**Таблица** 1. U–Th–Pb LA-ICP-MS данные для циркона из песчаников урулюнгуйской и дырбылкейской свит

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| № | Анализы | Th, мкг/г | U, мкг/г | 206Pb/  204Pb | U/ Th | Изотопные отношения\* | | | | | | | Возраст, млн лет | | | | | | | | D | \*\* |
| 206Pb/  207Pb | ±1s,  % | 207Pb/  235U | ±1s,  % | 206Pb/  238U | ±1s,  % | Rho | 206Pb/  238U | ±1s | 207Pb/  235U | ±1s | 207Pb/  206Pb | ±1s | CA | ±2s |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| **U-112: песчаник урулюнгуйской свиты** | | | | | | | | | | | | | | | | | | | | | | |
| **1** | U-112\_spot1 | 81 | 141 | 61941 | 1.7 | 7.81 | 0.7 | 6.68 | 1.0 | 0.379 | 0.7 | 0.74 | 2070 | 13 | 2070 | 9 | 2070 | 12 | 2070 | 18 | 0.0 | \*\* |
| **2** | U-112\_spot2 | 235 | 129 | 33460 | 0.6 | 5.85 | 0.5 | 11.26 | 1.0 | 0.478 | 0.9 | 0.86 | 2518 | 18 | 2545 | 9 | 2567 | 9 | 2556 | 16 | -1.9 | \*\* |
| **3** | U-112\_spot3 | 31 | 90 | 25977 | 2.9 | 7.86 | 0.4 | 6.80 | 0.9 | 0.388 | 0.8 | 0.88 | 2114 | 14 | 2086 | 8 | 2058 | 7 | DISCORDANT |  | 2.7 |  |
| **4** | U-112\_spot5 | 116 | 555 | 191294 | 4.8 | 10.40 | 0.5 | 3.23 | 1.2 | 0.244 | 1.1 | 0.90 | 1405 | 14 | 1464 | 10 | 1550 | 10 | DISCORDANT |  | -9.4 |  |
| **5** | U-112\_spot6 | 291 | 552 | 108431 | 1.9 | 14.45 | 0.7 | 1.42 | 1.5 | 0.149 | 1.3 | 0.87 | 893 | 11 | 896 | 9 | 904 | 15 | 897 | 18 | -1.2 | \*\* |
| **6** | U-112\_spot7 | 635 | 407 | 23872 | 0.6 | 14.75 | 0.6 | 1.37 | 0.9 | 0.146 | 0.7 | 0.78 | 881 | 6 | 875 | 6 | 861 | 12 | 877 | 11 | 2.3 | \*\* |
| **7** | U-112\_spot8 | 80 | 108 | 27655 | 1.3 | 14.30 | 1.0 | 1.52 | 1.4 | 0.157 | 0.9 | 0.66 | 943 | 8 | 937 | 8 | 925 | 21 | 940 | 15 | 1.9 | \*\* |
| **8** | U-112\_spot9 | 241 | 234 | 91603 | 1.0 | 4.97 | 0.7 | 15.30 | 1.2 | 0.552 | 1.0 | 0.80 | 2834 | 23 | 2834 | 12 | 2834 | 12 | 2834 | 22 | 0.0 | \*\* |
| **9** | U-  112\_spot10 | 124 | 143 | 27585 | 1.1 | 14.68 | 0.8 | 1.40 | 1.1 | 0.149 | 0.8 | 0.69 | 895 | 6 | 888 | 6 | 872 | 16 | 892 | 12 | 2.6 | \*\* |
| **10** | U-112\_  spot11 | 85 | 126 | 40454 | 1.5 | 14.27 | 0.8 | 1.46 | 1.2 | 0.151 | 0.9 | 0.72 | 908 | 7 | 914 | 7 | 929 | 17 | 911 | 13 | -2.3 | \*\* |
| **11** | U-112\_  spot13 | 24 | 68 | 27916 | 2.9 | 5.33 | 0.5 | 14.16 | 0.9 | 0.548 | 0.7 | 0.82 | 2815 | 16 | 2761 | 8 | 2721 | 8 | DISCORDANT |  | 3.5 |  |
| **12** | U-112\_  spot14 | 32 | 85 | 312537 | 2.7 | 5.18 | 0.7 | 14.83 | 1.3 | 0.558 | 1.1 | 0.83 | 2856 | 25 | 2804 | 13 | 2767 | 12 | 2785 | 23 | 3.2 | \*\* |
| **13** | U-112\_  spot16 | 121 | 179 | 31006 | 1.5 | 6.02 | 0.5 | 10.79 | 1.1 | 0.471 | 0.9 | 0.86 | 2490 | 19 | 2505 | 10 | 2518 | 9 | 2512 | 17 | -1.1 | \*\* |
| **14** | U-112\_  spot17 | 65 | 138 | 27437 | 2.1 | 7.85 | 0.6 | 6.61 | 1.0 | 0.376 | 0.8 | 0.80 | 2059 | 14 | 2060 | 9 | 2062 | 10 | 2061 | 17 | -0.1 | \*\* |
| **15** | U-112\_  spot18 | 93 | 123 | 1189675 | 1.3 | 6.35 | 0.6 | 9.62 | 1.0 | 0.443 | 0.8 | 0.83 | 2364 | 17 | 2399 | 9 | 2429 | 10 | DISCORDANT |  | -2.7 |  |
| **16** | U-112\_  spot19 | 75 | 197 | 4873 | 2.6 | 13.16 | 2.9 | 1.69 | 3.1 | 0.161 | 0.9 | 0.29 | 965 | 8 | 1005 | 19 | 1093 | 58 | 967 | 16 | -11.8 | \*\* |
| **17** | U-112\_  spot20 | 138 | 216 | 120048 | 1.6 | 14.21 | 0.7 | 1.52 | 1.0 | 0.157 | 0.7 | 0.71 | 940 | 6 | 939 | 6 | 938 | 14 | 939 | 12 | 0.1 | \*\* |
| **18** | U-112\_  spot21 | 34 | 47 | 25143 | 1.4 | 6.72 | 0.7 | 9.35 | 1.2 | 0.455 | 1.0 | 0.83 | 2420 | 20 | 2372 | 11 | 2332 | 11 | DISCORDANT |  | 3.7 |  |
| **19** | U-112\_  spot22 | 27 | 64 | 30315 | 2.3 | 14.54 | 0.8 | 1.43 | 1.3 | 0.151 | 1.0 | 0.78 | 907 | 8 | 902 | 8 | 891 | 17 | 904 | 15 | 1.8 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **20** | U-112\_  spot23 | 61 | 153 | 18907 | 2.5 | 11.56 | 0.7 | 2.90 | 1.2 | 0.243 | 0.9 | 0.78 | 1404 | 12 | 1382 | 9 | 1348 | 14 | 1381 | 18 | 4.1 | \*\* |
| **21** | U-112\_  spot24 | 516 | 751 | 1469054 | 1.5 | 14.52 | 0.6 | 1.43 | 1.3 | 0.151 | 1.1 | 0.88 | 907 | 10 | 903 | 8 | 894 | 13 | 902 | 15 | 1.4 | \*\* |
| **22** | U-112\_  spot25 | 89 | 208 | 137089 | 2.3 | 5.81 | 0.5 | 11.84 | 0.9 | 0.499 | 0.8 | 0.85 | 2611 | 17 | 2591 | 9 | 2576 | 8 | 2584 | 16 | 1.4 | \*\* |
| **23** | U-112\_  spot26 | 123 | 372 | 112959 | 3.0 | 8.99 | 0.7 | 4.89 | 1.0 | 0.319 | 0.7 | 0.74 | 1783 | 11 | 1800 | 8 | 1820 | 12 | 1799 | 17 | -2.0 | \*\* |
| **24** | U-112\_  spot27 | 118 | 155 | 37517 | 1.3 | 8.13 | 0.6 | 6.15 | 1.0 | 0.363 | 0.7 | 0.78 | 1997 | 13 | 1998 | 8 | 1999 | 11 | 1998 | 17 | -0.1 | \*\* |
| **25** | U-112\_  spot28 | 163 | 283 | 175672 | 1.7 | 4.18 | 0.7 | 20.39 | 1.0 | 0.618 | 0.8 | 0.76 | 3103 | 20 | 3110 | 10 | 3115 | 11 | 3112 | 20 | -0.4 | \*\* |
| **26** | U-112\_  spot29 | 7 | 24 | 17377 | 3.6 | 4.71 | 0.7 | 17.34 | 1.1 | 0.593 | 0.9 | 0.76 | 3002 | 20 | 2954 | 11 | 2921 | 12 | DISCORDANT |  | 2.7 |  |
| **27** | U-112\_  spot30 | 206 | 1143 | 40328 | 5.6 | 14.39 | 0.6 | 1.50 | 1.3 | 0.157 | 1.1 | 0.87 | 939 | 10 | 931 | 8 | 912 | 13 | 929 | 15 | 2.9 | \*\* |
| **28** | U-112\_  spot31 | 111 | 188 | 79718 | 1.7 | 7.71 | 0.5 | 6.86 | 1.0 | 0.384 | 0.9 | 0.86 | 2093 | 16 | 2093 | 9 | 2093 | 9 | 2093 | 16 | 0.0 | \*\* |
| **29** | U-112\_  spot32 | 42 | 82 | 45355 | 1.9 | 14.56 | 1.0 | 1.44 | 1.3 | 0.152 | 0.8 | 0.62 | 911 | 7 | 905 | 8 | 889 | 20 | 909 | 13 | 2.5 | \*\* |
| **30** | U-112\_  spot33 | 76 | 95 | 58615 | 1.3 | 4.86 | 0.6 | 16.51 | 1.0 | 0.582 | 0.8 | 0.78 | 2957 | 19 | 2907 | 10 | 2872 | 10 | DISCORDANT |  | 3.0 |  |
| **31** | U-112\_  spot34 | 400 | 451 | 209594 | 1.1 | 13.95 | 0.7 | 1.59 | 1.5 | 0.160 | 1.3 | 0.89 | 959 | 12 | 965 | 9 | 977 | 14 | 966 | 19 | -1.8 | \*\* |
| **32** | U-112\_  spot35 | 40 | 148 | 33654 | 3.7 | 7.95 | 0.6 | 6.50 | 0.9 | 0.375 | 0.7 | 0.72 | 2054 | 12 | 2046 | 8 | 2038 | 11 | 2046 | 16 | 0.8 | \*\* |
| **33** | U-112\_  spot36 | 156 | 132 | 234641 | 0.8 | 9.34 | 0.7 | 4.66 | 1.1 | 0.316 | 0.9 | 0.81 | 1768 | 14 | 1759 | 9 | 1749 | 12 | 1757 | 18 | 1.1 | \*\* |
| **34** | U-112\_  spot37 | 14 | 14 | 25740 | 1.0 | 5.34 | 0.8 | 13.85 | 1.5 | 0.536 | 1.3 | 0.83 | 2767 | 29 | 2739 | 14 | 2719 | 14 | 2729 | 26 | 1.8 | \*\* |
| **35** | U-112\_  spot38 | 62 | 115 | 32782 | 1.9 | 5.31 | 0.7 | 14.31 | 1.0 | 0.551 | 0.8 | 0.72 | 2831 | 17 | 2771 | 10 | 2727 | 12 | DISCORDANT |  | 3.8 |  |
| **36** | U-112\_  spot39 | 150 | 247 | 60358 | 1.6 | 5.42 | 0.6 | 12.88 | 1.1 | 0.506 | 0.9 | 0.84 | 2642 | 20 | 2671 | 10 | 2694 | 10 | 2682 | 18 | -1.9 | \*\* |
| **37** | U-112\_  spot41 | 163 | 345 | 34401 | 2.1 | 13.93 | 0.7 | 1.57 | 1.1 | 0.158 | 0.8 | 0.78 | 947 | 7 | 957 | 7 | 980 | 13 | 954 | 13 | -3.3 | \*\* |
| **38** | U-112\_  spot42 | 20 | 673 | 69797 | 34.4 | 13.01 | 0.5 | 1.97 | 1.2 | 0.186 | 1.1 | 0.89 | 1099 | 11 | 1105 | 8 | 1117 | 11 | 1108 | 15 | -1.6 | \*\* |
| **39** | U-112\_  spot43 | 20 | 53 | 17184 | 2.6 | 7.96 | 1.0 | 6.76 | 1.6 | 0.391 | 1.2 | 0.76 | 2125 | 21 | 2081 | 14 | 2037 | 18 | 2074 | 28 | 4.4 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **40** | U-112\_  spot44 | 82 | 122 | 38321 | 1.5 | 7.86 | 0.6 | 6.66 | 1.1 | 0.380 | 0.9 | 0.83 | 2076 | 16 | 2067 | 9 | 2058 | 10 | 2064 | 18 | 0.9 | \*\* |
| **41** | U-112\_  spot45 | 76 | 497 | 535668 | 6.6 | 9.35 | 0.5 | 4.57 | 1.1 | 0.310 | 1.0 | 0.90 | 1740 | 15 | 1744 | 9 | 1748 | 9 | 1746 | 16 | -0.4 | \*\* |
| **42** | U-112\_  spot46 | 22 | 26 | 22066 | 1.2 | 5.78 | 0.7 | 12.37 | 1.2 | 0.518 | 1.0 | 0.79 | 2692 | 21 | 2633 | 11 | 2587 | 12 | DISCORDANT |  | 4.1 |  |
| **43** | U-112\_  spot47 | 62 | 157 | 33613 | 2.5 | 8.20 | 0.6 | 6.05 | 1.0 | 0.360 | 0.8 | 0.78 | 1983 | 14 | 1983 | 9 | 1984 | 11 | 1983 | 18 | -0.1 | \*\* |
| **44** | U-112\_  spot48 | 84 | 402 | 192031 | 4.8 | 8.85 | 0.6 | 5.16 | 1.1 | 0.332 | 0.9 | 0.83 | 1846 | 15 | 1847 | 9 | 1847 | 11 | 1847 | 18 | 0.0 | \*\* |
| **45** | U-112\_  spot49 | 14 | 105 | 430691 | 7.5 | 5.98 | 0.6 | 11.03 | 1.0 | 0.479 | 0.9 | 0.82 | 2521 | 18 | 2526 | 10 | 2529 | 10 | 2527 | 18 | -0.3 | \*\* |
| **46** | U-112\_  spot50 | 82 | 155 | 37871 | 1.9 | 14.02 | 0.9 | 1.57 | 1.4 | 0.160 | 1.0 | 0.76 | 956 | 9 | 959 | 9 | 965 | 18 | 958 | 17 | -1.0 | \*\* |
| **47** | U-112\_  spot52 | 67 | 174 | 44453 | 2.6 | 14.47 | 0.7 | 1.40 | 1.2 | 0.147 | 1.0 | 0.83 | 883 | 8 | 888 | 7 | 901 | 14 | 888 | 15 | -1.9 | \*\* |
| **48** | U-112\_  spot53 | 52 | 122 | 30952 | 2.3 | 8.57 | 0.6 | 5.57 | 1.1 | 0.346 | 1.0 | 0.87 | 1916 | 16 | 1911 | 10 | 1906 | 10 | 1909 | 18 | 0.6 | \*\* |
| **49** | U-112\_  spot55 | 108 | 232 | 116069 | 2.1 | 6.09 | 0.6 | 10.92 | 1.0 | 0.483 | 0.8 | 0.78 | 2539 | 16 | 2517 | 9 | 2498 | 11 | 2511 | 18 | 1.7 | \*\* |
| **50** | U-112\_  spot56 | 74 | 133 | 63275 | 1.8 | 7.81 | 0.6 | 6.70 | 1.1 | 0.380 | 1.0 | 0.85 | 2074 | 17 | 2072 | 10 | 2070 | 10 | 2071 | 18 | 0.2 | \*\* |
| **51** | U-112\_  spot57 | 30 | 42 | 20796 | 1.4 | 5.50 | 0.7 | 13.43 | 1.0 | 0.536 | 0.7 | 0.74 | 2766 | 17 | 2710 | 9 | 2669 | 11 | DISCORDANT |  | 3.6 |  |
| **52** | U-112\_  spot58 | 57 | 86 | 407213 | 1.5 | 6.12 | 0.7 | 10.87 | 1.2 | 0.483 | 1.0 | 0.83 | 2539 | 21 | 2512 | 11 | 2490 | 11 | 2502 | 21 | 1.9 | \*\* |
| **53** | U-112\_  spot60 | 64 | 82 | 26875 | 1.3 | 5.20 | 0.7 | 14.23 | 1.3 | 0.537 | 1.0 | 0.81 | 2770 | 23 | 2765 | 12 | 2762 | 12 | 2764 | 22 | 0.3 | \*\* |
| **54** | U-112\_  spot61 | 47 | 93 | 31610 | 2.0 | 5.22 | 0.6 | 14.55 | 1.1 | 0.551 | 0.9 | 0.85 | 2830 | 21 | 2786 | 10 | 2755 | 9 | 2768 | 18 | 2.7 | \*\* |
| **55** | U-112\_  spot62 | 176 | 296 | 77865 | 1.7 | 7.88 | 0.7 | 6.45 | 1.0 | 0.369 | 0.8 | 0.78 | 2024 | 14 | 2039 | 9 | 2054 | 11 | 2042 | 18 | -1.5 | \*\* |
| **56** | U-112\_  spot63 | 69 | 111 | 72835 | 1.6 | 7.84 | 0.5 | 6.84 | 1.0 | 0.389 | 0.8 | 0.85 | 2120 | 15 | 2091 | 9 | 2064 | 9 | 2080 | 16 | 2.7 | \*\* |
| **57** | U-112\_  spot64 | 38 | 338 | 43820 | 9.0 | 14.04 | 0.6 | 1.56 | 1.1 | 0.159 | 0.9 | 0.83 | 949 | 8 | 953 | 7 | 963 | 13 | 953 | 14 | -1.4 | \*\* |
| **58** | U-112\_  spot65 | 65 | 93 | 9851 | 1.4 | 8.96 | 0.9 | 4.63 | 1.3 | 0.301 | 1.0 | 0.77 | 1697 | 15 | 1755 | 11 | 1825 | 15 | DISCORDANT |  | -7.0 |  |
| **59** | U-112\_  spot66 | 269 | 257 | 32720 | 1.0 | 14.54 | 0.7 | 1.37 | 1.4 | 0.145 | 1.2 | 0.84 | 872 | 9 | 877 | 8 | 891 | 15 | 877 | 16 | -2.1 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **60** | U-112\_  spot67 | 61 | 45 | 8173 | 0.7 | 8.13 | 0.8 | 6.46 | 1.1 | 0.381 | 0.8 | 0.67 | 2081 | 14 | 2040 | 10 | 1999 | 15 | DISCORDANT |  | 4.1 |  |
| **61** | U-112\_  spot68 | 203 | 215 | 258336 | 1.1 | 6.25 | 0.7 | 10.79 | 1.2 | 0.489 | 1.0 | 0.84 | 2568 | 22 | 2505 | 11 | 2454 | 11 | DISCORDANT |  | 4.6 |  |
| **62** | U-112\_  spot70 | 588 | 534 | 59988 | 0.9 | 14.27 | 0.6 | 1.47 | 1.3 | 0.152 | 1.2 | 0.90 | 911 | 10 | 916 | 8 | 930 | 12 | 919 | 15 | -2.1 | \*\* |
| **63** | U-112\_  spot73 | 30 | 48 | 126278 | 1.6 | 11.61 | 1.0 | 2.88 | 1.4 | 0.242 | 1.0 | 0.71 | 1400 | 12 | 1376 | 10 | 1340 | 19 | 1381 | 20 | 4.5 | \*\* |
| **64** | U-112\_  spot74 | 128 | 164 | 37225 | 1.3 | 8.15 | 0.6 | 6.25 | 1.1 | 0.370 | 0.9 | 0.82 | 2028 | 15 | 2012 | 9 | 1995 | 11 | 2007 | 18 | 1.7 | \*\* |
| **65** | U-112\_  spot75 | 65 | 113 | 669821 | 1.7 | 6.13 | 0.7 | 10.73 | 1.2 | 0.477 | 1.0 | 0.80 | 2515 | 20 | 2500 | 11 | 2487 | 12 | 2495 | 21 | 1.1 | \*\* |
| **66** | U-112\_  spot76 | 141 | 205 | 38361 | 1.5 | 8.26 | 0.6 | 6.15 | 0.9 | 0.368 | 0.7 | 0.79 | 2022 | 13 | 1998 | 8 | 1972 | 10 | 1993 | 16 | 2.6 | \*\* |
| **67** | U-112\_  spot77 | 129 | 314 | 645785 | 2.4 | 8.03 | 0.5 | 6.27 | 0.9 | 0.366 | 0.7 | 0.83 | 2009 | 12 | 2015 | 8 | 2021 | 9 | 2017 | 15 | -0.6 | \*\* |
| **68** | U-112\_  spot78 | 158 | 331 | 639019 | 2.1 | 8.13 | 0.6 | 6.17 | 1.0 | 0.364 | 0.7 | 0.75 | 2003 | 12 | 2001 | 8 | 1998 | 11 | 2000 | 17 | 0.2 | \*\* |
| **69** | U-112\_  spot79 | 139 | 157 | 38466 | 1.1 | 7.88 | 0.6 | 6.63 | 1.0 | 0.379 | 0.8 | 0.82 | 2072 | 15 | 2064 | 9 | 2055 | 11 | 2061 | 18 | 0.8 | \*\* |
| **70** | U-112\_  spot80 | 86 | 145 | 19557 | 1.7 | 14.58 | 0.8 | 1.42 | 1.1 | 0.150 | 0.7 | 0.66 | 900 | 6 | 896 | 7 | 886 | 17 | 899 | 11 | 1.6 | \*\* |
| **71** | U-112\_  spot81 | 498 | 555 | 88225 | 1.1 | 14.53 | 0.7 | 1.37 | 1.5 | 0.145 | 1.3 | 0.88 | 872 | 11 | 878 | 9 | 893 | 15 | 879 | 18 | -2.4 | \*\* |
| **72** | U-112\_  spot82 | 73 | 145 | 193559 | 2.0 | 7.64 | 0.7 | 6.92 | 1.1 | 0.383 | 0.9 | 0.79 | 2092 | 16 | 2101 | 10 | 2110 | 12 | 2103 | 20 | -0.8 | \*\* |
| **73** | U-112\_  spot83 | 39 | 61 | 10555 | 1.6 | 8.26 | 0.7 | 6.24 | 1.2 | 0.374 | 1.0 | 0.82 | 2050 | 17 | 2011 | 11 | 1970 | 12 | DISCORDANT |  | 4.1 |  |
| **74** | U-112\_  spot84 | 64 | 83 | 44791 | 1.3 | 7.48 | 0.6 | 7.42 | 1.0 | 0.403 | 0.8 | 0.77 | 2182 | 14 | 2164 | 9 | 2146 | 11 | 2160 | 18 | 1.7 | \*\* |
| **75** | U-112\_  spot85 | 77 | 107 | 36323 | 1.4 | 8.71 | 0.7 | 5.43 | 1.1 | 0.343 | 0.8 | 0.74 | 1903 | 14 | 1890 | 10 | 1875 | 13 | 1889 | 19 | 1.5 | \*\* |
| **76** | U-112\_  spot86 | 376 | 1034 | 407208 | 2.7 | 7.92 | 0.5 | 6.16 | 1.3 | 0.354 | 1.2 | 0.93 | 1955 | 20 | 1999 | 11 | 2045 | 8 | DISCORDANT |  | -4.4 |  |
| **77** | U-112\_  spot87 | 166 | 242 | 78315 | 1.5 | 14.48 | 0.9 | 1.43 | 1.3 | 0.150 | 0.8 | 0.66 | 900 | 7 | 900 | 7 | 899 | 19 | 900 | 13 | 0.0 | \*\* |
| **78** | U-112\_  spot88 | 50 | 181 | 44848 | 3.6 | 7.88 | 0.6 | 6.70 | 1.1 | 0.383 | 0.9 | 0.83 | 2091 | 17 | 2072 | 10 | 2054 | 11 | 2066 | 19 | 1.8 | \*\* |
| **79** | U-112\_  spot89 | 5 | 38 | 18448 | 8.1 | 5.23 | 0.8 | 14.04 | 1.2 | 0.532 | 0.9 | 0.77 | 2752 | 21 | 2752 | 11 | 2753 | 13 | 2752 | 22 | 0.0 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **80** | U-112\_  spot90 | 119 | 208 | 30216 | 1.8 | 8.59 | 0.5 | 5.60 | 1.0 | 0.349 | 0.8 | 0.83 | 1931 | 13 | 1917 | 8 | 1901 | 10 | 1912 | 16 | 1.6 | \*\* |
| **81** | U-112\_  spot91 | 332 | 207 | 48875 | 0.6 | 14.65 | 0.6 | 1.41 | 1.0 | 0.149 | 0.8 | 0.81 | 898 | 7 | 892 | 6 | 876 | 12 | 893 | 12 | 2.6 | \*\* |
| **82** | U-112\_  spot92 | 112 | 209 | 69122 | 1.9 | 9.66 | 0.6 | 4.30 | 1.1 | 0.301 | 0.9 | 0.83 | 1698 | 14 | 1694 | 9 | 1688 | 11 | 1692 | 18 | 0.6 | \*\* |
| **83** | U-112\_  spot93 | 69 | 120 | 36262 | 1.7 | 6.02 | 0.7 | 11.18 | 1.2 | 0.488 | 1.0 | 0.82 | 2562 | 21 | 2538 | 11 | 2519 | 12 | 2530 | 21 | 1.7 | \*\* |
| **84** | U-112\_  spot94 | 129 | 109 | 32394 | 0.8 | 8.59 | 0.6 | 5.73 | 1.1 | 0.357 | 0.9 | 0.83 | 1970 | 16 | 1936 | 10 | 1900 | 11 | DISCORDANT |  | 3.7 |  |
| **85** | U-112\_  spot95 | 196 | 192 | 21428 | 1.0 | 14.73 | 0.8 | 1.38 | 1.3 | 0.147 | 1.0 | 0.77 | 885 | 8 | 879 | 7 | 864 | 16 | 881 | 14 | 2.4 | \*\* |
| **86** | U-112\_  spot96 | 21 | 94 | 26640 | 4.6 | 8.38 | 0.7 | 5.84 | 1.2 | 0.355 | 0.9 | 0.79 | 1957 | 16 | 1952 | 10 | 1946 | 13 | 1951 | 20 | 0.6 | \*\* |
| **87** | U-112\_  spot97 | 292 | 507 | 446085 | 1.7 | 8.91 | 0.6 | 5.14 | 1.4 | 0.333 | 1.3 | 0.92 | 1851 | 21 | 1843 | 12 | 1834 | 10 | 1837 | 19 | 0.9 | \*\* |
| **88** | U-112\_  spot98 | 211 | 389 | 182588 | 1.8 | 4.98 | 0.7 | 15.08 | 1.3 | 0.545 | 1.0 | 0.81 | 2805 | 23 | 2820 | 12 | 2831 | 12 | 2825 | 22 | -0.9 | \*\* |
| **89** | U-112\_  spot99 | 43 | 293 | 39448 | 6.9 | 8.88 | 0.7 | 5.16 | 1.1 | 0.333 | 0.8 | 0.76 | 1852 | 13 | 1847 | 9 | 1841 | 13 | 1846 | 18 | 0.6 | \*\* |
| **90** | U-112\_  spot100 | 624 | 574 | 463807 | 0.9 | 5.83 | 0.7 | 10.92 | 1.5 | 0.462 | 1.3 | 0.87 | 2447 | 26 | 2517 | 14 | 2573 | 12 | DISCORDANT |  | -4.9 |  |
| **91** | U-112\_  spot101 | 84 | 221 | 4620284 | 2.6 | 7.94 | 0.6 | 6.43 | 1.1 | 0.370 | 0.9 | 0.80 | 2031 | 15 | 2036 | 9 | 2041 | 11 | 2038 | 19 | -0.5 | \*\* |
| **92** | U-112\_  spot102 | 50 | 115 | 34618 | 2.3 | 5.83 | 0.5 | 11.70 | 1.0 | 0.495 | 0.9 | 0.86 | 2593 | 19 | 2581 | 10 | 2571 | 9 | 2576 | 17 | 0.8 | \*\* |
| **93** | U-112\_  spot103 | 53 | 120 | 76618 | 2.3 | 8.54 | 0.6 | 5.69 | 1.0 | 0.353 | 0.7 | 0.76 | 1948 | 13 | 1930 | 8 | 1912 | 11 | 1928 | 17 | 1.9 | \*\* |
| **94** | U-112\_  spot104 | 126 | 231 | 97754 | 1.8 | 7.87 | 0.7 | 6.69 | 1.1 | 0.382 | 0.8 | 0.76 | 2087 | 15 | 2071 | 10 | 2056 | 13 | 2069 | 20 | 1.5 | \*\* |
| **95** | U-112\_  spot105 | 179 | 382 | 87698 | 2.1 | 8.34 | 0.7 | 5.91 | 1.1 | 0.357 | 0.8 | 0.73 | 1969 | 13 | 1962 | 9 | 1955 | 13 | 1962 | 19 | 0.8 | \*\* |
| **96** | U-112\_  spot106 | 59 | 101 | 155784 | 1.7 | 8.15 | 0.6 | 6.29 | 1.1 | 0.372 | 1.0 | 0.84 | 2038 | 17 | 2017 | 10 | 1994 | 11 | 2008 | 19 | 2.2 | \*\* |
| **97** | U-112\_  spot108 | 128 | 56 | 14078 | 0.4 | 5.78 | 0.6 | 11.92 | 1.1 | 0.500 | 0.9 | 0.83 | 2615 | 20 | 2598 | 11 | 2585 | 10 | 2592 | 19 | 1.1 | \*\* |
| **98** | U-112\_  spot109 | 181 | 138 | 141725 | 0.8 | 14.45 | 0.8 | 1.49 | 1.2 | 0.156 | 0.9 | 0.75 | 934 | 8 | 925 | 7 | 904 | 16 | 928 | 14 | 3.3 | \*\* |
| **99** | U-112\_  spot110 | 121 | 56 | 25102 | 0.5 | 8.38 | 0.6 | 6.03 | 1.0 | 0.366 | 0.8 | 0.79 | 2012 | 13 | 1980 | 8 | 1945 | 11 | DISCORDANT |  | 3.4 |  |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **100** | U-112\_  spot112 | 110 | 101 | 95087 | 0.9 | 4.51 | 0.6 | 18.12 | 1.0 | 0.593 | 0.9 | 0.83 | 3001 | 21 | 2996 | 10 | 2993 | 9 | 2995 | 18 | 0.2 | \*\* |
| **101** | U-112\_  spot113 | 150 | 251 | 390874 | 1.7 | 14.44 | 0.7 | 1.39 | 1.4 | 0.145 | 1.1 | 0.84 | 874 | 9 | 883 | 8 | 906 | 15 | 883 | 16 | -3.6 | \*\* |
| **102** | U-112\_  spot114 | 131 | 228 | 73493 | 1.7 | 14.23 | 0.7 | 1.46 | 1.2 | 0.151 | 1.0 | 0.80 | 905 | 8 | 914 | 7 | 936 | 15 | 912 | 15 | -3.3 | \*\* |
| **103** | U-112\_  spot115 | 62 | 63 | 68188 | 1.0 | 5.40 | 0.7 | 13.59 | 1.2 | 0.532 | 1.0 | 0.80 | 2751 | 22 | 2722 | 12 | 2700 | 12 | 2713 | 22 | 1.9 | \*\* |
| **104** | U-112\_  spot116 | 31 | 78 | 15861 | 2.5 | 14.59 | 0.9 | 1.45 | 1.4 | 0.154 | 1.1 | 0.78 | 923 | 9 | 912 | 8 | 883 | 18 | 915 | 16 | 4.5 | \*\* |
| **105** | U-112\_  spot117 | 118 | 195 | 118103 | 1.6 | 7.84 | 0.6 | 6.80 | 0.9 | 0.387 | 0.6 | 0.70 | 2108 | 11 | 2086 | 8 | 2064 | 11 | 2087 | 16 | 2.1 | \*\* |
| **106** | U-112\_  spot118 | 69 | 210 | 24381 | 3.0 | 14.22 | 0.7 | 1.47 | 1.1 | 0.151 | 0.8 | 0.75 | 909 | 7 | 917 | 6 | 937 | 14 | 914 | 12 | -3.0 | \*\* |
| **107** | U-112\_  spot119 | 144 | 332 | 1524114 | 2.3 | 7.79 | 0.6 | 6.67 | 1.0 | 0.377 | 0.8 | 0.82 | 2062 | 14 | 2068 | 8 | 2074 | 10 | 2070 | 16 | -0.6 | \*\* |
| **108** | U-112\_  spot120 | 68 | 125 | 31060 | 1.8 | 14.56 | 0.8 | 1.39 | 1.2 | 0.146 | 0.9 | 0.75 | 881 | 7 | 883 | 7 | 889 | 16 | 882 | 13 | -0.9 | \*\* |
| **109** | U-112\_  spot121 | 13 | 25 | 7926 | 1.9 | 6.36 | 0.8 | 10.28 | 1.3 | 0.474 | 1.0 | 0.79 | 2501 | 21 | 2460 | 12 | 2426 | 14 | 2449 | 23 | 3.1 | \*\* |
| **110** | U-112\_  spot122 | 123 | 179 | 338674 | 1.5 | 8.37 | 0.5 | 5.27 | 1.1 | 0.320 | 1.0 | 0.90 | 1789 | 16 | 1864 | 10 | 1949 | 9 | DISCORDANT |  | -8.2 |  |
| **111** | U-112\_  spot123 | 83 | 139 | 34884 | 1.7 | 8.17 | 0.7 | 6.22 | 1.1 | 0.369 | 0.8 | 0.77 | 2023 | 15 | 2007 | 10 | 1990 | 12 | 2004 | 19 | 1.7 | \*\* |
| **112** | U-112\_  spot124 | 61 | 86 | 30778 | 1.4 | 14.16 | 0.9 | 1.53 | 1.4 | 0.157 | 1.0 | 0.75 | 942 | 9 | 943 | 8 | 945 | 18 | 942 | 16 | -0.3 | \*\* |
| **113** | U-112\_  spot125 | 27 | 115 | 451171 | 4.3 | 7.82 | 0.6 | 6.76 | 1.1 | 0.384 | 0.9 | 0.84 | 2094 | 17 | 2081 | 10 | 2068 | 11 | 2076 | 19 | 1.3 | \*\* |
| **114** | U-112\_  spot126 | 55 | 69 | 19052 | 1.3 | 8.16 | 0.8 | 6.32 | 1.2 | 0.374 | 0.9 | 0.72 | 2049 | 15 | 2022 | 11 | 1994 | 15 | 2021 | 21 | 2.8 | \*\* |
| **115** | U-112\_  spot127 | 60 | 200 | 44911 | 3.4 | 7.74 | 0.6 | 6.85 | 1.1 | 0.385 | 0.9 | 0.86 | 2098 | 17 | 2092 | 10 | 2085 | 10 | 2089 | 17 | 0.6 | \*\* |
| **116** | U-112\_  spot128 | 47 | 94 | 9187583 | 2.0 | 7.81 | 0.8 | 6.85 | 1.3 | 0.388 | 1.0 | 0.76 | 2114 | 18 | 2092 | 11 | 2071 | 15 | 2089 | 23 | 2.1 | \*\* |
| **117** | U-112\_  spot129 | 92 | 106 | 31646 | 1.2 | 14.37 | 0.7 | 1.53 | 1.1 | 0.159 | 0.8 | 0.76 | 954 | 8 | 942 | 7 | 916 | 15 | 946 | 13 | 4.2 | \*\* |
| **U-115-2: песчаник дырбылкейской свиты** | | | | | | | | | | | | | | | | | | | | | | |
| **1** | U-115-  2\_spot1 | 26 | 153 | 8590 | 5.8 | 13.08 | 0.9 | 1.56 | 1.6 | 0.148 | 1.4 | 0.84 | 888 | 11 | 953 | 10 | 1106 | 18 | DISCORDANT |  | -19.7 |  |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **2** | U-115-  2\_spot2 | 48 | 231 | 133064 | 4.8 | 5.21 | 0.7 | 13.57 | 1.6 | 0.513 | 1.4 | 0.89 | 2669 | 31 | 2720 | 15 | 2758 | 12 | 2746 | 22 | -3.2 | \*\* |
| **3** | U-115-  2\_spot3 | 66 | 192 | 53500 | 2.9 | 14.46 | 0.6 | 1.41 | 1.4 | 0.148 | 1.2 | 0.89 | 892 | 10 | 895 | 8 | 902 | 13 | 896 | 16 | -1.1 | \*\* |
| **4** | U-115-  2\_spot5 | 9 | 27 | 129708 | 3.1 | 10.76 | 0.8 | 3.29 | 1.2 | 0.257 | 0.9 | 0.72 | 1472 | 11 | 1478 | 9 | 1487 | 16 | 1477 | 19 | -1.0 | \*\* |
| **5** | U-115-  2\_spot6 | 11 | 143 | 57086 | 12.7 | 14.52 | 0.6 | 1.39 | 1.1 | 0.146 | 0.9 | 0.85 | 879 | 8 | 883 | 7 | 894 | 12 | 883 | 13 | -1.7 | \*\* |
| **6** | U-115-  2\_spot8 | 88 | 161 | 190329 | 1.8 | 14.87 | 0.7 | 1.29 | 1.4 | 0.140 | 1.1 | 0.84 | 842 | 9 | 843 | 8 | 844 | 15 | 843 | 16 | -0.2 | \*\* |
| **7** | U-115-  2\_spot9 | 176 | 241 | 140340 | 1.4 | 14.36 | 0.6 | 1.43 | 1.5 | 0.149 | 1.4 | 0.91 | 896 | 12 | 902 | 9 | 917 | 13 | 905 | 17 | -2.2 | \*\* |
| **8** | U-115-  2\_spot10 | 80 | 116 | 89881 | 1.5 | 14.83 | 1.4 | 1.17 | 1.6 | 0.126 | 0.8 | 0.49 | 763 | 6 | 785 | 9 | 851 | 29 | 765 | 11 | -10.4 | \*\* |
| **9** | U-115-  2\_spot11 | 77 | 218 | 89292 | 2.8 | 14.49 | 0.6 | 1.41 | 1.3 | 0.148 | 1.1 | 0.87 | 892 | 9 | 894 | 7 | 899 | 13 | 894 | 15 | -0.8 | \*\* |
| **10** | U-115-  2\_spot12 | 123 | 350 | 2534764 | 2.8 | 13.71 | 0.6 | 1.71 | 1.5 | 0.170 | 1.4 | 0.91 | 1014 | 13 | 1013 | 10 | 1011 | 13 | 1013 | 18 | 0.3 | \*\* |
| **11** | U-115-  2\_spot13 | 238 | 310 | 1614725  2 | 1.3 | 15.49 | 1.0 | 1.16 | 1.8 | 0.131 | 1.6 | 0.86 | 791 | 12 | 783 | 10 | 758 | 20 | 783 | 20 | 4.3 | \*\* |
| **12** | U-115-  2\_spot14 | 333 | 327 | 139458 | 1.0 | 14.45 | 0.7 | 1.36 | 1.6 | 0.143 | 1.4 | 0.89 | 860 | 12 | 872 | 9 | 905 | 15 | 876 | 19 | -5.0 | \*\* |
| **13** | U-115-  2\_spot15 | 87 | 172 | 809783 | 2.0 | 14.38 | 0.8 | 1.39 | 1.7 | 0.145 | 1.5 | 0.88 | 874 | 12 | 885 | 10 | 914 | 16 | 888 | 19 | -4.4 | \*\* |
| **14** | U-115-  2\_spot16 | 109 | 238 | 101731 | 2.2 | 13.93 | 0.7 | 1.57 | 1.4 | 0.159 | 1.2 | 0.85 | 950 | 10 | 959 | 8 | 979 | 14 | 960 | 17 | -3.0 | \*\* |
| **15** | U-115-  2\_spot19 | 2 | 167 | 158711 | 106.6 | 6.75 | 1.3 | 8.67 | 2.2 | 0.425 | 1.8 | 0.81 | 2283 | 35 | 2304 | 20 | 2323 | 22 | 2311 | 37 | -1.7 | \*\* |
| **16** | U-115-  2\_spot20 | 73 | 189 | 48549 | 2.6 | 7.65 | 0.7 | 6.69 | 1.7 | 0.371 | 1.5 | 0.91 | 2035 | 26 | 2071 | 15 | 2106 | 12 | 2093 | 22 | -3.4 | \*\* |
| **17** | U-115-  2\_spot22 | 98 | 637 | 186499 | 6.5 | 14.44 | 0.8 | 1.41 | 1.8 | 0.147 | 1.6 | 0.90 | 886 | 13 | 891 | 11 | 905 | 16 | 894 | 21 | -2.0 | \*\* |
| **18** | U-115-  2\_spot23 | 5 | 18 | 76330 | 3.9 | 11.33 | 1.2 | 2.46 | 1.7 | 0.203 | 1.1 | 0.67 | 1189 | 12 | 1262 | 12 | 1388 | 24 | DISCORDANT |  | -14.3 |  |
| **19** | U-115-  2\_spot24 | 97 | 207 | 65120 | 2.1 | 14.30 | 0.6 | 1.42 | 1.3 | 0.147 | 1.1 | 0.87 | 884 | 9 | 896 | 8 | 925 | 13 | 898 | 15 | -4.4 | \*\* |
| **20** | U-115-  2\_spot25 | 130 | 330 | 884868 | 2.5 | 13.47 | 0.7 | 1.78 | 1.5 | 0.174 | 1.3 | 0.89 | 1031 | 13 | 1036 | 10 | 1047 | 14 | 1038 | 19 | -1.5 | \*\* |
| **21** | U-115-  2\_spot26 | 53 | 126 | 27528 | 2.4 | 15.31 | 0.7 | 1.16 | 1.6 | 0.129 | 1.4 | 0.89 | 780 | 10 | 781 | 9 | 783 | 15 | 781 | 17 | -0.4 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **22** | U-115-  2\_spot27 | 22 | 31 | 35180 | 1.4 | 13.14 | 1.1 | 1.84 | 1.4 | 0.176 | 0.9 | 0.66 | 1043 | 9 | 1061 | 9 | 1097 | 21 | 1051 | 17 | -4.9 | \*\* |
| **23** | U-115-  2\_spot28 | 50 | 100 | 52425 | 2.0 | 13.49 | 0.8 | 1.77 | 1.2 | 0.173 | 0.9 | 0.74 | 1030 | 8 | 1035 | 8 | 1044 | 16 | 1033 | 15 | -1.3 | \*\* |
| **24** | U-115-  2\_spot29 | 45 | 50 | 17928 | 1.1 | 14.14 | 0.9 | 1.44 | 1.3 | 0.148 | 0.9 | 0.70 | 887 | 8 | 905 | 8 | 948 | 19 | 895 | 14 | -6.4 | \*\* |
| **25** | U-115-  2\_spot31 | 46 | 169 | 306254 | 3.6 | 14.35 | 0.9 | 1.44 | 1.7 | 0.150 | 1.4 | 0.86 | 899 | 12 | 905 | 10 | 918 | 17 | 905 | 20 | -2.0 | \*\* |
| **26** | U-115-  2\_spot32 | 73 | 165 | 55884 | 2.3 | 15.46 | 0.8 | 1.15 | 1.5 | 0.129 | 1.3 | 0.86 | 781 | 9 | 777 | 8 | 763 | 16 | 777 | 16 | 2.4 | \*\* |
| **27** | U-115-  2\_spot33 | 29 | 114 | 30608 | 3.9 | 12.34 | 0.6 | 2.26 | 1.0 | 0.202 | 0.8 | 0.82 | 1187 | 9 | 1199 | 7 | 1222 | 11 | 1200 | 14 | -2.9 | \*\* |
| **28** | U-115-  2\_spot34 | 94 | 131 | 359295 | 1.4 | 14.20 | 1.0 | 1.52 | 1.6 | 0.157 | 1.3 | 0.81 | 939 | 12 | 939 | 10 | 940 | 20 | 939 | 20 | 0.0 | \*\* |
| **29** | U-115-  2\_spot35 | 7 | 54 | 62156 | 8.0 | 6.14 | 0.7 | 9.88 | 1.3 | 0.440 | 1.0 | 0.83 | 2352 | 21 | 2423 | 12 | 2484 | 12 | DISCORDANT |  | -5.3 |  |
| **30** | U-115-  2\_spot36 | 60 | 342 | 108215 | 5.7 | 14.52 | 0.5 | 1.38 | 1.2 | 0.146 | 1.1 | 0.91 | 877 | 9 | 882 | 7 | 894 | 10 | 884 | 14 | -1.9 | \*\* |
| **31** | U-115-  2\_spot37 | 34 | 101 | 73178 | 3.0 | 14.17 | 0.8 | 1.48 | 1.2 | 0.153 | 0.9 | 0.75 | 915 | 8 | 924 | 7 | 945 | 16 | 920 | 14 | -3.1 | \*\* |
| **32** | U-115-  2\_spot38 | 81 | 352 | 246135 | 4.4 | 14.48 | 0.6 | 1.41 | 1.6 | 0.149 | 1.4 | 0.91 | 893 | 12 | 895 | 9 | 899 | 13 | 896 | 18 | -0.7 | \*\* |
| **33** | U-115-  2\_spot39 | 83 | 155 | 247879 | 1.9 | 15.15 | 0.9 | 1.17 | 1.8 | 0.129 | 1.6 | 0.87 | 782 | 12 | 788 | 10 | 805 | 19 | 788 | 20 | -2.9 | \*\* |
| **34** | U-115-  2\_spot40 | 38 | 94 | 34844 | 2.5 | 14.47 | 0.7 | 1.41 | 1.1 | 0.149 | 0.8 | 0.77 | 893 | 7 | 895 | 7 | 901 | 14 | 894 | 13 | -0.9 | \*\* |
| **35** | U-115-  2\_spot41 | 62 | 74 | 10790 | 1.2 | 13.89 | 2.0 | 1.45 | 2.2 | 0.147 | 1.1 | 0.48 | 881 | 9 | 911 | 13 | 985 | 40 | 885 | 17 | -10.6 | \*\* |
| **36** | U-115-  2\_spot42 | 81 | 296 | 651820 | 3.7 | 14.62 | 0.9 | 1.42 | 1.7 | 0.151 | 1.5 | 0.87 | 905 | 13 | 898 | 10 | 880 | 18 | 897 | 20 | 2.8 | \*\* |
| **37** | U-115-  2\_spot43 | 48 | 126 | 36257 | 2.6 | 14.56 | 0.6 | 1.37 | 1.2 | 0.145 | 1.0 | 0.84 | 873 | 8 | 878 | 7 | 889 | 13 | 878 | 14 | -1.7 | \*\* |
| **38** | U-115-  2\_spot44 | 134 | 120 | 246767 | 0.9 | 14.36 | 0.7 | 1.44 | 1.2 | 0.150 | 0.9 | 0.78 | 899 | 8 | 904 | 7 | 917 | 15 | 902 | 14 | -2.0 | \*\* |
| **39** | U-115-  2\_spot46 | 17 | 67 | 44085 | 4.0 | 9.93 | 0.7 | 3.83 | 1.2 | 0.276 | 0.9 | 0.77 | 1571 | 13 | 1599 | 9 | 1636 | 14 | DISCORDANT |  | -4.0 |  |
| **40** | U-115-  2\_spot47 | 66 | 122 | 82205 | 1.8 | 14.42 | 0.7 | 1.47 | 1.4 | 0.154 | 1.2 | 0.85 | 924 | 10 | 920 | 8 | 909 | 15 | 919 | 17 | 1.7 | \*\* |
| **41** | U-115-  2\_spot48 | 72 | 226 | 60901 | 3.1 | 14.40 | 0.6 | 1.39 | 1.3 | 0.145 | 1.1 | 0.88 | 875 | 9 | 885 | 7 | 912 | 12 | 888 | 15 | -4.0 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **42** | U-115-  2\_spot49 | 33 | 41 | 12805 | 1.2 | 14.49 | 0.9 | 1.43 | 1.2 | 0.150 | 0.7 | 0.62 | 903 | 6 | 902 | 7 | 898 | 19 | 903 | 12 | 0.6 | \*\* |
| **43** | U-115-  2\_spot50 | 30 | 78 | 283585 | 2.6 | 11.67 | 0.7 | 2.67 | 1.0 | 0.226 | 0.7 | 0.72 | 1314 | 8 | 1320 | 7 | 1331 | 13 | 1319 | 14 | -1.3 | \*\* |
| **44** | U-115-  2\_spot51 | 27 | 67 | 28038 | 2.5 | 15.16 | 0.7 | 1.18 | 1.5 | 0.129 | 1.3 | 0.87 | 784 | 9 | 789 | 8 | 804 | 15 | 789 | 16 | -2.5 | \*\* |
| **45** | U-115-  2\_spot52 | 63 | 189 | 1831953 | 3.0 | 14.37 | 0.6 | 1.42 | 1.5 | 0.148 | 1.3 | 0.91 | 888 | 11 | 896 | 9 | 915 | 12 | 900 | 17 | -3.0 | \*\* |
| **46** | U-115-  2\_spot53 | 54 | 113 | 175808 | 2.1 | 13.96 | 0.7 | 1.60 | 1.1 | 0.162 | 0.8 | 0.77 | 967 | 7 | 969 | 7 | 974 | 14 | 968 | 13 | -0.7 | \*\* |
| **47** | U-115-  2\_spot54 | 3 | 32 | 45055 | 10.4 | 9.00 | 0.6 | 4.85 | 1.1 | 0.316 | 0.9 | 0.83 | 1772 | 14 | 1793 | 9 | 1817 | 11 | 1799 | 18 | -2.4 | \*\* |
| **48** | U-115-  2\_spot55 | 89 | 324 | 88912 | 3.6 | 14.19 | 0.5 | 1.56 | 1.5 | 0.161 | 1.4 | 0.93 | 961 | 12 | 955 | 9 | 941 | 11 | 950 | 17 | 2.0 | \*\* |
| **49** | U-115-  2\_spot56 | 89 | 144 | 1745427 | 1.6 | 15.21 | 0.8 | 1.15 | 1.3 | 0.127 | 1.1 | 0.81 | 770 | 8 | 777 | 7 | 797 | 17 | 775 | 14 | -3.4 | \*\* |
| **50** | U-115-  2\_spot57 | 100 | 309 | 72725 | 3.1 | 14.36 | 0.7 | 1.36 | 1.8 | 0.142 | 1.7 | 0.92 | 855 | 13 | 873 | 11 | 917 | 15 | 882 | 20 | -6.7 | \*\* |
| **51** | U-115-  2\_spot58 | 57 | 146 | 143881 | 2.6 | 14.49 | 0.8 | 1.39 | 1.2 | 0.146 | 0.9 | 0.75 | 881 | 7 | 886 | 7 | 898 | 17 | 883 | 14 | -1.9 | \*\* |
| **52** | U-115-  2\_spot59 | 25 | 23 | 48389 | 0.9 | 5.42 | 0.7 | 13.64 | 1.2 | 0.537 | 1.0 | 0.82 | 2769 | 22 | 2725 | 11 | 2692 | 11 | 2710 | 21 | 2.9 | \*\* |
| **53** | U-115-  2\_spot60 | 89 | 272 | 41206 | 3.1 | 15.24 | 0.7 | 1.14 | 1.5 | 0.126 | 1.4 | 0.89 | 767 | 10 | 773 | 8 | 793 | 15 | 774 | 17 | -3.3 | \*\* |
| **54** | U-115-  2\_spot61 | 177 | 260 | 70165 | 1.5 | 14.99 | 0.7 | 1.20 | 1.4 | 0.131 | 1.2 | 0.88 | 792 | 9 | 801 | 8 | 827 | 14 | 802 | 16 | -4.3 | \*\* |
| **55** | U-115-  2\_spot62 | 18 | 43 | 57959 | 2.4 | 7.92 | 0.8 | 6.32 | 1.2 | 0.363 | 0.9 | 0.72 | 1997 | 15 | 2021 | 10 | 2045 | 15 | 2021 | 21 | -2.4 | \*\* |
| **56** | U-115-  2\_spot63 | 17 | 61 | 79729 | 3.7 | 11.59 | 0.9 | 2.86 | 1.4 | 0.240 | 1.1 | 0.76 | 1388 | 13 | 1371 | 11 | 1344 | 18 | 1372 | 21 | 3.2 | \*\* |
| **57** | U-115-  2\_spot65 | 40 | 336 | 155156 | 8.5 | 14.37 | 0.8 | 1.46 | 1.4 | 0.153 | 1.1 | 0.82 | 915 | 10 | 915 | 8 | 915 | 16 | 915 | 17 | 0.0 | \*\* |
| **58** | U-115-  2\_spot66 | 42 | 168 | 105699 | 4.0 | 15.28 | 0.6 | 1.15 | 1.8 | 0.127 | 1.6 | 0.93 | 774 | 12 | 777 | 10 | 788 | 13 | 780 | 18 | -1.8 | \*\* |
| **59** | U-115-  2\_spot67 | 35 | 74 | 75860 | 2.1 | 15.02 | 1.0 | 1.23 | 1.6 | 0.134 | 1.3 | 0.78 | 810 | 10 | 814 | 9 | 824 | 21 | 813 | 18 | -1.7 | \*\* |
| **60** | U-115-  2\_spot69 | 70 | 368 | 76054 | 5.3 | 12.56 | 1.2 | 1.85 | 1.8 | 0.169 | 1.3 | 0.73 | 1004 | 12 | 1064 | 12 | 1187 | 24 | DISCORDANT |  | -15.4 |  |
| **61** | U-115-  2\_spot70 | 630 | 693 | 50316 | 1.1 | 15.37 | 0.6 | 1.08 | 1.5 | 0.121 | 1.3 | 0.90 | 734 | 9 | 744 | 8 | 775 | 13 | 746 | 15 | -5.3 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **62** | U-115-  2\_spot71 | 55 | 180 | 53250 | 3.3 | 14.50 | 0.6 | 1.38 | 1.3 | 0.145 | 1.2 | 0.90 | 873 | 10 | 880 | 8 | 897 | 12 | 882 | 15 | -2.7 | \*\* |
| **63** | U-115-  2\_spot72 | 24 | 29 | 62245 | 1.2 | 5.68 | 0.7 | 11.82 | 1.1 | 0.487 | 0.9 | 0.80 | 2560 | 18 | 2590 | 10 | 2615 | 11 | 2599 | 19 | -2.1 | \*\* |
| **64** | U-115-  2\_spot73 | 98 | 226 | 298390 | 2.3 | 14.74 | 0.7 | 1.29 | 1.4 | 0.138 | 1.2 | 0.87 | 832 | 10 | 841 | 8 | 863 | 14 | 841 | 16 | -3.6 | \*\* |
| **65** | U-115-  2\_spot74 | 39 | 144 | 1449894 | 3.7 | 7.75 | 0.7 | 6.48 | 1.8 | 0.365 | 1.7 | 0.92 | 2004 | 29 | 2043 | 16 | 2083 | 12 | 2071 | 22 | -3.8 | \*\* |
| **66** | U-115-  2\_spot75 | 12 | 46 | 30957 | 3.7 | 11.01 | 0.9 | 3.15 | 1.3 | 0.251 | 0.9 | 0.72 | 1446 | 12 | 1444 | 10 | 1442 | 17 | 1445 | 19 | 0.2 | \*\* |
| **67** | U-115-  2\_spot77 | 44 | 185 | 234725 | 4.2 | 14.58 | 0.6 | 1.38 | 1.4 | 0.146 | 1.2 | 0.89 | 878 | 10 | 880 | 8 | 885 | 13 | 880 | 16 | -0.8 | \*\* |
| **68** | U-115-  2\_spot78 | 84 | 259 | 684071 | 3.1 | 15.32 | 0.7 | 1.12 | 1.2 | 0.124 | 1.0 | 0.83 | 756 | 7 | 763 | 6 | 782 | 14 | 761 | 13 | -3.3 | \*\* |
| **69** | U-115-  2\_spot79 | 38 | 173 | 48364 | 4.5 | 15.49 | 0.7 | 1.13 | 1.5 | 0.127 | 1.4 | 0.89 | 768 | 10 | 766 | 8 | 759 | 14 | 765 | 16 | 1.2 | \*\* |
| **70** | U-115-  2\_spot80 | 73 | 241 | 74268 | 3.3 | 15.13 | 0.7 | 1.24 | 1.7 | 0.136 | 1.5 | 0.90 | 821 | 12 | 818 | 9 | 809 | 15 | 816 | 18 | 1.5 | \*\* |
| **71** | U-115-  2\_spot81 | 70 | 123 | 251101 | 1.8 | 14.79 | 0.7 | 1.33 | 1.1 | 0.142 | 0.9 | 0.77 | 857 | 7 | 857 | 7 | 856 | 15 | 857 | 13 | 0.1 | \*\* |
| **72** | U-115-  2\_spot82 | 81 | 182 | 65066 | 2.2 | 15.35 | 0.8 | 1.15 | 1.5 | 0.128 | 1.3 | 0.86 | 778 | 9 | 778 | 8 | 778 | 16 | 778 | 16 | 0.0 | \*\* |
| **73** | U-115-  2\_spot83 | 19 | 37 | 54906 | 1.9 | 5.28 | 0.7 | 13.35 | 1.3 | 0.511 | 1.0 | 0.81 | 2661 | 22 | 2705 | 12 | 2737 | 12 | 2718 | 22 | -2.8 | \*\* |
| **74** | U-115-  2\_spot84 | 24 | 195 | 181547 | 8.0 | 9.19 | 0.7 | 4.85 | 1.4 | 0.323 | 1.2 | 0.88 | 1806 | 19 | 1793 | 12 | 1779 | 12 | 1787 | 21 | 1.5 | \*\* |
| **75** | U-115-  2\_spot85 | 14 | 65 | 145705 | 4.6 | 7.30 | 0.6 | 7.61 | 0.9 | 0.403 | 0.8 | 0.81 | 2185 | 14 | 2186 | 9 | 2188 | 10 | 2187 | 17 | -0.1 | \*\* |
| **76** | U-115-  2\_spot86 | 102 | 206 | 70026 | 2.0 | 15.33 | 0.7 | 1.14 | 1.6 | 0.127 | 1.4 | 0.90 | 773 | 10 | 775 | 9 | 780 | 15 | 775 | 17 | -0.9 | \*\* |
| **77** | U-115-  2\_spot87 | 146 | 479 | 1306244 | 3.3 | 14.57 | 0.7 | 1.41 | 1.7 | 0.149 | 1.5 | 0.90 | 893 | 13 | 891 | 10 | 887 | 15 | 890 | 19 | 0.6 | \*\* |
| **78** | U-115-  2\_spot88 | 43 | 527 | 157739 | 12.4 | 14.63 | 0.8 | 1.40 | 1.4 | 0.149 | 1.2 | 0.85 | 896 | 10 | 891 | 9 | 879 | 16 | 891 | 17 | 2.0 | \*\* |
| **79** | U-115-  2\_spot89 | 14 | 45 | 153509 | 3.1 | 12.28 | 0.8 | 2.41 | 1.3 | 0.215 | 1.1 | 0.81 | 1256 | 12 | 1247 | 10 | 1231 | 15 | 1246 | 19 | 2.1 | \*\* |
| **80** | U-115-  2\_spot90 | 114 | 366 | 40138 | 3.2 | 14.19 | 0.8 | 1.36 | 1.3 | 0.141 | 1.1 | 0.81 | 848 | 8 | 874 | 8 | 941 | 16 | DISCORDANT |  | -10.0 |  |
| **81** | U-115-  2\_spot91 | 79 | 245 | 59674 | 3.1 | 15.12 | 0.5 | 1.15 | 1.1 | 0.126 | 1.0 | 0.91 | 766 | 7 | 777 | 6 | 810 | 10 | DISCORDANT |  | -5.5 |  |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **82** | U-115-  2\_spot92 | 16 | 288 | 94807 | 17.8 | 14.46 | 0.7 | 1.44 | 1.5 | 0.151 | 1.3 | 0.87 | 909 | 11 | 907 | 9 | 903 | 15 | 907 | 18 | 0.7 | \*\* |
| **83** | U-115-  2\_spot93 | 21 | 58 | 38506 | 2.8 | 13.67 | 0.7 | 1.78 | 1.2 | 0.176 | 0.9 | 0.80 | 1046 | 9 | 1037 | 8 | 1018 | 14 | 1038 | 15 | 2.8 | \*\* |
| **84** | U-115-  2\_spot94 | 15 | 70 | 16977 | 4.8 | 14.33 | 3.1 | 1.27 | 4.2 | 0.132 | 2.8 | 0.66 | 799 | 21 | 832 | 24 | 921 | 64 | 808 | 40 | -13.2 | \*\* |
| **85** | U-115-  2\_spot95 | 41 | 175 | 246999 | 4.3 | 14.49 | 0.5 | 1.42 | 1.3 | 0.150 | 1.2 | 0.92 | 899 | 10 | 898 | 8 | 898 | 11 | 898 | 15 | 0.1 | \*\* |
| **86** | U-115-  2\_spot96 | 122 | 174 | 174797 | 1.4 | 15.40 | 1.0 | 1.13 | 1.8 | 0.126 | 1.5 | 0.84 | 763 | 11 | 765 | 10 | 771 | 21 | 765 | 20 | -1.0 | \*\* |
| **87** | U-115-  2\_spot97 | 116 | 192 | 167159 | 1.7 | 15.51 | 0.7 | 1.14 | 1.6 | 0.128 | 1.4 | 0.90 | 779 | 11 | 773 | 9 | 757 | 15 | 771 | 17 | 2.9 | \*\* |
| **88** | U-115-  2\_spot99 | 31 | 55 | 25064 | 1.8 | 15.32 | 0.8 | 1.12 | 1.2 | 0.124 | 0.9 | 0.74 | 756 | 6 | 763 | 6 | 782 | 16 | 759 | 12 | -3.3 | \*\* |
| **89** | U-115-  2\_spot100 | 160 | 258 | 313198 | 1.6 | 6.38 | 1.0 | 7.87 | 1.9 | 0.364 | 1.6 | 0.85 | 2003 | 27 | 2217 | 17 | 2421 | 17 | DISCORDANT |  | -17.3 |  |
| **90** | U-115-  2\_spot101 | 87 | 366 | 289426 | 4.2 | 14.47 | 0.6 | 1.41 | 1.2 | 0.148 | 1.0 | 0.87 | 888 | 8 | 892 | 7 | 901 | 12 | 892 | 14 | -1.4 | \*\* |
| **91** | U-115-  2\_spot102 | 35 | 60 | 15222 | 1.7 | 15.37 | 0.7 | 1.13 | 1.2 | 0.126 | 0.9 | 0.78 | 762 | 7 | 766 | 6 | 775 | 16 | 764 | 12 | -1.6 | \*\* |
| **92** | U-115-  2\_spot103 | 16 | 31 | 51692 | 1.9 | 8.30 | 0.7 | 6.01 | 1.2 | 0.362 | 1.0 | 0.79 | 1991 | 16 | 1977 | 10 | 1963 | 13 | 1974 | 21 | 1.5 | \*\* |
| **93** | U-115-  2\_spot104 | 76 | 132 | 73766 | 1.7 | 14.57 | 0.8 | 1.38 | 1.3 | 0.146 | 1.0 | 0.80 | 880 | 9 | 882 | 8 | 887 | 16 | 882 | 15 | -0.7 | \*\* |
| **94** | U-115-  2\_spot105 | 24 | 31 | 93740 | 1.3 | 6.32 | 1.0 | 9.61 | 1.3 | 0.441 | 0.8 | 0.65 | 2355 | 16 | 2398 | 12 | 2435 | 16 | DISCORDANT |  | -3.3 |  |
| **95** | U-115-  2\_spot106 | 40 | 194 | 49367 | 4.9 | 13.48 | 0.8 | 1.76 | 1.5 | 0.172 | 1.3 | 0.86 | 1024 | 12 | 1031 | 10 | 1046 | 16 | 1032 | 19 | -2.1 | \*\* |
| **96** | U-115-  2\_spot107 | 27 | 49 | 63319 | 1.9 | 7.40 | 1.0 | 6.81 | 1.4 | 0.365 | 1.0 | 0.70 | 2007 | 17 | 2087 | 12 | 2166 | 17 | DISCORDANT |  | -7.3 |  |
| **97** | U-115-  2\_spot108 | 76 | 100 | 38632 | 1.3 | 14.55 | 0.8 | 1.41 | 1.2 | 0.149 | 0.9 | 0.78 | 894 | 8 | 893 | 7 | 889 | 16 | 893 | 14 | 0.5 | \*\* |
| **98** | U-115-  2\_spot109 | 30 | 29 | 10711 | 1.0 | 8.44 | 1.4 | 5.36 | 2.1 | 0.328 | 1.6 | 0.77 | 1828 | 26 | 1878 | 18 | 1933 | 24 | 1883 | 36 | -5.4 | \*\* |
| **99** | U-115-  2\_spot110 | 33 | 37 | 22975 | 1.1 | 13.08 | 1.0 | 1.55 | 1.2 | 0.147 | 0.8 | 0.63 | 885 | 6 | 951 | 8 | 1106 | 19 | DISCORDANT |  | -20.0 |  |
| **100** | U-115-  2\_spot111 | 287 | 557 | 152450 | 1.9 | 15.01 | 0.7 | 1.21 | 1.8 | 0.132 | 1.7 | 0.92 | 797 | 12 | 804 | 10 | 825 | 15 | 808 | 19 | -3.3 | \*\* |
| **101** | U-115-  2\_spot112 | 12 | 31 | 38997 | 2.6 | 7.84 | 0.9 | 6.65 | 1.3 | 0.378 | 1.0 | 0.77 | 2068 | 18 | 2066 | 12 | 2063 | 15 | 2065 | 23 | 0.3 | \*\* |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** |
| **102** | U-115-  2\_spot113 | 0 | 9 | 32795 | 122.7 | 8.30 | 0.9 | 5.88 | 1.2 | 0.354 | 0.8 | 0.69 | 1954 | 14 | 1958 | 10 | 1962 | 15 | 1957 | 21 | -0.4 | \*\* |
| **103** | U-115-  2\_spot114 | 54 | 53 | 112735 | 1.0 | 5.83 | 0.6 | 11.42 | 1.1 | 0.483 | 0.9 | 0.85 | 2539 | 19 | 2558 | 10 | 2573 | 10 | 2565 | 18 | -1.3 | \*\* |
| **104** | U-115-  2\_spot115 | 134 | 440 | 60804 | 3.3 | 15.79 | 0.8 | 1.06 | 1.8 | 0.122 | 1.7 | 0.91 | 739 | 12 | 734 | 10 | 718 | 16 | 732 | 19 | 2.9 | \*\* |
| **105** | U-115-  2\_spot116 | 27 | 151 | 327990 | 5.6 | 14.47 | 0.7 | 1.43 | 1.5 | 0.150 | 1.4 | 0.90 | 901 | 12 | 901 | 9 | 901 | 14 | 901 | 18 | 0.0 | \*\* |
| **106** | U-115-  2\_spot117 | 162 | 191 | 439709 | 1.2 | 15.15 | 0.7 | 1.24 | 1.7 | 0.137 | 1.5 | 0.90 | 825 | 12 | 820 | 10 | 806 | 16 | 818 | 19 | 2.3 | \*\* |
| **107** | U-115-  2\_spot118 | 16 | 131 | 120648 | 8.4 | 14.43 | 0.7 | 1.44 | 1.5 | 0.150 | 1.3 | 0.89 | 903 | 11 | 904 | 9 | 906 | 14 | 904 | 17 | -0.4 | \*\* |
| **108** | U-115-  2\_spot119 | 121 | 230 | 122415 | 1.9 | 15.46 | 0.6 | 1.15 | 1.3 | 0.129 | 1.2 | 0.88 | 780 | 8 | 775 | 7 | 763 | 13 | 775 | 14 | 2.2 | \*\* |
| **109** | U-115-  2\_spot121 | 49 | 191 | 383750 | 3.9 | 15.15 | 0.8 | 1.25 | 1.9 | 0.137 | 1.7 | 0.91 | 829 | 13 | 823 | 11 | 806 | 16 | 820 | 21 | 2.9 | \*\* |
| **110** | U-115-  2\_spot122 | 26 | 325 | 117544 | 12.6 | 14.52 | 0.7 | 1.38 | 1.4 | 0.145 | 1.2 | 0.86 | 875 | 10 | 880 | 8 | 894 | 15 | 881 | 17 | -2.2 | \*\* |
| **111** | U-115-  2\_spot123 | 16 | 41 | 11030 | 2.5 | 13.62 | 1.3 | 1.54 | 1.7 | 0.152 | 1.0 | 0.61 | 914 | 9 | 947 | 10 | 1025 | 27 | DISCORDANT |  | -10.9 |  |
| **112** | U-115-  2\_spot124 | 38 | 193 | 293121 | 5.1 | 14.41 | 0.7 | 1.42 | 1.4 | 0.149 | 1.2 | 0.88 | 893 | 10 | 898 | 8 | 910 | 14 | 899 | 17 | -1.9 | \*\* |
| **113** | U-115-  2\_spot125 | 63 | 78 | 58863 | 1.2 | 8.21 | 0.6 | 5.95 | 1.0 | 0.354 | 0.9 | 0.84 | 1954 | 15 | 1968 | 9 | 1982 | 10 | 1973 | 17 | -1.4 | \*\* |
| **114** | U-115-  2\_spot126 | 23 | 162 | 1829047 | 7.0 | 5.23 | 0.8 | 13.81 | 1.5 | 0.524 | 1.3 | 0.85 | 2716 | 28 | 2737 | 14 | 2753 | 13 | 2746 | 24 | -1.3 | \*\* |
| **115** | U-115-  2\_spot127 | 35 | 138 | 611708 | 3.9 | 14.20 | 0.6 | 1.41 | 1.1 | 0.146 | 0.9 | 0.83 | 876 | 7 | 894 | 6 | 939 | 12 | DISCORDANT |  | -6.7 |  |
| **116** | U-115-  2\_spot128 | 291 | 608 | 67979 | 2.1 | 14.59 | 0.6 | 1.25 | 1.3 | 0.133 | 1.1 | 0.86 | 804 | 8 | 825 | 7 | 884 | 13 | DISCORDANT |  | -9.1 |  |
| **117** | U-115-  2\_spot129 | 35 | 114 | 133669 | 3.3 | 10.72 | 0.6 | 3.41 | 1.1 | 0.265 | 0.9 | 0.81 | 1516 | 12 | 1507 | 9 | 1493 | 12 | 1505 | 17 | 1.5 | \*\* |
| **118** | U-115-  2\_spot130 | 95 | 214 | 102607 | 2.3 | 15.05 | 0.6 | 1.22 | 1.5 | 0.133 | 1.3 | 0.91 | 807 | 10 | 810 | 8 | 819 | 13 | 812 | 16 | -1.5 | \*\* |

Примечание. (\*) Изотопные отношения, скорректированные на общий свинец; (\*\*) возраст, используемый в расчетах. Rho – коэффициент корреляции между ошибками отношений 207Pb/235U–206Pb/238U, CA – конкордантный возраст (Ludwig, 2008), D – дискордантность.

**Таблица 2.** Lu–Hf изотопно-геохимические данные для циркона из песчаников урулюнгуйской и дырбылкейской свит

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Анализы | Возраст, млн лет | (176Yb+176Lu)/176Hf (%) | 176Lu/177Hf | 176Hf/177Hf | ± (1 s)  ) | ɛHf(t) | tHf(DM), млрд лет | tHf(C), млрд лет |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **U-112: песчаник урулюнгуйской свиты** | | | | | | | | |
| **U-112\_spot6** | 893 | 15.2 | 0.001029 | 0.282332 | 0.000023 | 3.6 | 1.3 | 1.4 |
| **U-112\_spot8** | 925 | 10.8 | 0.000629 | 0.282504 | 0.000023 | 10.6 | 1.0 | 1.1 |
| **U-112\_spot11** | 929 | 14.4 | 0.000939 | 0.282285 | 0.000018 | 2.8 | 1.4 | 1.5 |
| **U-112\_spot16** | 2518 | 10.7 | 0.000671 | 0.280996 | 0.000014 | -7.5 | 3.1 | 3.2 |
| **U-112\_spot24** | 894 | 19.3 | 0.001350 | 0.282288 | 0.000021 | 1.8 | 1.4 | 1.5 |
| **U-112\_spot38** | 2727 | 10.1 | 0.000619 | 0.280853 | 0.000024 | -7.7 | 3.3 | 3.4 |
| **U-112\_spot44** | 2058 | 16.6 | 0.001112 | 0.281596 | 0.000019 | 2.9 | 2.3 | 2.4 |
| **U-112\_spot48** | 1847 | 0.5 | 0.000028 | 0.281216 | 0.000015 | -13.9 | 2.8 | 3.0 |
| **U-112\_spot53** | 1906 | 3.4 | 0.000206 | 0.281321 | 0.000016 | -9.1 | 2.6 | 2.8 |
| **U-112\_spot55** | 2498 | 4.6 | 0.000212 | 0.281138 | 0.000019 | -2.1 | 2.9 | 2.9 |
| **U-112\_spot56** | 2070 | 7.0 | 0.000425 | 0.281629 | 0.000023 | 5.3 | 2.2 | 2.2 |
| **U-112\_spot58** | 2490 | 4.9 | 0.000286 | 0.281166 | 0.000016 | -1.4 | 2.9 | 2.9 |
| **U-112\_spot61** | 2755 | 3.7 | 0.000255 | 0.280950 | 0.000019 | -3.0 | 3.1 | 3.2 |
| **U-112\_spot63** | 2064 | 6.8 | 0.000423 | 0.281601 | 0.000027 | 4.1 | 2.3 | 2.3 |
| **U-112\_spot64** | 963 | 13.2 | 0.000811 | 0.282033 | 0.000019 | -5.4 | 1.7 | 1.9 |
| **U-112\_spot79** | 2055 | 14.5 | 0.000843 | 0.281555 | 0.000020 | 1.7 | 2.4 | 2.4 |
| **U-112\_spot86** | 2045 | 21.3 | 0.001307 | 0.281613 | 0.000021 | 2.9 | 2.3 | 2.3 |
| **U-112\_spot94** | 1900 | 5.4 | 0.000323 | 0.281155 | 0.000016 | -15.3 | 2.9 | 3.1 |
| **U-112\_spot96** | 1946 | 3.5 | 0.000235 | 0.281650 | 0.000027 | 3.5 | 2.2 | 2.2 |
| **U-112\_spot97** | 1834 | 20.6 | 0.001208 | 0.281424 | 0.000021 | -8.3 | 2.6 | 2.7 |
| **U-112\_spot114** | 936 | 18.7 | 0.001086 | 0.282223 | 0.000018 | 0.6 | 1.5 | 1.6 |
| **U-112\_spot118** | 937 | 11.7 | 0.000716 | 0.282212 | 0.000017 | 0.5 | 1.5 | 1.6 |
| **U-112\_spot119** | 2074 | 15.7 | 0.000916 | 0.281250 | 0.000019 | -8.8 | 2.8 | 2.9 |
| **U-112\_spot124** | 945 | 12.1 | 0.000762 | 0.282349 | 0.000022 | 5.5 | 1.3 | 1.3 |
| **U-115-2: песчаник дырбылкейской свиты** | | | | | | | | |
| **U-115-2\_spot13** | 803 | 191.6 | 0.010695 | 0.282174 | 0.000048 | -9.1 | 2.0 | 2.0 |
| **U-115-2\_spot32** | 782 | 38.6 | 0.002139 | 0.282506 | 0.000022 | 6.8 | 1.1 | 1.1 |

Продолжение таблицы 2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| **U-115-2\_spot35** | 2482 | 1.0 | 0.000070 | 0.281208 | 0.000020 | 0.3 | 2.8 | 2.8 |
| **U-115-2\_spot40** | 881 | 7.0 | 0.000514 | 0.282322 | 0.000021 | 3.3 | 1.3 | 1.4 |
| **U-115-2\_spot44** | 914 | 37.3 | 0.001926 | 0.281992 | 0.000027 | -8.6 | 1.8 | 2.0 |
| **U-115-2\_spot51** | 772 | 44.5 | 0.002571 | 0.282413 | 0.000016 | 3.0 | 1.2 | 1.3 |
| **U-115-2\_spot56** | 776 | 29.7 | 0.001682 | 0.282437 | 0.000020 | 4.4 | 1.2 | 1.3 |
| **U-115-2\_spot58** | 874 | 23.3 | 0.001415 | 0.282069 | 0.000023 | -6.4 | 1.7 | 1.9 |
| **U-115-2\_spot59** | 2690 | 10.6 | 0.000660 | 0.280761 | 0.000019 | -11.9 | 3.4 | 3.6 |
| **U-115-2\_spot60** | 782 | 22.0 | 0.001034 | 0.282385 | 0.000026 | 3.0 | 1.2 | 1.3 |
| **U-115-2\_spot77** | 892 | 21.8 | 0.001303 | 0.282146 | 0.000020 | -3.2 | 1.6 | 1.7 |
| **U-115-2\_spot81** | 848 | 30.5 | 0.001903 | 0.281915 | 0.000026 | -12.7 | 1.9 | 2.2 |
| **U-115-2\_spot92** | 902 | 17.1 | 0.001072 | 0.282108 | 0.000018 | -4.2 | 1.6 | 1.8 |
| **U-115-2\_spot97** | 780 | 36.7 | 0.002210 | 0.282099 | 0.000020 | -7.7 | 1.7 | 1.9 |
| **U-115-2\_spot109** | 1940 | 7.2 | 0.000453 | 0.281423 | 0.000022 | -5.0 | 2.5 | 2.6 |
| **U-115-2\_spot113** | 1962 | 4.2 | 0.000303 | 0.281048 | 0.000019 | -17.6 | 3.0 | 3.3 |
| **U-115-2\_spot116** | 899 | 24.7 | 0.001571 | 0.282053 | 0.000022 | -6.5 | 1.7 | 1.9 |