

RM spots: 208Pb-corrected 207Pb/206Pb. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

8cor_207Pb206Pb_Age_RM

$$\mathrm{AgePb76WithErr}\left(8\mathrm{cor__207Pb206Pb__RM},\ \frac{8\mathrm{cor__207Pb206Pb__RM} * (8\mathrm{cor__207Pb206Pb__RM})^{\%}}{100}\right)$$

8cor_207Pb206Pb_Age_RM is not a reference material value
8cor_207Pb206Pb_Age_RM is not a parameter value
8cor_207Pb206Pb_Age_RM is healthy
8cor_207Pb206Pb_Age_RM is not Squid Switch NU

Excel Expression String:

AgePb76WithErr(["8cor_207Pb206Pb_RM"],[["8cor_207Pb206Pb_RM"]*(%"8cor_207Pb206Pb_RM")/100])

Notes:

RM spots: 208Pb-corrected 207Pb/206Pb age. Calculated solely in U-Pb Tasks that calculate only a single 206Pb/238U calibration ("Perm1").

Total_206Pb204Pb

I
$^{204}Pb/^{206}Pb$

Total_206Pb204Pb is not a reference material value
Total_206Pb204Pb is not a parameter value
Total_206Pb204Pb is healthy
Total_206Pb204Pb is not Squid Switch NU

Excel Expression String:

I[“204/206”]

Notes:

Sample spots: Measured 206Pb/204Pb.

DefRad_206Pb204Pb

$$\boxed{\mathrm{Total_206Pb204Pb} - \mathrm{DefCom_206Pb204Pb}}$$

DefRad_206Pb204Pb is not a reference material value
DefRad_206Pb204Pb is not a parameter value
DefRad_206Pb204Pb is healthy
DefRad_206Pb204Pb is not Squid Switch NU

Excel Expression String:

Total_206Pb204Pb-DefCom_206Pb204Pb

Notes:

Sample spons: Default (radiogenic 206Pb)/204Pb, defined as (Total_206Pb204Pb) - (DefCom_206Pb204Pb).

Total_207Pb204Pb

$$\frac{^{207}Pb}{^{206}Pb}$$
$$\frac{^{204}Pb}{^{206}Pb}$$

Total_207Pb204Pb is not a reference material value
Total_207Pb204Pb is not a parameter value
Total_207Pb204Pb is healthy
Total_207Pb204Pb is not Squid Switch NU

Excel Expression String:

["207/206"]["204/206"]

Notes:

Sample spots: Measured 207Pb/204Pb.

DefRad_207Pb204Pb

$$\boxed{\mathrm{Total_207Pb204Pb} - \mathrm{DefCom_207Pb204Pb}}$$

DefRad_207Pb204Pb is not a reference material value
DefRad_207Pb204Pb is not a parameter value
DefRad_207Pb204Pb is healthy
DefRad_207Pb204Pb is not Squid Switch NU

Excel Expression String:

Total_207Pb204Pb-DefCom_207Pb204Pb

Notes:

Sample spons: Default (radiogenic 207Pb)/204Pb, defined as (Total_207Pb204Pb) - (DefCom_207Pb204Pb).

Total_208Pb204Pb

^{208}Pb
^{206}Pb
^{204}Pb
^{207}Pb
^{205}Pb

Total_208Pb204Pb is not a reference material value
Total_208Pb204Pb is not a parameter value
Total_208Pb204Pb is healthy
Total_208Pb204Pb is not Squid Switch NU

Excel Expression String:

["208/206"]["204/206"]

Notes:

Sample spots: Measured 208Pb/204Pb.

DefRad_208Pb204Pb

$$\boxed{\mathrm{Total_208Pb204Pb} - \mathrm{DefCom_208Pb204Pb}}$$

DefRad_208Pb204Pb is not a reference material value
DefRad_208Pb204Pb is not a parameter value
DefRad_208Pb204Pb is healthy
DefRad_208Pb204Pb is not Squid Switch NU

Excel Expression String:

Total_208Pb204Pb-DefCom_208Pb204Pb

Notes:

Sample spons: Default (radiogenic 208Pb)/204Pb, defined as (Total_208Pb204Pb) - (DefCom_208Pb204Pb).

Rad_206Pb204Pb_Factor

$$\frac{\text{DefRad_206Pb204Pb}}{\text{Total_206Pb204Pb}}$$

Rad_206Pb204Pb_Factor is not a reference material value
Rad_206Pb204Pb_Factor is not a parameter value
Rad_206Pb204Pb_Factor is healthy
Rad_206Pb204Pb_Factor is not Squid Switch NU

Excel Expression String:

DefRad_206Pb204Pb/Total_206Pb204Pb

Notes:

Sample spots: Radiogenic 206Pb/204Pb proportionality factor, defined as (DefRad_206Pb204Pb)/(Total_206Pb204Pb).

Rad_208Pb204Pb_Factor

$$\frac{\text{DefRad_208Pb204Pb}}{\text{Total_208Pb204Pb}}$$

Rad_208Pb204Pb_Factor is not a reference material value
Rad_208Pb204Pb_Factor is not a parameter value
Rad_208Pb204Pb_Factor is healthy
Rad_208Pb204Pb_Factor is not Squid Switch NU

Excel Expression String:

DefRad_208Pb204Pb/Total_208Pb204Pb

Notes:

Sample spots: Radiogenic 208Pb/204Pb proportionality factor, defined as (DefRad_208Pb204Pb)/(Total_208Pb204Pb).

7cor_Total_206Pb238U

$$\text{ValueModel}\left(\frac{\text{Uncor_206Pb238U_CalibConst}}{\text{WtdAv_7cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}, \sqrt{\left((\text{Uncor_206Pb238U_CalibConst})^{2}\right)^{2} + (\text{7cor_206Pb238U_Ext1SigmaErr_Pct})^{2}}, FALSE\right)$$

7cor_Total_206Pb238U is not a reference material value
7cor_Total_206Pb238U is not a parameter value
7cor_Total_206Pb238U is healthy
7cor_Total_206Pb238U is not Squid Swinch NU

Excel Expression String:

ValueModel(["Uncor_206Pb238U_CalibConst"]/["WtdAv_7cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,SQRT(1%*Uncor_206Pb238U_CalibConst"]^2+["7cor_206Pb238U_Ext1SigmaErr_Pct"]^2),false)

Notes:

Sample spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for common Pb correction of the RM.

8cor_Total_206Pb238U

$$\text{ValueModel}\left(\frac{\text{Uncor_206Pb238U_CalibConst}}{\text{WtdAv_8cor_206Pb238U_CalibConst}} * \text{RefRad_206Pb238U}, \sqrt{\left(\left(\text{Uncor_206Pb238U_CalibConst}\right)^{2}\right)^{2} + \left(\text{8cor_206Pb238U_Ext1SigmaErr_Pct}\right)^{2}}, FALSE\right)$$

8cor_Total_206Pb238U is not a reference material value
8cor_Total_206Pb238U is not a parameter value
8cor_Total_206Pb238U is healthy
8cor_Total_206Pb238U is not Squid Swinch NU

Excel Expression String:

ValueModel(["Uncor_206Pb238U_CalibConst"]/["WtdAv_8cor_206Pb238U_CalibConst"][0]*RefRad_206Pb238U,SQRT(["Uncor_206Pb238U_CalibConst"]^2+["8cor_206Pb238U_Ext1SigmaErr_Pct"]^2),false)

Notes:

Sample spots: Calculated total 206Pb/238U. Always depends on the index isotope (204Pb, 207Pb, or in the case of "Perm1", possibly 208Pb) chosen for the common Pb correction.

7cor_206Pb_Concen

$$\boxed{\mathrm{Total_206Pb238U} * \mathrm{U_Concen} * L859 * (1 - \mathrm{7cor_204Pb206Pb} * \mathrm{DefCom_206Pb204Pb})}$$

7cor_206Pb_Concen is not a reference material value
7cor_206Pb_Concen is not a parameter value
7cor_206Pb_Concen is healthy
7cor_206Pb_Concen is not Squid Switch NU

Excel Expression String:

["Total_206Pb238U"]*["U_Concen"]*L859* (1-["7cor_204Pb206Pb"]*DefCom_206Pb204Pb)

Notes:

Sample spots: Radiogenic 206Pb content, based on the 207Pb-correction.

8cor_206Pb_Concen

$$\boxed{\mathrm{Total_206Pb/238U} * \mathrm{U_Concen} * L859 * (1 - \mathrm{8cor_204Pb/206Pb} * \mathrm{DefCom_206Pb/204Pb})}$$

8cor_206Pb_Concen is not a reference material value
8cor_206Pb_Concen is not a parameter value
8cor_206Pb_Concen is healthy
8cor_206Pb_Concen is not Squid Switch NU

Excel Expression String:

["Total_206Pb/238U"]*["U_Concen"]*L859*(1-["8cor_204Pb/206Pb"]*DefCom_206Pb/204Pb)

Notes:

Sample spots: Radiogenic 206Pb content, based on the 208Pb-correction.

4cor_206Pb_Concen

$$\boxed{\text{Total__206Pb238U} * \text{U__Concen} * L859 * \left(1 - \frac{204_{\text{Pb}}}{206_{\text{Pb}}} * \text{DefCom__206Pb204Pb}\right)}$$

4cor_206Pb_Concen is not a reference material value
4cor_206Pb_Concen is not a parameter value
4cor_206Pb_Concen is healthy
4cor_206Pb_Concen is not Squid Switch NU

Excel Expression String:

["Total_206Pb238U"]*["U_Concen"]*L859*(1-["204/206"]*DefCom_206Pb204Pb)

Notes:

Sample spots: Radiogenic 206Pb content, based on the 204Pb-correction.

4cor_208Pb206Pb

$$\mathrm{ValueModel}\left(\begin{array}{c}\left(\frac{\frac{^{208}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}}}{\frac{^{206}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}}} - \mathrm{DefCom_208Pb204Pb}\right), 100 * \sqrt{\frac{\left(\left(\left(\frac{\left(\frac{^{208}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}}\right)^{2}}{^{206}\mathrm{Pb}_{\mathrm{c}}}\right)^{2} + \left(\frac{\left(\frac{^{208}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}} - \mathrm{DefCom_208Pb204Pb}\right)}{\left(\frac{^{206}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}} - \mathrm{DefCom_206Pb204Pb}\right)} + \mathrm{DefCom_206Pb204Pb} - \mathrm{DefCom_208Pb204Pb}\right)^{2} + \left(\frac{\left(\frac{^{208}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}}\right)^{2}}{^{206}\mathrm{Pb}_{\mathrm{c}}}\right)^{2}\right)}{\left(1 - \mathrm{DefCom_206Pb204Pb} * \frac{^{208}\mathrm{Pb}_{\mathrm{c}}}{^{206}\mathrm{Pb}_{\mathrm{c}}}\right)^{2}}}{\mathrm{abs}\left(\left(\frac{\frac{^{208}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}}}{\frac{^{206}\mathrm{Pb}_{\mathrm{c}}}{^{204}\mathrm{Pb}_{\mathrm{c}}}} - \mathrm{DefCom_208Pb204Pb}\right)\right)}, FALSE\end{array}\right)$$

4cor_208Pb206Pb is not a reference material value
4cor_208Pb206Pb is not a parameter value
4cor_208Pb206Pb is healthy
4cor_208Pb206Pb is not Squid Switch NU

Excel Expression String:

ValueModel(([“208/206”]/[“204/206”]-DefCom_208Pb204Pb)/(1-[“204/206”]-DefCom_206Pb204Pb),100*sqrt(((%“208/206”)100*[“208/206”])^2+(([“208/206”]/[“204/206”]-DefCom_208Pb204Pb)/(1-[“204/206”]-DefCom_206Pb204Pb)*DefCom_206Pb204Pb-DefCom_208Pb204Pb)^2*[%“204/206”]100*[“204/206”])^2)/(1-DefCom_206Pb204Pb*[“204/206”])^2)/abs(([“208/206”]/[“204/206”]-DefCom_208Pb204Pb)/(1-[“204/206”]-DefCom_206Pb204Pb)),false)

Notes:

RM and Sample spots: Radiogenic 208Pb/206Pb, based on the 204Pb-correction.

4cor_208Pb_Concen

$$\frac{4cor_206Pb_Concen * 4cor_208Pb206Pb * 208}{206}$$

4cor_208Pb_Concen is not a reference material value
4cor_208Pb_Concen is not a parameter value
4cor_208Pb_Concen is healthy
4cor_208Pb_Concen is not Squid Switch NU

Excel Expression String:

["4cor_206Pb_Coscen"]*["4cor_208Pb206Pb"]*208/206

Notes:

Sample spots: Radiogenic 208Pb content, based on the 204Pb-correction.

7cor_208Pb206Pb

$$\mathrm{ValueModel}\left(\left(\frac{\frac{208_{Pb}}{206_{Pb}}}{\frac{1}{7cor_204Pb206Pb\%}} - \mathrm{DefCom_208Pb204Pb}\right), \mathrm{Pb86radCor7per}\left(\frac{208_{Pb}}{206_{Pb}}, \frac{207_{Pb}}{206_{Pb}}, \mathrm{Total_206Pb238U}, (\mathrm{Total_206Pb238U})^{95}, \mathrm{7cor_206Pb238U_Age}\right), FALSE\right)$$

7cor_208Pb206Pb is not a reference material value
7cor_208Pb206Pb is not a parameter value
7cor_208Pb206Pb is healthy
7cor_208Pb206Pb is not Squid Switch NU

Excel Expression String:

ValueModel([["208/206"]/(["7cor_204Pb206Pb"]-DefCom_208Pb204Pb)/(1/["7cor_204Pb206Pb"])-DefCom_206Pb204Pb],Pb86radCor7per([["208/206"],["207/206"],["Total_206Pb238U"],(%"Total_206Pb238U")^95,["7cor_206Pb238U_Age"]],false)

Notes:

Sample spots: Radiogenic 208Pb/206Pb, based on the 207Pb-correction.

7cor_208Pb_Concen

$$\frac{7cor_206Pb_Concen * 7cor_208Pb206Pb * 208}{206}$$

7cor_208Pb_Concen is not a reference material value
7cor_208Pb_Concen is not a parameter value
7cor_208Pb_Concen is healthy
7cor_208Pb_Concen is not Squid Switch NU

Excel Expression String:

["7cor_206Pb_Cosocen"]*["7cor_208Pb206Pb"]*208/206

Notes:

Sample spots: Radiogenic 208Pb content, based on the 207Pb-correction.

4cor_206Pb238U

$$\text{ValueModel}\left(\text{Total__206Pb238U} * \text{Rad__206Pb204Pb__Factor}, \sqrt{\left(\left(\text{(Total__206Pb238U)}^{(1)}\right)^2 + \left(\frac{\text{DefCom__206Pb204Pb} * \left(\frac{204_{\text{Pb}}}{206_{\text{Pc}}}\right)^{(1)}}{\left(\frac{1}{206_{\text{Pc}}} - \text{DefCom__206Pb204Pb}\right)}\right)^2\right)}, FALSE\right)$$

4cor_206Pb238U is not a reference material value
4cor_206Pb238U is not a parameter value
4cor_206Pb238U is healthy
4cor_206Pb238U is not Squid Switch NU

Excel Expression String:

ValueModel(["Total_206Pb238U"*Rad_206Pb204Pb_Factor,SQRT(["%"Total_206Pb238U"]^2+(DefCom_206Pb204Pb*["%"204/206"]/(1/["204/206"]-DefCom_206Pb204Pb))^2),false)

Notes:

Sample spon: 204Pb-corrected 206Pb/238U.

4cor_238U206Pb

$$\boxed{\text{ValueModel}\left(\frac{1}{\text{4cor__206Pb238U}}, (\text{4cor__206Pb238U})^{15}, FALSE\right)}$$

4cor_238U206Pb is not a reference material value
4cor_238U206Pb is not a parameter value
4cor_238U206Pb is healthy
4cor_238U206Pb is not Squid Switch NU

Excel Expression String:

ValueModel(LI{"4cor_206Pb238U"}L%"4cor_206Pb238U"}L false)

Notes:

Sample spots: 204Pb-corrected 238U/206Pb.

4cor_207Pb206Pb

$$\text{ValueModel}\left(\text{abs}\left(\frac{\text{DefRad_207Pb204Pb}}{\text{DefRad_206Pb204Pb}}\right), \text{abs}\left(\frac{\sqrt{\left(\frac{\left(\frac{207\text{Pb}}{204\text{Pb}}\right)^{2}}{\left(\frac{\text{DefRad_207Pb204Pb}}{\text{DefRad_206Pb204Pb}}\right)}\cdot\left(\frac{\text{DefRad_207Pb204Pb}}{\text{DefRad_206Pb204Pb}}\right)\cdot\left(\frac{206\text{Pb}}{204\text{Pb}}\right)^{2}\right)^{2}+\left(\frac{\left(\frac{207\text{Pb}}{204\text{Pb}}\right)^{2}}{\left(\frac{206\text{Pb}}{204\text{Pb}}\right)^{2}}\cdot\frac{207\text{Pb}}{206\text{Pb}}\right)^{2}}}{\text{DefRad_206Pb204Pb}}}{\text{abs}\left(\frac{\text{DefRad_207Pb204Pb}}{\text{DefRad_206Pb204Pb}}\right)} * 100\right), FALSE\right)$$

4cor_207Pb206Pb is not a reference material value
4cor_207Pb206Pb is not a parameter value
4cor_207Pb206Pb is healthy
4cor_207Pb206Pb is not Squid Switch NU

Excel Expression String:

ValueModel(ABS(DefRad_207Pb204Pb/DefRad_206Pb204Pb),ABS(SQRT(((["207/206"]-ABS(DefRad_207Pb204Pb/DefRad_206Pb204Pb)/["%"204/206"])100["204/206"])^2 + (["%"207/206"]["204/206"]100*["207/206"])^2)/DefRad_206Pb204Pb*100/ABS(DefRad_207Pb204Pb/DefRad_206Pb204Pb)),false)

Notes:

Sample spons: 204Pb-corrected 207Pb/206Pb.

4cor_207Pb206Pb_Age

$$\boxed{\mathrm{AgePb76WithErr}\left(4\mathrm{cor__207Pb206Pb},\ \frac{4\mathrm{cor__207Pb206Pb} * (4\mathrm{cor__207Pb206Pb})^{\%}}{100}\right)}$$

4cor_207Pb206Pb_Age is not a reference material value
4cor_207Pb206Pb_Age is not a parameter value
4cor_207Pb206Pb_Age is healthy
4cor_207Pb206Pb_Age is not Squid Switch NU

Excel Expression String:

AgePb76WithErr(["4cor_207Pb206Pb"],[["4cor_207Pb206Pb"]*["%"4cor_207Pb206Pb"]/100))

Notes:

Sample spots: 204Pb-corrected 207Pb/206Pb age.

4cor_207Pb235U

$$\text{ValueModel}\left(4\text{cor_207Pb206Pb} * 4\text{cor_206Pb238U} * \text{Present_238U235U}, \sqrt{\left((4\text{cor_207Pb206Pb})^{2}\right)^{2} + \left((4\text{cor_206Pb238U})^{2}\right)^{2}}, FALSE\right)$$

4cor_207Pb235U is not a reference material value
4cor_207Pb235U is not a parameter value
4cor_207Pb235U is healthy
4cor_207Pb235U is not Squid Switch NU

Excel Expression String:

ValueModel([4~cor_207Pb206Pb~]*[4~cor_206Pb238U~]*Present_238U235U,SQRT([%~4cor_207Pb206Pb~]^2+[%~4cor_206Pb238U~]^2),false)

Notes:

Sample spots: 204Pb-corrected 207Pb/235U.

4cor_ErrCorrel

$$(4cor__206Pb/238U)^{*}$$
$$(4cor__207Pb/235U)^{*}$$

4cor_ErrCorrel is not a reference material value
4cor_ErrCorrel is not a parameter value
4cor_ErrCorrel is healthy
4cor_ErrCorrel is not Squid Switch NU

Excel Expression String:

[%"4cor_206#%238U"]{%"4cor_207Pb235U"}

Notes:

Sample spots: Error correlation (for Wetherill concordia plot) between 204Pb-corrected values of 207Pb/235U and 206Pb/238U.

4cor_Discord_Pct

$$\boxed{100 * \left(1 - \frac{\text{4cor_206Pb238U}}{\left(e^{(\text{Lambda238*4cor_207Pb206Pb_Age})} - 1\right)}\right)}$$

4cor_Discord_Pct is not a reference material value
4cor_Discord_Pct is not a parameter value
4cor_Discord_Pct is healthy
4cor_Discord_Pct is not Squid Switch NU

Excel Expression String:

100*(1-["4cor_206Pb238U"]/(EXP(Lambda238*["4cor_207Pb206Pb_Age"])-1))

Notes:

Sample spots: Discordance of 204Pb-corrected 206Pb/238U and 207Pb/206Pb, defined as 100 * [1 - { (206Pb/238U) / exp[[Lambda238 * [207Pb/206Pb age]] - 1) }], and expressed as a percentage.

4cor_208Pb232Th

$$\text{ValueModel}\left(\text{Total_208Pb232Th} * \text{Rad_208Pb204Pb_Factor}, \sqrt{\left(\left(\text{Total_208Pb232Th}\right)^{\%}\right)^2 + \left(\frac{\text{DefCom_208Pb204Pb}}{\text{DefRad_208Pb204Pb}}\right)^2 * \left(\left(\frac{204_{\text{Pb}}}{206_{\text{Pb}}}\right)^{\%}\right)^2}, FALSE\right)$$

4cor_208Pb232Th is not a reference material value
4cor_208Pb232Th is not a parameter value
4cor_208Pb232Th is healthy
4cor_208Pb232Th is not Squid Switch NU

Excel Expression String:

ValueModel(["Total_208Pb232Th"]*Rad_208Pb204Pb_Factor,SQRT(["%"Total_208Pb232Th"]^2+(DefCom_208Pb204Pb/DefRad_208Pb204Pb)^2*["%"204/206"]^2),false)

Notes:

Sample spons: 204Pb-corrected 208Pb/232Th.

4cor_208Pb232Th_Age

$$\text{ValueModel}\left(\frac{\ln\left(1+\text{4cor_208Pb232Th}\right)}{\text{Lambda232}}, \frac{\frac{\text{Inp_208Pb232Th}}{\left(1+\text{4cor_208Pb232Th}\right)} * \left(\text{4cor_208Pb232Th}\right)^{35}}{100}, TRUE\right)$$

4cor_208Pb232Th_Age is not a reference material value
4cor_208Pb232Th_Age is not a parameter value
4cor_208Pb232Th_Age is healthy
4cor_208Pb232Th_Age is not Squid Switch NU

Excel Expression String:

ValueModel({LN(1+["4cor_208Pb232Th"]/Lambda232)},{["4cor_208Pb232Th"]/Lambda232/(1+["4cor_208Pb232Th"])*["%"4cor_208Pb232Th"]/100},true)

Notes:

Sample spots: 204Pb-corrected 208Pb/232Th age.

7cor_206Pb238U

$$\boxed{\mathrm{ValueModel}\left(e^{(\mathrm{Lambda238}*\mathrm{7cor_206Pb238U_Age})} - 1,\ \frac{\mathrm{Lambda238} * e^{(\mathrm{Lambda238}*\mathrm{7cor_206Pb238U_Age})} * (\mathrm{7cor_206Pb238U_Age})^{\pm}}{\left(e^{(\mathrm{Lambda238}*\mathrm{7cor_206Pb238U_Age})} - 1\right)} * 100, FALSE\right)}$$

7cor_206Pb238U is not a reference material value
7cor_206Pb238U is not a parameter value
7cor_206Pb238U is healthy
7cor_206Pb238U is not Squid Switch NU

Excel Expression String:

ValueModel(EXP(Lambda238*["7cor_206Pb238U_Age"])-1,Lambda238*EXP(Lambda238*["7cor_206Pb238U_Age"])*(±"7cor_206Pb238U_Age")/(EXP(Lambda238*["7cor_206Pb238U_Age"])-1)*100,false)

Notes:

Sample spots: 2079b-corrected 206Pb/238U.

7cor_208Pb232Th_Age

$$\mathrm{Age7CorPb8Th2WithErr}\left(\mathrm{Total_206Pb238U},\ (\mathrm{Total_206Pb238U})^{\%},\ \mathrm{Total_208Pb232Th},\ (\mathrm{Total_208Pb232Th})^{\%},\ \frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}},\ \left(\frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%},\ \frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}},\ \left(\frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}\right)$$

7cor_208Pb232Th_Age is not a reference material value
7cor_208Pb232Th_Age is not a parameter value
7cor_208Pb232Th_Age is healthy
7cor_208Pb232Th_Age is not Squid Swich NU

Excel Expression String:

Age7CorPb8Th2WithErr(["Total_206Pb238U"]|%"Total_206Pb238U"|["Total_208Pb232Th"]|%"Total_208Pb232Th"|["208/206"]|%"208/206"|["207/206"]|%"207/206"])

Notes:

Sample spots: 207Pb-corrected 208Pb/232Th age.

7cor_208Pb232Th

$$\text{ValueModel}\left(e^{(\text{Lambda232}*\text{7cor_208Pb232Th_Age})} - 1,\ \frac{\text{Lambda232} * e^{(\text{Lambda232}*\text{7cor_208Pb232Th_Age})} * (\text{7cor_208Pb232Th_Age})^{2}}{\left(e^{(\text{Lambda232}*\text{7cor_208Pb232Th_Age})} - 1\right)} * 100,\ FALSE\right)$$

7cor_208Pb232Th is not a reference material value
7cor_208Pb232Th is not a parameter value
7cor_208Pb232Th is healthy
7cor_208Pb232Th is not Squid Switch NU

Excel Expression String:

ValueModel(EXP(Lambda232*["7cor_208Pb232Th_Age"])-1,Lambda232*EXP(Lambda232*["7cor_208Pb232Th_Age"])*["7cor_208Pb232Th_Age"]^2/(EXP(Lambda232*["7cor_208Pb232Th_Age"])-1)*100,false)

Notes:

Sample spots: 207Pb-corrected 208Pb/232Th.

8cor_206Pb238U

$$\boxed{\text{ValueModel}\left(\text{Pb206U238rad}\left(\$\text{cor__206Pb238U__Age}\right), \frac{\text{Lambda238} * \left(1 + \text{Pb206U238rad}\left(\$\text{cor__206Pb238U__Age}\right)\right) * \left(\$\text{cor__206Pb238U__Age}\right)^{2} * 100}{\text{Pb206U238rad}\left(\$\text{cor__206Pb238U__Age}\right)}, FALSE\right)}$$

8cor_206Pb238U is not a reference material value
8cor_206Pb238U is not a parameter value
8cor_206Pb238U is healthy
8cor_206Pb238U is not Squid Switch NU

Excel Expression String:

ValueModel(Pb206U238rad(["8cor_206Pb238U_Age"]),Lambda238*(1+Pb206U238rad(["8cor_206Pb238U_Age"]))*(["8cor_206Pb238U_Age"]^2)*100/Pb206U238rad(["8cor_206Pb238U_Age"]),false)

Notes:

Sample spots: 208Pb-corrected 206Pb/238U.

8cor_238U206Pb

$$\boxed{\text{ValueModel}\left(\frac{1}{\text{8cor__206Pb238U}}, (\text{8cor__206Pb238U})^{15}, FALSE\right)}$$

8cor_238U206Pb is not a reference material value
8cor_238U206Pb is not a parameter value
8cor_238U206Pb is healthy
8cor_238U206Pb is not Squid Switch NU

Excel Expression String:

VALUEMODEL(1/['8cor_206Pb238U'],['%'8cor_206Pb238U'],false)

Notes:

CM spots: Arithmetic mean of Parent Element concentration constants (for nominated Parent Element), as measured SOLELY on CM

8cor_207Pb235U

$$\mathrm{RadScorPb7U5WithErr}\left(\mathrm{Total_206Pb238U}, (\mathrm{Total_206Pb238U})^{\%}, \mathrm{8cor_206Pb238U}, \frac{\mathrm{Total_206Pb238U} * \frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}}{\mathrm{Present_238U235U}}, 232\mathrm{Th238U}, (232\mathrm{Th238U})^{\%}, \frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}, \left(\frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}, \frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}, \left(\frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}\right)$$

8cor_207Pb235U is not a reference material value
8cor_207Pb235U is not a parameter value
8cor_207Pb235U is healthy
8cor_207Pb235U is not Squid Switch NU

Excel Expression String:

RadScorPb7U5WithErr(["Total_206Pb238U"]|%"Total_206Pb238U"|["8cor_206Pb238U"]|["Total_206Pb238U"]*["207/206"]/Present_238U235U|["232Th238U"]|%"232Th238U"|["207/206"]|%"207/206"|["208/206"]|%"208/206"])

Notes:

Sample spots: 208Pb-corrected 207Pb/235U.

8cor_ErrCorrel

$$\mathrm{RadIscorConcRho}\left(\mathrm{Total_206Pb/238U}, \left(\mathrm{Total_206Pb/238U}\right)^{\%}, \mathrm{8cor_206Pb/238U}, \mathrm{232Th/238U}, \left(\mathrm{232Th/238U}\right)^{\%}, \left(\frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}, \left(\frac{207_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}, \left(\frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}, \left(\frac{208_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\%}\right)$$

8cor_ErrCorrel is not a reference material value
8cor_ErrCorrel is not a parameter value
8cor_ErrCorrel is healthy
8cor_ErrCorrel is not Squid Switch NU

Excel Expression String:

RadIscorConcRho(["Total_206Pb/238U"],[%"Total_206Pb/238U"],["8cor_206Pb/238U"],["232Th/238U"],[%"232Th/238U"],["207/206"],[%"207/206"],["208/206"],[%"208/206"])

Notes:

Sample spots: Error correlation (for Wetherill concordia plot) between 208Pb-corrected values of 207Pb/235U and 206Pb/238U.

8cor_207Pb206Pb

$$\mathrm{ValueModel}\left(\frac{\frac{\$cor_207Pb/235U}{\$cor_206Pb/238U}}{\mathrm{Present_238U/235U}}\ ^{\prime}\sqrt{\left(\left(\$cor_207Pb/235U\right)^{\%}\right)^{2}+\left(\left(\$cor_206Pb/238U\right)^{\%}\right)^{2}-2*\left(\$cor_207Pb/235U\right)^{\%}*\left(\$cor_206Pb/238U\right)^{\%}*\$cor_ErrCorrel},FALSE\right)$$

8cor_207Pb/206Pb is not a reference material value
8cor_207Pb/206Pb is not a parameter value
8cor_207Pb/206Pb is healthy
8cor_207Pb/206Pb is not Squid Swinch NU

Excel Expression String:

ValueModel(["8cor_207Pb/235U"]/["8cor_206Pb/238U"]/Present_238U/235U,SQRT(["8cor_207Pb/235U"]^2+["8cor_206Pb/238U"]^2-2*["8cor_207Pb/235U"]^["8cor_206Pb/238U"]*["8cor_ErrCorrel"]),false)

Notes:

Sample spots: 208Pb-corrected 207Pb/206Pb.

8cor_207Pb206Pb_Age

$$\boxed{\mathrm{AgePb76WithErr}\left(8\mathrm{cor__207Pb206Pb},\ \frac{8\mathrm{cor__207Pb206Pb} * (8\mathrm{cor__207Pb206Pb})^{\mathrm{U}}}{100}\right)}$$

8cor_207Pb206Pb_Age is not a reference material value
8cor_207Pb206Pb_Age is not a parameter value
8cor_207Pb206Pb_Age is healthy
8cor_207Pb206Pb_Age is not Squid Switch NU

Excel Expression String:

AgePb76WithErr(["8cor_207Pb206Pb"],[["8cor_207Pb206Pb"]*["%"8cor_207Pb206Pb"]/100))

Notes:

Sample spots: 208Pb-corrected 207Pb/206Pb age.

8cor_Discord_Pct

$$\boxed{100 * \left(1 - \frac{8\text{cor__206Pb238U}}{\left(e^{(\text{Lambda238*8cor__207Pb206Pb__Age})} - 1\right)}\right)}$$

8cor_Discord_Pct is not a reference material value
8cor_Discord_Pct is not a parameter value
8cor_Discord_Pct is healthy
8cor_Discord_Pct is not Squid Switch NU

Excel Expression String:

100*(1-{"8cor_206Pb238U"}/(EXP(Lambda238*{"8cor_207Pb206Pb_Age"})-1))

Notes:

Sample spots: Discordance of 208Pb-corrected 206Pb/238U and 207Pb/206Pb, defined as 100 * [1 - { (206Pb/238U) / exp([Lambda238 * [207Pb/206Pb age]] - 1) }],
and expressed as a percentage

MF_corr.4corr.207*/235%err.

$$\left(4cor__207Pb/235U\right)^{\%}$$

MF_corr.4corr.207*/235%err. is not a reference material value
MF_corr.4corr.207*/235%err. is not a parameter value
MF_corr.4corr.207*/235%err. is healthy
MF_corr.4corr.207*/235%err. is not Squid Switch NU

Excel Expression String:

[%'4cor_207Pb235U']

Notes:

No notes

MF_corr.4corr.206*/238

$4corr_206Pb/238U$

MF_corr.4corr.206*/238 is not a reference material value
MF_corr.4corr.206*/238 is not a parameter value
MF_corr.4corr.206*/238 is healthy
MF_corr.4corr.206*/238 is not Squid Switch NU

Excel Expression String:

["4corr_206Pb/238U"]

Notes:

No notes

MF_corr.4corr.206*/238%err.

$$(4cor__206Pb/238U)^{\%}$$

MF_corr.4corr.206*/238%err. is not a reference material value
MF_corr.4corr.206*/238%err. is not a parameter value
MF_corr.4corr.206*/238%err. is healthy
MF_corr.4corr.206*/238%err. is not Squid Switch NU

Excel Expression String:

[%'4cor_206Pb238U']

Notes:

No notes

MF_corr.4corr.7*/6*%err.

$(4cor...207Pb206Pb)^{K}$

MF_corr.4corr.7*/6*%err. is not a reference material value
MF_corr.4corr.7*/6*%err. is not a parameter value
MF_corr.4corr.7*/6*%err. is healthy
MF_corr.4corr.7*/6*%err. is not Squid Switch NU

Excel Expression String:

[%'4cor_207Pb206Pb'/]

Notes:

No notes

Total_238U206Pb

$$\boxed{\mathrm{ValueModel}\left(\frac{1}{\mathrm{Total_206Pb238U}}, (\mathrm{Total_206Pb238U})^{\%}, FALSE\right)}$$

Total_238U206Pb is not a reference material value
Total_238U206Pb is not a parameter value
Total_238U206Pb is healthy
Total_238U206Pb is not Squid Switch NU

Excel Expression String:

ValueModel(1/["Total_206Pb238U"],["%"Total_206Pb238U"],false)

Notes:

Sample spots: Calculated total 238U/206Pb. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for common Pb correction of the RM.

4cor_206Pb238U_Age

$$\mathrm{ValueModel}\left(\frac{\ln\left(1+4\mathrm{cor__206Pb238U}\right)}{\mathrm{Lambda238}},\sqrt{\left(\frac{1}{e^{\left(\frac{1}{\mathrm{Lambda238}}*\frac{\ln\left(1+4\mathrm{cor__206Pb238U}\right)}{\mathrm{Lambda238}}\right)}}\right)^2*\left(\mathrm{Total__206Pb238U}*\frac{204_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^2*\left(\frac{\left(\mathrm{DefRad__206Pb204Pb}*\left(\mathrm{Total__206Pb238U}\right)^{\frac{1}{2}}\right)}{100}\right)^2+\left(\frac{\left(\frac{204_{\mathrm{Pb}}}{206_{\mathrm{Pb}}}\right)^{\frac{1}{2}}*\mathrm{DefCom__206Pb204Pb}}{100}\right)^2}\,.TRUE\right)$$

4cor_206Pb238U_Age is not a reference material value
4cor_206Pb238U_Age is not a parameter value
4cor_206Pb238U_Age is healthy
4cor_206Pb238U_Age is not Squid Switch NU

Excel Expression String:

ValueModel((LN(1+["4cor_206Pb238U"])/Lambda238),SQRT(((1/Lambda238/EXP(Lambda238*(LN(1+["4cor_206Pb238U"])/Lambda238)))^2)*(["Total_206Pb238U"]*["204/206"])^2)*(["Total_206Pb238U"]*["204/206"])^2)*(DefRad_206Pb204Pb*["%"Total_206Pb238U"]/100)^2+(["%"204/206"]*DefCom_206Pb204Pb/100)^2),true)

Notes:

Sample spots: 204Pb-corrected 206Pb/238U age.

MF-corr.206*/238 Age

$$4cor_206Pb238U_Age$$

MF-corr.206*/238 Age is not a reference material value
MF-corr.206*/238 Age is not a parameter value
MF-corr.206*/238 Age is healthy
MF-corr.206*/238 Age is not Squid Switch NU

Excel Expression String:

["4cor_206Pb238U_Age"]

Notes:

No notes

MF-corr.206*/238 Ageabs.err.

$$\boxed{[4cor__206Pb238U__Age]^{\Xi}}$$

MF-corr.206*/238 Ageabs.err. is not a reference material value
MF-corr.206*/238 Ageabs.err. is not a parameter value
MF-corr.206*/238 Ageabs.err. is healthy
MF-corr.206*/238 Ageabs.err. is not Squid Switch NU

Excel Expression String:

[±"4cor_206Pb238U_Age"]

Notes:

No notes

MF_corr.4corr.7*/6*

$$\boxed{4cor_207Pb/206Pb * MassFract.Factor}$$

MF_corr.4corr.7*/6* is not a reference material value
MF_corr.4corr.7*/6* is not a parameter value
MF_corr.4corr.7*/6* is healthy
MF_corr.4corr.7*/6* is not Squid Switch NU

Excel Expression String:

["4cor_207Pb/206Pb"*["MassFract.Factor"]

Notes:

No notes

MF_corr.4corr.7*/6* Age

$\boxed{\mathrm{AgeP b76}\,(\mathrm{MF_corr.\,4corr.\,7*/6*})}$

MF_corr.4corr.7*/6* Age is not a reference material value
MF_corr.4corr.7*/6* Age is not a parameter value
MF_corr.4corr.7*/6* Age is healthy
MF_corr.4corr.7*/6* Age is not Squid Switch NU

Excel Expression String:

AgeP b76(“MF_corr.4corr.7*/6*”))

Notes:

No notes

MF_corr.%Disc.

$$1 - \frac{\text{MF_corr. 4corr. 206} * /238}{\left(e^{0.00015125 * \text{MF_corr. 4corr. 7} * /6 * \text{Age}} - 1\right)}$$

MF_corr.%Disc. is not a reference material value
MF_corr.%Disc. is not a parameter value
MF_corr.%Disc. is healthy
MF_corr.%Disc. is not Squid Switch NU

Excel Expression String:

(1-(["MF_corr.4corr.206*/238"]/(EXP(0.00015125*["MF_corr.4corr.7*/6* Age"])-1))

Notes:

No notes

62667*/6*biwt

$\boxed{\mathrm{sqBiweight}\ (4cor_207Pb206Pb,\ 9)}$

62667*/6*biwt is not a reference material value
62667*/6*biwt is not a parameter value
62667*/6*biwt is not healthy
62667*/6*biwt is not Squid Switch NU

Excel Expression String:

sqBiweight["4cor_207Pb206Pb",19)

Notes:

No notes

4cor_Com206Pb_Pct

$$100 * \mathrm{DefCom_206Pb204Pb} * \frac{204_{Pb}}{206_{Pb}}$$

4cor_Com206Pb_Pct is not a reference material value
4cor_Com206Pb_Pct is not a parameter value
4cor_Com206Pb_Pct is healthy
4cor_Com206Pb_Pct is not Squid Switch NU

Excel Expression String:

100*DefCom_206Pb204Pb*["204/206"]

Notes:

RM and Sample spots: Common 206Pb as a percentage of total 206Pb, based on the 204Pb-correction.

6266%com206

$$\boxed{\mathrm{sqBiweight}\left(4\mathrm{cor}\ldots\mathrm{Com206Pb}\ldots\mathrm{Pct},9\right)}$$

6266%com206 is not a reference material value
6266%com206 is not a parameter value
6266%com206 is healthy
6266%com206 is not Squid Switch NU

Excel Expression String:

sqBiweight["4cor_Com206Pb_Pct",9)

Notes:

No notes

Ybppm

$$\boxed{\frac{190_{\mathrm{NO}}}{195.8_{\mathrm{Er}}} + \mathrm{Ybsen}}$$

Ybppm is not a reference material value
Ybppm is not a parameter value
Ybppm is healthy
Ybppm is not Squid Switch NU

Excel Expression String:

["190/195.8"]*Ybsen

Notes:

No notes

Yb1sabserr

$$\sqrt{\left(\frac{\text{Ybsens1sigabserror}}{\text{Ybsen}}\right)^2 + \left(\frac{\left(\frac{190_{\text{Yb}}}{195.8_{\text{Yb}}}\right)^{\%}}{100}\right)^2 * \text{Ybppm}}$$

Yb1sabserr is not a reference material value
Yb1sabserr is not a parameter value
Yb1sabserr is healthy
Yb1sabserr is not Squid Switch NU

Excel Expression String:

sqrt((Ybsens1sigabserror/Ybsen)^2+([%"190/195.8"]/100)^2)*["Ybppm"]

Notes:

No notes

7cor_Total_208Pb232Th

$$\text{ValueModel}\left(\frac{\text{Total_206Pb238U} * \frac{208_{Pb}}{206_{Pb}}}{\text{232Th238U}}, \sqrt{\left(\left(\left(\frac{208_{Pb}}{206_{Pb}}\right)^{\%}\right)^{2} + \left(\left(\text{Total_206Pb238U}\right)^{\%}\right)^{2} + \left(\left(\text{232Th238U}\right)^{\%}\right)^{2}}, FALSE\right)$$

7cor_Total_208Pb232Th is not a reference material value
7cor_Total_208Pb232Th is not a parameter value
7cor_Total_208Pb232Th is healthy
7cor_Total_208Pb232Th is not Squid Switch NU

Excel Expression String:

ValueModel{["Total_206Pb238U"]*["208/206"]/["232Th238U"],SQRT(([%"208/206"]^2+[%"Total_206Pb238U"]^2+[%"232Th238U"]^2),false}

Notes:

Sample spots: Calculated total 208Pb/232Th. ALways depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for common Pb correction of the RM.

8cor_Total_208Pb232Th

$$\mathrm{ValueModel}\left(\frac{\mathrm{Total_206Pb238U} * \frac{208_{Pb}}{206_{Pb}}}{232\mathrm{Th238U}}, \sqrt{\left(\left(\left(\frac{208_{Pb}}{206_{Pb}}\right)^{\%}\right)^{2} + \left(\left(\mathrm{Total_206Pb238U}\right)^{\%}\right)^{2} + \left(\left(232\mathrm{Th238U}\right)^{\%}\right)^{2}}, FALSE\right)$$

8cor_Total_208Pb232Th is not a reference material value
8cor_Total_208Pb232Th is not a parameter value
8cor_Total_208Pb232Th is healthy
8cor_Total_208Pb232Th is not Squid Switch NU

Excel Expression String:

ValueModel(["Total_206Pb238U"]*["208/206"]/["232Th238U"],SQRT(([%"208/206"]^2+[%"Total_206Pb238U"]^2+[%"232Th238U"]^2),false)

Notes:

Sample spots: Calculated total 208Pb/232Th. Always depends on the index isotope (204Pb, 207Pb, or in the case of "Perm1", possibly 208Pb) chosen for the common Pb correction.

7cor_Total_208Pb232Th_RM

$$\mathrm{ValueModel}\left(\frac{\mathrm{Total_206Pb238U_RM} * \frac{208_{Pb}}{206_{Pb}}}{\mathrm{232Th238U_RM}}, \sqrt{\left(\left(\frac{208_{Pb}}{206_{Pb}}\right)^{\%}\right)^2 + \left(\left(\mathrm{Total_206Pb238U_RM}\right)^{\%}\right)^2 + \left(\left(\mathrm{232Th238U_RM}\right)^{\%}\right)^2}, FALSE\right)$$

7cor_Total_208Pb232Th_RM is not a reference material value
7cor_Total_208Pb232Th_RM is not a parameter value
7cor_Total_208Pb232Th_RM is healthy
7cor_Total_208Pb232Th_RM is not Squid Switch NU

Excel Expression String:

ValueModel["Total_206Pb238U_RM"]*["208/206"]/["232Th238U_RM"],SQRT([%'208/206']^2+[%'Total_206Pb238U_RM']^2+[%'232Th238U_RM']^2),false)

Notes:

RM spots: Calculated total 208Pb/232Th. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

4cor_Com208Pb_Pct

$$\frac{100 * \mathrm{DefCom_208Pb204Pb} * \frac{204_{Pb}}{206_{Pb}}}{\frac{208_{Pb}}{206_{Pb}}}$$

4cor_Com208Pb_Pct is not a reference material value
4cor_Com208Pb_Pct is not a parameter value
4cor_Com208Pb_Pct is healthy
4cor_Com208Pb_Pct is not Squid Switch NU

Excel Expression String:

100*DefCom_208Pb204Pb*["208/206"]*["204/206"]

Notes:

RM and Sample spots: Common 208Pb as a percentage of total 208Pb, based on the 204Pb-correction.

Expo

$$\boxed{\mathrm{RobReg}\left(\mathrm{LnUOU}, \mathrm{LnPbU}\right)}$$

Expo is not a reference material value
Expo is not a parameter value
Expo is healthy
Expo is not Squid Switch NU

Excel Expression String:

RobReg([“LnUOU”];[“LnPbU”])

Notes:

No notes

7cor_Com208Pb_Pct_RM

$$\frac{100 * \mathrm{DefCom_208Pb204Pb}}{\frac{206_{Pb}}{206_{Pc}}} + 204\mathrm{Pb206Pb__From207Pb}$$

7cor_Com208Pb_Pct_RM is not a reference material value
7cor_Com208Pb_Pct_RM is not a parameter value
7cor_Com208Pb_Pct_RM is healthy
7cor_Com208Pb_Pct_RM is not Squid Switch NU

Excel Expression String:

100*DefCom_208Pb204Pb/["208/206"]*["204Pb206Pb_From207Pb"]

Notes:

RM spots: Common 208Pb as a percentage of total 208Pb, based on the 207Pb-correction.

7cor_Com208Pb_Pct

$$\frac{100 * \mathrm{DefCom_208Pb204Pb}}{\frac{208_{Pb}}{206_{Pb}}} * \mathrm{7cor_204Pb206Pb}$$

7cor_Com208Pb_Pct is not a reference material value
7cor_Com208Pb_Pct is not a parameter value
7cor_Com208Pb_Pct is healthy
7cor_Com208Pb_Pct is not Squid Switch NU

Excel Expression String:

100*DefCom_208Pb204Pb/["208/206"]*["7cor_204Pb206Pb"]

Notes:

Sample spots: Common 208Pb as a percentage of total 208Pb, based on the 207Pb-correction.

7cor_208Pb206Pb_RM

$$\text{ValueModel}\left(\left(\frac{\frac{208\text{Pb}_{\text{Pb}}}{206\text{Pb}_{\text{Pb}}}}{\left(\frac{1}{204\text{Pb206Pb}_\text{From207Pb}} - \text{DefCom_208Pb204Pb}\right)}\right), \text{StdPb86radCor7per}\left(\frac{208_{\text{Pb}}}{206_{\text{Pb}}}, \frac{207_{\text{Pb}}}{206_{\text{Pb}}}, \left(\frac{\frac{208\text{Pb}_{\text{Pb}}}{206\text{Pb}_{\text{Pb}}}}{\left(\frac{1}{204\text{Pb206Pb}_\text{From207Pb}} - \text{DefCom_208Pb204Pb}\right)}\right), 204\text{Pb206Pb_From207Pb}\right), FALSE\right)$$

7cor_208Pb206Pb_RM is not a reference material value
7cor_208Pb206Pb_RM is not a parameter value
7cor_208Pb206Pb_RM is healthy
7cor_208Pb206Pb_RM is not Squid Switch NU

Excel Expression String:

ValueModel([["208/206"]{"204Pb206Pb_From207Pb"}-DefCom_208Pb204Pb)/(1/{"204Pb206Pb_From207Pb"}-DefCom_206Pb204Pb)],StdPb86radCor7per[["208/206"]{"207/206"}],[["208/206"]{"204Pb206Pb_From207Pb"}-DefCom_208Pb204Pb)/(1/{"204Pb206Pb_From207Pb"}-DefCom_206Pb204Pb)],["204Pb206Pb_From207Pb"]),false)

Notes:

RM spots: Radiogenic 208Pb/206Pb, based on the 207Pb-correction.

Hfppm

$$\boxed{\mathrm{Hfsens} * \frac{195.9_{\mathrm{HO}}}{195.8_{\mathrm{Jr}}}}$$

Hfppm is not a reference material value
Hfppm is not a parameter value
Hfppm is healthy
Hfppm is not Squid Switch NU

Excel Expression String:

Hfsens*["195.9/195.8"]

Notes:

No notes

Hf1sabserr

$$\sqrt{\left(\frac{\mathrm{Hf5ens1sigabs}}{\mathrm{Hf5ens}}\right)^2 + \left(\frac{\left(\frac{195.9_{\mathrm{RD}}}{195.9_{\mathrm{Av}}}\right)^{\%}}{100}\right)^2 * \mathrm{Hfppm}}$$

Hf1sabserr is not a reference material value
Hf1sabserr is not a parameter value
Hf1sabserr is healthy
Hf1sabserr is not Squid Switch NU

Excel Expression String:

sqrt((Hf5ens1sigabs/Hf5ens)^2+([%~195.9/195.8~]/100)^2)*["Hfppm"]

Notes:

No notes

8cor_Total_208Pb232Th_RM

$$\mathrm{ValueModel}\left(\frac{\mathrm{Total_206Pb238U_RM} * \frac{208_{Pb}}{206_{Pb}}}{\mathrm{232Th238U_RM}}, \sqrt{\left(\left(\frac{208_{Pb}}{206_{Pb}}\right)^{\%}\right)^2 + \left(\left(\mathrm{Total_206Pb238U_RM}\right)^{\%}\right)^2 + \left(\left(\mathrm{232Th238U_RM}\right)^{\%}\right)^2}, FALSE\right)$$

8cor_Total_208Pb232Th_RM is not a reference material value
8cor_Total_208Pb232Th_RM is not a parameter value
8cor_Total_208Pb232Th_RM is healthy
8cor_Total_208Pb232Th_RM is not Squid Switch NU

Excel Expression String:

ValueModel(["Total_206Pb238U_RM"]*["208/206"]/["232Th238U_RM"],SQRT([%'208/206']^2+[%'Total_206Pb238U_RM']^2+[%'232Th238U_RM']^2),false)

Notes:

RM spots: Calculated total 208Pb/232Th. Always depends on the index isotope (204Pb, 207Pb, or in the case of U-Pb Tasks that calculate only a single 206Pb/238U calibration ["Perm1"], possibly 208Pb) chosen for the common Pb correction.

MF_corr.4corr.207*/235

$$\boxed{4\mathrm{cor...206Pb/238U} * NatUraf * \mathrm{MF...corr.4corr.7} * /6+}$$

MF_corr.4corr.207*/235 is not a reference material value
MF_corr.4corr.207*/235 is not a parameter value
MF_corr.4corr.207*/235 is healthy
MF_corr.4corr.207*/235 is not Squid Switch NU

Excel Expression String:

["4cor_206Pb/238U"]*NatUraf*["MF_corr.4corr.7*/6*"]

Notes:

No notes

ERRORCoefficient

$\boxed{MissingExpression}$

ERRORCoefficient is not a reference material value
ERRORCoefficient is not a parameter value
ERRORCoefficient is not healthy
ERRORCoefficient is not Squid Switch NU

Excel Expression String:

["ErrCoe"]

Notes:

No notes