

Figure 4. Conventional long form of the periodic table showing the maximum amount of an element detected in mudstones, sandstones and their intervening contact zones by spectrographic and chemical analyses.

|    |     |      |     |     |     |      |      |    |    |     |     |      |     |      |     |    |    |
|----|-----|------|-----|-----|-----|------|------|----|----|-----|-----|------|-----|------|-----|----|----|
| Ia |     |      |     |     |     |      |      |    |    |     |     |      |     | VIIb | 0   |    |    |
| 1  |     |      |     |     |     |      |      |    |    |     |     |      |     | 1    | 2   |    |    |
| H  | IIa |      |     |     |     |      |      |    |    |     |     | IIIb | IVb | Vb   | VIb | H  | He |
| 3  | 4   |      |     |     |     |      |      |    |    |     |     | 5    | 6   | 7    | 8   | 9  | 10 |
| Li | Be  |      |     |     |     |      |      |    |    |     |     | B    | C   | N    | O   | F  | Ne |
| 11 | 12  |      |     |     |     |      |      |    |    |     |     | 13   | 14  | 15   | 16  | 17 | 18 |
| ○  | ○   |      |     |     |     |      |      |    |    |     |     | ○    |     |      |     |    |    |
| Na | Mg  | IIIa | IVa | Va  | VIa | VIIa | VIII |    |    | Ib  | IIb | Al   | Si  | P    | S   | Cl | A  |
| 19 | 20  | 21   | 22  | 23  | 24  | 25   | 26   | 27 | 28 | 29  | 30  | 31   | 32  | 33   | 34  | 35 | 36 |
| ○  | ●   | ○    | ○   | ●●● | ○   | ●●●  | ●●●  | ●  | ●  | ●●● | ●●● | ○    |     | ●●●  |     |    |    |
| K  | Ca  | Sc   | Ti  | V   | Cr  | Mn   | Fe   | Co | Ni | Cu  | Zn  | Ga   | Ge  | As   | Se  | Br | Kr |
| 37 | 38  | 39   | 40  | 41  | 42  | 43   | 44   | 45 | 46 | 47  | 48  | 49   | 50  | 51   | 52  | 53 | 54 |
| ○  | ○   | ○    | ○   | ○   | ○   | ○    | ○    | ○  | ○  | ○   | ○   | ○    | ○   | ○    | ○   | ○  | ○  |
| Rb | Sr  | Y    | Zr  | Nb  | Mo  | Tc   | Ru   | Rh | Pd | Ag  | Cd  | In   | Sn  | Sb   | Te  | I  | Xe |
| 55 | 56  | 57*  | 72  | 73  | 74  | 75   | 76   | 77 | 78 | 79  | 80  | 81   | 82  | 83   | 84  | 85 | 86 |
| ○  | ●   | ○    | ○   | ○   | ○   | ○    | ○    | ○  | ○  | ○   | ○   | ○    | ○   | ○    | ○   | ○  | ○  |
| Cs | Ba  | La   | Hf  | Ta  | W   | Re   | Os   | Ir | Pt | Au  | Hg  | Tl   | Pb  | Bi   | Po  | At | Rn |
| 87 | 88  | 89   | 90  | 91  | 92  | **   |      |    |    |     |     |      |     |      |     |    |    |
| ○  | ○   | ○    | ○   | ○   | ○   | ○    |      |    |    |     |     |      |     |      |     |    |    |
| Fr | Ra  | Ac   | Th  | Pa  | U   |      |      |    |    |     |     |      |     |      |     |    |    |

\* Elements 58-71: Rare earth metals (Lanthanides)  
 58 59 60 61 62 63 64 65 66 67 68 69 70 71  
 Ce Pr Nd Pm Sm Eu Gd Tb Dy Ho Er Tm Yb Lu

\*\* Elements 93-98: Trans-Uranic Elements (Actinides)  
 93 94 95 96 97 98  
 Np Pu Am Cm Bk Cf

Each circle represents a sampling locality

○ Element in greatest abundance in mudstones.

⊗ Element may be in greatest abundance in mudstones as based on evidence of slightly increased intensity of spectral lines.

● Element in greatest abundance at the contact between mudstone and sandstone.

(20)  
 R290  
 W. 72-200

