| Serial number of sampling | River/Lake/channel/well | sample types | collection sites | coordinate | pH | T/(°C) |
|---|---|---|---|---|---|---|
| J1 | Songhua R | river | Yilan City | 46°18′ 58.8″ N 129°31′ 23.1″ E | 6.8 | 0 |
| J2 | Mudang R | river | Yilan City | 46°17′ 45.5″ N 127°32′ 45.6″ E | 6.2 | 0 |
| J3 | Woken R | river | Yilan City | 46°19′ 37.3″ N 129°34′ 55.5″ E | 6.0 | 0 |
| J4 | Songhua R | river | Jiamusi City | 46°50′ 26.0″ N 130°16′ 35.6″ E | 6.3 | 0 |
| J5 | well(20m) | groundwater | 291 Farm | 46°52′ 10.8″ N 131°25′ 41.6″ E | 6.8 | 5 |
| J6 | well(11m) | groundwater | Fujin City | 46°55′ 10.2″ N 131°33′ 17.5″ E | 6.8 | 4 |
| J7 | Songhua R | river | Tongjiang City | 47°42′ 08.1″ N 132°31′ 13.5″ E | 6.9 | 0 |
| J8 | Amur R | river | Tongjiang City | 47°42′ 51.2″ N 132°30′ 19.5″ E | 7.3 | 0 |
| J9 | well(7m) | groundwater | Tongjiang City | 48°05′ 25.4″ N 133°34′ 21.5″ E | 6.7 | 4 |
| J10 | well(13m) | groundwater | Tongjiang City | 48°10′ 49.4″ N 133°57′ 01.3″ E | 7.3 | 6 |
| J11 | Amur R | river | Fuyuan City | 48°22′ 24.9″ N 134°17′ 25.0″ E | 7.0 | 0 |
| J12 | Ussuri R | river | Fuyuan City | 48°15′ 33.2″ N 134°40′ 21.1″ E | 7.6 | 0 |
| J13 | well(15m) | groundwater | Qianfeng Farm | 47°32′ 45.4″ N 133°52′ 58.3″ E | 6.7 | 4 |
| J14 | well(35m) | groundwater | Sanjing Station | 47°35′ 18.6″ N 133°29′ 48.8″ E | 7.0 | 5 |
| J15 | well(35m) | groundwater | Chuanye Farm | 47°21′ 33.4″ N 132°59′ 57.4″ E | 7.1 | 5 |

| COND(mS/cm) | TOC（mg/L） | TC（mg/L） | IC（mg/L） | $Fe^{2+}$(mg/L) | $Fe^{3+}$(mg/L) | Acid soluble Fe（mg/L） | Total Fe（mg/L） | Total Mn（mg/L） | K（mg/L） |
|---|---|---|---|---|---|---|---|---|---|
| 0.43 | 9.02 | 35.10 | 26.08 | 0.10 | 0.14 | 0.29 | 0.25 | 0.26 | 7.03 |
| 0.17 | 6.52 | 16.65 | 10.13 | 0.10 | 0.11 | 0.54 | 0.22 | 0.04 | 3.11 |
| 0.53 | 45.85 | 99.72 | 53.87 | 1.38 | 0.39 | 4.26 | 2.20 | 5.94 | 8.72 |
| 0.30 | 9.53 | 33.27 | 23.73 | 0.15 | 0.21 | 0.39 | 0.37 | 0.37 | 4.92 |
| 0.36 | 0.05 | 42.68 | 42.63 | 0.40 | 0.78 | 2.07 | 1.21 | 0.27 | 1.86 |
| 0.67 | 0.10 | 72.19 | 72.09 | 1.63 | 2.25 | 10.51 | 4.40 | 0.31 | 2.56 |
| 0.32 | 5.50 | 22.72 | 17.22 | 0.05 | 0.08 | 0.31 | 0.14 | 0.12 | 4.93 |
| 0.06 | 10.32 | 14.25 | 3.93 | 0.04 | 0.15 | 0.33 | 0.32 | 0.05 | 1.11 |
| 0.26 | 2.41 | 9.08 | 6.68 | 0.03 | 0.09 | 0.18 | 0.13 | 0.02 | 1.37 |
| 0.16 | 1.55 | 11.13 | 9.58 | 0.03 | 0.06 | 0.13 | 0.09 | 0.05 | 1.34 |
| 0.17 | 7.68 | 13.54 | 5.86 | 0.04 | 0.16 | 0.32 | 0.24 | 0.05 | 2.34 |
| 0.15 | 2.75 | 14.54 | 11.79 | 0.03 | 0.16 | 0.34 | 0.21 | 0.10 | 2.08 |
| 0.29 | 2.88 | 47.02 | 44.14 | 3.82 | 4.80 | 13.27 | 8.68 | 0.47 | 2.62 |
| 0.32 | 1.42 | 34.59 | 33.17 | 1.00 | 1.82 | 4.32 | 2.95 | 0.65 | 4.21 |
| 0.25 | 0.33 | 32.58 | 32.25 | 1.60 | 1.10 | 3.77 | 2.78 | 0.28 | 4.57 |

| Na（mg/L） | Ca（mg/L） | Mg（mg/L） | $Cl^-$（mg/L） | $SO_4^{2-}$（mg/L） | $HCO_3^-$(mg/L) | $SiO_2$（mg/L） | $NH_4$-N（mg/L） | $NO_3$-N（mg/L） | $NO_2$-N (μg/L) | $PO_4^{3-}$-P（mg/L） |
|---|---|---|---|---|---|---|---|---|---|---|
| 21.66 | 40.21 | 7.45 | 29.11 | 3.55 | 140.54 | 3.08 | 16.66 | 1.20 | 37.48 | 0.04 |
| 9.11 | 17.86 | 3.80 | 17.75 | 1.57 | 58.56 | 1.79 | 0.04 | 1.17 | 12.48 | 0.02 |
| 37.09 | 38.16 | 15.80 | 56.90 | 10.27 | 267.18 | 7.50 | 6.18 | 0.03 | 15.36 | 0.25 |
| 21.07 | 27.98 | 7.50 | 26.62 | 5.65 | 125.17 | 1.93 | 0.03 | 1.13 | 62.90 | 0.03 |
| 19.26 | 38.86 | 27.80 | 23.08 | nd | 234.24 | 12.35 | 2.17 | 0.29 | 5.27 | 0.02 |
| 17.10 | 71.96 | 7.05 | 49.70 | 1.47 | 413.58 | 8.36 | 0.28 | 0.09 | 5.04 | 0.00 |
| 18.08 | 24.57 | 2.00 | 44.38 | 4.13 | 124.44 | 1.79 | 0.17 | 1.18 | 28.15 | 0.02 |
| 3.86 | 9.18 | 1.85 | 22.01 | 1.07 | 41.72 | 5.93 | 1.82 | 0.26 | 2.82 | 0.01 |
| 10.65 | 23.57 | 8.60 | 51.48 | nd | 42.46 | 1.65 | 0.08 | 10.69 | 4.81 | 0.01 |
| 7.89 | 14.11 | 1.85 | 35.50 | nd | 45.38 | 12.78 | 0.07 | 5.01 | 1.95 | 0.04 |
| 10.20 | 15.05 | 3.54 | 40.82 | 1.36 | 84.18 | 4.08 | 0.65 | 0.71 | 9.37 | 0.01 |
| 6.52 | 13.15 | 4.37 | 15.98 | 1.66 | 60.02 | 3.36 | 0.12 | 0.41 | 6.06 | 0.02 |
| 9.72 | 21.37 | 12.10 | 30.18 | 1.08 | 203.50 | 10.64 | 0.74 | 0.19 | 19.17 | 0.53 |
| 17.19 | 32.08 | 13.20 | 14.20 | 2.91 | 169.82 | 13.21 | 0.54 | 0.22 | 6.13 | 0.03 |
| 14.48 | 31.38 | 7.15 | 14.20 | 1.38 | 175.68 | 3.50 | 0.85 | 0.04 | 3.26 | 0.32 |