Table 3. Compositions of PGE minerals from borehole **PH-133**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Depth | Formula | As | Au | Bi | Fe | Ni | Cu | Pd | Pt | Rh | Sb | Sn | Pb | Te | Total |
| 1 | 771.6-1 | (Pd2.37Pt0.63)3.00Sn1.00 |  |  |  |  |  |  | 50.72 | 24.88 |  |  | 23.79 |  |  | 99.39 |
| 2 | 771.6-1 | (Pd4.63Ag0.40)5.03Pb2.97 |   |   |   |   |   |   | 42.41 |   |   |   |   | 53.01 |   | 99.12\* |
| 3 | 771.6-1 | Pd1.02(Pb0.48Bi0.48Te0.02)0.98 |   |   | 31.55 | 1.40 |   |   | 34.48 |   |   |   |   | 31.48 | 0.85 | 99.76 |
| 4 | 786.7-1 | (Pd1.92Pt0.08)2.00Sn1.00 |  |  |  |  |  |  | 59.21 | 4.72 |  |  | 34.34 |  |  | 98.27 |
| 5 | 786.7-1 | Pd3.00Ni2.01As2.99 | 33.02 |   |   |   | 17.44 |   | 47.03 |   |   |   |   |   |   | 97.49 |
| 6 | 786.7-1 | Pd1.02Ni0.97As1.01 | 30.98 |   |   |   | 23.50 |   | 44.55 |   |   |   |   |   |   | 99.03 |
| 7 | 786.7-1 | Pd8.02(Sb1.86Sn0.64As0.48)2.98 | 2.99 |   |   | 0.76 |   |   | 70.35 |   |   | 18.49 | 6.27 |   |   | 98.86 |
| 8 | 786.7-1 | Pd1.01(Bi0.73Te0.23Sb0.03)0.99 |   |   | 51.60 | 1.10 |   |   | 36.18 |   |   | 1.26 |   |   | 9.86 | 100.00 |
| 9 | 798.4-1 | Pd1.01(Ni0.95Rh0.03)0.98As1.00 | 30.86 |   |   |   | 23.02 |   | 44.17 |   | 1.42 |   |   |   |   | 99.47 |
| 10 | 804.4-1 | Pt1.00As2.00 | 42.48 |  |  |  |  |  |  | 54.94 |  |  |  |  |  | 97.42 |
| 11 | 804.4-1 | Pd1.01(Bi0.66Te0.33)0.99 |   |   | 46.79 | 1.24 |   |   | 36.59 |   |   |   |   |   | 14.30 | 98.92 |
| 12 | 804.4-2 | Pd1.98Bi2.01(Te1.75S1.26)3.01 |   |   | 41.84 | 4.54 |   | 3.40 | 21.00 |   |   |   |   |   | 22.34 | 97.16\*\* |
| 13 | 804.4-3 | (Pd2.98Rh0.05Au001)3.04Ni1.95As3.01 | 33.14 | 0.35 |   |   | 16.80 |   | 46.70 |   | 0.75 |   |   |   |   | 97.39 |
| 14 | 804.4-3 | Pd1.02Bi1.00Te0.97 |   |   | 45.48 | 2.52 |   |   | 23.58 |   |   |   |   |   | 26.91 | 98.49 |
| 15 | 810.7-1 | (Pd5.98Au0.04)6.02Sn1.96As1.02 | 7.94 | 0.88 |   |   |   |   | 66.02 |   |   |   | 24.17 |   |   | 98.13 |
| 16 | 810.7-1 | Pd6.00Sn1.97As1.01 | 7.76 | 0.54 |   |   |   |   | 65.64 |   |   |   | 23.99 |   |   | 97.39 |
| 17 | 810.7-1 | Pd1.01(Bi0.59Te0.40)0.99 |   |   | 42.02 | 1.47 | 0.63 |   | 36.63 |   |   |   |   |   | 17.57 | 98.32 |
| 18 | 810.7-2 | Pd1.02(Bi0.59Te0.39)0.98 |   |   | 43.25 |   |   |   | 38.05 |   |   |   |   |   | 17.46 | 98.76 |

Note. 1-9 – picritic g-d, 10-18 – taxitic g-d; \* – The Total includes 3.70 wt.% Ag, \*\* – The Total includes 4.04 wt.% S.

1 – Atokite (Pd,Pt)3Sn; 2 – Unnamed Pd5Pb3; 3 – Polarite PdPb; 4 – Paolovite Pd2Sn; 5,13 – Menshikovite Pd3Ni2As3: 6,9 – Majakite PdNiAs; 7 – mertieite II Pd8(Sb,As)3; 8,13,18 – Sobolevskite Pd(Bi,Te); 12 – Unnamed Pd2Bi2(Te,S)3; 10,12– Sperrylite PtAs2; 14 – Michenirite PdBiTe;15,16 – Unnamed Pd6AsSn2 or As-paolovite Pd2(Sn,As).