

Table 1. Uranium isotope composition of kimberlites, the enclosing and overburden deposits of the Zolotitskoye ore field.

№ n/o	Well number (place of selection)	Depth of selection, m	Field definition	Geol. age	$^{234}\text{U}/^{238}\text{U}$ , Bq/Bq	Concentration of uranium, ppm
<i>Exploration wells</i>						
1	AL-550z-2	20,5	Sand	$Q$	1,05	0,70
2	G-16	26	Sand	$Q$	0,54	5,13
3	G-14	17,5	Sand	$Q$	0,89	1,22
4	G-23	7	Loam	$Q$	0,832	1,08
5	G-23	15	Sand	$Q$	1,131	10,79
6	G-23	22	Sand and gravel	$Q$	1,074	0,63
7	C-1	1,5	Sand	$Q$	0,969	46,13
8	Karpinskogo-1	-	Sand and gravel	$Q$	0,929	1,33
9	Karpinskogo-1	-	Sand	$Q$	1,060	1,91
10	Arkhangelskaya	1	Sandy loam of moraine	$Q$	0,99	1,42
11	AL-550z-2	24	Sand	$C_2$	0,78	1,01
12	AL-550z -2	29,5	Sand	$C_2$	0,91	1,06
13	AL-550z -2	33	Sand	$C_2$	1,00	0,88
14	AL-550z -2	40	Sandstone	$C_2$	0,37	0,43
15	AL-550z -2	43	Sandstone	$C_2$	0,97	0,73
16	G-14	25,5	sand	$C_2$	0,98	0,91
17	G-14	34,5	sand	$C_2$	1,00	0,79
18	G-14	44,5	Sandstone	$C_2$	0,89	2,00
19	G-18	20	Sandstone	$C_2$	0,94	1,32
20	G-11	25	sand	$C_2$	0,98	2,18
21	SA-48-1	24,5	sand	$C_2$	1,00	0,85
22	G-23	27	Sandstone	$C_2$	0,871	0,44
23	G-23	29,5	Sandstone	$C_2$	1,015	2,02
24	C-1	4	Dolomites	$C_2$	1,017	5,94
25	C-1	8	Sandstone	$C_2$	0,562	3,14
26	C-1	9,3	Sandstone	$C_2$	0,697	0,66
27	C-1	21	Sandstone	$C_2$	0,703	3,13
28	C-1	25	Sandstone	$C_2$	0,865	0,93
29	C-1	28,5	Sandstone	$C_2$	0,944	0,58
30	C-1	39,3	Sandstone	$C_2$	0,904	0,90
31	C-1	42,8	Sandstone	$C_2$	0,807	0,84
32	C-1	47,1	Sandstone	$C_2$	1,341	0,41
33	Karpinskogo-1	-	Sandstone	$C_2$	1,014	0,68
34	Karpinskogo-1	-	Sandstone	$C_2$	0,957	1,30
35	Arkhangelskaya	10	Sandstone	$C_2$	1,14	0,83
36	Arkhangelskaya	10	Sandstone	$C_2$	0,86	1,19
37	Arkhangelskaya	3,1	Sandstone	$C_2$	1,04	1,27
38	Arkhangelskaya	20,5	Siltstones	$C_2$	1,12	1,03

39	Arkhangelskaya	9,9	Siltstones	C <sub>2</sub>	0,93	0,90
40	Arkhangelskaya	11,7	Siltstones	C <sub>2</sub>	0,98	0,76
41	Arkhangelskaya	20,3	Sandstone	C <sub>2</sub>	1,00	1,83
42	AL-550z -2	51	Sandstone	V <sub>2</sub>	1,05	0,98
43	AL-550z -2	55	Sandstone	V <sub>2</sub>	1,03	1,42
44	AL-550z -2	96	Sandstone	V <sub>2</sub>	0,99	0,50
45	AL-550z -2	103,5	Sandstone	V <sub>2</sub>	1,09	0,87
46	AL-550z -2	109,5	Sandstone	V <sub>2</sub>	1,00	0,75
47	G-16	-	Siltstones	V <sub>2</sub>	1,06	2,49
48	G-16	67	Sandstone	V <sub>2</sub>	1,19	0,32
49	G-16	-	Siltstones	V <sub>2</sub>	1,15	1,67
50	G-14	53	Sandstone with interbeds of siltstone	V <sub>2</sub>	0,95	1,61
51	G-14	70,5	Sandstone	V <sub>2</sub>	1,03	1,97
52	G-14	73,5	Sandstone	V <sub>2</sub>	0,98	0,96
53	G-14	87	Sandstone	V <sub>2</sub>	0,99	1,14
54	G-14	92	Sandstone	V <sub>2</sub>	0,91	1,46
55	G-18	36	Sandstone	V <sub>2</sub>	0,81	1,90
56	G-18	43	Sandstone	V <sub>2</sub>	1,02	1,18
57	G-18	50	Sandstone	V <sub>2</sub>	0,51	9,73
58	G-18	60,3	Sandstone	V <sub>2</sub>	0,56	10,73
59	G-18	75	Siltstones	V <sub>2</sub>	1,02	2,01
60	G-18	89	Sandstone	V <sub>2</sub>	0,85	2,74
61	G-18	99	Sandstone	V <sub>2</sub>	0,64	2,53
62	G-18	106	Argillite	V <sub>2</sub>	0,89	7,66
63	G-18	115	Siltstones	V <sub>2</sub>	0,91	6,95
64	G-11	35	Siltstones	V <sub>2</sub>	0,92	2,22
65	G-11	42,5	Siltstones	V <sub>2</sub>	0,71	2,70
66	G-11	53	Sandstone	V <sub>2</sub>	0,91	2,35
67	G-11	63,5	Sandstone with interbeds of siltstone	V <sub>2</sub>	0,86	1,75
68	SA-48-1	49,8	Siltstones	V <sub>2</sub>	0,95	1,98
69	SA-48-1	55,5	Sandstone	V <sub>2</sub>	1,06	1,15
70	SA-48-1	58,4	Sandstone	V <sub>2</sub>	0,92	1,41
71	SA-48-1	60,9	Sandstone	V <sub>2</sub>	1,17	1,27
72	SA-48-1	64,8	Sandstone	V <sub>2</sub>	0,84	0,68
73	G-23	33	Sandstone	V <sub>2</sub>	1,105	2,65
74	G-23	40	Sandstone	V <sub>2</sub>	1,05	2,03
75	G-23	55	Sandstone	V <sub>2</sub>	0,916	1,53
76	G-23	62	Sandstone	V <sub>2</sub>	0,828	0,71
77	G-23	67	Sandstone	V <sub>2</sub>	0,928	1,19
78	G-23	75	Sandstone	V <sub>2</sub>	0,689	1,15
79	G-23	81	Sandstone	V <sub>2</sub>	0,989	1,25
80	G-23	87	Sandstone	V <sub>2</sub>	0,996	1,23
81	G-23	94	Sandstone	V <sub>2</sub>	0,873	0,58

82	G-23	100,5	Sandstone	V <sub>2</sub>	0,455	0,67
83	G-23	110	Sandstone	V <sub>2</sub>	1,196	1,56
84	G-23	117,8	Sandstone	V <sub>2</sub>	1,052	0,60
85	G-23	119,7	Sandstone	V <sub>2</sub>	0,878	0,50
86	C-1	52	Sandstone	V <sub>2</sub>	1,113	3,35
87	C-1	62	Sandstone	V <sub>2</sub>	0,986	2,95
88	C-1	68	Sandstone	V <sub>2</sub>	0,967	2,48
89	C-1	73	Sandstone	V <sub>2</sub>	1,007	2,61
90	C-1	78,4	Sandstone	V <sub>2</sub>	0,961	1,80
91	C-1	87,8	Sandstone	V <sub>2</sub>	0,735	0,76
92	C-1	91,3	Sandstone	V <sub>2</sub>	0,982	4,61
93	C-1	98,5	Sandstone	V <sub>2</sub>	0,772	1,10
94	C-1	107,3	Sandstone	V <sub>2</sub>	1,022	0,72
95	C-1	119,7	Sandstone	V <sub>2</sub>	1,01	0,80
<b><i>Kimberlites of the vent facies</i></b>						
96	Karpinskogo-1	-	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,022	0,64
97	Karpinskogo-1	-	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	0,978	0,87
98	Karpinskogo-1	-	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,045	1,07
99	Karpinskogo-1	-	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	0,804	1,01
100	Arkhangelskaya	180	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,01	0,78
101	Pionerskaya	490	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,01	0,68
102	Pionerskaya	560	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,08	0,80
103	Pionerskaya	700	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,14	0,48
104	Pionerskaya	765	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,11	0,71
105	Pionerskaya	840	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	0,85	0,45
106	Pionerskaya	910	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	0,89	0,33
107	Pionerskaya	960	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,03	0,44
108	Pionerskaya	1030	Autolithic breccia	iD <sub>3</sub> -C <sub>2</sub>	1,04	0,47
<b><i>Near-contact space (tuffaceous-sedimentary formations of the peripheral parts of the crater facies, Vendian sandstones and siltstones)</i></b>						
109	Karpinskogo-1	-	Sandstone	V <sub>2</sub>	1,537	0,63
110	Karpinskogo-1	-	Sandstone	V <sub>2</sub>	0,928	1,89
111	Karpinskogo-1	-	Sandstone	V <sub>2</sub>	0,886	1,74
112	Karpinskogo-1	-	Sandstone	V <sub>2</sub>	1,000	1,81
113	Karpinskogo-1	-	Sandstone	V <sub>2</sub>	1,019	1,66
114	Karpinskogo-1	-	Sandstone	V <sub>2</sub>	0,945	0,90

115	Karpinskogo-1	-	Sandstone	$V_2$	1,087	1,12
116	Arkhangelskaya	72,8	Siltstones	$V_2$	1,00	2,81
117	Arkhangelskaya	71,7	Siltstones	$V_2$	1,00	1,14
118	Arkhangelskaya	82,4	Siltstones	$V_2$	1,09	1,45
119	Arkhangelskaya	109,8	Siltstones	$V_2$	1,27	1,05
120	Arkhangelskaya	92	Siltstones	$V_2$	1,10	1,17
121	Arkhangelskaya	92	Siltstones	$V_2$	1,09	2,68
122	Arkhangelskaya	91,6	Siltstones	$V_2$	1,43	1,22
123	Arkhangelskaya	73,4	Siltstones	$V_2$	1,06	3,20
124	Arkhangelskaya	104,5	Sandstone, siltstones	$V_2$	1,37	0,66
125	Arkhangelskaya	71,4	Sandstone	$V_2$	1,45	0,78
126	Arkhangelskaya	91	Sandstone	$V_2$	1,60	0,98
127	Pionerskaya	149	Sandstone	$V_2$	3,57	1,31
128	Pionerskaya	195	Sandstone	$V_2$	1,15	0,92
129	Pionerskaya	202	Sandstone	$V_2$	1,17	0,40
130	Pionerskaya	208	Sandstone	$V_2$	0,85	5,93
131	Pionerskaya	213	Sandstone	$V_2$	1,35	0,45
132	Arkhangelskaya	106,3	Sandstone, siltstones with KM*	$iD_3-C_2$	0,97	0,94
133	Arkhangelskaya	106	Sandstone with KM	$iD_3-C_2$	1,37	4,07
134	Arkhangelskaya	103,5	Sandstone with KM	$iD_3-C_2$	1,16	1,08
135	Arkhangelskaya	59	Sandstone with KM	$iD_3-C_2$	1,45	0,81
136	Arkhangelskaya	109,7	Tuffite	$iD_3-C_2$	1,22	0,78
137	Arkhangelskaya	63,7	Tuff	$iD_3-C_2$	1,21	0,61
138	Arkhangelskaya	75,4	Sandstone with KM	$iD_3-C_2$	1,04	2,16
139	Arkhangelskaya	71,8	Sandstone with KM	$iD_3-C_2$	1,12	1,24
140	Arkhangelskaya	107,4	Tuff	$iD_3-C_2$	1,26	1,16

Note. KM\* means with an admixture of kimberlite material.