

U. S. Department of the Interior  
U. S. Geological Survey

# **Stable Hydrogen and Oxygen Isotope Ratios for Selected Sites of the U.S. Geological Survey's NASQAN and Benchmark Surface-water Networks**

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**Open-File Report 00-160**



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**By Tyler B. Coplen and Carol Kendall**

**U.S. Geological Survey**

**Open-File Report 00-160**



**Reston, Virginia**

**2000**

U.S. DEPARTMENT OF THE INTERIOR  
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## CONVERSION FACTORS AND VERTICAL DATUM

| Multiply                       | By     | To obtain        |
|--------------------------------|--------|------------------|
| foot (ft)                      | 0.3048 | meter            |
| square mile (mi <sup>2</sup> ) | 2.590  | square kilometer |

Sea level: In this report “sea level” refers to the National Geodetic Vertical Datum of 1929—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

# **STABLE HYDROGEN AND OXYGEN ISOTOPE RATIOS FOR SELECTED SITES OF THE U.S. GEOLOGICAL SURVEY'S NASQAN AND BENCHMARK SURFACE-WATER NETWORKS**

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## **ABSTRACT**

Increasingly, hydrologic studies require information on the isotopic composition of natural waters. This report presents stable hydrogen ( $\delta^2\text{H}$ ) and oxygen isotope ratios ( $\delta^{18}\text{O}$ ) from 391 selected sites of the U.S. Geological Survey's National Stream Quality Accounting Network (NASQAN) and BENCHMARK surface water networks collected during the years 1984–1987. Depth-integrated samples were collected and analyzed from each site bimonthly or quarterly for about 3 years.

This report can be accessed at the Internet address: <http://pubs.water.usgs.gov/ofr-00-160>.



## INTRODUCTION

The ratio of the stable isotopes of hydrogen in terrestrial water varies in the environment by nearly a factor of two. The ratio of the stable isotopes of oxygen in terrestrial water varies by 5 percent. These relatively large seasonally and (or) climatically-induced variations allow hydrologists to solve practical problems, such as the identification or quantification of the source of a water, the determination of ground-water velocities, or determining the seasonality of aquifer recharge (Coplen and others, 2000). In favorable situations, hydrologists calculate isotope mass balances to determine the fraction of imported or anthropogenic recharge in well waters.

Information about the spatial and temporal variation of the ratios of the stable isotopes of hydrogen and oxygen in ground and surface water is of fundamental use to hydrologists undertaking environmental studies. In order to provide such information, the U.S. Geological Survey (USGS) Isotope Fractionation Project in Reston, VA, analyzed more than 4,800 depth-integrated, stream-water samples from 391 sites nationwide (Figure 1). The sites were selected from the NASQAN (National Stream Quality Accounting Network) and the Benchmark water quality monitoring networks established and maintained by the USGS. At most of the selected sites, samples were collected bimonthly or quarterly for about 3 years during the period 1984–1987. NASQAN sites in small basins were preferentially selected to provide the best proxy-record for precipitation (and ground-water recharge). Samples were collected from all 50 of the Benchmark sites. The Benchmark network consists of sites in small, pristine watersheds. Samples from the Benchmark sites should be a good representation of local ground-water recharge, but this is not necessarily true for the NASQAN samples.

## ANALYTICAL METHODS

The ratios of the stable isotopes of hydrogen and oxygen are expressed as  $\delta$  (delta) values in parts per thousand (per mill or ‰) relative to Vienna Standard Mean Ocean Water (VSMOW) reference water and normalized (Gonfiantini, 1984) on scales such that the hydrogen and oxygen isotopic composition of Standard Light Antarctic Precipitation (SLAP) reference water are -428‰ and -55.5‰ exactly, respectively. Thus, for stable hydrogen and oxygen isotope ratios:

$$\delta^2\text{H (in ‰)} = \left[ \frac{[{}^2\text{H}/{}^1\text{H}]_{\text{sample}}}{[{}^2\text{H}/{}^1\text{H}]_{\text{VSMOW}}} - 1 \right] 1000 \quad 1$$

and

$$\delta^{18}\text{O (in ‰)} = \left[ \frac{[{}^{18}\text{O}/{}^{16}\text{O}]_{\text{sample}}}{[{}^{18}\text{O}/{}^{16}\text{O}]_{\text{VSMOW}}} - 1 \right] 1000 \quad 2$$

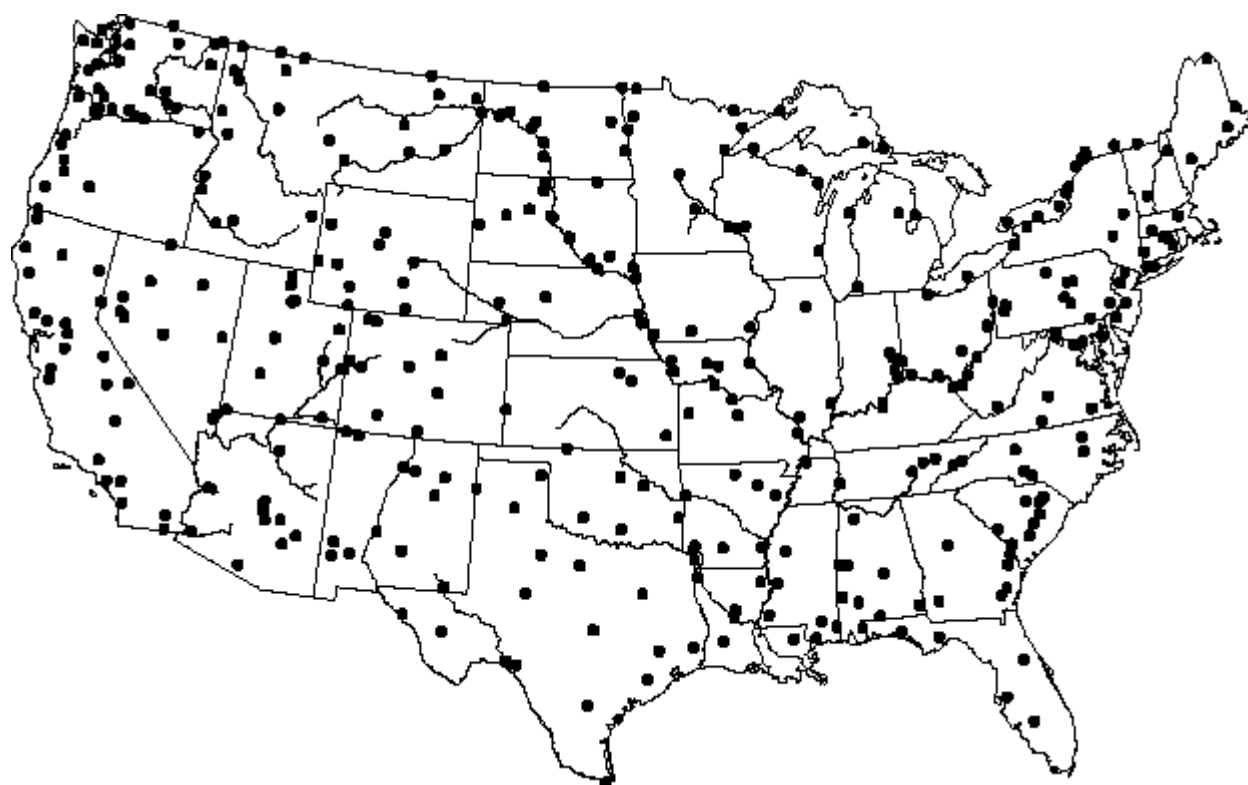


Figure 1. Map of the United States showing sites for which hydrogen and oxygen isotope data are presented in this report.

Water samples for analysis of hydrogen isotopic composition were prepared using zinc reduction (Kendall and Coplen, 1985). Water samples for analysis of oxygen isotopic composition were prepared by equilibration with CO<sub>2</sub> at 25°C (Epstein and Mayeda, 1953). The 2-sigma uncertainties of stable hydrogen and oxygen isotope ratios are 2‰ and 0.2‰, respectively.

## ISOTOPE RATIOS

The stable hydrogen and oxygen isotope data from 391 sites are presented in Tables 1 and 2 and in 391 data sheets, one sheet for each site. For each site, the station name, station number, drainage area, hydrologic unit code, latitude, longitude, and altitude are given in Table 1. Table 2 shows the slope and intercept of a least squares regression of hydrogen versus oxygen isotope ratios for selected sites. For most sites, both  $\delta^2\text{H}$  and  $\delta^{18}\text{O}$  values were determined; however, at a few sites only one or the other isotope ratios were determined. For each site a plot of  $\delta^2\text{H}$  versus  $\delta^{18}\text{O}$  is shown. Superimposed on these isotopic data is the global meteoric water line of Rozanski and others (1993). This line is the global average of precipitation from International Atomic Energy Agency and World Meteorological Organization sites:

$$\delta^2\text{H} = 8.13\delta^{18}\text{O} + 10.8. \quad 3$$

First, some caveats are in order about the use of the isotope ratio data presented herein. The samples are not integrated over time; thus, their averages may not show systematic correlation with average ground-water-recharge isotopic abundances. Furthermore, in contrast to data from the Benchmark network of small watersheds, the user of these data is advised that data from many of the NASQAN sites may be inappropriate for determination of ground-water recharge  $\delta^2\text{H}$  and  $\delta^{18}\text{O}$  values. The samples from some NASQAN sites integrate water that originated at a great distance and different altitude than the collection site; thus, the  $\delta^2\text{H}$  and  $\delta^{18}\text{O}$  of such samples may not be representative of ground-water recharge to the basin. Sites downstream from reservoirs from which significant amounts of water have evaporated will be enriched in  $^2\text{H}$  and  $^{18}\text{O}$  and will most likely not be representative of basinwide ground-water recharge either, but they might reflect local recharge to an adjacent floodplain aquifer. Some of these sites can be identified by “Below...” or similar terms in their station names in Table 1. Finally, the stations identified as Hydro-Climatic Data Network (HCDN) stations should be particularly relevant to climate analysis.

## ACKNOWLEDGMENTS

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Table 1. Description of sites for which isotope data are presented in this report

[For column N, N = NASQAN, B = Benchmark, and \* indicates records are also found in the HCDN (Slack and Landwehr, 1992); HUC, hydrologic unit code; sq mi, square mile; ft, foot; R, River; Cr, Creek.]

| Station<br>Code | Station Name                            | State | Dist | N  | Decimal<br>Latitude | Decimal<br>Longitude | Drainage<br>in sq mi | HUC      | Altitude<br>in ft above<br>sea level |
|-----------------|-----------------------------------------|-------|------|----|---------------------|----------------------|----------------------|----------|--------------------------------------|
| 01015000        | St. John River At Van Buren             | ME    | 25   | N  | 47.15971            | 67.9319              | 8174                 | 01010001 | 407.69                               |
| 01021050        | St. Croix River At Milltown             | ME    | 25   | N  | 45.16972            | 67.2972              | 1460                 | 01050001 | 0.00                                 |
| 01022500        | Narraguagus River At Cherryfield        | ME    | 25   | N* | 44.60805            | 67.9361              | 227                  | 01050002 | 44.20                                |
| 01054200        | Wild River At Gilead                    | ME    | 25   | B* | 44.39055            | 70.9794              | 70                   | 01040002 | 683.10                               |
| 01059400        | Androscoggin River At Brunswick         | ME    | 25   | N  | 43.91750            | 69.9736              | 3434                 | 01060001 |                                      |
| 01103500        | Charles River At Dover                  | MA    | 25   | N  | 42.25610            | 71.2605              | 184                  | 01090001 | 89.76                                |
| 01118500        | Pawcatuck River At Westerly             | RI    | 25   | N* | 41.38361            | 71.8336              | 295                  | 01090005 | -1.76                                |
| 01122610        | Shetucket River At South Windham        | CT    | 25   | N  | 41.68221            | 72.1664              | 408                  | 01100002 |                                      |
| 01127000        | Quinebaug River At Jewett City          | CT    | 25   | N  | 41.59777            | 71.9847              | 715                  | 01100001 | 63.07                                |
| 01154500        | Connecticut River At North Walpole      | NH    | 25   | N  | 43.12610            | 72.4372              | 5493                 | 01080104 | 218.63                               |
| 01184000        | Connecticut River At Thompsonville      | CT    | 25   | N  | 41.98721            | 72.6058              | 9661                 | 01080205 | 38.48                                |
| 01205500        | Housatonic River At Stevenson           | CT    | 25   | N  | 41.38388            | 73.1680              | 1541                 | 01100005 | 24.98                                |
| 01304000        | Nissequogue River Near Smithtown        | NY    | 36   | N  | 40.84943            | 73.2247              | 27                   | 02030201 | 9.59                                 |
| 01305000        | Carmans River At Yaphank                | NY    | 36   | N* | 40.83028            | 72.9066              | 71                   | 02030202 | 17.95                                |
| 01358000        | Hudson River At Green Island            | NY    | 36   | N  | 42.75222            | 73.6894              | 8090                 | 02020003 | -0.31                                |
| 01362198        | Esopus Creek At Shandaken               | NY    | 36   | B* | 42.11639            | 74.3889              | 60                   | 02020006 | 1017.27                              |
| 01389500        | Passaic River At Little Falls           | NJ    | 34   | N  | 40.88472            | 74.2264              | 762                  | 02030103 | 120.00                               |
| 01403300        | Raritan R At Queens Br At Bound Brook   | NJ    | 34   | N  | 40.55943            | 74.5280              | 804                  | 02030105 |                                      |
| 01411500        | Maurice River At Norma                  | NJ    | 34   | N* | 39.49500            | 75.0772              | 112                  | 02040206 | 46.94                                |
| 01463500        | Delaware River At Trenton               | NJ    | 34   | N* | 40.22166            | 74.7783              | 6780                 | 02040105 | 0.00                                 |
| 01466500        | McDonalds B In Lebanon State Forest     | NJ    | 34   | B* | 39.88472            | 74.5056              | 2                    | 02040202 | 117.73                               |
| 01474500        | Schuylkill River At Philadelphia        | PA    | 42   | N  | 39.99500            | 75.1944              | 1893                 | 02040203 | 5.74                                 |
| 01491000        | Choptank River Near Greensboro          | MD    | 24   | N* | 38.99722            | 75.7861              | 113                  | 02060005 | 3.51                                 |
| 01540500        | Susquehanna River At Danville           | PA    | 42   | N  | 40.95805            | 76.6194              | 11220                | 02050107 | 431.29                               |
| 01545600        | Young Womans Creek Near Renovo          | PA    | 42   | B* | 41.38943            | 77.6911              | 46                   | 02050203 | 780.00                               |
| 01553500        | W Branch Susquehanna R At Lewisburg     | PA    | 42   | N  | 40.96721            | 76.8769              | 6847                 | 02050206 | 428.20                               |
| 01567000        | Juniata River At Newport                | PA    | 42   | N* | 40.47832            | 77.1294              | 3354                 | 02050304 | 363.93                               |
| 01570500        | Susquehanna River At Harrisburg         | PA    | 42   | N* | 40.25471            | 76.8861              | 24100                | 02050305 | 290.01                               |
| 01578310        | Susquehanna River At Conowingo          | MD    | 24   | N  | 39.65721            | 76.1753              | 27100                | 02050306 | 5.00                                 |
| 01594440        | Patuxent River Near Bowie               | MD    | 24   | N  | 38.95583            | 76.6933              | 348                  | 02060006 | 13.10                                |
| 01618000        | Potomac River At Shepherdstown          | WV    | 24   | N  | 39.43443            | 77.8019              | 5936                 | 02070004 | 281.00                               |
| 01636500        | Shenandoah River At Millville           | WV    | 24   | N  | 39.28194            | 77.7894              | 3040                 | 02070007 | 293.00                               |
| 01646580        | Potomac R At Chain Bridge At Washington | DC    | 24   | N  | 38.92944            | 77.1172              | 11570                | 02070010 |                                      |
| 02038850        | Holiday Creek Near Andersonville        | VA    | 24   | B* | 37.41527            | 78.6361              | 9                    | 02080207 | 472.97                               |
| 02049500        | Blackwater River Near Franklin          | VA    | 24   | N  | 36.76250            | 76.8986              | 617                  | 03010202 | 1.56                                 |
| 02075500        | Dan River At Paces                      | VA    | 24   | N  | 36.64222            | 79.0897              | 2550                 | 03010104 | 322.48                               |
| 02083500        | Tar River At Tarboro                    | NC    | 37   | N* | 35.89388            | 77.5333              | 2183                 | 03020103 | 10.37                                |
| 02091500        | Contentnea Creek At Hookerton           | NC    | 37   | N* | 35.42777            | 77.5861              | 729                  | 03020203 | 16.00                                |
| 02116500        | Yadkin River At Yadkin College          | NC    | 37   | N* | 35.85666            | 80.3861              | 2280                 | 03040101 | 638.65                               |
| 02126000        | Rock Creek Near Norwood                 | NC    | 37   | N* | 35.14830            | 80.1758              | 1372                 | 03040105 | 212.91                               |
| 02129000        | Pee Dee River Near Rockingham           | NC    | 37   | N  | 34.94610            | 79.8697              | 6863                 | 03040201 | 120.68                               |
| 02131000        | Pee Dee River At Peedee                 | SC    | 45   | N* | 34.20416            | 79.5486              | 8830                 | 03040201 | 24.73                                |
| 02132000        | Lynches River At Effingham              | SC    | 45   | N* | 34.05138            | 79.7542              | 1030                 | 03040202 | 58.49                                |
| 02135300        | Scape Ore Swamp Near Bishopville        | SC    | 45   | B* | 34.15054            | 80.3050              | 96                   | 03040205 | 164.53                               |
| 02136000        | Black River At Kingstree                | SC    | 45   | N* | 33.66110            | 79.8361              | 1252                 | 03040205 | 25.66                                |
| 02170500        | Lakes M-M Div Canal Near Pineville      | SC    | 45   | N  | 33.38750            | 80.1403              |                      | 03050201 |                                      |
| 02175000        | Edisto River Near Givhans               | SC    | 45   | N  | 33.02777            | 80.3917              | 2730                 | 03050205 | 20.46                                |
| 02176500        | Coosawhatchie River Near Hampton        | SC    | 45   | N  | 32.83611            | 81.1319              | 203                  | 03050208 | 50.30                                |
| 02197300        | Upper Three Runs Near New Ellenton      | SC    | 45   | B* | 33.38472            | 81.6167              | 87                   | 03060106 | 120.00                               |
| 02198500        | Savannah River Near Cloy                | SC    | 45   | N* | 32.52499            | 81.2625              | 9850                 | 03060109 | 13.41                                |
| 02202500        | Ogeechee River Near Eden                | GA    | 13   | N* | 32.19138            | 81.4161              | 2650                 | 03060202 | 19.64                                |
| 02212600        | Falling Creek Near Juliette             | GA    | 13   | B* | 33.09972            | 83.7236              | 72                   | 03070103 | 370.00                               |
| 02226160        | Altamaha River At Everett City          | GA    | 13   | N  | 31.42694            | 81.6055              | 14000                | 03070106 | -0.08                                |

Table 1. Description of sites for which isotope data are presented in this report (cont.)

| Station Code | Station Name                               | State | Dist | N  | Decimal Latitude | Decimal Longitude | Drainage in sq mi | HUC      | Altitude in ft above sea level |
|--------------|--------------------------------------------|-------|------|----|------------------|-------------------|-------------------|----------|--------------------------------|
| 02228000     | Satilla River At Atkinson                  | GA    | 13   | N* | 31.22111         | 81.8675           | 2790              | 03070201 | 14.79                          |
| 02236000     | St. Johns River Near Deland                | FL    | 12   | N* | 29.00805         | 81.3828           | 3066              | 03080101 | 0.00                           |
| 02256500     | Fisheating Creek At Palmdale               | FL    | 12   | N* | 26.93222         | 81.3150           | 311               | 03090103 | 27.19                          |
| 02301500     | Alafia River At Lithia                     | FL    | 12   | N* | 27.87194         | 82.2114           | 335               | 03100204 | 7.00                           |
| 02327100     | Sopchoppy River Near Sopchoppy             | FL    | 12   | B* | 30.12916         | 84.4944           | 102               | 03120003 | 0.00                           |
| 02343801     | Chattahoochee R At Andrews L&D Nr Columbia | AL    | 13   | N  | 31.25916         | 85.1103           | 8210              | 03130004 |                                |
| 02353000     | Flint River At Newton                      | GA    | 13   | N  | 31.30944         | 84.3350           | 5740              | 03130008 | 110.20                         |
| 02366500     | Choctawhatchee River Near Bruce            | FL    | 12   | N* | 30.45083         | 85.8983           | 4384              | 03140203 | 3.94                           |
| 02369800     | Blackwater River Near Bradley              | AL    | 1    | B* | 31.02750         | 86.7100           | 87                | 03140104 | 121.87                         |
| 02376500     | Perdido River At Barrineau Park            | FL    | 12   | N* | 30.69027         | 87.4403           | 394               | 03140106 | 25.77                          |
| 02420000     | Alabama River Near Montgomery              | AL    | 1    | N  | 32.41138         | 86.4083           | 15087             | 03150201 | 97.90                          |
| 02429500     | Alabama River At Claiborne                 | AL    | 1    | N  | 31.54667         | 87.5125           | 21967             | 03150204 | 0.40                           |
| 02449000     | Tombigbee River At Gainesville             | AL    | 1    | N  | 32.82500         | 88.1566           | 8632              | 03160106 | 63.29                          |
| 02450250     | Sipsey Fork Near Grayson                   | AL    | 1    | B* | 34.28527         | 87.3989           | 92                | 03160110 | 540.00                         |
| 02466031     | Black Warrior R Below Warrior Dam Nr Eutaw | AL    | 1    | N  | 32.77888         | 87.8441           | 5810              | 03160113 | 50.00                          |
| 02469762     | Tombigbee R Below Coffeeville Lock And Dam | AL    | 1    | N  | 31.75833         | 88.1264           | 18417             | 03160203 | 14.00                          |
| 02479155     | Cypress Creek Near Janice                  | MS    | 28   | B* | 31.02500         | 89.0167           | 53                | 03170007 | 110.00                         |
| 02479560     | Escatawpa River Near Agricola              | MS    | 1    | N  | 30.80889         | 88.4614           | 562               | 03170008 | 50.00                          |
| 02481510     | Wolf River Near Landon                     | MS    | 28   | N  | 30.48333         | 89.2744           | 308               | 03170009 | 21.34                          |
| 03049625     | Allegheny River At New Kensington          | PA    | 42   | N  | 40.56444         | 79.7728           | 11500             | 05010009 |                                |
| 03085000     | Monongahela River At Braddock              | PA    | 42   | N  | 40.40527         | 79.8814           | 7337              | 05020005 | 707.16                         |
| 03107500     | Beaver River At Beaver Falls               | PA    | 42   | N  | 40.76333         | 80.3153           | 3106              | 05030104 | 727.48                         |
| 03112510     | Ohio River At Benwood Near Wheeling        | WV    | 54   | N  | 40.01500         | 80.7389           | 25070             | 05030106 |                                |
| 03155000     | Little Kanawha River At Palestine          | WV    | 54   | N  | 39.05972         | 81.3903           | 1515              | 05030203 | 585.51                         |
| 03159510     | Hocking River Below Athens                 | OH    | 39   | N  | 39.32749         | 82.0050           | 957               | 05030204 |                                |
| 03176500     | New River At Glen Lyn                      | VA    | 24   | N  | 37.37276         | 80.8608           | 3768              | 05050002 | 1490.24                        |
| 03201300     | Kanawha River At Winfield                  | WV    | 54   | N  | 38.52555         | 81.9111           | 11809             | 05050008 |                                |
| 03204000     | Guyandotte River At Branchland             | WV    | 54   | N  | 38.22083         | 82.2028           | 1224              | 05070102 | 547.91                         |
| 03215000     | Big Sandy River At Louisa                  | KY    | 21   | N  | 38.17110         | 82.6347           | 3897              | 05070204 | 512.81                         |
| 03237280     | Upper Twin Creek At McGaw                  | OH    | 39   | B  | 38.64361         | 83.2158           | 12                | 05090201 | 543.41                         |
| 03254000     | Licking River At Butler                    | KY    | 21   | N  | 38.78944         | 84.3514           | 3375              | 05100101 | 477.00                         |
| 03274600     | G Miami River At New Baltimore             | OH    | 39   | N  | 39.26305         | 84.6678           | 3814              | 05080002 |                                |
| 03275000     | Whitewater River Near Alpine               | IN    | 18   | N* | 39.57940         | 85.1581           | 522               | 05080003 | 750.19                         |
| 03276500     | Whitewater River At Brookville             | IN    | 18   | N  | 39.40665         | 85.0128           | 1224              | 05080003 | 595.71                         |
| 03276700     | South Hogan Creek Near Dillsboro           | IN    | 18   | B  | 39.02972         | 85.0380           | 38                | 05090203 | 571.00                         |
| 03277200     | Ohio River At Markland Dam Near Warsaw     | KY    | 21   | N  | 38.77471         | 84.9644           | 83170             | 05090203 |                                |
| 03298500     | Salt River At Shepherdsville               | KY    | 21   | N  | 37.98499         | 85.7175           | 1197              | 05140102 | 406.58                         |
| 03301630     | Rolling Fork Near Lebanon Junction         | KY    | 21   | N  | 37.82277         | 85.7478           | 1375              | 05140103 |                                |
| 03378500     | Wabash River At New Harmony                | IN    | 18   | N  | 38.13194         | 87.9403           | 29234             | 05120113 |                                |
| 03453500     | French Broad River At Marshall             | NC    | 37   | N  | 35.78611         | 82.6608           | 1332              | 06010105 | 1646.79                        |
| 03460000     | Cataloochee Creek Near Cataloochee         | NC    | 37   | B* | 35.66721         | 83.0728           | 49                | 06010106 | 2456.88                        |
| 03470500     | French Broad River Near Knoxville          | TN    | 47   | N  | 35.95833         | 83.7739           | 5101              | 06010107 | 0.00                           |
| 03535912     | Clinch R At Melton Hill Dam (tailwater)    | TN    | 47   | N  | 35.88527         | 84.3008           | 3343              | 06010207 | 0.00                           |
| 03543005     | Tennessee R At Watts Bar Dam (tailwater)   | TN    | 47   | N  | 35.62027         | 84.7833           | 17310             | 06010201 | 0.00                           |
| 03604000     | Buffalo River Near Flat Woods              | TN    | 47   | B* | 35.49583         | 87.8328           | 447               | 06040004 | 513.58                         |
| 04001000     | Washington Creek At Windigo                | MI    | 26   | B* | 47.92305         | 89.1450           | 13                | 04020300 | 605.00                         |
| 04014500     | Baptism River Near Beaver Bay              | MN    | 27   | N* | 47.33527         | 91.2017           | 140               | 04010101 | 613.65                         |
| 04024430     | Nemadji River Near South Superior          | WI    | 55   | N  | 46.63333         | 92.0939           | 420               | 04010301 |                                |
| 04027595     | Bad River Near Odanah                      | WI    | 55   | N  | 46.48750         | 90.6958           | 597               | 04010302 | 668.30                         |
| 04045500     | Tahquamenon R Near Tahquamenon Paradise    | MI    | 26   | N* | 46.57500         | 85.2694           | 790               | 04020202 | 697.00                         |
| 04045580     | St Marys River Above Sault Ste Marie       | MI    | 26   | N  | 46.49138         | 84.4214           | 80900             | 04020300 |                                |
| 04063700     | Popple River Near Fence                    | WI    | 55   | B* | 45.76361         | 88.4630           | 139               | 04030106 | 1406.16                        |
| 04067500     | Menominee River Near McAllister            | WI    | 55   | N  | 45.32222         | 87.6611           | 3930              | 04030106 | 630.00                         |
| 04087000     | Milwaukee River At Milwaukee               | WI    | 55   | N* | 43.10000         | 87.9089           | 696               | 04040003 | 607.23                         |
| 04101500     | St. Joseph River At Niles                  | MI    | 26   | N  | 41.82916         | 86.2597           | 3666              | 04050001 | 633.02                         |
| 04126520     | Manistee River At Manistee                 | MI    | 26   | N  | 44.25055         | 86.3192           | 2000              | 04060103 |                                |
| 04142000     | Rifle River Near Sterling                  | MI    | 26   | N* | 44.07249         | 84.0200           | 320               | 04080101 | 649.48                         |

Table 1. Description of sites for which isotope data are presented in this report (cont.)

| Station Code | Station Name                               | State | Dist | N  | Decimal Latitude | Decimal Longitude | Drainage in sq mi | HUC      | Altitude in ft above sea level |
|--------------|--------------------------------------------|-------|------|----|------------------|-------------------|-------------------|----------|--------------------------------|
| 04159010     | Pigeon River Near Caseville                | MI    | 26   | N  | 43.93943         | 83.2417           | 125               | 04080103 |                                |
| 04198000     | Sandusky River Near Fremont                | OH    | 39   | N* | 41.30777         | 83.1589           | 1251              | 04100011 | 626.30                         |
| 04212200     | Grand River At Painesville                 | OH    | 39   | N  | 41.73582         | 81.2664           | 701               | 04110004 |                                |
| 04213500     | Cattaraugus Creek At Gowanda               | NY    | 36   | N  | 42.46388         | 78.9353           | 436               | 04120102 | 738.85                         |
| 04217000     | Tonawanda Creek At Batavia                 | NY    | 36   | N  | 42.99749         | 78.1889           | 171               | 04120104 | 876.33                         |
| 04219640     | Niagara R (Lake Ontario) At Fort Niagara   | NY    | 36   | N  | 43.26111         | 79.0630           | 265000            | 04120104 |                                |
| 04232006     | Genesee R (Charlotte Docks) At Rochester   | NY    | 36   | N  | 43.22388         | 77.6164           | 2457              | 04130003 |                                |
| 04249000     | Oswego River At Lock 7 At Oswego           | NY    | 36   | N  | 43.45166         | 76.5056           | 5100              | 04140203 | 246.00                         |
| 04250750     | Sandy Creek Near Adams                     | NY    | 36   | N  | 43.81332         | 76.0750           | 128               | 04140102 | 523.71                         |
| 04260500     | Black River At Watertown                   | NY    | 36   | N  | 43.98555         | 75.9250           | 1874              | 04150101 | 373.88                         |
| 04263000     | Oswegatchie River Near Heuvelton           | NY    | 36   | N  | 44.59943         | 75.3792           | 965               | 04150302 | 288.85                         |
| 04264331     | St Lawrence R At Cornwall, Ont, Nr Massena | NY    | 36   | N  | 45.00610         | 74.7953           | 298800            | 04150301 |                                |
| 04268000     | Raquette River At Raymondville             | NY    | 36   | N  | 44.83888         | 74.9792           | 1125              | 04150305 | 183.33                         |
| 04269000     | St Regis River At Brasher Center           | NY    | 36   | N* | 44.86361         | 74.7792           | 612               | 04150306 | 217.23                         |
| 04295000     | Richelieu R (L Champlain) At Rouses Point  | NY    | 36   | N  | 44.99610         | 73.3603           | 8277              | 02010006 |                                |
| 04296000     | Black River At Coventry                    | VT    | 25   | N  | 44.86888         | 72.2705           | 122               | 01110000 | 725.00                         |
| 05020500     | St Mary River At International Boundary    | MT    | 30   | N* | 49.00333         | 113.3133          | 469               | 10010002 | 4120.00                        |
| 05059000     | Sheyenne River Near Kindred                | ND    | 38   | N  | 46.62638         | 97.0014           | 8800              | 09020204 | 925.55                         |
| 05064500     | Red River Of The North At Halstad          | MN    | 38   | N  | 47.35000         | 96.8500           | 21800             | 09020107 | 826.65                         |
| 05064900     | Beaver Creek Near Finley                   | ND    | 38   | B* | 47.59444         | 97.7050           | 160               | 09020109 | 1170.08                        |
| 05079000     | Red Lake River At Crookston                | MN    | 27   | N  | 47.77555         | 96.6091           | 5280              | 09020303 | 832.72                         |
| 05102500     | Red River At Emerson, Manitoba             | ND    | 38   | N  | 49.00833         | 97.2111           | 40200             | 09020311 | 700.00                         |
| 05112000     | Roseau R Below State Ditch 51 Near Caribou | MN    | 27   | N* | 48.98166         | 96.4628           | 1570              | 09020314 | 1002.14                        |
| 05124000     | Souris River Near Westhope                 | ND    | 38   | N  | 48.99638         | 100.9580          | 16900             | 09010003 | 1402.52                        |
| 05124480     | Kawishiwi River Near Ely                   | MN    | 27   | B* | 47.92277         | 91.5350           | 253               | 09030001 | 1450.00                        |
| 05267000     | Mississippi River Near Royalton            | MN    | 27   | N  | 45.86111         | 94.3583           | 11600             | 07010104 |                                |
| 05330000     | Minnesota River Near Jordan                | MN    | 27   | N  | 44.69305         | 93.6417           | 16200             | 07020012 | 690.00                         |
| 05376000     | North Fork Whitewater River Near Elba      | MN    | 27   | B* | 44.09166         | 92.0658           | 101               | 07040003 | 769.60                         |
| 05378500     | Mississippi River At Winona                | MN    | 27   | N  | 44.05555         | 91.6375           | 59200             | 07040003 | 639.64                         |
| 05382000     | Black River Near Galesville                | WI    | 55   | N  | 44.07277         | 91.2947           | 2080              | 07040007 | 658.43                         |
| 05474000     | Skunk River At Augusta                     | IA    | 19   | N* | 40.75361         | 91.2778           | 4303              | 07080107 | 521.24                         |
| 05508000     | Salt River Near New London                 | MO    | 29   | N  | 39.61221         | 91.4083           | 2480              | 07110007 | 477.03                         |
| 05543500     | Illinois River At Marseilles               | IL    | 17   | N  | 41.32777         | 88.7194           | 8259              | 07120005 | 462.91                         |
| 05599500     | Big Muddy River At Murphysboro             | IL    | 17   | N  | 37.74860         | 89.3458           | 2169              | 07140106 | 335.50                         |
| 06054500     | Missouri River At Toston                   | MT    | 30   | N  | 46.14610         | 111.4197          | 14669             | 10030101 | 3905.68                        |
| 06130500     | Musselshell River At Mosby                 | MT    | 30   | N  | 46.99471         | 107.8883          | 7846              | 10040205 | 2493.38                        |
| 06169500     | Rock Cr Below Horse Cr, Near Int Boundary  | MT    | 30   | B* | 48.96944         | 106.8389          | 328               | 10050015 | 2530.00                        |
| 06174500     | Milk River At Nashua                       | MT    | 30   | N  | 48.12971         | 106.3639          | 22332             | 10050012 | 2027.75                        |
| 06185500     | Missouri River Near Culbertson             | MT    | 30   | N  | 48.12222         | 104.4753          | 91557             | 10060005 | 1883.40                        |
| 06192500     | Yellowstone River Near Livingston          | MT    | 30   | N* | 45.59721         | 110.5653          | 3551              | 10070002 | 4542.49                        |
| 06228000     | Wind River At Riverton                     | WY    | 56   | N  | 43.01060         | 108.3756          | 2309              | 10080001 | 4901.56                        |
| 06259000     | Wind River Below Boysen Reservoir          | WY    | 56   | N  | 43.42500         | 108.1783          | 7701              | 10080005 | 4608.58                        |
| 06294700     | Bighorn River At Bighorn                   | MT    | 30   | N  | 46.14722         | 107.4667          | 22885             | 10080015 | 2690.00                        |
| 06308500     | Tongue River At Miles City                 | MT    | 30   | N  | 46.34554         | 105.8028          | 5379              | 10090102 | 2375.00                        |
| 06329500     | Yellowstone River Near Sidney              | MT    | 30   | N  | 47.67833         | 104.1561          | 69103             | 10100004 | 1881.30                        |
| 06332515     | Bear Den Creek Near Mandaree               | ND    | 38   | B* | 47.78722         | 102.7681          | 74                | 10110101 | 1947.58                        |
| 06337000     | Little Missouri River Near Watford City    | ND    | 38   | N* | 47.59027         | 103.2514          | 8310              | 10110205 | 1929.03                        |
| 06338490     | Missouri River At Garrison Dam             | ND    | 38   | N  | 47.50222         | 101.4305          | 181400            | 10130101 |                                |
| 06340500     | Knife River At Hazen                       | ND    | 38   | N* | 47.28500         | 101.6239          | 2240              | 10130201 | 1712.35                        |
| 06349000     | Heart River Near Mandan                    | ND    | 38   | N  | 46.83665         | 100.9742          | 3310              | 10130203 | 1638.70                        |
| 06354000     | Cannonball River At Breien                 | ND    | 38   | N* | 46.37582         | 100.9341          | 4100              | 10130206 | 1676.54                        |
| 06357800     | Grand River At Little Eagle                | SD    | 46   | N  | 45.50777         | 100.8178          | 5370              | 10130303 | 1628.63                        |
| 06360500     | Moreau River Near Whitehorse               | SD    | 46   | N  | 45.25583         | 100.8425          | 4880              | 10130306 | 1661.48                        |
| 06409000     | Castle Cr Above Deerfield Res Nr Hill City | SD    | 46   | B* | 44.01361         | 103.8300          | 83                | 10120110 | 5910.00                        |
| 06438000     | Belle Fourche River Near Elm Springs       | SD    | 46   | N  | 44.36971         | 102.5655          | 7210              | 10120202 | 2171.60                        |
| 06439300     | Cheyenne River At Cherry Creek             | SD    | 46   | N  | 44.60278         | 101.4900          | 23900             | 10120112 | 1699.29                        |
| 06440000     | Missouri River At Pierre                   | SD    | 46   | N  | 44.37360         | 100.3722          | 243500            | 10140102 | 1414.26                        |

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|--------------|--------------------------------------------|-------|------|----|------------------|-------------------|-------------------|----------|--------------------------------|
| 06452000     | White River Near Oacoma                    | SD    | 46   | N* | 43.74833         | 99.5561           | 10200             | 10140204 | 1377.29                        |
| 06453000     | Missouri River At Fort Randall             | SD    | 46   | N  | 43.06499         | 98.5530           | 263500            | 10170101 |                                |
| 06465500     | Niobrara River Near Verdel                 | NE    | 31   | N  | 42.74027         | 98.2125           | 12600             | 10150007 | 1308.12                        |
| 06471000     | James River At Columbia                    | SD    | 46   | N  | 45.60361         | 98.3100           | 7050              | 10160003 | 1275.01                        |
| 06478500     | James River Near Scotland                  | SD    | 46   | N* | 43.18582         | 97.6353           | 21550             | 10160011 | 1168.51                        |
| 06485500     | Big Sioux River At Akron                   | IA    | 46   | N* | 42.82833         | 96.5625           | 9030              | 10170203 | 1118.90                        |
| 06486000     | Missouri River At Sioux City               | IA    | 19   | N  | 42.48611         | 96.4130           | 314600            | 10230001 | 1056.98                        |
| 06623800     | Encampment R Abv Hog Park Cr Nr Encampment | WY    | 56   | B* | 41.02361         | 106.8242          | 73                | 10180002 | 8270.00                        |
| 06630000     | N Platte R Abv Seminole Res Near Sinclair  | WY    | 56   | N* | 41.87220         | 107.0569          | 4175              | 10180002 | 6400.75                        |
| 06642000     | North Platte River At Alcova               | WY    | 56   | N  | 42.57417         | 106.6919          | 10812             | 10180007 | 5299.40                        |
| 06686000     | North Platte River At Lisco                | NE    | 31   | N  | 41.50000         | 102.6333          | 26700             | 10180009 | 3474.50                        |
| 06710000     | South Platte River At Littleton            | CO    | 8    | N  | 39.61888         | 105.0186          | 3069              | 10190002 | 5304.36                        |
| 06764000     | South Platte River At Julesburg            | CO    | 8    | N  | 40.97943         | 102.2542          | 23138             | 10190018 | 3446.76                        |
| 06775900     | Dismal River Near Thedford                 | NE    | 31   | B* | 41.77916         | 100.5250          | 960               | 10210002 | 2800.13                        |
| 06800500     | Elkhorn River At Waterloo                  | NE    | 31   | N* | 41.29028         | 96.2847           | 6900              | 10220003 | 1104.73                        |
| 06805500     | Platte River At Louisville                 | NE    | 31   | N  | 41.01527         | 96.1578           | 85800             | 10200202 | 1007.10                        |
| 06810000     | Nishnabotna River Above Hamburg            | IA    | 19   | N* | 40.63249         | 95.6255           | 2806              | 10240004 | 894.17                         |
| 06818000     | Missouri River At St. Joseph               | MO    | 29   | N  | 39.75333         | 94.8578           | 420300            | 10240011 | 788.19                         |
| 06821190     | Platte River At Sharps Station             | MO    | 29   | N  | 39.40083         | 94.7267           | 2380              | 10240012 | 753.54                         |
| 06856600     | Republican River At Clay Center            | KS    | 20   | N  | 39.35555         | 97.1261           | 24542             | 10250017 | 1159.21                        |
| 06879650     | Kings Creek Near Manhattan                 | KS    | 20   | B* | 39.10194         | 96.5950           | 4                 | 10270101 |                                |
| 06897950     | Elk Creek Near Decatur City                | IA    | 19   | B* | 40.72166         | 93.9386           | 53                | 10280102 | 934.70                         |
| 06902000     | Grand River Near Sumner                    | MO    | 29   | N  | 39.64027         | 93.2736           | 6880              | 10280103 | 631.18                         |
| 06905500     | Chariton River Near Prairie Hill           | MO    | 29   | N  | 39.54028         | 92.7897           | 1870              | 10280202 | 632.05                         |
| 06908800     | Lamine River Near Blackwater               | MO    | 29   | N  | 38.94638         | 92.9480           | 2610              | 10300103 |                                |
| 06918080     | Osage River Near Schell City               | MO    | 29   | N  | 38.04888         | 94.1216           | 5530              | 10290105 | 700.00                         |
| 06926510     | Osage River Below St. Thomas               | MO    | 29   | N  | 38.42166         | 92.2086           | 14500             | 10290111 |                                |
| 06930800     | Gasconade River Above Jerome               | MO    | 29   | N  | 37.91999         | 91.9758           | 2570              | 10290203 |                                |
| 07022000     | Mississippi River At Thebes                | MO    | 29   | N  | 37.21666         | 89.4639           | 713200            | 07140105 | 0.00                           |
| 07026000     | Obion River At Obion                       | TN    | 47   | N  | 36.25111         | 89.1925           | 1852              | 08010202 | 246.48                         |
| 07047800     | St. Francis River At Parkin                | AR    | 5    | N  | 35.27305         | 90.5591           |                   | 08020203 | 175.30                         |
| 07060710     | North Sylamore Creek Near Fifty Six        | AR    | 5    | B* | 35.99166         | 92.2139           | 58                | 11010004 | 434.99                         |
| 07074500     | White River At Newport                     | AR    | 5    | N  | 35.60500         | 91.2886           | 19860             | 11010013 | 194.09                         |
| 07083000     | Halfmoon Creek Near Malta                  | CO    | 8    | B* | 39.17222         | 106.3886          | 24                | 11020001 | 9830.00                        |
| 07097000     | Arkansas River At Portland                 | CO    | 8    | N  | 38.38833         | 105.0155          | 4024              | 11020002 | 5021.59                        |
| 07137500     | Arkansas River Near Coolidge               | KS    | 20   | N  | 38.02610         | 102.0114          | 25410             | 11030001 | 3330.84                        |
| 07157950     | Cimarron River Near Buffalo                | OK    | 40   | N  | 36.85194         | 99.3150           | 12004             | 11050001 | 1599.67                        |
| 07161000     | Cimarron River At Perkins                  | OK    | 40   | N* | 35.95889         | 97.0303           | 17852             | 11050003 | 819.88                         |
| 07183500     | Neosho River Near Parsons                  | KS    | 20   | N  | 37.31082         | 95.1103           | 4905              | 11070205 | 810.25                         |
| 07221500     | Canadian River Near Sanchez                | NM    | 35   | N  | 35.65220         | 104.3775          | 6015              | 11080003 | 4495.00                        |
| 07227140     | Canadian River Above NM-TX State Line      | NM    | 35   | N  | 35.38999         | 103.0433          |                   | 11080006 |                                |
| 07228000     | Canadian River Near Canadian               | TX    | 48   | N  | 35.93499         | 100.3703          | 22866             | 11090106 | 2301.50                        |
| 07243500     | Deep Fork Near Beggs                       | OK    | 40   | N  | 35.67083         | 96.0689           | 2018              | 11100303 | 632.55                         |
| 07250550     | Arkansas R At Dam No. 13, Near Van Buren   | AR    | 5    | N  | 35.34888         | 94.2983           | 150547            | 11110201 | 0.00                           |
| 07265450     | Mississippi Riv Near Arkansas City         | AR    | 5    | N* | 33.55750         | 91.2375           | 1130600           | 08030100 | 96.66                          |
| 07287120     | Yazoo River Near Shell Bluff               | MS    | 28   | N  | 33.39666         | 90.2719           | 7650              | 08030206 | 92.07                          |
| 07290000     | Big Black River Nr Bovina                  | MS    | 28   | N* | 33.52138         | 90.1841           | 7450              | 08030206 | 92.07                          |
| 07292500     | Homochitto River At Rosetta                | MS    | 28   | N  | 31.32500         | 91.1066           | 750               | 08060205 | 94.39                          |
| 07297910     | Pdtd Red River Near Wayside                | TX    | 48   | N  | 34.83749         | 101.4136          | 4211              | 11120103 | 2463.74                        |
| 07311200     | Blue Beaver Creek Near Cache               | OK    | 40   | B* | 34.62332         | 98.5633           | 25                | 11130203 | 1215.26                        |
| 07331000     | Washita River Near Dickson                 | OK    | 40   | N  | 34.23416         | 96.9755           | 7202              | 11130303 | 650.57                         |
| 07335700     | Kiamichi River Near Big Cedar              | OK    | 40   | B* | 34.63833         | 94.6125           | 40                | 11140105 | 886.97                         |
| 07337000     | Red River At Index                         | AR    | 5    | N  | 33.55193         | 94.0411           | 48030             | 11140106 | 246.87                         |
| 07341301     | Little River At Millwood Dam Near Ashdown  | AR    | 5    | N  | 33.69110         | 93.9647           | 4119              | 11140109 | 0.00                           |
| 07344275     | Sulphur River South Of Texarkana           | AR    | 5    | N  | 33.24222         | 93.9994           | 3540              | 11140302 |                                |
| 07348000     | Twelvemile Bayou Near Dixie                | LA    | 22   | N* | 32.64583         | 93.8778           | 3137              | 11140304 | 136.12                         |
| 07355500     | Red River At Alexandria                    | LA    | 22   | N  | 31.31277         | 92.4427           | 67500             | 08040401 | 44.26                          |



Table 1. Description of sites for which isotope data are presented in this report (cont.)

| Station Code | Station Name                               | State | Dist | N  | Decimal Latitude | Decimal Longitude | Drainage in sq mi | HUC      | Altitude in ft above sea level |
|--------------|--------------------------------------------|-------|------|----|------------------|-------------------|-------------------|----------|--------------------------------|
| 07362000     | Ouachita River At Camden                   | AR    | 5    | N  | 33.59638         | 92.8181           | 5357              | 08040102 | 71.69                          |
| 07369500     | Tensas River At Tendal                     | LA    | 22   | N* | 32.43194         | 91.3667           | 309               | 08050003 | 50.07                          |
| 07373000     | Big Creek At Pollock                       | LA    | 22   | B* | 31.53611         | 92.4083           | 51                | 08040304 | 76.69                          |
| 07375050     | Tchefuncta River Near Covington            | LA    | 22   | N  | 30.49444         | 90.1694           | 145               | 08090201 | 9.39                           |
| 08015500     | Calcasieu River Near Kinder                | LA    | 22   | N* | 30.50278         | 92.9153           | 1700              | 08080203 | 11.95                          |
| 08041000     | Neches River At Evadale                    | TX    | 48   | N* | 30.35555         | 94.0930           | 7951              | 12020003 | 8.25                           |
| 08062700     | Trinity River At Trinidad                  | TX    | 48   | N  | 32.13472         | 96.1055           | 8538              | 12030105 | 239.21                         |
| 08068000     | West Fork San Jacinto River Near Conroe    | TX    | 48   | N  | 30.24444         | 95.4569           | 828               | 12040101 | 95.03                          |
| 08082000     | Salt Fork Brazos River Near Aspermont      | TX    | 48   | N* | 33.33388         | 100.2378          | 5130              | 12050007 | 1588.70                        |
| 08088000     | Brazos River Near South Bend               | TX    | 48   | N* | 33.02416         | 98.6436           | 22673             | 12060201 | 1002.98                        |
| 08103900     | South Fork Rocky Creek Near Briggs         | TX    | 48   | B* | 30.91138         | 98.0367           | 33                | 12070203 | 955.80                         |
| 08117500     | San Bernard River Near Boling              | TX    | 48   | N  | 29.31305         | 95.8933           | 727               | 12090401 | 30.81                          |
| 08123850     | Colorado River Above Silver                | TX    | 48   | N  | 32.05193         | 100.7655          | 14924             | 12080008 | 1907.66                        |
| 08210000     | Nueces River Near Three Rivers             | TX    | 48   | N* | 28.43611         | 98.1850           | 15600             | 12110111 | 101.13                         |
| 08251500     | Rio Grande Near Lobatos                    | CO    | 8    | N  | 37.07833         | 105.7561          | 7700              | 13010002 | 7427.63                        |
| 08313000     | Rio Grande At Otowi Bridge                 | NM    | 35   | N  | 35.87471         | 106.1417          | 14300             | 13020101 | 5488.48                        |
| 08358300     | Rio Grande Conveyance Chan At San Marcial  | NM    | 35   | N  | 33.68526         | 106.9944          |                   | 13020203 | 4454.00                        |
| 08358400     | Rio Grande Floodway At San Marcial         | NM    | 35   | N  | 33.68055         | 106.9917          | 27700             | 13020203 | 4455.19                        |
| 08364000     | Rio Grande At El Paso                      | NM    | 35   | N  | 31.80278         | 106.5403          | 29267             | 13030102 | 3722.30                        |
| 08370500     | Rio Grande At Fort Quitman                 | TX    | 35   | N  | 31.08472         | 105.6069          | 31944             | 13040201 | 3450.57                        |
| 08377900     | Rio Mora Near Terrero                      | NM    | 35   | B* | 35.77721         | 105.6575          | 53                | 13060001 | 7890.00                        |
| 08382650     | Pecos River Above Santa Rosa Lake          | NM    | 35   | N  | 35.05970         | 104.7614          | 2340              | 13060001 | 4760.00                        |
| 08407500     | Pecos River At Red Bluff                   | NM    | 35   | N  | 32.07500         | 104.0392          | 19540             | 13060011 | 2850.05                        |
| 08431700     | Limpia Creek Above Ft. Davis               | TX    | 48   | B* | 30.61333         | 104.0011          | 52                | 13070005 | 5175.00                        |
| 08447410     | Pecos River Near Langtry                   | TX    | 48   | N  | 29.80278         | 101.4458          | 35179             | 13040212 | 1133.08                        |
| 08449400     | Devils R At Pafford Crossing Near Comstock | TX    | 48   | N  | 29.67638         | 101.0000          | 3961              | 13040302 | 1131.88                        |
| 08475000     | Rio Grande Near Brownsville                | TX    | 48   | N  | 25.87638         | 97.4542           | 176333            | 13090002 |                                |
| 08477110     | Mimbres River At Mimbres                   | NM    | 35   | N  | 32.85471         | 107.9730          | 184               | 13030202 |                                |
| 08481500     | Rio Tularosa Near Bent                     | NM    | 35   | N  | 33.14471         | 105.8972          | 120               | 13050003 | 5450.00                        |
| 09152500     | Gunnison River Near Grand Junction         | CO    | 8    | N  | 38.98333         | 108.4500          | 7928              | 14020005 | 4628.12                        |
| 09163500     | Colorado R Near Colorado-Utah State Line   | CO    | 8    | N  | 39.12916         | 109.0267          | 17843             | 14010005 | 4325.00                        |
| 09180000     | Dolores River Near Cisco                   | UT    | 49   | N  | 38.79722         | 109.1944          | 4580              | 14030004 | 4165.00                        |
| 09180500     | Colorado River Near Cisco                  | UT    | 49   | N* | 38.81055         | 109.2928          | 24100             | 14030005 | 4090.00                        |
| 09209400     | Green River Near La Barge                  | WY    | 56   | N  | 42.19280         | 110.1625          | 3910              | 14040101 | 6520.00                        |
| 09217000     | Green River Near Green River               | WY    | 56   | N  | 41.51639         | 109.4483          | 14000             | 14040106 | 6060.00                        |
| 09234500     | Green River Near Greendale                 | UT    | 49   | N  | 40.90833         | 109.4222          | 15090             | 14040106 | 5594.48                        |
| 09251000     | Yampa River Near Maybell                   | CO    | 8    | N* | 40.50278         | 108.0292          | 3410              | 14050002 | 5900.23                        |
| 09260000     | Little Snake River Near Lily               | CO    | 8    | N  | 40.54722         | 108.4236          | 3730              | 14050003 | 5685.00                        |
| 09306900     | White River At Mouth Near Ouray            | UT    | 49   | N  | 40.06499         | 109.6350          | 5120              | 14050007 | 4655.00                        |
| 09315000     | Green River At Green River                 | UT    | 49   | N* | 38.98611         | 110.1505          | 40590             | 14060008 | 4040.18                        |
| 09352900     | Vallecito Creek Near Bayfield              | CO    | 8    | B* | 37.47749         | 107.5430          | 72                | 14080101 | 7906.08                        |
| 09364500     | Animas River At Farmington                 | NM    | 35   | N* | 36.71999         | 108.2022          | 1360              | 14080104 | 5280.00                        |
| 09368000     | San Juan River At Shiprock                 | NM    | 35   | N  | 36.79222         | 108.7317          | 12900             | 14080105 | 4848.68                        |
| 09379500     | San Juan River Near Bluff                  | UT    | 49   | N* | 37.14694         | 109.8642          | 23000             | 14080205 | 4048.00                        |
| 09380000     | Colorado River At Lees Ferry               | AZ    | 4    | N  | 36.86472         | 111.5875          | 111800            | 14070006 | 3106.16                        |
| 09401200     | Little Colorado River At Cameron           | AZ    | 4    | N  | 35.87777         | 111.4111          | 24000             | 15020016 |                                |
| 09415000     | Virgin River At Littlefield                | AZ    | 32   | N* | 36.89170         | 113.9236          | 5090              | 15010010 | 1221.00                        |
| 09415230     | Virgin R Above Halfway Wash Near Riverside | NV    | 32   | N  | 36.67444         | 114.2983          | 5980              | 15010010 | 1320.00                        |
| 09419515     | Muddy River Above Lake Mead Near Overton   | NV    | 32   | N  | 36.52249         | 114.4136          | 8310              | 15010005 | 1200.00                        |
| 09426600     | Bill Williams River Near Planet            | AZ    | 4    | N  | 34.26194         | 114.0278          | 5140              | 15030204 |                                |
| 09430600     | Mogollon Creek Near Cliff                  | NM    | 35   | B* | 33.16666         | 108.6492          | 69                | 15040001 | 5440.00                        |
| 09431500     | Gila River Near Redrock                    | NM    | 35   | N* | 32.72694         | 108.6750          | 2829              | 15040002 | 4090.00                        |
| 09466500     | Gila River At Calva                        | AZ    | 4    | N  | 33.18555         | 110.2194          | 11470             | 15040005 | 2517.29                        |
| 09473100     | San Pedro R Below Aravaipa Cr Near Mammoth | AZ    | 4    | N  | 32.85083         | 110.7242          | 4360              | 15050203 | 2125.00                        |
| 09498500     | Salt River Near Roosevelt                  | AZ    | 4    | N* | 33.61940         | 110.9208          | 4306              | 15060103 | 2177.14                        |
| 09502000     | Salt River Below Stewart Mountain Dam      | AZ    | 4    | N  | 33.55277         | 111.5758          | 6232              | 15060106 | 1370.00                        |
| 09508300     | Wet Bottom Creek Near Childs               | AZ    | 4    | B* | 34.16082         | 111.6922          | 36                | 15060203 | 2320.00                        |

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|--------------|--------------------------------------------|-------|------|----|------------------|-------------------|-------------------|----------|--------------------------------|
| 09508500     | Verde R Below Tangle Cr Abv Horseshoe Dam  | AZ    | 4    | N* | 34.07310         | 111.7156          | 5872              | 15060203 | 2029.00                        |
| 09510000     | Verde River Below Bartlett Dam             | AZ    | 4    | N  | 33.80833         | 111.6525          | 6188              | 15060203 | 1572.34                        |
| 09520500     | Gila River Near Dome                       | AZ    | 4    | N  | 32.76083         | 114.4197          | 57850             | 15070201 | 139.18                         |
| 09535300     | Vamori Wash At Kom Vo                      | AZ    | 4    | N  | 31.95111         | 112.3472          | 1250              | 15080101 | 1770.00                        |
| 10039500     | Bear River At Border                       | WY    | 49   | N  | 42.21111         | 111.0530          | 2486              | 16010102 | 6051.63                        |
| 10126000     | Bear River Near Corinne                    | UT    | 49   | N  | 41.57639         | 112.1000          | 7029              | 16010204 | 4204.60                        |
| 10141000     | Weber River Near Plain City                | UT    | 49   | N  | 41.27833         | 112.0911          | 2060              | 16020102 | 4207.10                        |
| 10171000     | Jordan River At 1700 S At Salt Lake City   | UT    | 49   | N  | 40.73360         | 111.9225          | 3420              | 16020204 | 4220.73                        |
| 10172200     | Red Butte Cr At Ft Douglas Nr Salt Lake C  | UT    | 49   | B* | 40.77999         | 111.8053          | 7                 | 16020204 | 5400.00                        |
| 10224000     | Sevier River Near Lynndyl                  | UT    | 49   | N  | 39.48193         | 112.3931          | 5966              | 16030005 | 4660.00                        |
| 10237000     | Beaver Riv At Adamsville                   | UT    | 49   | N  | 38.25361         | 112.7655          | 303               | 16030007 | 5550.00                        |
| 10244950     | Steptoe Creek Near Ely                     | NV    | 32   | B  | 39.20139         | 114.6875          | 11                | 16060008 | 7440.00                        |
| 10249300     | South Twin River Near Round Mountain       | NV    | 32   | B* | 38.88750         | 117.2444          | 20                | 16060004 | 6400.00                        |
| 10254670     | Alamo River At Drop 3 Near Calipatria      | CA    | 6    | N  | 33.10444         | 115.5439          |                   | 18100200 | 1.00                           |
| 10254970     | New River At Internat Bdy Calexico         | CA    | 6    | N  | 32.66582         | 115.5022          |                   | 18100200 |                                |
| 10277400     | Owens River Below Tinemaha Re Nr Big Pine  | CA    | 6    | N  | 37.05416         | 118.2258          | 1964              | 18090102 | 3860.00                        |
| 10301500     | Walker River Near Wabuska                  | NV    | 32   | N* | 39.15277         | 119.0972          | 2600              | 16050303 | 4280.00                        |
| 10312000     | Carson River Near Fort Churchill           | NV    | 32   | N* | 39.29166         | 119.3111          | 1302              | 16050202 | 4214.70                        |
| 10321000     | Humboldt River Near Carlin                 | NV    | 32   | N  | 40.72777         | 116.0083          | 4310              | 16040101 | 4931.91                        |
| 10335000     | Humboldt River Near Rye Patch              | NV    | 32   | N  | 40.46666         | 118.3055          | 16100             | 16040108 | 4068.53                        |
| 10343500     | Sagehen Creek Near Truckee                 | CA    | 6    | B* | 39.43166         | 120.2369          | 11                | 16050102 | 6320.00                        |
| 10351700     | Truckee River Near Nixon                   | NV    | 32   | N  | 39.77777         | 119.3361          | 1827              | 16050103 | 3940.00                        |
| 10353500     | Quinn River Near Mc Dermitt                | NV    | 32   | N* | 41.77499         | 117.8042          | 1100              | 16040201 | 4240.00                        |
| 10356500     | Susan River At Susanville                  | CA    | 6    | N  | 40.41750         | 120.6708          | 184               | 18080003 | 4225.72                        |
| 11042000     | San Luis Rey River At Oceanside            | CA    | 6    | N  | 33.21333         | 117.3758          | 558               | 18070303 | 20.00                          |
| 11074000     | Santa Ana River Below Prado Dam            | CA    | 6    | N  | 33.88333         | 117.6444          | 1490              | 18070203 | 449.00                         |
| 11103000     | Los Angeles River At Long Beach            | CA    | 6    | N  | 33.81721         | 118.2056          | 827               | 18070105 | 11.91                          |
| 11108500     | Santa Clara R At Los Angeles-Ventura Co Li | CA    | 6    | N  | 34.39972         | 118.7039          | 625               | 18070102 | 794.93                         |
| 11152300     | Salinas River Near Chualar                 | CA    | 6    | N  | 36.55388         | 121.5480          | 4042              | 18060005 | 68.00                          |
| 11159000     | Pajaro River At Chittenden                 | CA    | 6    | N  | 36.90027         | 121.5966          | 1186              | 18060002 | 82.28                          |
| 11187000     | Kern River At Kernville                    | CA    | 6    | N* | 35.75444         | 118.4225          | 1009              | 18030001 | 2621.57                        |
| 11218500     | Kings River Below Nf Near Trimmer          | CA    | 6    | N  | 36.87471         | 119.1408          | 1342              | 18030010 | 942.42                         |
| 11264500     | Merced R At Happy Isles Bridge Nr Yosemite | CA    | 6    | B* | 37.73166         | 119.5578          | 181               | 18040008 | 4016.58                        |
| 11303500     | San Joaquin River Near Vernalis            | CA    | 6    | N  | 37.67610         | 121.2642          | 13536             | 18040003 | 0.00                           |
| 11325500     | Mokelumne River At Woodbridge              | CA    | 6    | N  | 38.15860         | 121.3025          | 661               | 18040005 | 14.90                          |
| 11370500     | Sacramento River At Keswick                | CA    | 6    | N  | 40.60110         | 122.4433          | 6468              | 18020101 | 479.81                         |
| 11447650     | Sacramento River At Freeport               | CA    | 6    | N  | 38.45416         | 121.4983          |                   | 18020109 |                                |
| 11458000     | Napa River Near Napa                       | CA    | 6    | N  | 38.36832         | 122.3022          | 218               | 18050002 | 24.74                          |
| 11467000     | Russian River Near Guerneville             | CA    | 6    | N  | 38.50861         | 122.9267          | 1338              | 18010110 | 20.14                          |
| 11475560     | Elder Creek Near Branscomb                 | CA    | 6    | B* | 39.72971         | 123.6428          | 7                 | 18010106 | 1391.08                        |
| 11477000     | Eel River At Scotia                        | CA    | 6    | N* | 40.49166         | 124.0986          | 3113              | 18010105 | 35.50                          |
| 11492200     | Crater Lake Near Crater Lake               | OR    | 41   | B  | 42.97916         | 122.0792          | 26                | 18010201 | 0.00                           |
| 11530500     | Klamath River Near Klamath                 | CA    | 6    | N  | 41.51444         | 123.9991          | 12100             | 18010209 |                                |
| 11532500     | Smith River Near Crescent City             | CA    | 6    | N* | 41.78944         | 124.0539          | 609               | 18010101 | 89.61                          |
| 12013500     | Willapa River Near Willapa                 | WA    | 53   | N* | 46.64999         | 123.6528          | 130               | 17100106 | 3.57                           |
| 12031000     | Chehalis River At Porter                   | WA    | 53   | N  | 46.93804         | 123.3125          | 1294              | 17100103 | 23.64                          |
| 12039300     | North Fork Quinault River Near Amanda Park | WA    | 53   | B  | 47.59610         | 123.6230          | 74                | 17100102 | 620.00                         |
| 12040500     | Queets River Near Clearwater               | WA    | 53   | N* | 47.53889         | 124.3139          | 445               | 17100102 | 14.50                          |
| 12045500     | Elwha River At McDonald Br Nr Prt Angeles  | WA    | 53   | N  | 48.05499         | 123.5819          | 269               | 17110020 | 200.00                         |
| 12101500     | Puyallup River At Puyallup                 | WA    | 53   | N  | 47.21444         | 122.3403          | 948               | 17110014 |                                |
| 12150800     | Snohomish River Near Monroe                | WA    | 53   | N  | 47.83111         | 122.0472          | 1537              | 17110011 | 13.25                          |
| 12200500     | Skagit River Near Mount Vernon             | WA    | 53   | N  | 48.51250         | 122.3403          | 3093              | 17110007 | 0.00                           |
| 12322000     | Kootenai River At Porthill                 | ID    | 16   | N* | 49.00000         | 116.5028          | 13700             | 17010104 | 1700.00                        |
| 12353000     | Clark Fork Below Missoula                  | MT    | 30   | N  | 46.86916         | 114.1258          | 9003              | 17010204 | 3083.88                        |
| 12355000     | Flathead River At Flathead, BC             | MT    | 30   | N* | 49.00111         | 114.4764          | 427               | 17010206 | 3968.16                        |
| 12363000     | Flathead River At Columbia Falls           | MT    | 30   | N  | 48.36194         | 114.1839          | 4464              | 17010208 | 2977.67                        |
| 12398600     | Pend Oreille River At Internatnl Boundary  | WA    | 53   | N  | 48.99888         | 117.3525          | 25200             | 17010216 | 1700.00                        |

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|--------------|--------------------------------------------|-------|------|----|------------------|-------------------|-------------------|----------|--------------------------------|
| 12400520     | Columbia River At Northport                | WA    | 53   | N  | 48.92249         | 117.7755          | 60200             | 17020001 |                                |
| 12413500     | Couder D'Alene River At Cataldo            | ID    | 16   | N* | 47.55470         | 116.3231          | 1223              | 17010303 | 2100.00                        |
| 12416000     | Hayden Cr Below North Fork, Nr Hayden Lake | ID    | 16   | B* | 47.82277         | 116.6528          | 22                | 17010305 | 2370.00                        |
| 12433000     | Spokane River At Long Lake                 | WA    | 53   | N  | 47.83833         | 117.8514          | 6020              | 17010307 | 1299.00                        |
| 12447200     | Okanogan River At Malott                   | WA    | 53   | N* | 48.28055         | 119.7030          | 8080              | 17020006 | 790.00                         |
| 12447390     | Andrews Creek Near Mazama                  | WA    | 53   | B* | 48.82444         | 120.1472          | 22                | 17020008 | 4300.00                        |
| 12472900     | Columbia R At Vernita Br Nr Priest Rps Dm  | WA    | 53   | N  | 46.63999         | 119.7317          | 96000             | 17020016 |                                |
| 12473520     | Columbia River At Richland                 | WA    | 53   | N  | 46.31278         | 119.2578          | 96900             | 17020016 |                                |
| 12500450     | Yakima River Abv Ahtanum Cr At Union Gap   | WA    | 53   | N  | 46.53444         | 120.4661          | 3479              | 17030003 | 900.00                         |
| 12510500     | Yakima River At Kiona                      | WA    | 53   | N  | 46.25361         | 119.4769          | 5615              | 17030003 | 454.41                         |
| 13018300     | Cache Creek Near Jackson                   | WY    | 16   | B* | 43.45222         | 110.7033          | 11                | 17040103 | 6750.00                        |
| 13037500     | Snake River Near Heise                     | ID    | 16   | N  | 43.61250         | 111.6591          | 5752              | 17040104 | 5015.30                        |
| 13154500     | Snake River At King Hill                   | ID    | 16   | N  | 43.00222         | 115.2017          | 35800             | 17040212 | 2492.30                        |
| 13169500     | Big Jacks Creek Near Bruneau               | ID    | 16   | B* | 42.78500         | 115.9833          | 253               | 17050102 | 2810.00                        |
| 13213000     | Boise River Near Parma                     | ID    | 16   | N  | 43.78166         | 116.9714          | 3970              | 17050114 | 2196.00                        |
| 13269000     | Snake River At Weiser                      | ID    | 16   | N  | 44.24554         | 116.9800          | 69200             | 17050124 | 2086.64                        |
| 13317000     | Salmon River At Whitebird                  | ID    | 16   | N* | 45.75027         | 116.3230          | 13550             | 17060209 | 1412.65                        |
| 13331500     | Minam River At Minam                       | OR    | 41   | B* | 45.61999         | 117.7255          | 240               | 17060105 | 2540.48                        |
| 13342500     | Clearwater River At Spalding               | ID    | 16   | N* | 46.44860         | 116.8264          | 9570              | 17060306 | 770.50                         |
| 13353200     | Snake River At Burbank                     | WA    | 53   | N  | 46.21638         | 119.0228          | 108800            | 17060110 |                                |
| 14048000     | John Day River At McDonald Ferry           | OR    | 41   | N* | 45.58777         | 120.4083          | 7580              | 17070204 | 392.27                         |
| 14103000     | Deschutes River At Moody, Near Biggs       | OR    | 41   | N  | 45.62222         | 120.9014          | 10500             | 17070306 | 167.54                         |
| 14113000     | Klickitat River Near Pitt                  | WA    | 53   | N* | 45.75666         | 121.2089          | 1297              | 17070106 | 288.90                         |
| 14128910     | Columbia River At Warrendale               | OR    | 41   | N  | 45.61250         | 122.0264          | 240400            | 17080001 | 0.00                           |
| 14207500     | Tualatin River At West Linn                | OR    | 41   | N  | 45.35083         | 122.6750          | 706               | 17090010 | 85.61                          |
| 14211720     | Willamette River At Portland               | OR    | 41   | N  | 45.51749         | 122.6675          | 11100             | 17090012 | 1.55                           |
| 14220500     | Lewis River At Ariel                       | WA    | 41   | N  | 45.95193         | 122.5628          | 731               | 17080002 | 44.00                          |
| 14244200     | Cowlitz River At Kelso                     | WA    | 41   | N  | 46.14555         | 122.9130          | 2349              | 17080005 |                                |
| 14301000     | Nehalem River Near Foss                    | OR    | 41   | N* | 45.70416         | 123.7542          | 667               | 17100202 | 32.60                          |
| 14306500     | Alsea River Near Tidewater                 | OR    | 41   | N* | 44.38611         | 123.8306          | 334               | 17100205 | 48.16                          |
| 14307620     | Siuslaw River Near Mapleton                | OR    | 41   | N* | 44.06249         | 123.8819          | 588               | 17100206 | 41.00                          |
| 14312260     | South Umpqua River Near Roseburg           | OR    | 41   | N  | 43.22220         | 123.4125          | 1798              | 17100302 |                                |
| 14321000     | Umpqua River Near Elkton                   | OR    | 41   | N* | 43.58611         | 123.5542          | 3683              | 17100303 | 90.42                          |
| 14372300     | Rogue River Near Agness                    | OR    | 41   | N  | 42.58055         | 124.0583          | 3939              | 17100310 | 113.81                         |
| 15024800     | Stikine River Near Wrangell                | AK    | 2    | N* | 56.70193         | 132.1411          | 19920             | 19060000 | 25.00                          |
| 15056100     | Skagway River At Skagway                   | AK    | 2    | N  | 59.46693         | 135.3008          | 145               | 19060000 | 20.00                          |
| 15212000     | Copper River Near Chitina                  | AK    | 2    | N* | 61.46555         | 144.4558          | 20600             | 19050003 | 400.00                         |
| 15292700     | Talkeetna River Near Talkeetna             | AK    | 2    | B* | 62.34694         | 150.0169          | 2006              | 19050002 | 400.00                         |
| 15294350     | Susitna River At Susitna Station           | AK    | 2    | N* | 61.54472         | 150.5125          | 19400             | 19050002 |                                |
| 15302500     | Nushagak River At Ekwok                    | AK    | 2    | N* | 59.34916         | 157.4730          | 9850              | 19040002 |                                |
| 15304000     | Kuskokwim River At Crooked Creek           | AK    | 2    | N* | 61.87110         | 158.1008          | 31100             | 19040001 | 200.00                         |
| 15515500     | Tanana River At Nenana                     | AK    | 2    | N* | 64.56526         | 149.0916          | 25600             | 19030004 | 338.50                         |
| 15565447     | Yukon River At Pilot Station               | AK    | 2    | N* | 61.93443         | 162.8805          | 321000            | 19030006 |                                |
| 15896000     | Kuparuk River Near Deadhorse               | AK    | 2    | N* | 70.28166         | 148.9597          | 3130              | 19010001 |                                |
| 16031000     | Waimea River Near Waimea, Kauai            | HI    | 15   | N  | 21.98388         | 159.6630          | 58                | 20070000 | 19.70                          |
| 16213000     | Waialeale Stream At Waipahu, Oahu          | HI    | 15   | N  | 21.38638         | 158.0136          | 46                | 20060000 | 1.37                           |
| 16229300     | Kalihi Stream At Kalihi, Oahu              | HI    | 15   | N  | 21.34138         | 157.8766          | 5                 | 20060000 | 70.00                          |
| 16400000     | Halawa Stream Near Halawa, Molokai         | HI    | 15   | N* | 21.15861         | 156.7647          | 5                 | 20050000 | 210.00                         |
| 16618000     | Kahakuloa Stream Near Honokohau, Maui      | HI    | 15   | N* | 20.98166         | 156.5572          | 3                 | 20020000 | 330.00                         |
| 16713000     | Wailuku River At Hilo, Hawaii              | HI    | 15   | N  | 19.72861         | 155.0944          | 256               | 20010000 | 80.00                          |
| 16717000     | Honolii Stream Near Papaikou, Hawaii       | HI    | 15   | B  | 19.76667         | 155.1544          | 12                | 20010000 | 1540.00                        |
| 50092000     | Rio Grande De Patillas Near Patillas       | PR    | 72   | N* | 18.03444         | 66.0328           | 18                | 21010004 |                                |
| 50144000     | Rio Grande De Anasco Near San Sebastian    | PR    | 72   | N* | 18.28472         | 67.0514           | 94                | 21010003 |                                |

Table 2. Slope and intercepts of hydrogen versus oxygen isotope ratios of selected sites

| State | Station Number | Slope | Intercept |
|-------|----------------|-------|-----------|
| AK    | 15024800       | 7.27  | -5.80     |
| AK    | 15056100       | 5.17  | -41.99    |
| AK    | 15212000       | 6.78  | -20.25    |
| AK    | 15292700       | 7.87  | 3.66      |
| AK    | 15294350       | 8.29  | 11.27     |
| AK    | 15302500       | 4.50  | -45.65    |
| AK    | 15304000       | 6.94  | -12.08    |
| AK    | 15515500       | 5.66  | -44.45    |
| AK    | 15565447       | 7.96  | 3.30      |
| AK    | 15896000       | 7.12  | -14.98    |
| AL    | 02343801       | 5.14  | -1.15     |
| AL    | 02369800       | 7.99  | 11.54     |
| AL    | 02420000       | 5.24  | -1.64     |
| AL    | 02429500       | 6.03  | 1.24      |
| AL    | 02449000       | 4.69  | -4.51     |
| AL    | 02450250       | 4.61  | -4.48     |
| AL    | 02466031       | 5.13  | -2.59     |
| AL    | 02469762       | 5.17  | -2.38     |
| AR    | 07047800       | 5.99  | -0.27     |
| AR    | 07060710       | 4.80  | -6.66     |
| AR    | 07074500       | 5.49  | -3.66     |
| AR    | 07250550       | 6.59  | 0.81      |
| AR    | 07265450       | 5.88  | -5.47     |
| AR    | 07337000       | 6.85  | 2.36      |
| AR    | 07341301       | 4.31  | -4.71     |
| AR    | 07344275       | 5.37  | -1.54     |
| AR    | 07362000       | 2.97  | -10.64    |
| AZ    | 09380000       | 5.99  | -25.02    |
| AZ    | 09401200       | 6.25  | -11.51    |
| AZ    | 09415000       | 5.08  | -29.55    |
| AZ    | 09426600       | 4.93  | -22.46    |
| AZ    | 09466500       | 5.10  | -20.97    |
| AZ    | 09498500       | 4.67  | -24.16    |
| AZ    | 09502000       | 5.06  | -20.89    |
| AZ    | 09508300       | 7.00  | -2.31     |
| AZ    | 09508500       | 5.86  | -14.58    |
| AZ    | 09510000       | 6.03  | -13.97    |
| AZ    | 09520500       | 7.89  | -2.36     |
| AZ    | 09535300       | 7.80  | 9.49      |
| CA    | 10254670       | 6.24  | -22.94    |
| CA    | 10254970       | 4.44  | -45.13    |
| CA    | 10277400       | 5.36  | -34.54    |
| CA    | 10343500       | 6.82  | -6.86     |
| CA    | 10356500       | 5.06  | -32.11    |
| CA    | 11042000       | 2.81  | -25.94    |
| CA    | 11074000       | 5.20  | -13.95    |
| CA    | 11103000       | 9.06  | 12.50     |
| CA    | 11108500       | 6.07  | -8.10     |
| CA    | 11152300       | 6.18  | -4.52     |
| CA    | 11159000       | 3.65  | -16.86    |
| CA    | 11187000       | 7.24  | -1.38     |
| CA    | 11218500       | 7.65  | 3.74      |
| CA    | 11264500       | 5.91  | -18.52    |
| CA    | 11303500       | 5.75  | -18.34    |
| CA    | 11325500       | 4.86  | -25.29    |
| CA    | 11370500       | 8.26  | 12.64     |
| CA    | 11447650       | 8.00  | 8.23      |
| CA    | 11458000       | 4.26  | -13.28    |
| CA    | 11467000       | 5.96  | -5.13     |
| CA    | 11475560       | 4.96  | -10.69    |
| CA    | 11477000       | 5.27  | -11.30    |
| CA    | 11530500       | 6.17  | -12.09    |
| CA    | 11532500       | 3.96  | -22.99    |
| CO    | 06710000       | 4.20  | -47.93    |
| CO    | 06764000       | 5.95  | -24.89    |

Table 2. Slope and intercepts of hydrogen versus oxygen isotope ratios of selected sites (contd)

| State | Station Number | Slope | Intercept |
|-------|----------------|-------|-----------|
| CO    | 07083000       | 7.81  | 7.64      |
| CO    | 07097000       | 6.10  | -21.53    |
| CO    | 08251500       | 4.68  | -37.42    |
| CO    | 09152500       | 6.97  | -7.45     |
| CO    | 09163500       | 5.99  | -23.93    |
| CO    | 09251000       | 5.59  | -31.87    |
| CO    | 09260000       | 5.26  | -39.05    |
| CO    | 09352900       | 7.67  | 8.63      |
| CT    | 01122610       | 6.30  | -0.72     |
| CT    | 01127000       | 5.67  | -4.50     |
| CT    | 01184000       | 6.95  | 2.39      |
| CT    | 01205500       | 5.27  | -9.15     |
| DC    | 01646580       | 6.37  | -1.16     |
| FL    | 02236000       | 3.54  | -0.63     |
| FL    | 02256500       | 4.60  | 0.88      |
| FL    | 02301500       | 5.44  | 0.72      |
| FL    | 02327100       | 6.33  | 3.85      |
| FL    | 02366500       | 7.57  | 7.29      |
| FL    | 02376500       | 7.99  | 10.87     |
| GA    | 02202500       | 5.58  | 0.52      |
| GA    | 02212600       | 6.17  | 2.11      |
| GA    | 02226160       | 4.52  | -3.40     |
| GA    | 02228000       | 4.92  | -0.40     |
| GA    | 02353000       | 5.63  | 0.94      |
| HI    | 16031000       | 8.52  | 16.45     |
| HI    | 16213000       | 9.45  | 16.52     |
| HI    | 16229300       | 8.28  | 14.25     |
| HI    | 16400000       | 5.78  | 9.90      |
| HI    | 16618000       | 8.03  | 16.75     |
| HI    | 16713000       | 6.45  | 9.65      |
| HI    | 16717000       | 7.55  | 14.65     |
| IA    | 05474000       | 6.96  | 2.66      |
| IA    | 06485500       | 6.00  | -9.43     |
| IA    | 06486000       | 9.05  | 13.47     |
| IA    | 06810000       | 6.62  | 0.02      |
| IA    | 06897950       | 7.03  | 4.07      |
| ID    | 12322000       | 9.02  | 26.08     |
| ID    | 12413500       | 7.37  | 0.12      |
| ID    | 12416000       | 7.46  | 2.11      |
| ID    | 13037500       | 4.70  | -49.71    |
| ID    | 13154500       | 5.90  | -30.63    |
| ID    | 13169500       | 4.45  | -53.66    |
| ID    | 13213000       | 4.16  | -56.63    |
| ID    | 13269000       | 2.62  | -83.01    |
| ID    | 13317000       | 4.28  | -57.75    |
| ID    | 13342500       | 5.07  | -36.40    |
| IL    | 05543500       | 6.75  | -2.61     |
| IL    | 05599500       | 6.10  | 0.09      |
| IN    | 03275000       | 6.38  | 1.94      |
| IN    | 03276500       | 6.91  | 4.60      |
| IN    | 03276700       | 5.89  | -2.28     |
| IN    | 03378500       | 5.89  | -2.62     |
| KS    | 06856600       | 5.81  | -8.02     |
| KS    | 06879650       | 5.20  | -8.05     |
| KS    | 07137500       | 5.46  | -26.97    |
| KS    | 07183500       | 7.17  | 4.23      |
| KY    | 03215000       | 5.36  | -7.28     |
| KY    | 03254000       | 6.72  | 2.77      |
| KY    | 03277200       | 5.90  | -3.98     |
| KY    | 03298500       | 5.72  | -2.91     |
| KY    | 03301630       | 6.05  | -0.27     |
| LA    | 07348000       | 2.43  | -7.70     |
| LA    | 07355500       | 4.06  | -4.75     |
| LA    | 07369500       | 5.13  | -1.87     |
| LA    | 07373000       | 3.54  | -5.61     |

Table 2. Slope and intercepts of hydrogen versus oxygen isotope ratios of selected sites (contd)

| State | Station Number | Slope | Intercept |
|-------|----------------|-------|-----------|
| LA    | 07375050       | 4.85  | 0.71      |
| LA    | 08015500       | 3.55  | -5.96     |
| MA    | 01103500       | 5.59  | -5.73     |
| MD    | 01491000       | 7.47  | 8.30      |
| MD    | 01578310       | 6.09  | -4.51     |
| MD    | 01594440       | 7.75  | 10.35     |
| ME    | 01015000       | 6.63  | -5.02     |
| ME    | 01021050       | 5.79  | -10.35    |
| ME    | 01022500       | 5.22  | -10.59    |
| ME    | 01054200       | 7.30  | 8.17      |
| ME    | 01059400       | 6.50  | -3.22     |
| MI    | 04001000       | 7.08  | 0.59      |
| MI    | 04045500       | 7.15  | 2.64      |
| MI    | 04045580       | 4.85  | -24.92    |
| MI    | 04101500       | 7.03  | 2.96      |
| MI    | 04126520       | 7.22  | 4.18      |
| MI    | 04142000       | 7.27  | 3.11      |
| MI    | 04159010       | 7.15  | 2.85      |
| MN    | 04014500       | 6.10  | -11.08    |
| MN    | 05064500       | 6.11  | -15.64    |
| MN    | 05079000       | 6.45  | -13.20    |
| MN    | 05112000       | 6.75  | -8.08     |
| MN    | 05124480       | 7.05  | -9.45     |
| MN    | 05267000       | 6.20  | -13.18    |
| MN    | 05330000       | 6.02  | -10.91    |
| MN    | 05376000       | 7.86  | 9.51      |
| MN    | 05378500       | 7.60  | 3.17      |
| MO    | 05508000       | 8.24  | 12.61     |
| MO    | 06818000       | 8.76  | 10.42     |
| MO    | 06821190       | 7.43  | 4.30      |
| MO    | 06902000       | 6.93  | 3.52      |
| MO    | 06905500       | 5.99  | -4.63     |
| MO    | 06908800       | 6.76  | 2.57      |
| MO    | 06918080       | 7.31  | 4.53      |
| MO    | 06926510       | 7.58  | 6.24      |
| MO    | 06930800       | 4.56  | -10.08    |
| MO    | 07022000       | 5.95  | -9.82     |
| MS    | 02479155       | 6.52  | 5.08      |
| MS    | 02479560       | 6.78  | 6.18      |
| MS    | 02481510       | 6.99  | 6.37      |
| MS    | 07287120       | 6.32  | 1.90      |
| MS    | 07290000       | 7.36  | 5.90      |
| MS    | 07292500       | 6.57  | 5.19      |
| MT    | 05020500       | 8.06  | 7.49      |
| MT    | 06054500       | 6.49  | -22.75    |
| MT    | 06130500       | 5.03  | -48.85    |
| MT    | 06169500       | 6.01  | -37.45    |
| MT    | 06174500       | 6.47  | -27.46    |
| MT    | 06185500       | 5.02  | -48.14    |
| MT    | 06192500       | 6.88  | -14.38    |
| MT    | 06294700       | 3.76  | -69.17    |
| MT    | 06308500       | 6.18  | -28.25    |
| MT    | 06329500       | 6.90  | -15.51    |
| MT    | 12353000       | 5.18  | -42.05    |
| MT    | 12355000       | 8.92  | 24.70     |
| MT    | 12363000       | 5.11  | -40.61    |
| NC    | 02083500       | 6.56  | 3.89      |
| NC    | 02091500       | 5.59  | -1.05     |
| NC    | 02116500       | 7.20  | 8.17      |
| NC    | 02126000       | 5.60  | -1.17     |
| NC    | 02129000       | 5.64  | -1.27     |
| NC    | 03453500       | 6.30  | 3.09      |
| ND    | 05059000       | 5.45  | -29.52    |
| ND    | 05064900       | 7.14  | -8.41     |
| ND    | 05102500       | 6.36  | -14.43    |

Table 2. Slope and intercepts of hydrogen versus oxygen isotope ratios of selected sites (contd)

| State | Station Number | Slope | Intercept |
|-------|----------------|-------|-----------|
| ND    | 05124000       | 5.94  | -29.83    |
| ND    | 06332515       | 6.60  | -21.01    |
| ND    | 06337000       | 6.64  | -18.78    |
| ND    | 06338490       | 3.95  | -62.88    |
| ND    | 06340500       | 7.39  | -5.86     |
| ND    | 06349000       | 6.77  | -16.92    |
| ND    | 06354000       | 6.37  | -22.30    |
| NE    | 06465500       | 6.91  | -5.08     |
| NE    | 06686000       | 5.91  | -29.34    |
| NE    | 06775900       | 8.72  | 14.70     |
| NE    | 06800500       | 7.15  | 0.87      |
| NE    | 06805500       | 7.94  | 3.96      |
| NH    | 01154500       | 7.15  | 3.17      |
| NJ    | 01389500       | 6.99  | 5.27      |
| NJ    | 01403300       | 6.97  | 6.75      |
| NJ    | 01411500       | 6.30  | 1.49      |
| NJ    | 01466500       | 7.56  | 11.47     |
| NM    | 07221500       | 6.00  | -14.93    |
| NM    | 07227140       | 5.46  | -14.73    |
| NM    | 08313000       | 7.05  | -4.73     |
| NM    | 08358300       | 6.63  | -10.91    |
| NM    | 08358400       | 4.66  | -35.01    |
| NM    | 08377900       | 9.22  | 26.58     |
| NM    | 08382650       | 6.75  | -5.09     |
| NM    | 08407500       | 5.06  | -15.81    |
| NM    | 08477110       | 5.57  | -13.88    |
| NM    | 09364500       | 6.81  | -6.28     |
| NM    | 09368000       | 6.27  | -13.75    |
| NM    | 09430600       | 6.10  | -8.01     |
| NM    | 09431500       | 5.89  | -12.95    |
| NV    | 09415230       | 5.42  | -26.06    |
| NV    | 09419515       | 5.49  | -27.57    |
| NV    | 10244950       | 7.96  | 8.82      |
| NV    | 10249300       | 5.26  | -34.78    |
| NV    | 10321000       | 4.26  | -54.26    |
| NV    | 10335000       | 4.57  | -47.71    |
| NV    | 10351700       | 2.68  | -56.22    |
| NV    | 10353500       | 7.29  | -6.96     |
| NY    | 01304000       | 1.16  | -36.61    |
| NY    | 01358000       | 6.54  | -2.03     |
| NY    | 01362198       | 6.39  | -0.67     |
| NY    | 04213500       | 6.78  | 1.18      |
| NY    | 04217000       | 7.15  | 3.75      |
| NY    | 04219640       | 4.29  | -22.10    |
| NY    | 04232006       | 5.69  | -11.22    |
| NY    | 04249000       | 6.20  | -7.53     |
| NY    | 04250750       | 6.42  | -3.66     |
| NY    | 04260500       | 6.84  | 0.32      |
| NY    | 04263000       | 6.25  | -7.26     |
| NY    | 04264331       | 4.05  | -24.09    |
| NY    | 04268000       | 6.84  | -2.22     |
| NY    | 04295000       | 6.36  | -7.10     |
| OH    | 03159510       | 6.79  | 2.73      |
| OH    | 03237280       | 6.71  | 3.86      |
| OH    | 03274600       | 5.88  | -3.96     |
| OH    | 04198000       | 6.42  | -0.66     |
| OH    | 04212200       | 3.80  | -25.12    |
| OK    | 07157950       | 7.61  | 2.25      |
| OK    | 07161000       | 6.60  | -0.03     |
| OK    | 07243500       | 5.71  | -1.57     |
| OK    | 07311200       | 7.43  | 7.78      |
| OK    | 07331000       | 4.93  | -4.01     |
| OK    | 07335700       | 6.87  | 8.71      |
| OR    | 11492200       | 2.83  | -51.41    |
| OR    | 13331500       | 6.84  | -10.12    |

Table 2. Slope and intercepts of hydrogen versus oxygen isotope ratios of selected sites (contd)

| State | Station Number | Slope | Intercept |
|-------|----------------|-------|-----------|
| OR    | 14048000       | 4.40  | -47.22    |
| OR    | 14103000       | 10.08 | 37.06     |
| OR    | 14128910       | 9.07  | 24.26     |
| OR    | 14207500       | 4.64  | -21.46    |
| OR    | 14211720       | 8.50  | 16.39     |
| OR    | 14301000       | 4.48  | -20.09    |
| OR    | 14306500       | 4.18  | -19.86    |
| OR    | 14307620       | 4.30  | -19.58    |
| OR    | 14312260       | 3.59  | -36.96    |
| OR    | 14321000       | 8.96  | 21.15     |
| OR    | 14372300       | 8.07  | 11.22     |
| PA    | 01474500       | 5.85  | -2.23     |
| PA    | 01540500       | 7.06  | 3.85      |
| PA    | 01545600       | 6.76  | 2.26      |
| PA    | 01553500       | 6.70  | 2.34      |
| PA    | 01567000       | 5.96  | -4.84     |
| PA    | 01570500       | 5.71  | -7.33     |
| PA    | 03049625       | 6.77  | 1.92      |
| PA    | 03085000       | 6.39  | -1.13     |
| PA    | 03107500       | 5.94  | -5.88     |
| PR    | 50092000       | 5.34  | 5.81      |
| PR    | 50144000       | 7.17  | 10.36     |
| RI    | 01118500       | 5.48  | -3.97     |
| SC    | 02131000       | 5.87  | 0.37      |
| SC    | 02132000       | 5.26  | -1.62     |
| SC    | 02135300       | 6.51  | 5.54      |
| SC    | 02136000       | 8.07  | 10.61     |
| SC    | 02170500       | 3.60  | -8.10     |
| SC    | 02175000       | 6.20  | 3.38      |
| SC    | 02176500       | 4.78  | -0.39     |
| SC    | 02197300       | 6.67  | 6.81      |
| SC    | 02198500       | 4.39  | -4.16     |
| SD    | 06357800       | 5.00  | -37.54    |
| SD    | 06360500       | 6.47  | -18.90    |
| SD    | 06409000       | 11.62 | 65.14     |
| SD    | 06438000       | 6.75  | -16.79    |
| SD    | 06439300       | 7.40  | -6.20     |
| SD    | 06440000       | 7.43  | -9.61     |
| SD    | 06452000       | 6.91  | -9.93     |
| SD    | 06453000       | 7.32  | -10.66    |
| SD    | 06471000       | 5.53  | -24.99    |
| SD    | 06478500       | 5.94  | -18.31    |
| TN    | 03470500       | 7.17  | 7.33      |
| TN    | 03535912       | 5.59  | -3.68     |
| TN    | 03543005       | 6.47  | 2.09      |
| TN    | 03604000       | 5.84  | 0.12      |
| TN    | 07026000       | 6.94  | 6.09      |
| TX    | 07228000       | 5.03  | -11.50    |
| TX    | 07297910       | 6.43  | -3.13     |
| TX    | 08041000       | 6.04  | 0.93      |
| TX    | 08062700       | 6.61  | 2.17      |
| TX    | 08068000       | 7.94  | 10.30     |
| TX    | 08082000       | 5.54  | -6.21     |
| TX    | 08088000       | 5.62  | -5.05     |
| TX    | 08103900       | 4.93  | -3.50     |
| TX    | 08117500       | 3.66  | -0.37     |
| TX    | 08123850       | 4.77  | -7.56     |
| TX    | 08210000       | 5.38  | -2.08     |
| TX    | 08370500       | 5.54  | -24.14    |
| TX    | 08431700       | 5.84  | -1.70     |
| TX    | 08447410       | 5.34  | -7.17     |
| TX    | 08449400       | 5.06  | -5.03     |
| TX    | 08475000       | 6.66  | -2.87     |
| UT    | 09180000       | 7.89  | 7.45      |
| UT    | 09180500       | 4.56  | -45.67    |



Table 2. Slope and intercepts of hydrogen versus oxygen isotope ratios of selected sites (contd)

| State | Station Number | Slope | Intercept |
|-------|----------------|-------|-----------|
| UT    | 09234500       | 3.91  | -60.59    |
| UT    | 09306900       | 8.26  | 13.73     |
| UT    | 09315000       | 5.93  | -27.56    |
| UT    | 09379500       | 5.29  | -26.89    |
| UT    | 10126000       | 5.06  | -41.90    |
| UT    | 10141000       | 6.07  | -23.77    |
| UT    | 10171000       | 5.72  | -29.86    |
| UT    | 10172200       | 6.73  | -11.73    |
| UT    | 10224000       | 4.95  | -39.51    |
| UT    | 10237000       | 5.10  | -33.05    |
| VA    | 02038850       | 6.24  | 2.23      |
| VA    | 02049500       | 5.94  | 0.16      |
| VA    | 02075500       | 6.45  | 2.84      |
| VA    | 03176500       | 7.08  | 6.08      |
| VT    | 04296000       | 6.46  | -5.94     |
| WA    | 12013500       | 4.87  | -16.87    |
| WA    | 12031000       | 5.74  | -10.72    |
| WA    | 12039300       | 5.34  | -18.68    |
| WA    | 12040500       | 7.21  | 3.67      |
| WA    | 12045500       | 4.03  | -38.76    |
| WA    | 12101500       | 7.53  | 4.23      |
| WA    | 12150800       | 4.80  | -26.34    |
| WA    | 12200500       | 6.75  | -6.92     |
| WA    | 12400520       | 3.96  | -63.49    |
| WA    | 12433000       | 2.35  | -75.87    |
| WA    | 12447200       | 4.23  | -54.00    |
| WA    | 12447390       | 9.47  | 32.72     |
| WA    | 12472900       | 7.48  | -1.86     |
| WA    | 12473520       | 7.62  | 0.83      |
| WA    | 12500450       | 5.63  | -23.94    |
| WA    | 12510500       | 6.84  | -8.26     |
| WA    | 13353200       | 4.58  | -48.64    |
| WA    | 14113000       | 4.65  | -37.13    |
| WA    | 14220500       | 4.60  | -25.27    |
| WA    | 14244200       | 8.93  | 21.01     |
| WI    | 04024430       | 7.14  | 1.24      |
| WI    | 04027595       | 7.36  | 2.55      |
| WI    | 04063700       | 6.67  | -4.01     |
| WI    | 04067500       | 6.77  | -3.16     |
| WI    | 04087000       | 6.25  | -5.63     |
| WI    | 05382000       | 7.27  | 3.99      |
| WV    | 01618000       | 6.32  | -2.43     |
| WV    | 01636500       | 5.43  | -7.41     |
| WV    | 03112510       | 6.17  | -3.71     |
| WV    | 03155000       | 6.08  | -3.37     |
| WV    | 03201300       | 5.81  | -5.07     |
| WV    | 03204000       | 6.27  | -1.13     |
| WY    | 06228000       | 6.75  | -14.93    |
| WY    | 06259000       | 4.97  | -46.05    |
| WY    | 06623800       | 6.48  | -16.08    |
| WY    | 06630000       | 5.49  | -36.11    |
| WY    | 06642000       | 3.50  | -66.74    |
| WY    | 09209400       | 7.46  | -2.37     |
| WY    | 09217000       | 5.96  | -28.23    |
| WY    | 10039500       | 5.74  | -32.04    |
| WY    | 13018300       | 4.67  | -50.04    |

State: **Alabama**

Station Name: **Chattahoochee River At Andrews L&D Near Columbia**

Station Number **02343801**

Hydrologic Unit Code: 03130004

Drainage Area  
(square miles): 8210

Latitude: 31° 15' 33"

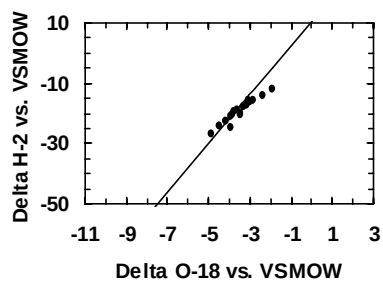
Datum (ft):

Longitude: 85° 06' 37"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/2/1986         | -15.3                                    | -2.86                                     |
| 2/26/1985        | -20.1                                    | -3.86                                     |
| 5/2/1985         | -19.2                                    | -3.75                                     |
| 7/11/1985        | -17.8                                    | -3.31                                     |
| 8/14/1985        | -15.6                                    | -3.05                                     |
| 10/9/1985        | -15.9                                    | -2.99                                     |
| 1/9/1986         | -19.6                                    | -3.43                                     |
| 1/15/1985        | -18.6                                    | -3.61                                     |
| 6/2/1986         | -16.8                                    | -3.16                                     |
| 9/1/1987         | -20.2                                    | -3.44                                     |
| 8/6/1986         | -13.9                                    | -2.37                                     |
| 10/23/1986       | -12.0                                    | -1.94                                     |
| 1/26/1987        | -22.2                                    | -4.14                                     |
| 3/26/1987        | -26.6                                    | -4.84                                     |
| 5/21/1987        | -23.8                                    | -4.47                                     |
| 7/22/1987        | -24.3                                    | -3.94                                     |
| 3/24/1986        | -21.1                                    | -3.90                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alabama**

Station Name: **Blackwater River Near Bradley**

Station Number **02369800**

Hydrologic Unit Code: 03140104

Drainage Area  
(square miles): 87

Latitude: 31° 01' 39"

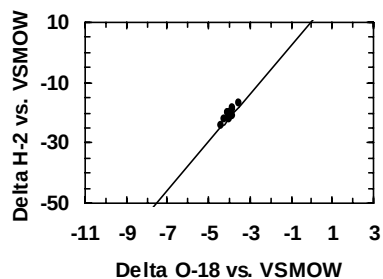
Datum (ft): 121.87

Longitude: 86° 42' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/12/1987        | -22.0                                    | -4.25                                     |
| 4/15/1987        | -21.1                                    | -3.99                                     |
| 2/11/1987        | -23.8                                    | -4.37                                     |
| 10/28/1986       | -18.6                                    | -3.85                                     |
| 8/27/1986        | -18.4                                    | -3.83                                     |
| 4/9/1986         | -21.0                                    | -3.87                                     |
| 2/12/1986        | -19.8                                    | -3.98                                     |
| 10/23/1985       | -21.6                                    | -4.01                                     |
| 8/14/1985        | -20.5                                    | -4.03                                     |
| 4/17/1985        | -19.7                                    | -4.06                                     |
| 2/13/1985        | -16.8                                    | -3.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alabama**

Station Name: **Alabama River Near Montgomery**

Station Number **02420000**

Hydrologic Unit Code: 03150201

Drainage Area  
(square miles): 15087

Latitude: 32° 24' 41"

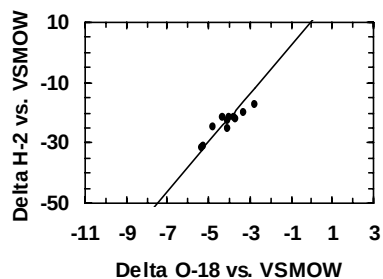
Datum (ft): 97.9

Longitude: 86° 24' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/10/1987        | -24.9                                    | -4.07                                     |
| 4/13/1987        | -30.7                                    | -5.22                                     |
| 2/9/1987         | -31.6                                    | -5.36                                     |
| 10/20/1986       | -17.0                                    | -2.75                                     |
| 8/25/1986        | -20.0                                    | -3.31                                     |
| 4/7/1986         | -22.2                                    | -4.10                                     |
| 2/10/1986        | -21.1                                    | -4.03                                     |
| 10/21/1985       | -21.7                                    | -3.70                                     |
| 8/12/1985        | -21.5                                    | -3.79                                     |
| 4/15/1985        | -24.3                                    | -4.74                                     |
| 2/11/1985        | -21.1                                    | -4.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alabama**

Station Name: **Alabama River At Claiborne**

Station Number **02429500**

Hydrologic Unit Code: 03150204

Drainage Area  
(square miles): 21967

Latitude: 31° 32' 48"

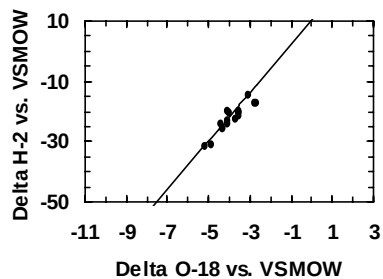
Datum (ft): 0.4

Longitude: 87° 30' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/11/1986        | -19.5                                    | -3.51                                     |
| 4/19/1985        | -24.0                                    | -4.42                                     |
| 6/12/1985        | -23.0                                    | -4.06                                     |
| 8/13/1985        | -22.1                                    | -3.70                                     |
| 10/24/1985       | -20.2                                    | -3.54                                     |
| 12/11/1985       | -21.3                                    | -3.50                                     |
| 2/15/1985        | -19.6                                    | -4.12                                     |
| 4/11/1986        | -14.6                                    | -3.08                                     |
| 8/14/1987        | -23.7                                    | -4.05                                     |
| 8/29/1986        | -17.1                                    | -2.78                                     |
| 10/24/1986       | -17.1                                    | -2.71                                     |
| 12/9/1986        | -20.1                                    | -3.50                                     |
| 2/13/1987        | -31.3                                    | -5.16                                     |
| 4/17/1987        | -30.7                                    | -4.88                                     |
| 6/16/1987        | -25.4                                    | -4.34                                     |
| 2/13/1986        | -20.4                                    | -4.01                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alabama**

Station Name: **Tombigbee River At Gainesville**

Station Number **02449000**

Hydrologic Unit Code: 03160106

Drainage Area  
(square miles): 8632

Latitude: 32° 49' 30"

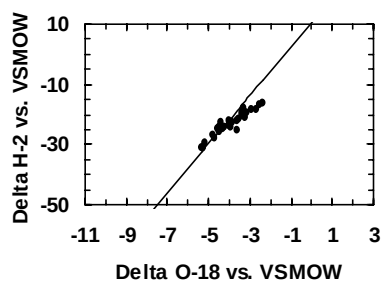
Datum (ft): 63.29

Longitude: 88° 09' 24"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/16/1986        | -24.9                                    | -3.65                                     |
| 3/19/1985        | -26.4                                    | -4.77                                     |
| 4/9/1985         | -24.2                                    | -4.34                                     |
| 5/14/1985        | -24.5                                    | -4.53                                     |
| 6/10/1985        | -21.8                                    | -4.03                                     |
| 8/7/1985         | -21.3                                    | -3.55                                     |
| 9/4/1985         | -22.1                                    | -3.60                                     |
| 10/18/1985       | -23.4                                    | -4.00                                     |
| 12/10/1985       | -23.7                                    | -4.23                                     |
| 1/23/1986        | -27.8                                    | -4.73                                     |
| 2/18/1986        | -25.8                                    | -4.45                                     |
| 3/4/1986         | -24.1                                    | -4.36                                     |
| 4/14/1986        | -17.8                                    | -3.32                                     |
| 2/6/1985         | -22.4                                    | -4.36                                     |
| 6/9/1986         | -22.4                                    | -3.88                                     |
| 8/18/1987        | -16.5                                    | -2.54                                     |
| 8/21/1986        | -18.1                                    | -2.68                                     |
| 9/10/1986        | -16.2                                    | -2.39                                     |
| 10/15/1986       | -18.2                                    | -2.89                                     |
| 11/19/1986       | -19.1                                    | -3.38                                     |
| 12/10/1986       | -24.6                                    | -4.42                                     |
| 1/13/1987        | -31.1                                    | -5.34                                     |
| 2/18/1987        | -30.9                                    | -5.27                                     |
| 3/20/1987        | -29.4                                    | -5.14                                     |
| 4/22/1987        | -24.1                                    | -4.45                                     |
| 5/13/1987        | -24.1                                    | -3.96                                     |
| 6/17/1987        | -20.4                                    | -3.35                                     |
| 7/15/1987        | -20.9                                    | -3.25                                     |
| 5/8/1986         | -19.2                                    | -3.12                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alabama**

Station Name: **Sipsey Fork Near Grayson**

Station Number **02450250**

Hydrologic Unit Code: 03160110

Drainage Area  
(square miles): 92.1

Latitude: 34° 17' 07"

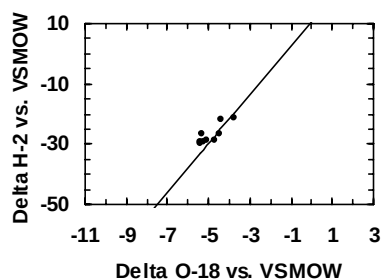
Datum (ft): 540

Longitude: 87° 23' 56"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -21.4                                    | -3.75                                     |
| 4/23/1987        | -29.7                                    | -5.39                                     |
| 2/19/1987        | -29.1                                    | -5.42                                     |
| 10/29/1986       | -21.6                                    | -4.37                                     |
| 9/15/1986        | -26.8                                    | -4.43                                     |
| 4/16/1986        | -28.8                                    | -4.72                                     |
| 2/19/1986        | -29.5                                    | -5.27                                     |
| 7/31/1985        | -28.6                                    | -5.07                                     |
| 2/14/1985        | -26.7                                    | -5.34                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alabama**

Station Name: **Black Warrior River Below Warrior Dam Near Eutaw**

Station Number **02466031**

Hydrologic Unit Code: 03160113

Drainage Area  
(square miles): 5810

Latitude: 32° 46' 38"

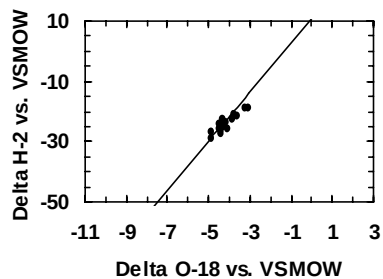
Datum (ft): 50

Longitude: 87° 50' 29"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/10/1986        | -22.4                                    | -3.85                                     |
| 4/10/1985        | -24.2                                    | -4.45                                     |
| 6/11/1985        | -23.3                                    | -4.32                                     |
| 8/8/1985         | -26.0                                    | -4.38                                     |
| 10/17/1985       | -25.7                                    | -4.08                                     |
| 12/9/1985        | -25.1                                    | -4.32                                     |
| 2/7/1985         | -22.5                                    | -4.32                                     |
| 4/15/1986        | -23.7                                    | -4.17                                     |
| 8/17/1987        | -20.9                                    | -3.73                                     |
| 8/22/1986        | -18.9                                    | -3.25                                     |
| 10/16/1986       | -18.8                                    | -3.03                                     |
| 12/8/1986        | -21.5                                    | -3.65                                     |
| 2/17/1987        | -28.9                                    | -4.89                                     |
| 4/20/1987        | -26.8                                    | -4.82                                     |
| 6/15/1987        | -25.5                                    | -4.44                                     |
| 2/14/1986        | -27.0                                    | -4.41                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Alabama**

Station Name: **Tombigbee River Below Coffeeville Lock And Dam**

Station Number **02469762**

Hydrologic Unit Code: 03160203

Drainage Area  
(square miles): 18417

Latitude: 31° 45' 25"

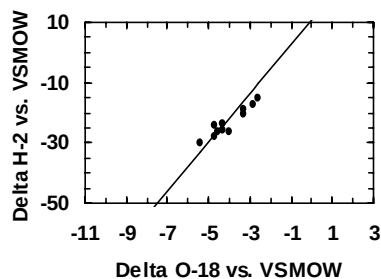
Datum (ft): 14

Longitude: 88° 07' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/13/1987        | -18.9                                    | -3.29                                     |
| 4/16/1987        | -27.5                                    | -4.70                                     |
| 2/12/1987        | -29.9                                    | -5.38                                     |
| 10/23/1986       | -14.9                                    | -2.61                                     |
| 8/28/1986        | -16.9                                    | -2.86                                     |
| 4/10/1986        | -20.1                                    | -3.32                                     |
| 2/11/1986        | -26.3                                    | -4.53                                     |
| 10/22/1985       | -25.7                                    | -4.33                                     |
| 8/15/1985        | -26.3                                    | -4.00                                     |
| 4/18/1985        | -23.6                                    | -4.32                                     |
| 2/14/1985        | -24.0                                    | -4.69                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Stikine River Near Wrangell**

Station Number **15024800**

Hydrologic Unit Code: 19060000

Drainage Area  
(square miles): 19920

Latitude: 56° 42' 29"

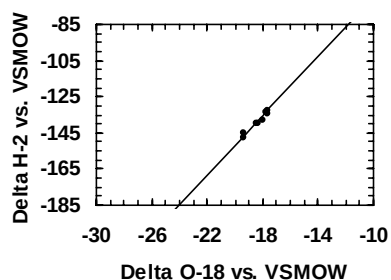
Datum (ft): 25

Longitude: 132° 07' 49"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 10/8/1987        | -139.6                                   | -18.33                                    |
| 6/9/1987         | -148.1                                   | -19.39                                    |
| 4/29/1986        | -132.9                                   | -17.58                                    |
| 10/10/1985       | -134.2                                   | -17.65                                    |
| 7/23/1985        | -145.0                                   | -19.37                                    |
| 5/15/1985        | -138.0                                   | -18.00                                    |
| 3/12/1985        | -134.0                                   | -17.70                                    |
| 2/14/1985        | -139.9                                   | -18.41                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Skagway River At Skagway**

Station Number **15056100**

Hydrologic Unit Code: 19060000

Drainage Area  
(square miles): 145

Latitude: 59° 28' 02"

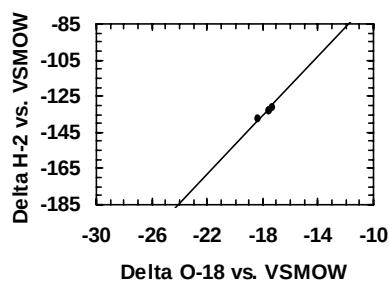
Datum (ft): 20

Longitude: 135° 17' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/7/1985         | -136.9                                   | -18.36                                    |
| 4/15/1985        | -131.0                                   | -17.25                                    |
| 2/3/1985         | -133.0                                   | -17.50                                    |
| 11/25/1984       | -132.5                                   | -17.55                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Copper River Near Chitina**

Station Number **15212000**

Hydrologic Unit Code: 19050003

Drainage Area  
(square miles): 20600

Latitude: 61° 27' 56"

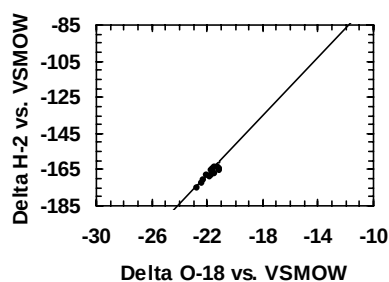
Datum (ft): 400

Longitude: 144° 27' 21"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/23/1987        | -163.9                                   | -21.18                                    |
| 8/19/1987        | -168.6                                   | -22.00                                    |
| 7/8/1987         | -171.2                                   | -22.26                                    |
| 5/20/1987        | -165.2                                   | -21.05                                    |
| 3/19/1987        | -168.1                                   | -21.63                                    |
| 9/18/1986        | -164.6                                   | -21.53                                    |
| 8/29/1986        | -163.4                                   | -21.42                                    |
| 7/8/1986         | -172.6                                   | -22.41                                    |
| 5/20/1986        | -167.0                                   | -21.47                                    |
| 3/12/1986        | -167.1                                   | -21.55                                    |
| 9/18/1985        | -164.6                                   | -21.16                                    |
| 7/18/1985        | -175.4                                   | -22.66                                    |
| 5/24/1985        | -169.2                                   | -21.84                                    |
| 3/6/1985         | -165.8                                   | -21.72                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Talkeetna River Near Talkeetna**

Station Number **15292700**

Hydrologic Unit Code: 19050002

Drainage Area  
(square miles): 2006

Latitude: 62° 21' 16"

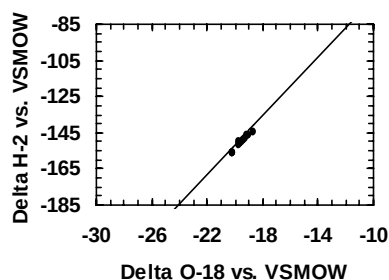
Datum (ft): 400

Longitude: 150° 00' 42"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -149.4                                   | -19.43                                    |
| 6/23/1987        | -156.0                                   | -20.14                                    |
| 5/28/1987        | -144.5                                   | -18.70                                    |
| 2/19/1987        | -146.5                                   | -19.00                                    |
| 8/26/1986        | -146.5                                   | -19.14                                    |
| 6/26/1986        | -155.5                                   | -20.21                                    |
| 5/23/1986        | -150.8                                   | -19.56                                    |
| 2/11/1986        | -148.2                                   | -19.26                                    |
| 8/29/1985        | -151.0                                   | -19.67                                    |
| 6/26/1985        | -155.6                                   | -20.13                                    |
| 5/30/1985        | -149.8                                   | -19.71                                    |
| 1/11/1985        | -148.5                                   | -19.41                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Susitna River At Susitna Station**

Station Number **15294350**

Hydrologic Unit Code: 19050002

Drainage Area  
(square miles): 19400

Latitude: 61° 32' 41"

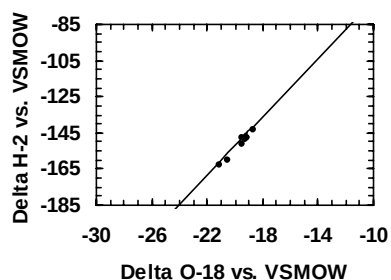
Datum (ft):

Longitude: 150° 30' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/25/1986        | -147.8                                   | -19.13                                    |
| 7/29/1986        | -159.9                                   | -20.53                                    |
| 5/21/1986        | -151.2                                   | -19.47                                    |
| 12/4/1985        | -147.5                                   | -19.42                                    |
| 9/19/1985        | -147.8                                   | -19.17                                    |
| 7/18/1985        | -163.2                                   | -21.12                                    |
| 5/24/1985        | -143.7                                   | -18.72                                    |
| 3/27/1985        | -148.7                                   | -19.23                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Nushagak River At Ekwok**

Station Number **15302500**

Hydrologic Unit Code: 19040002

Drainage Area  
(square miles): 9850

Latitude: 59° 20' 57"

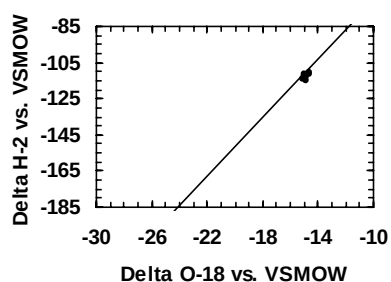
Datum (ft):

Longitude: 157° 28' 23"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/29/1986        | -113.1                                   | -14.84                                    |
| 7/2/1986         | -114.8                                   | -14.89                                    |
| 3/11/1986        | -112.9                                   | -14.97                                    |
| 10/3/1985        | -111.0                                   | -14.64                                    |
| 8/22/1985        | -111.2                                   | -14.57                                    |
| 7/11/1985        | -114.2                                   | -15.07                                    |
| 6/6/1985         | -111.4                                   | -15.00                                    |
| 4/3/1985         | -112.5                                   | -14.99                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Kuskokwim River At Crooked Creek**

Station Number **15304000**

Hydrologic Unit Code: 19040001

Drainage Area  
(square miles): 31100

Latitude: 61° 52' 16"

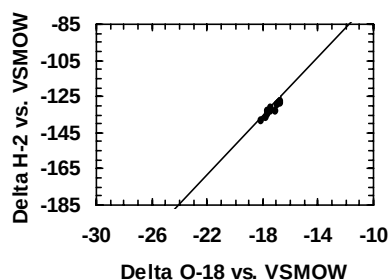
Datum (ft): 200

Longitude: 158° 06' 03"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/16/1987        | -128.7                                   | -16.76                                    |
| 7/27/1987        | -136.6                                   | -17.72                                    |
| 6/5/1987         | -127.9                                   | -16.72                                    |
| 3/3/1987         | -132.5                                   | -17.53                                    |
| 9/27/1986        | -128.1                                   | -16.77                                    |
| 8/20/1986        | -133.0                                   | -17.36                                    |
| 6/10/1986        | -129.3                                   | -16.95                                    |
| 4/16/1986        | -133.1                                   | -17.59                                    |
| 9/11/1985        | -132.7                                   | -17.06                                    |
| 7/24/1985        | -138.1                                   | -18.15                                    |
| 6/4/1985         | -131.4                                   | -17.37                                    |
| 4/1/1985         | -134.7                                   | -17.60                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Alaska**

Station Name: **Tanana River At Nenana**

Station Number **15515500**

Hydrologic Unit Code: 19030004

Drainage Area  
(square miles): 25600

Latitude: 64° 33' 55"

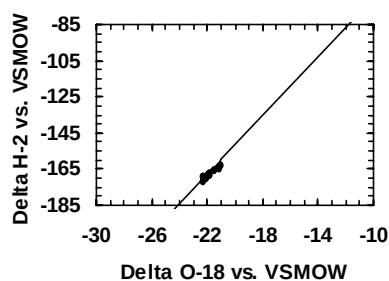
Datum (ft): 338.5

Longitude: 149° 05' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/5/1987         | -169.8                                   | -22.07                                    |
| 9/3/1986         | -164.5                                   | -21.11                                    |
| 7/10/1986        | -169.3                                   | -22.24                                    |
| 3/6/1986         | -167.9                                   | -21.89                                    |
| 1/22/1986        | -167.7                                   | -21.74                                    |
| 10/10/1985       | -163.2                                   | -20.97                                    |
| 7/17/1985        | -171.9                                   | -22.27                                    |
| 6/18/1985        | -165.5                                   | -21.45                                    |
| 3/21/1985        | -168.5                                   | -21.79                                    |
| 1/11/1985        | -168.1                                   | -21.83                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Yukon River At Pilot Station**

Station Number **15565447**

Hydrologic Unit Code: 19030006

Drainage Area  
(square miles): 321000

Latitude: 61° 56' 04"

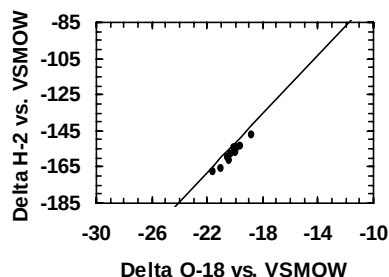
Datum (ft):

Longitude: 162° 52' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/17/1987        | -156.9                                   | -19.96                                    |
| 7/28/1987        | -159.8                                   | -20.47                                    |
| 6/4/1987         | -161.1                                   | -20.41                                    |
| 3/4/1987         | -154.0                                   | -19.83                                    |
| 9/28/1986        | -146.7                                   | -18.78                                    |
| 6/11/1986        | -165.9                                   | -20.94                                    |
| 4/17/1986        | -154.1                                   | -20.04                                    |
| 9/11/1985        | -153.5                                   | -19.58                                    |
| 7/23/1985        | -157.4                                   | -20.24                                    |
| 6/10/1985        | -167.2                                   | -21.58                                    |
| 4/2/1985         | -153.6                                   | -19.95                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Alaska**

Station Name: **Kuparuk River Near Deadhorse**

Station Number **15896000**

Hydrologic Unit Code: 19010001

Drainage Area  
(square miles): 3130

Latitude: 70° 16' 54"

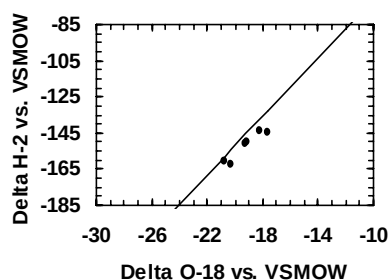
Datum (ft):

Longitude: 148° 57' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/21/1986        | -150.7                                   | -19.22                                    |
| 7/3/1986         | -161.8                                   | -20.24                                    |
| 6/11/1986        | -198.3                                   | -25.60                                    |
| 10/4/1985        | -149.9                                   | -19.10                                    |
| 8/29/1985        | -144.2                                   | -17.61                                    |
| 7/25/1985        | -143.1                                   | -18.25                                    |
| 6/7/1985         | -160.3                                   | -20.79                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Colorado River At Lees Ferry**

Station Number **09380000**

Hydrologic Unit Code: 14070006

Drainage Area  
(square miles): 111800

Latitude: 36° 51' 53"

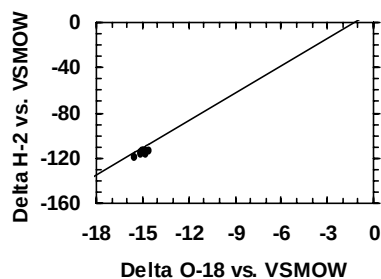
Datum (ft): 3106.16

Longitude: 111° 35' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/27/1986        | -113.6                                   | -14.72                                    |
| 7/2/1986         | -113.4                                   | -14.87                                    |
| 5/9/1986         | -115.5                                   | -15.14                                    |
| 1/8/1986         | -114.3                                   | -14.92                                    |
| 11/5/1985        | -113.1                                   | -14.94                                    |
| 9/3/1985         | -114.8                                   | -15.12                                    |
| 7/3/1985         | -114.3                                   | -15.02                                    |
| 5/8/1985         | -119.1                                   | -15.46                                    |
| 1/4/1985         | -116.4                                   | -14.82                                    |
| 11/7/1984        | -113.0                                   | -14.61                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Little Colorado River At Cameron**

Station Number **09401200**

Hydrologic Unit Code: 15020016

Drainage Area  
(square miles): 24000

Latitude: 35° 52' 40"

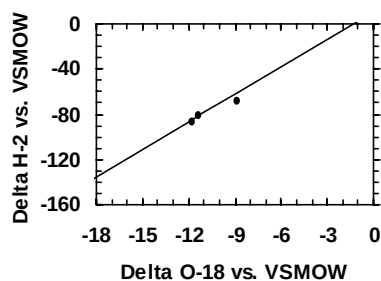
Datum (ft):

Longitude: 111° 24' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/14/1986        | -67.3                                    | -8.88                                     |
| 4/19/1985        | -69.4                                    |                                           |
| 3/25/1985        | -86.8                                    | -11.79                                    |
| 3/7/1985         | -80.6                                    | -11.34                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Virgin River At Littlefield**

Station Number **09415000**

Hydrologic Unit Code: 15010010

Drainage Area  
(square miles): 5090

Latitude: 36° 53' 30"

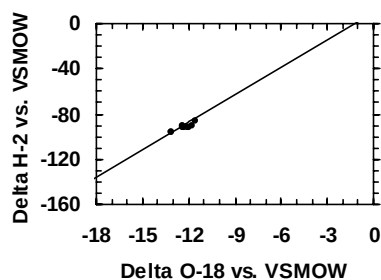
Datum (ft): 1221

Longitude: 113° 55' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/29/1987        | -90.6                                    | -11.80                                    |
| 8/27/1987        | -86.9                                    | -11.53                                    |
| 7/22/1987        | -96.3                                    | -13.12                                    |
| 6/24/1987        | -91.9                                    | -11.92                                    |
| 5/28/1987        | -91.7                                    | -12.09                                    |
| 4/29/1987        | -96.8                                    | -13.09                                    |
| 3/26/1987        | -90.4                                    | -12.37                                    |
| 1/27/1987        | -91.8                                    | -12.39                                    |
| 12/27/1986       | -92.1                                    | -12.25                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Bill Williams River Near Planet**

Station Number **09426600**

Hydrologic Unit Code: 15030204

Drainage Area  
(square miles): 5140

Latitude: 34° 15' 43"

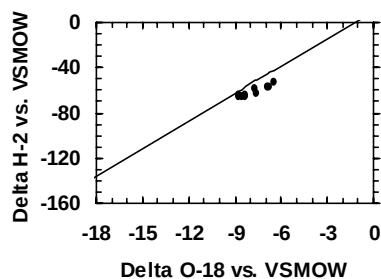
Datum (ft):

Longitude: 114° 01' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/9/1987         | -64.5                                    | -8.31                                     |
| 11/5/1986        | -64.1                                    | -8.33                                     |
| 8/12/1986        | -52.7                                    | -6.49                                     |
| 5/15/1986        | -57.2                                    | -6.92                                     |
| 3/19/1986        | -56.5                                    | -6.72                                     |
| 11/20/1985       | -58.7                                    | -7.68                                     |
| 8/28/1985        | -61.9                                    | -7.60                                     |
| 5/15/1985        | -65.5                                    | -8.58                                     |
| 2/13/1985        | -63.6                                    | -8.74                                     |
| 11/28/1984       | -65.5                                    | -8.74                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Gila River At Calva**

Station Number **09466500**

Hydrologic Unit Code: 15040005

Drainage Area  
(square miles): 11470

Latitude: 33° 11' 08"

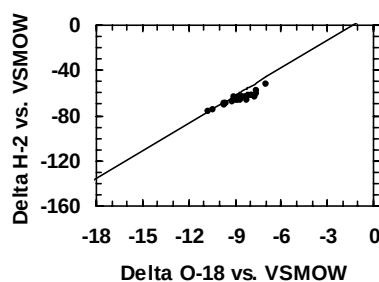
Datum (ft): 2517.29

Longitude: 110° 13' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 12/18/1985       | -66.5                                    | -9.08                                     |
| 12/5/1984        | -64.1                                    | -8.50                                     |
| 1/29/1985        | -75.2                                    | -10.45                                    |
| 2/20/1985        | -70.1                                    | -9.68                                     |
| 3/16/1985        | -76.8                                    | -10.68                                    |
| 4/2/1985         | -69.4                                    | -9.66                                     |
| 5/13/1985        | -68.0                                    | -9.14                                     |
| 6/10/1985        | -66.2                                    | -8.20                                     |
| 7/15/1985        | -64.2                                    | -7.72                                     |
| 8/12/1985        | -62.5                                    | -8.07                                     |
| 9/3/1985         | -61.2                                    | -7.64                                     |
| 11/8/1984        | -63.4                                    | -8.34                                     |
| 11/15/1985       | -66.3                                    | -8.81                                     |
| 12/3/1986        | -65.2                                    | -8.81                                     |
| 1/26/1986        | -66.4                                    | -8.66                                     |
| 2/11/1986        | -67.1                                    | -8.84                                     |
| 3/11/1986        | -63.8                                    | -9.08                                     |
| 4/8/1986         | -65.4                                    | -8.70                                     |
| 5/16/1986        | -61.9                                    | -7.95                                     |
| 6/3/1986         | -62.5                                    | -7.95                                     |
| 7/21/1986        | -63.1                                    | -8.26                                     |
| 8/19/1986        | -52.9                                    | -6.96                                     |
| 9/8/1986         | -58.7                                    | -7.57                                     |
| 10/20/1986       | -63.6                                    | -8.50                                     |
| 11/13/1986       | -64.1                                    | -8.74                                     |
| 10/23/1985       | -68.7                                    | -9.61                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Arizona**

Station Name: **San Pedro River Below Aravaipa Creek Near Mammoth**

Station Number **09473100**

Hydrologic Unit Code: 15050203

Drainage Area  
(square miles): 4360

Latitude: 32° 51' 03"

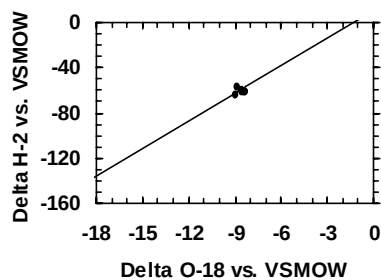
Datum (ft): 2125

Longitude: 110° 43' 27"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1986         | -61.0                                    | -8.41                                     |
| 3/20/1986        | -59.3                                    | -8.54                                     |
| 2/10/1986        | -63.3                                    | -8.97                                     |
| 12/19/1985       | -61.0                                    | -8.31                                     |
| 9/30/1985        | -56.0                                    | -8.89                                     |
| 9/9/1985         | -60.6                                    | -8.32                                     |
| 1/4/1985         | -61.0                                    | -8.50                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Salt River Near Roosevelt**

Station Number **09498500**

Hydrologic Unit Code: 15060103

Drainage Area  
(square miles): 4306

Latitude: 33° 37' 10"

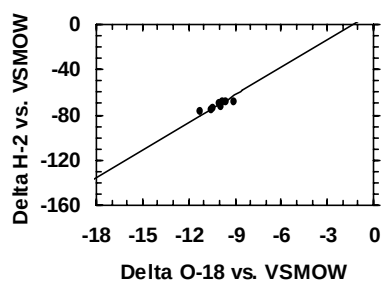
Datum (ft): 2177.14

Longitude: 110° 55' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -72.0                                    | -9.86                                     |
| 6/24/1987        | -67.6                                    | -9.08                                     |
| 4/23/1987        | -76.6                                    | -11.29                                    |
| 2/24/1987        | -73.1                                    | -10.45                                    |
| 12/30/1986       | -75.1                                    | -10.55                                    |
| 10/28/1986       | -68.2                                    | -9.60                                     |
| 12/19/1984       | -69.4                                    | -9.99                                     |
| 12/18/1984       |                                          | -8.60                                     |
| 11/28/1984       | -68.4                                    | -9.79                                     |
| 11/27/1984       |                                          | -8.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Salt River Below Stewart Mountain Dam**

Station Number **09502000**

Hydrologic Unit Code: 15060106

Drainage Area  
(square miles): 6232

Latitude: 33° 33' 10"

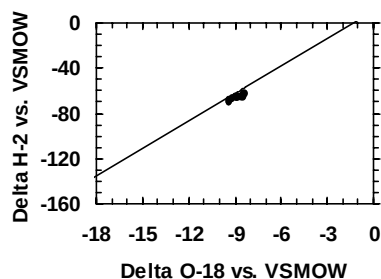
Datum (ft): 1370

Longitude: 111° 34' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/23/1986        | -64.9                                    | -8.75                                     |
| 1/31/1985        | -64.6                                    | -8.89                                     |
| 3/27/1985        | -67.8                                    | -9.35                                     |
| 7/24/1985        | -69.2                                    | -9.33                                     |
| 9/27/1985        | -69.6                                    | -9.32                                     |
| 11/6/1985        | -65.8                                    | -8.80                                     |
| 1/23/1986        | -66.4                                    | -9.14                                     |
| 11/29/1984       | -64.9                                    | -8.55                                     |
| 5/29/1986        | -65.8                                    | -9.00                                     |
| 8/20/1987        | -63.9                                    | -8.46                                     |
| 9/23/1986        | -65.6                                    | -8.89                                     |
| 10/27/1986       | -62.8                                    | -8.34                                     |
| 12/16/1986       | -62.7                                    | -8.39                                     |
| 2/19/1987        | -64.1                                    | -8.42                                     |
| 4/22/1987        | -63.8                                    | -8.48                                     |
| 6/30/1987        | -65.0                                    | -8.44                                     |
| 3/20/1986        | -65.1                                    | -8.85                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Wet Bottom Creek Near Childs**

Station Number **09508300**

Hydrologic Unit Code: 15060203

Drainage Area  
(square miles): 36.4

Latitude: 34° 09' 39"

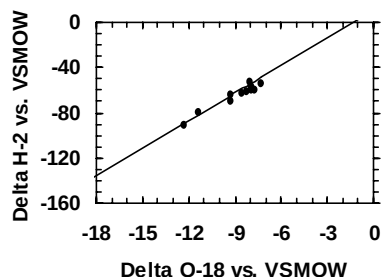
Datum (ft): 2320

Longitude: 111° 41' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/12/1987        | -59.6                                    | -7.71                                     |
| 5/14/1987        | -62.6                                    | -8.48                                     |
| 2/10/1987        | -79.6                                    | -11.39                                    |
| 12/11/1986       | -90.6                                    | -12.25                                    |
| 8/13/1986        | -59.2                                    | -7.88                                     |
| 5/16/1986        | -60.7                                    | -8.23                                     |
| 2/13/1986        | -63.8                                    | -9.29                                     |
| 11/14/1985       | -52.1                                    | -8.00                                     |
| 8/13/1985        | -54.4                                    | -7.31                                     |
| 5/9/1985         | -69.8                                    | -9.24                                     |
| 11/14/1984       | -56.7                                    | -7.86                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Verde River Below Tangle Creek Above Horseshoe Dam**

Station Number **09508500**

Hydrologic Unit Code: 15060203

Drainage Area  
(square miles): 5872

Latitude: 34° 04' 23"

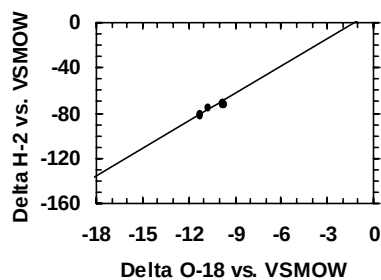
Datum (ft): 2029

Longitude: 111° 42' 56"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/12/1987        | -72.9                                    | -9.77                                     |
| 6/12/1987        | -72.2                                    | -9.69                                     |
| 4/14/1987        | -75.6                                    | -10.70                                    |
| 2/10/1987        | -80.7                                    | -11.21                                    |
| 12/11/1986       | -81.5                                    | -11.25                                    |
| 10/10/1986       | -71.1                                    | -9.81                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Verde River Below Bartlett Dam**

Station Number **09510000**

Hydrologic Unit Code: 15060203

Drainage Area  
(square miles): 6188

Latitude: 33° 48' 30"

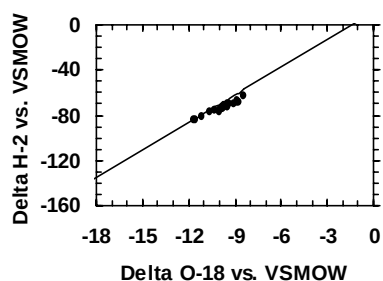
Datum (ft): 1572.34

Longitude: 111° 39' 09"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/27/1986        | -73.0                                    | -9.76                                     |
| 1/29/1985        | -70.3                                    | -9.56                                     |
| 4/1/1985         | -80.8                                    | -11.13                                    |
| 5/28/1985        | -83.7                                    | -11.60                                    |
| 7/23/1985        | -84.0                                    | -11.52                                    |
| 9/26/1985        | -72.8                                    | -9.43                                     |
| 11/22/1985       | -76.5                                    | -10.58                                    |
| 11/29/1984       | -61.8                                    | -8.38                                     |
| 3/21/1986        | -72.4                                    | -9.65                                     |
| 8/14/1987        | -75.2                                    | -10.27                                    |
| 7/28/1986        | -75.9                                    | -9.98                                     |
| 9/29/1986        | -68.6                                    | -8.85                                     |
| 10/23/1986       | -69.2                                    | -9.32                                     |
| 12/15/1986       | -68.4                                    | -8.76                                     |
| 2/18/1987        | -66.9                                    | -8.84                                     |
| 3/25/1987        | -69.3                                    | -9.06                                     |
| 6/30/1987        | -72.5                                    | -9.75                                     |
| 1/24/1986        | -74.8                                    | -9.96                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Gila River Near Dome**

Station Number **09520500**

Hydrologic Unit Code: 15070201

Drainage Area  
(square miles): 57850

Latitude: 32° 45' 39"

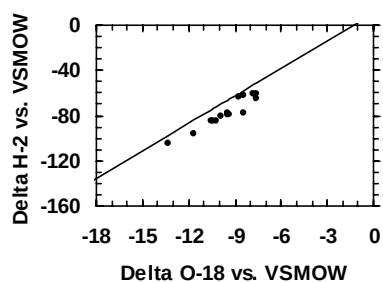
Datum (ft): 139.18

Longitude: 114° 25' 11"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/17/1987        | -96.6                                    | -11.62                                    |
| 5/6/1987         | -77.5                                    | -8.46                                     |
| 4/16/1987        | -104.5                                   | -13.36                                    |
| 3/5/1987         | -78.8                                    | -9.38                                     |
| 8/20/1986        | -81.0                                    | -9.86                                     |
| 5/20/1986        | -64.9                                    | -7.61                                     |
| 3/13/1986        | -78.5                                    | -9.43                                     |
| 1/13/1986        | -85.5                                    | -10.56                                    |
| 11/12/1985       | -85.1                                    | -10.41                                    |
| 8/27/1985        | -85.0                                    | -10.19                                    |
| 6/12/1985        | -61.6                                    | -7.62                                     |
| 5/13/1985        | -61.1                                    | -7.79                                     |
| 2/20/1985        | -62.5                                    | -8.44                                     |
| 1/17/1985        | -63.4                                    | -8.75                                     |
| 11/27/1984       | -78.6                                    | -9.48                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arizona**

Station Name: **Vamori Wash At Kom Vo**

Station Number **09535300**

Hydrologic Unit Code: 15080101

Drainage Area  
(square miles): 1250

Latitude: 31° 56' 52"

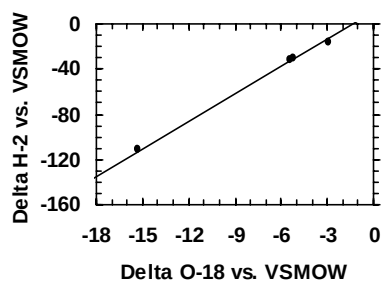
Datum (ft): 1770

Longitude: 112° 20' 36"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 8/13/1986           | -15.2                                       | -2.87                                        |
| 7/21/1986           | -110.5                                      | -15.31                                       |
| 9/19/1985           | -29.1                                       | -5.19                                        |
| 9/15/1985           | -31.6                                       | -5.40                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Arkansas**

Station Name: **St. Francis River At Parkin**

Station Number **07047800**

Hydrologic Unit Code: 08020203

Drainage Area  
(square miles): 0

Latitude: 35° 16' 23"

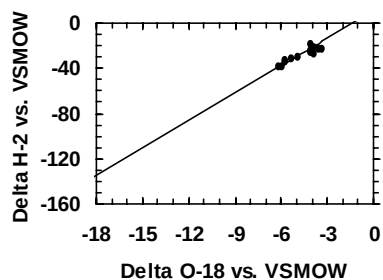
Datum (ft): 175.3

Longitude: 90° 33' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/25/1987        | -22.1                                    | -3.32                                     |
| 7/21/1987        | -26.8                                    | -3.89                                     |
| 5/19/1987        | -24.3                                    | -4.10                                     |
| 3/10/1987        | -38.1                                    | -6.11                                     |
| 12/8/1986        | -30.8                                    | -5.28                                     |
| 11/12/1986       | -34.6                                    | -5.69                                     |
| 8/26/1986        | -23.3                                    | -3.55                                     |
| 6/10/1986        | -37.8                                    | -5.97                                     |
| 2/25/1986        | -33.0                                    | -5.72                                     |
| 10/1/1985        | -25.4                                    | -4.10                                     |
| 9/3/1985         | -21.5                                    | -3.81                                     |
| 4/24/1985        | -30.0                                    | -4.85                                     |
| 11/13/1984       | -18.5                                    | -4.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arkansas**

Station Name: **North Sylamore Creek Near Fifty Six**

Station Number **07060710**

Hydrologic Unit Code: 11010004

Drainage Area  
(square miles): 58.1

Latitude: 35° 59' 43"

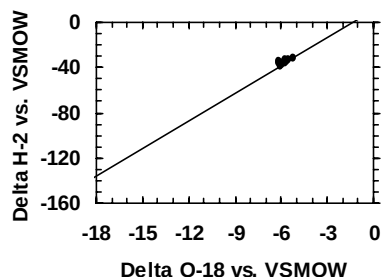
Datum (ft): 434.99

Longitude: 92° 12' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/12/1986        | -31.1                                    | -5.23                                     |
| 7/22/1986        | -33.2                                    | -5.49                                     |
| 5/28/1986        | -34.0                                    | -5.77                                     |
| 3/26/1986        | -36.2                                    | -5.95                                     |
| 1/28/1986        | -35.5                                    | -5.98                                     |
| 11/14/1985       | -33.2                                    | -5.68                                     |
| 8/1/1985         | -34.3                                    | -5.67                                     |
| 6/10/1985        | -38.1                                    | -6.03                                     |
| 4/22/1985        | -35.0                                    | -6.15                                     |
| 3/5/1985         | -34.0                                    | -6.10                                     |
| 11/6/1984        | -35.0                                    | -5.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arkansas**

Station Name: **White River At Newport**

Station Number **07074500**

Hydrologic Unit Code: 11010013

Drainage Area  
(square miles): 19860

Latitude: 35° 36' 18"

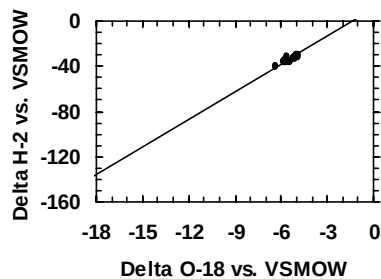
Datum (ft): 194.09

Longitude: 91° 17' 19"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 2/24/1986        | -35.1                                    | -5.39                                     |
| 1/8/1985         | -34.0                                    | -5.70                                     |
| 3/12/1985        | -35.0                                    | -5.75                                     |
| 5/31/1985        | -39.4                                    | -6.33                                     |
| 7/1/1985         | -35.0                                    | -5.78                                     |
| 8/26/1985        | -35.8                                    | -5.70                                     |
| 11/30/1984       | -31.0                                    | -5.65                                     |
| 12/31/1985       | -30.7                                    | -4.95                                     |
| 7/22/1987        | -31.7                                    | -4.94                                     |
| 4/15/1986        | -29.6                                    | -4.95                                     |
| 6/2/1986         | -31.3                                    | -5.12                                     |
| 8/18/1986        | -33.1                                    | -5.15                                     |
| 10/28/1986       | -35.6                                    | -5.68                                     |
| 12/3/1986        | -30.4                                    | -4.89                                     |
| 4/23/1987        | -32.9                                    | -5.24                                     |
| 10/29/1985       | -34.9                                    | -5.54                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arkansas**

Station Name: **Arkansas River At Dam No. 13, Near Van Buren**

Station Number **07250550**

Hydrologic Unit Code: 11110201

Drainage Area  
(square miles): 150547

Latitude: 35° 20' 56"

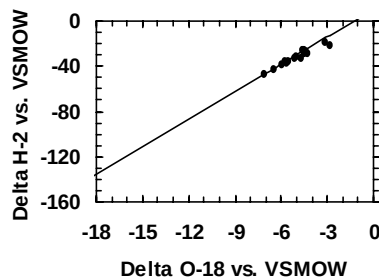
Datum (ft): 0

Longitude: 94° 17' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/17/1986        | -27.1                                    | -4.34                                     |
| 2/13/1985        | -33.0                                    | -5.10                                     |
| 4/25/1985        | -36.0                                    | -5.75                                     |
| 6/11/1985        | -35.4                                    | -5.53                                     |
| 8/1/1985         | -27.8                                    | -4.26                                     |
| 10/2/1985        | -21.1                                    | -2.83                                     |
| 12/3/1984        | -26.0                                    | -4.55                                     |
| 2/13/1986        | -30.5                                    | -4.96                                     |
| 7/20/1987        | -32.3                                    | -4.64                                     |
| 6/11/1986        | -28.5                                    | -4.49                                     |
| 8/20/1986        | -19.1                                    | -3.15                                     |
| 11/18/1986       | -38.5                                    | -5.89                                     |
| 12/5/1986        | -42.6                                    | -6.49                                     |
| 4/22/1987        | -46.7                                    | -7.05                                     |
| 6/23/1987        | -37.3                                    | -5.60                                     |
| 12/30/1985       | -26.1                                    | -4.47                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arkansas**

Station Name: **Mississippi River Near Arkansas City**

Station Number **07265450**

Hydrologic Unit Code: 08030100

Drainage Area  
(square miles): 1130600

Latitude: 33° 33' 27"

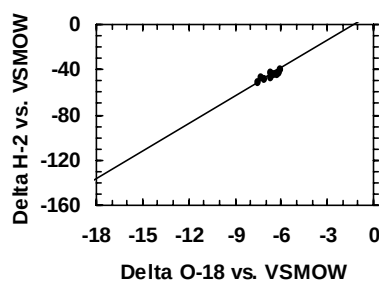
Datum (ft): 96.66

Longitude: 91° 14' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/12/1987        | -42.1                                    | -6.13                                     |
| 3/23/1987        | -46.6                                    | -7.30                                     |
| 11/24/1986       | -43.4                                    | -6.47                                     |
| 6/19/1986        | -46.2                                    | -6.68                                     |
| 4/22/1986        | -51.6                                    | -7.54                                     |
| 1/27/1986        | -47.5                                    | -7.12                                     |
| 10/29/1985       | -39.9                                    | -5.99                                     |
| 7/22/1985        | -41.9                                    | -6.18                                     |
| 1/23/1985        | -42.0                                    | -6.65                                     |
| 10/22/1984       | -43.5                                    | -6.20                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arkansas**

Station Name: **Red River At Index**

Station Number **07337000**

Hydrologic Unit Code: 11140106

Drainage Area  
(square miles): 48030

Latitude: 33° 33' 07"

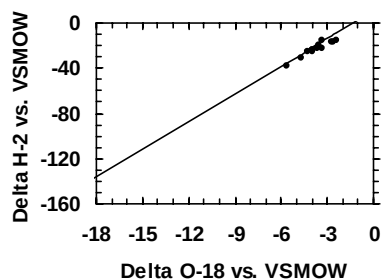
Datum (ft): 246.87

Longitude: 94° 02' 28"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/28/1987        | -38.2                                    | -5.63                                     |
| 2/10/1987        | -31.0                                    | -4.73                                     |
| 10/21/1986       | -17.4                                    | -2.70                                     |
| 8/19/1986        | -15.5                                    | -2.40                                     |
| 7/22/1986        | -17.4                                    | -2.59                                     |
| 4/15/1986        | -19.2                                    | -3.50                                     |
| 3/31/1986        | -21.2                                    | -3.50                                     |
| 1/7/1986         | -25.5                                    | -4.29                                     |
| 11/5/1985        | -25.8                                    | -3.93                                     |
| 8/5/1985         | -22.2                                    | -3.30                                     |
| 7/15/1985        | -23.2                                    | -3.63                                     |
| 4/16/1985        | -23.5                                    | -4.00                                     |
| 2/20/1985        | -24.5                                    | -3.95                                     |
| 12/26/1984       | -15.0                                    | -3.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arkansas**

Station Name: **Little River At Millwood Dam Near Ashdown**

Station Number **07341301**

Hydrologic Unit Code: 11140109

Drainage Area  
(square miles): 4119

Latitude: 33° 41' 28"

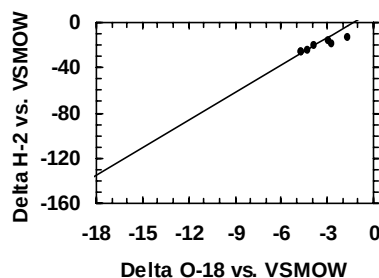
Datum (ft): 0

Longitude: 93° 57' 53"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/22/1986        | -15.7                                    | -2.93                                     |
| 4/16/1986        | -19.5                                    | -3.82                                     |
| 1/7/1986         | -23.5                                    | -4.24                                     |
| 11/4/1985        | -12.2                                    | -1.65                                     |
| 8/5/1985         | -18.1                                    | -2.74                                     |
| 4/16/1985        | -25.0                                    | -4.65                                     |
| 2/20/1985        | -25.5                                    | -4.65                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Arkansas**

Station Name: **Sulphur River South Of Texarkana**

Station Number **07344275**

Hydrologic Unit Code: 11140302

Drainage Area  
(square miles): 3540

Latitude: 33° 14' 32"

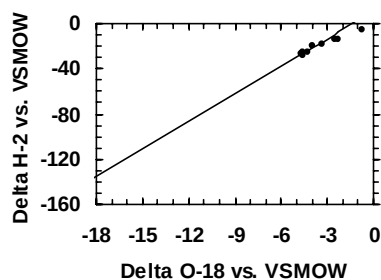
Datum (ft):

Longitude: 93° 59' 58"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/23/1986        | -14.3                                    | -2.47                                     |
| 4/16/1986        | -17.7                                    | -3.34                                     |
| 1/8/1986         | -27.8                                    | -4.58                                     |
| 11/5/1985        | -6.0                                     | -.70                                      |
| 8/6/1985         | -14.5                                    | -2.28                                     |
| 4/17/1985        | -26.0                                    | -4.30                                     |
| 4/17/1985        | -26.0                                    | -4.55                                     |
| 2/20/1985        | -20.0                                    | -3.95                                     |
| 2/14/1985        | -27.0                                    | -4.65                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Arkansas**

Station Name: **Ouachita River At Camden**

Station Number **07362000**

Hydrologic Unit Code: 08040102

Drainage Area  
(square miles): 5357

Latitude: 33° 35' 47"

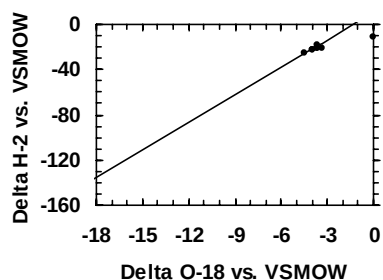
Datum (ft): 71.69

Longitude: 92° 49' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/9/1987         | -21.3                                    | -3.60                                     |
| 2/11/1987        | -25.1                                    | -4.50                                     |
| 10/22/1986       | -20.8                                    | -3.34                                     |
| 7/23/1986        | -19.0                                    | -3.62                                     |
| 4/16/1986        | -21.1                                    | -3.65                                     |
| 1/8/1986         | -22.8                                    | -3.96                                     |
| 11/5/1985        | -10.9                                    | .03                                       |
| 8/6/1985         | -23.1                                    | -3.92                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Alamo River At Drop 3 Near Calipatria**

Station Number **10254670**

Hydrologic Unit Code: 18100200

Drainage Area  
(square miles): 0

Latitude: 33° 06' 16"

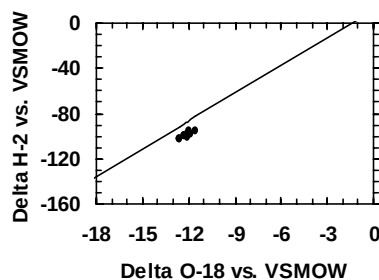
Datum (ft): 1

Longitude: 115° 23' 29"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/16/1987        | -98.8                                    | -12.16                                    |
| 6/30/1987        | -100.7                                   | -12.11                                    |
| 3/11/1987        | -101.7                                   | -12.64                                    |
| 12/17/1986       | -99.3                                    | -12.20                                    |
| 9/18/1986        | -98.8                                    | -12.29                                    |
| 6/19/1986        | -99.7                                    | -12.24                                    |
| 3/26/1986        | -101.7                                   | -12.59                                    |
| 12/13/1985       | -94.8                                    | -11.94                                    |
| 9/18/1985        | -98.0                                    | -11.86                                    |
| 6/18/1985        | -99.1                                    | -12.06                                    |
| 3/19/1985        | -98.1                                    | -12.10                                    |
| 12/13/1984       | -94.8                                    | -11.50                                    |
| 9/20/1984        | -98.1                                    | -11.99                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **New River At Internat Bdy Calexico**

Station Number **10254970**

Hydrologic Unit Code: 18100200

Drainage Area  
(square miles): 0

Latitude: 32° 39' 57"

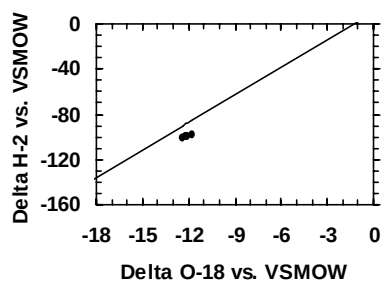
Datum (ft):

Longitude: 115° 30' 08"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 2/21/1985        | -97.5                                    | -11.75                                    |
| 1/22/1985        | -100.4                                   | -12.40                                    |
| 11/28/1984       | -99.3                                    | -12.17                                    |
| 9/19/1984        | -98.6                                    | -12.11                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Owens River Below Tinemaha Re Near Big Pine**

Station Number **10277400**

Hydrologic Unit Code: 18090102

Drainage Area  
(square miles): 1964

Latitude: 37° 03' 11"

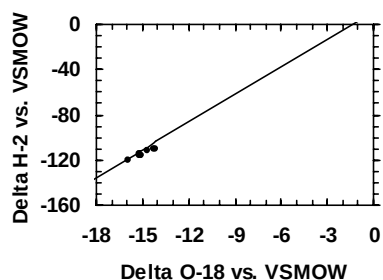
Datum (ft): 3860

Longitude: 118° 13' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/11/1986        | -119.7                                   | -15.93                                    |
| 3/13/1986        | -116.3                                   | -15.04                                    |
| 12/10/1985       | -116.8                                   | -15.13                                    |
| 9/18/1985        | -110.9                                   | -14.20                                    |
| 6/27/1985        | -115.7                                   | -15.18                                    |
| 3/14/1985        | -115.0                                   | -15.15                                    |
| 12/13/1984       | -112.5                                   | -14.70                                    |
| 9/28/1984        | -110.0                                   | -14.10                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Sagehen Creek Near Truckee**

Station Number **10343500**

Hydrologic Unit Code: 16050102

Drainage Area  
(square miles): 10.5

Latitude: 39° 25' 54"

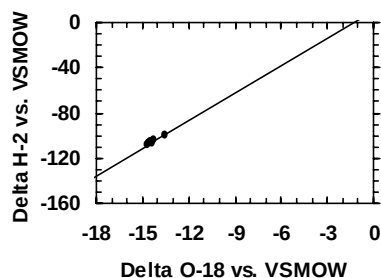
Datum (ft): 6320

Longitude: 120° 14' 13"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/27/1987        | -107.0                                   | -14.69                                    |
| 2/5/1987         | -106.7                                   | -14.58                                    |
| 11/20/1986       | -104.8                                   | -14.49                                    |
| 8/20/1986        | -105.6                                   | -14.38                                    |
| 5/12/1986        | -99.2                                    | -13.52                                    |
| 2/3/1986         | -104.0                                   | -14.30                                    |
| 11/7/1985        | -106.6                                   | -14.58                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Susan River At Susanville**

Station Number **10356500**

Hydrologic Unit Code: 18080003

Drainage Area  
(square miles): 184

Latitude: 40° 25' 03"

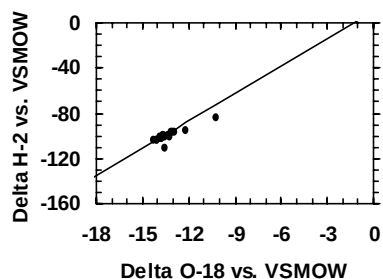
Datum (ft): 4225.72

Longitude: 120° 40' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/20/1986        | -96.1                                    | -13.09                                    |
| 11/19/1984       | -98.5                                    | -13.60                                    |
| 1/21/1985        | -104.0                                   | -14.05                                    |
| 3/19/1985        | -103.0                                   | -14.00                                    |
| 5/22/1985        | -96.7                                    | -13.05                                    |
| 7/23/1985        | -99.4                                    | -13.58                                    |
| 9/25/1985        | -102.0                                   | -13.88                                    |
| 9/17/1984        | -110.5                                   | -13.50                                    |
| 3/19/1986        | -99.8                                    | -13.52                                    |
| 9/16/1987        | -102.6                                   | -13.71                                    |
| 7/23/1986        | -95.5                                    | -12.12                                    |
| 9/24/1986        | -97.0                                    | -12.94                                    |
| 11/19/1986       | -101.0                                   | -13.88                                    |
| 1/21/1987        | -103.3                                   | -14.22                                    |
| 3/25/1987        | -99.1                                    | -13.32                                    |
| 5/20/1987        | -83.2                                    | -10.21                                    |
| 7/15/1987        | -100.6                                   | -13.23                                    |
| 1/23/1986        | -100.3                                   | -13.68                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **San Luis Rey River At Oceanside**

Station Number **11042000**

Hydrologic Unit Code: 18070303

Drainage Area  
(square miles): 558

Latitude: 33° 13' 05"

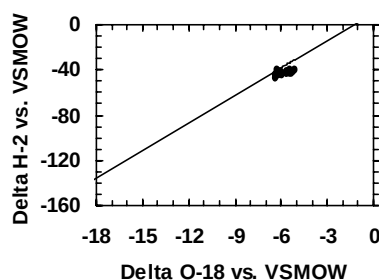
Datum (ft): 20

Longitude: 117° 21' 34"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/29/1986        | -42.4                                    | -5.64                                     |
| 11/27/1984       | -41.8                                    | -5.66                                     |
| 1/17/1985        | -44.4                                    | -6.33                                     |
| 3/21/1985        | -42.2                                    | -5.90                                     |
| 5/30/1985        | -41.6                                    | -5.53                                     |
| 7/22/1985        | -41.6                                    | -5.42                                     |
| 7/29/1985        | -40.4                                    | -6.07                                     |
| 9/24/1985        | -42.1                                    | -5.46                                     |
| 9/12/1984        | -41.1                                    | -5.15                                     |
| 3/19/1986        | -40.2                                    | -6.27                                     |
| 9/29/1987        | -39.6                                    | -5.08                                     |
| 7/23/1986        | -40.6                                    | -5.49                                     |
| 9/16/1986        | -39.9                                    | -5.42                                     |
| 11/26/1986       | -47.2                                    | -6.35                                     |
| 1/29/1987        | -44.4                                    | -6.14                                     |
| 3/24/1987        | -42.5                                    | -5.91                                     |
| 5/28/1987        | -41.4                                    | -5.59                                     |
| 7/29/1987        | -42.1                                    | -5.27                                     |
| 1/23/1986        | -43.3                                    | -5.95                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Santa Ana River Below Prado Dam**

Station Number **11074000**

Hydrologic Unit Code: 18070203

Drainage Area  
(square miles): 1490

Latitude: 33° 53' 00"

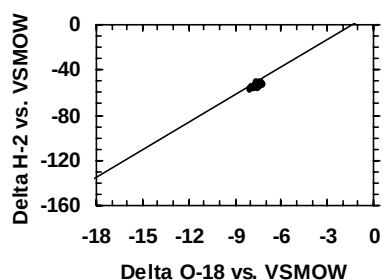
Datum (ft): 449

Longitude: 117° 38' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/13/1986        | -51.8                                    | -7.14                                     |
| 11/21/1984       | -52.0                                    | -7.50                                     |
| 1/25/1985        | -55.0                                    | -7.90                                     |
| 4/11/1985        | -54.5                                    | -7.40                                     |
| 5/23/1985        | -51.5                                    | -7.58                                     |
| 7/30/1985        | -53.4                                    | -7.44                                     |
| 11/20/1985       | -54.5                                    | -7.79                                     |
| 1/28/1986        | -55.0                                    | -7.92                                     |
| 9/25/1984        | -54.5                                    | -7.70                                     |
| 4/24/1986        | -51.4                                    | -7.27                                     |
| 9/22/1987        | -54.6                                    | -7.66                                     |
| 7/30/1986        | -53.9                                    | -7.52                                     |
| 9/24/1986        | -50.8                                    | -7.43                                     |
| 11/25/1986       | -56.7                                    | -8.02                                     |
| 1/14/1987        | -52.5                                    | -7.63                                     |
| 3/18/1987        | -54.6                                    | -7.81                                     |
| 5/13/1987        | -53.4                                    | -7.64                                     |
| 7/28/1987        | -55.2                                    | -7.54                                     |
| 3/27/1986        | -51.1                                    | -7.56                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **California**

Station Name: **Los Angeles River At Long Beach**

Station Number **11103000**

Hydrologic Unit Code: 18070105

Drainage Area  
(square miles): 827

Latitude: 33° 49' 02"

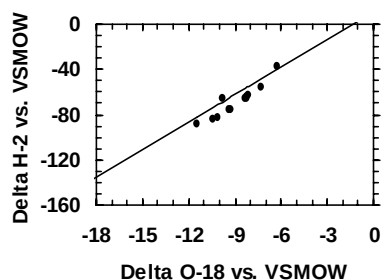
Datum (ft): 11.91

Longitude: 118° 12' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/30/1987        | -83.1                                    | -10.43                                    |
| 3/25/1987        | -81.6                                    | -10.08                                    |
| 12/31/1986       | -88.4                                    | -11.41                                    |
| 9/18/1986        | -74.8                                    | -9.22                                     |
| 6/19/1986        | -74.9                                    | -9.37                                     |
| 3/20/1986        | -61.7                                    | -8.15                                     |
| 12/11/1985       | -65.1                                    | -9.82                                     |
| 9/25/1985        | -65.6                                    | -8.34                                     |
| 6/26/1985        | -65.1                                    | -8.19                                     |
| 3/22/1985        | -64.1                                    | -8.20                                     |
| 12/11/1984       | -36.9                                    | -6.26                                     |
| 9/13/1984        | -55.8                                    | -7.25                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Santa Clara River At Los Angeles-Ventura Co Line**

Station Number **11108500**

Hydrologic Unit Code: 18070102

Drainage Area  
(square miles): 625

Latitude: 34° 23' 59"

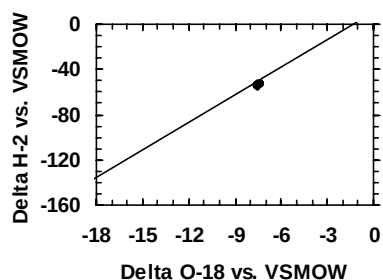
Datum (ft): 794.93

Longitude: 118° 42' 14"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/16/1987        | -54.6                                    | -7.53                                     |
| 3/17/1987        | -54.0                                    | -7.62                                     |
| 12/9/1986        | -54.3                                    | -7.61                                     |
| 9/18/1986        | -53.0                                    | -7.40                                     |
| 6/26/1986        | -51.9                                    | -7.30                                     |
| 3/25/1986        | -52.5                                    | -7.25                                     |
| 12/11/1985       | -54.5                                    | -7.51                                     |
| 9/11/1985        | -53.1                                    | -7.42                                     |
| 6/18/1985        | -52.6                                    | -7.46                                     |
| 3/13/1985        | -53.5                                    | -7.55                                     |
| 12/13/1984       | -53.5                                    | -7.45                                     |
| 9/25/1984        | -52.5                                    | -7.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Salinas River Near Chualar**

Station Number **11152300**

Hydrologic Unit Code: 18060005

Drainage Area  
(square miles): 4042

Latitude: 36° 33' 20"

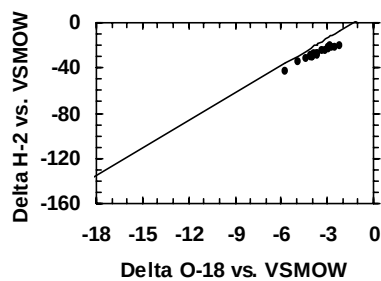
Datum (ft): 68

Longitude: 121° 32' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/12/1986        | -30.2                                    | -3.95                                     |
| 11/13/1984       | -27.5                                    | -3.85                                     |
| 1/17/1985        | -29.0                                    | -4.10                                     |
| 2/25/1985        | -30.0                                    | -4.10                                     |
| 5/14/1985        | -20.5                                    | -2.78                                     |
| 7/15/1985        | -21.1                                    | -2.90                                     |
| 9/17/1985        | -20.3                                    | -2.22                                     |
| 11/12/1985       | -22.7                                    | -2.90                                     |
| 9/10/1984        | -21.0                                    | -2.75                                     |
| 3/24/1986        | -33.6                                    | -4.93                                     |
| 9/14/1987        | -29.1                                    | -3.97                                     |
| 7/15/1986        | -27.0                                    | -3.66                                     |
| 9/9/1986         | -24.4                                    | -3.36                                     |
| 11/17/1986       | -28.4                                    | -3.69                                     |
| 1/12/1987        | -30.8                                    | -4.39                                     |
| 3/11/1987        | -42.0                                    | -5.73                                     |
| 5/22/1987        | -24.7                                    | -3.15                                     |
| 7/13/1987        | -20.6                                    | -2.47                                     |
| 1/22/1986        | -26.7                                    | -3.65                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Pajaro River At Chittenden**

Station Number **11159000**

Hydrologic Unit Code: 18060002

Drainage Area  
(square miles): 1186

Latitude: 36° 54' 01"

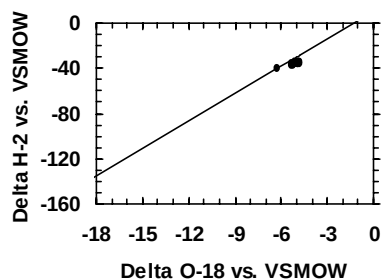
Datum (ft): 82.28

Longitude: 121° 35' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/15/1987        | -34.0                                    | -4.74                                     |
| 6/15/1987        | -35.2                                    | -5.09                                     |
| 3/10/1987        | -35.7                                    | -5.19                                     |
| 12/15/1986       | -36.3                                    | -5.22                                     |
| 9/10/1986        | -34.7                                    | -4.92                                     |
| 6/17/1986        | -34.5                                    | -4.92                                     |
| 3/19/1986        | -39.9                                    | -6.29                                     |
| 12/17/1985       | -36.4                                    | -5.31                                     |
| 9/18/1985        | -34.4                                    | -4.96                                     |
| 6/11/1985        | -34.9                                    | -4.80                                     |
| 2/22/1985        | -35.5                                    | -5.15                                     |
| 12/10/1984       | -36.0                                    | -5.30                                     |
| 9/11/1984        | -35.5                                    | -4.90                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Kern River At Kernville**

Station Number **11187000**

Hydrologic Unit Code: 18030001

Drainage Area  
(square miles): 1009

Latitude: 35° 45' 16"

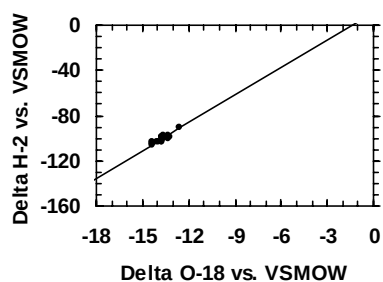
Datum (ft): 2621.57

Longitude: 118° 25' 21"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/22/1987        | -98.7                                    | -13.24                                    |
| 7/14/1987        | -100.1                                   | -13.27                                    |
| 5/21/1987        | -106.0                                   | -14.37                                    |
| 3/10/1987        | -101.0                                   | -13.61                                    |
| 1/13/1987        | -103.4                                   | -14.07                                    |
| 11/19/1986       | -104.9                                   | -14.39                                    |
| 9/24/1986        | -104.0                                   | -13.92                                    |
| 5/21/1986        | -103.9                                   | -14.37                                    |
| 3/13/1986        | -90.5                                    | -12.55                                    |
| 1/29/1986        | -102.7                                   | -13.76                                    |
| 11/20/1985       | -102.7                                   | -13.74                                    |
| 3/19/1985        | -98.0                                    | -13.60                                    |
| 1/16/1985        | -98.5                                    | -13.75                                    |
| 11/19/1984       | -99.0                                    | -13.70                                    |
| 9/19/1984        | -97.0                                    | -13.30                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Kings River Below Nf Near Trimmer**

Station Number **11218500**

Hydrologic Unit Code: 18030010

Drainage Area  
(square miles): 1342

Latitude: 36° 52' 29"

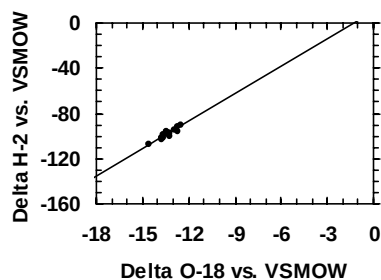
Datum (ft): 942.42

Longitude: 119° 08' 27"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/23/1987        | -101.0                                   | -13.22                                    |
| 7/15/1987        | -101.8                                   | -13.63                                    |
| 5/22/1987        | -103.2                                   | -13.78                                    |
| 3/11/1987        | -97.6                                    | -13.29                                    |
| 1/12/1987        | -99.8                                    | -13.61                                    |
| 11/20/1986       | -101.7                                   | -13.76                                    |
| 9/25/1986        | -91.9                                    | -12.65                                    |
| 5/22/1986        | -107.3                                   | -14.55                                    |
| 3/12/1986        | -90.4                                    | -12.50                                    |
| 11/21/1985       | -96.7                                    | -12.71                                    |
| 3/20/1985        | -96.0                                    | -13.45                                    |
| 1/19/1985        | -98.0                                    | -13.45                                    |
| 11/20/1984       | -94.5                                    | -12.95                                    |
| 9/20/1984        | -97.5                                    | -13.25                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Merced River At Happy Isles Bridge Near Yosemite**

Station Number **11264500**

Hydrologic Unit Code: 18040008

Drainage Area  
(square miles): 181

Latitude: 37° 43' 54"

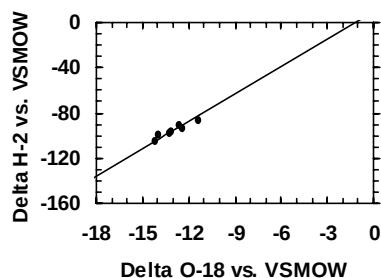
Datum (ft): 4016.58

Longitude: 119° 33' 28"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/17/1987        | -86.1                                    | -11.38                                    |
| 5/19/1987        | -104.1                                   | -14.14                                    |
| 1/15/1987        | -97.4                                    | -13.23                                    |
| 5/23/1986        | -99.3                                    | -13.99                                    |
| 11/18/1985       | -93.4                                    | -12.43                                    |
| 1/18/1985        | -96.0                                    | -13.10                                    |
| 11/21/1984       | -91.0                                    | -12.60                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **San Joaquin River Near Vernalis**

Station Number **11303500**

Hydrologic Unit Code: 18040003

Drainage Area  
(square miles): 13536

Latitude: 37° 40' 34"

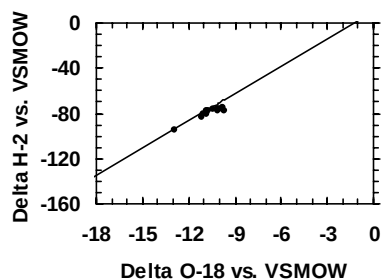
Datum (ft): 0

Longitude: 121° 15' 51"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/21/1987        | -76.1                                    | -10.01                                    |
| 7/13/1987        | -74.5                                    | -9.73                                     |
| 5/18/1987        | -76.1                                    | -10.11                                    |
| 3/9/1987         | -83.8                                    | -11.15                                    |
| 1/16/1987        | -77.1                                    | -10.44                                    |
| 11/21/1986       | -94.5                                    | -12.89                                    |
| 9/23/1986        | -81.1                                    | -10.85                                    |
| 5/20/1986        | -78.3                                    | -10.87                                    |
| 1/23/1986        | -76.0                                    | -10.10                                    |
| 11/19/1985       | -77.8                                    | -9.67                                     |
| 9/10/1985        | -77.3                                    | -10.13                                    |
| 1/15/1985        | -80.5                                    | -11.05                                    |
| 11/16/1984       | -78.5                                    | -10.75                                    |
| 9/21/1984        | -80.0                                    | -10.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **California**

Station Name: **Mokelumne River At Woodbridge**

Station Number **11325500**

Hydrologic Unit Code: 18040005

Drainage Area  
(square miles): 661

Latitude: 38° 09' 31"

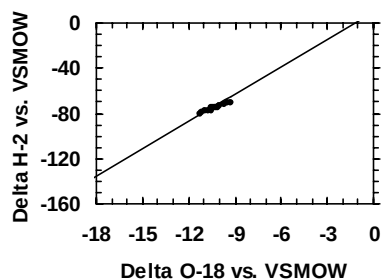
Datum (ft): 14.9

Longitude: 121° 18' 09"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/16/1987        | -70.5                                    | -9.47                                     |
| 6/9/1987         | -72.9                                    | -9.69                                     |
| 3/11/1987        | -74.3                                    | -10.03                                    |
| 12/10/1986       | -75.0                                    | -10.06                                    |
| 9/4/1986         | -80.3                                    | -11.27                                    |
| 6/11/1986        | -78.0                                    | -10.92                                    |
| 3/19/1986        | -74.6                                    | -10.55                                    |
| 12/17/1985       | -70.7                                    | -9.27                                     |
| 10/23/1985       | -75.2                                    | -10.40                                    |
| 9/17/1985        | -77.4                                    | -10.52                                    |
| 6/11/1985        | -78.0                                    | -10.67                                    |
| 2/25/1985        | -74.5                                    | -10.20                                    |
| 12/18/1984       | -75.0                                    | -10.25                                    |
| 9/12/1984        | -79.5                                    | -11.10                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Sacramento River At Keswick**

Station Number **11370500**

Hydrologic Unit Code: 18020101

Drainage Area  
(square miles): 6468

Latitude: 40° 36' 04"

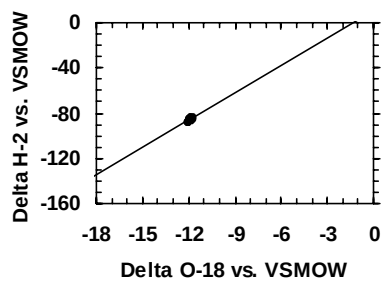
Datum (ft): 479.81

Longitude: 122° 26' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/20/1986        | -84.2                                    | -11.87                                    |
| 11/19/1984       | -86.0                                    | -11.95                                    |
| 1/21/1985        | -88.0                                    | -11.95                                    |
| 2/20/1985        | -86.5                                    | -12.00                                    |
| 5/21/1985        | -85.0                                    | -11.94                                    |
| 7/24/1985        | -84.8                                    | -11.98                                    |
| 9/24/1985        | -85.7                                    | -11.96                                    |
| 11/20/1985       | -87.4                                    | -11.95                                    |
| 9/19/1984        | -84.0                                    | -11.85                                    |
| 3/18/1986        | -83.9                                    | -11.65                                    |
| 9/15/1987        | -85.4                                    | -11.92                                    |
| 7/22/1986        | -84.1                                    | -11.75                                    |
| 9/23/1986        | -84.6                                    | -11.90                                    |
| 11/19/1986       | -87.4                                    | -12.03                                    |
| 1/20/1987        | -87.1                                    | -11.97                                    |
| 3/24/1987        | -85.8                                    | -11.87                                    |
| 5/19/1987        | -85.8                                    | -11.80                                    |
| 7/14/1987        | -84.5                                    | -11.68                                    |
| 1/22/1986        | -87.2                                    | -12.02                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Sacramento River At Freeport**

Station Number **11447650**

Hydrologic Unit Code: 18020109

Drainage Area  
(square miles): 0

Latitude: 38° 27' 20"

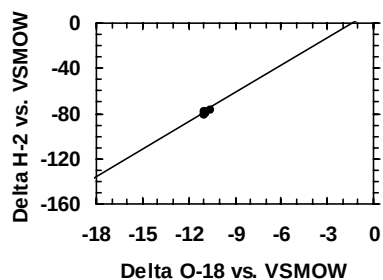
Datum (ft):

Longitude: 121° 30' 07"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/15/1987        | -75.9                                    | -10.46                                    |
| 6/10/1987        | -78.6                                    | -10.81                                    |
| 3/12/1987        | -81.4                                    | -10.98                                    |
| 12/9/1986        | -80.6                                    | -11.04                                    |
| 9/3/1986         | -80.2                                    | -10.95                                    |
| 6/10/1986        | -76.5                                    | -10.57                                    |
| 3/20/1986        |                                          | -10.55                                    |
| 12/18/1985       | -80.6                                    | -11.01                                    |
| 10/22/1985       | -78.7                                    | -10.83                                    |
| 6/12/1985        | -77.8                                    | -10.81                                    |
| 3/20/1985        | -78.5                                    | -11.00                                    |
| 12/19/1984       | -77.5                                    | -10.90                                    |
| 8/30/1984        | -78.0                                    | -10.90                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Napa River Near Napa**

Station Number **11458000**

Hydrologic Unit Code: 18050002

Drainage Area  
(square miles): 218

Latitude: 38° 22' 06"

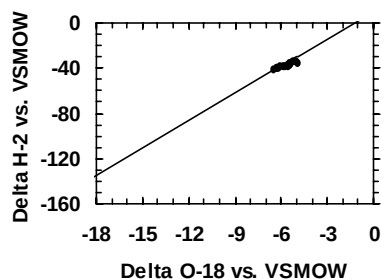
Datum (ft): 24.74

Longitude: 122° 18' 08"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/19/1986        | -39.3                                    | -6.29                                     |
| 11/20/1984       | -38.0                                    | -6.05                                     |
| 1/17/1985        | -39.8                                    | -6.16                                     |
| 3/20/1985        | -39.1                                    | -6.19                                     |
| 5/22/1985        | -38.2                                    | -5.71                                     |
| 7/16/1985        | -33.3                                    | -5.22                                     |
| 9/18/1985        | -36.4                                    | -5.38                                     |
| 9/12/1984        | -36.5                                    | -5.40                                     |
| 1/21/1986        | -41.7                                    | -6.43                                     |
| 9/23/1987        | -35.4                                    | -4.93                                     |
| 5/21/1986        | -38.1                                    | -5.79                                     |
| 9/23/1986        | -36.3                                    | -5.43                                     |
| 11/5/1986        | -36.9                                    | -5.41                                     |
| 1/21/1987        | -38.8                                    | -5.54                                     |
| 5/6/1987         | -36.7                                    | -5.54                                     |
| 7/14/1987        | -34.1                                    | -5.03                                     |
| 11/13/1985       | -35.9                                    | -5.42                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Russian River Near Guerneville**

Station Number **11467000**

Hydrologic Unit Code: 18010110

Drainage Area  
(square miles): 1338

Latitude: 38° 30' 31"

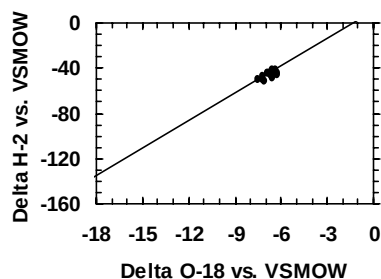
Datum (ft): 20.14

Longitude: 122° 55' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/18/1986        | -43.7                                    | -6.88                                     |
| 11/21/1984       | -44.0                                    | -6.75                                     |
| 1/16/1985        | -47.0                                    | -7.20                                     |
| 2/20/1985        | -49.4                                    | -7.46                                     |
| 5/21/1985        | -44.9                                    | -6.63                                     |
| 7/17/1985        | -49.4                                    | -7.14                                     |
| 9/17/1985        | -50.5                                    | -7.10                                     |
| 9/11/1984        | -45.0                                    | -6.25                                     |
| 1/17/1986        | -40.7                                    | -6.51                                     |
| 9/22/1987        | -44.2                                    | -6.29                                     |
| 5/20/1986        | -44.4                                    | -6.65                                     |
| 11/4/1986        | -48.1                                    | -6.56                                     |
| 1/20/1987        | -44.2                                    | -6.51                                     |
| 3/18/1987        | -42.8                                    | -6.54                                     |
| 5/7/1987         | -42.8                                    | -6.40                                     |
| 7/15/1987        | -41.2                                    | -6.30                                     |
| 11/12/1985       | -44.6                                    | -6.67                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Elder Creek Near Branscomb**

Station Number **11475560**

Hydrologic Unit Code: 18010106

Drainage Area  
(square miles): 6.5

Latitude: 39° 43' 47"

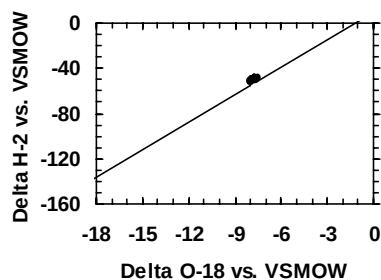
Datum (ft): 1391.08

Longitude: 123° 38' 34"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -48.8                                    | -7.53                                     |
| 6/23/1987        | -48.3                                    | -7.72                                     |
| 3/11/1987        | -49.3                                    | -7.89                                     |
| 12/11/1986       | -48.1                                    | -7.69                                     |
| 9/11/1986        | -49.4                                    | -7.63                                     |
| 6/10/1986        | -49.2                                    | -7.82                                     |
| 3/26/1986        | -49.9                                    | -7.94                                     |
| 12/13/1985       | -50.9                                    | -8.05                                     |
| 9/10/1985        | -48.6                                    | -7.73                                     |
| 6/11/1985        | -49.5                                    | -7.72                                     |
| 3/12/1985        | -51.5                                    | -8.00                                     |
| 12/11/1984       | -49.0                                    | -7.70                                     |
| 9/11/1984        | -49.0                                    | -7.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Eel River At Scotia**

Station Number **11477000**

Hydrologic Unit Code: 18010105

Drainage Area 3113  
(square miles):

Latitude: 40° 29' 30"

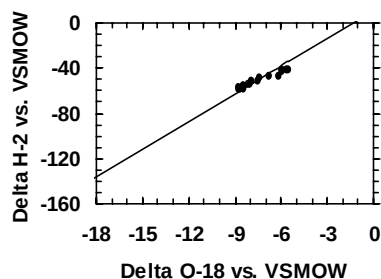
Datum (ft): 35.5

Longitude: 124° 05' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/9/1986         | -46.7                                    | -6.73                                     |
| 1/11/1985        | -55.5                                    | -8.40                                     |
| 3/13/1985        | -57.0                                    | -8.70                                     |
| 5/9/1985         | -57.5                                    | -8.39                                     |
| 9/9/1985         | -42.8                                    | -5.88                                     |
| 11/20/1985       | -50.8                                    | -7.53                                     |
| 1/24/1986        | -53.2                                    | -8.10                                     |
| 9/10/1984        | -40.5                                    | -5.90                                     |
| 5/13/1986        | -55.0                                    | -8.39                                     |
| 9/1/1987         | -40.8                                    | -5.56                                     |
| 9/9/1986         | -41.1                                    | -5.60                                     |
| 11/17/1986       | -48.3                                    | -7.39                                     |
| 1/13/1987        | -51.4                                    | -7.96                                     |
| 3/25/1987        | -58.3                                    | -8.74                                     |
| 5/20/1987        | -54.4                                    | -8.05                                     |
| 7/20/1987        | -46.5                                    | -6.15                                     |
| 3/20/1986        | -57.7                                    | -8.65                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **California**

Station Name: **Klamath River Near Klamath**

Station Number **11530500**

Hydrologic Unit Code: 18010209

Drainage Area  
(square miles): 12100

Latitude: 41° 30' 52"

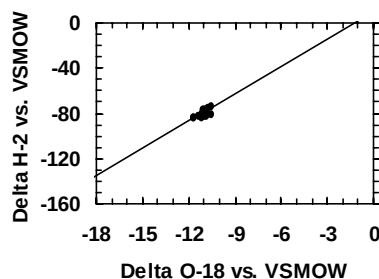
Datum (ft):

Longitude: 123° 59' 57"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/8/1986         | -80.8                                    | -11.12                                    |
| 1/15/1985        | -78.5                                    | -11.05                                    |
| 2/21/1985        | -77.0                                    | -11.05                                    |
| 7/17/1985        | -79.9                                    | -11.06                                    |
| 9/12/1985        | -81.8                                    | -11.02                                    |
| 11/21/1985       | -79.1                                    | -10.79                                    |
| 1/23/1986        | -75.2                                    | -10.74                                    |
| 9/13/1984        | -84.0                                    | -11.15                                    |
| 5/15/1986        | -82.1                                    | -11.34                                    |
| 9/15/1987        | -81.0                                    | -10.48                                    |
| 9/3/1986         | -81.6                                    | -10.86                                    |
| 11/18/1986       | -82.4                                    | -10.93                                    |
| 1/14/1987        | -73.9                                    | -10.54                                    |
| 3/17/1987        | -76.2                                    | -10.91                                    |
| 5/19/1987        | -84.1                                    | -11.65                                    |
| 7/22/1987        | -79.9                                    | -10.90                                    |
| 3/18/1986        | -83.9                                    | -11.65                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **California**

Station Name: **Smith River Near Crescent City**

Station Number **11532500**

Hydrologic Unit Code: 18010101

Drainage Area  
(square miles): 609

Latitude: 41° 47' 30"

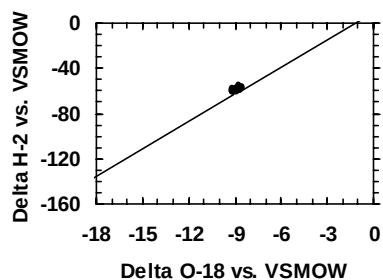
Datum (ft): 89.61

Longitude: 124° 04' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/17/1987        | -56.7                                    | -8.56                                     |
| 6/25/1987        | -57.8                                    | -8.65                                     |
| 3/18/1987        | -60.1                                    | -9.15                                     |
| 12/9/1986        | -55.9                                    | -8.72                                     |
| 9/4/1986         | -57.5                                    | -8.62                                     |
| 6/11/1986        | -58.4                                    | -8.88                                     |
| 3/19/1986        | -59.9                                    | -9.03                                     |
| 12/19/1985       | -58.2                                    | -9.13                                     |
| 9/13/1985        | -58.9                                    | -8.82                                     |
| 6/13/1985        | -58.8                                    | -9.16                                     |
| 3/15/1985        | -59.5                                    | -9.15                                     |
| 12/13/1984       | -58.0                                    | -9.00                                     |
| 9/14/1984        | -58.0                                    | -8.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **South Platte River At Littleton**

Station Number **06710000**

Hydrologic Unit Code: 10190002

Drainage Area  
(square miles): 3069

Latitude: 39° 37' 08"

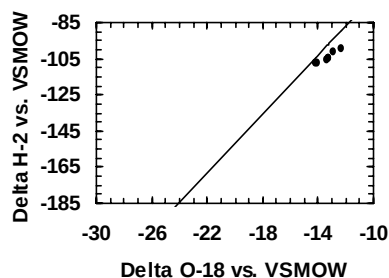
Datum (ft): 5304.36

Longitude: 105° 01' 07"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/23/1986        | -99.5                                    | -12.36                                    |
| 6/4/1986         | -104.3                                   | -13.28                                    |
| 3/28/1986        | -104.9                                   | -13.25                                    |
| 1/16/1986        | -105.0                                   | -13.36                                    |
| 11/18/1985       | -101.2                                   | -12.91                                    |
| 1/17/1985        | -107.2                                   | -14.22                                    |
| 11/19/1984       | -106.9                                   | -14.10                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **South Platte River At Julesburg**

Station Number **06764000**

Hydrologic Unit Code: 10190018

Drainage Area  
(square miles): 23138

Latitude: 40° 58' 46"

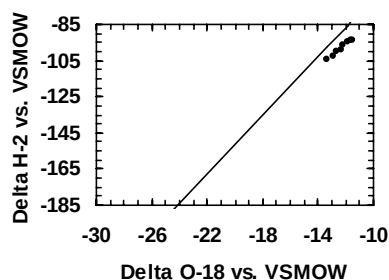
Datum (ft): 3446.76

Longitude: 102° 15' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/19/1987        | -99.7                                    | -12.68                                    |
| 2/24/1987        | -99.2                                    | -12.32                                    |
| 11/25/1986       | -96.2                                    | -12.20                                    |
| 9/10/1986        | -94.2                                    | -11.60                                    |
| 3/18/1986        | -95.0                                    | -11.87                                    |
| 12/17/1985       | -102.5                                   | -12.89                                    |
| 9/25/1985        | -93.9                                    | -11.47                                    |
| 12/12/1984       | -104.3                                   | -13.30                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **Halfmoon Creek Near Malta**

Station Number **07083000**

Hydrologic Unit Code: 11020001

Drainage Area  
(square miles): 23.6

Latitude: 39° 10' 20"

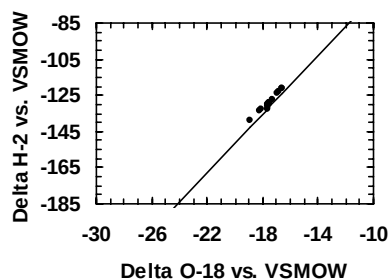
Datum (ft): 9830

Longitude: 106° 23' 19"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/31/1987        | -120.9                                   | -16.59                                    |
| 6/30/1987        | -132.5                                   | -18.15                                    |
| 5/15/1987        | -139.3                                   | -18.90                                    |
| 2/20/1987        | -128.8                                   | -17.46                                    |
| 1/15/1987        | -127.3                                   | -17.26                                    |
| 10/27/1986       | -121.2                                   | -16.61                                    |
| 6/25/1986        | -133.9                                   | -18.17                                    |
| 4/30/1986        | -130.3                                   | -17.47                                    |
| 2/6/1986         | -129.9                                   | -17.68                                    |
| 12/31/1985       | -129.6                                   | -17.54                                    |
| 10/31/1985       | -124.3                                   | -16.89                                    |
| 8/2/1985         | -123.3                                   | -16.81                                    |
| 4/11/1985        | -132.5                                   | -17.65                                    |
| 2/14/1985        | -131.0                                   | -17.60                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **Arkansas River At Portland**

Station Number **07097000**

Hydrologic Unit Code: 11020002

Drainage Area  
(square miles): 4024

Latitude: 38° 23' 18"

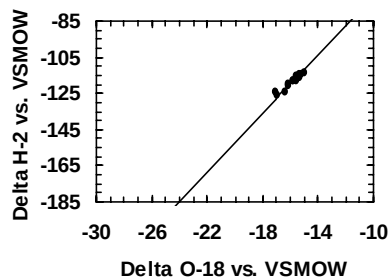
Datum (ft): 5021.59

Longitude: 105° 00' 56"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/25/1986        | -125.9                                   | -16.93                                    |
| 4/10/1985        | -113.5                                   | -15.00                                    |
| 6/10/1985        | -124.1                                   | -17.11                                    |
| 8/21/1985        | -115.7                                   | -15.38                                    |
| 10/30/1985       | -116.1                                   | -15.53                                    |
| 12/4/1985        | -117.2                                   | -15.56                                    |
| 2/11/1985        | -123.5                                   | -16.40                                    |
| 4/29/1986        | -118.1                                   | -15.59                                    |
| 8/12/1987        | -115.0                                   | -15.44                                    |
| 8/27/1986        | -114.4                                   | -15.34                                    |
| 10/21/1986       | -115.1                                   | -15.54                                    |
| 12/18/1986       | -117.4                                   | -15.77                                    |
| 2/25/1987        | -117.4                                   | -15.80                                    |
| 4/7/1987         | -114.1                                   | -15.21                                    |
| 6/9/1987         | -119.2                                   | -16.14                                    |
| 2/11/1986        | -120.4                                   | -16.08                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **Rio Grande Near Lobatos**

Station Number **08251500**

Hydrologic Unit Code: 13010002

Drainage Area  
(square miles): 7700

Latitude: 37° 04' 42"

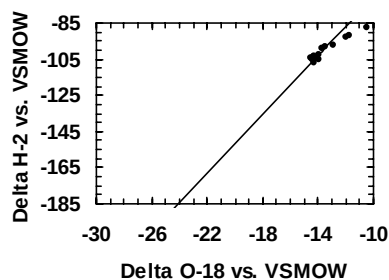
Datum (ft): 7427.63

Longitude: 105° 45' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -93.2                                    | -11.98                                    |
| 6/10/1987        | -103.7                                   | -14.24                                    |
| 4/7/1987         | -107.1                                   | -14.23                                    |
| 2/25/1987        | -104.7                                   | -14.14                                    |
| 12/17/1986       | -105.1                                   | -14.38                                    |
| 10/28/1986       | -98.5                                    | -13.41                                    |
| 8/29/1986        | -92.4                                    | -11.78                                    |
| 6/30/1986        | -99.3                                    | -13.72                                    |
| 4/29/1986        | -102.3                                   | -13.88                                    |
| 2/25/1986        | -105.2                                   | -13.92                                    |
| 12/23/1985       | -103.7                                   | -14.30                                    |
| 10/29/1985       | -97.3                                    | -12.87                                    |
| 8/27/1985        | -87.2                                    | -10.45                                    |
| 6/25/1985        | -104.1                                   | -14.53                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **Gunnison River Near Grand Junction**

Station Number **09152500**

Hydrologic Unit Code: 14020005

Drainage Area  
(square miles): 7928

Latitude: 38° 59' 00"

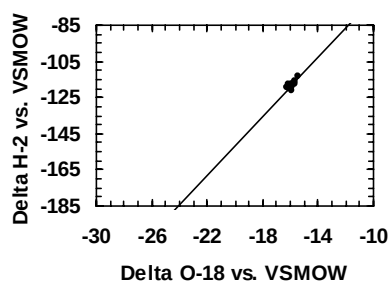
Datum (ft): 4628.12

Longitude: 108° 27' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/22/1987        | -117.3                                   | -15.68                                    |
| 8/11/1987        | -117.9                                   | -15.94                                    |
| 4/29/1987        | -119.5                                   | -15.92                                    |
| 2/18/1987        | -116.8                                   | -15.69                                    |
| 11/20/1986       | -119.9                                   | -16.21                                    |
| 9/24/1986        | -118.1                                   | -15.90                                    |
| 7/16/1986        | -119.4                                   | -16.11                                    |
| 5/30/1986        | -117.8                                   | -15.80                                    |
| 3/26/1986        | -115.6                                   | -15.64                                    |
| 1/28/1986        | -121.5                                   | -15.87                                    |
| 11/26/1985       | -119.1                                   | -15.96                                    |
| 9/30/1985        | -113.6                                   | -15.39                                    |
| 7/23/1985        | -118.1                                   | -16.12                                    |
| 3/26/1985        | -119.5                                   | -16.05                                    |
| 1/31/1985        | -119.5                                   | -15.90                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **Colorado River Near Colorado-Utah State Line**

Station Number **09163500**

Hydrologic Unit Code: 14010005

Drainage Area  
(square miles): 17843

Latitude: 39° 07' 45"

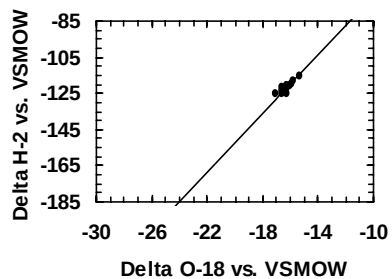
Datum (ft): 4325

Longitude: 109° 01' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/15/1986        | -121.4                                   | -16.60                                    |
| 1/24/1985        | -119.2                                   | -15.91                                    |
| 3/20/1985        | -125.0                                   | -16.60                                    |
| 4/3/1985         | -124.5                                   | -16.30                                    |
| 7/10/1985        | -125.2                                   | -17.07                                    |
| 11/5/1985        | -121.7                                   | -16.30                                    |
| 12/4/1984        | -122.5                                   | -16.50                                    |
| 5/13/1986        | -122.6                                   | -16.26                                    |
| 8/25/1987        | -115.4                                   | -15.38                                    |
| 8/19/1986        | -118.0                                   | -15.84                                    |
| 10/29/1986       | -120.6                                   | -16.02                                    |
| 12/16/1986       | -122.0                                   | -16.34                                    |
| 2/25/1987        | -120.8                                   | -16.19                                    |
| 4/21/1987        | -122.7                                   | -16.38                                    |
| 6/23/1987        | -123.1                                   | -16.55                                    |
| 3/25/1986        | -120.7                                   | -16.21                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Colorado**

Station Name: **Yampa River Near Maybell**

Station Number **09251000**

Hydrologic Unit Code: 14050002

Drainage Area  
(square miles): 3410

Latitude: 40° 30' 10"

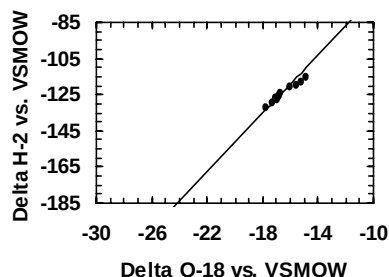
Datum (ft): 5900.23

Longitude: 108° 01' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1987         | -114.8                                   | -14.80                                    |
| 6/3/1987         | -123.8                                   | -16.71                                    |
| 10/15/1986       | -120.7                                   | -16.05                                    |
| 8/20/1986        | -119.2                                   | -15.50                                    |
| 5/29/1986        | -131.8                                   | -17.69                                    |
| 2/28/1986        | -127.1                                   | -16.90                                    |
| 11/27/1985       | -125.5                                   | -16.85                                    |
| 8/27/1985        | -117.8                                   | -15.22                                    |
| 7/9/1985         | -125.9                                   | -16.81                                    |
| 3/7/1985         | -129.5                                   | -17.30                                    |
| 12/20/1984       | -126.5                                   | -17.00                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **Little Snake River Near Lily**

Station Number **09260000**

Hydrologic Unit Code: 14050003

Drainage Area  
(square miles): 3730

Latitude: 40° 32' 50"

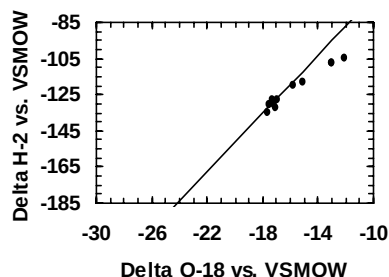
Datum (ft): 5685

Longitude: 108° 25' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/17/1987        | -104.4                                   | -12.07                                    |
| 6/3/1987         | -119.3                                   | -15.82                                    |
| 3/18/1987        | -131.9                                   | -17.03                                    |
| 8/20/1986        | -107.3                                   | -13.00                                    |
| 5/28/1986        | -127.8                                   | -17.23                                    |
| 2/27/1986        | -130.2                                   | -17.18                                    |
| 11/26/1985       | -127.7                                   | -16.94                                    |
| 8/20/1985        | -107.2                                   | -13.01                                    |
| 7/8/1985         | -117.5                                   | -15.13                                    |
| 3/6/1985         | -134.5                                   | -17.60                                    |
| 12/19/1984       | -130.0                                   | -17.50                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Colorado**

Station Name: **Vallecito Creek Near Bayfield**

Station Number **09352900**

Hydrologic Unit Code: 14080101

Drainage Area  
(square miles): 72.1

Latitude: 37° 28' 39"

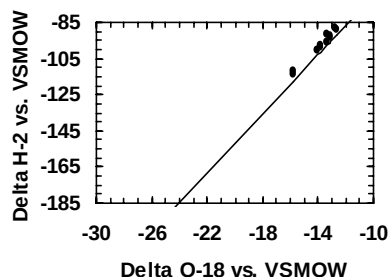
Datum (ft): 7906.08

Longitude: 107° 32' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/31/1987        | -97.2                                    | -13.82                                    |
| 6/3/1987         | -111.9                                   | -15.84                                    |
| 2/2/1987         | -95.3                                    | -13.33                                    |
| 10/21/1986       | -87.8                                    | -12.72                                    |
| 8/26/1986        | -88.3                                    | -12.66                                    |
| 5/19/1986        | -99.7                                    | -14.01                                    |
| 3/10/1986        | -91.4                                    | -13.31                                    |
| 11/25/1985       | -93.0                                    | -13.06                                    |
| 8/20/1985        | -98.1                                    | -13.82                                    |
| 6/26/1985        | -113.0                                   | -15.79                                    |
| 1/15/1985        | -92.0                                    | -13.15                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Connecticut**

Station Name: **Shetucket River At South Windham**

Station Number **01122610**

Hydrologic Unit Code: 01100002

Drainage Area  
(square miles): 408

Latitude: 41° 40' 56"

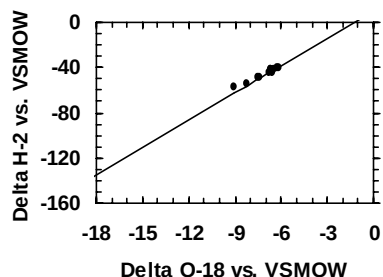
Datum (ft):

Longitude: 72° 09' 59"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/8/1987         | -44.0                                    | -6.79                                     |
| 5/13/1987        | -53.3                                    | -8.25                                     |
| 1/20/1987        | -57.1                                    | -9.05                                     |
| 7/10/1986        | -39.8                                    | -6.12                                     |
| 5/20/1986        | -41.3                                    | -6.69                                     |
| 1/17/1986        | -40.2                                    | -6.26                                     |
| 11/15/1985       | -40.7                                    | -6.49                                     |
| 7/12/1985        | -43.5                                    | -6.58                                     |
| 5/17/1985        | -48.1                                    | -7.35                                     |
| 1/15/1985        | -48.2                                    | -7.51                                     |
| 11/14/1984       | -41.7                                    | -6.64                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Connecticut**

Station Name: **Quinebaug River At Jewett City**

Station Number **01127000**

Hydrologic Unit Code: 01100001

Drainage Area  
(square miles): 715

Latitude: 41° 35' 52"

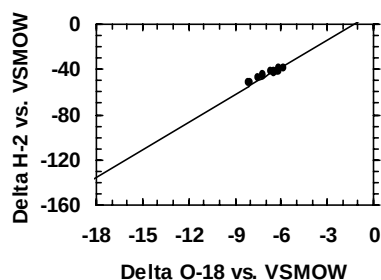
Datum (ft): 63.07

Longitude: 71° 59' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/9/1987         | -42.3                                    | -6.40                                     |
| 5/15/1987        | -51.4                                    | -7.98                                     |
| 1/14/1987        | -51.3                                    | -8.14                                     |
| 11/18/1986       | -37.7                                    | -5.82                                     |
| 7/9/1986         | -41.0                                    | -6.16                                     |
| 5/13/1986        | -40.7                                    | -6.43                                     |
| 1/16/1986        | -43.3                                    | -7.21                                     |
| 11/18/1985       | -37.7                                    | -6.11                                     |
| 7/9/1985         | -40.9                                    | -6.20                                     |
| 5/15/1985        | -44.6                                    | -7.19                                     |
| 1/18/1985        | -46.2                                    | -7.46                                     |
| 11/20/1984       | -40.7                                    | -6.64                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Connecticut**

Station Name: **Connecticut River At Thompsonville**

Station Number **01184000**

Hydrologic Unit Code: 01080205

Drainage Area  
(square miles): 9661

Latitude: 41° 59' 14"

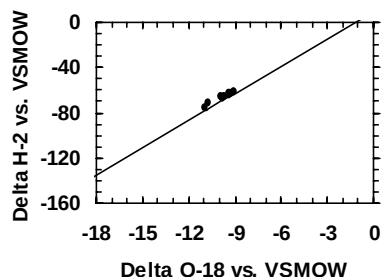
Datum (ft): 38.48

Longitude: 72° 36' 21"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/7/1987         | -62.5                                    | -9.28                                     |
| 5/12/1987        | -74.3                                    | -10.92                                    |
| 1/13/1987        | -65.1                                    | -9.92                                     |
| 11/18/1986       | -62.5                                    | -9.36                                     |
| 7/7/1986         | -60.3                                    | -9.10                                     |
| 5/14/1986        | -71.2                                    | -10.69                                    |
| 1/15/1986        | -62.4                                    | -9.40                                     |
| 7/8/1985         | -66.7                                    | -9.77                                     |
| 1/14/1985        | -64.6                                    | -9.68                                     |
| 11/15/1984       | -63.8                                    | -9.32                                     |
|                  |                                          | -10.87                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Connecticut**

Station Name: **Housatonic River At Stevenson**

Station Number **01205500**

Hydrologic Unit Code: 01100005

Drainage Area  
(square miles): 1541

Latitude: 41° 23' 02"

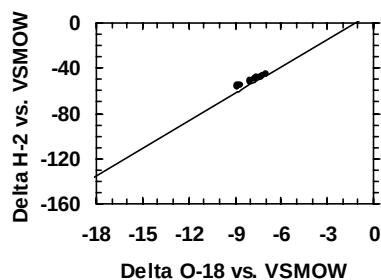
Datum (ft): 24.98

Longitude: 73° 10' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -49.8                                    | -7.74                                     |
| 7/10/1987        | -52.3                                    | -7.99                                     |
| 5/19/1987        | -54.7                                    | -8.68                                     |
| 3/10/1987        | -56.1                                    | -8.83                                     |
| 1/20/1987        | -56.3                                    | -8.87                                     |
| 9/3/1986         | -47.0                                    | -7.15                                     |
| 7/15/1986        | -48.3                                    | -7.55                                     |
| 5/14/1986        | -51.7                                    | -8.02                                     |
| 3/12/1986        | -55.8                                    | -8.86                                     |
| 1/16/1986        | -49.5                                    | -7.75                                     |
| 11/19/1985       | -45.9                                    | -7.02                                     |
| 3/14/1985        | -54.8                                    | -8.77                                     |
| 1/14/1985        | -47.8                                    | -7.38                                     |
| 11/15/1984       | -48.8                                    | -7.32                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **District of Columbia**

Station Name: **Potomac River At Chain Bridge At Washington**

Station Number **01646580**

Hydrologic Unit Code: 02070010

Drainage Area  
(square miles): 11570

Latitude: 38° 55' 46"

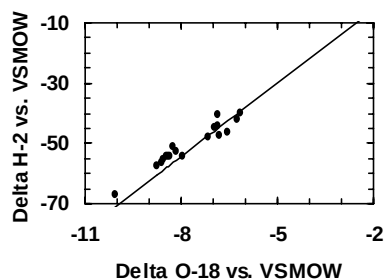
Datum (ft):

Longitude: 77° 07' 02"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/6/1986         | -54.3                                    | -7.95                                     |
| 3/18/1985        | -56.0                                    | -8.60                                     |
| 5/6/1985         | -55.4                                    | -8.54                                     |
| 7/8/1985         | -47.5                                    | -7.15                                     |
| 9/4/1985         | -44.2                                    | -6.84                                     |
| 11/5/1985        | -40.2                                    | -6.84                                     |
| 11/7/1985        | -50.7                                    | -8.27                                     |
| 1/14/1985        | -54.0                                    | -8.35                                     |
| 3/5/1986         | -53.9                                    | -8.46                                     |
| 9/9/1987         | -40.0                                    | -6.14                                     |
| 7/2/1986         | -46.0                                    | -6.54                                     |
| 9/3/1986         | -42.0                                    | -6.27                                     |
| 11/4/1986        | -47.1                                    | -6.82                                     |
| 1/6/1987         | -54.3                                    | -8.41                                     |
| 3/2/1987         | -67.1                                    | -10.05                                    |
| 5/11/1987        | -57.4                                    | -8.75                                     |
| 7/7/1987         | -44.6                                    | -6.97                                     |
| 1/9/1986         | -52.7                                    | -8.17                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Florida**

Station Name: **St. Johns River Near Deland**

Station Number **02236000**

Hydrologic Unit Code: 03080101

Drainage Area  
(square miles): 3066

Latitude: 29° 00' 29"

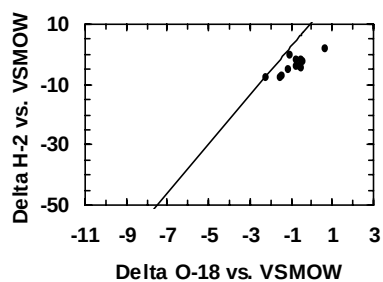
Datum (ft): 0

Longitude: 81° 22' 58"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | 2.2                                      | .63                                       |
| 6/30/1987        | -2.5                                     | -.41                                      |
| 5/4/1987         | -7.1                                     | -1.43                                     |
| 2/9/1987         | -4.7                                     | -1.12                                     |
| 1/12/1987        | -1.8                                     | -.49                                      |
| 1/6/1987         | -1.9                                     | -.74                                      |
| 8/19/1986        | -4.5                                     | -.52                                      |
| 7/28/1986        | -3.9                                     | -.76                                      |
| 5/28/1986        | -3.9                                     | -.56                                      |
| 3/26/1986        | -7.4                                     | -1.51                                     |
| 1/28/1986        | -7.7                                     | -2.19                                     |
| 12/3/1985        | -.3                                      | -1.03                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Florida**

Station Name: **Fisheating Creek At Palmdale**

Station Number **02256500**

Hydrologic Unit Code: 03090103

Drainage Area 311  
(square miles):

Latitude: 26° 55' 56"

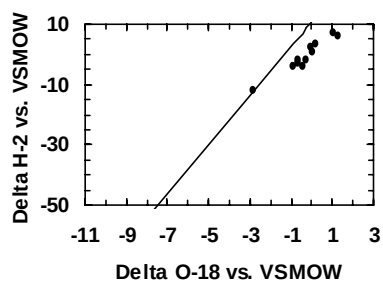
Datum (ft): 27.19

Longitude: 81° 18' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/31/1987        | 7.5                                      | 1.09                                      |
| 6/29/1987        | 11.0                                     | 2.34                                      |
| 5/6/1987         | 6.1                                      | 1.27                                      |
| 3/5/1987         | 1.1                                      | .07                                       |
| 2/4/1987         | -1.8                                     | -.67                                      |
| 1/7/1987         | -11.7                                    | -2.86                                     |
| 8/18/1986        | -3.6                                     | -.90                                      |
| 7/29/1986        | -2.5                                     | -.69                                      |
| 7/21/1986        | -3.8                                     | -.46                                      |
| 4/2/1986         | 2.7                                      | -.04                                      |
| 2/5/1986         | 3.5                                      | .22                                       |
| 10/30/1985       | -1.9                                     | -.25                                      |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Florida**

Station Name: **Alafia River At Lithia**

Station Number **02301500**

Hydrologic Unit Code: 03100204

Drainage Area  
(square miles): 335

Latitude: 27° 52' 19"

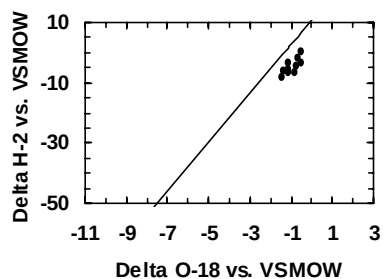
Datum (ft): 7

Longitude: 82° 12' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/29/1987        | -3.4                                     | -.47                                      |
| 6/23/1987        | .3                                       | -.49                                      |
| 3/24/1987        | -1.5                                     | -.69                                      |
| 12/16/1986       | -6.1                                     | -1.36                                     |
| 9/23/1986        | -4.4                                     | -.76                                      |
| 8/6/1986         | -5.2                                     | -1.14                                     |
| 6/4/1986         | -6.4                                     | -.83                                      |
| 3/18/1986        | -3.1                                     | -1.15                                     |
| 2/7/1986         | -6.3                                     | -1.10                                     |
| 12/5/1985        | -7.9                                     | -1.40                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Florida**

Station Name: **Sopchoppy River Near Sopchoppy**

Station Number **02327100**

Hydrologic Unit Code: 03120003

Drainage Area  
(square miles): 102

Latitude: 30° 07' 45"

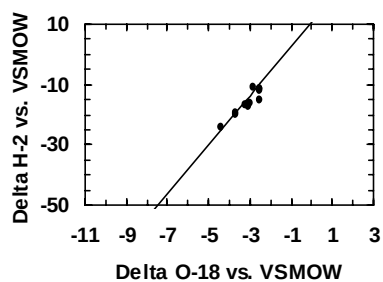
Datum (ft): 0

Longitude: 84° 29' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/27/1987        | -19.2                                    | -3.72                                     |
| 5/8/1987         | -16.6                                    | -3.22                                     |
| 2/17/1987        | -10.7                                    | -2.83                                     |
| 11/5/1986        | -17.1                                    | -3.10                                     |
| 8/1/1986         | -11.6                                    | -2.52                                     |
| 4/28/1986        | -14.9                                    | -2.49                                     |
| 1/31/1986        | -19.6                                    | -3.66                                     |
| 10/31/1985       | -23.9                                    | -4.40                                     |
| 8/13/1985        | -16.5                                    | -3.14                                     |
| 4/19/1985        | -11.2                                    | -2.50                                     |
| 2/15/1985        | -11.2                                    | -2.51                                     |
| 11/7/1984        | -16.1                                    | -3.01                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Florida**

Station Name: **Choctawhatchee River Near Bruce**

Station Number **02366500**

Hydrologic Unit Code: 03140203

Drainage Area  
(square miles): 4384

Latitude: 30° 27' 03"

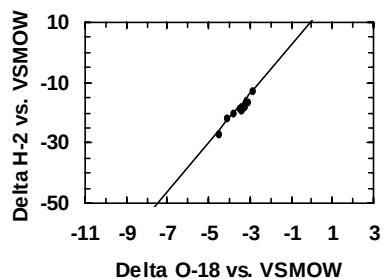
Datum (ft): 3.94

Longitude: 85° 53' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/21/1987        | -27.2                                    | -4.50                                     |
| 5/1/1987         | -18.8                                    | -3.46                                     |
| 2/19/1987        | -22.0                                    | -4.04                                     |
| 10/30/1986       | -16.4                                    | -3.15                                     |
| 8/7/1986         | -16.3                                    | -3.06                                     |
| 4/30/1986        | -18.1                                    | -3.20                                     |
| 2/6/1986         | -20.4                                    | -3.73                                     |
| 8/9/1985         | -19.3                                    | -3.40                                     |
| 4/26/1985        | -18.1                                    | -3.33                                     |
| 2/8/1985         | -12.7                                    | -2.87                                     |
| 11/4/1984        | -19.4                                    | -3.41                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Florida**

Station Name: **Perdido River At Barrineau Park**

Station Number **02376500**

Hydrologic Unit Code: 03140106

Drainage Area  
(square miles): 394

Latitude: 30° 41' 25"

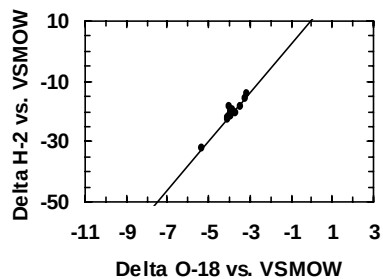
Datum (ft): 25.77

Longitude: 87° 26' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 2/4/1986         | -22.5                                    | -4.08                                     |
| 12/13/1984       | -19.3                                    | -3.87                                     |
| 2/6/1985         | -15.2                                    | -3.25                                     |
| 4/25/1985        | -20.2                                    | -3.69                                     |
| 6/19/1985        | -32.0                                    | -5.31                                     |
| 8/8/1985         | -20.9                                    | -3.92                                     |
| 11/1/1984        | -19.8                                    | -3.95                                     |
| 12/10/1985       | -21.1                                    | -3.95                                     |
| 8/19/1987        | -18.2                                    | -4.00                                     |
| 8/5/1986         | -18.0                                    | -3.49                                     |
| 10/28/1986       | -13.9                                    | -3.16                                     |
| 12/12/1986       | -20.5                                    | -3.93                                     |
| 2/21/1987        | -21.6                                    | -4.06                                     |
| 4/29/1987        | -20.0                                    | -3.84                                     |
| 7/1/1987         | -21.6                                    | -4.01                                     |
| 10/22/1985       | -20.1                                    | -3.88                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Georgia**

Station Name: **Ogeechee River Near Eden**

Station Number **02202500**

Hydrologic Unit Code: 03060202

Drainage Area  
(square miles): 2650

Latitude: 32° 11' 29"

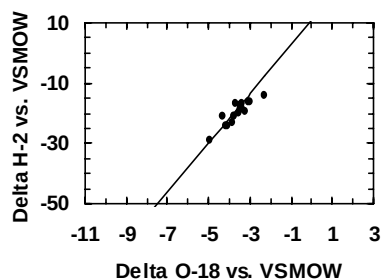
Datum (ft): 19.64

Longitude: 81° 24' 58"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/21/1986        | -13.9                                    | -2.26                                     |
| 3/19/1985        | -16.5                                    | -3.37                                     |
| 5/15/1985        | -18.4                                    | -3.49                                     |
| 7/17/1985        | -17.9                                    | -3.36                                     |
| 8/21/1985        | -17.0                                    | -3.42                                     |
| 10/2/1985        | -18.9                                    | -3.46                                     |
| 1/13/1986        | -23.8                                    | -4.12                                     |
| 1/8/1985         | -16.5                                    | -3.67                                     |
| 6/12/1986        | -19.4                                    | -3.25                                     |
| 8/17/1987        | -15.9                                    | -3.09                                     |
| 8/18/1986        | -16.0                                    | -2.96                                     |
| 11/17/1986       | -20.8                                    | -3.80                                     |
| 1/6/1987         | -28.6                                    | -4.95                                     |
| 3/10/1987        | -21.0                                    | -4.34                                     |
| 5/13/1987        | -22.8                                    | -3.82                                     |
| 7/13/1987        | -24.2                                    | -4.07                                     |
| 7/14/1987        | -19.6                                    | -3.52                                     |
| 3/3/1986         | -20.6                                    | -3.79                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Georgia**

Station Name: **Falling Creek Near Juliette**

Station Number **02212600**

Hydrologic Unit Code: 03070103

Drainage Area  
(square miles): 72.2

Latitude: 33° 05' 59"

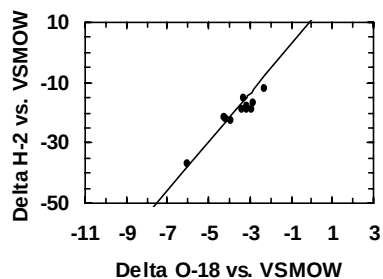
Datum (ft): 370

Longitude: 83° 43' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/17/1987        | -18.7                                    | -3.17                                     |
| 5/13/1987        | -22.2                                    | -3.89                                     |
| 1/6/1987         | -36.9                                    | -6.00                                     |
| 11/17/1986       | -18.6                                    | -3.36                                     |
| 8/17/1986        | -12.0                                    | -2.26                                     |
| 6/10/1986        | -16.3                                    | -2.87                                     |
| 1/13/1986        | -21.7                                    | -4.15                                     |
| 10/3/1985        | -18.7                                    | -2.95                                     |
| 8/21/1985        | -17.6                                    | -3.13                                     |
| 5/15/1985        | -15.1                                    | -3.32                                     |
| 1/8/1985         | -21.5                                    | -4.23                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Georgia**

Station Name: **Altamaha River At Everett City**

Station Number **02226160**

Hydrologic Unit Code: 03070106

Drainage Area  
(square miles): 14000

Latitude: 31° 25' 37"

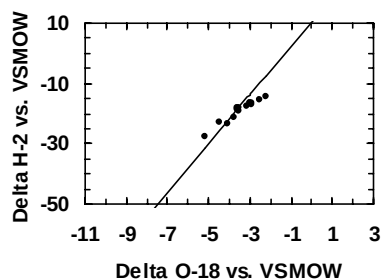
Datum (ft): -0.08

Longitude: 81° 36' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -17.0                                    | -2.88                                     |
| 5/14/1987        | -23.2                                    | -4.09                                     |
| 3/11/1987        | -23.1                                    | -4.49                                     |
| 1/7/1987         | -27.9                                    | -5.19                                     |
| 11/18/1986       | -16.5                                    | -3.02                                     |
| 8/19/1986        | -15.5                                    | -2.50                                     |
| 7/22/1986        | -14.4                                    | -2.23                                     |
| 6/11/1986        | -16.5                                    | -2.90                                     |
| 3/4/1986         | -19.2                                    | -3.53                                     |
| 1/14/1986        | -21.4                                    | -3.76                                     |
| 10/3/1985        | -16.8                                    | -2.97                                     |
| 8/22/1985        | -17.4                                    | -3.12                                     |
| 5/16/1985        | -18.5                                    | -3.58                                     |
| 3/20/1985        | -18.1                                    | -3.51                                     |
| 1/9/1985         | -18.3                                    | -3.58                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Georgia**

Station Name: **Satilla River At Atkinson**

Station Number **02228000**

Hydrologic Unit Code: 03070201

Drainage Area  
(square miles): 2790

Latitude: 31° 13' 16"

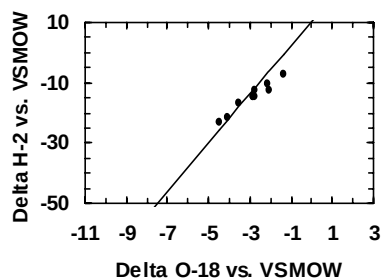
Datum (ft): 14.79

Longitude: 81° 52' 03"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -10.4                                    | -2.14                                     |
| 5/14/1987        | -14.5                                    | -2.87                                     |
| 1/7/1987         | -22.9                                    | -4.48                                     |
| 8/14/1986        | -7.1                                     | -1.38                                     |
| 6/11/1986        | -12.5                                    | -2.06                                     |
| 1/14/1986        | -21.1                                    | -4.06                                     |
| 10/3/1985        | -12.5                                    | -2.79                                     |
| 8/22/1985        | -16.7                                    | -3.50                                     |
| 5/16/1985        | -14.2                                    | -2.77                                     |
| 1/9/1985         | -14.5                                    | -2.84                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Georgia**

Station Name: **Flint River At Newton**

Station Number **02353000**

Hydrologic Unit Code: 03130008

Drainage Area  
(square miles): 5740

Latitude: 31° 18' 34"

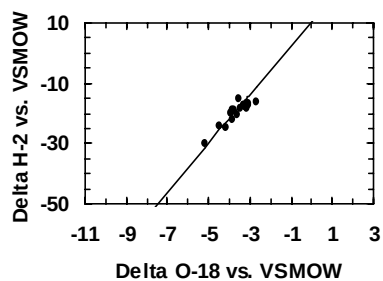
Datum (ft): 110.2

Longitude: 84° 20' 06"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/3/1986         | -16.6                                    | -3.07                                     |
| 2/27/1985        | -18.9                                    | -3.81                                     |
| 5/3/1985         | -15.1                                    | -3.57                                     |
| 7/11/1985        | -17.3                                    | -3.30                                     |
| 8/15/1985        | -18.4                                    | -3.47                                     |
| 10/10/1985       | -17.7                                    | -3.21                                     |
| 1/11/1986        | -24.6                                    | -4.14                                     |
| 1/16/1985        | -19.7                                    | -3.94                                     |
| 6/3/1986         | -17.0                                    | -3.08                                     |
| 9/1/1987         | -18.0                                    | -3.17                                     |
| 8/6/1986         | -15.9                                    | -2.68                                     |
| 10/24/1986       | -16.4                                    | -3.13                                     |
| 1/27/1987        | -29.6                                    | -5.18                                     |
| 3/26/1987        | -23.9                                    | -4.43                                     |
| 5/21/1987        | -18.6                                    | -3.76                                     |
| 7/22/1987        | -21.7                                    | -3.81                                     |
| 3/25/1986        | -20.1                                    | -3.62                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Hawaii**

Station Name: **Waimea River Near Waimea, Kauai**

Station Number **16031000**

Hydrologic Unit Code: 20070000

Drainage Area  
(square miles): 57.8

Latitude: 21° 59' 02"

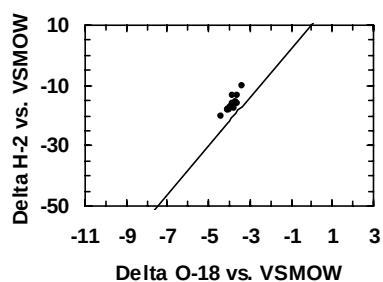
Datum (ft): 19.7

Longitude: 159° 39' 47"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 8/10/1987           | -17.9                                       | -3.99                                        |
| 4/13/1987           | -10.0                                       | -3.41                                        |
| 2/9/1987            | -16.1                                       | -3.82                                        |
| 12/18/1986          | -18.1                                       | -4.03                                        |
| 10/21/1986          | -13.6                                       | -3.59                                        |
| 8/11/1986           | -17.3                                       | -3.89                                        |
| 4/15/1986           | -13.4                                       | -3.82                                        |
| 2/18/1986           | -15.6                                       | -3.67                                        |
| 12/9/1985           | -18.1                                       | -4.08                                        |
| 10/15/1985          | -16.0                                       | -3.70                                        |
| 8/12/1985           | -16.2                                       | -3.58                                        |
| 6/10/1985           | -17.6                                       | -3.77                                        |
| 4/8/1985            | -16.5                                       | -3.85                                        |
| 2/11/1985           | -20.5                                       | -4.40                                        |
| 12/10/1984          | -18.0                                       | -4.10                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Hawaii**

Station Name: **Waikele Stream At Waipahu, Oahu**

Station Number **16213000**

Hydrologic Unit Code: 20060000

Drainage Area  
(square miles): 45.7

Latitude: 21° 23' 11"

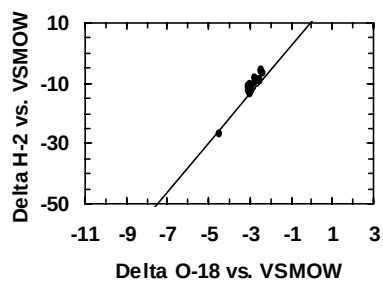
Datum (ft): 1.37

Longitude: 158° 00' 49"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/24/1986        | -9.3                                     | -2.50                                     |
| 2/25/1985        | -12.5                                    | -2.95                                     |
| 4/30/1985        | -8.5                                     | -2.50                                     |
| 6/25/1985        | -10.4                                    | -3.06                                     |
| 8/27/1985        | -11.1                                    | -3.05                                     |
| 10/29/1985       | -10.4                                    | -3.00                                     |
| 12/16/1985       | -12.2                                    | -3.04                                     |
| 12/26/1984       | -26.5                                    | -4.50                                     |
| 4/29/1986        | -11.2                                    | -2.93                                     |
| 8/25/1987        | -9.6                                     | -2.73                                     |
| 8/18/1986        | -5.3                                     | -2.48                                     |
| 10/14/1986       | -8.1                                     | -2.79                                     |
| 12/29/1986       | -8.4                                     | -2.63                                     |
| 2/9/1987         | -13.1                                    | -2.97                                     |
| 4/20/1987        | -5.8                                     | -2.43                                     |
| 7/14/1987        | -6.4                                     | -2.40                                     |
| 2/25/1986        | -12.9                                    | -2.99                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Hawaii**

Station Name: **Kalihi Stream At Kalihi, Oahu**

Station Number **16229300**

Hydrologic Unit Code: 20060000

Drainage Area  
(square miles): 5.18

Latitude: 21° 20' 29"

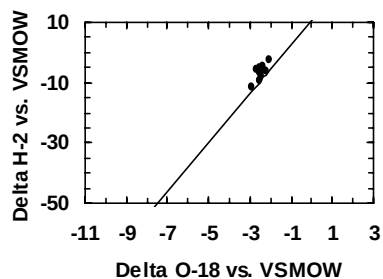
Datum (ft): 70

Longitude: 157° 52' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/25/1987        | -7.6                                     | -2.44                                     |
| 4/20/1987        | -5.9                                     | -2.48                                     |
| 2/9/1987         | -5.4                                     | -2.55                                     |
| 10/14/1986       | -6.4                                     | -2.53                                     |
| 8/19/1986        | -5.1                                     | -2.50                                     |
| 4/28/1986        | -4.1                                     | -2.33                                     |
| 2/25/1986        | -6.1                                     | -2.25                                     |
| 10/29/1985       | -5.5                                     | -2.69                                     |
| 8/27/1985        | -2.4                                     | -2.08                                     |
| 4/30/1985        | -11.5                                    | -2.90                                     |
| 2/25/1985        | -9.0                                     | -2.50                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Hawaii**

Station Name: **Halawa Stream Near Halawa, Molokai**

Station Number **16400000**

Hydrologic Unit Code: 20050000

Drainage Area  
(square miles): 4.62

Latitude: 21° 09' 31"

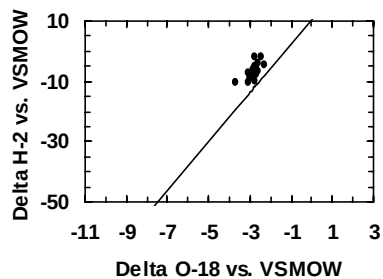
Datum (ft): 210

Longitude: 156° 45' 53"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/20/1986        | -4.5                                     | -2.33                                     |
| 2/25/1985        | -10.0                                    | -3.10                                     |
| 4/15/1985        | -9.5                                     | -2.75                                     |
| 6/3/1985         | -5.1                                     | -2.70                                     |
| 8/26/1985        | -3.7                                     | -2.62                                     |
| 10/15/1985       | -5.9                                     | -2.81                                     |
| 12/3/1984        | -7.5                                     | -2.95                                     |
| 2/3/1986         | -1.8                                     | -2.47                                     |
| 8/24/1987        | -7.6                                     | -2.67                                     |
| 7/15/1986        | -8.8                                     | -3.00                                     |
| 9/9/1986         | -7.7                                     | -2.81                                     |
| 10/28/1986       | -1.6                                     | -2.77                                     |
| 12/16/1986       | -6.7                                     | -2.62                                     |
| 2/2/1987         | -4.6                                     | -2.74                                     |
| 4/27/1987        | -10.3                                    | -3.68                                     |
| 12/9/1985        | -7.2                                     | -3.08                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Hawaii**

Station Name: **Kahakuloa Stream Near Honokohau, Maui**

Station Number **16618000**

Hydrologic Unit Code: 20020000

Drainage Area  
(square miles): 3.47

Latitude: 20° 58' 54"

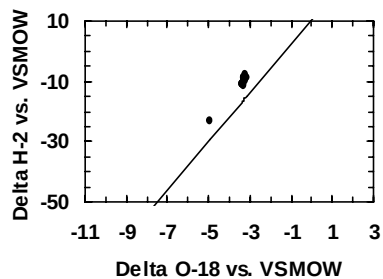
Datum (ft): 330

Longitude: 156° 33' 26"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/10/1986        | -9.4                                     | -3.25                                     |
| 2/4/1985         | -10.0                                    | -3.30                                     |
| 4/1/1985         | -10.5                                    | -3.30                                     |
| 6/10/1985        | -10.5                                    | -3.41                                     |
| 8/12/1985        | -10.8                                    | -3.37                                     |
| 10/7/1985        | -9.8                                     | -3.33                                     |
| 12/10/1984       | -9.0                                     | -3.25                                     |
| 2/18/1986        | -7.7                                     | -3.22                                     |
| 8/11/1987        | -11.2                                    | -3.32                                     |
| 6/9/1986         | -9.1                                     | -3.20                                     |
| 8/12/1986        | -10.0                                    | -3.26                                     |
| 10/6/1986        | -8.8                                     | -3.16                                     |
| 12/8/1986        | -10.9                                    | -3.38                                     |
| 2/17/1987        | -23.0                                    | -4.96                                     |
| 4/6/1987         | -8.7                                     | -3.28                                     |
| 12/16/1985       | -8.7                                     | -3.28                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Hawaii**

Station Name: **Wailuku River At Hilo, Hawaii**

Station Number **16713000**

Hydrologic Unit Code: 20010000

Drainage Area  
(square miles): 256

Latitude: 19° 43' 43"

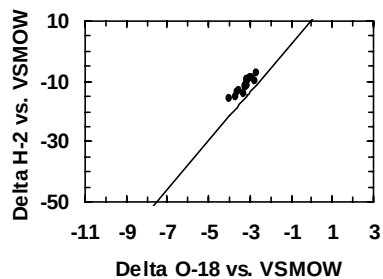
Datum (ft): 80

Longitude: 155° 05' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/17/1986        | -8.5                                     | -2.96                                     |
| 2/13/1985        | -8.5                                     | -2.90                                     |
| 4/10/1985        | -14.0                                    | -3.30                                     |
| 6/18/1985        | -10.0                                    | -3.14                                     |
| 9/3/1985         | -11.0                                    | -3.15                                     |
| 12/16/1985       | -9.9                                     | -2.75                                     |
| 12/12/1984       | -9.0                                     | -3.10                                     |
| 5/12/1986        | -11.0                                    | -3.21                                     |
| 8/18/1987        | -11.3                                    | -3.14                                     |
| 8/18/1986        | -12.7                                    | -3.51                                     |
| 10/27/1986       | -15.4                                    | -3.98                                     |
| 12/8/1986        | -13.5                                    | -3.64                                     |
| 2/23/1987        | -15.0                                    | -3.66                                     |
| 4/20/1987        | -9.2                                     | -3.13                                     |
| 6/22/1987        | -11.6                                    | -3.21                                     |
| 2/24/1986        | -7.2                                     | -2.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Hawaii**

Station Name: **Honolii Stream Near Papaikou, Hawaii**

Station Number **16717000**

Hydrologic Unit Code: 20010000

Drainage Area  
(square miles): 11.6

Latitude: 19° 46' 00"

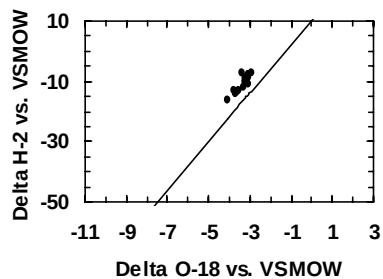
Datum (ft): 1540

Longitude: 155° 09' 16"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 5/12/1986           | -9.8                                        | -3.26                                        |
| 2/13/1985           | -10.0                                       | -3.15                                        |
| 4/10/1985           | -13.0                                       | -3.50                                        |
| 6/18/1985           | -8.7                                        | -3.17                                        |
| 9/3/1985            | -8.6                                        | -3.20                                        |
| 10/29/1985          | -11.8                                       | -3.31                                        |
| 12/12/1984          | -7.0                                        | -3.35                                        |
| 2/24/1986           | -7.7                                        | -3.10                                        |
| 8/18/1987           | -10.8                                       | -3.06                                        |
| 6/17/1986           | -8.6                                        | -3.05                                        |
| 8/18/1986           | -13.5                                       | -3.60                                        |
| 10/27/1986          | -16.0                                       | -4.09                                        |
| 12/8/1986           | -13.1                                       | -3.74                                        |
| 2/23/1987           | -14.0                                       | -3.72                                        |
| 4/20/1987           | -6.9                                        | -2.94                                        |
| 12/16/1985          | -10.0                                       | -3.20                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Kootenai River At Porthill**

Station Number **12322000**

Hydrologic Unit Code: 17010104

Drainage Area  
(square miles): 13700

Latitude: 49° 00' 00"

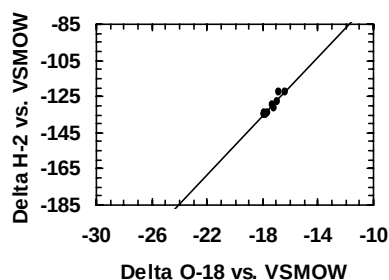
Datum (ft): 1700

Longitude: 116° 30' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 10/3/1986        | -130.8                                   | -17.12                                    |
| 7/25/1986        | -134.6                                   | -17.69                                    |
| 6/18/1986        | -127.4                                   | -16.97                                    |
| 4/1/1986         | -122.1                                   | -16.36                                    |
| 1/6/1986         | -133.9                                   | -17.83                                    |
| 11/26/1985       | -134.9                                   | -17.83                                    |
| 9/23/1985        | -134.6                                   | -17.82                                    |
| 7/18/1985        | -129.5                                   | -17.25                                    |
| 6/4/1985         | -122.6                                   | -16.78                                    |
| 3/19/1985        | -133.6                                   | -17.69                                    |
| 1/31/1985        | -134.6                                   | -17.83                                    |
| 11/30/1984       | -134.5                                   | -17.84                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Couer D'alene River At Cataldo**

Station Number **12413500**

Hydrologic Unit Code: 17010303

Drainage Area  
(square miles): 1223

Latitude: 47° 33' 50"

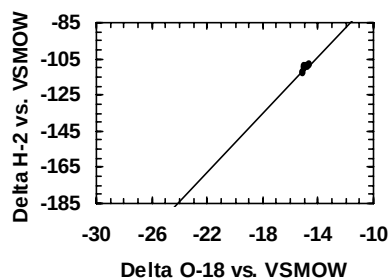
Datum (ft): 2100

Longitude: 116° 18' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/2/1987         | -109.3                                   | -14.69                                    |
| 7/7/1987         | -107.8                                   | -14.67                                    |
| 5/15/1987        | -108.6                                   | -14.94                                    |
| 3/31/1987        | -108.9                                   | -14.82                                    |
| 1/27/1987        | -110.2                                   | -15.01                                    |
| 11/12/1986       | -112.4                                   | -15.07                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Hayden Creek Below North Fork, Near Hayden Lake**

Station Number **12416000**

Hydrologic Unit Code: 17010305

Drainage Area  
(square miles): 22

Latitude: 47° 49' 22"

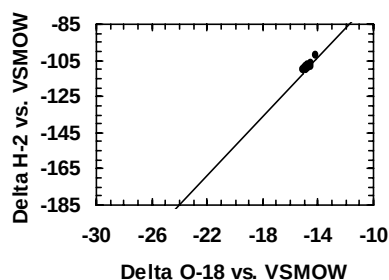
Datum (ft): 2370

Longitude: 116° 39' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -108.2                                   | -14.56                                    |
| 5/13/1987        | -106.1                                   | -14.51                                    |
| 3/4/1987         | -101.8                                   | -14.19                                    |
| 11/13/1986       | -108.2                                   | -14.83                                    |
| 9/16/1986        | -109.9                                   | -14.84                                    |
| 6/13/1986        | -108.3                                   | -14.62                                    |
| 3/4/1986         | -107.3                                   | -14.70                                    |
| 12/4/1985        | -108.7                                   | -14.78                                    |
| 9/24/1985        | -108.6                                   | -14.74                                    |
| 5/17/1985        | -109.4                                   | -15.14                                    |
| 3/21/1985        | -109.3                                   | -14.99                                    |
| 11/19/1984       | -108.2                                   | -14.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Snake River Near Heise**

Station Number **13037500**

Hydrologic Unit Code: 17040104

Drainage Area  
(square miles): 5752

Latitude: 43° 36' 45"

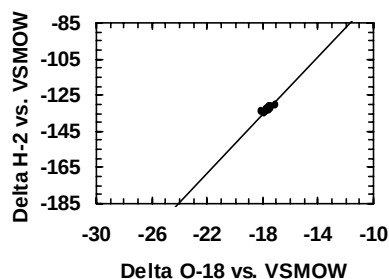
Datum (ft): 5015.3

Longitude: 111° 39' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/9/1986         | -133.5                                   | -17.77                                    |
| 1/9/1985         | -132.5                                   | -17.51                                    |
| 3/20/1985        | -132.4                                   | -17.62                                    |
| 5/17/1985        | -133.6                                   | -17.71                                    |
| 7/19/1985        | -134.3                                   | -17.81                                    |
| 9/17/1985        | -132.4                                   | -17.55                                    |
| 11/11/1985       | -131.2                                   | -17.41                                    |
| 11/14/1984       | -132.2                                   | -17.38                                    |
| 3/26/1986        | -131.6                                   | -17.44                                    |
| 9/17/1987        | -129.8                                   | -17.11                                    |
| 7/18/1986        | -133.9                                   | -18.06                                    |
| 9/19/1986        | -132.8                                   | -17.73                                    |
| 11/21/1986       | -132.8                                   | -17.49                                    |
| 1/15/1987        | -132.0                                   | -17.62                                    |
| 3/18/1987        | -133.2                                   | -17.73                                    |
| 5/22/1987        | -133.2                                   | -17.58                                    |
| 7/17/1987        | -131.2                                   | -17.46                                    |
| 1/15/1986        | -131.4                                   | -17.45                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Snake River At King Hill**

Station Number **13154500**

Hydrologic Unit Code: 17040212

Drainage Area  
(square miles): 35800

Latitude: 43° 00' 08"

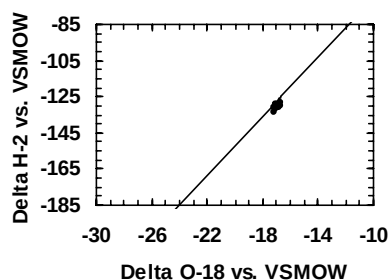
Datum (ft): 2492.3

Longitude: 115° 12' 06"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/10/1987        | -129.9                                   | -16.76                                    |
| 7/28/1987        | -131.0                                   | -16.98                                    |
| 5/27/1987        | -132.1                                   | -17.07                                    |
| 3/18/1987        | -133.3                                   | -17.18                                    |
| 1/21/1987        | -131.3                                   | -17.12                                    |
| 11/14/1986       | -128.2                                   | -16.69                                    |
| 9/9/1986         | -131.1                                   | -16.77                                    |
| 7/8/1986         | -129.2                                   | -17.06                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Below Jacks Creek Near Bruneau**

Station Number **13169500**

Hydrologic Unit Code: 17050102

Drainage Area  
(square miles): 253

Latitude: 42° 47' 06"

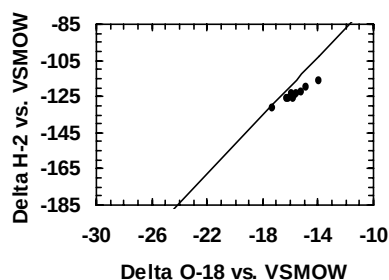
Datum (ft): 2810

Longitude: 115° 59' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/11/1987        | -115.8                                   | -13.94                                    |
| 5/26/1987        | -119.1                                   | -14.82                                    |
| 3/17/1987        | -126.0                                   | -16.11                                    |
| 11/13/1986       | -125.7                                   | -15.82                                    |
| 9/8/1986         | -122.0                                   | -15.17                                    |
| 5/6/1986         | -124.1                                   | -15.91                                    |
| 2/24/1986        | -130.6                                   | -17.25                                    |
| 11/5/1985        | -123.6                                   | -15.72                                    |
| 9/4/1985         | -123.0                                   | -15.59                                    |
| 5/8/1985         | -124.7                                   | -15.95                                    |
| 3/6/1985         | -125.6                                   | -16.25                                    |
| 11/14/1984       | -123.4                                   | -15.95                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Idaho**

Station Name: **Boise River Near Parma**

Station Number **13213000**

Hydrologic Unit Code: 17050114

Drainage Area  
(square miles): 3970

Latitude: 43° 46' 54"

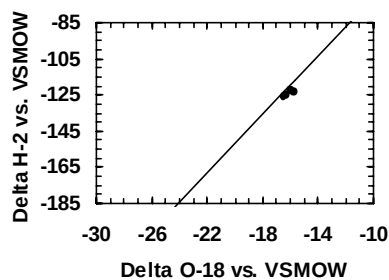
Datum (ft): 2196

Longitude: 116° 58' 17"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/9/1987         | -122.9                                   | -15.77                                    |
| 7/27/1987        | -122.2                                   | -15.88                                    |
| 5/28/1987        | -122.3                                   | -16.06                                    |
| 3/19/1987        | -122.6                                   | -15.70                                    |
| 1/22/1987        | -125.1                                   | -16.27                                    |
| 11/12/1986       | -125.5                                   | -16.47                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Snake River At Weiser**

Station Number **13269000**

Hydrologic Unit Code: 17050124

Drainage Area  
(square miles): 69200

Latitude: 44° 14' 44"

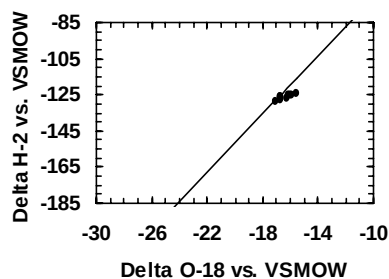
Datum (ft): 2086.64

Longitude: 116° 58' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/22/1986        | -123.7                                   | -15.58                                    |
| 7/14/1986        | -125.1                                   | -16.05                                    |
| 5/23/1986        | -126.8                                   | -16.75                                    |
| 11/18/1985       | -126.8                                   | -16.23                                    |
| 9/23/1985        | -124.5                                   | -16.10                                    |
| 7/22/1985        | -125.2                                   | -15.91                                    |
| 5/23/1985        | -125.5                                   | -16.75                                    |
| 3/28/1985        | -126.1                                   | -16.75                                    |
| 1/24/1985        | -128.8                                   | -17.00                                    |
| 11/30/1984       | -127.4                                   | -16.75                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Salmon River At Whitebird**

Station Number **13317000**

Hydrologic Unit Code: 17060209

Drainage Area  
(square miles): 13550

Latitude: 45° 45' 01"

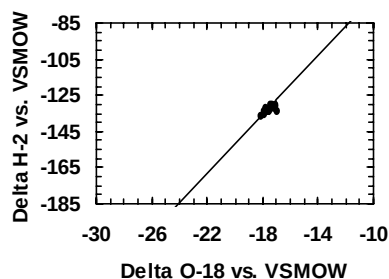
Datum (ft): 1412.65

Longitude: 116° 19' 23"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/20/1986        | -130.5                                   | -17.39                                    |
| 1/22/1985        | -136.7                                   | -18.05                                    |
| 3/26/1985        | -133.5                                   | -17.75                                    |
| 5/21/1985        | -131.6                                   | -17.80                                    |
| 7/25/1985        | -131.1                                   | -17.22                                    |
| 9/26/1985        | -131.7                                   | -17.19                                    |
| 11/21/1985       | -134.0                                   | -17.61                                    |
| 11/27/1984       | -133.9                                   | -17.90                                    |
| 3/25/1986        | -129.8                                   | -17.32                                    |
| 9/1/1987         | -130.7                                   | -17.01                                    |
| 7/17/1986        | -131.1                                   | -17.29                                    |
| 9/5/1986         | -133.3                                   | -16.95                                    |
| 11/6/1986        | -134.1                                   | -17.55                                    |
| 1/27/1987        | -135.6                                   | -17.89                                    |
| 3/10/1987        | -133.4                                   | -17.55                                    |
| 7/14/1987        | -130.1                                   | -17.08                                    |
| 1/15/1986        | -134.0                                   | -17.74                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Idaho**

Station Name: **Clearwater River At Spalding**

Station Number **13342500**

Hydrologic Unit Code: 17060306

Drainage Area  
(square miles): 9570

Latitude: 46° 26' 55"

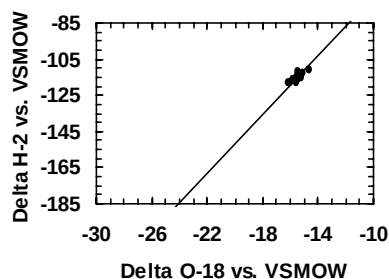
Datum (ft): 770.5

Longitude: 116° 49' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/8/1986         | -118.2                                   | -16.01                                    |
| 1/24/1985        | -113.1                                   | -15.46                                    |
| 3/11/1985        | -114.7                                   | -15.49                                    |
| 5/14/1985        | -118.1                                   | -16.10                                    |
| 7/17/1985        | -115.9                                   | -15.79                                    |
| 9/27/1985        | -113.9                                   | -15.15                                    |
| 11/23/1985       | -114.4                                   | -15.36                                    |
| 11/29/1984       | -111.7                                   | -15.42                                    |
| 3/12/1986        | -116.6                                   | -15.60                                    |
| 9/4/1987         | -112.0                                   | -15.04                                    |
| 7/18/1986        | -117.9                                   | -15.51                                    |
| 9/25/1986        | -113.3                                   | -15.37                                    |
| 1/13/1987        | -115.3                                   | -15.58                                    |
| 3/24/1987        | -115.4                                   | -15.16                                    |
| 5/29/1987        | -115.6                                   | -15.72                                    |
| 7/28/1987        | -110.6                                   | -14.65                                    |
| 1/8/1986         | -115.9                                   | -15.48                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Illinois**

Station Name: **Illinois River At Marseilles**

Station Number **05543500**

Hydrologic Unit Code: 07120005

Drainage Area  
(square miles): 8259

Latitude: 41° 19' 40"

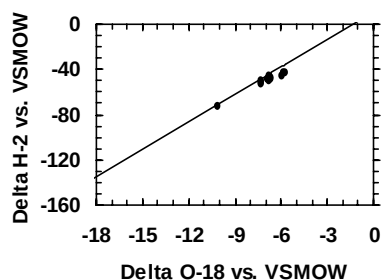
Datum (ft): 462.91

Longitude: 88° 43' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/10/1987        | -42.7                                    | -5.73                                     |
| 4/14/1987        | -49.5                                    | -6.79                                     |
| 2/25/1987        | -51.0                                    | -7.23                                     |
| 11/19/1986       | -47.9                                    | -6.70                                     |
| 8/19/1986        | -45.1                                    | -5.93                                     |
| 4/22/1986        | -48.7                                    | -6.85                                     |
| 2/25/1986        | -71.8                                    | -10.05                                    |
| 11/18/1985       | -44.7                                    | -6.79                                     |
| 8/26/1985        | -42.3                                    | -5.86                                     |
| 4/22/1985        | -49.5                                    | -7.26                                     |
| 2/21/1985        | -52.7                                    | -7.25                                     |
| 11/6/1984        | -46.8                                    | -6.64                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Illinois**

Station Name: **Big Muddy River At Murphysboro**

Station Number **05599500**

Hydrologic Unit Code: 07140106

Drainage Area  
(square miles): 2169

Latitude: 37° 44' 55"

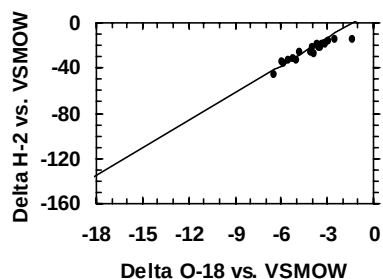
Datum (ft): 335.5

Longitude: 89° 20' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/16/1986        | -18.8                                    | -3.33                                     |
| 1/9/1985         | -31.3                                    | -5.24                                     |
| 2/27/1985        | -33.8                                    | -5.95                                     |
| 4/23/1985        | -32.4                                    | -5.53                                     |
| 7/17/1985        | -25.6                                    | -4.03                                     |
| 8/28/1985        | -18.7                                    | -3.12                                     |
| 11/20/1985       | -18.5                                    | -3.59                                     |
| 11/7/1984        | -26.0                                    | -4.75                                     |
| 2/25/1986        | -21.7                                    | -3.41                                     |
| 8/26/1987        | -13.5                                    | -1.37                                     |
| 6/4/1986         | -45.6                                    | -6.47                                     |
| 7/15/1986        | -21.8                                    | -3.92                                     |
| 8/26/1986        | -14.1                                    | -2.46                                     |
| 11/19/1986       | -26.5                                    | -3.89                                     |
| 1/7/1987         | -32.1                                    | -5.01                                     |
| 4/15/1987        | -35.7                                    | -5.82                                     |
| 7/15/1987        | -15.0                                    | -2.93                                     |
| 1/6/1986         | -21.4                                    | -3.54                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Indiana**

Station Name: **Whitewater River Near Alpine**

Station Number **03275000**

Hydrologic Unit Code: 05080003

Drainage Area  
(square miles): 522

Latitude: 39° 34' 46"

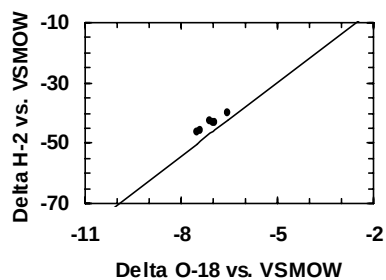
Datum (ft): 750.19

Longitude: 85° 09' 29"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -42.9                                    | -6.96                                     |
| 6/30/1987        | -39.9                                    | -6.54                                     |
| 4/30/1987        | -42.9                                    | -7.01                                     |
| 2/18/1987        | -45.6                                    | -7.38                                     |
| 12/4/1986        | -46.0                                    | -7.52                                     |
| 10/29/1986       | -42.6                                    | -7.09                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Indiana**

Station Name: **Whitewater River At Brookville**

Station Number **03276500**

Hydrologic Unit Code: 05080003

Drainage Area  
(square miles): 1224

Latitude: 39° 24' 24"

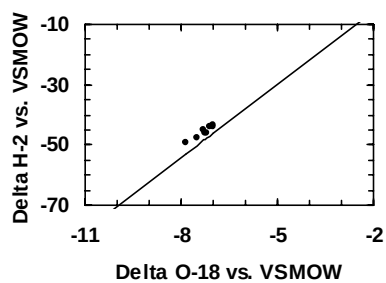
Datum (ft): 595.71

Longitude: 85° 00' 46"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/2/1986         | -43.5                                    | -7.00                                     |
| 6/9/1986         | -44.2                                    | -7.12                                     |
| 3/10/1986        | -45.2                                    | -7.29                                     |
| 12/18/1985       | -43.8                                    | -7.00                                     |
| 9/16/1985        | -45.9                                    | -7.24                                     |
| 6/18/1985        | -46.2                                    | -7.20                                     |
| 3/25/1985        | -49.5                                    | -7.85                                     |
| 12/11/1984       | -47.5                                    | -7.50                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Indiana**

Station Name: **South Hogan Creek Near Dillsboro**

Station Number **03276700**

Hydrologic Unit Code: 05090203

Drainage Area  
(square miles): 38.1

Latitude: 39° 01' 47"

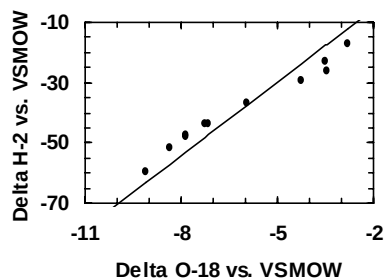
Datum (ft): 571

Longitude: 85° 02' 17"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -16.7                                    | -2.80                                     |
| 6/30/1987        | -28.9                                    | -4.24                                     |
| 3/19/1987        | -51.5                                    | -8.38                                     |
| 12/3/1986        | -47.2                                    | -7.84                                     |
| 9/2/1986         | -22.6                                    | -3.50                                     |
| 6/10/1986        | -36.5                                    | -5.93                                     |
| 3/11/1986        | -43.3                                    | -7.23                                     |
| 12/19/1985       | -43.5                                    | -7.15                                     |
| 9/17/1985        | -25.8                                    | -3.47                                     |
| 3/26/1985        | -47.5                                    | -7.85                                     |
| 12/11/1984       | -59.5                                    | -9.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Indiana**

Station Name: **Wabash River At New Harmony**

Station Number **03378500**

Hydrologic Unit Code: 05120113

Drainage Area  
(square miles): 29234

Latitude: 38° 07' 55"

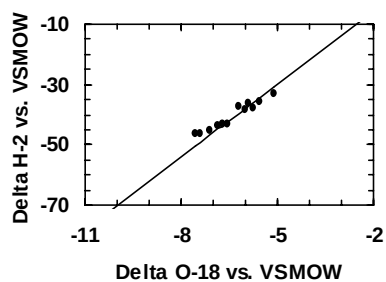
Datum (ft):

Longitude: 87° 56' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/20/1987        | -33.0                                    | -5.11                                     |
| 5/19/1987        | -38.2                                    | -6.02                                     |
| 3/30/1987        | -42.8                                    | -6.71                                     |
| 12/2/1986        | -45.0                                    | -7.09                                     |
| 9/4/1986         | -37.5                                    | -5.76                                     |
| 6/11/1986        | -43.4                                    | -6.83                                     |
| 3/12/1986        | -46.2                                    | -7.54                                     |
| 12/12/1985       | -37.1                                    | -6.21                                     |
| 9/18/1985        | -35.3                                    | -5.56                                     |
| 6/20/1985        | -42.9                                    | -6.56                                     |
| 3/27/1985        | -46.0                                    | -7.40                                     |
| 10/25/1984       | -36.0                                    | -5.90                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Iowa**

Station Name: **Skunk River At Augusta**

Station Number **05474000**

Hydrologic Unit Code: 07080107

Drainage Area  
(square miles): 4303

Latitude: 40° 45' 13"

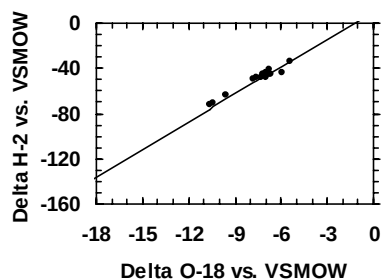
Datum (ft): 521.24

Longitude: 91° 16' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/4/1987         | -47.6                                    | -6.92                                     |
| 2/25/1987        | -48.1                                    | -7.29                                     |
| 10/28/1986       | -71.8                                    | -10.65                                    |
| 8/26/1986        | -45.9                                    | -6.69                                     |
| 7/1/1986         | -41.6                                    | -6.73                                     |
| 5/14/1986        | -44.1                                    | -6.99                                     |
| 2/26/1986        | -71.3                                    | -10.37                                    |
| 12/16/1985       | -48.5                                    | -7.61                                     |
| 10/23/1985       | -46.0                                    | -7.23                                     |
| 9/6/1985         | -33.9                                    | -5.46                                     |
| 7/2/1985         | -43.7                                    | -5.95                                     |
| 5/7/1985         | -46.0                                    | -6.80                                     |
| 2/27/1985        | -64.0                                    | -9.60                                     |
| 12/20/1984       | -49.5                                    | -7.80                                     |
| 10/26/1984       | -46.0                                    | -7.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Iowa**

Station Name: **Big Sioux River At Akron**

Station Number **06485500**

Hydrologic Unit Code: 10170203

Drainage Area  
(square miles): 9030

Latitude: 42° 50' 14"

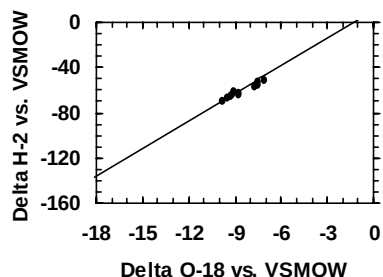
Datum (ft): 1118.9

Longitude: 96° 33' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/27/1987        | -57.2                                    | -7.71                                     |
| 5/21/1987        | -55.1                                    | -7.46                                     |
| 2/23/1987        | -60.6                                    | -9.07                                     |
| 11/6/1986        | -62.4                                    | -8.76                                     |
| 5/21/1986        | -52.7                                    | -7.49                                     |
| 2/19/1986        | -66.5                                    | -9.51                                     |
| 12/4/1985        | -64.1                                    | -9.14                                     |
| 8/14/1985        | -51.5                                    | -7.09                                     |
| 5/23/1985        | -63.4                                    | -8.74                                     |
| 2/12/1985        | -68.9                                    | -9.79                                     |
| 11/15/1984       | -65.5                                    | -9.25                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Iowa**

Station Name: **Missouri River At Sioux City**

Station Number **06486000**

Hydrologic Unit Code: 10230001

Drainage Area  
(square miles): 314600

Latitude: 42° 29' 09"

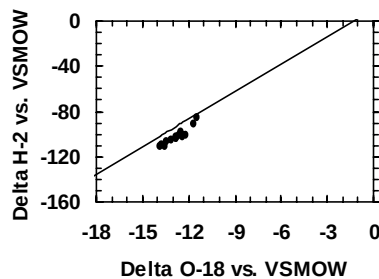
Datum (ft): 1056.98

Longitude: 96° 24' 49"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/24/1986        | -90.9                                    | -11.68                                    |
| 3/12/1985        | -97.6                                    | -12.49                                    |
| 6/25/1985        | -103.8                                   | -12.76                                    |
| 8/26/1985        | -100.5                                   | -12.36                                    |
| 10/15/1985       | -101.0                                   | -12.55                                    |
| 1/8/1986         | -105.3                                   | -13.12                                    |
| 1/8/1985         | -106.3                                   | -13.41                                    |
| 4/22/1986        | -85.0                                    | -11.50                                    |
| 8/28/1987        | -102.1                                   | -12.37                                    |
| 9/5/1986         | -100.3                                   | -12.19                                    |
| 12/16/1986       | -109.9                                   | -13.54                                    |
| 2/3/1987         | -110.7                                   | -13.87                                    |
| 4/30/1987        | -103.1                                   | -12.78                                    |
| 6/11/1987        | -102.2                                   | -12.78                                    |
| 7/17/1987        | -100.5                                   | -12.38                                    |
| 2/25/1986        | -108.7                                   | -13.73                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Iowa**

Station Name: **Nishnabotna River Above Hamburg**

Station Number **06810000**

Hydrologic Unit Code: 10240004

Drainage Area  
(square miles): 2806

Latitude: 40° 37' 57"

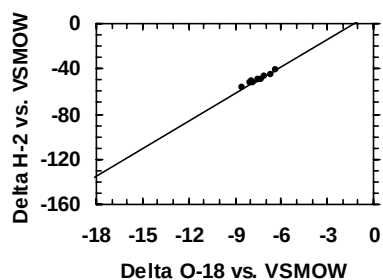
Datum (ft): 894.17

Longitude: 95° 37' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -41.1                                    | -6.34                                     |
| 11/25/1986       | -50.1                                    | -7.31                                     |
| 9/3/1986         | -47.0                                    | -7.08                                     |
| 4/23/1986        | -51.9                                    | -7.85                                     |
| 2/24/1986        | -52.4                                    | -7.97                                     |
| 12/20/1985       | -51.0                                    | -7.88                                     |
| 8/23/1985        | -45.0                                    | -6.69                                     |
| 2/19/1985        | -57.0                                    | -8.51                                     |
| 11/14/1984       | -49.0                                    | -7.52                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Iowa**

Station Name: **Elk Creek Near Decatur City**

Station Number **06897950**

Hydrologic Unit Code: 10280102

Drainage Area  
(square miles): 52.5

Latitude: 40° 43' 18"

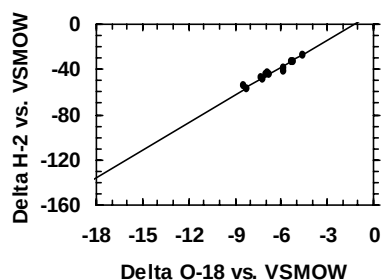
Datum (ft): 934.7

Longitude: 93° 56' 12"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -32.8                                    | -5.32                                     |
| 7/8/1987         | -27.2                                    | -4.56                                     |
| 5/19/1987        | -37.7                                    | -5.85                                     |
| 2/24/1987        | -41.8                                    | -6.86                                     |
| 11/26/1986       | -43.7                                    | -6.99                                     |
| 8/13/1986        | -32.2                                    | -5.21                                     |
| 5/28/1986        | -48.0                                    | -7.22                                     |
| 3/6/1986         | -53.7                                    | -8.40                                     |
| 10/29/1985       | -43.4                                    | -6.80                                     |
| 5/14/1985        | -40.6                                    | -5.85                                     |
| 4/2/1985         | -56.0                                    | -8.20                                     |
| 11/27/1984       | -46.5                                    | -7.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kansas**

Station Name: **Republican River At Clay Center**

Station Number **06856600**

Hydrologic Unit Code: 10250017

Drainage Area  
(square miles): 24542

Latitude: 39° 21' 20"

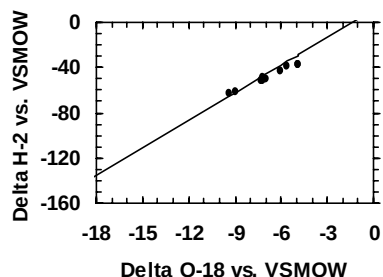
Datum (ft): 1159.21

Longitude: 97° 07' 34"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/4/1987         | -37.1                                    | -4.91                                     |
| 6/23/1987        | -38.1                                    | -5.57                                     |
| 4/7/1987         | -61.0                                    | -8.98                                     |
| 2/24/1987        | -49.1                                    | -6.96                                     |
| 1/6/1987         | -51.1                                    | -7.24                                     |
| 11/19/1986       | -49.1                                    |                                           |
| 9/2/1986         | -37.2                                    | -4.84                                     |
| 4/29/1986        | -48.5                                    | -7.14                                     |
| 10/11/1985       | -61.7                                    | -9.42                                     |
| 12/11/1984       | -50.9                                    | -7.19                                     |
| 11/6/1984        | -42.1                                    | -5.99                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Kansas**

Station Name: **Kings Creek Near Manhattan**

Station Number **06879650**

Hydrologic Unit Code: 10270101

Drainage Area  
(square miles): 4.09

Latitude: 39° 06' 07"

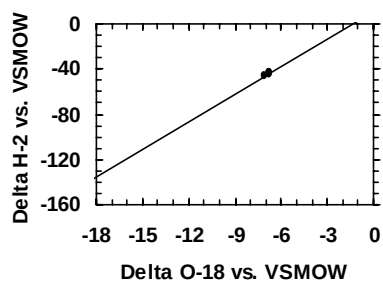
Datum (ft):

Longitude: 96° 35' 42"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/8/1987         | -45.0                                    | -7.09                                     |
| 2/25/1987        | -42.8                                    | -6.80                                     |
| 9/2/1986         | -44.0                                    | -6.75                                     |
| 8/17/1986        | -42.8                                    | -6.73                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kansas**

Station Name: **Arkansas River Near Coolidge**

Station Number **07137500**

Hydrologic Unit Code: 11030001

Drainage Area  
(square miles): 25410

Latitude: 38° 01' 34"

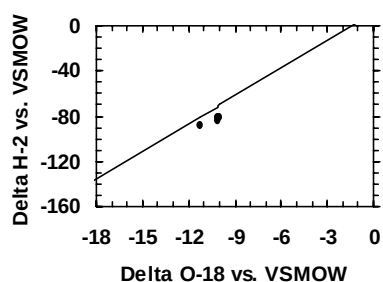
Datum (ft): 3330.84

Longitude: 102° 00' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/28/1987        | -88.4                                    | -11.24                                    |
| 3/4/1987         | -82.9                                    |                                           |
| 12/29/1986       | -84.0                                    | -10.12                                    |
| 2/26/1986        | -81.1                                    | -10.13                                    |
| 3/5/1985         | -81.0                                    | -9.95                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kansas**

Station Name: **Neosho River Near Parsons**

Station Number **07183500**

Hydrologic Unit Code: 11070205

Drainage Area  
(square miles): 4905

Latitude: 37° 18' 39"

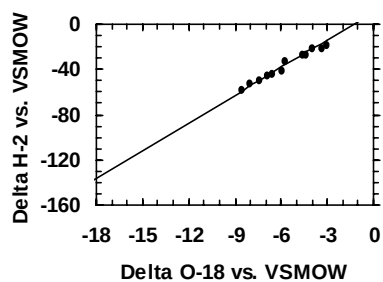
Datum (ft): 810.25

Longitude: 95° 06' 37"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/5/1987         | -18.9                                    | -3.03                                     |
| 6/24/1987        | -27.5                                    | -4.60                                     |
| 4/8/1987         | -44.9                                    | -6.88                                     |
| 2/25/1987        | -52.5                                    | -7.97                                     |
| 12/3/1986        | -57.4                                    | -8.56                                     |
| 10/22/1986       | -43.6                                    | -6.58                                     |
| 9/2/1986         | -21.6                                    | -3.34                                     |
| 5/6/1986         | -27.5                                    | -4.37                                     |
| 8/28/1985        | -21.8                                    | -4.00                                     |
| 5/1/1985         | -40.4                                    | -5.90                                     |
| 12/19/1984       | -33.2                                    | -5.73                                     |
| 11/21/1984       | -49.8                                    | -7.34                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kentucky**

Station Name: **Big Sandy River At Louisa**

Station Number **03215000**

Hydrologic Unit Code: 05070204

Drainage Area  
(square miles): 3897

Latitude: 38° 10' 16"

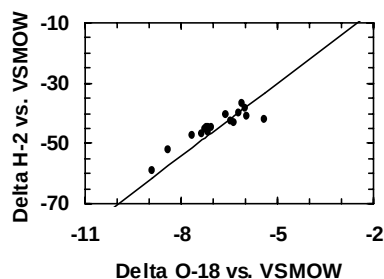
Datum (ft): 512.81

Longitude: 82° 38' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/3/1986         | -46.7                                    | -7.33                                     |
| 12/4/1984        | -40.5                                    | -6.60                                     |
| 1/22/1985        | -45.0                                    | -7.25                                     |
| 2/28/1985        | -47.0                                    | -7.65                                     |
| 4/3/1985         | -46.0                                    | -7.15                                     |
| 8/15/1985        | -36.8                                    | -6.09                                     |
| 10/16/1985       | -38.1                                    | -5.99                                     |
| 10/25/1984       | -42.5                                    | -6.45                                     |
| 4/17/1986        | -44.5                                    | -7.04                                     |
| 10/14/1987       | -42.9                                    | -6.35                                     |
| 8/20/1986        | -41.7                                    | -5.43                                     |
| 10/15/1986       | -39.9                                    | -6.21                                     |
| 1/6/1987         | -45.0                                    | -7.20                                     |
| 3/3/1987         | -52.2                                    | -8.40                                     |
| 4/30/1987        | -58.9                                    | -8.89                                     |
| 7/7/1987         | -44.7                                    | -7.20                                     |
| 8/31/1987        | -40.9                                    | -5.96                                     |
| 12/19/1985       | -44.3                                    | -7.14                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kentucky**

Station Name: **Licking River At Butler**

Station Number **03254000**

Hydrologic Unit Code: 05100101

Drainage Area 3375  
(square miles):

Latitude: 38° 47' 22"

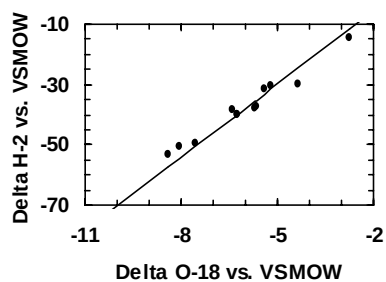
Datum (ft): 477

Longitude: 84° 21' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/13/1987        | -14.2                                    | -2.76                                     |
| 5/6/1987         | -49.6                                    | -7.54                                     |
| 2/25/1987        | -53.1                                    | -8.39                                     |
| 11/5/1986        | -37.8                                    | -5.71                                     |
| 8/26/1986        | -29.8                                    | -4.34                                     |
| 5/7/1986         | -37.0                                    | -5.67                                     |
| 2/3/1986         | -38.1                                    | -6.39                                     |
| 11/6/1985        | -39.6                                    | -6.27                                     |
| 8/6/1985         | -30.4                                    | -5.20                                     |
| 5/21/1985        | -31.1                                    | -5.42                                     |
| 2/21/1985        | -50.5                                    | -8.05                                     |
| 11/28/1984       | -39.5                                    | -6.25                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kentucky**

Station Name: **Ohio River At Markland Dam Near Warsaw**

Station Number **03277200**

Hydrologic Unit Code: 05090203

Drainage Area  
(square miles): 83170

Latitude: 38° 46' 29"

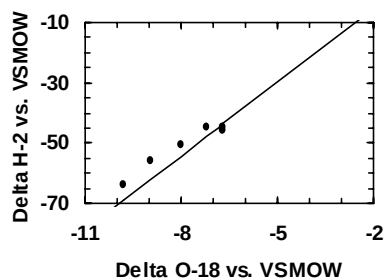
Datum (ft):

Longitude: 84° 57' 52"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/25/1986        | -44.3                                    | -6.70                                     |
| 5/6/1986         | -55.5                                    |                                           |
| 1/11/1986        | -55.6                                    | -8.94                                     |
| 11/5/1985        | -45.7                                    | -6.72                                     |
| 5/20/1985        | -50.2                                    | -8.01                                     |
| 3/4/1985         | -63.5                                    | -9.80                                     |
| 11/27/1984       | -44.5                                    | -7.20                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kentucky**

Station Name: **Salt River At Shepherdsville**

Station Number **03298500**

Hydrologic Unit Code: 05140102

Drainage Area  
(square miles): 1197

Latitude: 37° 59' 06"

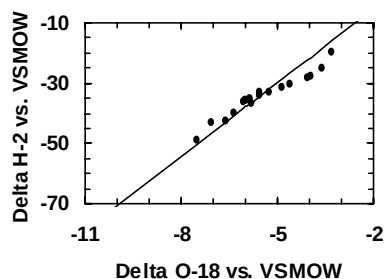
Datum (ft): 406.58

Longitude: 85° 43' 03"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/7/1986         | -33.0                                    | -5.55                                     |
| 12/18/1984       | -36.0                                    | -6.05                                     |
| 2/4/1985         | -43.0                                    | -7.05                                     |
| 4/29/1985        | -36.5                                    | -5.80                                     |
| 6/19/1985        | -35.7                                    | -5.95                                     |
| 8/26/1985        | -35.1                                    | -5.84                                     |
| 10/1/1985        | -27.6                                    | -3.97                                     |
| 10/24/1984       | -30.0                                    | -4.60                                     |
| 2/24/1986        | -35.2                                    | -5.98                                     |
| 8/10/1987        | -19.8                                    | -3.29                                     |
| 6/3/1986         | -32.7                                    | -5.24                                     |
| 8/11/1986        | -28.0                                    | -4.03                                     |
| 10/27/1986       | -24.7                                    | -3.60                                     |
| 12/4/1986        | -42.1                                    | -6.62                                     |
| 2/11/1987        | -39.8                                    | -6.36                                     |
| 4/13/1987        | -48.9                                    | -7.52                                     |
| 6/8/1987         | -31.1                                    | -4.85                                     |
| 12/16/1985       | -33.7                                    | -5.54                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Kentucky**

Station Name: **Rolling Fork Near Lebanon Junction**

Station Number **03301630**

Hydrologic Unit Code: 05140103

Drainage Area  
(square miles): 1375

Latitude: 37° 49' 22"

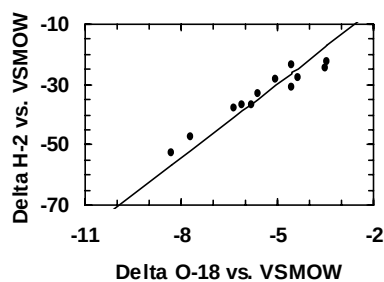
Datum (ft):

Longitude: 85° 44' 52"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -22.1                                    | -3.43                                     |
| 5/5/1987         | -36.7                                    | -5.82                                     |
| 2/23/1987        | -52.7                                    | -8.28                                     |
| 11/3/1986        | -27.3                                    | -4.37                                     |
| 8/12/1986        | -24.2                                    | -3.49                                     |
| 5/15/1986        | -30.6                                    | -4.55                                     |
| 2/25/1986        | -37.8                                    | -6.34                                     |
| 11/19/1985       | -27.9                                    | -5.07                                     |
| 8/27/1985        | -23.3                                    | -4.57                                     |
| 5/22/1985        | -32.9                                    | -5.62                                     |
| 2/5/1985         | -47.0                                    | -7.70                                     |
| 11/8/1984        | -36.5                                    | -6.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Louisiana**

Station Name: **Twelvemile Bayou Near Dixie**

Station Number **07348000**

Hydrologic Unit Code: 11140304

Drainage Area  
(square miles): 3137

Latitude: 32° 38' 45"

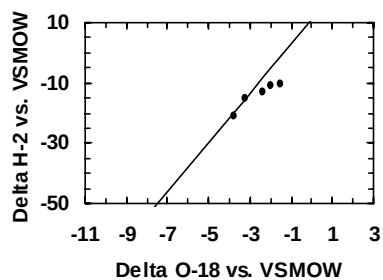
Datum (ft): 136.12

Longitude: 93° 52' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/8/1986         | -10.6                                    | -1.95                                     |
| 1/8/1986         | -20.6                                    | -3.74                                     |
| 10/10/1985       | 12.4                                     | 8.46                                      |
| 7/11/1985        | -10.4                                    | -1.50                                     |
| 4/3/1985         | -12.9                                    | -2.35                                     |
| 1/16/1985        | -14.7                                    | -3.25                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Louisiana**

Station Name: **Red River At Alexandria**

Station Number **07355500**

Hydrologic Unit Code: 08040401

Drainage Area  
(square miles): 67500

Latitude: 31° 18' 46"

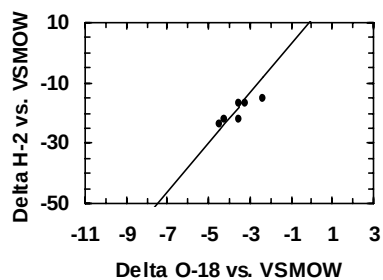
Datum (ft): 44.26

Longitude: 92° 26' 34"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/10/1986        | -16.8                                    | -3.56                                     |
| 1/7/1986         | -21.9                                    | -4.20                                     |
| 10/8/1985        | -14.9                                    | -2.35                                     |
| 7/7/1985         | -21.7                                    | -3.52                                     |
| 4/1/1985         | -23.2                                    | -4.45                                     |
| 1/15/1985        | -16.6                                    | -3.20                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Louisiana**

Station Name: **Tensas River At Tandal**

Station Number **07369500**

Hydrologic Unit Code: 08050003

Drainage Area  
(square miles): 309

Latitude: 32° 25' 55"

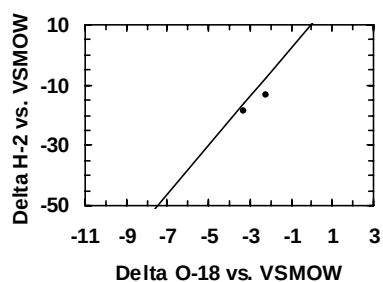
Datum (ft): 50.07

Longitude: 91° 22' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/10/1985        | -13.4                                    | -2.24                                     |
| 4/17/1985        | -18.8                                    | -3.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Louisiana**

Station Name: **Big Creek At Pollock**

Station Number **07373000**

Hydrologic Unit Code: 08040304

Drainage Area  
(square miles): 51

Latitude: 31° 32' 10"

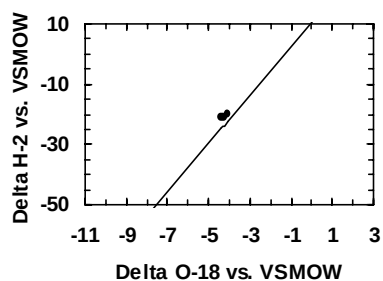
Datum (ft): 76.69

Longitude: 92° 24' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/9/1986         | -19.9                                    | -4.05                                     |
| 10/9/1985        | -20.7                                    | -4.25                                     |
| 7/9/1985         | -20.9                                    | -4.37                                     |
| 4/15/1985        | -21.1                                    | -4.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Louisiana**

Station Name: **Tchefuncta River Near Covington**

Station Number **07375050**

Hydrologic Unit Code: 08090201

Drainage Area  
(square miles): 145

Latitude: 30° 29' 40"

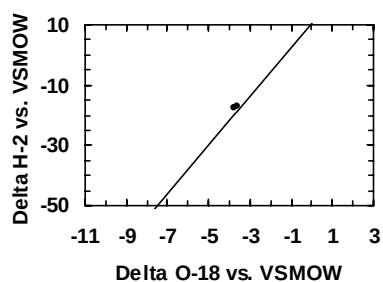
Datum (ft): 9.39

Longitude: 90° 10' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 11/18/1985       | -16.8                                    | -3.61                                     |
| 4/11/1985        | -17.5                                    | -3.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Louisiana**

Station Name: **Calcasieu River Near Kinder**

Station Number **08015500**

Hydrologic Unit Code: 08080203

Drainage Area  
(square miles): 1700

Latitude: 30° 30' 10"

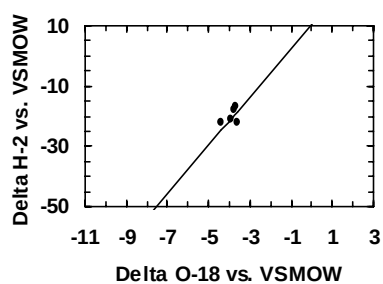
Datum (ft): 11.95

Longitude: 92° 54' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/7/1986         | -16.6                                    | -3.71                                     |
| 1/7/1986         | -21.7                                    | -4.37                                     |
| 7/9/1985         | -22.1                                    | -3.63                                     |
| 4/4/1985         | -20.9                                    | -3.95                                     |
| 1/18/1985        | -17.5                                    | -3.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Maine**

Station Name: **St. John River At Van Buren**

Station Number **01015000**

Hydrologic Unit Code: 01010001

Drainage Area  
(square miles): 8174

Latitude: 47° 09' 35"

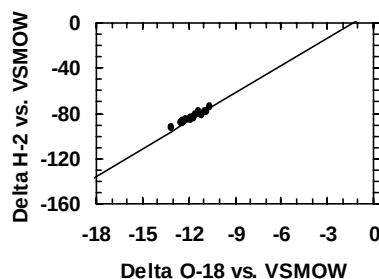
Datum (ft): 407.69

Longitude: 67° 55' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/14/1986        | -86.0                                    | -12.40                                    |
| 12/17/1984       | -80.0                                    | -11.50                                    |
| 3/18/1985        | -87.4                                    | -12.47                                    |
| 5/20/1985        | -86.9                                    | -12.31                                    |
| 7/10/1985        | -79.2                                    | -11.30                                    |
| 8/21/1985        | -81.4                                    | -11.17                                    |
| 11/5/1985        | -77.8                                    | -10.86                                    |
| 11/6/1984        | -78.0                                    | -11.35                                    |
| 3/14/1986        | -85.7                                    | -12.18                                    |
| 10/13/1987       | -77.4                                    | -10.96                                    |
| 6/18/1986        | -83.6                                    | -11.62                                    |
| 12/17/1986       | -83.7                                    | -11.75                                    |
| 3/3/1987         | -84.5                                    | -11.89                                    |
| 4/21/1987        | -92.4                                    | -13.11                                    |
| 6/30/1987        | -73.7                                    | -10.58                                    |
| 8/26/1987        | -80.6                                    | -11.16                                    |
| 1/9/1986         | -83.2                                    | -11.81                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Maine**

Station Name: **St. Croix River At Milltown**

Station Number **01021050**

Hydrologic Unit Code: 01050001

Drainage Area  
(square miles): 1460

Latitude: 45° 10' 11"

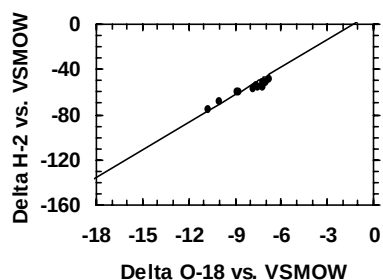
Datum (ft): 0

Longitude: 67° 17' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 10/14/1987       | -50.9                                    | -7.02                                     |
| 8/18/1987        | -54.8                                    | -7.16                                     |
| 4/13/1987        | -74.4                                    | -10.75                                    |
| 2/12/1987        | -56.3                                    | -7.83                                     |
| 8/6/1986         | -55.1                                    | -7.46                                     |
| 4/16/1986        | -67.7                                    | -10.01                                    |
| 2/7/1986         | -59.4                                    | -8.81                                     |
| 11/12/1985       | -47.5                                    | -6.76                                     |
| 8/8/1985         | -53.3                                    | -7.18                                     |
| 4/30/1985        | -59.4                                    | -8.77                                     |
| 2/13/1985        | -53.5                                    | -7.60                                     |
| 10/25/1984       | -51.0                                    | -7.20                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Maine**

Station Name: **Narraguagus River At Cherryfield**

Station Number **01022500**

Hydrologic Unit Code: 01050002

Drainage Area  
(square miles): 227

Latitude: 44° 36' 29"

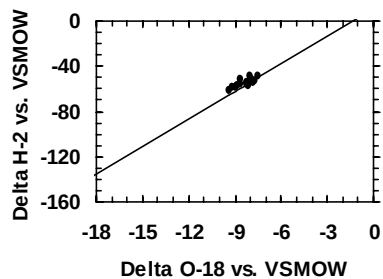
Datum (ft): 44.2

Longitude: 67° 56' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 2/7/1986         | -58.7                                    | -9.18                                     |
| 12/12/1984       | -48.5                                    | -8.00                                     |
| 2/14/1985        | -51.5                                    | -8.65                                     |
| 5/1/1985         | -55.9                                    | -8.63                                     |
| 6/12/1985        | -53.3                                    | -8.07                                     |
| 8/8/1985         | -55.7                                    | -8.27                                     |
| 10/25/1984       | -51.5                                    | -7.95                                     |
| 1/7/1986         | -53.6                                    | -8.25                                     |
| 10/19/1987       | -51.8                                    | -7.98                                     |
| 4/16/1986        | -60.3                                    | -9.38                                     |
| 6/24/1986        | -54.0                                    | -7.80                                     |
| 1/12/1987        | -56.8                                    | -8.80                                     |
| 3/16/1987        | -57.6                                    | -8.92                                     |
| 6/22/1987        | -56.2                                    | -8.11                                     |
| 8/11/1987        | -51.9                                    | -7.67                                     |
| 11/13/1985       | -47.8                                    | -7.46                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Maine**

Station Name: **Wild River At Gilead**

Station Number **01054200**

Hydrologic Unit Code: 01040002

Drainage Area  
(square miles): 69.6

Latitude: 44° 23' 27"

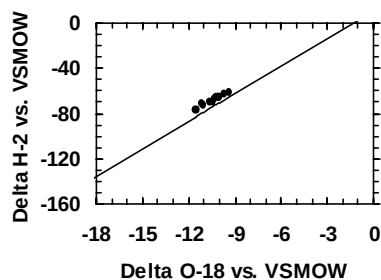
Datum (ft): 683.1

Longitude: 70° 58' 47"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 10/20/1987       | -65.3                                    | -10.06                                    |
| 8/4/1987         | -64.5                                    | -9.99                                     |
| 4/27/1987        | -76.5                                    | -11.44                                    |
| 2/10/1987        | -69.1                                    | -10.59                                    |
| 8/14/1986        | -62.5                                    | -9.64                                     |
| 4/9/1986         | -72.9                                    | -11.07                                    |
| 3/12/1986        | -69.1                                    | -10.36                                    |
| 2/25/1986        | -66.6                                    | -10.28                                    |
| 10/23/1985       | -61.2                                    | -9.38                                     |
| 9/4/1985         | -64.5                                    | -10.03                                    |
| 4/17/1985        | -76.8                                    | -11.54                                    |
| 2/26/1985        | -71.0                                    | -11.15                                    |
| 11/14/1984       | -64.5                                    | -10.15                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Maine**

Station Name: **Androscoggin River At Brunswick**

Station Number **01059400**

Hydrologic Unit Code: 01060001

Drainage Area  
(square miles): 3434

Latitude: 43° 55' 03"

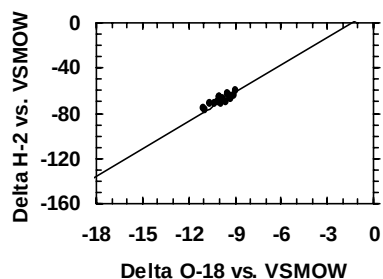
Datum (ft):

Longitude: 69° 58' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/14/1986        | -71.1                                    | -10.66                                    |
| 12/18/1984       | -66.0                                    | -9.80                                     |
| 2/28/1985        | -64.5                                    | -9.95                                     |
| 4/25/1985        | -75.2                                    | -11.07                                    |
| 6/11/1985        | -71.0                                    | -10.27                                    |
| 9/5/1985         | -69.0                                    | -9.54                                     |
| 10/24/1985       | -63.0                                    | -9.04                                     |
| 11/13/1984       | -63.0                                    | -9.50                                     |
| 2/11/1986        | -65.3                                    | -10.00                                    |
| 10/19/1987       | -64.2                                    | -9.32                                     |
| 6/30/1986        | -68.1                                    | -9.77                                     |
| 8/19/1986        | -59.3                                    | -8.90                                     |
| 12/3/1986        | -68.4                                    | -10.03                                    |
| 2/5/1987         | -69.4                                    | -10.11                                    |
| 4/16/1987        | -76.0                                    | -10.93                                    |
| 6/22/1987        | -70.9                                    | -9.93                                     |
| 8/6/1987         | -65.9                                    | -9.28                                     |
| 12/14/1985       | -63.0                                    | -9.43                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Maryland**

Station Name: **Choptank River Near Greensboro**

Station Number **01491000**

Hydrologic Unit Code: 02060005

Drainage Area  
(square miles): 113

Latitude: 38° 59' 50"

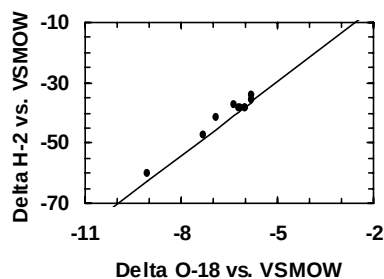
Datum (ft): 3.51

Longitude: 75° 47' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/4/1987         | -35.5                                    | -5.80                                     |
| 5/7/1987         | -41.4                                    | -6.90                                     |
| 2/11/1987        | -59.8                                    | -9.05                                     |
| 11/5/1986        | -37.9                                    | -6.20                                     |
| 9/8/1986         | -38.0                                    | -5.99                                     |
| 5/19/1986        | -38.0                                    | -6.15                                     |
| 11/18/1985       | -37.3                                    | -6.37                                     |
| 8/29/1985        | -33.9                                    | -5.78                                     |
| 5/15/1985        | -38.2                                    | -6.02                                     |
| 2/11/1985        | -47.0                                    | -7.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Maryland**

Station Name: **Susquehanna River At Conowingo**

Station Number **01578310**

Hydrologic Unit Code: 02050306

Drainage Area  
(square miles): 27100

Latitude: 39° 39' 26"

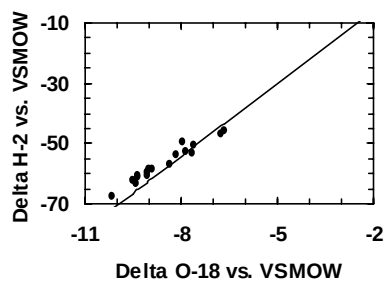
Datum (ft): 5

Longitude: 76° 10' 31"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/9/1986         | -53.3                                    | -8.17                                     |
| 3/6/1985         | -67.5                                    | -10.15                                    |
| 5/13/1985        | -59.6                                    | -9.07                                     |
| 7/10/1985        | -52.7                                    | -7.86                                     |
| 9/9/1985         | -46.5                                    | -6.76                                     |
| 11/20/1985       | -49.3                                    | -7.97                                     |
| 1/15/1986        | -58.3                                    | -8.91                                     |
| 1/28/1985        | -60.5                                    | -9.05                                     |
| 5/12/1986        | -58.5                                    | -8.99                                     |
| 9/3/1987         | -45.7                                    | -6.66                                     |
| 9/10/1986        | -50.3                                    | -7.61                                     |
| 11/19/1986       | -56.6                                    | -8.38                                     |
| 1/7/1987         | -63.3                                    | -9.38                                     |
| 3/4/1987         | -61.1                                    | -9.35                                     |
| 5/6/1987         | -60.5                                    | -9.34                                     |
| 7/8/1987         | -53.0                                    | -7.65                                     |
| 3/11/1986        | -62.2                                    | -9.52                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Maryland**

Station Name: **Patuxent River Near Bowie**

Station Number **01594440**

Hydrologic Unit Code: 02060006

Drainage Area  
(square miles): 348

Latitude: 38° 57' 21"

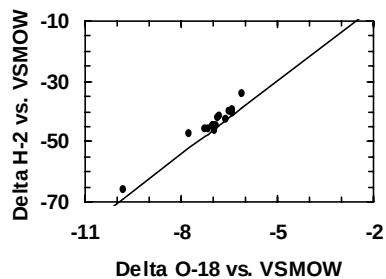
Datum (ft): 13.1

Longitude: 76° 41' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/7/1986         | -44.3                                    | -6.97                                     |
| 3/13/1985        | -44.5                                    | -7.00                                     |
| 5/7/1985         | -41.5                                    | -6.80                                     |
| 7/9/1985         | -44.4                                    | -6.89                                     |
| 9/10/1985        | -40.0                                    | -6.40                                     |
| 11/19/1985       | -39.7                                    | -6.48                                     |
| 1/16/1985        | -45.5                                    | -7.25                                     |
| 3/10/1986        | -45.5                                    | -7.18                                     |
| 9/1/1987         | -39.1                                    | -6.42                                     |
| 9/9/1986         | -42.5                                    | -6.59                                     |
| 11/12/1986       | -34.0                                    | -6.10                                     |
| 1/8/1987         | -46.0                                    | -6.95                                     |
| 3/5/1987         | -65.8                                    | -9.81                                     |
| 5/5/1987         | -46.9                                    | -7.73                                     |
| 7/9/1987         | -42.0                                    | -6.86                                     |
| 1/13/1986        | -44.4                                    | -6.99                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Massachusetts**

Station Name: **Charles River At Dover**

Station Number **01103500**

Hydrologic Unit Code: 01090001

Drainage Area  
(square miles): 184

Latitude: 42° 15' 22"

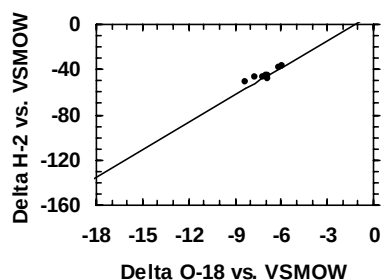
Datum (ft): 89.76

Longitude: 71° 15' 38"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1986        | -47.7                                    | -6.85                                     |
| 4/30/1986        | -46.2                                    | -7.15                                     |
| 2/19/1986        | -50.8                                    | -8.28                                     |
| 10/23/1985       | -38.8                                    | -6.16                                     |
| 8/15/1985        | -36.9                                    | -5.95                                     |
| 6/4/1985         | -45.2                                    | -6.88                                     |
| 3/13/1985        | -47.4                                    | -7.74                                     |
| 11/7/1984        | -45.9                                    | -6.94                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Michigan**

Station Name: **Washington Creek At Windigo**

Station Number **04001000**

Hydrologic Unit Code: 04020300

Drainage Area  
(square miles): 13.2

Latitude: 47° 55' 23"

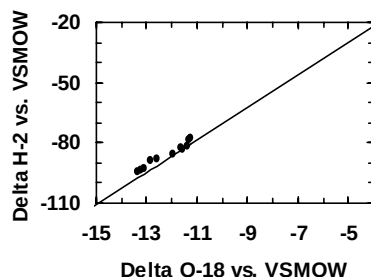
Datum (ft): 605

Longitude: 89° 08' 42"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -83.3                                    | -11.56                                    |
| 5/6/1987         | -92.8                                    | -13.10                                    |
| 2/3/1987         | -88.2                                    | -12.83                                    |
| 10/29/1986       | -85.1                                    | -11.94                                    |
| 8/5/1986         | -82.3                                    | -11.63                                    |
| 5/20/1986        | -93.5                                    | -13.23                                    |
| 2/11/1986        | -88.1                                    | -12.59                                    |
| 10/16/1985       | -77.7                                    | -11.27                                    |
| 7/10/1985        | -81.0                                    | -11.39                                    |
| 5/6/1985         | -94.3                                    | -13.34                                    |
| 10/29/1984       | -78.1                                    | -11.31                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Michigan**

Station Name: **Tahquamenon River Near Tahquamenon Paradise**

Station Number **04045500**

Hydrologic Unit Code: 04020202

Drainage Area  
(square miles): 790

Latitude: 46° 34' 30"

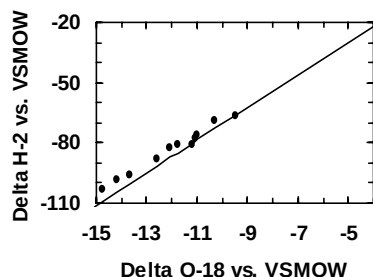
Datum (ft): 697

Longitude: 85° 16' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/20/1987        | -66.1                                    | -9.48                                     |
| 4/14/1987        | -95.9                                    | -13.67                                    |
| 1/5/1987         | -87.4                                    | -12.60                                    |
| 10/21/1986       | -75.4                                    | -10.98                                    |
| 7/15/1986        | -80.6                                    | -11.19                                    |
| 4/6/1986         | -103.0                                   | -14.72                                    |
| 1/7/1986         | -82.4                                    | -12.06                                    |
| 10/16/1985       | -69.0                                    | -10.29                                    |
| 7/16/1985        | -77.4                                    | -11.08                                    |
| 4/16/1985        | -98.4                                    | -14.17                                    |
| 1/16/1985        | -80.3                                    | -11.77                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Michigan**

Station Name: **St Marys River Above Sault Ste Marie**

Station Number **04045580**

Hydrologic Unit Code: 04020300

Drainage Area  
(square miles): 80900

Latitude: 46° 29' 29"

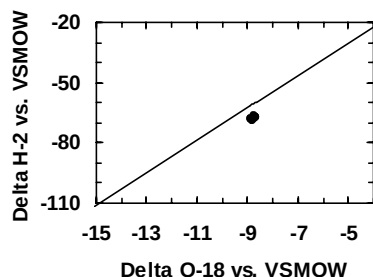
Datum (ft):

Longitude: 84° 25' 17"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/21/1987        | -66.5                                    | -8.68                                     |
| 4/15/1987        | -68.4                                    | -8.78                                     |
| 1/6/1987         | -67.2                                    | -8.67                                     |
| 10/22/1986       | -68.1                                    | -8.69                                     |
| 7/16/1986        | -68.3                                    | -8.81                                     |
| 4/17/1986        | -67.4                                    | -8.78                                     |
| 1/8/1986         | -66.8                                    | -8.67                                     |
| 10/17/1985       | -66.8                                    | -8.67                                     |
| 7/17/1985        | -68.2                                    | -8.89                                     |
| 4/17/1985        | -67.8                                    | -8.93                                     |
| 1/17/1985        | -66.3                                    | -8.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Michigan**

Station Name: **St. Joseph River At Niles**

Station Number **04101500**

Hydrologic Unit Code: 04050001

Drainage Area  
(square miles): 3666

Latitude: 41° 49' 45"

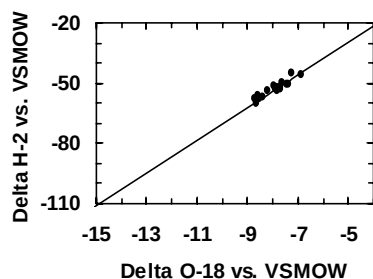
Datum (ft): 633.02

Longitude: 86° 15' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/28/1986        | -52.6                                    | -7.90                                     |
| 1/29/1985        | -55.6                                    | -8.57                                     |
| 3/22/1985        | -57.6                                    | -8.68                                     |
| 4/26/1985        | -53.2                                    | -8.21                                     |
| 7/16/1985        | -52.8                                    | -7.68                                     |
| 9/11/1985        | -50.2                                    | -7.43                                     |
| 11/20/1985       | -44.8                                    | -7.22                                     |
| 11/21/1984       | -51.0                                    | -7.92                                     |
| 3/25/1986        | -59.5                                    | -8.64                                     |
| 9/16/1987        | -50.5                                    | -7.39                                     |
| 7/23/1986        | -45.5                                    | -6.85                                     |
| 9/10/1986        | -52.1                                    | -7.69                                     |
| 11/3/1986        | -51.7                                    | -7.84                                     |
| 1/5/1987         | -56.8                                    | -8.39                                     |
| 3/25/1987        | -57.1                                    | -8.53                                     |
| 5/26/1987        | -53.8                                    | -7.79                                     |
| 7/15/1987        | -49.6                                    | -7.66                                     |
| 1/23/1986        | -57.5                                    | -8.56                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Michigan**

Station Name: **Manistee River At Manistee**

Station Number **04126520**

Hydrologic Unit Code: 04060103

Drainage Area  
(square miles): 2000

Latitude: 44° 15' 02"

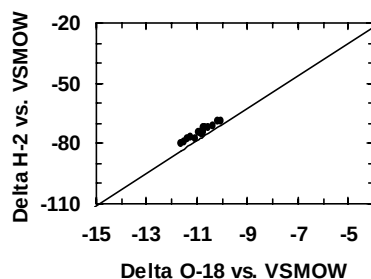
Datum (ft):

Longitude: 86° 19' 09"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/17/1986        | -71.1                                    | -10.33                                    |
| 1/8/1985         | -74.5                                    | -10.90                                    |
| 3/19/1985        | -79.5                                    | -11.65                                    |
| 5/16/1985        | -77.5                                    | -11.07                                    |
| 7/21/1985        | -74.9                                    | -10.80                                    |
| 8/28/1985        | -74.5                                    | -10.82                                    |
| 11/6/1985        | -72.2                                    | -10.55                                    |
| 11/27/1984       | -71.5                                    | -10.65                                    |
| 5/15/1986        | -74.2                                    | -10.88                                    |
| 8/27/1987        | -68.7                                    | -10.16                                    |
| 9/18/1986        | -68.2                                    | -10.06                                    |
| 11/14/1986       | -71.6                                    | -10.73                                    |
| 1/16/1987        | -76.9                                    | -11.23                                    |
| 3/12/1987        | -77.2                                    | -11.35                                    |
| 5/28/1987        | -73.7                                    | -10.72                                    |
| 6/30/1987        | -73.9                                    | -10.77                                    |
| 3/19/1986        | -78.7                                    | -11.51                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Michigan**

Station Name: **Rifle River Near Sterling**

Station Number **04142000**

Hydrologic Unit Code: 04080101

Drainage Area  
(square miles): 320

Latitude: 44° 04' 21"

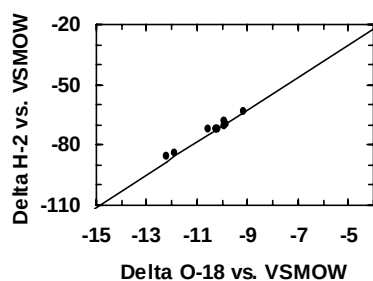
Datum (ft): 649.48

Longitude: 84° 01' 12"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/5/1987         | -71.7                                    | -10.22                                    |
| 4/9/1987         | -71.8                                    | -10.24                                    |
| 2/20/1987        | -72.1                                    | -10.57                                    |
| 7/24/1986        | -70.3                                    | -9.92                                     |
| 5/20/1986        | -62.6                                    | -9.16                                     |
| 3/27/1986        | -83.8                                    | -11.86                                    |
| 10/3/1985        | -69.2                                    | -9.88                                     |
| 8/26/1985        | -67.6                                    | -9.89                                     |
| 5/23/1985        | -72.2                                    | -10.19                                    |
| 3/13/1985        | -85.0                                    | -12.20                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Michigan**

Station Name: **Pigeon River Near Caseville**

Station Number **04159010**

Hydrologic Unit Code: 04080103

Drainage Area  
(square miles): 125

Latitude: 43° 56' 22"

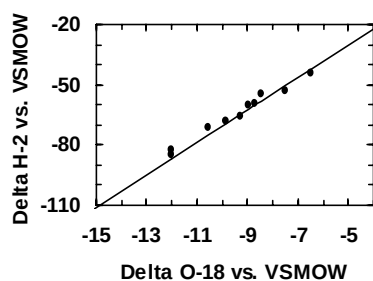
Datum (ft):

Longitude: 83° 14' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/8/1987         | -68.1                                    | -9.84                                     |
| 2/19/1987        | -70.7                                    | -10.53                                    |
| 10/9/1986        | -54.6                                    | -8.46                                     |
| 7/23/1986        | -43.6                                    | -6.49                                     |
| 5/21/1986        | -60.2                                    | -8.97                                     |
| 3/26/1986        | -84.4                                    | -11.99                                    |
| 10/1/1985        | -59.1                                    | -8.72                                     |
| 8/7/1985         | -52.9                                    | -7.47                                     |
| 5/21/1985        | -65.5                                    | -9.25                                     |
| 3/11/1985        | -82.5                                    | -12.00                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **Baptism River Near Beaver Bay**

Station Number **04014500**

Hydrologic Unit Code: 04010101

Drainage Area  
(square miles): 140

Latitude: 47° 20' 07"

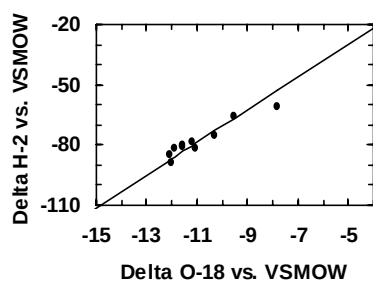
Datum (ft): 613.65

Longitude: 91° 12' 06"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/22/1987        | -60.3                                    | -7.79                                     |
| 4/29/1987        | -88.4                                    | -12.04                                    |
| 2/3/1987         | -81.6                                    | -11.88                                    |
| 11/13/1986       | -84.8                                    | -12.10                                    |
| 8/19/1986        | -74.7                                    | -10.27                                    |
| 6/3/1986         | -81.4                                    | -11.08                                    |
| 1/15/1986        | -80.8                                    | -11.55                                    |
| 10/22/1985       | -78.4                                    | -11.21                                    |
| 9/10/1985        | -65.6                                    | -9.55                                     |
| 1/8/1985         | -80.0                                    | -11.55                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **Red River Of The North At Halstad**Station Number **05064500**

Hydrologic Unit Code: 09020107

Drainage Area (square miles): 21800

Latitude: 47° 21' 10"

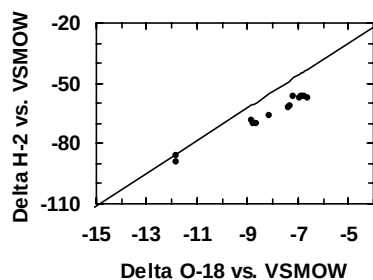
Datum (ft): 826.65

Longitude: 96° 50' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/4/1987         | -57.5                                    | -6.91                                     |
| 6/24/1987        | -57.6                                    | -6.63                                     |
| 4/22/1987        | -89.2                                    | -11.84                                    |
| 4/1/1987         | -86.1                                    | -11.81                                    |
| 12/11/1986       | -70.3                                    | -8.65                                     |
| 10/28/1986       | -56.8                                    | -6.82                                     |
| 7/2/1986         | -56.5                                    | -6.74                                     |
| 2/14/1986        | -62.2                                    | -7.38                                     |
| 12/19/1985       | -61.5                                    | -7.30                                     |
| 11/4/1985        | -56.4                                    | -6.84                                     |
| 6/27/1985        | -56.8                                    | -7.15                                     |
| 5/8/1985         | -66.1                                    | -8.12                                     |
| 11/29/1984       | -69.9                                    | -8.79                                     |
| 11/8/1984        | -68.4                                    | -8.81                                     |

## Delta H-2 vs. Delta O-18

**Global Meteoric Water Line  
(Rozanski and others, 1993) shown**





State: **Minnesota**

Station Name: **Red Lake River At Crookston**

Station Number **05079000**

Hydrologic Unit Code: 09020303

Drainage Area  
(square miles): 5280

Latitude: 47° 46' 32"

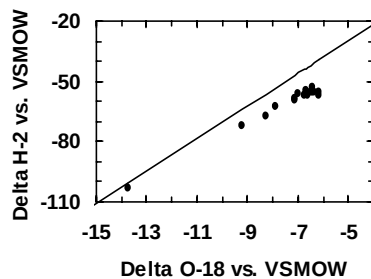
Datum (ft): 832.72

Longitude: 96° 36' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/19/1986        | -71.9                                    | -9.19                                     |
| 2/20/1985        | -55.0                                    | -6.35                                     |
| 4/2/1985         | -102.5                                   | -13.70                                    |
| 6/19/1985        | -58.6                                    | -7.10                                     |
| 8/8/1985         | -52.4                                    | -6.40                                     |
| 11/5/1985        | -55.7                                    | -6.97                                     |
| 11/27/1984       | -59.0                                    | -7.10                                     |
| 1/22/1986        | -54.6                                    | -6.68                                     |
| 8/25/1987        | -56.6                                    | -6.18                                     |
| 6/24/1986        | -54.8                                    | -6.39                                     |
| 8/12/1986        | -55.3                                    | -6.15                                     |
| 11/14/1986       | -54.9                                    | -6.50                                     |
| 12/16/1986       | -56.7                                    | -6.62                                     |
| 4/21/1987        | -67.0                                    | -8.26                                     |
| 6/2/1987         | -62.4                                    | -7.89                                     |
| 12/10/1985       | -56.5                                    | -6.73                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **Roseau River Below State Ditch 51 Near Caribou**

Station Number **05112000**

Hydrologic Unit Code: 09020314

Drainage Area  
(square miles): 1570

Latitude: 48° 58' 54"

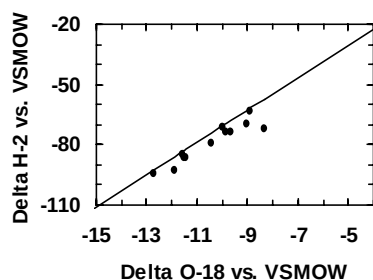
Datum (ft): 1002.14

Longitude: 96° 27' 46"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/28/1987        | -69.8                                    | -9.04                                     |
| 5/5/1987         | -92.4                                    | -11.91                                    |
| 1/6/1987         | -86.3                                    | -11.45                                    |
| 10/7/1986        | -73.1                                    | -9.66                                     |
| 8/26/1986        | -71.7                                    | -8.35                                     |
| 5/28/1986        | -78.5                                    | -10.43                                    |
| 1/28/1986        | -84.3                                    | -11.57                                    |
| 11/5/1985        | -73.7                                    | -9.86                                     |
| 8/20/1985        | -63.1                                    | -8.87                                     |
| 5/21/1985        | -70.7                                    | -9.99                                     |
| 1/15/1985        | -94.0                                    | -12.70                                    |
| 10/23/1984       | -86.5                                    | -11.50                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **Kawishiwi River Near Ely**

Station Number **05124480**

Hydrologic Unit Code: 09030001

Drainage Area  
(square miles): 253

Latitude: 47° 55' 22"

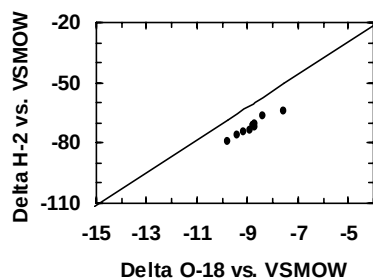
Datum (ft): 1450

Longitude: 91° 32' 06"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 9/2/1987            | -63.7                                       | -7.55                                        |
| 2/4/1987            | -74.5                                       | -9.13                                        |
| 10/29/1986          | -72.2                                       | -8.70                                        |
| 8/6/1986            | -73.5                                       | -8.90                                        |
| 5/12/1986           | -78.6                                       | -9.79                                        |
| 2/19/1986           | -70.7                                       | -8.78                                        |
| 10/16/1985          | -70.0                                       | -8.68                                        |
| 9/4/1985            | -66.2                                       | -8.36                                        |
| 4/30/1985           | -75.5                                       | -9.40                                        |
| 2/6/1985            | -71.0                                       | -8.80                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **Mississippi River Near Royalton**

Station Number **05267000**

Hydrologic Unit Code: 07010104

Drainage Area  
(square miles): 11600

Latitude: 45° 51' 40"

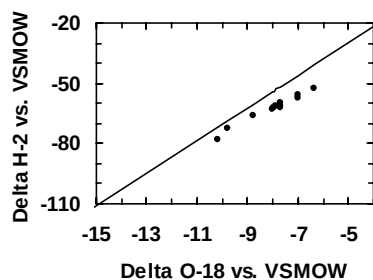
Datum (ft):

Longitude: 94° 21' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/22/1987        | -57.4                                    | -6.98                                     |
| 7/28/1987        | -53.0                                    | -6.36                                     |
| 7/14/1987        | -61.8                                    | -7.85                                     |
| 12/17/1986       | -62.1                                    | -7.95                                     |
| 8/11/1986        | -62.5                                    | -7.70                                     |
| 6/23/1986        | -63.0                                    | -8.03                                     |
| 4/30/1986        | -72.8                                    | -9.77                                     |
| 2/26/1986        | -59.7                                    | -7.67                                     |
| 12/19/1985       | -61.3                                    | -7.68                                     |
| 10/16/1985       | -62.0                                    | -7.97                                     |
| 8/20/1985        | -55.7                                    | -7.01                                     |
| 6/18/1985        | -66.0                                    | -8.79                                     |
| 4/8/1985         | -78.0                                    | -10.15                                    |
| 12/13/1984       | -61.5                                    | -7.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **Minnesota River Near Jordan**

Station Number **05330000**

Hydrologic Unit Code: 07020012

Drainage Area  
(square miles): 16200

Latitude: 44° 41' 35"

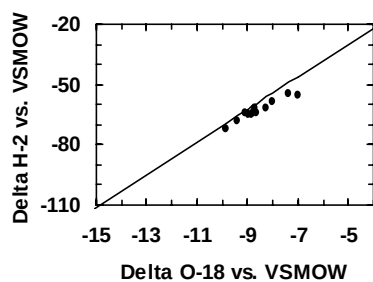
Datum (ft): 690

Longitude: 93° 38' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/20/1987        | -54.2                                    | -7.36                                     |
| 6/13/1987        | -63.9                                    | -8.66                                     |
| 4/28/1987        | -61.5                                    | -8.23                                     |
| 12/18/1986       | -63.7                                    | -8.77                                     |
| 7/15/1986        | -57.9                                    | -8.01                                     |
| 4/28/1986        | -71.8                                    | -9.86                                     |
| 1/16/1986        | -64.5                                    | -8.81                                     |
| 10/23/1985       | -61.7                                    | -8.69                                     |
| 7/29/1985        | -54.9                                    | -7.00                                     |
| 4/25/1985        | -68.0                                    | -9.40                                     |
| 1/9/1985         | -64.5                                    | -8.95                                     |
| 10/29/1984       | -64.0                                    | -9.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **North Fork Whitewater River Near Elba**

Station Number **05376000**

Hydrologic Unit Code: 07040003

Drainage Area  
(square miles): 101

Latitude: 44° 05' 30"

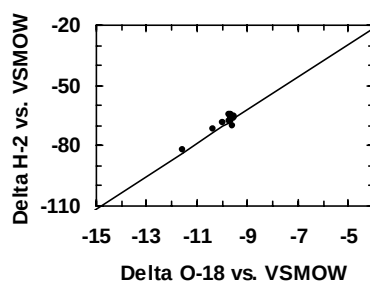
Datum (ft): 769.6

Longitude: 92° 03' 57"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/17/1987        | -64.7                                    | -9.66                                     |
| 7/15/1987        | -70.5                                    | -9.57                                     |
| 5/5/1987         | -66.0                                    | -9.52                                     |
| 3/26/1987        | -64.4                                    | -9.70                                     |
| 1/14/1987        | -64.8                                    | -9.68                                     |
| 12/16/1986       | -67.4                                    | -9.67                                     |
| 8/13/1986        | -65.9                                    | -9.60                                     |
| 4/16/1986        | -67.2                                    | -9.63                                     |
| 3/19/1986        | -82.1                                    | -11.58                                    |
| 1/14/1986        | -68.0                                    | -9.72                                     |
| 10/1/1985        | -68.8                                    | -9.97                                     |
| 4/22/1985        | -65.5                                    | -9.55                                     |
| 3/6/1985         | -71.5                                    | -10.35                                    |
| 1/14/1985        | -66.5                                    | -9.65                                     |
| 10/24/1984       | -64.5                                    | -9.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Minnesota**

Station Name: **Mississippi River At Winona**

Station Number **05378500**

Hydrologic Unit Code: 07040003

Drainage Area  
(square miles): 59200

Latitude: 44° 03' 20"

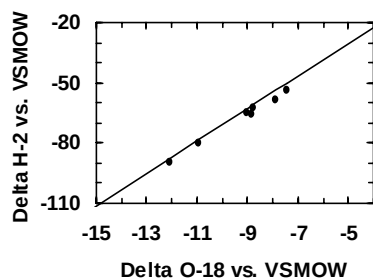
Datum (ft): 639.64

Longitude: 91° 38' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/20/1986        | -53.5                                    | -7.46                                     |
| 4/9/1986         | -89.2                                    | -12.09                                    |
| 1/14/1986        | -65.1                                    | -8.86                                     |
| 11/26/1985       | -62.5                                    | -8.78                                     |
| 4/22/1985        | -79.5                                    | -10.90                                    |
| 1/14/1985        | -64.5                                    | -9.05                                     |
| 10/24/1984       | -58.0                                    | -7.90                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Mississippi**

Station Name: **Cypress Creek Near Janice**

Station Number **02479155**

Hydrologic Unit Code: 03170007

Drainage Area  
(square miles): 52.6

Latitude: 31° 01' 30"

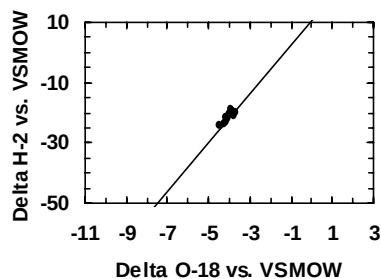
Datum (ft): 110

Longitude: 89° 01' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/15/1987        | -21.2                                    | -4.13                                     |
| 4/28/1987        | -23.0                                    | -4.16                                     |
| 1/13/1987        | -23.9                                    | -4.47                                     |
| 11/4/1986        | -19.9                                    | -3.85                                     |
| 7/23/1986        | -19.7                                    | -3.68                                     |
| 4/23/1986        | -19.2                                    | -3.81                                     |
| 1/23/1986        | -23.6                                    | -4.26                                     |
| 10/25/1985       | -20.8                                    | -3.77                                     |
| 7/17/1985        | -21.6                                    | -4.06                                     |
| 4/10/1985        | -18.5                                    | -3.90                                     |
| 1/16/1985        | -20.3                                    | -4.00                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Mississippi**

Station Name: **Escatawpa River Near Agricola**

Station Number **02479560**

Hydrologic Unit Code: 03170008

Drainage Area  
(square miles): 562

Latitude: 30° 48' 32"

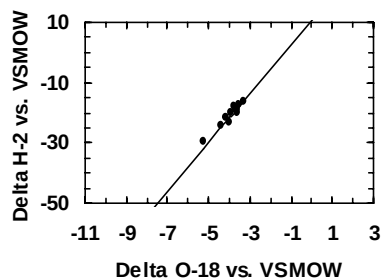
Datum (ft): 50

Longitude: 88° 27' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -18.9                                    | -3.68                                     |
| 4/14/1987        | -21.1                                    | -4.14                                     |
| 2/10/1987        | -29.2                                    | -5.24                                     |
| 10/21/1986       | -16.2                                    | -3.31                                     |
| 8/26/1986        | -17.0                                    | -3.56                                     |
| 4/8/1986         | -18.8                                    | -3.59                                     |
| 2/5/1986         | -24.0                                    | -4.37                                     |
| 10/16/1985       | -22.9                                    | -3.98                                     |
| 8/14/1985        | -19.5                                    | -3.59                                     |
| 4/16/1985        | -20.0                                    | -3.96                                     |
| 2/12/1985        | -17.4                                    | -3.80                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Mississippi**

Station Name: **Wolf River Near Landon**

Station Number **02481510**

Hydrologic Unit Code: 03170009

Drainage Area  
(square miles): 308

Latitude: 30° 29' 00"

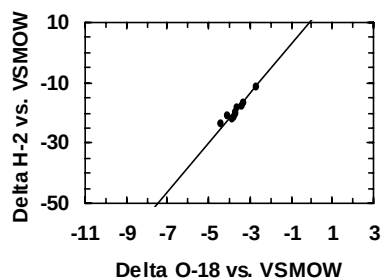
Datum (ft): 21.34

Longitude: 89° 16' 28"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/15/1987        | -20.1                                    | -3.69                                     |
| 4/27/1987        | -21.6                                    | -3.80                                     |
| 1/12/1987        | -23.5                                    | -4.38                                     |
| 4/24/1986        | -16.5                                    | -3.28                                     |
| 2/23/1986        | -11.4                                    | -2.66                                     |
| 1/23/1986        | -20.8                                    | -4.09                                     |
| 10/24/1985       | -19.8                                    | -3.70                                     |
| 7/17/1985        | -21.6                                    | -3.86                                     |
| 4/10/1985        | -17.8                                    | -3.37                                     |
| 1/16/1985        | -18.0                                    | -3.60                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Mississippi**

Station Name: **Yazoo River Near Shell Bluff**

Station Number **07287120**

Hydrologic Unit Code: 08030206

Drainage Area  
(square miles): 7650

Latitude: 33° 23' 48"

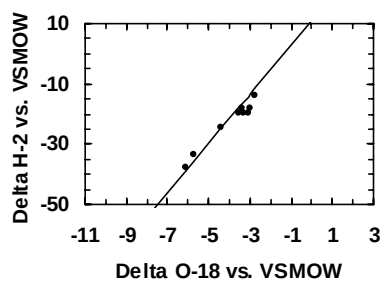
Datum (ft): 92.07

Longitude: 90° 16' 19"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/1/1987         | -19.7                                    | -3.50                                     |
| 3/10/1987        | -33.6                                    | -5.73                                     |
| 8/26/1986        | -18.1                                    | -2.97                                     |
| 5/22/1986        | -14.1                                    | -2.72                                     |
| 2/21/1986        | -24.6                                    | -4.36                                     |
| 11/6/1985        | -19.6                                    | -3.09                                     |
| 8/27/1985        | -19.6                                    | -3.29                                     |
| 5/8/1985         | -18.0                                    | -3.39                                     |
| 2/26/1985        | -37.9                                    | -6.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Mississippi**

Station Name: **Big Black River Nr Bovina**

Station Number **07290000**

Hydrologic Unit Code: 08030206

Drainage Area  
(square miles): 7450

Latitude: 32° 20' 51"

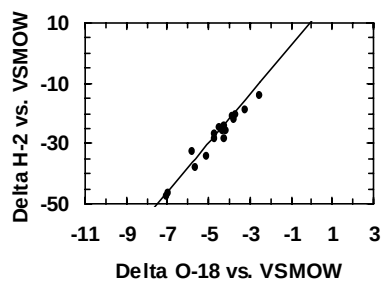
Datum (ft): 92.07

Longitude: 90° 41' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/12/1986        | -25.4                                    | -4.15                                     |
| 2/25/1985        | -26.7                                    | -4.71                                     |
| 4/2/1985         | -21.8                                    | -3.78                                     |
| 6/19/1985        | -28.2                                    | -4.21                                     |
| 8/29/1985        | -33.9                                    | -5.06                                     |
| 10/21/1985       | -20.5                                    | -3.66                                     |
| 12/16/1985       | -46.1                                    | -6.99                                     |
| 12/6/1984        | -24.1                                    | -4.27                                     |
| 4/17/1986        | -18.6                                    | -3.22                                     |
| 8/13/1987        | -47.2                                    | -7.03                                     |
| 8/25/1986        | -14.0                                    | -2.49                                     |
| 10/22/1986       | -28.0                                    | -4.69                                     |
| 12/17/1986       | -24.7                                    | -4.47                                     |
| 2/18/1987        | -32.3                                    | -5.76                                     |
| 4/20/1987        | -20.9                                    | -3.81                                     |
| 6/17/1987        | -38.0                                    | -5.64                                     |
| 2/19/1986        | -25.6                                    | -4.35                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Mississippi**

Station Name: **Homochitto River At Rosetta**

Station Number **07292500**

Hydrologic Unit Code: 08060205

Drainage Area  
(square miles): 750

Latitude: 31° 19' 22"

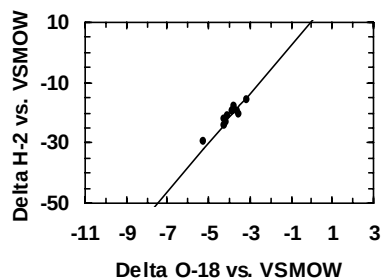
Datum (ft): 94.39

Longitude: 91° 06' 27"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/14/1987        | -15.6                                    | -3.16                                     |
| 4/21/1987        | -23.0                                    | -4.13                                     |
| 1/20/1987        | -29.5                                    | -5.25                                     |
| 10/23/1986       | -19.2                                    | -3.85                                     |
| 7/1/1986         | -17.8                                    | -3.75                                     |
| 4/15/1986        | -24.2                                    | -4.26                                     |
| 1/7/1986         | -21.7                                    | -4.26                                     |
| 10/22/1985       | -19.0                                    | -3.82                                     |
| 8/6/1985         | -20.3                                    | -3.52                                     |
| 4/9/1985         | -18.9                                    | -3.64                                     |
| 1/15/1985        | -21.0                                    | -4.04                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Salt River Near New London**

Station Number **05508000**

Hydrologic Unit Code: 07110007

Drainage Area  
(square miles): 2480

Latitude: 39° 36' 44"

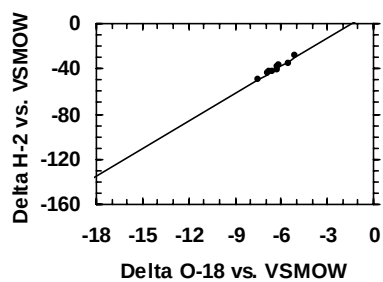
Datum (ft): 477.03

Longitude: 91° 24' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/9/1986         | -40.5                                    | -6.29                                     |
| 5/14/1986        | -42.4                                    | -6.56                                     |
| 3/10/1986        | -41.9                                    | -6.81                                     |
| 2/10/1986        | -37.7                                    | -6.24                                     |
| 11/17/1985       | -27.7                                    | -5.07                                     |
| 8/5/1985         | -34.9                                    | -5.56                                     |
| 5/7/1985         | -48.9                                    | -7.50                                     |
| 1/8/1985         | -37.5                                    | -6.10                                     |
| 11/6/1984        | -44.5                                    | -6.85                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Missouri River At St. Joseph**

Station Number **06818000**

Hydrologic Unit Code: 10240011

Drainage Area  
(square miles): 420300

Latitude: 39° 45' 12"

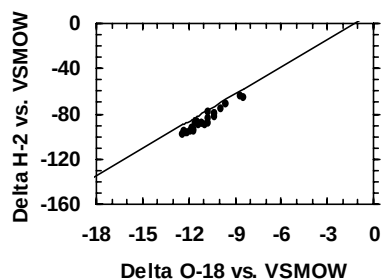
Datum (ft): 788.19

Longitude: 94° 51' 28"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/7/1986         | -70.9                                    | -9.54                                     |
| 12/12/1984       | -96.5                                    | -12.20                                    |
| 2/14/1985        | -97.0                                    | -12.35                                    |
| 3/13/1985        | -86.4                                    | -11.48                                    |
| 5/8/1985         | -79.3                                    | -10.30                                    |
| 6/5/1985         | -88.0                                    | -11.16                                    |
| 8/14/1985        | -89.0                                    | -10.95                                    |
| 9/18/1985        | -79.1                                    | -10.31                                    |
| 11/13/1985       | -94.9                                    | -11.63                                    |
| 1/14/1986        | -92.4                                    | -11.77                                    |
| 11/14/1984       | -96.5                                    | -12.10                                    |
| 4/2/1986         | -87.4                                    | -11.56                                    |
| 7/8/1987         | -81.8                                    | -10.32                                    |
| 7/17/1986        | -75.5                                    | -9.88                                     |
| 8/14/1986        | -65.2                                    | -8.41                                     |
| 9/3/1986         | -87.8                                    | -10.70                                    |
| 10/22/1986       | -87.4                                    | -11.10                                    |
| 11/20/1986       | -93.1                                    | -11.70                                    |
| 12/9/1986        | -89.7                                    | -11.39                                    |
| 1/13/1987        | -95.3                                    | -11.88                                    |
| 4/8/1987         | -77.7                                    | -10.68                                    |
| 5/13/1987        | -84.0                                    | -10.71                                    |
| 6/3/1987         | -63.6                                    | -8.61                                     |
| 3/6/1986         | -94.7                                    | -12.24                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Platte River At Sharps Station**

Station Number **06821190**

Hydrologic Unit Code: 10240012

Drainage Area  
(square miles): 2380

Latitude: 39° 24' 03"

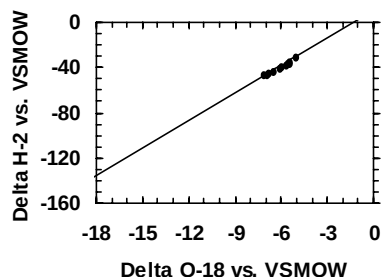
Datum (ft): 753.54

Longitude: 94° 43' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/7/1987         | -31.0                                    | -4.97                                     |
| 5/12/1987        | -38.9                                    | -5.66                                     |
| 1/13/1987        | -44.3                                    | -6.46                                     |
| 11/19/1986       | -40.9                                    | -6.08                                     |
| 7/17/1986        | -45.7                                    | -6.71                                     |
| 5/7/1986         | -36.0                                    | -5.43                                     |
| 1/13/1986        | -46.7                                    | -6.82                                     |
| 11/12/1985       | -39.4                                    | -5.96                                     |
| 5/7/1985         | -36.8                                    | -5.39                                     |
| 1/15/1985        | -47.0                                    | -7.05                                     |
| 11/13/1984       | -37.5                                    | -5.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Missouri**

Station Name: **Grand River Near Sumner**

Station Number **06902000**

Hydrologic Unit Code: 10280103

Drainage Area  
(square miles): 6880

Latitude: 39° 38' 25"

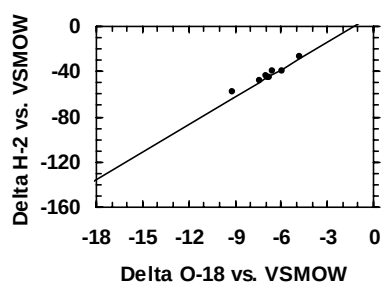
Datum (ft): 631.18

Longitude: 93° 16' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/2/1987         | -27.1                                    | -4.74                                     |
| 5/13/1987        | -40.1                                    | -5.98                                     |
| 4/7/1987         | -48.3                                    | -7.34                                     |
| 11/20/1986       | -45.7                                    | -6.82                                     |
| 7/16/1986        | -45.2                                    | -6.71                                     |
| 1/14/1986        | -58.6                                    | -9.18                                     |
| 11/13/1985       | -39.3                                    | -6.55                                     |
| 2/14/1985        | -44.0                                    | -6.95                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Chariton River Near Prairie Hill**

Station Number **06905500**

Hydrologic Unit Code: 10280202

Drainage Area  
(square miles): 1870

Latitude: 39° 32' 25"

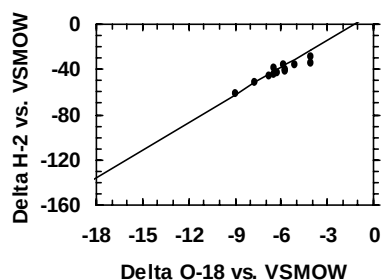
Datum (ft): 632.05

Longitude: 92° 47' 23"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1986         | -35.3                                    | -5.13                                     |
| 7/16/1986        | -42.4                                    | -6.28                                     |
| 5/6/1986         | -36.1                                    | -5.81                                     |
| 3/7/1986         | -61.0                                    | -8.97                                     |
| 1/15/1986        | -51.4                                    | -7.66                                     |
| 11/14/1985       | -38.0                                    | -6.46                                     |
| 9/19/1985        | -28.4                                    | -4.08                                     |
| 7/18/1985        | -33.4                                    | -4.11                                     |
| 5/9/1985         | -40.9                                    | -5.76                                     |
| 3/14/1985        | -44.7                                    | -6.78                                     |
| 1/17/1985        | -43.5                                    | -6.50                                     |
| 11/14/1984       | -39.5                                    | -5.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Lamine River Near Blackwater**

Station Number **06908800**

Hydrologic Unit Code: 10300103

Drainage Area  
(square miles): 2610

Latitude: 38° 56' 47"

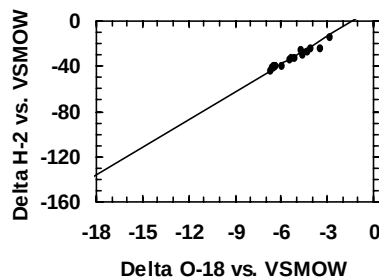
Datum (ft):

Longitude: 92° 56' 53"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 11/12/1985       | -33.3                                    | -5.44                                     |
| 2/13/1985        | -41.5                                    | -6.55                                     |
| 3/12/1985        | -40.0                                    | -6.30                                     |
| 4/2/1985         | -43.3                                    | -6.66                                     |
| 5/7/1985         | -39.0                                    | -5.91                                     |
| 6/4/1985         | -26.2                                    | -4.65                                     |
| 12/11/1984       | -40.0                                    | -6.35                                     |
| 9/17/1985        | -27.3                                    | -4.31                                     |
| 9/2/1986         | -23.5                                    | -3.42                                     |
| 1/13/1986        | -40.8                                    | -6.49                                     |
| 3/5/1986         | -40.3                                    | -6.40                                     |
| 4/1/1986         | -32.9                                    | -5.32                                     |
| 5/8/1986         | -29.3                                    | -4.53                                     |
| 6/2/1986         | -32.9                                    | -5.10                                     |
| 7/18/1986        | -24.6                                    | -4.05                                     |
| 7/16/1985        | -14.1                                    | -2.77                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Osage River Near Schell City**

Station Number **06918080**

Hydrologic Unit Code: 10290105

Drainage Area  
(square miles): 5530

Latitude: 38° 03' 20"

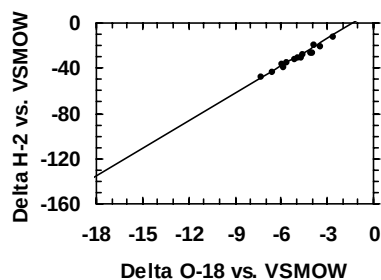
Datum (ft): 700

Longitude: 94° 08' 44"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/7/1987         | -20.4                                    | -3.87                                     |
| 5/21/1987        | -21.0                                    | -3.41                                     |
| 1/7/1987         | -40.1                                    | -5.87                                     |
| 11/7/1986        | -43.9                                    | -6.58                                     |
| 9/16/1986        | -26.2                                    | -4.05                                     |
| 7/8/1986         | -12.8                                    | -2.61                                     |
| 5/1/1986         | -29.0                                    | -4.62                                     |
| 3/19/1986        | -35.8                                    | -5.57                                     |
| 1/9/1986         | -37.0                                    | -5.92                                     |
| 11/13/1985       | -31.7                                    | -4.92                                     |
| 9/11/1985        | -27.5                                    | -3.91                                     |
| 7/9/1985         | -31.6                                    | -4.70                                     |
| 1/9/1985         | -48.0                                    | -7.30                                     |
| 11/8/1984        | -32.0                                    | -5.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Osage River Below St. Thomas**

Station Number **06926510**

Hydrologic Unit Code: 10290111

Drainage Area  
(square miles): 14500

Latitude: 38° 25' 18"

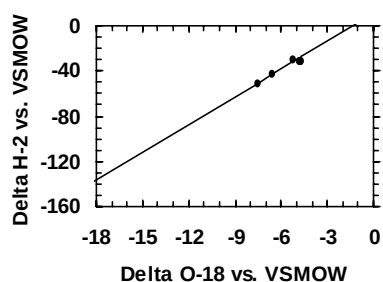
Datum (ft):

Longitude: 92° 12' 31"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/15/1987        | -51.6                                    | -7.54                                     |
| 11/19/1986       | -42.8                                    | -6.51                                     |
| 7/18/1986        | -31.7                                    | -4.83                                     |
| 1/16/1986        | -30.0                                    | -5.20                                     |
| 9/19/1985        | -30.8                                    | -4.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Gasconade River Above Jerome**

Station Number **06930800**

Hydrologic Unit Code: 10290203

Drainage Area  
(square miles): 2570

Latitude: 37° 55' 12"

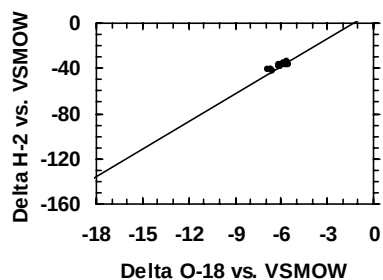
Datum (ft):

Longitude: 91° 58' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/29/1987        | -34.1                                    | -5.64                                     |
| 5/27/1987        | -37.3                                    | -6.03                                     |
| 1/26/1987        | -41.8                                    | -6.57                                     |
| 11/25/1986       | -36.5                                    | -6.11                                     |
| 10/28/1986       | -38.7                                    | -6.04                                     |
| 9/22/1986        | -36.6                                    | -5.53                                     |
| 7/28/1986        | -37.0                                    | -5.62                                     |
| 5/27/1986        | -36.2                                    | -5.74                                     |
| 3/25/1986        | -38.1                                    | -6.17                                     |
| 1/29/1986        | -38.2                                    | -6.10                                     |
| 9/24/1985        | -34.8                                    | -5.79                                     |
| 7/23/1985        | -38.6                                    | -6.04                                     |
| 3/26/1985        | -40.4                                    | -6.69                                     |
| 1/29/1985        | -40.5                                    | -6.65                                     |
| 11/27/1984       | -40.5                                    | -6.85                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Missouri**

Station Name: **Mississippi River At Thebes**

Station Number **07022000**

Hydrologic Unit Code: 07140105

Drainage Area  
(square miles): 713200

Latitude: 37° 13' 00"

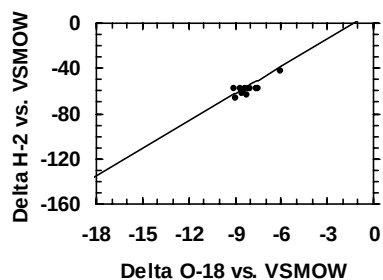
Datum (ft): 0

Longitude: 89° 27' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 10/15/1987       | -63.2                                    | -8.23                                     |
| 8/4/1987         | -42.7                                    | -6.07                                     |
| 5/28/1987        | -58.0                                    | -8.00                                     |
| 4/16/1987        | -59.0                                    | -8.49                                     |
| 3/16/1987        | -62.1                                    | -8.51                                     |
| 1/21/1987        | -65.9                                    | -8.91                                     |
| 12/10/1986       | -57.8                                    | -9.00                                     |
| 1/22/1986        | -57.8                                    | -8.28                                     |
| 9/24/1985        | -58.1                                    | -7.54                                     |
| 7/16/1985        | -57.4                                    | -7.63                                     |
| 5/15/1985        | -59.9                                    | -8.47                                     |
| 3/12/1985        | -60.3                                    | -8.50                                     |
| 2/13/1985        | -58.5                                    | -8.60                                     |
| 1/30/1985        | -60.0                                    | -8.50                                     |
| 11/15/1984       | -58.0                                    | -8.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **St Mary River At International Boundary**

Station Number **05020500**

Hydrologic Unit Code: 10010002

Drainage Area  
(square miles): 469

Latitude: 49° 00' 12"

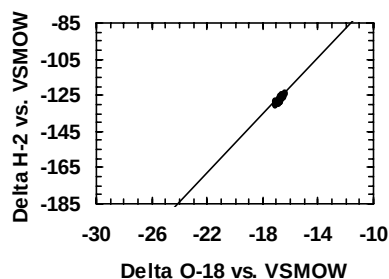
Datum (ft): 4120

Longitude: 113° 18' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/16/1986        | -125.9                                   | -16.70                                    |
| 12/19/1984       | -128.5                                   | -16.70                                    |
| 2/20/1985        | -128.0                                   | -16.75                                    |
| 4/16/1985        | -125.4                                   | -16.45                                    |
| 6/13/1985        | -127.0                                   | -16.62                                    |
| 8/14/1985        | -127.1                                   | -16.72                                    |
| 12/11/1985       | -128.6                                   | -17.02                                    |
| 10/31/1984       | -127.5                                   | -16.80                                    |
| 5/15/1986        | -128.9                                   | -16.88                                    |
| 8/18/1987        | -124.2                                   | -16.42                                    |
| 9/17/1986        | -125.5                                   | -16.44                                    |
| 10/28/1986       | -125.8                                   | -16.53                                    |
| 12/10/1986       | -126.9                                   | -16.69                                    |
| 2/11/1987        | -128.0                                   | -16.81                                    |
| 4/16/1987        | -128.7                                   | -16.80                                    |
| 6/17/1987        | -125.0                                   | -16.59                                    |
| 3/19/1986        | -130.4                                   | -17.03                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Montana**

Station Name: **Missouri River At Toston**

Station Number **06054500**

Hydrologic Unit Code: 10030101

Drainage Area  
(square miles): 14669

Latitude: 46° 08' 46"

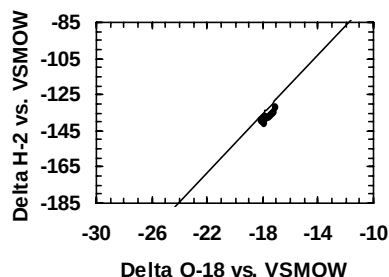
Datum (ft): 3905.68

Longitude: 111° 25' 11"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/27/1987        | -131.8                                   | -17.04                                    |
| 3/9/1987         | -138.0                                   | -17.80                                    |
| 11/13/1986       | -138.0                                   | -17.82                                    |
| 8/28/1986        | -134.8                                   | -17.15                                    |
| 5/8/1986         | -138.8                                   | -18.04                                    |
| 3/18/1986        | -139.6                                   | -17.99                                    |
| 10/25/1985       | -136.4                                   | -17.44                                    |
| 8/21/1985        | -135.6                                   | -17.29                                    |
| 6/14/1985        | -136.8                                   | -17.78                                    |
| 3/13/1985        | -141.0                                   | -17.90                                    |
| 11/7/1984        | -137.5                                   | -17.55                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Musselshell River At Mosby**

Station Number **06130500**

Hydrologic Unit Code: 10040205

Drainage Area  
(square miles): 7846

Latitude: 46° 59' 34"

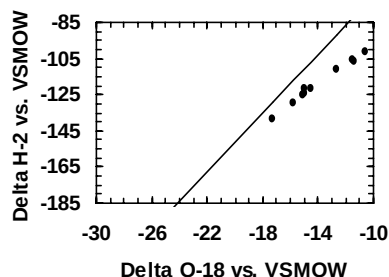
Datum (ft): 2493.38

Longitude: 107° 53' 34"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/30/1987        | -105.1                                   | -11.48                                    |
| 6/30/1987        | -101.3                                   | -10.55                                    |
| 2/20/1987        | -121.2                                   | -14.93                                    |
| 11/8/1986        | -124.0                                   | -14.99                                    |
| 8/28/1986        | -110.9                                   | -12.61                                    |
| 3/11/1986        | -138.2                                   | -17.23                                    |
| 12/18/1985       | -124.4                                   | -15.04                                    |
| 9/25/1985        | -106.1                                   | -11.44                                    |
| 6/25/1985        | -102.7                                   | -9.92                                     |
| 2/20/1985        | -129.5                                   | -15.75                                    |
| 11/14/1984       | -121.0                                   | -14.55                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Rock Creek Below Horse Creek, Near Int Boundary**

Station Number **06169500**

Hydrologic Unit Code: 10050015

Drainage Area  
(square miles): 328

Latitude: 48° 58' 10"

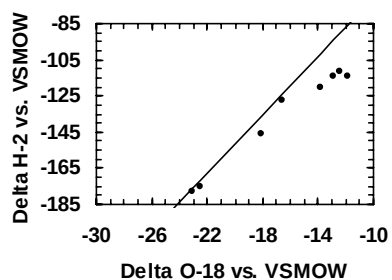
Datum (ft): 2530

Longitude: 106° 50' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/11/1987        | -111.7                                   | -12.47                                    |
| 4/7/1987         | -127.8                                   | -16.58                                    |
| 8/27/1986        | -90.3                                    | -8.57                                     |
| 6/4/1986         | -120.4                                   | -13.86                                    |
| 3/18/1986        | -175.5                                   | -22.47                                    |
| 11/12/1985       | -146.0                                   | -18.07                                    |
| 9/30/1985        | -113.8                                   | -12.92                                    |
| 3/18/1985        | -177.6                                   | -23.01                                    |
| 11/1/1984        | -114.5                                   | -11.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Milk River At Nashua**

Station Number **06174500**

Hydrologic Unit Code: 10050012

Drainage Area  
(square miles): 22332

Latitude: 48° 07' 47"

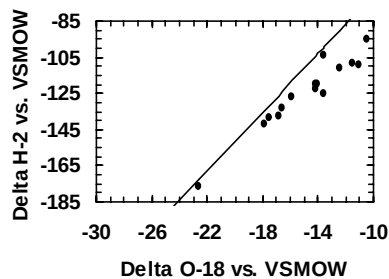
Datum (ft): 2027.75

Longitude: 106° 21' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/18/1986        | -176.5                                   | -22.57                                    |
| 11/15/1984       | -142.0                                   | -17.91                                    |
| 3/25/1985        | -136.9                                   | -16.85                                    |
| 5/31/1985        | -124.9                                   | -13.59                                    |
| 7/15/1985        | -108.7                                   | -11.05                                    |
| 8/26/1985        | -94.9                                    | -10.42                                    |
| 10/31/1984       | -108.3                                   | -11.50                                    |
| 1/21/1986        | -122.6                                   | -14.19                                    |
| 7/8/1987         | -110.3                                   | -12.42                                    |
| 5/27/1986        | -126.7                                   | -15.86                                    |
| 7/28/1986        | -82.3                                    | -10.66                                    |
| 9/23/1986        | -103.4                                   | -13.54                                    |
| 1/15/1987        | -132.8                                   | -16.59                                    |
| 3/24/1987        | -138.4                                   | -17.52                                    |
| 5/29/1987        | -119.1                                   | -14.14                                    |
| 11/18/1985       | -119.5                                   | -13.99                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Missouri River Near Culbertson**

Station Number **06185500**

Hydrologic Unit Code: 10060005

Drainage Area  
(square miles): 91557

Latitude: 48° 07' 20"

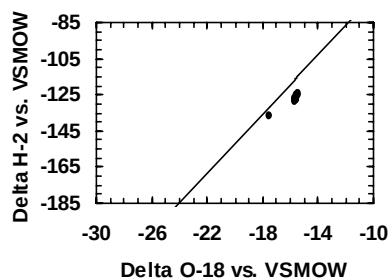
Datum (ft): 1883.4

Longitude: 104° 28' 31"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/29/1986        | -123.8                                   | -15.38                                    |
| 1/24/1986        | -125.1                                   | -15.53                                    |
| 11/19/1985       | -126.3                                   | -15.54                                    |
| 8/27/1985        | -127.9                                   | -15.61                                    |
| 7/16/1985        | -127.6                                   | -15.58                                    |
| 5/29/1985        | -127.7                                   | -15.65                                    |
| 3/26/1985        | -127.0                                   | -15.70                                    |
| 12/10/1984       | -124.7                                   | -15.41                                    |
| 12/10/1984       | -136.0                                   | -17.55                                    |
| 10/23/1984       | -126.5                                   | -15.55                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Yellowstone River Near Livingston**

Station Number **06192500**

Hydrologic Unit Code: 10070002

Drainage Area  
(square miles): 3551

Latitude: 45° 35' 50"

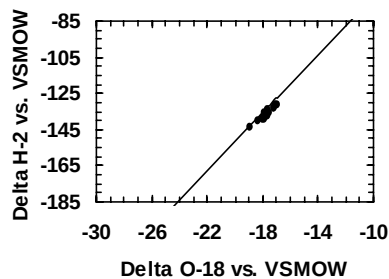
Datum (ft): 4542.49

Longitude: 110° 33' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/19/1986        | -136.1                                   | -17.60                                    |
| 1/23/1985        | -139.0                                   | -17.90                                    |
| 3/14/1985        | -137.5                                   | -17.80                                    |
| 5/2/1985         | -143.8                                   | -18.87                                    |
| 6/13/1985        | -135.2                                   | -17.89                                    |
| 8/20/1985        | -133.0                                   | -17.16                                    |
| 11/8/1984        | -137.0                                   | -17.60                                    |
| 12/17/1985       | -138.5                                   | -17.98                                    |
| 8/26/1987        | -130.7                                   | -16.97                                    |
| 5/7/1986         | -139.9                                   | -18.30                                    |
| 7/15/1986        | -132.4                                   | -17.16                                    |
| 8/29/1986        | -131.4                                   | -17.05                                    |
| 11/13/1986       | -135.2                                   | -17.54                                    |
| 1/20/1987        | -139.2                                   | -17.92                                    |
| 3/10/1987        | -138.1                                   | -17.83                                    |
| 10/24/1985       | -133.9                                   | -17.60                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Bighorn River At Bighorn**

Station Number **06294700**

Hydrologic Unit Code: 10080015

Drainage Area  
(square miles): 22885

Latitude: 46° 08' 50"

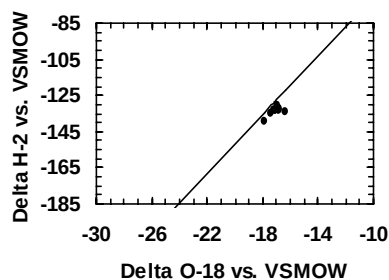
Datum (ft): 2690

Longitude: 107° 28' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -134.1                                   | -16.39                                    |
| 7/28/1987        | -133.2                                   | -17.05                                    |
| 5/27/1987        | -130.3                                   | -16.91                                    |
| 3/4/1987         | -133.2                                   | -17.15                                    |
| 12/23/1986       | -132.7                                   | -17.22                                    |
| 10/20/1986       | -132.7                                   | -17.07                                    |
| 8/11/1986        | -134.6                                   | -17.35                                    |
| 6/24/1986        | -133.1                                   | -17.05                                    |
| 4/21/1986        | -132.2                                   | -16.82                                    |
| 2/12/1986        | -133.2                                   | -16.82                                    |
| 12/17/1985       | -131.9                                   | -16.83                                    |
| 7/29/1985        | -133.2                                   | -16.83                                    |
| 2/25/1985        | -139.0                                   | -17.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Tongue River At Miles City**

Station Number **06308500**

Hydrologic Unit Code: 10090102

Drainage Area  
(square miles): 5379

Latitude: 46° 20' 44"

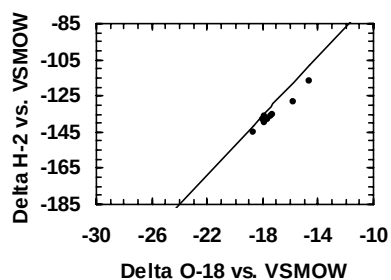
Datum (ft): 2375

Longitude: 105° 48' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -117.1                                   | -14.57                                    |
| 3/25/1987        | -135.3                                   | -17.23                                    |
| 12/17/1986       | -137.9                                   | -17.95                                    |
| 9/17/1986        | -128.2                                   | -15.81                                    |
| 6/17/1986        | -136.8                                   | -17.85                                    |
| 3/26/1986        | -139.5                                   | -17.85                                    |
| 12/2/1985        | -138.2                                   | -17.68                                    |
| 2/26/1985        | -144.8                                   | -18.72                                    |
| 11/15/1984       | -136.0                                   | -17.45                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Montana**

Station Name: **Yellowstone River Near Sidney**

Station Number **06329500**

Hydrologic Unit Code: 10100004

Drainage Area  
(square miles): 69103

Latitude: 47° 40' 42"

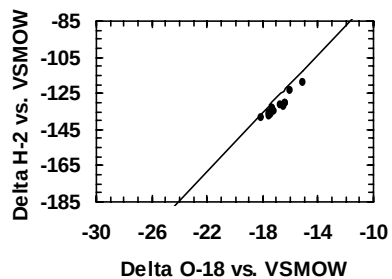
Datum (ft): 1881.3

Longitude: 104° 09' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/30/1986        | -130.7                                   | -16.74                                    |
| 3/27/1985        | -137.0                                   | -17.50                                    |
| 5/30/1985        | -138.3                                   | -18.05                                    |
| 7/17/1985        | -131.8                                   | -16.53                                    |
| 8/28/1985        | -130.5                                   | -16.37                                    |
| 11/20/1985       | -135.3                                   | -17.44                                    |
| 10/24/1984       | -134.5                                   | -17.15                                    |
| 5/29/1986        | -136.7                                   | -17.50                                    |
| 9/15/1987        | -130.5                                   | -16.40                                    |
| 9/25/1986        | -123.5                                   | -16.06                                    |
| 11/24/1986       | -135.1                                   | -17.40                                    |
| 1/27/1987        | -135.5                                   | -17.47                                    |
| 3/18/1987        | -136.6                                   | -17.37                                    |
| 5/14/1987        | -133.0                                   | -17.24                                    |
| 7/22/1987        | -118.6                                   | -15.13                                    |
| 1/23/1986        | -135.2                                   | -17.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Clark Fork Below Missoula**

Station Number **12353000**

Hydrologic Unit Code: 17010204

Drainage Area  
(square miles): 9003

Latitude: 46° 52' 09"

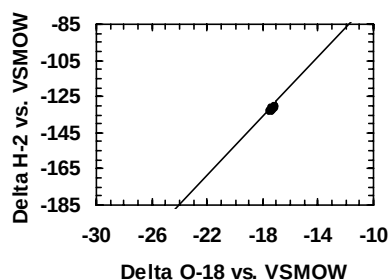
Datum (ft): 3083.88

Longitude: 114° 07' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/11/1987        | -132.5                                   | -17.31                                    |
| 8/12/1986        | -130.2                                   | -17.07                                    |
| 7/8/1986         | -129.9                                   | -17.21                                    |
| 5/9/1986         | -133.0                                   | -17.48                                    |
| 3/20/1986        | -131.5                                   | -17.25                                    |
| 1/8/1986         | -132.4                                   | -17.43                                    |
| 10/23/1985       | -131.0                                   | -17.04                                    |
| 8/13/1985        | -129.8                                   | -17.10                                    |
| 6/11/1985        | -131.4                                   | -17.36                                    |
| 4/23/1985        | -132.3                                   | -17.22                                    |
| 1/16/1985        | -132.5                                   | -17.55                                    |
| 11/9/1984        | -132.5                                   | -17.25                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Flathead River At Flathead, British Columbia**

Station Number **12355000**

Hydrologic Unit Code: 17010206

Drainage Area  
(square miles): 427

Latitude: 49° 00' 02"

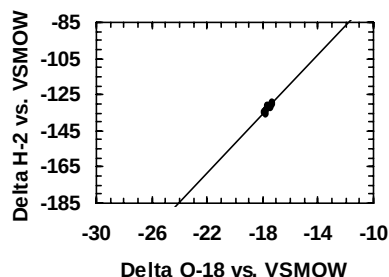
Datum (ft): 3968.16

Longitude: 114° 28' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -131.5                                   | -17.46                                    |
| 5/13/1987        | -129.0                                   | -17.25                                    |
| 4/16/1987        | -130.8                                   | -17.43                                    |
| 12/3/1986        | -131.4                                   | -17.58                                    |
| 8/14/1986        | -131.2                                   | -17.48                                    |
| 5/30/1986        | -130.0                                   | -17.29                                    |
| 3/21/1986        | -132.2                                   | -17.60                                    |
| 11/13/1985       | -133.4                                   | -17.71                                    |
| 8/20/1985        | -133.4                                   | -17.75                                    |
| 6/13/1985        | -134.1                                   | -17.88                                    |
| 2/27/1985        | -135.5                                   | -17.75                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Montana**

Station Name: **Flathead River At Columbia Falls**

Station Number **12363000**

Hydrologic Unit Code: 17010208

Drainage Area  
(square miles): 4464

Latitude: 48° 21' 43"

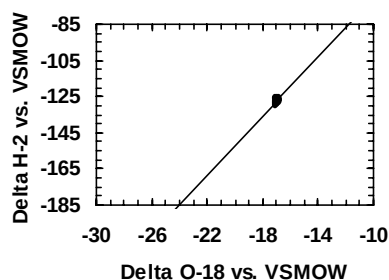
Datum (ft): 2977.67

Longitude: 114° 11' 02"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -126.1                                   | -16.80                                    |
| 5/12/1987        | -126.0                                   | -17.01                                    |
| 4/30/1987        | -125.8                                   | -16.93                                    |
| 12/4/1986        | -127.0                                   | -16.85                                    |
| 8/19/1986        | -126.6                                   | -16.80                                    |
| 5/27/1986        | -127.7                                   | -17.06                                    |
| 3/19/1986        | -128.7                                   | -16.97                                    |
| 12/17/1985       | -128.2                                   | -17.10                                    |
| 8/19/1985        | -127.0                                   | -16.82                                    |
| 6/11/1985        | -129.0                                   | -17.08                                    |
| 2/28/1985        | -127.5                                   | -16.85                                    |
| 11/15/1984       | -127.0                                   | -16.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nebraska**

Station Name: **Niobrara River Near Verdel**

Station Number **06465500**

Hydrologic Unit Code: 10150007

Drainage Area  
(square miles): 12600

Latitude: 42° 44' 25"

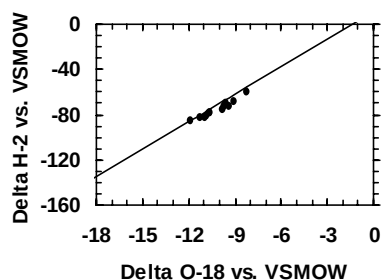
Datum (ft): 1308.12

Longitude: 98° 12' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/26/1987        | -71.7                                    | -9.34                                     |
| 5/8/1987         | -69.8                                    | -9.58                                     |
| 2/11/1987        | -77.6                                    | -10.60                                    |
| 11/24/1986       | -77.8                                    | -10.61                                    |
| 8/26/1986        | -59.6                                    | -8.20                                     |
| 5/7/1986         | -74.7                                    | -9.74                                     |
| 2/12/1986        | -85.0                                    | -11.81                                    |
| 11/26/1985       | -82.6                                    | -11.24                                    |
| 8/21/1985        | -67.4                                    | -9.04                                     |
| 5/15/1985        | -72.8                                    | -9.69                                     |
| 2/20/1985        | -81.5                                    | -10.95                                    |
| 11/28/1984       | -81.0                                    | -10.80                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nebraska**

Station Name: **North Platte River At Lisco**

Station Number **06686000**

Hydrologic Unit Code: 10180009

Drainage Area  
(square miles): 26700

Latitude: 41° 30' 00"

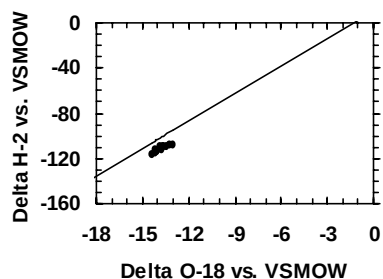
Datum (ft): 3474.5

Longitude: 102° 38' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/20/1986        | -113.3                                   | -14.04                                    |
| 1/15/1985        | -114.0                                   | -14.10                                    |
| 3/18/1985        | -115.5                                   | -14.40                                    |
| 5/21/1985        | -110.5                                   | -13.70                                    |
| 7/16/1985        | -107.1                                   | -12.96                                    |
| 9/17/1985        | -110.3                                   | -13.71                                    |
| 11/25/1985       | -110.9                                   | -13.77                                    |
| 11/19/1984       | -111.0                                   | -13.75                                    |
| 3/17/1986        | -108.8                                   | -13.62                                    |
| 9/14/1987        | -109.4                                   | -13.42                                    |
| 7/15/1986        | -111.3                                   | -14.15                                    |
| 9/16/1986        | -110.3                                   | -13.74                                    |
| 11/18/1986       | -113.4                                   | -14.08                                    |
| 1/12/1987        | -109.7                                   | -13.68                                    |
| 3/18/1987        | -109.6                                   | -13.85                                    |
| 5/18/1987        | -107.3                                   | -13.23                                    |
| 7/13/1987        | -110.2                                   | -13.72                                    |
| 1/13/1986        | -111.4                                   | -13.78                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nebraska**

Station Name: **Dismal River Near Thedford**

Station Number **06775900**

Hydrologic Unit Code: 10210002

Drainage Area  
(square miles): 960

Latitude: 41° 46' 45"

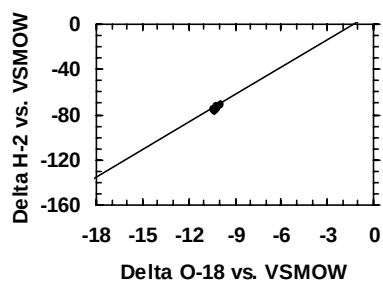
Datum (ft): 2800.13

Longitude: 100° 31' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -74.4                                    | -10.20                                    |
| 5/20/1987        | -74.3                                    | -10.18                                    |
| 2/24/1987        | -75.1                                    | -10.21                                    |
| 11/5/1986        | -72.8                                    | -10.17                                    |
| 8/12/1986        | -72.7                                    | -10.10                                    |
| 5/22/1986        | -71.4                                    | -9.91                                     |
| 2/20/1986        | -74.4                                    | -10.42                                    |
| 11/20/1985       | -74.5                                    | -10.21                                    |
| 8/27/1985        | -73.0                                    | -10.11                                    |
| 5/7/1985         | -74.2                                    | -10.10                                    |
| 2/14/1985        | -76.0                                    | -10.30                                    |
| 11/20/1984       | -76.5                                    | -10.30                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nebraska**

Station Name: **Elkhorn River At Waterloo**

Station Number **06800500**

Hydrologic Unit Code: 10220003

Drainage Area  
(square miles): 6900

Latitude: 41° 17' 25"

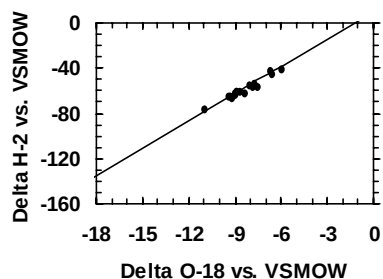
Datum (ft): 1104.73

Longitude: 96° 17' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/30/1986        | -45.9                                    | -6.58                                     |
| 1/16/1985        | -65.0                                    | -9.40                                     |
| 3/13/1985        | -63.5                                    | -8.90                                     |
| 5/16/1985        | -60.9                                    | -8.65                                     |
| 7/9/1985         | -57.2                                    | -7.46                                     |
| 9/12/1985        | -53.9                                    | -7.67                                     |
| 11/13/1985       | -62.3                                    | -8.90                                     |
| 11/14/1984       | -60.5                                    | -8.80                                     |
| 5/28/1986        | -55.1                                    | -8.05                                     |
| 9/29/1987        | -57.1                                    | -7.78                                     |
| 9/30/1986        | -43.0                                    | -6.66                                     |
| 10/29/1986       | -61.1                                    | -8.85                                     |
| 1/27/1987        | -66.2                                    | -9.20                                     |
| 3/31/1987        | -76.9                                    | -10.93                                    |
| 4/29/1987        | -61.8                                    | -8.34                                     |
| 7/30/1987        | -41.2                                    | -5.95                                     |
| 1/14/1986        | -64.7                                    | -9.21                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Nebraska**

Station Name: **Platte River At Louisville**

Station Number **06805500**

Hydrologic Unit Code: 10200202

Drainage Area  
(square miles): 85800

Latitude: 41° 00' 55"

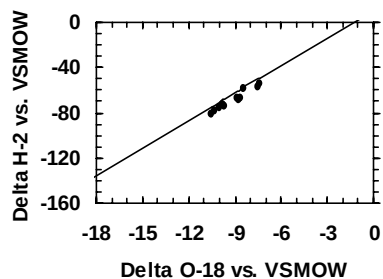
Datum (ft): 1007.1

Longitude: 96° 09' 28"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/28/1987        | -67.8                                    | -8.78                                     |
| 2/3/1987         | -72.8                                    | -9.76                                     |
| 11/20/1986       | -73.2                                    | -9.72                                     |
| 8/19/1986        | -56.5                                    | -7.46                                     |
| 5/7/1986         | -67.2                                    | -8.61                                     |
| 2/4/1986         | -74.7                                    | -10.02                                    |
| 11/5/1985        | -67.1                                    | -8.82                                     |
| 8/7/1985         | -53.7                                    | -7.40                                     |
| 5/15/1985        | -58.1                                    | -8.38                                     |
| 2/7/1985         | -80.0                                    | -10.55                                    |
| 11/14/1984       | -78.5                                    | -10.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Virgin River Above Halfway Wash Near Riverside**

Station Number **09415230**

Hydrologic Unit Code: 15010010

Drainage Area  
(square miles): 5980

Latitude: 36° 40' 28"

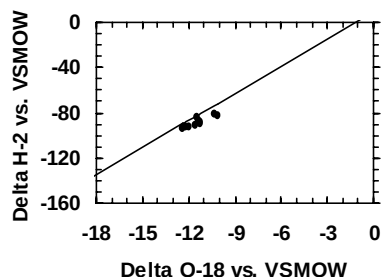
Datum (ft): 1320

Longitude: 114° 17' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/16/1986        | -87.9                                    | -11.27                                    |
| 7/23/1986        | -86.7                                    | -11.35                                    |
| 5/30/1986        | -90.2                                    | -11.53                                    |
| 3/24/1986        | -92.4                                    | -12.14                                    |
| 2/11/1986        | -91.6                                    | -12.01                                    |
| 11/26/1985       | -92.5                                    | -12.32                                    |
| 9/25/1985        | -88.5                                    | -11.26                                    |
| 7/31/1985        | -80.6                                    | -10.30                                    |
| 5/31/1985        | -82.7                                    | -10.13                                    |
| 3/30/1985        | -83.6                                    | -11.40                                    |
| 1/31/1985        | -93.5                                    | -12.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Muddy River Above Lake Mead Near Overton**

Station Number **09419515**

Hydrologic Unit Code: 15010005

Drainage Area  
(square miles): 8310

Latitude: 36° 31' 21"

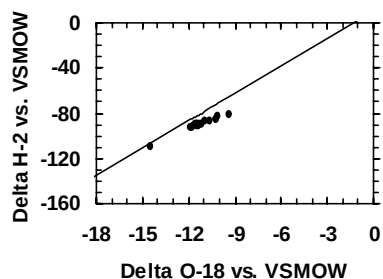
Datum (ft): 1200

Longitude: 114° 24' 49"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/13/1986        | -85.3                                    | -10.25                                    |
| 1/21/1985        | -89.4                                    | -11.45                                    |
| 3/29/1985        | -89.0                                    | -11.25                                    |
| 5/16/1985        | -90.4                                    | -11.38                                    |
| 7/24/1985        | -89.5                                    | -11.56                                    |
| 9/18/1985        | -82.3                                    | -10.05                                    |
| 11/13/1985       | -89.5                                    | -11.39                                    |
| 11/29/1984       | -91.5                                    | -11.85                                    |
| 3/18/1986        | -90.8                                    | -11.62                                    |
| 8/28/1987        | -80.7                                    | -9.38                                     |
| 7/15/1986        | -86.5                                    | -10.63                                    |
| 9/24/1986        | -109.5                                   | -14.46                                    |
| 11/24/1986       | -86.6                                    | -10.96                                    |
| 1/28/1987        | -90.5                                    | -11.41                                    |
| 3/25/1987        | -91.7                                    | -11.76                                    |
| 5/29/1987        | -89.0                                    | -11.42                                    |
| 7/23/1987        | -85.1                                    | -10.15                                    |
| 1/14/1986        | -89.5                                    | -11.18                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Steptoe Creek Near Ely**

Station Number **10244950**

Hydrologic Unit Code: 16060008

Drainage Area  
(square miles): 11.1

Latitude: 39° 12' 05"

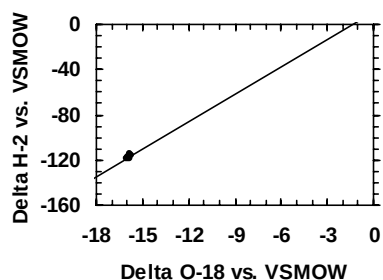
Datum (ft): 7440

Longitude: 114° 41' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/4/1987         | -118.4                                   | -15.91                                    |
| 11/26/1986       | -118.1                                   | -15.93                                    |
| 8/28/1986        | -117.8                                   | -15.93                                    |
| 5/27/1986        | -115.9                                   | -15.68                                    |
| 3/20/1986        | -119.6                                   | -15.82                                    |
| 5/8/1985         | -115.3                                   | -15.78                                    |
| 3/6/1985         | -117.2                                   | -15.90                                    |
| 11/29/1984       | -118.3                                   | -16.00                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **South Twin River Near Round Mountain**

Station Number **10249300**

Hydrologic Unit Code: 16060004

Drainage Area  
(square miles): 20

Latitude: 38° 53' 15"

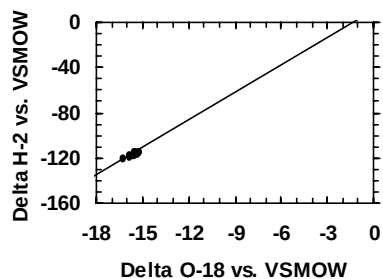
Datum (ft): 6400

Longitude: 117° 14' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/3/1987         | -115.4                                   | -15.31                                    |
| 5/20/1987        | -117.1                                   | -15.59                                    |
| 3/23/1987        | -117.9                                   | -15.49                                    |
| 11/13/1986       | -115.3                                   | -15.48                                    |
| 8/29/1986        | -117.9                                   | -15.86                                    |
| 5/29/1986        | -119.9                                   | -16.21                                    |
| 3/19/1986        | -115.6                                   | -15.41                                    |
| 8/27/1985        | -115.9                                   | -15.35                                    |
| 5/7/1985         | -118.6                                   | -15.85                                    |
| 3/5/1985         | -115.0                                   | -15.35                                    |
| 11/28/1984       | -114.5                                   | -15.15                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Walker River Near Wabuska**

Station Number **10301500**

Hydrologic Unit Code: 16050303

Drainage Area  
(square miles): 2600

Latitude: 39° 09' 10"

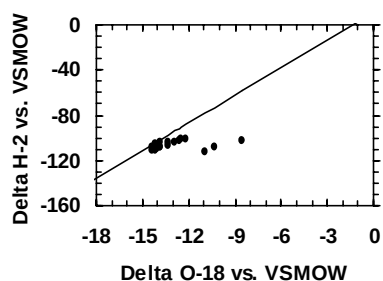
Datum (ft): 4280

Longitude: 119° 05' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/13/1986        | -106.6                                   | -13.92                                    |
| 1/22/1985        | -109.2                                   | -14.05                                    |
| 3/20/1985        | -110.7                                   | -14.40                                    |
| 5/21/1985        | -105.7                                   | -13.33                                    |
| 7/23/1985        | -100.1                                   | -12.48                                    |
| 8/22/1985        | -103.3                                   | -12.87                                    |
| 11/21/1985       | -108.1                                   | -13.79                                    |
| 11/28/1984       | -104.5                                   | -14.15                                    |
| 3/11/1986        | -107.8                                   | -14.35                                    |
| 8/11/1987        | -100.1                                   | -12.21                                    |
| 7/15/1986        | -103.6                                   | -13.79                                    |
| 8/6/1986         | -102.7                                   | -13.28                                    |
| 11/17/1986       | -107.7                                   | -10.35                                    |
| 1/13/1987        | -110.1                                   | -14.20                                    |
| 3/3/1987         | -112.1                                   | -10.95                                    |
| 5/14/1987        | -101.8                                   | -8.55                                     |
| 6/24/1987        | -101.5                                   | -12.62                                    |
| 1/22/1986        | -108.2                                   | -13.88                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Carson River Near Fort Churchill**

Station Number **10312000**

Hydrologic Unit Code: 16050202

Drainage Area  
(square miles): 1302

Latitude: 39° 17' 30"

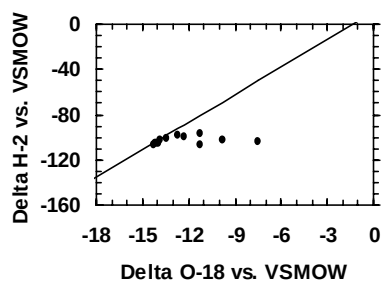
Datum (ft): 4214.7

Longitude: 119° 18' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/10/1987        | -95.6                                    | -11.23                                    |
| 5/13/1987        | -101.8                                   | -9.80                                     |
| 3/4/1987         | -106.6                                   | -11.25                                    |
| 11/18/1986       | -104.0                                   | -7.45                                     |
| 8/5/1986         | -98.1                                    | -12.73                                    |
| 5/12/1986        | -102.5                                   | -13.88                                    |
| 3/10/1986        | -100.9                                   | -13.42                                    |
| 11/20/1985       | -105.2                                   | -14.00                                    |
| 8/21/1985        | -99.6                                    | -12.25                                    |
| 5/20/1985        | -104.6                                   | -14.12                                    |
| 3/19/1985        | -105.5                                   | -14.25                                    |
| 11/27/1984       | -104.6                                   | -13.95                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Humboldt River Near Carlin**

Station Number **10321000**

Hydrologic Unit Code: 16040101

Drainage Area  
(square miles): 4310

Latitude: 40° 43' 40"

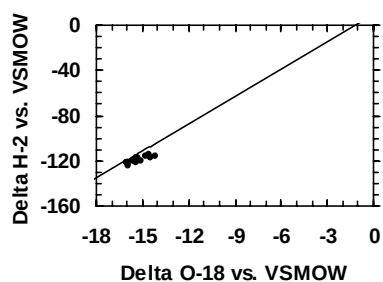
Datum (ft): 4931.91

Longitude: 116° 00' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/1/1987         | -114.1                                   | -14.61                                    |
| 3/24/1987        | -120.9                                   | -15.49                                    |
| 1/28/1987        | -122.2                                   | -15.44                                    |
| 11/25/1986       | -119.7                                   | -15.07                                    |
| 9/23/1986        | -116.2                                   | -14.13                                    |
| 7/23/1986        | -115.8                                   | -14.74                                    |
| 5/22/1986        | -118.4                                   | -15.42                                    |
| 3/27/1986        | -122.2                                   | -15.97                                    |
| 1/22/1986        | -122.4                                   | -16.00                                    |
| 11/19/1985       | -124.3                                   | -15.89                                    |
| 9/26/1985        | -117.6                                   | -14.48                                    |
| 5/21/1985        | -116.8                                   | -15.28                                    |
| 3/27/1985        | -122.7                                   | -15.90                                    |
| 1/22/1985        | -121.7                                   | -15.95                                    |
| 11/30/1984       | -120.0                                   | -15.65                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Nevada**Station Name: **Humboldt River Near Rye Patch**Station Number **10335000**

Hydrologic Unit Code: 16040108

Drainage Area (square miles): 16100

Latitude: 40° 28' 00"

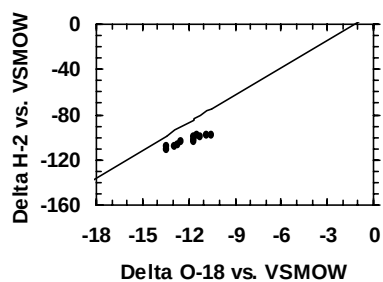
Datum (ft): 4068.53

Longitude: 118° 18' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/24/1986        | -102.1                                   | -11.68                                    |
| 7/24/1986        | -106.8                                   | -12.69                                    |
| 5/23/1986        | -108.0                                   | -13.46                                    |
| 3/28/1986        | -102.8                                   | -11.69                                    |
| 1/23/1986        | -97.5                                    | -10.52                                    |
| 11/20/1985       | -97.2                                    | -10.79                                    |
| 9/24/1985        | -98.8                                    | -11.21                                    |
| 7/25/1985        | -108.0                                   | -12.87                                    |
| 5/23/1985        | -110.5                                   | -13.47                                    |
| 3/29/1985        | -103.3                                   | -12.45                                    |
| 1/24/1985        | -98.7                                    | -11.70                                    |
| 11/16/1984       | -97.5                                    | -11.45                                    |

## Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Truckee River Near Nixon**

Station Number **10351700**

Hydrologic Unit Code: 16050103

Drainage Area  
(square miles): 1827

Latitude: 39° 46' 40"

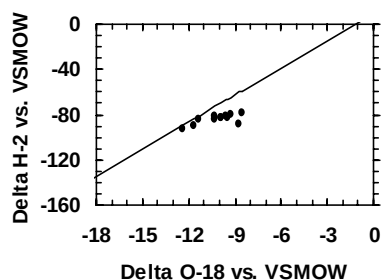
Datum (ft): 3940

Longitude: 119° 20' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/12/1987        | -77.4                                    | -8.57                                     |
| 5/28/1987        | -88.0                                    | -8.70                                     |
| 3/5/1987         | -82.0                                    | -9.93                                     |
| 11/19/1986       | -81.6                                    | -9.86                                     |
| 8/7/1986         | -78.8                                    | -9.29                                     |
| 5/14/1986        | -89.2                                    | -11.64                                    |
| 3/12/1986        | -81.0                                    | -10.26                                    |
| 11/22/1985       | -80.2                                    | -9.59                                     |
| 8/23/1985        | -82.1                                    | -9.48                                     |
| 5/22/1985        | -92.6                                    | -12.34                                    |
| 3/21/1985        | -83.0                                    | -10.25                                    |
| 11/29/1984       | -83.9                                    | -11.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Nevada**

Station Name: **Quinn River Near Mc Dermitt**

Station Number **10353500**

Hydrologic Unit Code: 16040201

Drainage Area  
(square miles): 1100

Latitude: 41° 46' 30"

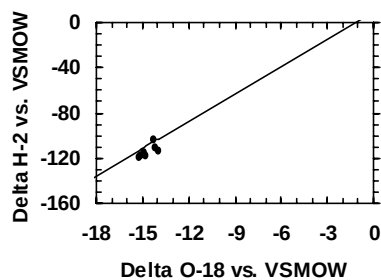
Datum (ft): 4240

Longitude: 117° 48' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 11/20/1985       | -104.0                                   | -14.24                                    |
| 10/31/1985       | -116.9                                   | -14.76                                    |
| 7/24/1985        | -113.2                                   | -13.96                                    |
| 5/22/1985        | -110.0                                   | -14.10                                    |
| 3/28/1985        | -118.3                                   | -15.20                                    |
| 1/23/1985        | -117.0                                   | -15.10                                    |
| 11/15/1984       | -114.7                                   | -14.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Hampshire**

Station Name: **Connecticut River At North Walpole**

Station Number **01154500**

Hydrologic Unit Code: 01080104

Drainage Area  
(square miles): 5493

Latitude: 43° 07' 34"

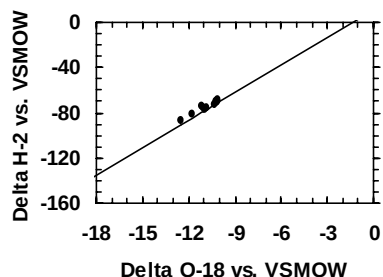
Datum (ft): 218.63

Longitude: 72° 26' 14"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/20/1987        | -69.4                                    | -10.07                                    |
| 6/23/1987        | -75.2                                    | -10.87                                    |
| 4/9/1987         | -86.4                                    | -12.47                                    |
| 11/20/1986       | -70.5                                    | -10.24                                    |
| 7/16/1986        | -68.2                                    | -10.14                                    |
| 3/25/1986        | -73.8                                    | -11.09                                    |
| 12/16/1985       | -69.0                                    | -10.19                                    |
| 8/7/1985         | -76.3                                    | -10.90                                    |
| 5/30/1985        | -81.3                                    | -11.77                                    |
| 3/29/1985        | -74.9                                    | -11.06                                    |
| 11/27/1984       | -71.7                                    | -10.27                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Jersey**

Station Name: **Passaic River At Little Falls**

Station Number **01389500**

Hydrologic Unit Code: 02030103

Drainage Area  
(square miles): 762

Latitude: 40° 53' 05"

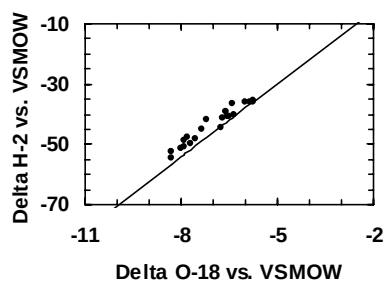
Datum (ft): 120

Longitude: 74° 13' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 11/20/1986       | -49.7                                    | -7.71                                     |
| 1/7/1985         | -45.0                                    | -7.35                                     |
| 2/21/1985        | -47.5                                    | -7.80                                     |
| 5/29/1985        | -39.1                                    | -6.58                                     |
| 7/26/1985        | -36.2                                    | -5.73                                     |
| 11/15/1985       | -36.2                                    | -5.98                                     |
| 1/29/1986        | -41.6                                    | -7.21                                     |
| 2/27/1986        | -48.6                                    | -7.88                                     |
| 6/24/1986        | -41.0                                    | -6.49                                     |
| 11/16/1984       | -41.5                                    | -6.70                                     |
| 11/18/1986       | -40.9                                    | -6.53                                     |
| 9/23/1987        | -35.8                                    | -5.85                                     |
| 12/4/1986        | -36.6                                    | -6.38                                     |
| 12/19/1986       | -51.4                                    | -7.98                                     |
| 1/13/1987        | -52.5                                    | -8.31                                     |
| 3/27/1987        | -51.0                                    | -7.92                                     |
| 4/1/1987         | -54.6                                    | -8.29                                     |
| 4/29/1987        | -48.2                                    | -7.55                                     |
| 6/22/1987        | -44.7                                    | -6.74                                     |
| 8/10/1987        | -35.3                                    | -5.78                                     |
| 8/29/1986        | -40.2                                    | -6.38                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Jersey**

Station Name: **Raritan River At Queens Bridge At Bound Brook**

Station Number **01403300**

Hydrologic Unit Code: 02030105

Drainage Area  
(square miles): 804

Latitude: 40° 33' 34"

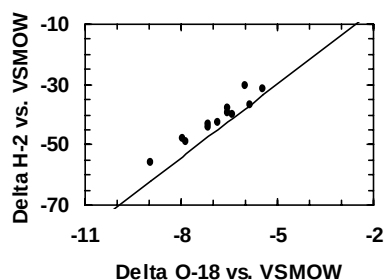
Datum (ft):

Longitude: 74° 31' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/4/1987         | -36.7                                    | -5.86                                     |
| 4/28/1987        | -44.0                                    | -7.15                                     |
| 2/19/1987        | -48.6                                    | -7.83                                     |
| 12/3/1986        | -30.0                                    | -6.01                                     |
| 7/25/1986        | -39.8                                    | -6.40                                     |
| 5/5/1986         | -42.9                                    | -7.14                                     |
| 2/20/1986        | -55.4                                    | -8.97                                     |
| 11/13/1985       | -39.2                                    | -6.56                                     |
| 8/30/1985        | -31.4                                    | -5.44                                     |
| 6/21/1985        | -37.4                                    | -6.56                                     |
| 2/20/1985        | -47.5                                    | -7.95                                     |
| 11/19/1984       | -42.5                                    | -6.85                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Jersey**

Station Name: **Maurice River At Norma**

Station Number **01411500**

Hydrologic Unit Code: 02040206

Drainage Area  
(square miles): 112

Latitude: 39° 29' 42"

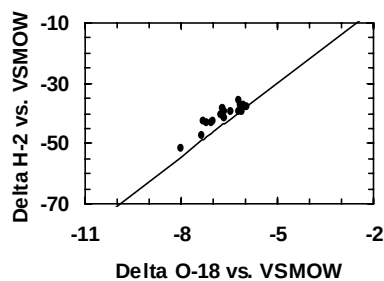
Datum (ft): 46.94

Longitude: 75° 04' 38"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/24/1986        | -37.2                                    | -6.17                                     |
| 1/9/1985         | -43.0                                    | -7.05                                     |
| 2/28/1985        | -43.0                                    | -7.20                                     |
| 5/23/1985        | -35.5                                    | -6.22                                     |
| 7/30/1985        | -37.3                                    | -6.06                                     |
| 11/14/1985       | -39.4                                    | -6.66                                     |
| 1/10/1986        | -42.2                                    | -7.02                                     |
| 11/21/1984       | -40.0                                    | -6.75                                     |
| 4/24/1986        | -38.1                                    | -6.68                                     |
| 9/24/1987        | -39.2                                    | -6.18                                     |
| 8/14/1986        | -37.4                                    | -5.97                                     |
| 11/18/1986       | -39.2                                    | -6.46                                     |
| 1/27/1987        | -51.2                                    | -8.02                                     |
| 3/19/1987        | -46.9                                    | -7.34                                     |
| 5/27/1987        | -41.4                                    | -6.65                                     |
| 7/30/1987        | -39.0                                    | -6.10                                     |
| 2/21/1986        | -42.4                                    | -7.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Jersey**

Station Name: **Delaware River At Trenton**

Station Number **01463500**

Hydrologic Unit Code: 02040105

Drainage Area  
(square miles): 6780

Latitude: 40° 13' 18"

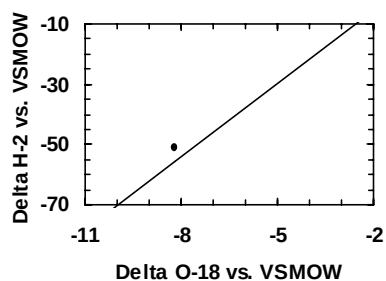
Datum (ft): 0

Longitude: 74° 46' 42"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 2/12/1985           | -51.1                                       | -8.20                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **New Jersey**

Station Name: **McDonalds B In Lebanon State Forest**

Station Number **01466500**

Hydrologic Unit Code: 02040202

Drainage Area  
(square miles): 2.35

Latitude: 39° 53' 05"

Datum (ft): 117.73

Longitude: 74° 30' 20"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 5/29/1985           | -40.6                                       | -7.15                                        |
| 2/18/1986           | -40.4                                       | -7.11                                        |
| 1/21/1986           | -41.0                                       | -6.98                                        |
| 12/17/1985          | -39.2                                       | -6.78                                        |
| 11/18/1985          | -39.7                                       | -6.88                                        |
| 10/22/1985          | -40.9                                       | -7.02                                        |
| 8/19/1985           | -41.2                                       | -7.19                                        |
| 10/30/1984          | -41.0                                       | -7.05                                        |
| 6/25/1985           | -42.0                                       | -7.14                                        |
| 5/29/1986           | -40.8                                       | -6.98                                        |
| 4/26/1985           | -41.0                                       | -7.20                                        |
| 3/26/1985           | -42.0                                       | -7.10                                        |
| 2/26/1985           | -43.0                                       | -7.15                                        |
| 1/24/1985           | -42.0                                       | -7.10                                        |
| 12/21/1984          | -42.0                                       | -7.05                                        |
| 11/23/1984          | -42.0                                       | -7.15                                        |
| 7/22/1985           | -40.2                                       | -7.03                                        |
| 12/30/1986          | -39.4                                       | -6.68                                        |
| 8/25/1987           | -38.5                                       | -6.44                                        |
| 7/28/1987           | -42.1                                       | -6.77                                        |
| 6/30/1987           | -38.6                                       | -6.67                                        |
| 5/26/1987           | -43.1                                       | -6.83                                        |
| 4/29/1987           | -42.3                                       | -7.14                                        |
| 3/31/1987           | -48.7                                       | -7.67                                        |
| 3/21/1986           | -39.1                                       | -6.91                                        |
| 1/28/1987           | -49.0                                       | -7.91                                        |
| 4/25/1986           | -38.3                                       | -6.73                                        |
| 11/25/1986          | -40.3                                       | -6.65                                        |
| 10/28/1986          | -43.1                                       | -6.93                                        |
| 9/26/1986           | -44.3                                       | -7.07                                        |
| 8/25/1986           | -42.3                                       | -6.97                                        |
| 7/23/1986           | -41.3                                       | -7.07                                        |
| 6/25/1986           | -41.0                                       | -7.03                                        |
| 9/29/1987           | -41.7                                       | -6.82                                        |
| 2/24/1987           | -50.0                                       | -7.92                                        |

State: **New Jersey**

Station Name: **McDonalds B In Lebanon State Forest**

Station Number **01466500**

Hydrologic Unit Code: 02040202

Drainage Area  
(square miles): 2.35

Latitude: 39° 53' 05"

Datum (ft): 117.73

Longitude: 74° 30' 20"

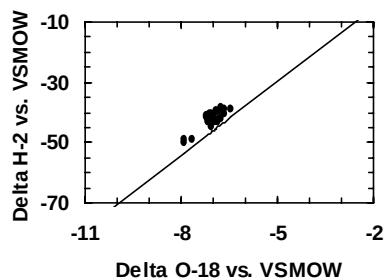
Collection  
Date:

Delta H-2 in per mill  
relative to VSMOW:

Delta O-18 in per mill  
relative to VSMOW:

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Canadian River Near Sanchez**

Station Number **07221500**

Hydrologic Unit Code: 11080003

Drainage Area  
(square miles): 6015

Latitude: 35° 39' 08"

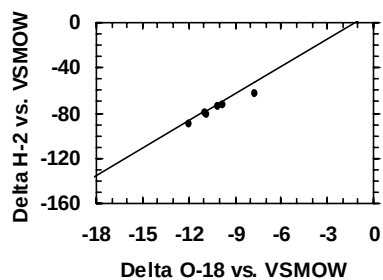
Datum (ft): 4495

Longitude: 104° 22' 39"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/18/1987        | -62.6                                    | -7.71                                     |
| 6/17/1987        | -81.0                                    | -10.85                                    |
| 5/19/1987        | -88.5                                    | -11.96                                    |
| 2/25/1987        | -79.3                                    | -10.92                                    |
| 1/7/1987         | -72.6                                    | -9.81                                     |
| 11/12/1986       | -73.9                                    | -10.14                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Canadian River Above NM-TX State Line**

Station Number **07227140**

Hydrologic Unit Code: 11080006

Drainage Area  
(square miles): 0

Latitude: 35° 23' 24"

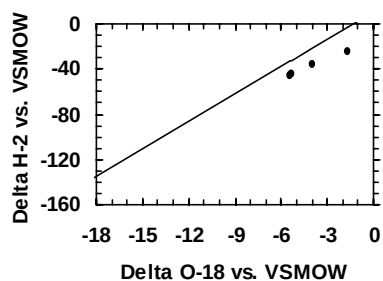
Datum (ft):

Longitude: 103° 02' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 12/12/1985       | -44.1                                    | -5.31                                     |
| 9/11/1985        | -24.7                                    | -1.71                                     |
| 1/29/1985        | -44.9                                    | -5.41                                     |
| 11/14/1984       | -34.8                                    | -3.97                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Rio Grande At Otowi Bridge**

Station Number **08313000**

Hydrologic Unit Code: 13020101

Drainage Area  
(square miles): 14300

Latitude: 35° 52' 29"

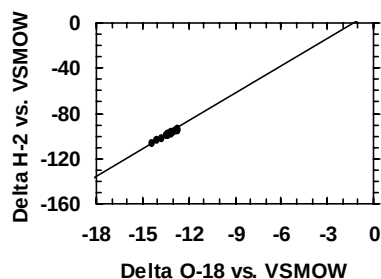
Datum (ft): 5488.48

Longitude: 106° 08' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/14/1986        | -98.1                                    | -13.15                                    |
| 1/7/1985         | -97.3                                    | -13.11                                    |
| 3/1/1985         | -99.8                                    | -13.37                                    |
| 6/4/1985         | -104.1                                   | -14.03                                    |
| 8/1/1985         | -96.1                                    | -13.00                                    |
| 9/17/1985        | -95.5                                    | -12.84                                    |
| 11/1/1985        | -96.8                                    | -13.14                                    |
| 11/9/1984        | -95.2                                    | -12.84                                    |
| 3/13/1986        | -96.4                                    | -13.01                                    |
| 9/1/1987         | -93.6                                    | -12.66                                    |
| 9/24/1986        | -95.5                                    | -12.72                                    |
| 11/13/1986       | -94.3                                    | -12.69                                    |
| 1/6/1987         | -97.1                                    | -13.29                                    |
| 3/3/1987         | -94.2                                    | -12.79                                    |
| 5/5/1987         | -105.8                                   | -14.39                                    |
| 6/30/1987        | -101.6                                   | -13.71                                    |
| 1/14/1986        | -99.4                                    | -13.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Rio Grande Conveyance Channel At San Marcial**

Station Number **08358300**

Hydrologic Unit Code: 13020203

Drainage Area  
(square miles): 0

Latitude: 33° 41' 07"

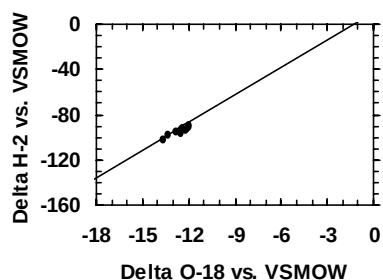
Datum (ft): 4454

Longitude: 106° 59' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/3/1987         | -93.5                                    | -12.49                                    |
| 7/21/1986        | -91.9                                    | -12.35                                    |
| 5/21/1986        | -92.9                                    | -12.18                                    |
| 3/18/1986        | -95.6                                    | -12.46                                    |
| 1/24/1986        | -94.7                                    | -12.64                                    |
| 11/26/1985       | -89.1                                    | -11.95                                    |
| 9/17/1985        | -91.6                                    | -12.10                                    |
| 7/17/1985        | -98.0                                    | -13.27                                    |
| 5/17/1985        | -102.1                                   | -13.64                                    |
| 3/19/1985        | -95.4                                    | -12.79                                    |
| 1/25/1985        | -92.0                                    | -12.35                                    |
| 11/15/1984       | -90.5                                    | -11.95                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Rio Grande Floodway At San Marcial**

Station Number **08358400**

Hydrologic Unit Code: 13020203

Drainage Area  
(square miles): 27700

Latitude: 33° 40' 50"

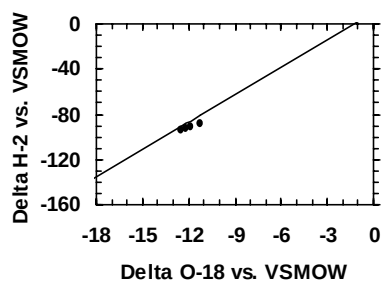
Datum (ft): 4455.19

Longitude: 106° 59' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -87.5                                    | -11.24                                    |
| 3/5/1987         | -92.9                                    | -12.44                                    |
| 11/13/1986       | -92.4                                    | -12.20                                    |
| 9/4/1986         | -90.2                                    | -11.88                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Rio Grande At El Paso**

Station Number **08364000**

Hydrologic Unit Code: 13030102

Drainage Area  
(square miles): 29267

Latitude: 31° 48' 10"

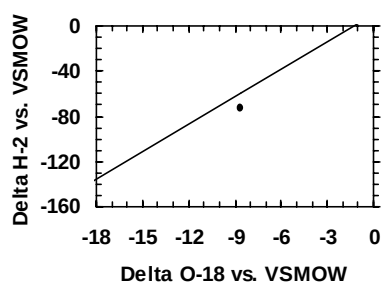
Datum (ft): 3722.3

Longitude: 106° 32' 25"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 11/12/1984          | -72.5                                       | -8.65                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **New Mexico**

Station Name: **Rio Mora Near Terrero**

Station Number **08377900**

Hydrologic Unit Code: 13060001

Drainage Area  
(square miles): 53.2

Latitude: 35° 46' 38"

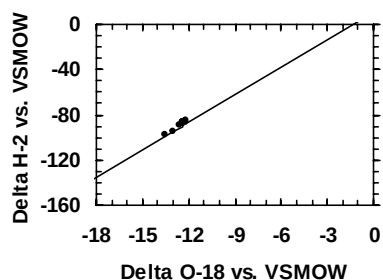
Datum (ft): 7890

Longitude: 105° 39' 27"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/25/1987        | -89.8                                    | -12.59                                    |
| 12/4/1986        | -86.7                                    | -12.40                                    |
| 3/25/1986        | -94.6                                    | -12.96                                    |
| 11/26/1985       | -86.6                                    | -12.17                                    |
| 9/16/1985        | -84.7                                    | -12.12                                    |
| 5/28/1985        | -97.6                                    | -13.55                                    |
| 2/27/1985        | -88.4                                    | -12.40                                    |
| 11/23/1984       | -86.7                                    | -12.36                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Pecos River Above Santa Rosa Lake**

Station Number **08382650**

Hydrologic Unit Code: 13060001

Drainage Area  
(square miles): 2340

Latitude: 35° 03' 35"

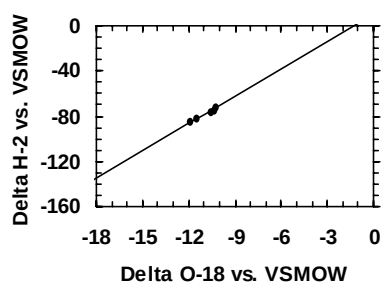
Datum (ft): 4760

Longitude: 104° 45' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/14/1987        | -75.4                                    | -10.30                                    |
| 7/15/1987        | -72.6                                    | -10.18                                    |
| 5/12/1987        | -84.4                                    | -11.82                                    |
| 3/18/1987        | -82.7                                    | -11.40                                    |
| 1/14/1987        | -76.7                                    | -10.51                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Pecos River At Red Bluff**

Station Number **08407500**

Hydrologic Unit Code: 13060011

Drainage Area  
(square miles): 19540

Latitude: 32° 04' 30"

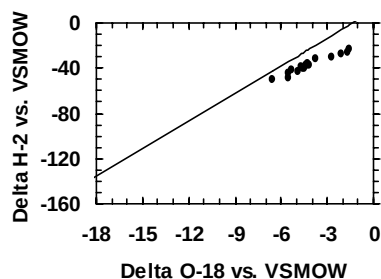
Datum (ft): 2850.05

Longitude: 104° 02' 21"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/8/1986         | -26.1                                    | -1.63                                     |
| 12/27/1984       | -43.5                                    | -5.50                                     |
| 3/12/1985        | -39.0                                    | -4.45                                     |
| 4/25/1985        | -29.6                                    | -2.67                                     |
| 6/25/1985        | -26.9                                    | -2.05                                     |
| 8/29/1985        | -23.0                                    | -1.52                                     |
| 10/30/1985       | -37.0                                    | -4.29                                     |
| 10/29/1984       | -39.5                                    | -4.60                                     |
| 2/27/1986        | -36.0                                    | -4.25                                     |
| 8/28/1987        | -37.4                                    | -4.19                                     |
| 7/30/1986        | -31.1                                    | -3.71                                     |
| 9/10/1986        | -37.0                                    | -4.37                                     |
| 11/7/1986        | -40.4                                    | -5.31                                     |
| 1/8/1987         | -49.5                                    | -6.55                                     |
| 5/7/1987         | -47.5                                    | -5.52                                     |
| 6/30/1987        | -41.9                                    | -4.93                                     |
| 1/2/1986         | -38.9                                    | -4.67                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Mimbres River At Mimbres**

Station Number **08477110**

Hydrologic Unit Code: 13030202

Drainage Area  
(square miles): 184

Latitude: 32° 51' 17"

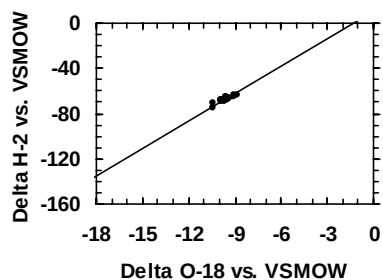
Datum (ft):

Longitude: 107° 58' 23"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/1/1987         | -64.9                                    | -9.53                                     |
| 5/4/1987         | -74.5                                    | -10.43                                    |
| 3/25/1987        | -67.7                                    | -9.85                                     |
| 1/6/1987         | -69.2                                    | -9.66                                     |
| 8/20/1986        | -64.2                                    | -9.04                                     |
| 7/16/1986        | -64.3                                    | -8.85                                     |
| 5/2/1986         | -67.6                                    | -9.45                                     |
| 3/17/1986        | -66.7                                    | -9.36                                     |
| 10/18/1985       | -67.6                                    | -9.93                                     |
| 9/20/1985        | -65.9                                    | -9.38                                     |
| 7/9/1985         | -67.0                                    | -9.47                                     |
| 5/21/1985        | -69.3                                    | -9.90                                     |
| 3/14/1985        | -71.2                                    | -10.42                                    |
| 1/10/1985        | -66.0                                    | -9.45                                     |
| 11/8/1984        | -64.5                                    | -9.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Rio Tularosa Near Bent**

Station Number **08481500**

Hydrologic Unit Code: 13050003

Drainage Area  
(square miles): 120

Latitude: 33° 08' 41"

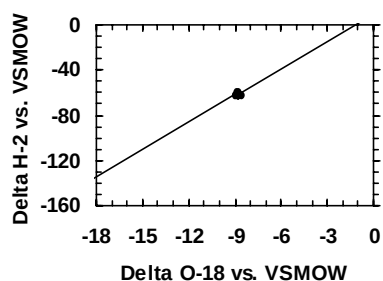
Datum (ft): 5450

Longitude: 105° 53' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/29/1986        | -61.4                                    | -8.70                                     |
| 1/15/1985        | -62.5                                    | -8.90                                     |
| 3/25/1985        | -63.0                                    | -8.80                                     |
| 5/29/1985        | -61.7                                    | -8.58                                     |
| 7/31/1985        | -60.8                                    | -8.72                                     |
| 9/27/1985        | -61.7                                    | -8.79                                     |
| 11/27/1985       | -62.1                                    | -8.77                                     |
| 11/7/1984        | -62.0                                    | -8.75                                     |
| 3/25/1986        | -62.0                                    | -8.72                                     |
| 9/18/1987        | -60.7                                    | -8.79                                     |
| 7/31/1986        | -61.9                                    | -8.76                                     |
| 9/23/1986        | -62.2                                    | -8.79                                     |
| 11/18/1986       | -62.6                                    | -8.78                                     |
| 1/13/1987        | -59.1                                    | -8.87                                     |
| 3/19/1987        | -61.2                                    | -8.81                                     |
| 5/14/1987        | -60.9                                    | -8.87                                     |
| 6/18/1987        | -60.1                                    | -8.76                                     |
| 1/30/1986        | -62.0                                    | -8.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Animas River At Farmington**

Station Number **09364500**

Hydrologic Unit Code: 14080104

Drainage Area  
(square miles): 1360

Latitude: 36° 43' 17"

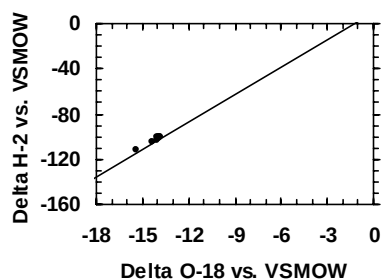
Datum (ft): 5280

Longitude: 108° 12' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/18/1987        | -111.5                                   | -15.41                                    |
| 3/17/1987        | -103.0                                   | -14.01                                    |
| 11/17/1986       | -100.9                                   | -13.79                                    |
| 8/11/1986        | -101.2                                   | -13.95                                    |
| 5/8/1986         | -101.1                                   | -14.10                                    |
| 3/25/1986        | -101.8                                   | -13.92                                    |
| 9/10/1985        | -101.0                                   | -13.89                                    |
| 5/1/1985         | -104.3                                   | -14.41                                    |
| 11/6/1984        | -100.0                                   | -13.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **San Juan River At Shiprock**

Station Number **09368000**

Hydrologic Unit Code: 14080105

Drainage Area  
(square miles): 12900

Latitude: 36° 47' 32"

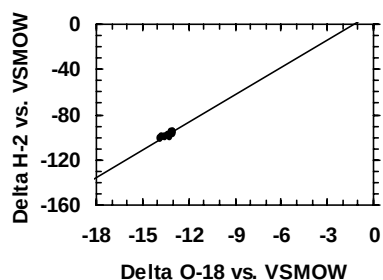
Datum (ft): 4848.68

Longitude: 108° 43' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/18/1987        | -94.4                                    | -12.99                                    |
| 11/18/1986       | -94.6                                    | -13.06                                    |
| 8/12/1986        | -96.0                                    | -13.12                                    |
| 7/9/1986         | -99.8                                    | -13.72                                    |
| 5/6/1986         | -100.2                                   | -13.85                                    |
| 3/26/1986        | -96.3                                    | -13.09                                    |
| 1/14/1986        | -95.6                                    | -13.13                                    |
| 11/5/1985        | -97.5                                    | -13.35                                    |
| 9/10/1985        | -95.8                                    | -13.01                                    |
| 4/30/1985        | -99.0                                    | -13.17                                    |
| 1/10/1985        | -98.5                                    | -13.50                                    |
| 11/7/1984        | -95.0                                    | -13.15                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New Mexico**

Station Name: **Mogollon Creek Near Cliff**

Station Number **09430600**

Hydrologic Unit Code: 15040001

Drainage Area 69  
(square miles):

Latitude: 33° 10' 00"

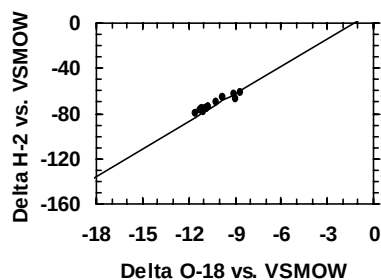
Datum (ft): 5440

Longitude: 108° 38' 57"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/6/1987         | -74.9                                    | -10.93                                    |
| 3/24/1987        | -77.2                                    | -11.06                                    |
| 11/20/1986       | -73.5                                    | -10.67                                    |
| 8/19/1986        | -60.3                                    | -8.65                                     |
| 4/29/1986        | -73.3                                    | -10.68                                    |
| 3/19/1986        | -74.6                                    | -10.84                                    |
| 11/19/1985       | -69.3                                    | -10.22                                    |
| 9/18/1985        | -62.0                                    | -9.10                                     |
| 7/9/1985         | -66.3                                    | -8.93                                     |
| 5/23/1985        | -76.1                                    | -11.27                                    |
| 4/3/1985         | -79.1                                    | -11.57                                    |
| 1/10/1985        | -75.5                                    | -11.10                                    |
| 11/6/1984        | -65.5                                    | -9.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **New Mexico**

Station Name: **Gila River Near Redrock**

Station Number **09431500**

Hydrologic Unit Code: 15040002

Drainage Area  
(square miles): 2829

Latitude: 32° 43' 37"

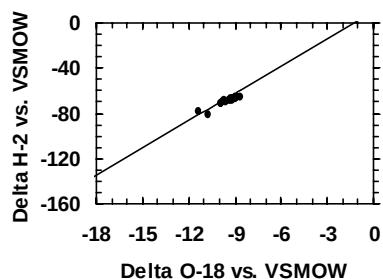
Datum (ft): 4090

Longitude: 108° 40' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/16/1986        | -80.9                                    | -10.77                                    |
| 1/8/1985         | -68.0                                    | -9.65                                     |
| 3/14/1985        | -77.7                                    | -11.29                                    |
| 5/22/1985        | -70.5                                    | -9.84                                     |
| 7/11/1985        | -65.5                                    | -8.82                                     |
| 9/10/1985        | -65.5                                    | -8.88                                     |
| 11/20/1985       | -66.9                                    | -9.19                                     |
| 11/7/1984        | -64.5                                    | -8.95                                     |
| 5/1/1986         | -67.9                                    | -9.28                                     |
| 9/2/1987         | -66.7                                    | -8.95                                     |
| 8/20/1986        | -64.8                                    | -8.59                                     |
| 11/19/1986       | -66.2                                    | -9.24                                     |
| 1/6/1987         | -67.7                                    | -9.37                                     |
| 3/25/1987        | -69.5                                    | -9.59                                     |
| 5/7/1987         | -69.4                                    | -9.78                                     |
| 6/2/1987         | -67.8                                    | -9.13                                     |
| 3/18/1986        | -71.0                                    | -9.90                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Nissequogue River Near Smithtown**

Station Number **01304000**

Hydrologic Unit Code: 02030201

Drainage Area  
(square miles): 27

Latitude: 40° 50' 58"

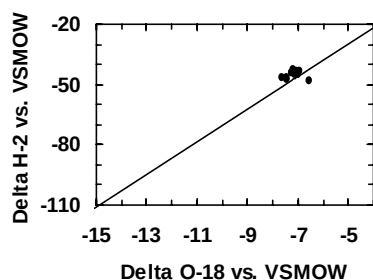
Datum (ft): 9.59

Longitude: 73° 13' 29"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -42.2                                    | -7.16                                     |
| 6/24/1987        | -44.0                                    | -7.03                                     |
| 3/24/1987        | -46.1                                    | -7.40                                     |
| 12/22/1986       | -47.8                                    | -6.57                                     |
| 7/8/1986         | -44.5                                    | -7.01                                     |
| 6/3/1986         | -45.0                                    | -7.15                                     |
| 3/26/1986        | -44.0                                    | -7.22                                     |
| 12/31/1985       | -46.5                                    | -7.60                                     |
| 9/5/1985         | -43.2                                    | -6.90                                     |
| 6/4/1985         | -43.0                                    | -7.05                                     |
| 2/27/1985        | -46.8                                    | -7.44                                     |
| 11/27/1984       | -46.7                                    | -7.41                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Carmans River At Yaphank**

Station Number **01305000**

Hydrologic Unit Code: 02030202

Drainage Area  
(square miles): 71

Latitude: 40° 49' 49"

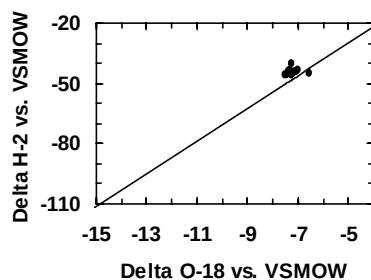
Datum (ft): 17.95

Longitude: 72° 54' 24"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -39.9                                    | -7.25                                     |
| 6/24/1987        | -44.5                                    | -7.24                                     |
| 3/25/1987        | -45.6                                    | -7.27                                     |
| 12/23/1986       | -45.1                                    | -6.57                                     |
| 8/26/1986        | -43.8                                    | -7.11                                     |
| 7/9/1986         | -43.3                                    | -7.02                                     |
| 6/3/1986         | -43.9                                    | -7.08                                     |
| 3/26/1986        | -43.8                                    | -7.32                                     |
| 12/31/1985       | -45.7                                    | -7.47                                     |
| 9/6/1985         | -43.5                                    | -7.31                                     |
| 6/11/1985        | -44.9                                    | -7.21                                     |
| 2/27/1985        | -44.1                                    | -7.40                                     |
| 11/28/1984       | -45.3                                    | -7.45                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Hudson River At Green Island**

Station Number **01358000**

Hydrologic Unit Code: 02020003

Drainage Area  
(square miles): 8090

Latitude: 42° 45' 08"

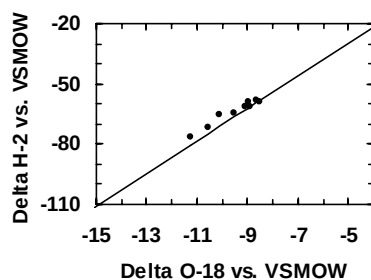
Datum (ft): -0.31

Longitude: 73° 41' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 11/13/1986       | -61.4                                    | -8.88                                     |
| 8/5/1986         | -61.5                                    | -9.10                                     |
| 5/6/1986         | -72.0                                    | -10.56                                    |
| 3/9/1986         | -76.5                                    | -11.23                                    |
| 11/26/1985       | -58.2                                    | -8.62                                     |
| 8/21/1985        | -59.1                                    | -8.50                                     |
| 6/11/1985        | -64.6                                    | -9.50                                     |
| 3/19/1985        | -65.4                                    | -10.09                                    |
| 11/21/1984       | -59.0                                    | -8.95                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Esopus Creek At Shandaken**

Station Number **01362198**

Hydrologic Unit Code: 02020006

Drainage Area  
(square miles): 59.5

Latitude: 42° 06' 59"

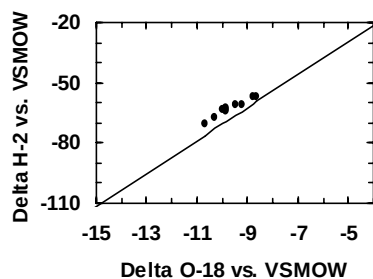
Datum (ft): 1017.27

Longitude: 74° 23' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/25/1987        | -70.5                                    | -10.70                                    |
| 11/14/1986       | -56.9                                    | -8.62                                     |
| 8/6/1986         | -60.4                                    | -9.47                                     |
| 3/20/1986        | -67.3                                    | -10.27                                    |
| 11/27/1985       | -56.6                                    | -8.77                                     |
| 9/26/1985        | -60.7                                    | -9.24                                     |
| 6/12/1985        | -63.1                                    | -9.87                                     |
| 4/9/1985         | -63.3                                    | -9.97                                     |
| 3/6/1985         | -63.4                                    | -9.87                                     |
| 11/20/1984       | -62.5                                    | -9.85                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Cattaraugus Creek At Gowanda**

Station Number **04213500**

Hydrologic Unit Code: 04120102

Drainage Area  
(square miles): 436

Latitude: 42° 27' 50"

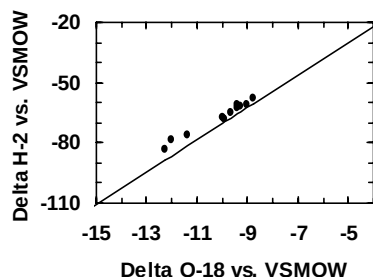
Datum (ft): 738.85

Longitude: 78° 56' 07"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -57.2                                    | -8.79                                     |
| 6/23/1987        | -60.9                                    | -9.02                                     |
| 3/11/1987        | -82.8                                    | -12.25                                    |
| 10/30/1986       | -60.9                                    | -9.39                                     |
| 8/19/1986        | -64.9                                    | -9.65                                     |
| 6/17/1986        | -61.4                                    | -9.26                                     |
| 3/19/1986        | -78.4                                    | -11.98                                    |
| 10/29/1985       | -62.4                                    | -9.37                                     |
| 8/21/1985        | -67.6                                    | -9.89                                     |
| 6/13/1985        | -67.3                                    | -10.01                                    |
| 3/29/1985        | -75.7                                    | -11.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Tonawanda Creek At Batavia**

Station Number **04217000**

Hydrologic Unit Code: 04120104

Drainage Area  
(square miles): 171

Latitude: 42° 59' 51"

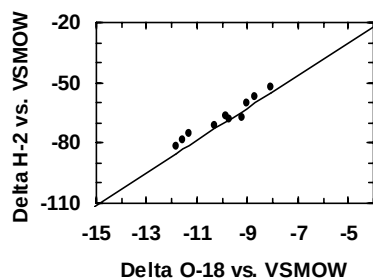
Datum (ft): 876.33

Longitude: 78° 11' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/13/1987        | -51.9                                    | -8.07                                     |
| 5/21/1987        | -71.2                                    | -10.30                                    |
| 1/15/1987        | -78.2                                    | -11.54                                    |
| 8/19/1986        | -59.6                                    | -9.05                                     |
| 6/17/1986        | -66.2                                    | -9.83                                     |
| 3/19/1986        | -80.9                                    | -11.85                                    |
| 10/30/1985       | -56.9                                    | -8.70                                     |
| 8/20/1985        | -66.9                                    | -9.24                                     |
| 6/12/1985        | -67.9                                    | -9.75                                     |
| 3/28/1985        | -75.1                                    | -11.31                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Niagara River (Lake Ontario) At Fort Niagara**

Station Number **04219640**

Hydrologic Unit Code: 04120104

Drainage Area  
(square miles): 265000

Latitude: 43° 16' 10"

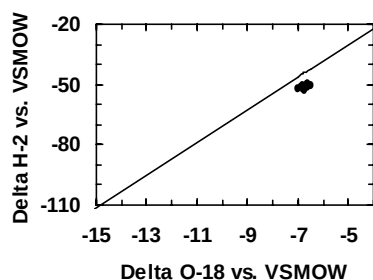
Datum (ft):

Longitude: 79° 03' 52"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/18/1987        | -49.7                                    | -6.60                                     |
| 6/25/1987        | -51.3                                    | -6.70                                     |
| 5/12/1987        | -52.4                                    | -6.76                                     |
| 10/29/1986       | -50.1                                    | -6.51                                     |
| 8/21/1986        | -50.5                                    | -6.62                                     |
| 6/19/1986        | -52.1                                    | -6.77                                     |
| 5/7/1986         | -52.1                                    | -6.99                                     |
| 10/30/1985       | -49.8                                    | -6.62                                     |
| 8/21/1985        | -50.4                                    | -6.63                                     |
| 6/13/1985        | -50.3                                    | -6.83                                     |
| 5/21/1985        | -51.1                                    | -6.86                                     |
| 11/27/1984       | -51.1                                    | -6.61                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **New York**

Station Name: **Genesee River (Charlotte Docks) At Rochester**

Station Number **04232006**

Hydrologic Unit Code: 04130003

Drainage Area  
(square miles): 2457

Latitude: 43° 13' 26"

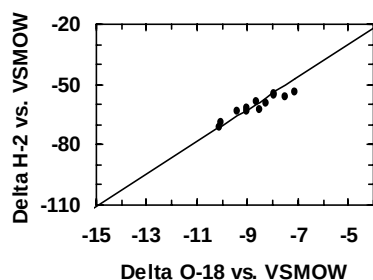
Datum (ft):

Longitude: 77° 36' 59"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/17/1987        | -55.5                                    | -7.51                                     |
| 6/24/1987        | -62.2                                    | -8.55                                     |
| 5/11/1987        | -70.9                                    | -10.08                                    |
| 10/28/1986       | -58.4                                    | -8.64                                     |
| 8/20/1986        | -54.8                                    | -7.92                                     |
| 6/18/1986        | -61.1                                    | -9.03                                     |
| 5/6/1986         | -68.8                                    | -10.04                                    |
| 10/29/1985       | -53.9                                    | -7.92                                     |
| 8/20/1985        | -53.6                                    | -7.11                                     |
| 6/12/1985        | -58.9                                    | -8.27                                     |
| 5/20/1985        | -62.7                                    | -9.04                                     |
| 11/26/1984       | -63.2                                    | -9.38                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Oswego River At Lock 7 At Oswego**

Station Number **04249000**

Hydrologic Unit Code: 04140203

Drainage Area  
(square miles): 5100

Latitude: 43° 27' 06"

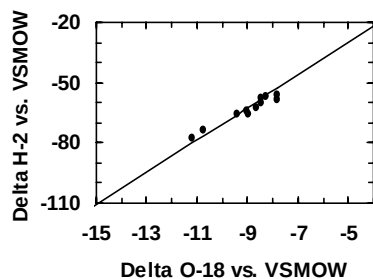
Datum (ft): 246

Longitude: 76° 30' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/20/1987        | -56.0                                    | -7.79                                     |
| 6/22/1987        | -65.1                                    | -8.96                                     |
| 3/12/1987        | -77.6                                    | -11.18                                    |
| 10/27/1986       | -57.7                                    | -8.42                                     |
| 8/18/1986        | -59.8                                    | -8.45                                     |
| 6/16/1986        | -63.9                                    | -9.01                                     |
| 3/18/1986        | -73.4                                    | -10.76                                    |
| 10/28/1985       | -56.5                                    | -8.24                                     |
| 8/19/1985        | -57.9                                    | -7.83                                     |
| 6/11/1985        | -62.2                                    | -8.65                                     |
| 3/27/1985        | -65.6                                    | -9.43                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Sandy Creek Near Adams**

Station Number **04250750**

Hydrologic Unit Code: 04140102

Drainage Area  
(square miles): 128

Latitude: 43° 48' 48"

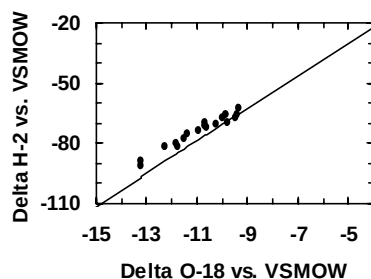
Datum (ft): 523.71

Longitude: 76° 04' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/29/1986        | -81.7                                    | -12.24                                    |
| 2/12/1985        | -73.5                                    | -10.95                                    |
| 3/26/1985        | -79.5                                    | -11.85                                    |
| 5/7/1985         | -69.4                                    | -10.67                                    |
| 7/9/1985         | -67.3                                    | -9.97                                     |
| 8/13/1985        | -69.3                                    | -9.76                                     |
| 11/5/1985        | -65.6                                    | -9.86                                     |
| 10/24/1984       | -62.5                                    | -9.35                                     |
| 3/24/1986        | -90.6                                    | -13.24                                    |
| 8/25/1987        | -66.7                                    | -9.49                                     |
| 7/8/1986         | -72.0                                    | -10.60                                    |
| 8/26/1986        | -70.3                                    | -10.24                                    |
| 11/4/1986        | -70.7                                    | -10.69                                    |
| 1/28/1987        | -77.7                                    | -11.49                                    |
| 3/11/1987        | -88.5                                    | -13.21                                    |
| 4/22/1987        | -81.2                                    | -11.77                                    |
| 7/28/1987        | -65.4                                    | -9.41                                     |
| 1/14/1986        | -74.9                                    | -11.36                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Black River At Watertown**

Station Number **04260500**

Hydrologic Unit Code: 04150101

Drainage Area  
(square miles): 1874

Latitude: 43° 59' 08"

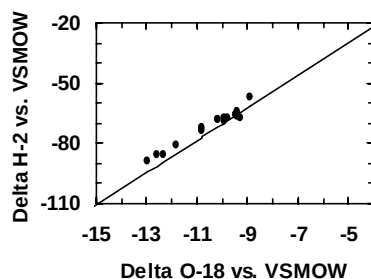
Datum (ft): 373.88

Longitude: 75° 55' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/29/1986        | -80.8                                    | -11.81                                    |
| 2/12/1985        | -67.5                                    | -10.15                                    |
| 3/26/1985        | -72.5                                    | -10.80                                    |
| 5/7/1985         | -72.2                                    | -10.79                                    |
| 7/9/1985         | -66.6                                    | -9.90                                     |
| 8/13/1985        | -66.5                                    | -9.41                                     |
| 11/5/1985        | -56.4                                    | -8.88                                     |
| 10/25/1984       | -64.0                                    | -9.40                                     |
| 3/24/1986        | -88.5                                    | -12.94                                    |
| 8/26/1987        | -66.8                                    | -9.31                                     |
| 7/8/1986         | -68.9                                    | -9.94                                     |
| 8/26/1986        | -65.6                                    | -9.50                                     |
| 11/4/1986        | -66.7                                    | -9.81                                     |
| 1/28/1987        | -73.2                                    | -10.79                                    |
| 3/11/1987        | -85.3                                    | -12.59                                    |
| 4/22/1987        | -85.6                                    | -12.30                                    |
| 7/28/1987        | -65.8                                    | -9.39                                     |
| 1/14/1986        | -68.1                                    | -10.19                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Oswegatchie River Near Heuvelton**

Station Number **04263000**

Hydrologic Unit Code: 04150302

Drainage Area  
(square miles): 965

Latitude: 44° 35' 58"

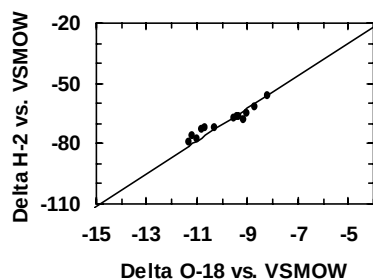
Datum (ft): 288.85

Longitude: 75° 22' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/17/1987        | -64.5                                    | -9.01                                     |
| 7/24/1987        | -66.2                                    | -9.37                                     |
| 5/6/1987         | -77.6                                    | -10.99                                    |
| 1/20/1987        | -71.9                                    | -10.67                                    |
| 12/16/1986       | -72.8                                    | -10.80                                    |
| 8/20/1986        | -61.6                                    | -8.68                                     |
| 6/10/1986        | -71.7                                    | -10.30                                    |
| 3/6/1986         | -76.1                                    | -11.17                                    |
| 10/22/1985       | -55.5                                    | -8.19                                     |
| 8/12/1985        | -68.1                                    | -9.17                                     |
| 6/13/1985        | -66.6                                    | -9.54                                     |
| 3/13/1985        | -79.0                                    | -11.30                                    |
| 10/19/1984       | -66.5                                    | -9.40                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **St Lawrence River At Cornwall, Ontario, Near Massena**

Station Number **04264331**

Hydrologic Unit Code: 04150301

Drainage Area  
(square miles): 298800

Latitude: 45° 00' 22"

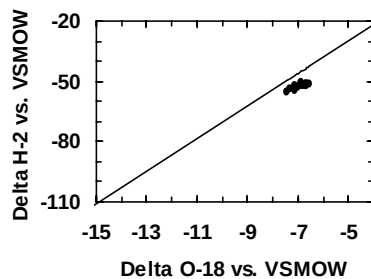
Datum (ft):

Longitude: 74° 47' 43"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/26/1986        | -55.0                                    | -7.45                                     |
| 1/28/1985        | -51.0                                    | -6.70                                     |
| 3/25/1985        | -52.0                                    | -6.95                                     |
| 6/24/1985        | -51.7                                    | -7.11                                     |
| 7/29/1985        | -50.4                                    | -6.84                                     |
| 8/26/1985        | -51.7                                    | -6.64                                     |
| 10/26/1984       | -51.0                                    | -6.60                                     |
| 1/29/1986        | -52.3                                    | -6.99                                     |
| 8/14/1987        | -52.0                                    | -6.69                                     |
| 5/27/1986        | -53.3                                    | -7.28                                     |
| 6/25/1986        | -52.8                                    | -7.06                                     |
| 8/28/1986        | -51.2                                    | -6.66                                     |
| 10/28/1986       | -50.7                                    | -6.65                                     |
| 2/9/1987         | -51.8                                    | -6.83                                     |
| 6/3/1987         | -54.4                                    | -7.11                                     |
| 10/28/1985       | -51.1                                    | -6.56                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **Raquette River At Raymondville**Station Number **04268000**

Hydrologic Unit Code: 04150305

Drainage Area (square miles): 1125

Latitude: 44° 50' 20"

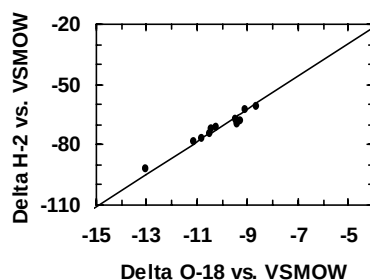
Datum (ft): 183.33

Longitude: 74° 58' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -69.3                                    | -9.43                                     |
| 6/2/1987         | -76.2                                    | -10.78                                    |
| 3/10/1987        | -91.8                                    | -13.02                                    |
| 10/22/1986       | -62.1                                    | -9.11                                     |
| 8/19/1986        | -67.2                                    | -9.49                                     |
| 6/11/1986        | -73.8                                    | -10.47                                    |
| 3/10/1986        | -71.0                                    | -10.23                                    |
| 10/23/1985       | -60.4                                    | -8.63                                     |
| 8/15/1985        | -68.2                                    | -9.41                                     |
| 6/13/1985        | -71.9                                    | -10.42                                    |
| 3/14/1985        | -78.5                                    | -11.15                                    |
| 10/22/1984       | -68.0                                    | -9.30                                     |

## Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **New York**

Station Name: **St Regis River At Brasher Center**

Station Number **04269000**

Hydrologic Unit Code: 04150306

Drainage Area  
(square miles): 612

Latitude: 44° 51' 49"

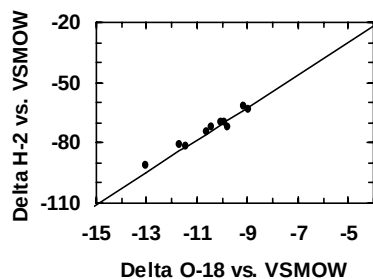
Datum (ft): 217.23

Longitude: 74° 46' 45"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 8/10/1987           | -62.9                                       | -8.97                                        |
| 3/9/1987            | -91.2                                       | -13.02                                       |
| 10/23/1986          | -69.1                                       | -10.04                                       |
| 8/18/1986           | -69.4                                       | -9.90                                        |
| 6/9/1986            | -72.2                                       | -10.44                                       |
| 3/11/1986           | -80.3                                       | -11.66                                       |
| 10/23/1985          | -61.7                                       | -9.14                                        |
| 8/16/1985           | -71.5                                       | -9.77                                        |
| 6/10/1985           | -73.9                                       | -10.61                                       |
| 3/12/1985           | -81.0                                       | -11.45                                       |
| 10/23/1984          | -74.0                                       | 10.40                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **New York**

Station Name: **Richelieu River (L Champlain) At Rouses Point**

Station Number **04295000**

Hydrologic Unit Code: 02010006

Drainage Area  
(square miles): 8277

Latitude: 44° 59' 46"

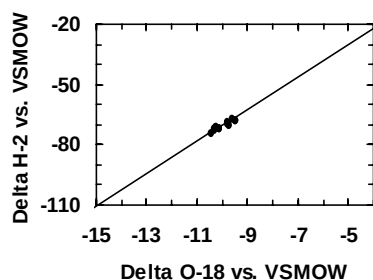
Datum (ft):

Longitude: 73° 21' 37"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/4/1987         | -67.5                                    | -9.48                                     |
| 5/16/1987        | -71.7                                    | -10.10                                    |
| 4/27/1987        | -72.0                                    | -10.09                                    |
| 10/27/1986       | -66.7                                    | -9.62                                     |
| 8/7/1986         | -69.7                                    | -9.76                                     |
| 5/21/1986        | -72.3                                    | -10.27                                    |
| 4/23/1986        | -74.0                                    | -10.39                                    |
| 10/16/1985       | -67.5                                    | -9.47                                     |
| 7/31/1985        | -68.6                                    | -9.78                                     |
| 5/16/1985        | -71.9                                    | -10.27                                    |
| 4/18/1985        | -70.8                                    | -10.21                                    |
| 10/17/1984       | -70.5                                    | -9.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Carolina**

Station Name: **Tar River At Tarboro**

Station Number **02083500**

Hydrologic Unit Code: 03020103

Drainage Area  
(square miles): 2183

Latitude: 35° 53' 38"

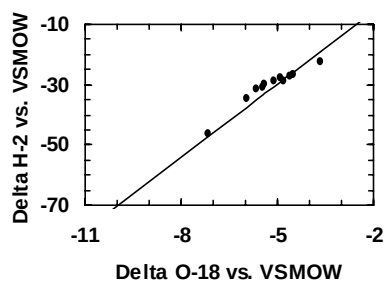
Datum (ft): 10.37

Longitude: 77° 32' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -22.4                                    | -3.66                                     |
| 4/27/1987        | -34.3                                    | -5.93                                     |
| 1/29/1987        | -46.3                                    | -7.15                                     |
| 11/13/1986       | -26.2                                    | -4.49                                     |
| 5/21/1986        | -26.8                                    | -4.59                                     |
| 2/10/1986        | -29.4                                    | -5.39                                     |
| 11/26/1985       | -28.4                                    | -4.79                                     |
| 11/13/1985       | -30.7                                    | -5.45                                     |
| 5/29/1985        | -27.3                                    | -4.90                                     |
| 1/31/1985        | -31.5                                    | -5.65                                     |
| 11/8/1984        | -28.5                                    | -5.10                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Carolina**

Station Name: **Contentnea Creek At Hookerton**

Station Number **02091500**

Hydrologic Unit Code: 03020203

Drainage Area 729  
(square miles):

Latitude: 35° 25' 40"

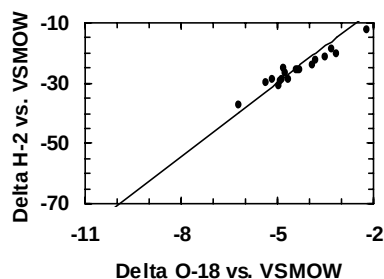
Datum (ft): 16

Longitude: 77° 34' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/6/1986         | -24.0                                    | -3.88                                     |
| 1/7/1985         | -28.5                                    | -5.15                                     |
| 3/20/1985        | -24.7                                    | -4.80                                     |
| 5/13/1985        | -26.3                                    | -4.76                                     |
| 7/10/1985        | -21.3                                    | -3.48                                     |
| 9/5/1985         | -25.3                                    | -4.29                                     |
| 11/18/1985       | -25.5                                    | -4.37                                     |
| 11/7/1984        | -28.5                                    | -4.85                                     |
| 3/11/1986        | -29.2                                    | -4.89                                     |
| 9/1/1987         | -18.5                                    | -3.31                                     |
| 7/9/1986         | -12.4                                    | -2.20                                     |
| 9/9/1986         | -25.2                                    | -4.39                                     |
| 11/5/1986        | -22.2                                    | -3.83                                     |
| 1/8/1987         | -30.8                                    | -4.93                                     |
| 1/29/1987        | -36.9                                    | -6.22                                     |
| 5/12/1987        | -29.7                                    | -5.35                                     |
| 7/23/1987        | -20.3                                    | -3.13                                     |
| 1/7/1986         | -28.5                                    | -4.64                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Carolina**

Station Name: **Yadkin River At Yadkin College**

Station Number **02116500**

Hydrologic Unit Code: 03040101

Drainage Area  
(square miles): 2280

Latitude: 35° 51' 24"

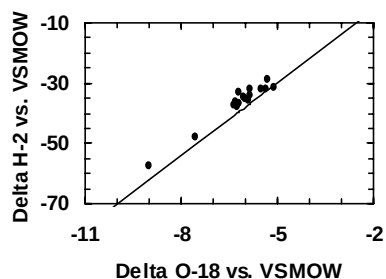
Datum (ft): 638.65

Longitude: 80° 23' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/20/1986        | -34.1                                    | -5.86                                     |
| 2/11/1985        | -36.5                                    | -6.20                                     |
| 4/1/1985         | -35.0                                    | -6.00                                     |
| 5/15/1985        | -33.0                                    | -6.18                                     |
| 7/24/1985        | -31.9                                    | -5.33                                     |
| 8/19/1985        | -28.6                                    | -5.31                                     |
| 11/26/1985       | -34.3                                    | -6.06                                     |
| 11/20/1984       | -32.0                                    | -5.85                                     |
| 3/12/1986        | -37.6                                    | -6.24                                     |
| 9/2/1987         | -35.3                                    | -5.88                                     |
| 7/23/1986        | -31.4                                    | -5.09                                     |
| 9/2/1986         | -31.9                                    | -5.49                                     |
| 11/25/1986       | -36.4                                    | -6.22                                     |
| 2/3/1987         | -47.6                                    | -7.54                                     |
| 3/2/1987         | -57.1                                    | -8.99                                     |
| 6/2/1987         | -37.3                                    | -6.23                                     |
| 7/7/1987         | -37.0                                    | -6.33                                     |
| 2/3/1986         | -35.9                                    | -6.29                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Carolina**

Station Name: **Rock Creek Near Norwood**

Station Number **02126000**

Hydrologic Unit Code: 03040105

Drainage Area  
(square miles): 1372

Latitude: 35° 08' 54"

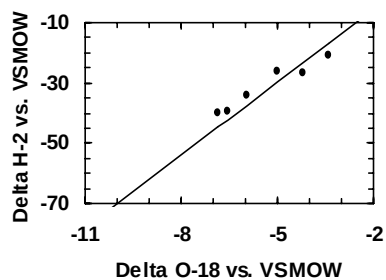
Datum (ft): 212.91

Longitude: 80° 10' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/4/1987         | -20.5                                    | -3.42                                     |
| 6/11/1987        | -26.7                                    | -4.19                                     |
| 4/20/1987        | -34.1                                    | -5.96                                     |
| 3/2/1987         | -39.7                                    | -6.83                                     |
| 2/2/1987         | -39.1                                    | -6.55                                     |
| 11/25/1986       | -25.9                                    | -4.99                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Carolina**

Station Name: **Pee Dee River Near Rockingham**

Station Number **02129000**

Hydrologic Unit Code: 03040201

Drainage Area  
(square miles): 6863

Latitude: 34° 56' 46"

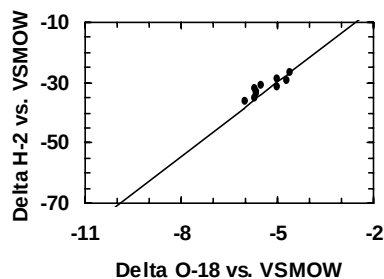
Datum (ft): 120.68

Longitude: 79° 52' 11"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/19/1987        | -36.1                                    | -5.99                                     |
| 6/19/1987        |                                          | -6.06                                     |
| 1/13/1987        | -33.1                                    | -5.64                                     |
| 9/3/1986         | -29.0                                    | -4.71                                     |
| 5/19/1986        | -31.1                                    | -5.00                                     |
| 2/19/1986        | -34.8                                    | -5.69                                     |
| 12/17/1985       | -33.2                                    | -5.64                                     |
| 9/17/1985        | -26.5                                    | -4.61                                     |
| 5/14/1985        | -30.5                                    | -5.52                                     |
| 4/2/1985         | -32.0                                    | -5.70                                     |
| 11/19/1984       | -28.5                                    | -5.00                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Carolina**

Station Name: **French Broad River At Marshall**

Station Number **03453500**

Hydrologic Unit Code: 06010105

Drainage Area  
(square miles): 1332

Latitude: 35° 47' 10"

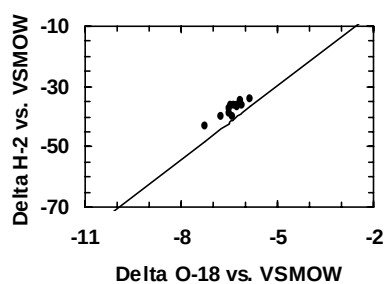
Datum (ft): 1646.79

Longitude: 82° 39' 39"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/14/1987        | -34.4                                    | -6.17                                     |
| 6/8/1987         | -38.7                                    | -6.51                                     |
| 3/3/1987         | -42.7                                    | -7.27                                     |
| 11/17/1986       | -36.0                                    | -6.11                                     |
| 9/22/1986        | -34.1                                    | -5.84                                     |
| 5/13/1986        | -39.7                                    | -6.39                                     |
| 1/29/1986        | -39.8                                    | -6.73                                     |
| 11/19/1985       | -36.5                                    | -6.25                                     |
| 9/16/1985        | -36.1                                    | -6.24                                     |
| 5/22/1985        | -37.0                                    | -6.49                                     |
| 2/6/1985         | -36.2                                    | -6.44                                     |
| 12/4/1984        | -36.2                                    | -6.37                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Carolina**

Station Name: **Cataloochee Creek Near Cataloochee**

Station Number **03460000**

Hydrologic Unit Code: 06010106

Drainage Area  
(square miles): 49.2

Latitude: 35° 40' 02"

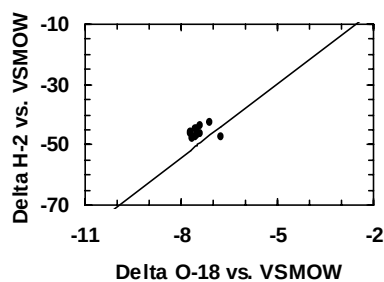
Datum (ft): 2456.88

Longitude: 83° 04' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/14/1987        | -46.0                                    | -7.42                                     |
| 6/8/1987         | -47.3                                    | -7.53                                     |
| 3/10/1987        | -46.6                                    | -7.50                                     |
| 11/17/1986       | -42.2                                    | -7.09                                     |
| 9/22/1986        | -43.2                                    | -7.40                                     |
| 5/12/1986        | -47.3                                    | -6.76                                     |
| 2/11/1986        | -47.8                                    | -7.65                                     |
| 11/18/1985       | -45.8                                    | -7.49                                     |
| 9/17/1985        | -44.8                                    | -7.50                                     |
| 6/28/1985        | -46.3                                    | -7.71                                     |
| 2/4/1985         | -44.8                                    | -7.55                                     |
| 12/3/1984        | -45.5                                    | -7.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **North Dakota**

Station Name: **Sheyenne River Near Kindred**

Station Number **05059000**

Hydrologic Unit Code: 09020204

Drainage Area  
(square miles): 8800

Latitude: 46° 37' 54"

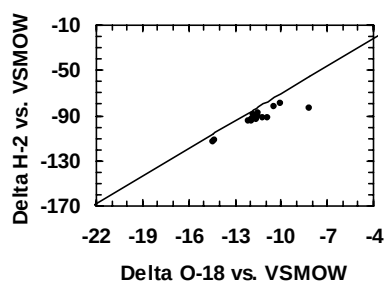
Datum (ft): 925.55

Longitude: 97° 00' 01"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/3/1987         | -92.8                                    | -11.91                                    |
| 6/23/1987        | -89.9                                    | -11.77                                    |
| 3/27/1987        | -90.3                                    | -11.63                                    |
| 3/9/1987         | -94.4                                    | -12.17                                    |
| 12/10/1986       | -93.4                                    | -11.61                                    |
| 10/28/1986       | -88.0                                    | -11.49                                    |
| 8/8/1986         | -91.4                                    | -11.52                                    |
| 7/1/1986         | -80.1                                    | -9.99                                     |
| 4/10/1986        | -111.3                                   | -14.26                                    |
| 12/18/1985       | -82.4                                    | -10.44                                    |
| 10/31/1985       | -83.1                                    | -8.19                                     |
| 6/28/1985        | -92.4                                    | -10.83                                    |
| 4/18/1985        | -91.4                                    | -11.15                                    |
| 3/27/1985        | -113.0                                   | -14.41                                    |
| 12/20/1984       | -94.8                                    | -11.95                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Beaver Creek Near Finley**

Station Number **05064900**

Hydrologic Unit Code: 09020109

Drainage Area  
(square miles): 160

Latitude: 47° 35' 40"

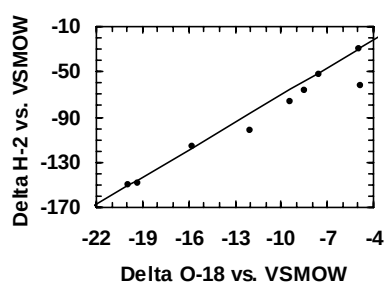
Datum (ft): 1170.08

Longitude: 97° 42' 18"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/28/1987        | -29.4                                    | -4.96                                     |
| 6/3/1987         | -76.7                                    | -9.42                                     |
| 3/12/1987        | -116.7                                   | -15.74                                    |
| 10/22/1986       | -62.6                                    | -4.83                                     |
| 3/25/1986        | -149.6                                   | -19.87                                    |
| 11/4/1985        | -66.4                                    | -8.45                                     |
| 9/10/1985        | -52.8                                    | -7.53                                     |
| 5/8/1985         | -102.5                                   | -11.97                                    |
| 3/18/1985        | -148.1                                   | -19.30                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Red River At Emerson, Manitoba**

Station Number **05102500**

Hydrologic Unit Code: 09020311

Drainage Area  
(square miles): 40200

Latitude: 49° 00' 30"

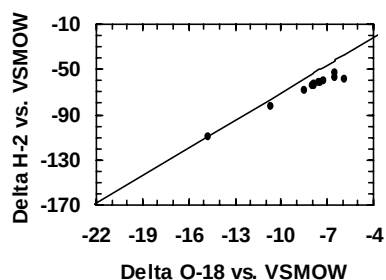
Datum (ft): 700

Longitude: 97° 12' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -60.2                                    | -7.20                                     |
| 6/15/1987        | -64.4                                    | -7.99                                     |
| 4/16/1987        | -109.6                                   | -14.72                                    |
| 1/27/1987        | -63.3                                    | -7.81                                     |
| 8/23/1986        | -57.4                                    | -6.51                                     |
| 3/4/1986         | -57.8                                    | -5.85                                     |
| 11/5/1985        | -60.5                                    | -7.50                                     |
| 8/13/1985        | -52.9                                    | -6.48                                     |
| 6/27/1985        | -62.4                                    | -7.84                                     |
| 5/2/1985         | -82.4                                    | -10.69                                    |
| 3/13/1985        | -61.6                                    | -7.48                                     |
| 2/1/1985         | -67.8                                    | -8.51                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Souris River Near Westhope**

Station Number **05124000**

Hydrologic Unit Code: 09010003

Drainage Area  
(square miles): 16900

Latitude: 48° 59' 47"

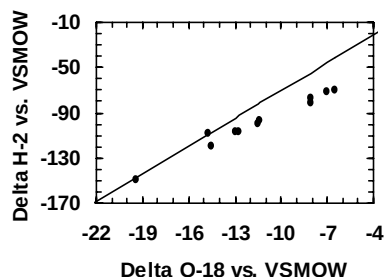
Datum (ft): 1402.52

Longitude: 100° 57' 29"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/15/1987        | -70.8                                    | -6.98                                     |
| 4/2/1987         | -108.1                                   | -14.73                                    |
| 3/4/1987         | -107.0                                   | -12.70                                    |
| 11/19/1986       | -76.7                                    | -8.06                                     |
| 8/27/1986        | -69.9                                    | -6.45                                     |
| 4/30/1986        | -118.6                                   | -14.52                                    |
| 1/8/1986         | -99.2                                    | -11.53                                    |
| 10/17/1985       | -80.1                                    | -8.09                                     |
| 4/4/1985         | -149.2                                   | -19.40                                    |
| 1/4/1985         | -106.4                                   | -12.95                                    |
| 11/16/1984       | -95.7                                    | -11.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Bear Den Creek Near Mandaree**

Station Number **06332515**

Hydrologic Unit Code: 10110101

Drainage Area  
(square miles): 74

Latitude: 47° 47' 14"

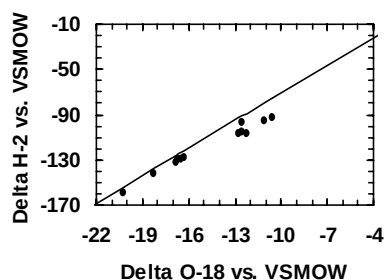
Datum (ft): 1947.58

Longitude: 102° 46' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/9/1987         | -106.5                                   | -12.69                                    |
| 5/15/1987        | -106.2                                   | -12.24                                    |
| 2/18/1987        | -141.6                                   | -18.23                                    |
| 12/1/1986        | -131.2                                   | -16.85                                    |
| 8/4/1986         | -94.9                                    | -11.12                                    |
| 5/15/1986        | -96.9                                    | -12.54                                    |
| 3/17/1986        | -158.0                                   | -20.24                                    |
| 10/21/1985       | -128.3                                   | -16.71                                    |
| 8/8/1985         | -92.6                                    | -10.58                                    |
| 6/6/1985         | -104.3                                   | -12.56                                    |
| 3/25/1985        | -129.6                                   | -16.48                                    |
| 11/5/1984        | -127.1                                   | -16.25                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Little Missouri River Near Watford City**

Station Number **06337000**

Hydrologic Unit Code: 10110205

Drainage Area  
(square miles): 8310

Latitude: 47° 35' 25"

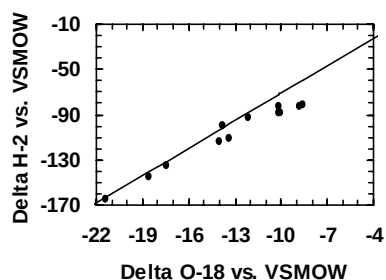
Datum (ft): 1929.03

Longitude: 103° 15' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/10/1987        | -81.6                                    | -8.79                                     |
| 5/29/1987        | -88.2                                    | -10.14                                    |
| 4/4/1987         | -98.5                                    | -13.82                                    |
| 12/2/1986        | -134.4                                   | -17.45                                    |
| 8/5/1986         | -87.5                                    | -10.07                                    |
| 5/20/1986        | -92.2                                    | -12.15                                    |
| 3/14/1986        | -164.9                                   | -21.41                                    |
| 10/22/1985       | -114.0                                   | -13.97                                    |
| 8/27/1985        | -81.0                                    | -8.59                                     |
| 6/7/1985         | -81.9                                    | -10.12                                    |
| 3/27/1985        | -143.9                                   | -18.54                                    |
| 11/6/1984        | -110.1                                   | -13.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Missouri River At Garrison Dam**

Station Number **06338490**

Hydrologic Unit Code: 10130101

Drainage Area  
(square miles): 181400

Latitude: 47° 30' 08"

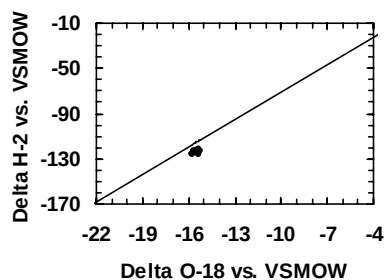
Datum (ft):

Longitude: 101° 25' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/1/1987         | -122.6                                   | -15.53                                    |
| 4/1/1987         | -126.0                                   | -15.77                                    |
| 1/28/1987        | -124.7                                   | -15.63                                    |
| 12/17/1986       | -122.6                                   | -15.37                                    |
| 10/29/1986       | -125.4                                   | -15.46                                    |
| 6/11/1986        | -124.1                                   | -15.39                                    |
| 4/16/1986        | -125.7                                   | -15.37                                    |
| 1/29/1986        | -125.6                                   | -15.34                                    |
| 12/11/1985       | -122.7                                   | -15.22                                    |
| 10/23/1985       | -123.1                                   | -15.33                                    |
| 8/1/1985         | -126.2                                   | -15.75                                    |
| 5/1/1985         | -123.3                                   | -15.70                                    |
| 2/7/1985         | -123.7                                   | -15.60                                    |
| 12/19/1984       | -122.5                                   | -15.35                                    |
| 11/7/1984        | -122.0                                   | -15.35                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Knife River At Hazen**

Station Number **06340500**

Hydrologic Unit Code: 10130201

Drainage Area  
(square miles): 2240

Latitude: 47° 17' 07"

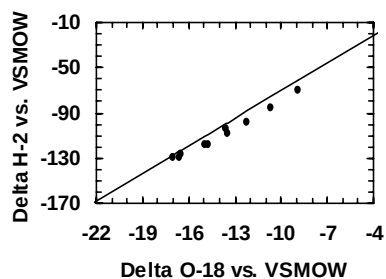
Datum (ft): 1712.35

Longitude: 101° 37' 18"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/28/1987        | -69.5                                    | -8.91                                     |
| 1/27/1987        | -126.5                                   | -16.49                                    |
| 10/28/1986       | -103.6                                   | -13.62                                    |
| 7/22/1986        | -85.0                                    | -10.63                                    |
| 1/28/1986        | -129.6                                   | -16.58                                    |
| 10/22/1985       | -107.4                                   | -13.48                                    |
| 9/10/1985        | -97.8                                    | -12.17                                    |
| 4/30/1985        | -118.2                                   | -14.90                                    |
| 2/6/1985         | -128.9                                   | -17.05                                    |
| 11/6/1984        | -117.0                                   | -14.75                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **North Dakota**

Station Name: **Heart River Near Mandan**

Station Number **06349000**

Hydrologic Unit Code: 10130203

Drainage Area 3310  
(square miles):

Latitude: 46° 50' 12"

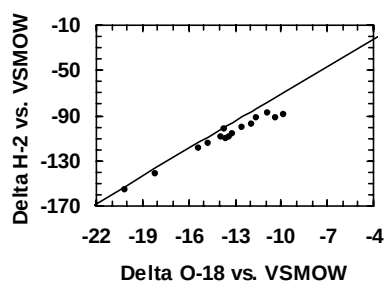
Datum (ft): 1638.7

Longitude: 100° 58' 27"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -87.7                                    | -10.85                                    |
| 7/13/1987        | -91.6                                    | -11.56                                    |
| 4/6/1987         | -102.2                                   | -13.63                                    |
| 1/26/1987        | -114.5                                   | -14.72                                    |
| 9/18/1986        | -100.8                                   | -12.48                                    |
| 6/19/1986        | -108.8                                   | -13.37                                    |
| 3/13/1986        | -156.4                                   | -20.08                                    |
| 1/28/1986        | -109.6                                   | -13.88                                    |
| 12/20/1985       | -110.5                                   | -13.56                                    |
| 11/5/1985        | -98.2                                    | -11.93                                    |
| 7/29/1985        | -89.5                                    | -9.87                                     |
| 6/10/1985        | -92.5                                    | -10.36                                    |
| 3/20/1985        | -141.5                                   | -18.12                                    |
| 2/5/1985         | -118.3                                   | -15.31                                    |
| 11/6/1984        | -106.2                                   | -13.21                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **North Dakota**

Station Name: **Cannonball River At Breien**

Station Number **06354000**

Hydrologic Unit Code: 10130206

Drainage Area  
(square miles): 4100

Latitude: 46° 22' 33"

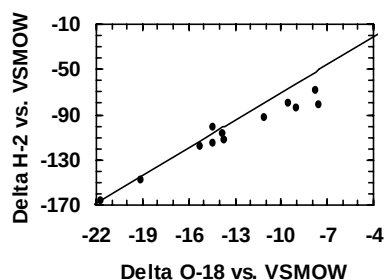
Datum (ft): 1676.54

Longitude: 100° 56' 03"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/11/1987        | -68.2                                    | -7.71                                     |
| 4/30/1987        | -101.3                                   | -14.39                                    |
| 1/29/1987        | -117.0                                   | -15.25                                    |
| 11/25/1986       | -106.4                                   | -13.77                                    |
| 9/17/1986        | -79.4                                    | -9.47                                     |
| 3/12/1986        | -165.8                                   | -21.66                                    |
| 1/29/1986        | -115.4                                   | -14.41                                    |
| 10/30/1985       | -84.1                                    | -9.01                                     |
| 7/30/1985        | -80.2                                    | -7.50                                     |
| 4/29/1985        | -111.3                                   | -13.70                                    |
| 3/21/1985        | -147.2                                   | -19.10                                    |
| 11/14/1984       | -92.2                                    | -11.05                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Ohio**

Station Name: **Hocking River Below Athens**

Station Number **03159510**

Hydrologic Unit Code: 05030204

Drainage Area  
(square miles): 957

Latitude: 39° 19' 39"

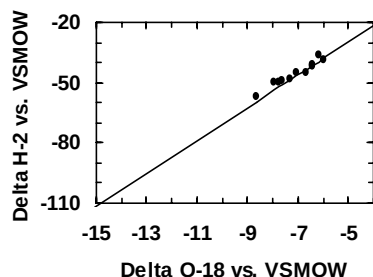
Datum (ft):

Longitude: 82° 00' 18"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/5/1987         | -38.7                                    | -5.98                                     |
| 5/7/1987         | -49.5                                    | -7.74                                     |
| 2/26/1987        | -48.9                                    | -7.65                                     |
| 7/30/1986        | -41.9                                    | -6.41                                     |
| 5/28/1986        | -44.7                                    | -7.04                                     |
| 3/18/1986        | -49.6                                    | -7.91                                     |
| 11/12/1985       | -36.0                                    | -6.19                                     |
| 8/14/1985        | -41.0                                    | -6.43                                     |
| 6/5/1985         | -48.1                                    | -7.32                                     |
| 3/5/1985         | -56.5                                    | -8.65                                     |
| 12/5/1984        | -45.0                                    | -6.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Ohio**

Station Name: **Upper Twin Creek At McGaw**

Station Number **03237280**

Hydrologic Unit Code: 05090201

Drainage Area  
(square miles): 12.2

Latitude: 38° 38' 37"

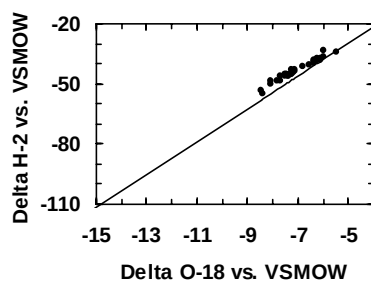
Datum (ft): 543.41

Longitude: 83° 12' 57"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/29/1985        | -45.6                                    | -7.48                                     |
| 10/16/1984       | -38.0                                    | -6.10                                     |
| 12/16/1985       | -45.1                                    | -7.42                                     |
| 11/18/1985       | -43.3                                    | -7.25                                     |
| 10/16/1985       | -37.5                                    | -6.10                                     |
| 9/4/1985         | -37.2                                    | -6.22                                     |
| 2/12/1986        | -46.2                                    | -7.66                                     |
| 7/9/1985         | -42.9                                    | -7.09                                     |
| 3/6/1986         | -49.0                                    | -8.07                                     |
| 4/30/1985        | -49.0                                    | -7.70                                     |
| 3/26/1985        | -50.5                                    | -8.10                                     |
| 2/27/1985        | -53.5                                    | -8.45                                     |
| 1/29/1985        | -46.0                                    | -7.50                                     |
| 12/11/1984       | -45.5                                    | -7.45                                     |
| 11/8/1984        | -39.0                                    | -6.35                                     |
| 8/7/1985         | -38.2                                    | -6.35                                     |
| 10/15/1986       | -36.8                                    | -5.95                                     |
| 7/21/1987        | -40.9                                    | -6.54                                     |
| 6/9/1987         | -44.9                                    | -7.20                                     |
| 5/12/1987        | -48.5                                    | -7.82                                     |
| 4/21/1987        | -55.4                                    | -8.41                                     |
| 3/30/1987        | -46.6                                    | -7.39                                     |
| 1/15/1986        | -45.1                                    | -7.49                                     |
| 12/16/1986       | -41.6                                    | -6.79                                     |
| 8/25/1987        | -34.0                                    | -5.47                                     |
| 9/17/1986        | -38.8                                    | -6.26                                     |
| 8/21/1986        | -33.5                                    | -5.96                                     |
| 7/29/1986        | -39.8                                    | -6.33                                     |
| 6/11/1986        | -43.6                                    | -7.12                                     |
| 5/20/1986        | -45.7                                    | -7.32                                     |
| 4/26/1986        | -46.3                                    | -7.40                                     |
| 2/10/1987        | -45.3                                    | -7.26                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Ohio**

Station Name: **G Miami River At New Baltimore**

Station Number **03274600**

Hydrologic Unit Code: 05080002

Drainage Area  
(square miles): 3814

Latitude: 39° 15' 47"

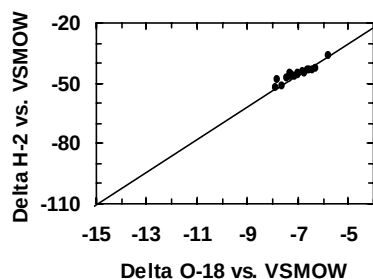
Datum (ft):

Longitude: 84° 40' 04"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/11/1986        | -45.2                                    | -7.26                                     |
| 1/24/1985        | -51.0                                    | -7.65                                     |
| 3/21/1985        | -52.0                                    | -7.85                                     |
| 7/23/1985        | -43.1                                    | -6.44                                     |
| 8/20/1985        | -43.8                                    | -6.80                                     |
| 10/2/1985        | -43.2                                    | -6.57                                     |
| 12/18/1985       | -44.5                                    | -7.33                                     |
| 10/18/1984       | -44.5                                    | -6.75                                     |
| 5/7/1986         | -44.4                                    | -7.00                                     |
| 8/18/1987        | -42.4                                    | -6.31                                     |
| 8/13/1986        | -43.4                                    | -6.64                                     |
| 10/1/1986        | -45.9                                    | -7.00                                     |
| 12/17/1986       | -47.0                                    | -7.42                                     |
| 3/11/1987        | -46.6                                    | -7.28                                     |
| 5/13/1987        | -46.5                                    | -7.09                                     |
| 7/15/1987        | -36.2                                    | -5.80                                     |
| 3/5/1986         | -48.1                                    | -7.83                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Ohio**

Station Name: **Sandusky River Near Fremont**

Station Number **04198000**

Hydrologic Unit Code: 04100011

Drainage Area  
(square miles): 1251

Latitude: 41° 18' 28"

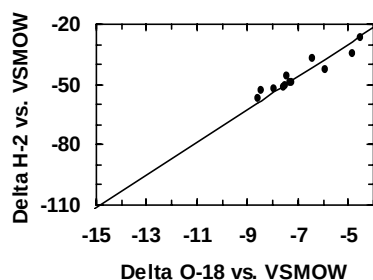
Datum (ft): 626.3

Longitude: 83° 09' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/25/1987        | -34.7                                    | -4.85                                     |
| 4/29/1987        | -51.3                                    | -7.59                                     |
| 3/25/1987        | -51.5                                    | -7.92                                     |
| 11/19/1986       | -49.9                                    | -7.50                                     |
| 9/10/1986        | -42.2                                    | -5.92                                     |
| 6/4/1986         | -48.4                                    | -7.26                                     |
| 3/12/1986        | -52.9                                    | -8.47                                     |
| 11/20/1985       | -45.3                                    | -7.46                                     |
| 9/12/1985        | -26.5                                    | -4.49                                     |
| 5/15/1985        | -48.6                                    | -7.28                                     |
| 3/13/1985        | -57.0                                    | -8.55                                     |
| 11/15/1984       | -37.0                                    | -6.40                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Ohio**

Station Name: **Grand River At Painesville**

Station Number **04212200**

Hydrologic Unit Code: 04110004

Drainage Area  
(square miles): 701

Latitude: 41° 44' 09"

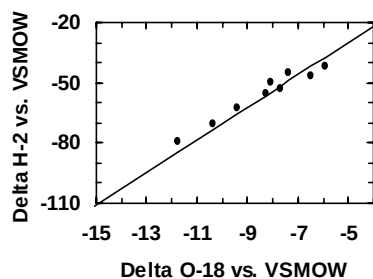
Datum (ft):

Longitude: 81° 15' 59"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/28/1987        | -70.1                                    | -10.33                                    |
| 11/19/1986       | -54.7                                    | -8.25                                     |
| 9/4/1986         | -46.2                                    | -6.45                                     |
| 6/5/1986         | -52.9                                    | -7.70                                     |
| 3/12/1986        | -79.0                                    | -11.75                                    |
| 11/20/1985       | -49.8                                    | -8.06                                     |
| 9/11/1985        | -41.2                                    | -5.93                                     |
| 5/14/1985        | -41.1                                    | -1.31                                     |
| 3/12/1985        | -62.5                                    | -9.40                                     |
| 11/14/1984       | -45.0                                    | -7.35                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oklahoma**

Station Name: **Cimarron River Near Buffalo**

Station Number **07157950**

Hydrologic Unit Code: 11050001

Drainage Area  
(square miles): 12004

Latitude: 36° 51' 07"

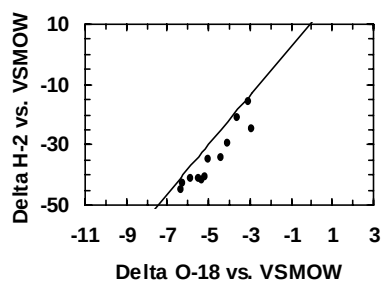
Datum (ft): 1599.67

Longitude: 99° 18' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/30/1987        | -24.6                                    | -2.88                                     |
| 5/13/1987        | -34.4                                    | -5.01                                     |
| 2/13/1987        | -41.1                                    | -5.84                                     |
| 12/17/1986       | -42.7                                    | -6.22                                     |
| 8/14/1986        | -15.6                                    | -3.07                                     |
| 4/30/1986        | -29.4                                    | -4.07                                     |
| 3/6/1986         | -40.5                                    | -5.20                                     |
| 11/7/1985        | -41.3                                    | -5.33                                     |
| 7/23/1985        | -20.8                                    | -3.59                                     |
| 5/22/1985        | -34.0                                    | -4.38                                     |
| 3/6/1985         | -41.0                                    | -5.50                                     |
| 12/28/1984       | -44.5                                    | -6.35                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Oklahoma**

Station Name: **Cimarron River At Perkins**

Station Number **07161000**

Hydrologic Unit Code: 11050003

Drainage Area  
(square miles): 17852

Latitude: 35° 57' 27"

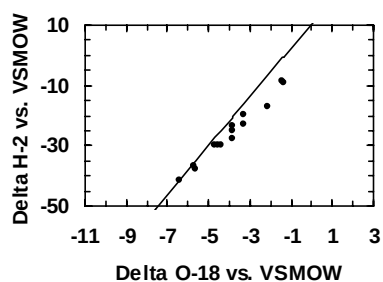
Datum (ft): 819.88

Longitude: 97° 01' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/24/1987        | -20.0                                    | -3.33                                     |
| 5/19/1987        | -27.6                                    | -3.83                                     |
| 4/2/1987         | -37.6                                    | -5.65                                     |
| 9/29/1986        | -41.7                                    | -6.42                                     |
| 7/16/1986        | -8.9                                     | -1.38                                     |
| 5/28/1986        | -23.4                                    | -3.85                                     |
| 3/26/1986        | -22.7                                    | -3.28                                     |
| 1/31/1986        | -29.9                                    | -4.51                                     |
| 11/25/1985       | -29.7                                    | -4.70                                     |
| 9/11/1985        | -8.4                                     | -1.42                                     |
| 7/16/1985        | -17.1                                    | -2.11                                     |
| 5/29/1985        | -25.0                                    | -3.86                                     |
| 3/26/1985        | -52.0                                    | -7.60                                     |
| 2/6/1985         | -36.6                                    | -5.72                                     |
| 11/19/1984       | -29.6                                    | -4.38                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oklahoma**

Station Name: **Deep Fork Near Beggs**

Station Number **07243500**

Hydrologic Unit Code: 11100303

Drainage Area  
(square miles): 2018

Latitude: 35° 40' 26"

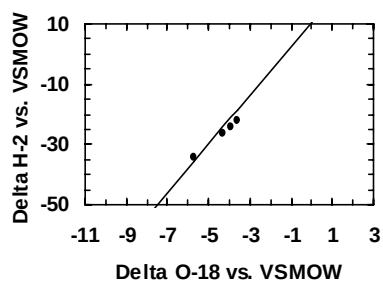
Datum (ft): 632.55

Longitude: 96° 04' 06"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 5/7/1986            | -22.0                                       | -3.63                                        |
| 11/6/1985           | -26.1                                       | -4.29                                        |
| 5/22/1985           | -24.2                                       | -3.89                                        |
| 1/21/1985           | -34.3                                       | -5.72                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oklahoma**

Station Name: **Blue Beaver Creek Near Cache**

Station Number **07311200**

Hydrologic Unit Code: 11130203

Drainage Area  
(square miles): 24.6

Latitude: 34° 37' 24"

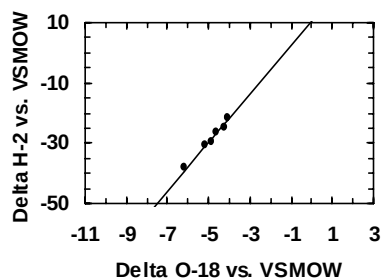
Datum (ft): 1215.26

Longitude: 98° 33' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/31/1987        | -37.7                                    | -6.16                                     |
| 2/27/1986        | -24.4                                    | -4.21                                     |
| 11/25/1985       | -21.2                                    | -4.07                                     |
| 5/8/1985         | -30.3                                    | -5.14                                     |
| 3/18/1985        | -29.4                                    | -4.84                                     |
| 12/18/1984       | -26.2                                    | -4.62                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oklahoma**

Station Name: **Washita River Near Dickson**

Station Number **07331000**

Hydrologic Unit Code: 11130303

Drainage Area  
(square miles): 7202

Latitude: 34° 14' 00"

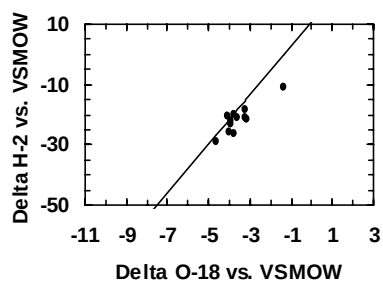
Datum (ft): 650.57

Longitude: 96° 58' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/15/1987        | -23.0                                    | -3.89                                     |
| 6/23/1987        | -21.7                                    | -3.93                                     |
| 4/20/1987        | -26.3                                    | -3.77                                     |
| 1/28/1987        | -28.9                                    | -4.62                                     |
| 9/23/1986        | -21.0                                    | -3.58                                     |
| 7/24/1986        | -10.6                                    | -1.33                                     |
| 5/21/1986        | -18.1                                    | -3.19                                     |
| 3/24/1986        | -21.0                                    | -3.22                                     |
| 1/22/1986        | -25.8                                    | -3.97                                     |
| 11/18/1985       | -20.3                                    | -4.07                                     |
| 7/23/1985        | -21.4                                    | -3.13                                     |
| 12/19/1984       | -19.8                                    | -3.79                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oklahoma**

Station Name: **Kiamichi River Near Big Cedar**

Station Number **07335700**

Hydrologic Unit Code: 11140105

Drainage Area  
(square miles): 40.1

Latitude: 34° 38' 18"

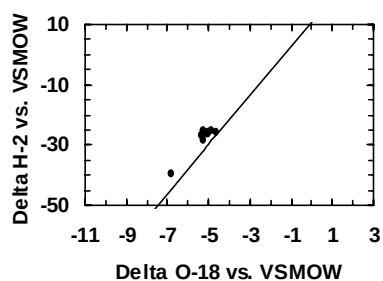
Datum (ft): 886.97

Longitude: 94° 36' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 12/8/1986        | -39.4                                    | -6.81                                     |
| 6/13/1986        | -25.0                                    | -4.82                                     |
| 4/23/1986        | -26.0                                    | -5.07                                     |
| 3/13/1986        | -28.0                                    | -5.24                                     |
| 1/31/1986        | -25.4                                    | -5.02                                     |
| 12/5/1985        | -25.9                                    | -5.00                                     |
| 7/10/1985        | -25.7                                    | -4.64                                     |
| 5/1/1985         | -26.8                                    | -5.35                                     |
| 4/3/1985         | -26.4                                    | -5.34                                     |
| 2/6/1985         | -25.1                                    | -5.23                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Crater Lake Near Crater Lake**

Station Number **11492200**

Hydrologic Unit Code: 18010201

Drainage Area  
(square miles): 26.2

Latitude: 42° 58' 45"

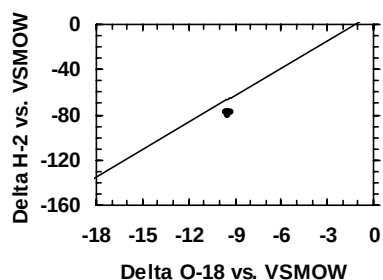
Datum (ft): 0

Longitude: 122° 04' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -78.1                                    | -9.39                                     |
| 5/21/1987        | -78.5                                    | -9.51                                     |
| 4/14/1987        | -78.0                                    | -9.53                                     |
| 10/16/1986       | -77.4                                    | -9.53                                     |
| 3/5/1986         | -80.1                                    | -9.51                                     |
| 10/16/1985       | -78.3                                    | -9.44                                     |
| 8/15/1985        | -77.6                                    | -9.28                                     |
| 6/18/1985        | -78.0                                    | -9.38                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Minam River At Minam**

Station Number **13331500**

Hydrologic Unit Code: 17060105

Drainage Area  
(square miles): 240

Latitude: 45° 37' 12"

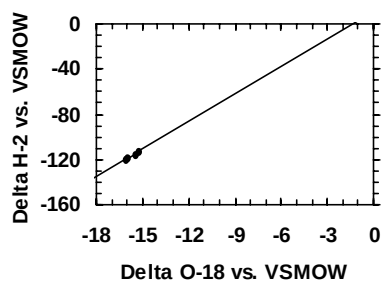
Datum (ft): 2540.48

Longitude: 117° 43' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/26/1987        | -113.4                                   | -15.17                                    |
| 5/5/1987         | -118.5                                   | -15.92                                    |
| 3/3/1987         | -116.0                                   | -15.36                                    |
| 11/18/1986       | -120.2                                   | -16.04                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **John Day River At McDonald Ferry**

Station Number **14048000**

Hydrologic Unit Code: 17070204

Drainage Area  
(square miles): 7580

Latitude: 45° 35' 16"

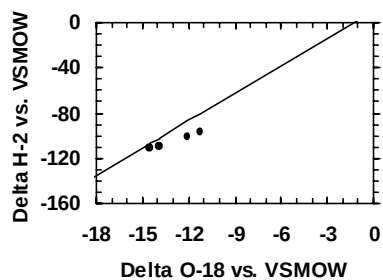
Datum (ft): 392.27

Longitude: 120° 24' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/12/1987        | -96.3                                    | -11.28                                    |
| 5/27/1987        | -108.3                                   | -13.81                                    |
| 2/10/1987        | -111.0                                   | -14.44                                    |
| 11/12/1986       | -108.5                                   | -13.98                                    |
| 7/29/1986        | -100.8                                   | -12.03                                    |
| 5/22/1986        | -110.9                                   | -14.57                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Oregon**

Station Name: **Deschutes River At Moody, Near Biggs**

Station Number **14103000**

Hydrologic Unit Code: 17070306

Drainage Area  
(square miles): 10500

Latitude: 45° 37' 20"

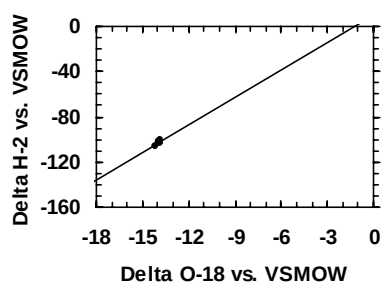
Datum (ft): 167.54

Longitude: 120° 54' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/30/1987        | -105.6                                   | -14.11                                    |
| 7/27/1987        | -101.0                                   | -13.83                                    |
| 5/19/1987        | -103.6                                   | -13.93                                    |
| 3/17/1987        | -103.3                                   | -13.96                                    |
| 1/21/1987        | -105.6                                   | -14.14                                    |
| 12/3/1986        | -102.4                                   | -13.90                                    |
| 9/10/1986        | -103.4                                   | -13.80                                    |
| 5/20/1986        | -102.8                                   | -13.82                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Columbia River At Warrendale**

Station Number **14128910**

Hydrologic Unit Code: 17080001

Drainage Area  
(square miles): 240400

Latitude: 45° 36' 45"

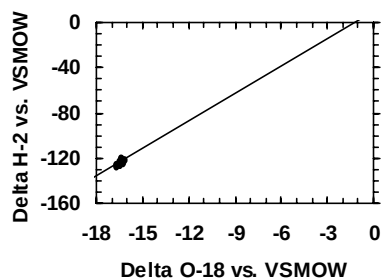
Datum (ft): 0

Longitude: 122° 01' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/9/1987         | -125.6                                   | -16.44                                    |
| 5/12/1987        | -123.6                                   | -16.32                                    |
| 3/18/1987        | -125.4                                   | -16.60                                    |
| 11/19/1986       | -125.8                                   | -16.44                                    |
| 9/4/1986         | -126.7                                   | -16.39                                    |
| 3/26/1986        | -122.0                                   | -16.11                                    |
| 11/5/1985        | -124.7                                   | -16.24                                    |
| 7/25/1985        | -120.5                                   | -16.29                                    |
| 4/17/1985        | -123.8                                   | -16.46                                    |
| 1/24/1985        | -127.2                                   | -16.61                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Tualatin River At West Linn**

Station Number **14207500**

Hydrologic Unit Code: 17090010

Drainage Area  
(square miles): 706

Latitude: 45° 21' 03"

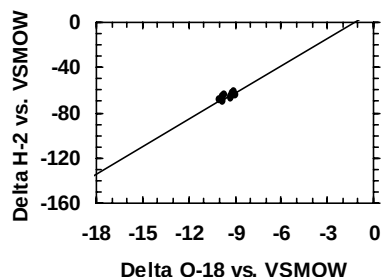
Datum (ft): 85.61

Longitude: 122° 40' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -64.3                                    | -9.16                                     |
| 4/22/1987        | -62.4                                    | -9.14                                     |
| 3/26/1987        | -68.7                                    | -9.83                                     |
| 11/12/1986       | -63.7                                    | -9.02                                     |
| 8/26/1986        | -65.8                                    | -9.22                                     |
| 2/28/1986        | -68.5                                    | -9.94                                     |
| 10/25/1985       | -64.2                                    | -8.93                                     |
| 7/15/1985        | -65.9                                    | -9.22                                     |
| 4/19/1985        | -64.4                                    | -9.65                                     |
| 1/22/1985        | -65.2                                    | -9.79                                     |
| 10/23/1984       | -60.7                                    | -9.01                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Willamette River At Portland**

Station Number **14211720**

Hydrologic Unit Code: 17090012

Drainage Area  
(square miles): 11100

Latitude: 45° 31' 04"

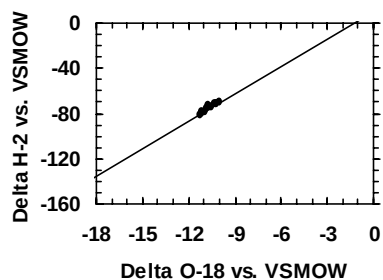
Datum (ft): 1.55

Longitude: 122° 40' 07"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/14/1987        | -79.9                                    | -11.16                                    |
| 7/28/1987        | -78.2                                    | -10.97                                    |
| 5/13/1987        | -74.3                                    | -10.62                                    |
| 3/19/1987        | -71.2                                    | -10.22                                    |
| 1/28/1987        | -69.4                                    | -9.95                                     |
| 11/20/1986       | -72.9                                    | -10.70                                    |
| 9/24/1986        | -80.2                                    | -11.25                                    |
| 1/15/1986        | -73.2                                    | -10.49                                    |
| 7/24/1985        | -77.8                                    | -11.14                                    |
| 6/13/1985        | -73.2                                    | -10.76                                    |
| 4/16/1985        | -74.5                                    | -10.87                                    |
| 2/21/1985        | -70.1                                    | -10.26                                    |
| 12/19/1984       | -70.2                                    | -10.21                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Nehalem River Near Foss**

Station Number **14301000**

Hydrologic Unit Code: 17100202

Drainage Area  
(square miles): 667

Latitude: 45° 42' 15"

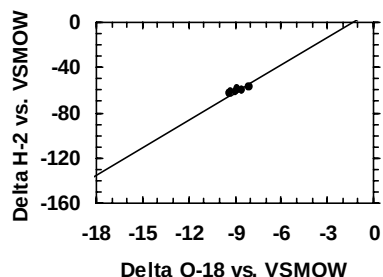
Datum (ft): 32.6

Longitude: 123° 45' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/2/1987         | -56.2                                    | -8.01                                     |
| 5/27/1987        | -59.6                                    | -8.85                                     |
| 2/25/1987        | -60.3                                    | -8.97                                     |
| 11/26/1986       | -58.7                                    | -8.86                                     |
| 8/27/1986        | -56.1                                    | -8.07                                     |
| 2/10/1986        | -61.6                                    | -9.26                                     |
| 10/15/1985       | -59.2                                    | -8.53                                     |
| 7/29/1985        | -59.1                                    | -8.57                                     |
| 4/8/1985         | -62.6                                    | -9.33                                     |
| 1/10/1985        | -62.3                                    | -9.36                                     |
| 10/24/1984       | -59.0                                    | -8.84                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Alsea River Near Tidewater**

Station Number **14306500**

Hydrologic Unit Code: 17100205

Drainage Area  
(square miles): 334

Latitude: 44° 23' 10"

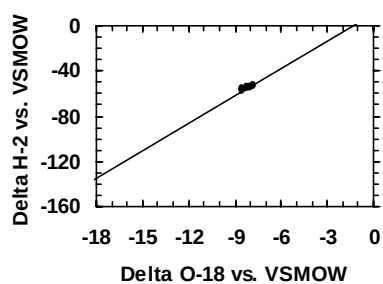
Datum (ft): 48.16

Longitude: 123° 49' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/28/1986        | -52.6                                    | -7.81                                     |
| 7/30/1985        | -53.5                                    | -7.98                                     |
| 4/9/1985         | -56.3                                    | -8.53                                     |
| 1/9/1985         | -55.2                                    | -8.53                                     |
| 10/25/1984       | -53.7                                    | -8.27                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Siuslaw River Near Mapleton**

Station Number **14307620**

Hydrologic Unit Code: 17100206

Drainage Area 588  
(square miles):

Latitude: 44° 03' 45"

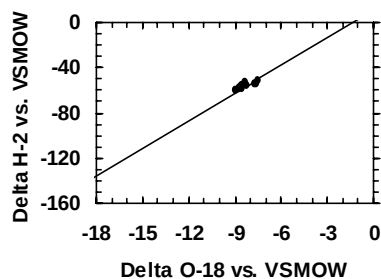
Datum (ft): 41

Longitude: 123° 52' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -51.2                                    | -7.46                                     |
| 5/28/1987        | -55.6                                    | -8.25                                     |
| 2/26/1987        | -55.9                                    | -8.67                                     |
| 12/25/1986       | -52.7                                    | -8.30                                     |
| 8/29/1986        | -53.3                                    | -7.57                                     |
| 2/19/1986        | -59.1                                    | -8.96                                     |
| 7/31/1985        | -53.2                                    | -7.71                                     |
| 4/10/1985        | -57.5                                    | -8.74                                     |
| 1/8/1985         | -57.7                                    | -8.56                                     |
| 11/15/1984       | -55.9                                    | -8.50                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **South Umpqua River Near Roseburg**

Station Number **14312260**

Hydrologic Unit Code: 17100302

Drainage Area  
(square miles): 1798

Latitude: 43° 13' 23"

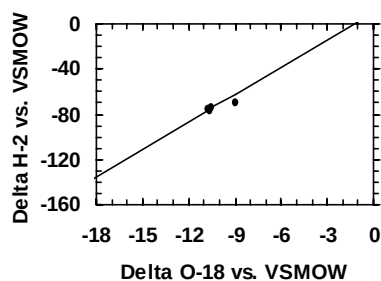
Datum (ft):

Longitude: 123° 24' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/26/1987        | -69.1                                    | -8.92                                     |
| 5/13/1987        | -75.9                                    | -10.62                                    |
| 2/19/1987        | -74.0                                    | -10.46                                    |
| 10/9/1986        | -75.3                                    | -10.72                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Oregon**

Station Name: **Umpqua River Near Elkton**

Station Number **14321000**

Hydrologic Unit Code: 17100303

Drainage Area  
(square miles): 3683

Latitude: 43° 35' 10"

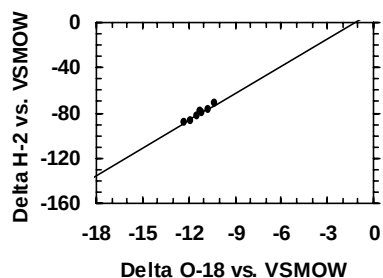
Datum (ft): 90.42

Longitude: 123° 33' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/31/1986        | -86.7                                    | -11.86                                    |
| 2/21/1986        | -76.0                                    | -10.69                                    |
| 10/30/1985       | -79.3                                    | -11.14                                    |
| 9/11/1985        | -88.3                                    | -12.31                                    |
| 5/15/1985        | -81.7                                    | -11.44                                    |
| 3/19/1985        | -77.6                                    | -11.20                                    |
| 11/15/1984       | -70.7                                    | -10.34                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Oregon**

Station Name: **Rogue River Near Agness**

Station Number **14372300**

Hydrologic Unit Code: 17100310

Drainage Area  
(square miles): 3939

Latitude: 42° 34' 50"

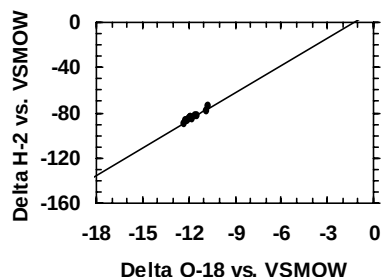
Datum (ft): 113.81

Longitude: 124° 03' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/25/1987        | -88.5                                    | -12.27                                    |
| 4/29/1987        | -84.2                                    | -11.91                                    |
| 2/18/1987        | -77.4                                    | -10.78                                    |
| 10/8/1986        | -85.3                                    | -11.99                                    |
| 7/29/1986        | -86.9                                    | -12.18                                    |
| 2/20/1986        | -81.6                                    | -11.40                                    |
| 10/29/1985       | -84.4                                    | -11.79                                    |
| 9/12/1985        | -87.0                                    | -12.05                                    |
| 5/14/1985        | -83.5                                    | -11.87                                    |
| 3/20/1985        | -82.2                                    | -11.58                                    |
| 11/14/1984       | -74.1                                    | -10.75                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **Schuylkill River At Philadelphia**

Station Number **01474500**

Hydrologic Unit Code: 02040203

Drainage Area  
(square miles): 1893

Latitude: 39° 58' 04"

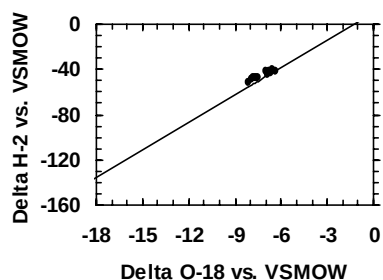
Datum (ft): 5.74

Longitude: 75° 11' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/23/1987        | -40.4                                    | -6.77                                     |
| 6/16/1987        | -43.9                                    | -6.85                                     |
| 3/18/1987        | -51.2                                    | -8.15                                     |
| 12/10/1986       | -47.0                                    | -7.52                                     |
| 9/30/1986        | -39.8                                    | -6.58                                     |
| 6/25/1986        | -42.7                                    | -6.64                                     |
| 3/20/1986        | -48.8                                    | -7.93                                     |
| 12/18/1985       | -46.7                                    | -7.56                                     |
| 9/26/1985        | -40.4                                    | -6.38                                     |
| 6/11/1985        | -41.0                                    | -6.97                                     |
| 3/11/1985        | -46.1                                    | -7.70                                     |
| 12/10/1984       | -46.6                                    | -7.76                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **Susquehanna River At Danville**

Station Number **01540500**

Hydrologic Unit Code: 02050107

Drainage Area  
(square miles): 11220

Latitude: 40° 57' 29"

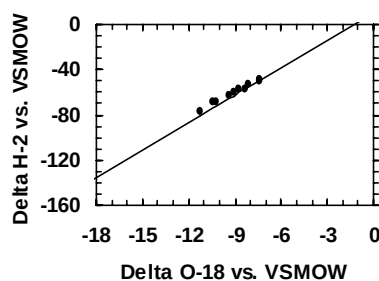
Datum (ft): 431.29

Longitude: 76° 37' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -49.5                                    | -7.43                                     |
| 5/28/1987        | -62.6                                    | -9.39                                     |
| 4/8/1987         | -76.6                                    | -11.21                                    |
| 9/4/1986         | -56.5                                    | -8.30                                     |
| 3/5/1986         | -68.5                                    | -10.18                                    |
| 11/5/1985        | -52.6                                    | -8.07                                     |
| 9/5/1985         | -47.8                                    | -7.43                                     |
| 5/15/1985        | -59.9                                    | -9.10                                     |
| 3/6/1985         | -67.8                                    | -10.40                                    |
| 11/14/1984       | -57.1                                    | -8.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **Young Womans Creek Near Renovo**

Station Number **01545600**

Hydrologic Unit Code: 02050203

Drainage Area  
(square miles): 46.2

Latitude: 41° 23' 22"

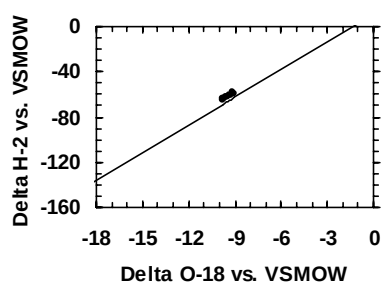
Datum (ft): 780

Longitude: 77° 41' 28"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/29/1987        | -60.6                                    | -9.36                                     |
| 4/21/1987        | -63.2                                    | -9.68                                     |
| 1/27/1987        | -62.7                                    | -9.52                                     |
| 10/28/1986       | -60.4                                    | -9.31                                     |
| 4/22/1986        | -63.5                                    | -9.82                                     |
| 1/30/1986        | -62.1                                    | -9.45                                     |
| 10/31/1985       | -58.7                                    | -9.18                                     |
| 7/22/1985        | -59.9                                    | -9.06                                     |
| 4/16/1985        | -64.5                                    | -9.80                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **West Branch Susquehanna River At Lewisburg**

Station Number **01553500**

Hydrologic Unit Code: 02050206

Drainage Area  
(square miles): 6847

Latitude: 40° 58' 03"

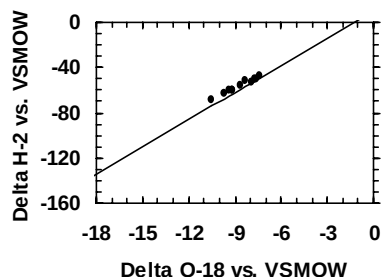
Datum (ft): 428.2

Longitude: 76° 52' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/18/1987        | -46.9                                    | -7.42                                     |
| 5/28/1987        | -59.5                                    | -9.17                                     |
| 4/8/1987         | -68.6                                    | -10.46                                    |
| 11/18/1986       | -55.6                                    | -8.68                                     |
| 9/4/1986         | -53.1                                    | -7.91                                     |
| 3/5/1986         | -60.2                                    | -9.40                                     |
| 11/5/1985        | -49.4                                    | -7.75                                     |
| 9/1/1985         | -49.3                                    | -7.61                                     |
| 5/15/1985        | -59.2                                    | -9.15                                     |
| 3/6/1985         | -62.1                                    | -9.67                                     |
| 11/14/1984       | -51.3                                    | -8.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **Juniata River At Newport**

Station Number **01567000**

Hydrologic Unit Code: 02050304

Drainage Area  
(square miles): 3354

Latitude: 40° 28' 42"

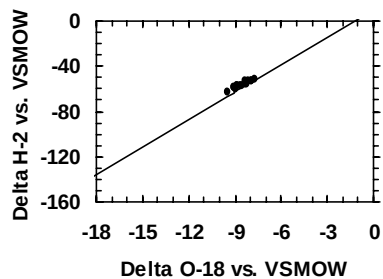
Datum (ft): 363.93

Longitude: 77° 07' 46"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/8/1986         | -52.9                                    | -8.07                                     |
| 1/2/1985         | -57.0                                    | -8.55                                     |
| 1/7/1985         | -56.7                                    | -8.89                                     |
| 3/7/1985         | -58.0                                    | -9.10                                     |
| 5/16/1985        | -58.0                                    | -9.02                                     |
| 9/4/1985         | -51.9                                    | -7.91                                     |
| 11/15/1984       | -52.9                                    | -8.33                                     |
| 3/3/1986         | -57.3                                    | -8.80                                     |
| 7/1/1987         | -54.7                                    | -8.20                                     |
| 9/2/1986         | -51.2                                    | -7.69                                     |
| 11/1/1986        | -53.9                                    | -8.24                                     |
| 1/1/1987         | -54.7                                    | -8.29                                     |
| 3/2/1987         | -62.7                                    | -9.44                                     |
| 4/30/1987        | -58.8                                    | -8.94                                     |
| 6/1/1987         | -56.1                                    | -8.65                                     |
| 11/4/1985        | -52.0                                    | -7.91                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **Susquehanna River At Harrisburg**

Station Number **01570500**

Hydrologic Unit Code: 02050305

Drainage Area  
(square miles): 24100

Latitude: 40° 15' 17"

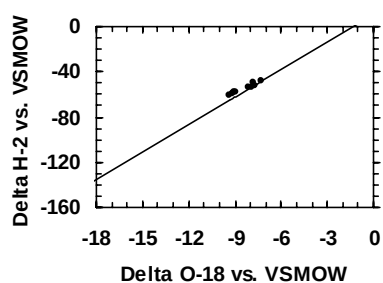
Datum (ft): 290.01

Longitude: 76° 53' 11"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1986         | -53.0                                    | -7.69                                     |
| 7/9/1986         | -54.2                                    | -7.94                                     |
| 3/4/1986         | -61.4                                    | -9.34                                     |
| 2/5/1986         | -59.0                                    | -9.19                                     |
| 11/6/1985        | -49.8                                    | -7.79                                     |
| 9/6/1985         | -47.8                                    | -7.24                                     |
| 7/3/1985         | -54.1                                    | -8.15                                     |
| 5/14/1985        | -58.7                                    | -8.93                                     |
| 1/7/1985         | -58.1                                    | -9.04                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Pennsylvania**

Station Name: **Allegheny River At New Kensington**

Station Number **03049625**

Hydrologic Unit Code: 05010009

Drainage Area  
(square miles): 11500

Latitude: 40° 33' 52"

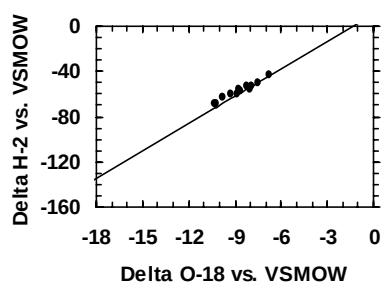
Datum (ft):

Longitude: 79° 46' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1987         | -42.3                                    | -6.75                                     |
| 6/17/1987        | -59.2                                    | -8.87                                     |
| 3/4/1987         | -68.5                                    | -10.22                                    |
| 12/18/1986       | -59.5                                    | -9.22                                     |
| 9/17/1986        | -55.7                                    | -8.03                                     |
| 8/15/1986        | -52.3                                    | -7.88                                     |
| 3/19/1986        | -67.7                                    | -10.27                                    |
| 12/11/1985       | -56.2                                    | -8.64                                     |
| 9/26/1985        | -49.3                                    | -7.51                                     |
| 6/13/1985        | -52.7                                    | -8.20                                     |
| 3/14/1985        | -62.5                                    | -9.75                                     |
| 11/28/1984       | -55.5                                    | -8.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **Monongahela River At Braddock**

Station Number **03085000**

Hydrologic Unit Code: 05020005

Drainage Area  
(square miles): 7337

Latitude: 40° 23' 28"

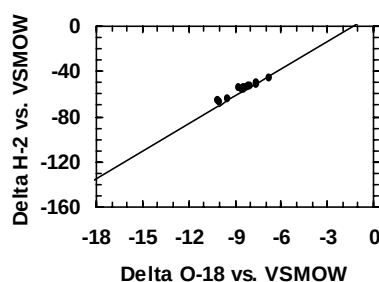
Datum (ft): 707.16

Longitude: 79° 51' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -44.8                                    | -6.78                                     |
| 6/18/1987        | -52.6                                    | -8.09                                     |
| 3/5/1987         | -63.7                                    | -9.42                                     |
| 12/16/1986       | -54.3                                    | -8.31                                     |
| 9/18/1986        | -50.1                                    | -7.57                                     |
| 8/20/1986        | -52.5                                    | -8.00                                     |
| 3/18/1986        | -66.0                                    | -9.97                                     |
| 12/12/1985       | -54.1                                    | -8.39                                     |
| 9/24/1985        | -50.7                                    | -7.63                                     |
| 6/12/1985        | -53.6                                    | -8.72                                     |
| 3/12/1985        | -64.5                                    | -10.05                                    |
| 11/27/1984       | -55.5                                    | -8.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Pennsylvania**

Station Name: **Beaver River At Beaver Falls**

Station Number **03107500**

Hydrologic Unit Code: 05030104

Drainage Area  
(square miles): 3106

Latitude: 40° 45' 48"

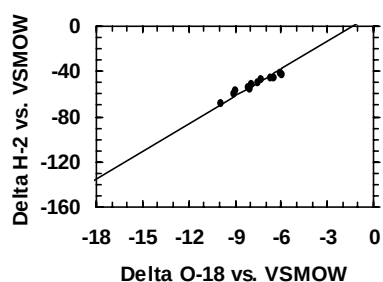
Datum (ft): 727.48

Longitude: 80° 18' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/2/1987         | -41.4                                    | -6.02                                     |
| 6/16/1987        | -54.5                                    | -7.99                                     |
| 3/3/1987         | -67.4                                    | -9.89                                     |
| 12/17/1986       | -53.3                                    | -8.07                                     |
| 9/16/1986        | -45.7                                    | -6.42                                     |
| 8/22/1986        | -45.8                                    | -6.66                                     |
| 3/20/1986        | -59.7                                    | -9.01                                     |
| 12/10/1985       | -48.9                                    | -7.45                                     |
| 9/25/1985        | -42.8                                    | -5.88                                     |
| 6/11/1985        | -51.6                                    | -7.90                                     |
| 3/13/1985        | -57.0                                    | -8.90                                     |
| 11/29/1984       | -46.5                                    | -7.30                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Puerto Rico**

Station Name: **Rio Grande De Patillas Near Patillas**

Station Number **50092000**

Hydrologic Unit Code: 21010004

Drainage Area  
(square miles): 18.3

Latitude: 18° 02' 04"

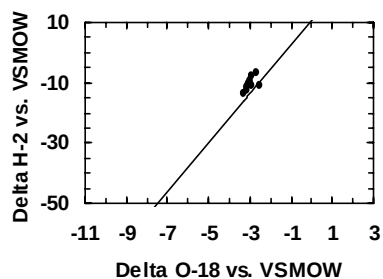
Datum (ft):

Longitude: 66° 01' 58"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/10/1987        | -11.0                                    | -3.13                                     |
| 4/21/1987        | -7.8                                     | -2.93                                     |
| 1/9/1987         | -10.5                                    | -2.54                                     |
| 10/30/1986       | -13.2                                    | -3.32                                     |
| 7/1/1986         | -9.5                                     | -2.99                                     |
| 4/7/1986         | -6.6                                     | -2.66                                     |
| 1/13/1986        | -10.3                                    | -3.06                                     |
| 10/21/1985       | -12.1                                    | -3.17                                     |
| 7/2/1985         | -10.6                                    | -2.89                                     |
| 4/4/1985         | -9.0                                     | -2.96                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Puerto Rico**

Station Name: **Rio Grande De Anasco Near San Sebastian**

Station Number **50144000**

Hydrologic Unit Code: 21010003

Drainage Area  
(square miles): 94.3

Latitude: 18° 17' 05"

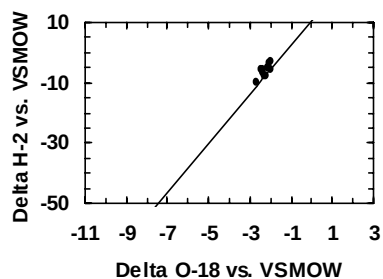
Datum (ft):

Longitude: 67° 03' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/9/1987         | -2.7                                     | -1.99                                     |
| 4/8/1987         | -3.2                                     | -2.03                                     |
| 1/15/1987        | -5.4                                     | -2.44                                     |
| 11/4/1986        | -5.4                                     | -2.34                                     |
| 7/2/1986         | -7.6                                     | -2.24                                     |
| 4/11/1986        | -4.9                                     | -2.14                                     |
| 1/9/1986         | -6.2                                     | -2.35                                     |
| 10/2/1985        | -9.4                                     | -2.69                                     |
| 7/3/1985         | -7.5                                     | -2.28                                     |
| 4/3/1985         | -5.3                                     | -2.00                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Rhode Island**

Station Name: **Pawcatuck River At Westerly**

Station Number **01118500**

Hydrologic Unit Code: 01090005

Drainage Area  
(square miles): 295

Latitude: 41° 23' 01"

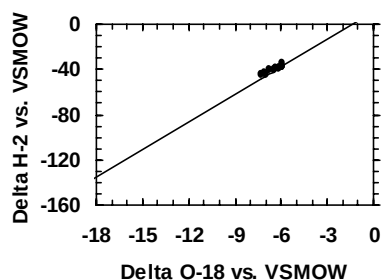
Datum (ft): -1.76

Longitude: 71° 50' 01"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/14/1987        | -38.8                                    | -6.12                                     |
| 5/14/1987        | -43.9                                    | -6.99                                     |
| 1/15/1987        | -44.3                                    | -7.33                                     |
| 11/18/1986       | -36.8                                    | -5.89                                     |
| 7/15/1986        | -36.8                                    | -5.88                                     |
| 5/15/1986        | -36.6                                    | -5.94                                     |
| 11/13/1985       | -34.6                                    | -5.89                                     |
| 7/11/1985        | -38.4                                    | -6.14                                     |
| 5/16/1985        | -39.5                                    | -6.50                                     |
| 1/22/1985        | -42.7                                    | -7.09                                     |
| 1/14/1985        | -39.2                                    | -6.76                                     |
| 11/14/1984       | -38.1                                    | -6.35                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Pee Dee River At Peedee**

Station Number **02131000**

Hydrologic Unit Code: 03040201

Drainage Area  
(square miles): 8830

Latitude: 34° 12' 15"

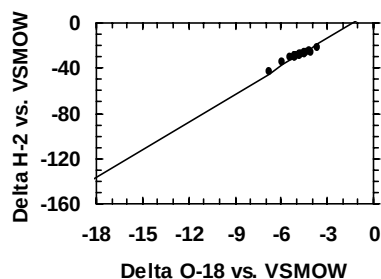
Datum (ft): 24.73

Longitude: 79° 32' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/14/1986        | -27.3                                    | -4.50                                     |
| 1/29/1985        | -29.0                                    | -5.15                                     |
| 3/26/1985        | -28.5                                    | -5.05                                     |
| 5/15/1985        | -28.8                                    | -5.03                                     |
| 7/10/1985        | -26.7                                    | -4.77                                     |
| 9/18/1985        | -24.4                                    | -4.20                                     |
| 11/8/1985        | -27.7                                    | -4.83                                     |
| 11/13/1984       | -27.0                                    | -4.70                                     |
| 3/12/1986        | -29.1                                    | -5.37                                     |
| 9/1/1987         | -24.8                                    | -4.35                                     |
| 7/31/1986        | -26.1                                    | -4.05                                     |
| 9/9/1986         | -25.6                                    | -4.45                                     |
| 11/4/1986        | -21.7                                    | -3.66                                     |
| 3/18/1987        | -42.1                                    | -6.82                                     |
| 5/27/1987        | -34.3                                    | -5.92                                     |
| 7/21/1987        | -29.9                                    | -5.15                                     |
| 1/15/1986        | -29.1                                    | -5.13                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Lynches River At Effingham**

Station Number **02132000**

Hydrologic Unit Code: 03040202

Drainage Area  
(square miles): 1030

Latitude: 34° 03' 05"

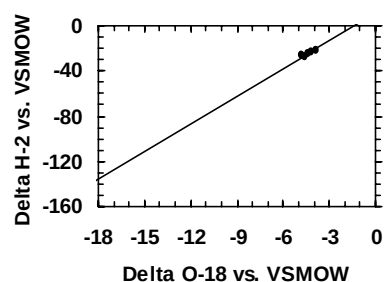
Datum (ft): 58.49

Longitude: 79° 45' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 1/15/1986        | -27.1                                    | -4.58                                     |
| 11/12/1985       | -26.0                                    | -4.82                                     |
| 9/18/1985        | -24.7                                    | -4.35                                     |
| 4/1/1985         | -23.0                                    | -4.15                                     |
| 2/1/1985         | -21.5                                    | -3.80                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **South Carolina**

Station Name: **Scape Ore Swamp Near Bishopville**

Station Number **02135300**

Hydrologic Unit Code: 03040205

Drainage Area 96  
(square miles):

Latitude: 34° 09' 02"

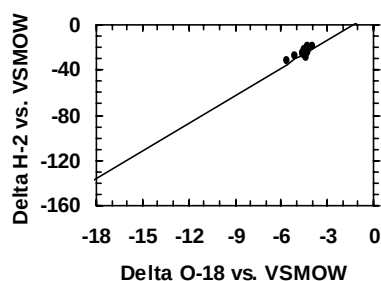
Datum (ft): 164.53

Longitude: 80° 18' 18"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/14/1986        | -23.2                                    | -4.25                                     |
| 1/29/1985        | -23.5                                    | -4.60                                     |
| 3/26/1985        | -22.0                                    | -4.25                                     |
| 5/15/1985        | -21.9                                    | -4.35                                     |
| 7/9/1985         | -22.2                                    | -4.39                                     |
| 9/17/1985        | -24.2                                    | -4.30                                     |
| 11/7/1985        | -25.2                                    | -4.63                                     |
| 11/13/1984       | -19.0                                    | -4.25                                     |
| 3/12/1986        | -24.7                                    | -4.46                                     |
| 9/1/1987         | -17.9                                    | -3.93                                     |
| 7/31/1986        | -21.5                                    | -4.46                                     |
| 9/8/1986         | -21.6                                    | -4.22                                     |
| 11/4/1986        | -23.7                                    | -4.34                                     |
| 1/26/1987        | -30.7                                    | -5.66                                     |
| 3/17/1987        | -27.0                                    | -5.07                                     |
| 5/26/1987        | -23.5                                    | -4.41                                     |
| 7/21/1987        | -28.6                                    | -4.40                                     |
| 1/14/1986        | -24.1                                    | -4.44                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Black River At Kingstree**

Station Number **02136000**

Hydrologic Unit Code: 03040205

Drainage Area  
(square miles): 1252

Latitude: 33° 39' 40"

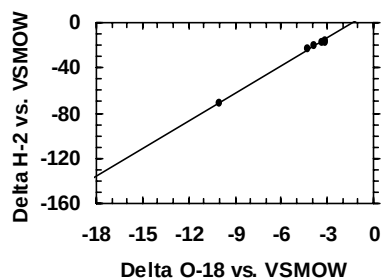
Datum (ft): 25.66

Longitude: 79° 50' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 1/15/1986        | -19.3                                    | -3.85                                     |
| 11/12/1985       | -22.7                                    | -4.30                                     |
| 9/18/1985        | -16.6                                    | -3.37                                     |
| 6/27/1985        | -70.8                                    | -10.04                                    |
| 3/27/1985        | -15.0                                    | -3.10                                     |
| 11/14/1984       | -16.5                                    | -3.15                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Lakes M-M Div Canal Near Pineville**

Station Number **02170500**

Hydrologic Unit Code: 03050201

Drainage Area  
(square miles): 0

Latitude: 33° 23' 15"

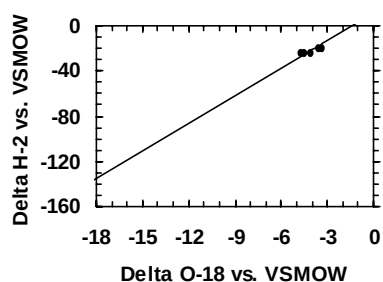
Datum (ft):

Longitude: 80° 08' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 1/16/1986        | -24.1                                    | -4.02                                     |
| 11/13/1985       | -19.7                                    | -3.32                                     |
| 9/19/1985        | -20.4                                    | -3.54                                     |
| 3/27/1985        | -24.0                                    | -4.45                                     |
| 2/1/1985         | -24.5                                    | -4.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Edisto River Near Givhans**

Station Number **02175000**

Hydrologic Unit Code: 03050205

Drainage Area  
(square miles): 2730

Latitude: 33° 01' 40"

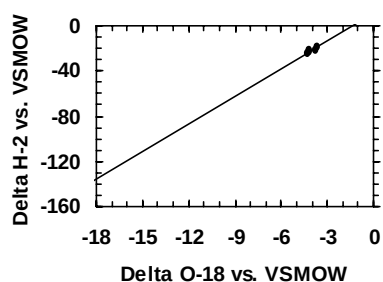
Datum (ft): 20.46

Longitude: 80° 23' 30"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 1/17/1986        | -23.7                                    | -4.25                                     |
| 11/13/1985       | -20.8                                    | -4.16                                     |
| 9/19/1985        | -20.6                                    | -3.74                                     |
| 3/27/1985        | -18.5                                    | -3.60                                     |
| 2/1/1985         | -23.0                                    | -4.15                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Coosawhatchie River Near Hampton**

Station Number **02176500**

Hydrologic Unit Code: 03050208

Drainage Area  
(square miles): 203

Latitude: 32° 50' 10"

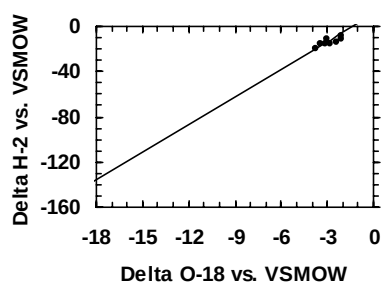
Datum (ft): 50.3

Longitude: 81° 07' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1986         | -8.0                                     | -2.04                                     |
| 5/21/1986        | -14.2                                    | -2.40                                     |
| 2/5/1986         | -19.5                                    | -3.74                                     |
| 11/14/1985       | -12.0                                    | -2.98                                     |
| 8/29/1985        | -16.1                                    | -3.44                                     |
| 5/17/1985        | -11.1                                    | -2.03                                     |
| 2/26/1985        | -15.0                                    | -3.15                                     |
| 11/16/1984       | -15.5                                    | -2.85                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Upper Three Runs Near New Ellenton**

Station Number **02197300**

Hydrologic Unit Code: 03060106

Drainage Area  
(square miles): 87

Latitude: 33° 22' 14"

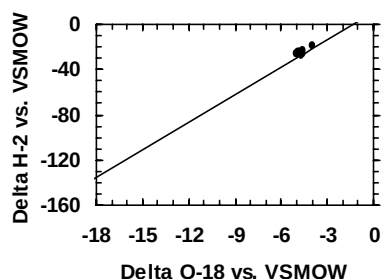
Datum (ft): 120

Longitude: 81° 37' 43"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/28/1987        | -24.7                                    | -4.74                                     |
| 6/2/1987         | -25.0                                    | -4.79                                     |
| 2/27/1987        | -26.0                                    | -4.99                                     |
| 11/7/1986        | -25.4                                    | -4.75                                     |
| 8/7/1986         | -19.0                                    | -3.94                                     |
| 5/21/1986        | -26.7                                    | -4.70                                     |
| 2/6/1986         | -25.1                                    | -4.62                                     |
| 11/15/1985       | -24.6                                    | -4.84                                     |
| 5/17/1985        | -23.6                                    | -4.78                                     |
| 2/27/1985        | -23.0                                    | -4.60                                     |
| 11/16/1984       | -25.5                                    | -4.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Carolina**

Station Name: **Savannah River Near Clyo**

Station Number **02198500**

Hydrologic Unit Code: 03060109

Drainage Area  
(square miles): 9850

Latitude: 32° 31' 30"

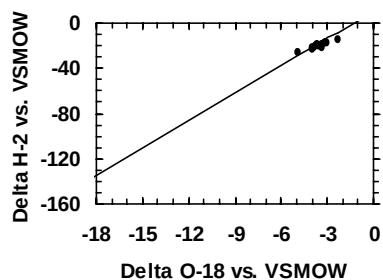
Datum (ft): 13.41

Longitude: 81° 15' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/28/1987        | -21.4                                    | -3.94                                     |
| 6/2/1987         | -22.4                                    | -3.94                                     |
| 2/26/1987        | -20.6                                    | -3.83                                     |
| 11/6/1986        | -16.7                                    | -2.97                                     |
| 8/6/1986         | -16.5                                    | -3.07                                     |
| 5/21/1986        | -17.3                                    | -3.07                                     |
| 2/6/1986         | -21.5                                    | -3.30                                     |
| 11/15/1985       | -18.8                                    | -3.36                                     |
| 8/29/1985        | -20.1                                    | -3.78                                     |
| 8/29/1985        | -25.8                                    | -4.88                                     |
| 5/17/1985        | -14.7                                    | -2.29                                     |
| 2/27/1985        | -18.5                                    | -3.60                                     |
| 11/15/1984       | -20.0                                    | -3.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **Grand River At Little Eagle**

Station Number **06357800**

Hydrologic Unit Code: 10130303

Drainage Area  
(square miles): 5370

Latitude: 45° 39' 28"

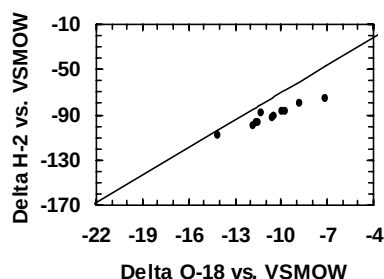
Datum (ft): 1628.63

Longitude: 100° 49' 04"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/1/1987         | -79.0                                    | -8.82                                     |
| 4/7/1987         | -107.6                                   | -14.11                                    |
| 1/14/1987        | -96.4                                    | -11.56                                    |
| 10/22/1986       | -91.9                                    | -10.60                                    |
| 8/4/1986         | -86.2                                    | -9.75                                     |
| 5/13/1986        | -87.7                                    | -11.29                                    |
| 2/20/1986        | -99.1                                    | -11.77                                    |
| 11/20/1985       | -96.9                                    | -11.45                                    |
| 8/21/1985        | -74.7                                    | -7.15                                     |
| 5/2/1985         | -91.1                                    | -10.42                                    |
| 11/8/1984        | -86.6                                    | -9.90                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **South Dakota**

Station Name: **Moreau River Near Whitehorse**

Station Number **06360500**

Hydrologic Unit Code: 10130306

Drainage Area  
(square miles): 4880

Latitude: 45° 15' 21"

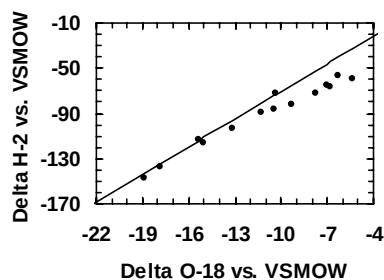
Datum (ft): 1661.48

Longitude: 100° 50' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/15/1987        | -67.0                                    | -6.76                                     |
| 7/1/1987         | -56.3                                    | -6.28                                     |
| 5/6/1987         | -89.5                                    | -11.27                                    |
| 4/7/1987         | -113.8                                   | -15.38                                    |
| 1/13/1987        | -116.2                                   | -14.98                                    |
| 11/18/1986       | -103.2                                   | -13.18                                    |
| 9/25/1986        | -65.3                                    | -7.02                                     |
| 7/1/1986         | -72.2                                    | -7.79                                     |
| 5/13/1986        | -72.1                                    | -10.38                                    |
| 4/7/1986         | -137.4                                   | -17.83                                    |
| 1/22/1986        | -82.7                                    | -9.35                                     |
| 11/19/1985       | -59.2                                    | -5.39                                     |
| 5/1/1985         | -86.5                                    | -10.44                                    |
| 3/12/1985        | -147.1                                   | -18.92                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **Castle Creek Above Deerfield Reservoir Near Hill City**

Station Number **06409000**

Hydrologic Unit Code: 10120110

Drainage Area 83  
(square miles):

Latitude: 44° 00' 49"

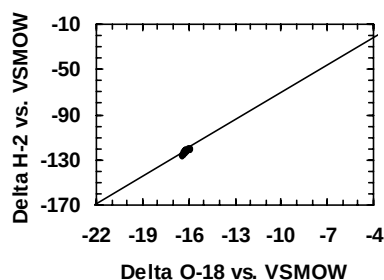
Datum (ft): 5910

Longitude: 103° 49' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/15/1987        | -122.0                                   | -16.12                                    |
| 4/22/1987        | -124.3                                   | -16.25                                    |
| 1/29/1987        | -123.1                                   | -16.28                                    |
| 10/24/1986       | -122.0                                   | -16.18                                    |
| 9/29/1986        | -122.3                                   | -16.03                                    |
| 6/25/1986        | -119.8                                   | -15.86                                    |
| 3/25/1986        | -126.7                                   | -16.41                                    |
| 12/17/1985       | -123.6                                   | -16.22                                    |
| 7/24/1985        | -120.7                                   | -16.00                                    |
| 4/16/1985        | -125.2                                   | -16.30                                    |
| 1/23/1985        | -122.2                                   | -16.20                                    |
| 10/29/1984       | -122.2                                   | -16.13                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **Belle Fourche River Near Elm Springs**

Station Number **06438000**

Hydrologic Unit Code: 10120202

Drainage Area  
(square miles): 7210

Latitude: 44° 22' 11"

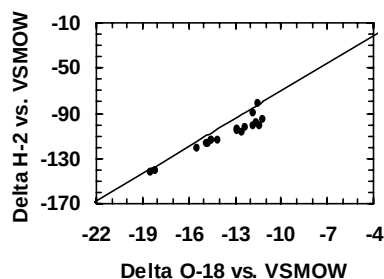
Datum (ft): 2171.6

Longitude: 102° 33' 56"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/15/1986        | -89.1                                    | -11.79                                    |
| 12/12/1984       | -112.7                                   | -14.53                                    |
| 2/20/1985        | -115.6                                   | -14.72                                    |
| 4/18/1985        | -106.7                                   | -12.57                                    |
| 6/18/1985        | -99.9                                    | -11.43                                    |
| 8/21/1985        | -95.2                                    | -11.17                                    |
| 11/25/1985       | -112.9                                   | -14.10                                    |
| 10/30/1984       | -105.2                                   | -12.80                                    |
| 3/26/1986        | -141.9                                   | -18.45                                    |
| 8/31/1987        | -97.2                                    | -11.59                                    |
| 7/15/1986        | -102.6                                   | -12.37                                    |
| 9/26/1986        | -80.7                                    | -11.45                                    |
| 10/28/1986       | -103.8                                   | -12.87                                    |
| 12/19/1986       | -114.1                                   | -14.56                                    |
| 3/12/1987        | -140.1                                   | -18.20                                    |
| 4/23/1987        | -120.4                                   | -15.45                                    |
| 6/29/1987        | -100.2                                   | -11.77                                    |
| 1/27/1986        | -116.8                                   | -14.82                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **Cheyenne River At Cherry Creek**

Station Number **06439300**

Hydrologic Unit Code: 10120112

Drainage Area  
(square miles): 23900

Latitude: 44° 35' 59"

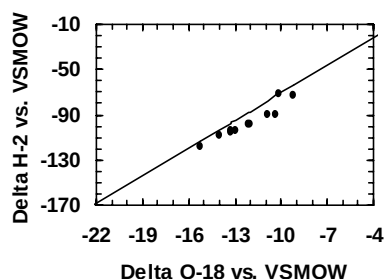
Datum (ft): 1699.29

Longitude: 101° 29' 51"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/31/1987        | -89.9                                    | -10.30                                    |
| 5/14/1987        | -97.9                                    | -12.06                                    |
| 2/19/1987        | -103.5                                   | -12.97                                    |
| 12/2/1986        | -105.6                                   | -13.24                                    |
| 5/14/1986        | -70.9                                    | -10.11                                    |
| 2/24/1986        | -117.0                                   | -15.19                                    |
| 12/4/1985        | -103.3                                   | -13.28                                    |
| 8/22/1985        | -73.0                                    | -9.25                                     |
| 5/3/1985         | -89.7                                    | -10.84                                    |
| 2/8/1985         | -107.9                                   | -14.00                                    |
| 11/14/1984       | -97.4                                    | -12.14                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **Missouri River At Pierre**

Station Number **06440000**

Hydrologic Unit Code: 10140102

Drainage Area  
(square miles): 243500

Latitude: 44° 22' 23"

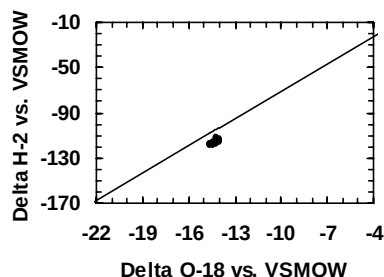
Datum (ft): 1414.26

Longitude: 100° 22' 03"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/8/1987         | -116.0                                   | -14.21                                    |
| 3/18/1987        | -115.5                                   | -14.03                                    |
| 6/30/1986        | -117.4                                   | -14.57                                    |
| 5/6/1986         | -115.8                                   | -14.23                                    |
| 12/20/1985       | -116.0                                   | -14.28                                    |
| 11/6/1985        | -116.8                                   | -14.24                                    |
| 8/19/1985        | -117.4                                   | -14.45                                    |
| 6/28/1985        | -116.7                                   | -14.39                                    |
| 3/8/1985         | -113.1                                   | -14.02                                    |
| 1/15/1985        | -113.5                                   | -14.06                                    |
| 12/6/1984        | -112.6                                   | -14.17                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **White River Near Oacoma**

Station Number **06452000**

Hydrologic Unit Code: 10140204

Drainage Area  
(square miles): 10200

Latitude: 43° 44' 54"

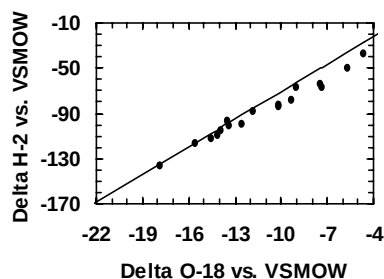
Datum (ft): 1377.29

Longitude: 99° 33' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/23/1986        | -67.1                                    | -8.98                                     |
| 12/28/1984       | -104.7                                   | -13.88                                    |
| 2/21/1985        | -111.7                                   | -14.50                                    |
| 4/22/1985        | -77.5                                    | -9.30                                     |
| 8/12/1985        | -37.2                                    | -4.63                                     |
| 10/31/1985       | -83.3                                    | -10.19                                    |
| 1/14/1986        | -116.7                                   | -15.57                                    |
| 11/1/1984        | -81.9                                    | -10.14                                    |
| 4/24/1986        | -87.9                                    | -11.80                                    |
| 8/13/1987        | -49.7                                    | -5.71                                     |
| 8/15/1986        | -63.2                                    | -7.45                                     |
| 10/9/1986        | -96.0                                    | -13.44                                    |
| 12/5/1986        | -109.5                                   | -14.14                                    |
| 3/3/1987         | -100.9                                   | -13.33                                    |
| 4/23/1987        | -98.5                                    | -12.56                                    |
| 6/18/1987        | -66.5                                    | -7.37                                     |
| 2/18/1986        | -135.4                                   | -17.88                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **Missouri River At Fort Randall**

Station Number **06453000**

Hydrologic Unit Code: 10170101

Drainage Area  
(square miles): 263500

Latitude: 43° 03' 54"

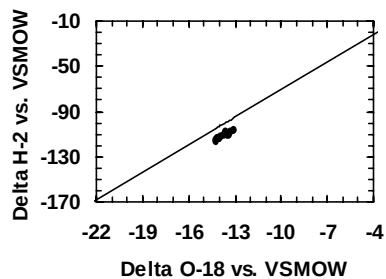
Datum (ft):

Longitude: 98° 33' 11"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/19/1986        | -116.2                                   | -14.21                                    |
| 1/9/1985         | -112.9                                   | -13.96                                    |
| 3/21/1985        | -113.2                                   | -14.13                                    |
| 5/1/1985         | -113.3                                   | -13.94                                    |
| 7/24/1985        | -110.0                                   | -13.41                                    |
| 9/25/1985        | -109.6                                   | -13.32                                    |
| 11/14/1984       | -110.3                                   | -13.67                                    |
| 1/8/1986         | -113.8                                   | -13.94                                    |
| 8/5/1987         | -106.3                                   | -13.08                                    |
| 5/6/1986         | -115.0                                   | -14.19                                    |
| 7/9/1986         | -108.0                                   | -13.61                                    |
| 9/10/1986        | -107.4                                   | -13.28                                    |
| 1/8/1987         | -113.1                                   | -14.04                                    |
| 3/12/1987        | -113.1                                   | -14.06                                    |
| 5/12/1987        | -111.5                                   | -13.86                                    |
| 11/20/1985       | -110.0                                   | -13.48                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **South Dakota**

Station Name: **James River At Columbia**

Station Number **06471000**

Hydrologic Unit Code: 10160003

Drainage Area  
(square miles): 7050

Latitude: 45° 36' 13"

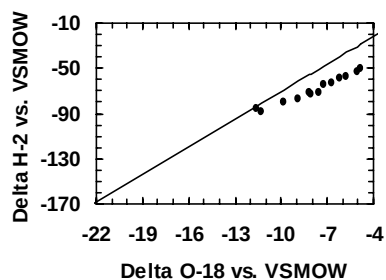
Datum (ft): 1275.01

Longitude: 98° 18' 36"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/27/1987        | -56.0                                    | -5.76                                     |
| 6/24/1987        | -71.4                                    | -8.14                                     |
| 4/23/1987        | -85.2                                    | -11.63                                    |
| 3/5/1987         | -79.4                                    | -9.82                                     |
| 12/10/1986       | -63.9                                    | -7.23                                     |
| 10/23/1986       | -52.0                                    | -5.09                                     |
| 9/18/1986        | -49.3                                    | -4.78                                     |
| 7/30/1986        | -58.5                                    | -6.24                                     |
| 5/22/1986        | -87.2                                    | -11.25                                    |
| 1/9/1986         | -62.0                                    | -6.72                                     |
| 5/23/1985        | -71.1                                    | -7.55                                     |
| 3/28/1985        | -76.2                                    | -8.85                                     |
| 1/4/1985         | -73.0                                    | -8.11                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **South Dakota**

Station Name: **James River Near Scotland**

Station Number **06478500**

Hydrologic Unit Code: 10160011

Drainage Area  
(square miles): 21550

Latitude: 43° 11' 09"

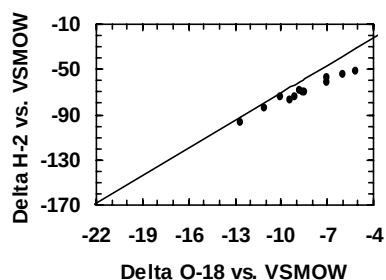
Datum (ft): 1168.51

Longitude: 97° 38' 07"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1987         | -51.6                                    | -5.13                                     |
| 5/13/1987        | -74.2                                    | -9.13                                     |
| 2/11/1987        | -76.0                                    | -9.38                                     |
| 11/5/1986        | -57.0                                    | -7.05                                     |
| 8/13/1986        | -61.6                                    | -7.07                                     |
| 5/9/1986         | -74.1                                    | -10.02                                    |
| 2/18/1986        | -83.0                                    | -11.06                                    |
| 11/19/1985       | -68.8                                    | -8.57                                     |
| 8/13/1985        | -54.3                                    | -6.01                                     |
| 5/21/1985        | -68.3                                    | -8.82                                     |
| 2/19/1985        | -96.8                                    | -12.64                                    |
| 11/13/1984       | -68.9                                    | -8.48                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Tennessee**

Station Name: **French Broad River Near Knoxville**

Station Number **03470500**

Hydrologic Unit Code: 06010107

Drainage Area  
(square miles): 5101

Latitude: 35° 57' 30"

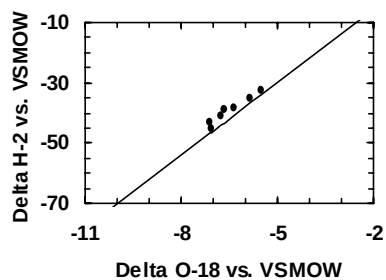
Datum (ft): 0

Longitude: 83° 46' 26"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/15/1986        | -43.1                                    | -7.08                                     |
| 1/21/1986        | -38.9                                    | -6.64                                     |
| 10/16/1985       | -32.4                                    | -5.49                                     |
| 7/16/1985        | -38.0                                    | -6.36                                     |
| 4/17/1985        | -45.0                                    | -7.05                                     |
| 1/31/1985        | -41.0                                    | -6.75                                     |
| 10/18/1984       | -35.0                                    | -5.85                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Tennessee**

Station Name: **Clinch River At Melton Hill Dam (tailwater)**

Station Number **03535912**

Hydrologic Unit Code: 06010207

Drainage Area  
(square miles): 3343

Latitude: 35° 53' 07"

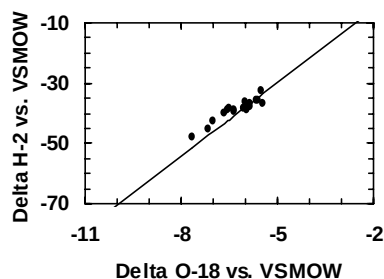
Datum (ft): 0

Longitude: 84° 18' 03"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/9/1986         | -36.5                                    | -5.86                                     |
| 12/7/1984        | -35.5                                    | -5.65                                     |
| 2/27/1985        | -38.0                                    | -6.05                                     |
| 4/16/1985        | -36.0                                    | -5.99                                     |
| 6/5/1985         | -37.0                                    | -5.92                                     |
| 8/8/1985         | -38.7                                    | -6.33                                     |
| 10/22/1985       | -39.1                                    | -6.37                                     |
| 10/17/1984       | -45.0                                    | -7.15                                     |
| 2/20/1986        | -35.5                                    | -5.61                                     |
| 8/12/1987        | -47.9                                    | -7.67                                     |
| 6/11/1986        | -38.5                                    | -5.97                                     |
| 8/13/1986        | -38.4                                    | -6.51                                     |
| 10/30/1986       | -39.9                                    | -6.64                                     |
| 12/16/1986       | -36.7                                    | -5.46                                     |
| 2/24/1987        | -37.6                                    | -5.86                                     |
| 4/29/1987        | -38.6                                    | -6.54                                     |
| 6/24/1987        | -42.3                                    | -6.98                                     |
| 12/11/1985       | -32.2                                    | -5.49                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Tennessee**

Station Name: **Tennessee River At Watts Bar Dam (tailwater)**

Station Number **03543005**

Hydrologic Unit Code: 06010201

Drainage Area  
(square miles): 17310

Latitude: 35° 37' 13"

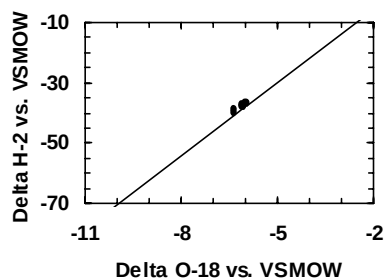
Datum (ft): 0

Longitude: 84° 47' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/23/1986        | -36.5                                    | -5.98                                     |
| 1/22/1986        | -37.6                                    | -6.06                                     |
| 10/24/1985       | -36.5                                    | -5.94                                     |
| 7/18/1985        | -37.4                                    | -6.12                                     |
| 4/18/1985        | -39.7                                    | -6.34                                     |
| 1/24/1985        | -37.0                                    | -6.10                                     |
| 10/24/1984       | -38.5                                    | -6.35                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Tennessee**

Station Name: **Buffalo River Near Flat Woods**

Station Number **03604000**

Hydrologic Unit Code: 06040004

Drainage Area  
(square miles): 447

Latitude: 35° 29' 45"

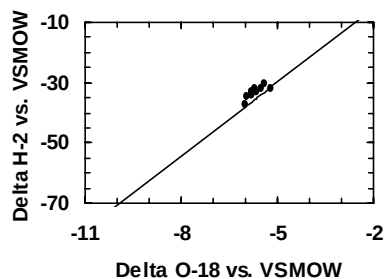
Datum (ft): 513.58

Longitude: 87° 49' 58"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/22/1987        | -31.9                                    | -5.19                                     |
| 4/16/1987        | -33.6                                    | -5.82                                     |
| 1/22/1987        | -37.2                                    | -6.02                                     |
| 10/16/1986       | -30.4                                    | -5.41                                     |
| 5/19/1986        | -32.9                                    | -5.63                                     |
| 1/14/1986        | -31.7                                    | -5.69                                     |
| 10/17/1985       | -33.1                                    | -5.66                                     |
| 7/15/1985        | -31.8                                    | -5.51                                     |
| 4/17/1985        | -34.2                                    | -5.96                                     |
| 1/29/1985        | -33.0                                    | -5.80                                     |
| 10/24/1984       | -34.0                                    | -5.80                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Tennessee**

Station Name: **Obion River At Obion**

Station Number **07026000**

Hydrologic Unit Code: 08010202

Drainage Area  
(square miles): 1852

Latitude: 36° 15' 04"

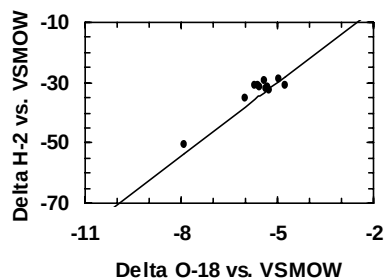
Datum (ft): 246.48

Longitude: 89° 11' 33"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/4/1987         | -31.4                                    | -5.31                                     |
| 4/28/1987        | -32.1                                    | -5.24                                     |
| 1/27/1987        | -35.0                                    | -6.00                                     |
| 10/22/1986       | -32.0                                    | -5.34                                     |
| 7/25/1986        | -30.5                                    | -4.76                                     |
| 4/23/1986        | -28.4                                    | -4.96                                     |
| 1/17/1986        | -30.7                                    | -5.59                                     |
| 10/7/1985        | -28.9                                    | -5.41                                     |
| 4/17/1985        | -31.5                                    | -5.55                                     |
| 1/16/1985        | -30.8                                    | -5.68                                     |
| 10/24/1984       | -50.5                                    | -7.90                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Canadian River Near Canadian**

Station Number **07228000**

Hydrologic Unit Code: 11090106

Drainage Area  
(square miles): 22866

Latitude: 35° 56' 06"

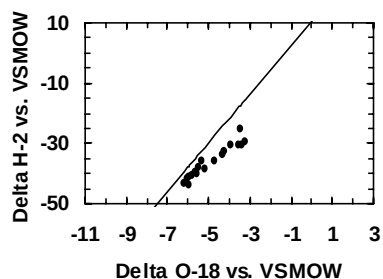
Datum (ft): 2301.5

Longitude: 100° 22' 13"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/5/1986         | -30.6                                    | -3.34                                     |
| 1/21/1985        | -41.2                                    | -5.97                                     |
| 3/11/1985        | -35.7                                    | -5.30                                     |
| 5/20/1985        | -30.1                                    | -3.94                                     |
| 7/22/1985        | -30.3                                    | -3.50                                     |
| 8/20/1985        | -38.4                                    | -5.16                                     |
| 11/11/1985       | -37.6                                    | -5.44                                     |
| 11/10/1984       | -43.0                                    | -6.19                                     |
| 3/17/1986        | -39.6                                    | -5.65                                     |
| 8/25/1987        | -24.9                                    | -3.47                                     |
| 7/22/1986        | -29.2                                    | -3.25                                     |
| 8/25/1986        | -33.6                                    | -4.28                                     |
| 11/11/1986       | -41.3                                    | -6.01                                     |
| 1/7/1987         | -40.4                                    | -5.78                                     |
| 3/4/1987         | -43.8                                    | -5.94                                     |
| 5/13/1987        | -35.6                                    | -4.69                                     |
| 7/8/1987         | -32.6                                    | -4.21                                     |
| 1/14/1986        | -40.0                                    | -5.52                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Pdtf Red River Near Wayside**

Station Number **07297910**

Hydrologic Unit Code: 11120103

Drainage Area  
(square miles): 4211

Latitude: 34° 50' 15"

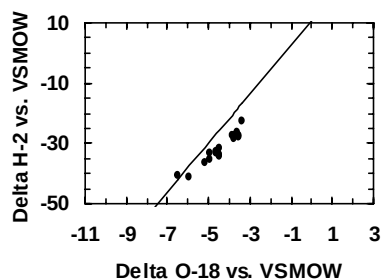
Datum (ft): 2463.74

Longitude: 101° 24' 49"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/8/1986         | -27.2                                    | -3.51                                     |
| 1/24/1985        | -33.0                                    | -4.92                                     |
| 3/14/1985        | -32.5                                    | -4.60                                     |
| 5/23/1985        | -26.4                                    | -3.64                                     |
| 7/25/1985        | -62.9                                    | -8.92                                     |
| 8/23/1985        | -40.3                                    | -6.48                                     |
| 11/15/1985       | -31.6                                    | -4.49                                     |
| 11/20/1984       | -41.0                                    | -5.92                                     |
| 3/20/1986        | -33.8                                    | -4.50                                     |
| 8/24/1987        | -27.1                                    | -3.86                                     |
| 7/21/1986        | -22.6                                    | -3.35                                     |
| 8/26/1986        | -27.1                                    | -3.78                                     |
| 11/10/1986       | -36.2                                    | -5.17                                     |
| 1/8/1987         | -35.2                                    | -4.92                                     |
| 3/2/1987         | -33.3                                    | -4.48                                     |
| 5/12/1987        | -28.0                                    | -3.75                                     |
| 7/7/1987         | -27.8                                    | -3.53                                     |
| 1/15/1986        | -33.0                                    | -4.59                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Texas**

Station Name: **Neches River At Evadale**

Station Number **08041000**

Hydrologic Unit Code: 12020003

Drainage Area  
(square miles): 7951

Latitude: 30° 21' 20"

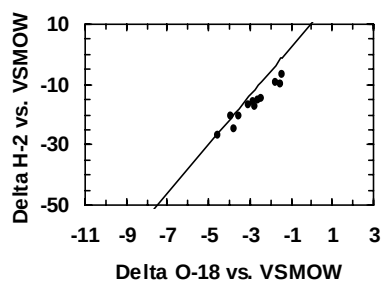
Datum (ft): 8.25

Longitude: 94° 05' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/10/1987        | -14.5                                    | -2.44                                     |
| 6/22/1987        | -20.3                                    | -3.57                                     |
| 3/17/1987        | -16.9                                    | -2.78                                     |
| 12/10/1986       | -16.5                                    | -3.05                                     |
| 8/25/1986        | -9.7                                     | -1.50                                     |
| 5/13/1986        | -15.5                                    | -2.85                                     |
| 2/19/1986        | -9.2                                     | -1.77                                     |
| 11/19/1985       | -26.9                                    | -4.55                                     |
| 7/22/1985        | -6.3                                     | -1.45                                     |
| 3/27/1985        | -15.1                                    | -2.61                                     |
| 1/29/1985        | -20.5                                    | -3.95                                     |
| 11/15/1984       | -24.5                                    | -3.75                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Trinity River At Trinidad**

Station Number **08062700**

Hydrologic Unit Code: 12030105

Drainage Area  
(square miles): 8538

Latitude: 32° 08' 05"

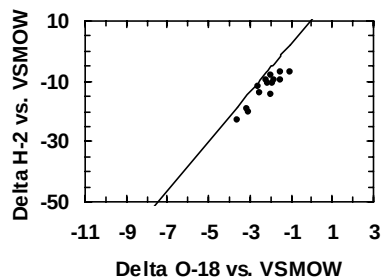
Datum (ft): 239.21

Longitude: 96° 06' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -14.6                                    | -1.95                                     |
| 7/14/1987        | -19.4                                    | -3.12                                     |
| 6/9/1987         | -20.1                                    | -3.05                                     |
| 4/14/1987        | -23.2                                    | -3.65                                     |
| 9/9/1986         | -13.6                                    | -2.50                                     |
| 7/22/1986        | -9.7                                     | -1.49                                     |
| 6/17/1986        | -9.9                                     | -1.84                                     |
| 4/15/1986        | -9.9                                     | -2.22                                     |
| 1/29/1986        | -6.8                                     | -1.08                                     |
| 11/13/1985       | -10.6                                    | -2.16                                     |
| 6/25/1985        | -10.5                                    | -1.94                                     |
| 5/14/1985        | -6.7                                     | -1.53                                     |
| 1/8/1985         | -11.9                                    | -2.61                                     |
| 10/17/1984       | -8.2                                     | -1.95                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **West Fork San Jacinto River Near Conroe**

Station Number **08068000**

Hydrologic Unit Code: 12040101

Drainage Area  
(square miles): 828

Latitude: 30° 14' 40"

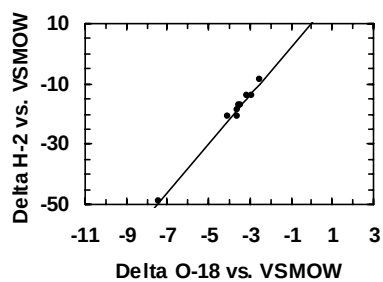
Datum (ft): 95.03

Longitude: 95° 27' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1986         | -14.0                                    | -2.89                                     |
| 5/7/1986         | -20.8                                    | -3.57                                     |
| 2/12/1986        | -14.1                                    | -3.18                                     |
| 11/6/1985        | -48.8                                    | -7.44                                     |
| 7/30/1985        | -17.1                                    | -3.54                                     |
| 5/22/1985        | -17.0                                    | -3.42                                     |
| 3/20/1985        | -21.0                                    | -4.10                                     |
| 1/15/1985        | -18.5                                    | -3.60                                     |
| 11/27/1984       | -8.5                                     | -2.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Salt Fork Brazos River Near Aspermont**

Station Number **08082000**

Hydrologic Unit Code: 12050007

Drainage Area  
(square miles): 5130

Latitude: 33° 20' 02"

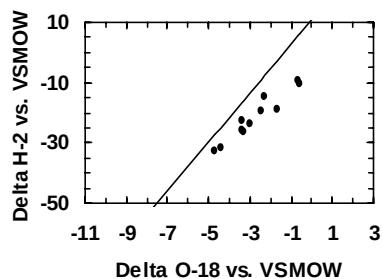
Datum (ft): 1588.7

Longitude: 100° 14' 16"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -8.9                                     | -.65                                      |
| 6/10/1987        | -26.1                                    | -3.28                                     |
| 2/25/1987        | -31.4                                    | -4.41                                     |
| 8/20/1986        | -14.4                                    | -2.26                                     |
| 6/18/1986        | -19.2                                    | -2.45                                     |
| 2/5/1986         | -25.7                                    | -3.34                                     |
| 10/23/1985       | -22.4                                    | -3.39                                     |
| 8/15/1985        | -10.2                                    | -.56                                      |
| 6/19/1985        | -18.8                                    | -1.66                                     |
| 2/21/1985        | -23.2                                    | -2.98                                     |
| 10/24/1984       | -32.3                                    | -4.67                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Brazos River Near South Bend**

Station Number **08088000**

Hydrologic Unit Code: 12060201

Drainage Area  
(square miles): 22673

Latitude: 33° 01' 27"

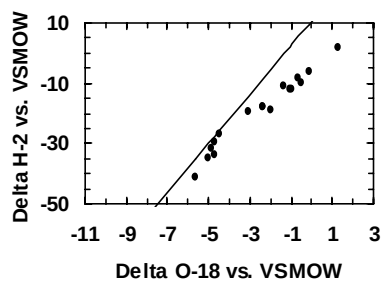
Datum (ft): 1002.98

Longitude: 98° 38' 37"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/23/1986        | -9.4                                     | -.48                                      |
| 1/23/1985        | -34.7                                    | -4.99                                     |
| 5/22/1985        | 1.9                                      | 1.27                                      |
| 7/24/1985        | -11.5                                    | -1.08                                     |
| 8/22/1985        | -31.7                                    | -4.89                                     |
| 11/13/1985       | -19.1                                    | -3.08                                     |
| 1/16/1986        | -17.4                                    | -2.38                                     |
| 11/28/1984       | -26.5                                    | -4.48                                     |
| 5/7/1986         | -8.1                                     | -.65                                      |
| 8/27/1987        | -6.0                                     | -.15                                      |
| 8/26/1986        | -10.6                                    | -1.36                                     |
| 11/13/1986       | -29.4                                    | -4.73                                     |
| 1/8/1987         | -33.4                                    | -4.70                                     |
| 3/6/1987         | -41.0                                    | -5.66                                     |
| 5/19/1987        | -18.9                                    | -1.97                                     |
| 7/9/1987         | -17.9                                    | -2.37                                     |
| 3/19/1986        | -11.9                                    | -.95                                      |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **South Fork Rocky Creek Near Briggs**

Station Number **08103900**

Hydrologic Unit Code: 12070203

Drainage Area  
(square miles): 33.3

Latitude: 30° 54' 41"

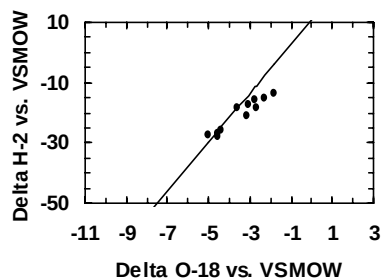
Datum (ft): 955.8

Longitude: 98° 02' 12"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/10/1987        | -17.1                                    | -3.08                                     |
| 6/15/1987        | -27.9                                    | -4.56                                     |
| 3/2/1987         | -26.8                                    | -4.51                                     |
| 11/5/1986        | -25.7                                    | -4.37                                     |
| 9/8/1986         | -13.5                                    | -1.82                                     |
| 7/8/1986         | -15.6                                    | -2.74                                     |
| 3/17/1986        | -14.7                                    | -2.27                                     |
| 10/22/1985       | -18.0                                    | -3.58                                     |
| 6/24/1985        | -20.7                                    | -3.15                                     |
| 3/20/1985        | -27.0                                    | -5.00                                     |
| 10/22/1984       | -18.0                                    | -2.70                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **San Bernard River Near Boling**

Station Number **08117500**

Hydrologic Unit Code: 12090401

Drainage Area  
(square miles): 727

Latitude: 29° 18' 48"

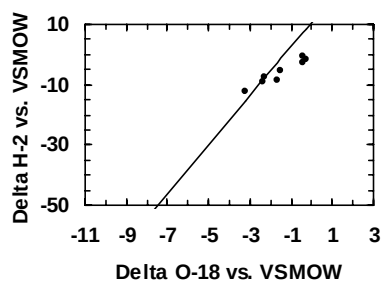
Datum (ft): 30.81

Longitude: 95° 53' 37"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/13/1986        | -.7                                      | -.43                                      |
| 4/30/1986        | -2.5                                     | -.43                                      |
| 3/11/1986        | -12.3                                    | -3.25                                     |
| 12/10/1985       | -7.6                                     | -2.27                                     |
| 8/6/1985         | -1.6                                     | -.27                                      |
| 5/14/1985        | -8.5                                     | -1.69                                     |
| 2/20/1985        | -9.0                                     | -2.35                                     |
| 11/15/1984       | -5.5                                     | -1.50                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Colorado River Above Silver**

Station Number **08123850**

Hydrologic Unit Code: 12080008

Drainage Area  
(square miles): 14924

Latitude: 32° 03' 07"

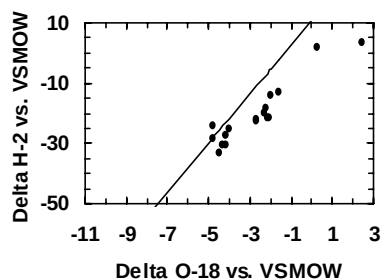
Datum (ft): 1907.66

Longitude: 100° 45' 56"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/29/1986        | 5.7                                      | 3.33                                      |
| 12/11/1984       | -25.1                                    | -4.02                                     |
| 2/20/1985        | -19.7                                    | -2.31                                     |
| 4/9/1985         | -21.1                                    | -2.02                                     |
| 6/18/1985        | -22.1                                    | -2.64                                     |
| 8/15/1985        | 2.1                                      | .31                                       |
| 10/22/1985       | -23.8                                    | -4.78                                     |
| 10/23/1984       | -27.3                                    | -4.13                                     |
| 2/4/1986         | -17.9                                    | -2.23                                     |
| 8/18/1987        | -13.8                                    | -1.96                                     |
| 6/17/1986        | -28.3                                    | -4.75                                     |
| 8/19/1986        | 3.6                                      | 2.49                                      |
| 10/28/1986       | -33.1                                    | -4.47                                     |
| 1/27/1987        | -30.4                                    | -4.17                                     |
| 2/24/1987        | -30.3                                    | -4.29                                     |
| 4/14/1987        | -21.1                                    | -2.16                                     |
| 6/9/1987         | -22.0                                    | -2.68                                     |
| 12/3/1985        | -12.8                                    | -1.60                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Texas**

Station Name: **Nueces River Near Three Rivers**

Station Number **08210000**

Hydrologic Unit Code: 12110111

Drainage Area  
(square miles): 15600

Latitude: 28° 25' 38"

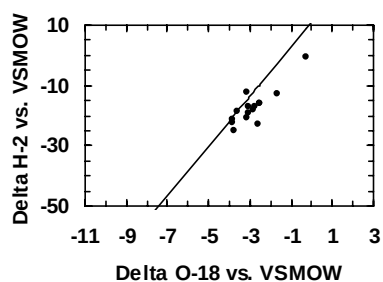
Datum (ft): 101.13

Longitude: 98° 10' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/31/1987        | -17.1                                    | -2.73                                     |
| 7/6/1987         | -20.7                                    | -3.16                                     |
| 5/11/1987        | -16.3                                    | -2.55                                     |
| 3/11/1987        | -25.1                                    | -3.77                                     |
| 1/13/1987        | -22.3                                    | -3.82                                     |
| 8/25/1986        | -.8                                      | -.25                                      |
| 5/15/1986        | -16.0                                    | -2.49                                     |
| 3/12/1986        | -22.7                                    | -2.59                                     |
| 1/30/1986        | -18.1                                    | -2.87                                     |
| 10/22/1985       | -18.9                                    | -3.58                                     |
| 7/29/1985        | -12.6                                    | -1.66                                     |
| 5/9/1985         | -19.3                                    | -3.05                                     |
| 3/6/1985         | -17.1                                    | -3.10                                     |
| 1/29/1985        | -21.5                                    | -3.86                                     |
| 10/30/1984       | -12.4                                    | -3.18                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Rio Grande At Fort Quitman**

Station Number **08370500**

Hydrologic Unit Code: 13040201

Drainage Area  
(square miles): 31944

Latitude: 31° 05' 05"

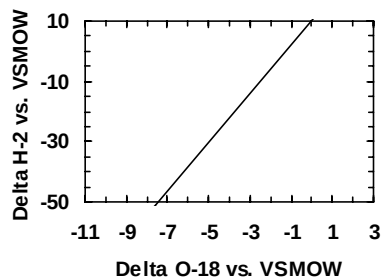
Datum (ft): 3450.57

Longitude: 105° 36' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/3/1986         | -72.1                                    | -8.33                                     |
| 1/4/1985         | -70.9                                    | -8.49                                     |
| 5/11/1985        | -67.3                                    | -7.58                                     |
| 7/12/1985        | -67.4                                    | -7.66                                     |
| 9/7/1985         | -67.5                                    | -8.08                                     |
| 11/10/1985       | -70.3                                    | -8.17                                     |
| 11/9/1984        | -69.0                                    | -8.25                                     |
| 3/15/1986        | -64.4                                    | -7.86                                     |
| 9/17/1987        | -74.7                                    | -8.85                                     |
| 9/11/1986        | -73.7                                    | -8.57                                     |
| 11/5/1986        | -69.5                                    | -8.92                                     |
| 1/9/1987         | -77.4                                    | -9.55                                     |
| 3/17/1987        | -76.7                                    | -9.41                                     |
| 5/13/1987        | -74.9                                    | -8.99                                     |
| 6/17/1987        | -70.5                                    | -8.07                                     |
| 1/11/1986        | -70.5                                    | -8.46                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Limpia Creek Above Ft. Davis**

Station Number **08431700**

Hydrologic Unit Code: 13070005

Drainage Area  
(square miles): 52.4

Latitude: 30° 36' 48"

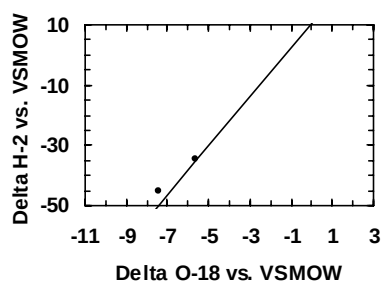
Datum (ft): 5175

Longitude: 104° 00' 04"

| Collection<br>Date: | Delta H-2 in per mill<br>relative to VSMOW: | Delta O-18 in per mill<br>relative to VSMOW: |
|---------------------|---------------------------------------------|----------------------------------------------|
| 6/25/1986           | -34.8                                       | -5.67                                        |
| 6/4/1986            | -45.3                                       | -7.46                                        |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Pecos River Near Langtry**

Station Number **08447410**

Hydrologic Unit Code: 13040212

Drainage Area  
(square miles): 35179

Latitude: 29° 48' 10"

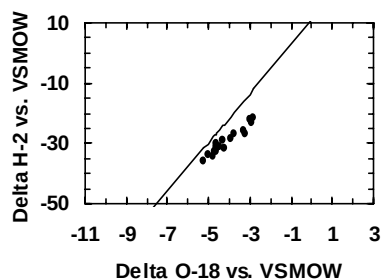
Datum (ft): 1133.08

Longitude: 101° 26' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/2/1986         | -26.6                                    | -3.76                                     |
| 12/5/1984        | -32.4                                    | -4.64                                     |
| 2/13/1985        | -32.1                                    | -4.62                                     |
| 4/3/1985         | -28.3                                    | -3.93                                     |
| 6/5/1985         | -22.7                                    | -2.91                                     |
| 8/7/1985         | -22.1                                    | -3.03                                     |
| 10/9/1985        | -29.0                                    | -4.28                                     |
| 10/17/1984       | -31.0                                    | -4.65                                     |
| 2/19/1986        | -31.0                                    | -4.45                                     |
| 8/25/1987        | -25.7                                    | -3.28                                     |
| 6/11/1986        | -32.5                                    | -4.69                                     |
| 8/13/1986        | -21.1                                    | -2.80                                     |
| 11/19/1986       | -33.4                                    | -5.05                                     |
| 1/7/1987         | -35.7                                    | -5.22                                     |
| 3/18/1987        | -34.2                                    | -4.74                                     |
| 5/13/1987        | -31.3                                    | -4.25                                     |
| 7/7/1987         | -26.9                                    | -3.24                                     |
| 12/11/1985       | -29.8                                    | -4.62                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Devils River At Pafford Crossing Near Comstock**

Station Number **08449400**

Hydrologic Unit Code: 13040302

Drainage Area  
(square miles): 3961

Latitude: 29° 40' 35"

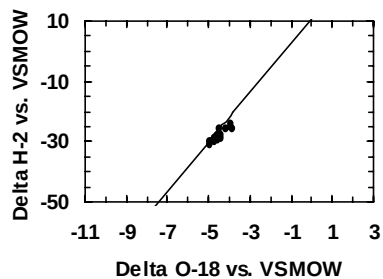
Datum (ft): 1131.88

Longitude: 101° 00' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 2/18/1986        | -28.7                                    | -4.43                                     |
| 12/4/1984        | -28.2                                    | -4.59                                     |
| 2/12/1985        | -28.6                                    | -4.70                                     |
| 4/2/1985         | -27.6                                    | -4.36                                     |
| 6/4/1985         | -25.4                                    | -3.82                                     |
| 8/6/1985         | -25.3                                    | -3.94                                     |
| 10/16/1984       | -25.4                                    | -4.49                                     |
| 12/9/1985        | -28.6                                    | -4.69                                     |
| 8/25/1987        | -29.2                                    | -4.58                                     |
| 4/1/1986         | -24.1                                    | -3.95                                     |
| 6/10/1986        | -31.0                                    | -4.93                                     |
| 8/12/1986        | -25.7                                    | -4.19                                     |
| 11/18/1986       | -29.7                                    | -4.97                                     |
| 1/6/1987         | -29.7                                    | -4.88                                     |
| 5/12/1987        | -29.6                                    | -4.73                                     |
| 10/8/1985        | -27.4                                    | -4.47                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Texas**

Station Name: **Rio Grande Near Brownsville**

Station Number **08475000**

Hydrologic Unit Code: 13090002

Drainage Area  
(square miles): 176333

Latitude: 25° 52' 35"

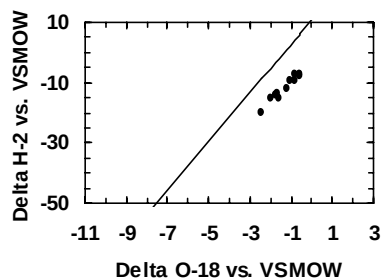
Datum (ft):

Longitude: 97° 27' 15"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/1/1987         | -13.4                                    | -1.64                                     |
| 7/7/1987         | -15.1                                    | -1.98                                     |
| 5/12/1987        | -19.8                                    | -2.41                                     |
| 3/10/1987        | -14.8                                    | -1.61                                     |
| 1/14/1987        | -13.8                                    | -1.75                                     |
| 5/14/1986        | -11.7                                    | -1.23                                     |
| 1/29/1986        | -6.8                                     | -.80                                      |
| 10/23/1985       | -9.1                                     | -.81                                      |
| 7/30/1985        | -7.5                                     | -.60                                      |
| 1/30/1985        | -8.9                                     | -1.05                                     |
| 11/1/1984        | -7.0                                     | -.56                                      |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Dolores River Near Cisco**

Station Number **09180000**

Hydrologic Unit Code: 14030004

Drainage Area  
(square miles): 4580

Latitude: 38° 47' 50"

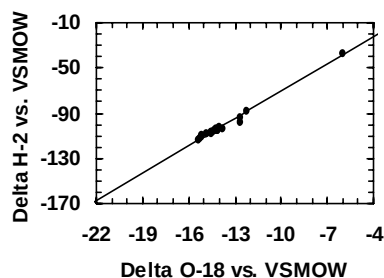
Datum (ft): 4165

Longitude: 109° 11' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/25/1986        | -108.3                                   | -14.86                                    |
| 3/20/1985        | -37.4                                    | -5.96                                     |
| 3/22/1985        | -107.5                                   | -14.55                                    |
| 4/26/1985        | -111.9                                   | -15.19                                    |
| 5/24/1985        | -108.7                                   | -15.09                                    |
| 7/22/1985        | -94.0                                    | -12.61                                    |
| 9/3/1985         | -98.3                                    | -12.63                                    |
| 11/20/1985       | -104.3                                   | -14.10                                    |
| 11/21/1984       | -102.0                                   | -13.95                                    |
| 3/18/1986        | -104.1                                   | -14.15                                    |
| 8/20/1987        | -103.3                                   | -13.74                                    |
| 8/18/1986        | -87.9                                    | -12.20                                    |
| 11/17/1986       | -104.6                                   | -14.11                                    |
| 3/26/1987        | -104.8                                   | -14.22                                    |
| 4/23/1987        | -113.2                                   | -15.34                                    |
| 5/22/1987        | -105.6                                   | -14.38                                    |
| 6/29/1987        | -110.3                                   | -15.18                                    |
| 7/23/1987        | -106.9                                   | -14.47                                    |
| 1/23/1986        | -105.5                                   | -14.30                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Colorado River Near Cisco**

Station Number **09180500**

Hydrologic Unit Code: 14030005

Drainage Area  
(square miles): 24100

Latitude: 38° 48' 38"

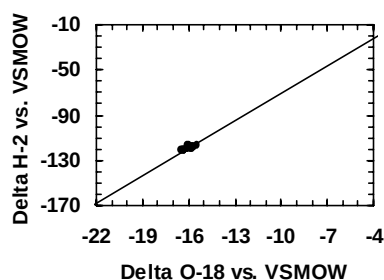
Datum (ft): 4090

Longitude: 109° 17' 34"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/23/1986        | -121.0                                   | -16.51                                    |
| 3/19/1985        | -119.0                                   | -16.05                                    |
| 4/22/1985        | -116.1                                   | -16.03                                    |
| 5/20/1985        | -120.1                                   | -16.37                                    |
| 7/23/1985        | -117.3                                   | -15.84                                    |
| 9/3/1985         | -118.9                                   | -15.73                                    |
| 11/19/1985       | -120.4                                   | -16.24                                    |
| 1/22/1986        | -120.1                                   | -16.23                                    |
| 11/19/1984       | -121.0                                   | -16.35                                    |
| 5/19/1986        | -119.7                                   | -16.11                                    |
| 8/19/1987        | -117.6                                   | -15.75                                    |
| 8/19/1986        | -117.3                                   | -15.64                                    |
| 11/20/1986       | -117.3                                   | -15.68                                    |
| 3/25/1987        | -118.0                                   | -15.78                                    |
| 4/20/1987        | -115.7                                   | -15.45                                    |
| 5/21/1987        | -119.7                                   | -16.24                                    |
| 6/25/1987        | -116.3                                   | -15.92                                    |
| 7/22/1987        | -118.0                                   | -15.76                                    |
| 3/24/1986        | -119.3                                   | -15.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Utah**

Station Name: **Green River Near Greendale**

Station Number **09234500**

Hydrologic Unit Code: 14040106

Drainage Area  
(square miles): 15090

Latitude: 40° 54' 30"

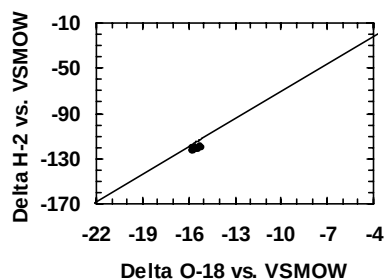
Datum (ft): 5594.48

Longitude: 109° 25' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/27/1987        | -121.3                                   | -15.56                                    |
| 1/21/1987        | -121.8                                   | -15.48                                    |
| 8/14/1986        | -121.2                                   | -15.52                                    |
| 7/8/1986         | -118.8                                   | -15.27                                    |
| 5/20/1986        | -121.6                                   | -15.38                                    |
| 3/26/1986        | -120.3                                   | -15.35                                    |
| 1/14/1986        | -121.3                                   | -15.49                                    |
| 11/20/1985       | -120.5                                   | -15.27                                    |
| 8/14/1985        | -120.7                                   | -15.15                                    |
| 7/8/1985         | -121.9                                   | -15.64                                    |
| 5/31/1985        | -120.7                                   | -15.79                                    |
| 5/16/1985        | -122.6                                   | -15.80                                    |
| 3/25/1985        | -123.1                                   | -15.80                                    |
| 1/23/1985        | -123.3                                   | -15.67                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **White River At Mouth Near Ouray**

Station Number **09306900**

Hydrologic Unit Code: 14050007

Drainage Area  
(square miles): 5120

Latitude: 40° 03' 54"

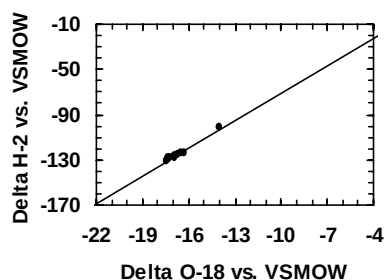
Datum (ft): 4655

Longitude: 109° 38' 06"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/13/1986        | -123.2                                   | -16.33                                    |
| 7/9/1986         | -122.8                                   | -16.44                                    |
| 5/19/1986        | -127.1                                   | -16.91                                    |
| 3/27/1986        | -125.2                                   | -16.69                                    |
| 1/13/1986        | -128.2                                   | -17.37                                    |
| 11/18/1985       | -125.8                                   | -16.89                                    |
| 9/12/1985        | -101.0                                   | -14.00                                    |
| 7/9/1985         | -125.6                                   | -16.86                                    |
| 5/15/1985        | -127.7                                   | -17.25                                    |
| 3/26/1985        | -131.0                                   | -17.45                                    |
| 1/22/1985        | -128.4                                   | -17.32                                    |
| 11/20/1984       | -126.5                                   | -16.89                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Green River At Green River**

Station Number **09315000**

Hydrologic Unit Code: 14060008

Drainage Area  
(square miles): 40590

Latitude: 38° 59' 10"

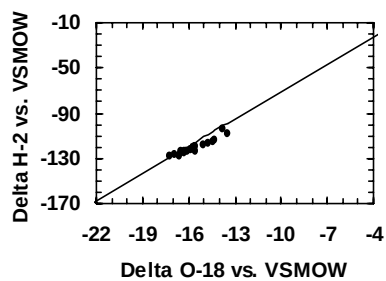
Datum (ft): 4040.18

Longitude: 110° 09' 02"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/24/1986        | -123.1                                   | -16.25                                    |
| 3/21/1985        | -127.0                                   | -16.55                                    |
| 4/23/1985        | -128.2                                   | -17.18                                    |
| 5/21/1985        | -126.1                                   | -16.86                                    |
| 7/25/1985        | -103.5                                   | -13.76                                    |
| 9/4/1985         | -113.6                                   | -14.28                                    |
| 11/18/1985       | -119.7                                   | -15.56                                    |
| 3/17/1986        | -122.3                                   | -15.90                                    |
| 11/20/1984       | -120.5                                   | -15.65                                    |
| 5/21/1986        | -123.8                                   | -16.21                                    |
| 8/7/1987         | -108.0                                   | -13.50                                    |
| 8/21/1986        | -116.4                                   | -14.75                                    |
| 11/19/1986       | -122.9                                   | -15.57                                    |
| 3/24/1987        | -124.6                                   | -16.33                                    |
| 4/21/1987        | -122.2                                   | -15.82                                    |
| 5/19/1987        | -123.8                                   | -16.49                                    |
| 6/26/1987        | -117.1                                   | -15.00                                    |
| 7/21/1987        | -115.1                                   | -14.43                                    |
| 4/23/1986        | -123.3                                   | -16.09                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **San Juan River Near Bluff**

Station Number **09379500**

Hydrologic Unit Code: 14080205

Drainage Area  
(square miles): 23000

Latitude: 37° 08' 49"

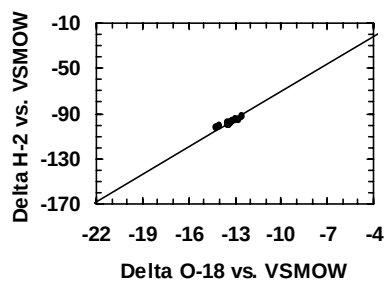
Datum (ft): 4048

Longitude: 109° 51' 51"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/20/1987        | -97.8                                    | -13.46                                    |
| 6/23/1987        | -100.2                                   | -14.03                                    |
| 5/18/1987        | -102.1                                   | -14.23                                    |
| 3/23/1987        | -95.2                                    | -12.95                                    |
| 11/21/1986       | -96.6                                    | -13.16                                    |
| 8/20/1986        | -94.4                                    | -12.78                                    |
| 5/22/1986        | -98.6                                    | -13.44                                    |
| 2/18/1986        | -98.6                                    | -13.41                                    |
| 11/21/1985       | -97.3                                    | -13.30                                    |
| 8/27/1985        | -92.5                                    | -12.49                                    |
| 5/22/1985        | -97.1                                    | -13.33                                    |
| 3/18/1985        | -99.5                                    | -13.35                                    |
| 11/27/1984       | -95.5                                    | -13.00                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Bear River Near Corinne**

Station Number **10126000**

Hydrologic Unit Code: 16010204

Drainage Area  
(square miles): 7029

Latitude: 41° 34' 35"

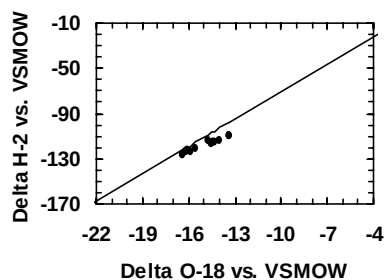
Datum (ft): 4204.6

Longitude: 112° 06' 00"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 10/6/1987        | -116.3                                   | -14.46                                    |
| 9/2/1987         | -109.1                                   | -13.36                                    |
| 6/4/1987         | -113.9                                   | -14.76                                    |
| 3/26/1987        | -123.5                                   | -16.14                                    |
| 12/3/1986        | -115.5                                   | -14.37                                    |
| 8/26/1986        | -113.2                                   | -13.95                                    |
| 5/2/1986         | -122.2                                   | -16.08                                    |
| 3/20/1986        | -126.1                                   | -16.37                                    |
| 12/4/1985        | -122.8                                   | -15.90                                    |
| 9/10/1985        | -109.1                                   | -13.33                                    |
| 5/28/1985        | -123.0                                   | -16.17                                    |
| 1/25/1985        | -121.0                                   | -15.52                                    |
| 12/31/1984       | -114.7                                   | -14.33                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Weber River Near Plain City**

Station Number **10141000**

Hydrologic Unit Code: 16020102

Drainage Area  
(square miles): 2060

Latitude: 41° 16' 42"

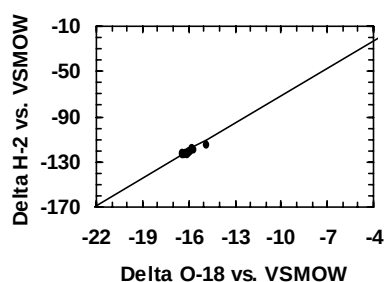
Datum (ft): 4207.1

Longitude: 112° 05' 28"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/12/1987        | -114.4                                   | -14.85                                    |
| 6/4/1987         | -118.9                                   | -15.75                                    |
| 3/25/1987        | -122.0                                   | -16.13                                    |
| 12/16/1986       | -120.7                                   | -15.95                                    |
| 7/15/1986        | -122.7                                   | -16.05                                    |
| 5/3/1986         | -123.3                                   | -16.38                                    |
| 3/19/1986        | -123.4                                   | -16.26                                    |
| 12/6/1985        | -120.0                                   | -15.87                                    |
| 9/9/1985         | -118.6                                   | -15.61                                    |
| 5/23/1985        | -122.5                                   | -16.42                                    |
| 2/10/1985        | -121.7                                   | -16.02                                    |
| 11/28/1984       | -118.2                                   | -15.74                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Jordan River At 1700 S At Salt Lake City**

Station Number **10171000**

Hydrologic Unit Code: 16020204

Drainage Area  
(square miles): 3420

Latitude: 40° 44' 01"

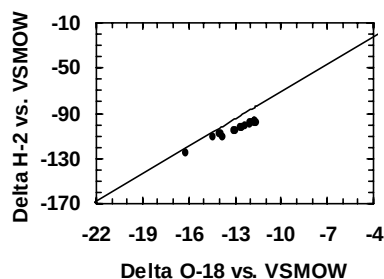
Datum (ft): 4220.73

Longitude: 111° 55' 21"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/1/1986         | -108.2                                   | -14.03                                    |
| 2/9/1985         | -101.6                                   | -12.58                                    |
| 4/4/1985         | -104.4                                   | -13.02                                    |
| 5/21/1985        | -107.6                                   | -13.84                                    |
| 7/8/1985         | -100.5                                   | -12.36                                    |
| 9/30/1985        | -97.5                                    | -11.63                                    |
| 12/5/1985        | -96.5                                    | -11.69                                    |
| 11/19/1984       | -98.4                                    | -12.00                                    |
| 3/17/1986        | -124.7                                   | -16.19                                    |
| 8/27/1987        | -97.2                                    | -11.70                                    |
| 7/14/1986        | -104.3                                   | -12.94                                    |
| 8/27/1986        | -98.2                                    | -11.89                                    |
| 12/4/1986        | -96.6                                    | -11.67                                    |
| 3/12/1987        | -101.5                                   | -12.48                                    |
| 5/20/1987        | -110.4                                   | -14.43                                    |
| 7/10/1987        | -101.4                                   | -12.50                                    |
| 8/12/1987        | -98.8                                    | -12.02                                    |
| 1/21/1986        | -110.5                                   | -13.83                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Red Butte Creek At Ft. Douglas Near Salt Lake City**

Station Number **10172200**

Hydrologic Unit Code: 16020204

Drainage Area  
(square miles): 7.25

Latitude: 40° 46' 48"

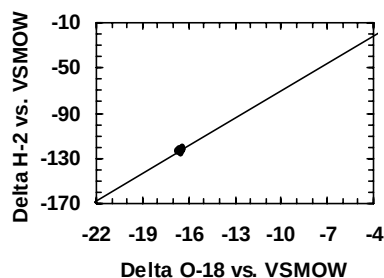
Datum (ft): 5400

Longitude: 111° 48' 19"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/15/1986        | -122.8                                   | -16.52                                    |
| 2/5/1985         | -122.0                                   | -16.39                                    |
| 4/3/1985         | -122.2                                   | -16.37                                    |
| 5/16/1985        | -121.2                                   | -16.37                                    |
| 7/29/1985        | -122.4                                   | -16.42                                    |
| 9/26/1985        | -121.9                                   | -16.43                                    |
| 11/29/1985       | -123.4                                   | -16.68                                    |
| 1/20/1986        | -123.9                                   | -16.57                                    |
| 11/21/1984       | -121.9                                   | -16.38                                    |
| 4/29/1986        | -121.2                                   | -16.44                                    |
| 10/7/1987        | -124.4                                   | -16.48                                    |
| 8/27/1986        | -123.3                                   | -16.44                                    |
| 12/2/1986        | -123.3                                   | -16.52                                    |
| 3/13/1987        | -122.1                                   | -16.33                                    |
| 5/19/1987        | -120.3                                   | -16.39                                    |
| 7/10/1987        | -122.4                                   | -16.57                                    |
| 8/13/1987        | -122.2                                   | -16.45                                    |
| 8/31/1987        | -123.0                                   | -16.48                                    |
| 3/18/1986        | -124.6                                   | -16.45                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Utah**

Station Name: **Sevier River Near Lynndyl**

Station Number **10224000**

Hydrologic Unit Code: 16030005

Drainage Area  
(square miles): 5966

Latitude: 39° 28' 55"

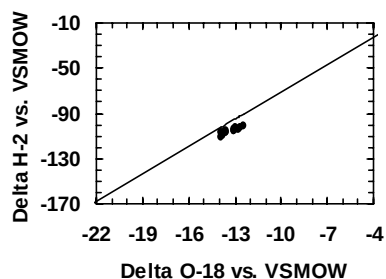
Datum (ft): 4660

Longitude: 112° 23' 35"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/27/1986        | -106.5                                   | -13.63                                    |
| 2/8/1985         | -106.8                                   | -13.61                                    |
| 4/2/1985         | -107.0                                   | -13.90                                    |
| 5/17/1985        | -107.8                                   | -13.79                                    |
| 7/30/1985        | -105.1                                   | -13.59                                    |
| 9/4/1985         | -102.0                                   | -12.93                                    |
| 11/20/1985       | -103.1                                   | -12.78                                    |
| 11/30/1984       | -109.7                                   | -13.83                                    |
| 3/25/1986        | -106.8                                   | -13.62                                    |
| 7/29/1987        | -101.1                                   | -12.45                                    |
| 7/30/1986        | -104.8                                   | -13.08                                    |
| 9/11/1986        | -103.0                                   | -12.73                                    |
| 11/19/1986       | -110.2                                   | -13.85                                    |
| 1/27/1987        | -103.3                                   | -12.81                                    |
| 3/24/1987        | -103.8                                   | -13.08                                    |
| 5/28/1987        | -104.6                                   | -13.08                                    |
| 1/14/1986        | -102.5                                   | -12.60                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Utah**

Station Name: **Beaver Riv At Adamsville**

Station Number **10237000**

Hydrologic Unit Code: 16030007

Drainage Area  
(square miles): 303

Latitude: 38° 15' 13"

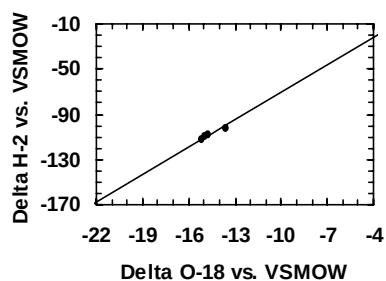
Datum (ft): 5550

Longitude: 112° 45' 56"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1985         | -102.6                                   | -13.54                                    |
| 5/21/1985        | -107.0                                   | -14.77                                    |
| 3/30/1985        | -111.5                                   | -15.10                                    |
| 12/31/1984       | -109.0                                   | -14.90                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Vermont**

Station Name: **Black River At Coventry**

Station Number **04296000**

Hydrologic Unit Code: 01110000

Drainage Area  
(square miles): 122

Latitude: 44° 52' 08"

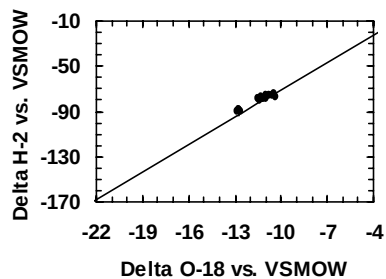
Datum (ft): 725

Longitude: 72° 16' 14"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/26/1986        | -89.0                                    | -12.63                                    |
| 1/30/1985        | -78.5                                    | -11.47                                    |
| 4/3/1985         | -87.8                                    | -12.72                                    |
| 5/29/1985        | -78.5                                    | -11.22                                    |
| 8/6/1985         | -77.1                                    | -10.97                                    |
| 9/18/1985        | -75.3                                    | -10.74                                    |
| 11/28/1984       | -75.4                                    | -10.93                                    |
| 1/31/1986        | -88.6                                    | -12.78                                    |
| 9/30/1987        | -73.1                                    | -10.50                                    |
| 7/15/1986        | -78.1                                    | -11.01                                    |
| 11/21/1986       | -76.9                                    | -11.29                                    |
| 1/7/1987         | -79.2                                    | -11.41                                    |
| 4/8/1987         | -89.9                                    | -12.84                                    |
| 6/24/1987        | -75.1                                    | -10.59                                    |
| 8/21/1987        | -76.1                                    | -10.39                                    |
| 12/17/1985       | -76.9                                    | -11.00                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Virginia**

Station Name: **Holiday Creek Near Andersonville**

Station Number **02038850**

Hydrologic Unit Code: 02080207

Drainage Area  
(square miles): 8.53

Latitude: 37° 24' 55"

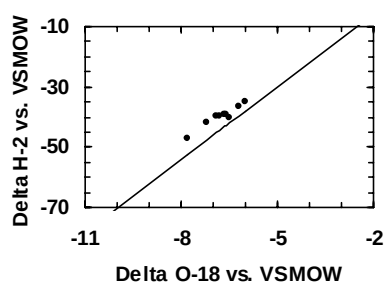
Datum (ft): 472.97

Longitude: 78° 38' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/25/1987        | -36.7                                    | -6.21                                     |
| 7/8/1987         | -39.3                                    | -6.63                                     |
| 3/17/1987        | -47.3                                    | -7.81                                     |
| 12/9/1986        | -39.1                                    | -6.60                                     |
| 8/20/1986        | -40.3                                    | -6.50                                     |
| 8/27/1985        | -34.8                                    | -6.01                                     |
| 5/22/1985        | -39.5                                    | -6.90                                     |
| 2/26/1985        | -42.0                                    | -7.20                                     |
| 12/4/1984        | -39.5                                    | -6.80                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Virginia**

Station Name: **Blackwater River Near Franklin**

Station Number **02049500**

Hydrologic Unit Code: 03010202

Drainage Area 617  
(square miles):

Latitude: 36° 45' 45"

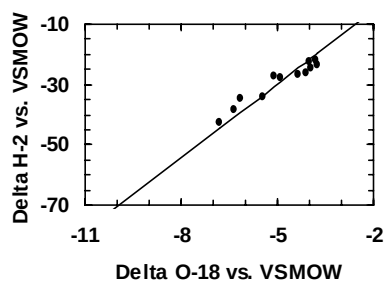
Datum (ft): 1.56

Longitude: 76° 53' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/13/1987        | -21.9                                    | -3.79                                     |
| 5/5/1987         | -33.7                                    | -5.47                                     |
| 2/12/1987        | -42.1                                    | -6.78                                     |
| 11/18/1986       | -24.1                                    | -3.93                                     |
| 8/21/1986        | -27.7                                    | -4.91                                     |
| 5/22/1986        | -25.7                                    | -4.11                                     |
| 2/19/1986        | -38.2                                    | -6.33                                     |
| 11/14/1985       | -27.1                                    | -5.09                                     |
| 8/21/1985        | -26.6                                    | -4.35                                     |
| 5/22/1985        | -23.4                                    | -3.75                                     |
| 2/19/1985        | -34.2                                    | -6.16                                     |
| 11/20/1984       | -22.1                                    | -4.00                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Virginia**

Station Name: **Dan River At Paces**

Station Number **02075500**

Hydrologic Unit Code: 03010104

Drainage Area  
(square miles): 2550

Latitude: 36° 38' 32"

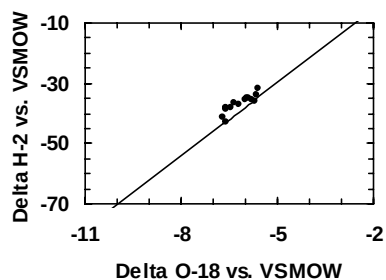
Datum (ft): 322.48

Longitude: 79° 05' 23"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1987         | -35.7                                    | -5.99                                     |
| 6/17/1987        | -38.2                                    | -6.46                                     |
| 3/26/1987        | -43.2                                    | -6.59                                     |
| 1/29/1987        | -41.5                                    | -6.70                                     |
| 11/10/1986       | -34.9                                    | -5.90                                     |
| 8/20/1986        | -35.3                                    | -5.82                                     |
| 6/4/1986         | -34.0                                    | -5.64                                     |
| 1/30/1986        | -37.2                                    | -6.21                                     |
| 11/18/1985       | -36.5                                    | -6.35                                     |
| 8/6/1985         | -36.1                                    | -5.71                                     |
| 6/11/1985        | -31.9                                    | -5.58                                     |
| 4/25/1985        | -34.9                                    | -5.95                                     |
| 1/23/1985        | -38.2                                    | -6.62                                     |
| 12/6/1984        | -38.7                                    | -6.59                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Virginia**

Station Name: **New River At Glen Lyn**

Station Number **03176500**

Hydrologic Unit Code: 05050002

Drainage Area  
(square miles): 3768

Latitude: 37° 22' 22"

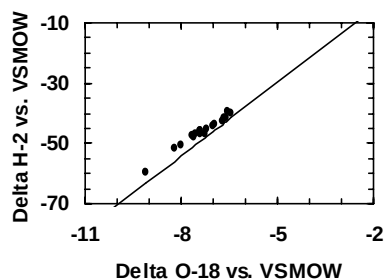
Datum (ft): 1490.24

Longitude: 80° 51' 39"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/2/1986         | -39.8                                    | -6.44                                     |
| 1/29/1985        | -45.7                                    | -7.41                                     |
| 3/20/1985        | -47.5                                    | -7.58                                     |
| 5/29/1985        | -46.7                                    | -7.41                                     |
| 7/23/1985        | -41.1                                    | -6.58                                     |
| 9/4/1985         | -42.2                                    | -6.71                                     |
| 12/18/1985       | -45.6                                    | -7.38                                     |
| 11/28/1984       | -43.2                                    | -6.94                                     |
| 3/25/1986        | -47.1                                    | -7.64                                     |
| 9/2/1987         | -39.1                                    | -6.58                                     |
| 5/6/1986         | -46.6                                    | -7.25                                     |
| 7/29/1986        | -41.2                                    | -6.63                                     |
| 12/3/1986        | -44.1                                    | -7.00                                     |
| 2/11/1987        | -50.3                                    | -7.99                                     |
| 3/10/1987        | -59.4                                    | -9.10                                     |
| 5/19/1987        | -51.6                                    | -8.21                                     |
| 6/30/1987        | -44.8                                    | -7.18                                     |
| 1/22/1986        | -46.7                                    | -7.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Willapa River Near Willapa**

Station Number **12013500**

Hydrologic Unit Code: 17100106

Drainage Area  
(square miles): 130

Latitude: 46° 39' 04"

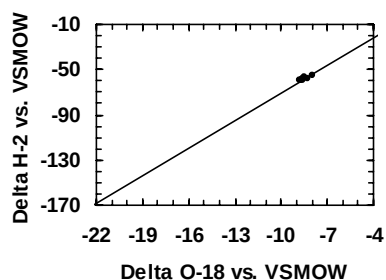
Datum (ft): 3.57

Longitude: 123° 39' 05"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/28/1986        | -55.9                                    | -8.00                                     |
| 5/29/1986        | -58.1                                    | -8.61                                     |
| 3/6/1986         | -60.1                                    | -8.72                                     |
| 11/15/1985       | -57.0                                    | -8.50                                     |
| 8/21/1985        | -57.7                                    | -8.29                                     |
| 5/23/1985        | -58.9                                    | -8.75                                     |
| 3/21/1985        | -60.0                                    | -8.70                                     |
| 11/16/1984       | -59.5                                    | -8.55                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Washington**

Station Name: **Chehalis River At Porter**

Station Number **12031000**

Hydrologic Unit Code: 17100103

Drainage Area  
(square miles): 1294

Latitude: 46° 56' 17"

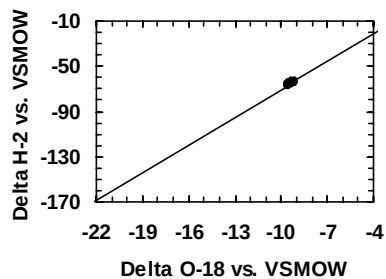
Datum (ft): 23.64

Longitude: 123° 18' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 1/23/1986        | -65.8                                    | -9.60                                     |
| 11/16/1984       | -65.5                                    | -9.35                                     |
| 1/28/1985        | -67.0                                    | -9.65                                     |
| 3/18/1985        | -67.0                                    | -9.50                                     |
| 5/20/1985        | -64.5                                    | -9.50                                     |
| 7/22/1985        | -63.4                                    | -9.14                                     |
| 9/20/1984        | -64.0                                    | -9.35                                     |
| 11/12/1985       | -63.5                                    | -9.34                                     |
| 9/10/1987        | -62.8                                    | -9.10                                     |
| 3/24/1986        | -66.1                                    | -9.52                                     |
| 5/30/1986        | -64.3                                    | -9.48                                     |
| 7/22/1986        | -63.6                                    | -9.21                                     |
| 1/27/1987        | -63.5                                    | -9.36                                     |
| 5/6/1987         | -64.5                                    | -9.26                                     |
| 7/8/1987         | -64.2                                    | -9.07                                     |
| 9/23/1985        | -62.8                                    | -9.32                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **North Fork Quinault River Near Amanda Park**

Station Number **12039300**

Hydrologic Unit Code: 17100102

Drainage Area  
(square miles): 74.1

Latitude: 47° 35' 46"

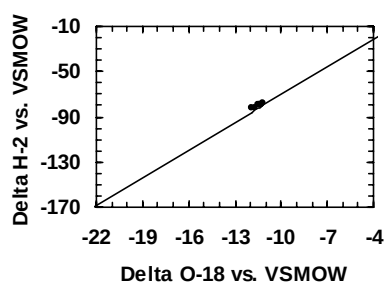
Datum (ft): 620

Longitude: 123° 37' 23"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/27/1986        | -78.8                                    | -11.32                                    |
| 5/28/1986        | -79.5                                    | -11.44                                    |
| 3/5/1986         | -79.3                                    | -11.44                                    |
| 11/14/1985       | -79.9                                    | -11.27                                    |
| 8/20/1985        | -82.2                                    | -11.65                                    |
| 5/22/1985        | -81.8                                    | -11.90                                    |
| 3/20/1985        | -80.0                                    | -11.45                                    |
| 11/15/1984       | -78.0                                    | -11.15                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Queets River Near Clearwater**

Station Number **12040500**

Hydrologic Unit Code: 17100102

Drainage Area  
(square miles): 445

Latitude: 47° 32' 20"

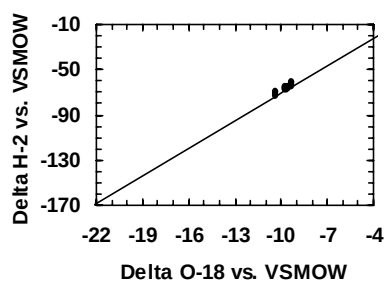
Datum (ft): 14.5

Longitude: 124° 18' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/25/1987        | -66.2                                    | -9.75                                     |
| 5/5/1987         | -65.8                                    | -9.67                                     |
| 8/26/1986        | -65.9                                    | -9.73                                     |
| 5/27/1986        | -65.6                                    | -9.48                                     |
| 3/4/1986         | -65.8                                    | -9.53                                     |
| 11/13/1985       | -61.7                                    | -9.31                                     |
| 8/19/1985        | -72.4                                    | -10.32                                    |
| 5/21/1985        | -69.2                                    | -10.35                                    |
| 3/19/1985        | -67.0                                    | -9.60                                     |
| 11/14/1984       | -64.0                                    | -9.35                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Elwha River At McDonald Br Near Prt Angeles**

Station Number **12045500**

Hydrologic Unit Code: 17110020

Drainage Area  
(square miles): 269

Latitude: 48° 03' 18"

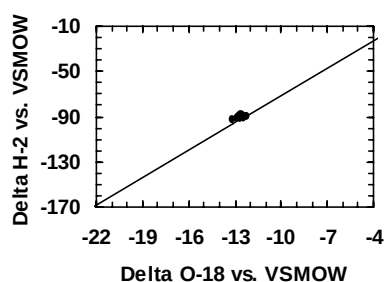
Datum (ft): 200

Longitude: 123° 34' 55"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/24/1986        | -90.0                                    | -12.65                                    |
| 5/22/1986        | -90.2                                    | -12.61                                    |
| 3/27/1986        | -88.8                                    | -12.59                                    |
| 1/8/1986         | -90.1                                    | -12.67                                    |
| 11/22/1985       | -87.7                                    | -12.48                                    |
| 9/26/1985        | -88.2                                    | -12.65                                    |
| 7/18/1985        | -92.6                                    | -13.15                                    |
| 5/16/1985        | -89.3                                    | -12.75                                    |
| 3/7/1985         | -89.5                                    | -12.45                                    |
| 1/30/1985        | -90.0                                    | -12.45                                    |
| 11/29/1984       | -89.0                                    | -12.25                                    |
| 9/19/1984        | -91.0                                    | -12.85                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Puyallup River At Puyallup**

Station Number **12101500**

Hydrologic Unit Code: 17110014

Drainage Area  
(square miles): 948

Latitude: 47° 12' 52"

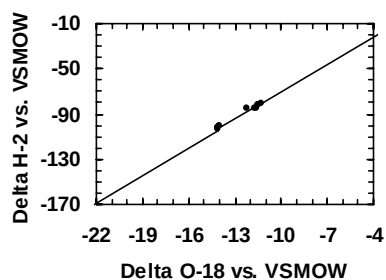
Datum (ft):

Longitude: 122° 20' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/26/1987        | -100.2                                   | -13.94                                    |
| 8/5/1986         | -102.0                                   | -14.14                                    |
| 5/19/1986        | -80.3                                    | -11.24                                    |
| 2/19/1986        | -82.5                                    | -11.54                                    |
| 11/19/1985       | -81.5                                    | -11.50                                    |
| 8/19/1985        | -103.5                                   | -14.13                                    |
| 5/13/1985        | -84.9                                    | -12.20                                    |
| 3/4/1985         | -85.0                                    | -11.60                                    |
| 11/26/1984       | -85.0                                    | -11.65                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Snohomish River Near Monroe**

Station Number **12150800**

Hydrologic Unit Code: 17110011

Drainage Area  
(square miles): 1537

Latitude: 47° 49' 52"

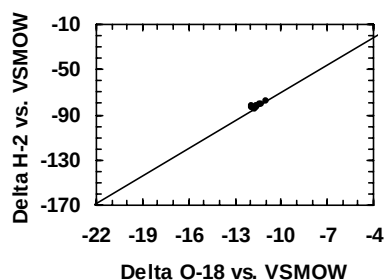
Datum (ft): 13.25

Longitude: 122° 02' 50"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1986         | -82.8                                    | -11.59                                    |
| 5/20/1986        | -83.0                                    | -11.92                                    |
| 2/20/1986        | -80.2                                    | -11.37                                    |
| 11/20/1985       | -77.8                                    | -10.96                                    |
| 8/21/1985        | -84.5                                    | -11.69                                    |
| 5/14/1985        | -81.8                                    | -11.95                                    |
| 3/5/1985         | -83.0                                    | -11.60                                    |
| 11/27/1984       | -81.0                                    | -11.25                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Skagit River Near Mount Vernon**

Station Number **12200500**

Hydrologic Unit Code: 17110007

Drainage Area  
(square miles): 3093

Latitude: 48° 26' 42"

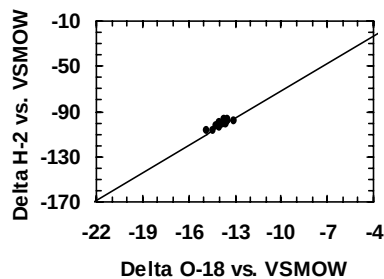
Datum (ft): 0

Longitude: 122° 20' 03"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 1/7/1986         | -100.4                                   | -13.76                                    |
| 11/28/1984       | -100.5                                   | -13.55                                    |
| 1/29/1985        | -106.0                                   | -14.40                                    |
| 3/6/1985         | -104.0                                   | -13.95                                    |
| 5/15/1985        | -97.4                                    | -13.50                                    |
| 7/17/1985        | -107.0                                   | -14.85                                    |
| 9/18/1984        | -102.5                                   | -14.20                                    |
| 11/21/1985       | -99.2                                    | -13.57                                    |
| 9/9/1987         | -100.0                                   | -13.87                                    |
| 3/26/1986        | -97.1                                    | -13.48                                    |
| 5/21/1986        | -97.2                                    | -13.10                                    |
| 7/25/1986        | -101.8                                   | -14.12                                    |
| 1/28/1987        | -96.0                                    | -13.45                                    |
| 5/8/1987         | -96.6                                    | -13.65                                    |
| 7/7/1987         | -100.6                                   | -13.84                                    |
| 9/25/1985        | -99.1                                    | -13.99                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Pend Oreille River At International Boundary**

Station Number **12398600**

Hydrologic Unit Code: 17010216

Drainage Area  
(square miles): 25200

Latitude: 48° 59' 56"

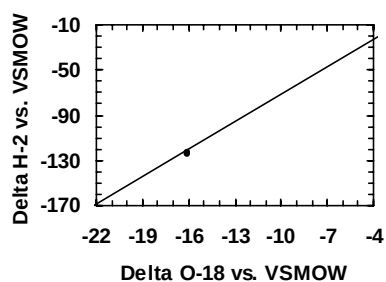
Datum (ft): 1700

Longitude: 117° 21' 09"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 11/6/1985        | -124.9                                   | -16.07                                    |
| 10/24/1984       | -123.0                                   | -16.10                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Washington**

Station Name: **Columbia River At Northport**

Station Number **12400520**

Hydrologic Unit Code: 17020001

Drainage Area  
(square miles): 60200

Latitude: 48° 55' 21"

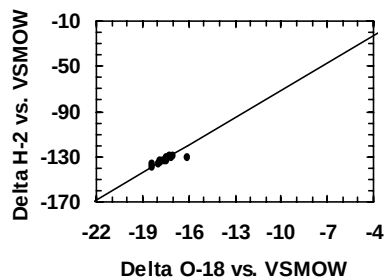
Datum (ft):

Longitude: 117° 46' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/20/1986        | -133.6                                   | -17.57                                    |
| 11/13/1984       | -132.0                                   | -17.45                                    |
| 2/12/1985        | -136.0                                   | -18.40                                    |
| 5/22/1985        | -129.8                                   | -17.43                                    |
| 7/15/1985        | -134.4                                   | -17.82                                    |
| 9/18/1985        | -130.7                                   | -17.12                                    |
| 9/12/1984        | -136.5                                   | -17.95                                    |
| 3/12/1986        | -129.4                                   | -17.21                                    |
| 9/1/1987         | -135.0                                   | -17.88                                    |
| 9/3/1986         | -75.1                                    |                                           |
| 11/18/1986       | -130.4                                   | -16.07                                    |
| 1/21/1987        | -138.6                                   | -18.38                                    |
| 3/18/1987        | -132.7                                   | -17.41                                    |
| 5/20/1987        | -129.1                                   | -16.97                                    |
| 7/8/1987         | -133.5                                   | -17.87                                    |
| 1/29/1986        | -133.6                                   | -17.63                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Spokane River At Long Lake**

Station Number **12433000**

Hydrologic Unit Code: 17010307

Drainage Area  
(square miles): 6020

Latitude: 47° 50' 12"

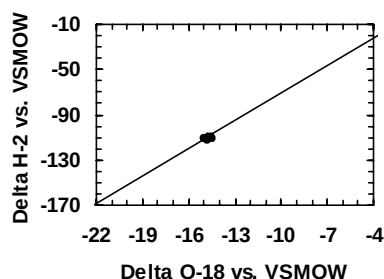
Datum (ft): 1299

Longitude: 117° 50' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/2/1986         | -109.9                                   | -14.52                                    |
| 7/17/1986        | -109.3                                   | -14.67                                    |
| 3/5/1986         | -111.0                                   | -14.88                                    |
| 1/13/1986        | -110.5                                   | -14.77                                    |
| 11/21/1985       | -110.8                                   | -14.74                                    |
| 9/4/1985         | -112.3                                   | -14.67                                    |
| 7/10/1985        | -111.7                                   | -14.79                                    |
| 5/28/1985        | -110.4                                   | -15.02                                    |
| 1/16/1985        | -111.0                                   | -14.90                                    |
| 11/15/1984       | -109.0                                   | -14.50                                    |
| 9/13/1984        | -110.0                                   | -14.40                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Okanogan River At Malott**

Station Number **12447200**

Hydrologic Unit Code: 17020006

Drainage Area  
(square miles): 8080

Latitude: 48° 16' 53"

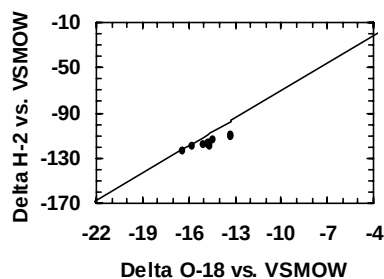
Datum (ft): 790

Longitude: 119° 42' 12"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1987         | -113.6                                   | -14.36                                    |
| 6/17/1987        | -118.7                                   | -15.78                                    |
| 2/3/1987         | -118.2                                   | -15.07                                    |
| 10/8/1986        | -115.6                                   | -14.61                                    |
| 10/6/1986        | -109.3                                   | -13.24                                    |
| 8/14/1986        | -109.9                                   | -13.27                                    |
| 8/5/1985         | -117.6                                   | -14.69                                    |
| 6/6/1985         | -123.6                                   | -16.36                                    |
| 2/4/1985         | -118.5                                   | -14.60                                    |
| 10/17/1984       | -116.5                                   | -14.70                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Andrews Creek Near Mazama**

Station Number **12447390**

Hydrologic Unit Code: 17020008

Drainage Area  
(square miles): 22.1

Latitude: 48° 49' 23"

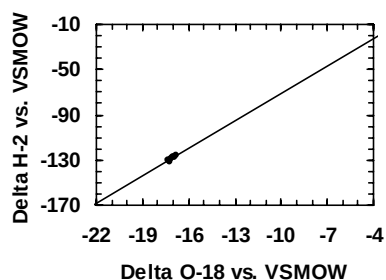
Datum (ft): 4300

Longitude: 120° 08' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 10/7/1987        | -127.7                                   | -16.97                                    |
| 8/4/1987         | -127.3                                   | -16.85                                    |
| 6/16/1987        | -126.4                                   | -16.80                                    |
| 2/19/1987        | -129.9                                   | -17.28                                    |
| 8/13/1986        | -129.2                                   | -17.08                                    |
| 8/6/1985         | -131.8                                   | -17.22                                    |
| 6/4/1985         | -130.4                                   | -17.23                                    |
| 10/16/1984       | -127.0                                   | -16.95                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Columbia River At Vernita Br Near Priest Rapids Dam**

Station Number **12472900**

Hydrologic Unit Code: 17020016

Drainage Area  
(square miles): 96000

Latitude: 46° 38' 24"

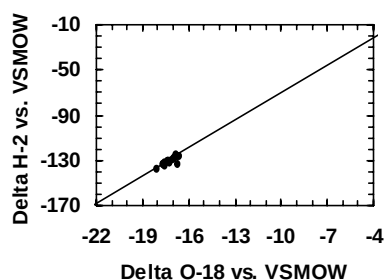
Datum (ft):

Longitude: 119° 43' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/27/1986        | -125.3                                   | -16.76                                    |
| 11/14/1984       | -131.0                                   | -17.30                                    |
| 1/22/1985        | -134.0                                   | -17.55                                    |
| 3/26/1985        | -137.5                                   | -18.05                                    |
| 5/28/1985        | -126.0                                   | -16.76                                    |
| 7/29/1985        | -126.9                                   | -16.88                                    |
| 9/30/1985        | -132.6                                   | -16.74                                    |
| 12/17/1985       | -132.3                                   | -17.17                                    |
| 9/11/1984        | -129.5                                   | -17.05                                    |
| 3/12/1986        | -133.7                                   | -17.66                                    |
| 9/2/1987         | -130.3                                   | -17.25                                    |
| 7/21/1986        | -127.5                                   | -16.88                                    |
| 9/25/1986        | -132.4                                   | -17.50                                    |
| 11/12/1986       | -131.5                                   | -17.26                                    |
| 1/21/1987        | -130.8                                   | -17.35                                    |
| 3/10/1987        | -133.8                                   | -17.67                                    |
| 5/19/1987        | -126.0                                   | -16.54                                    |
| 7/7/1987         | -125.8                                   | -16.73                                    |
| 1/21/1986        | -133.3                                   | -17.56                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Columbia River At Richland**

Station Number **12473520**

Hydrologic Unit Code: 17020016

Drainage Area  
(square miles): 96900

Latitude:

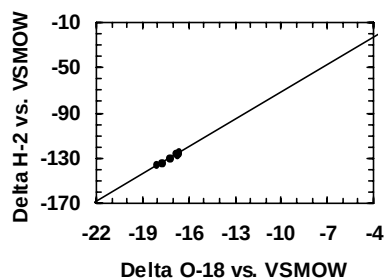
Datum (ft):

Longitude:

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/8/1987         | -125.8                                   | -16.64                                    |
| 5/20/1987        | -125.9                                   | -16.64                                    |
| 3/9/1987         | -134.8                                   | -17.74                                    |
| 5/28/1986        | -126.5                                   | -16.77                                    |
| 3/12/1986        | -134.1                                   | -17.63                                    |
| 12/18/1985       | -129.8                                   | -17.14                                    |
| 7/30/1985        | -128.0                                   | -16.74                                    |
| 5/29/1985        | -125.0                                   | -16.61                                    |
| 3/27/1985        | -136.0                                   | -18.06                                    |
| 11/15/1984       | -130.7                                   | -17.25                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Yakima River Above Ahtanum Creek At Union Gap**

Station Number **12500450**

Hydrologic Unit Code: 17030003

Drainage Area  
(square miles): 3479

Latitude: 46° 32' 04"

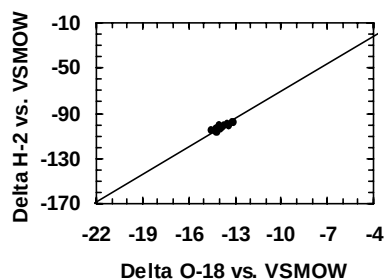
Datum (ft): 900

Longitude: 120° 27' 58"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 1/27/1986        | -105.7                                   | -14.13                                    |
| 11/8/1984        | -103.0                                   | -13.90                                    |
| 1/8/1985         | -103.5                                   | -14.05                                    |
| 3/13/1985        | -106.0                                   | -14.20                                    |
| 5/8/1985         | -104.8                                   | -14.53                                    |
| 7/15/1985        | -100.6                                   | -13.98                                    |
| 7/15/1985        | -99.9                                    | -13.70                                    |
| 9/11/1984        | -100.0                                   | -13.95                                    |
| 11/5/1985        | -99.9                                    | -13.38                                    |
| 9/10/1987        | -98.0                                    | -13.11                                    |
| 5/10/1986        | -103.7                                   | -14.24                                    |
| 9/22/1986        | -98.8                                    | -13.48                                    |
| 11/5/1986        | -102.3                                   | -13.79                                    |
| 2/6/1987         | -103.4                                   | -14.06                                    |
| 3/25/1987        | -104.2                                   | -14.16                                    |
| 5/14/1987        | -103.9                                   | -14.08                                    |
| 8/11/1987        | -97.6                                    | -13.05                                    |
| 9/17/1985        | -100.6                                   | -13.41                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Yakima River At Kiona**

Station Number **12510500**

Hydrologic Unit Code: 17030003

Drainage Area  
(square miles): 5615

Latitude: 46° 15' 13"

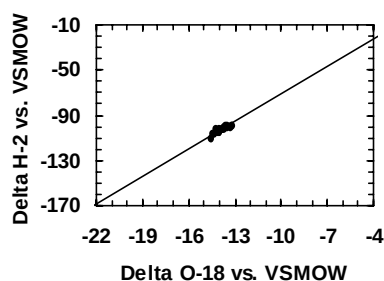
Datum (ft): 454.41

Longitude: 119° 28' 37"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/11/1986        | -110.3                                   | -14.54                                    |
| 11/20/1984       | -102.0                                   | -13.95                                    |
| 1/21/1985        | -105.0                                   | -14.00                                    |
| 3/11/1985        | -106.5                                   | -14.30                                    |
| 5/1/1985         | -102.5                                   | -14.16                                    |
| 7/10/1985        | -102.7                                   | -13.83                                    |
| 9/11/1985        | -99.7                                    | -13.43                                    |
| 9/10/1984        | -101.0                                   |                                           |
| 1/8/1986         | -105.1                                   | -13.99                                    |
| 9/15/1987        | -100.7                                   | -13.22                                    |
| 7/1/1986         | -101.2                                   | -13.70                                    |
| 9/15/1986        | -100.4                                   | -13.45                                    |
| 11/4/1986        | -102.7                                   | -13.80                                    |
| 1/20/1987        | -104.6                                   | -14.10                                    |
| 3/19/1987        | -106.9                                   | -14.41                                    |
| 5/21/1987        | -101.6                                   | -13.71                                    |
| 8/20/1987        | -99.3                                    | -13.15                                    |
| 11/15/1985       | -99.6                                    | -13.56                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Washington**

Station Name: **Snake River At Burbank**

Station Number **13353200**

Hydrologic Unit Code: 17060110

Drainage Area  
(square miles): 108800

Latitude: 46° 12' 59"

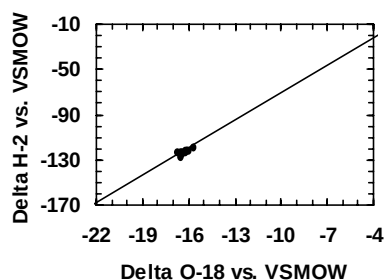
Datum (ft):

Longitude: 119° 01' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -119.7                                   | -15.63                                    |
| 4/28/1987        | -122.3                                   | -16.09                                    |
| 3/11/1987        | -127.6                                   | -16.44                                    |
| 11/10/1986       | -123.2                                   | -16.12                                    |
| 8/12/1986        | -122.7                                   | -16.38                                    |
| 5/28/1986        | -123.2                                   | -16.47                                    |
| 5/8/1986         | -124.6                                   | -16.48                                    |
| 3/10/1986        | -122.2                                   | -16.10                                    |
| 11/26/1985       | -121.9                                   | -15.95                                    |
| 5/21/1985        | -123.1                                   | -16.70                                    |
| 2/9/1985         | -125.0                                   | -16.40                                    |
| 11/19/1984       | -122.0                                   | -16.15                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Klickitat River Near Pitt**

Station Number **14113000**

Hydrologic Unit Code: 17070106

Drainage Area  
(square miles): 1297

Latitude: 45° 45' 24"

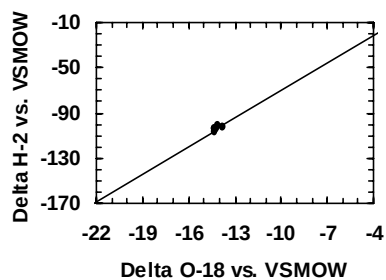
Datum (ft): 288.9

Longitude: 121° 12' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/21/1986        | -102.9                                   | -14.18                                    |
| 2/11/1986        | -103.0                                   | -14.20                                    |
| 11/5/1985        | -102.3                                   | -13.77                                    |
| 8/20/1985        | -106.4                                   | -14.28                                    |
| 5/15/1985        | -103.0                                   | -14.35                                    |
| 2/13/1985        | -103.5                                   | -14.30                                    |
| 11/6/1984        | -100.0                                   | -14.05                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Lewis River At Ariel**

Station Number **14220500**

Hydrologic Unit Code: 17080002

Drainage Area  
(square miles): 731

Latitude: 45° 57' 07"

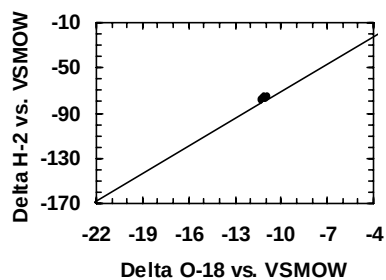
Datum (ft): 44

Longitude: 122° 33' 46"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1986         | -76.2                                    | -11.14                                    |
| 3/5/1986         | -75.8                                    | -11.09                                    |
| 10/29/1985       | -75.2                                    | -10.89                                    |
| 7/26/1985        | -77.5                                    | -11.24                                    |
| 4/15/1985        | -76.8                                    | -10.99                                    |
| 1/23/1985        | -76.1                                    | -11.10                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Washington**

Station Name: **Cowlitz River At Kelso**

Station Number **14244200**

Hydrologic Unit Code: 17080005

Drainage Area  
(square miles): 2349

Latitude: 46° 08' 44"

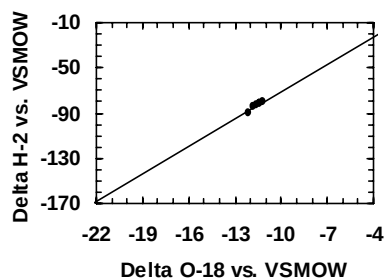
Datum (ft):

Longitude: 122° 54' 47"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/23/1986        | -84.0                                    | -11.83                                    |
| 8/1/1985         | -88.7                                    | -12.17                                    |
| 6/14/1985        | -81.8                                    | -11.63                                    |
| 4/18/1985        | -80.0                                    | -11.21                                    |
| 2/20/1985        | -81.2                                    | -11.43                                    |
| 12/20/1984       | -81.0                                    | -11.43                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **West Virginia**

Station Name: **Potomac River At Shepherdstown**

Station Number **01618000**

Hydrologic Unit Code: 02070004

Drainage Area  
(square miles): 5936

Latitude: 39° 26' 04"

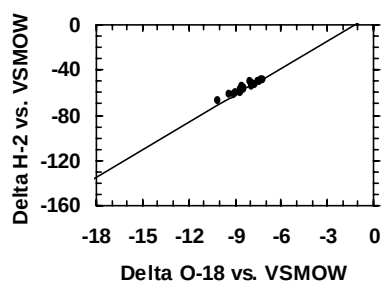
Datum (ft): 281

Longitude: 77° 48' 07"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/5/1986         | -55.0                                    | -8.47                                     |
| 3/11/1985        | -60.8                                    | -9.10                                     |
| 5/1/1985         | -58.3                                    | -8.59                                     |
| 7/1/1985         | -53.5                                    | -7.91                                     |
| 9/3/1985         | -52.0                                    | -7.69                                     |
| 11/4/1985        | -51.6                                    | -7.87                                     |
| 11/6/1985        | -49.9                                    | -8.02                                     |
| 1/7/1985         | -54.5                                    | -8.55                                     |
| 3/3/1986         | -59.6                                    | -8.94                                     |
| 9/8/1987         | -48.6                                    | -7.18                                     |
| 7/1/1986         | -49.4                                    | -7.35                                     |
| 9/2/1986         | -48.2                                    | -7.23                                     |
| 11/17/1986       | -58.8                                    | -8.65                                     |
| 1/5/1987         | -55.9                                    | -8.66                                     |
| 3/5/1987         | -66.9                                    | -10.11                                    |
| 5/11/1987        | -60.9                                    | -9.35                                     |
| 7/6/1987         | -50.2                                    | -7.53                                     |
| 1/7/1986         | -56.0                                    | -8.38                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **West Virginia**

Station Name: **Shenandoah River At Millville**

Station Number **01636500**

Hydrologic Unit Code: 02070007

Drainage Area  
(square miles): 3040

Latitude: 39° 16' 55"

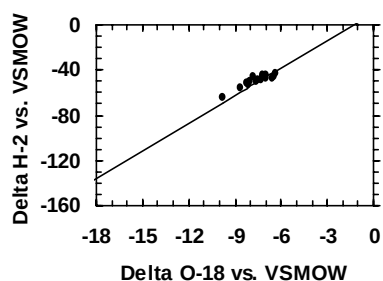
Datum (ft): 293

Longitude: 77° 47' 22"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/5/1986         | -49.1                                    | -7.61                                     |
| 3/11/1985        | -51.0                                    | -8.15                                     |
| 5/1/1985         | -48.7                                    | -7.49                                     |
| 7/1/1985         | -46.3                                    | -6.95                                     |
| 9/3/1985         | -47.9                                    | -7.33                                     |
| 11/4/1985        | -43.2                                    | -7.14                                     |
| 11/6/1985        | -44.9                                    | -7.79                                     |
| 1/7/1985         | -52.0                                    | -8.15                                     |
| 3/4/1986         | -51.5                                    | -8.23                                     |
| 9/8/1987         | -41.9                                    | -6.36                                     |
| 7/1/1986         | -45.4                                    | -6.40                                     |
| 9/2/1986         | -46.8                                    | -6.55                                     |
| 11/17/1986       | -44.9                                    | -7.23                                     |
| 1/5/1987         | -50.2                                    | -8.02                                     |
| 3/5/1987         | -64.0                                    | -9.81                                     |
| 5/11/1987        | -54.6                                    | -8.61                                     |
| 7/6/1987         | -43.9                                    | -6.97                                     |
| 1/6/1986         | -51.3                                    | -8.07                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **West Virginia**

Station Name: **Ohio River At Benwood Near Wheeling**

Station Number **03112510**

Hydrologic Unit Code: 05030106

Drainage Area  
(square miles): 25070

Latitude: 40° 00' 54"

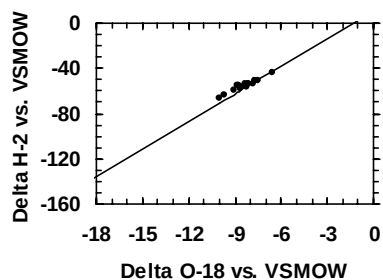
Datum (ft):

Longitude: 80° 44' 20"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/28/1987        | -56.0                                    | -8.18                                     |
| 5/19/1987        | -60.0                                    | -9.10                                     |
| 4/1/1987         | -43.9                                    | -6.54                                     |
| 3/24/1987        | -66.9                                    | -10.01                                    |
| 2/3/1987         | -56.6                                    | -8.50                                     |
| 11/19/1986       | -50.4                                    | -7.75                                     |
| 8/13/1986        | -54.4                                    | -7.80                                     |
| 6/4/1986         | -58.2                                    | -8.61                                     |
| 2/11/1986        | -64.2                                    | -9.67                                     |
| 12/12/1985       | -54.3                                    | -8.12                                     |
| 8/6/1985         | -50.8                                    | -7.49                                     |
| 6/4/1985         | -53.4                                    | -8.32                                     |
| 4/2/1985         | -55.1                                    | -8.81                                     |
| 12/18/1984       | -55.5                                    | -8.78                                     |
| 11/7/1984        | -53.5                                    | -8.13                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **West Virginia**

Station Name: **Little Kanawha River At Palestine**

Station Number **03155000**

Hydrologic Unit Code: 05030203

Drainage Area  
(square miles): 1515

Latitude: 39° 03' 35"

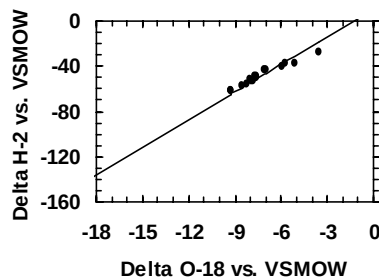
Datum (ft): 585.51

Longitude: 81° 23' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/2/1986         | -49.8                                    | -7.64                                     |
| 12/17/1984       | -47.7                                    | -7.70                                     |
| 4/3/1985         | -51.0                                    | -8.03                                     |
| 6/3/1985         | -48.6                                    | -7.60                                     |
| 8/5/1985         | -39.5                                    | -5.89                                     |
| 12/10/1985       | -56.9                                    | -8.58                                     |
| 11/14/1984       | -42.7                                    | -7.00                                     |
| 4/7/1986         | -51.9                                    | -7.77                                     |
| 9/1/1987         | -26.4                                    | -3.52                                     |
| 8/12/1986        | -37.2                                    | -5.72                                     |
| 11/18/1986       | -42.9                                    | -7.09                                     |
| 2/4/1987         | -61.5                                    | -9.29                                     |
| 3/23/1987        | -52.3                                    | -7.91                                     |
| 5/18/1987        | -55.1                                    | -8.18                                     |
| 7/28/1987        | -37.2                                    | -5.14                                     |
| 2/10/1986        | -61.1                                    | -9.23                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **West Virginia**

Station Name: **Kanawha River At Winfield**

Station Number **03201300**

Hydrologic Unit Code: 05050008

Drainage Area  
(square miles): 11809

Latitude: 38° 31' 32"

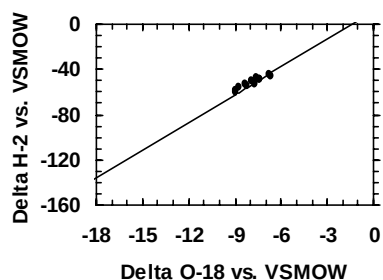
Datum (ft):

Longitude: 81° 54' 40"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/31/1987        | -45.1                                    | -6.63                                     |
| 6/26/1987        | -48.6                                    | -7.43                                     |
| 3/30/1987        | -57.4                                    | -8.94                                     |
| 12/31/1986       | -49.7                                    | -7.96                                     |
| 9/8/1986         | -43.6                                    | -6.75                                     |
| 7/25/1986        | -48.2                                    | -7.35                                     |
| 3/27/1986        | -59.4                                    | -8.90                                     |
| 12/12/1985       | -53.9                                    | -8.26                                     |
| 7/24/1985        | -52.1                                    | -7.74                                     |
| 5/15/1985        | -52.5                                    | -8.35                                     |
| 3/5/1985         | -54.6                                    | -8.77                                     |
| 11/15/1984       | -47.1                                    | -7.64                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **West Virginia**

Station Name: **Guyandotte River At Branchland**

Station Number **03204000**

Hydrologic Unit Code: 05070102

Drainage Area  
(square miles): 1224

Latitude: 38° 13' 15"

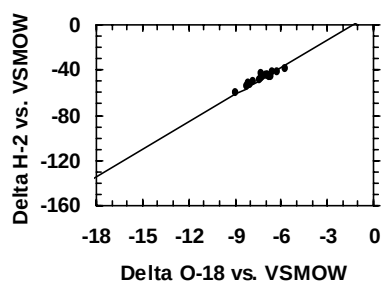
Datum (ft): 547.91

Longitude: 82° 12' 10"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/22/1986        | -52.1                                    | -8.01                                     |
| 12/18/1984       | -43.1                                    | -7.33                                     |
| 3/6/1985         | -49.8                                    | -7.84                                     |
| 6/12/1985        | -46.0                                    | -7.29                                     |
| 7/23/1985        | -43.7                                    | -6.86                                     |
| 9/4/1985         | -41.6                                    | -6.59                                     |
| 11/25/1985       | -47.8                                    | -7.40                                     |
| 10/17/1984       | -44.3                                    | -7.00                                     |
| 3/26/1986        | -52.3                                    | -8.07                                     |
| 9/2/1987         | -37.6                                    | -5.68                                     |
| 7/31/1986        | -41.6                                    | -6.26                                     |
| 9/8/1986         | -44.8                                    | -6.79                                     |
| 12/11/1986       | -44.7                                    | -7.15                                     |
| 2/24/1987        | -53.4                                    | -8.25                                     |
| 5/7/1987         | -58.8                                    | -8.90                                     |
| 6/25/1987        | -43.5                                    | -6.88                                     |
| 7/29/1987        | -45.9                                    | -6.62                                     |
| 2/4/1986         | -51.4                                    | -8.06                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wisconsin**

Station Name: **Nemadji River Near South Superior**

Station Number **04024430**

Hydrologic Unit Code: 04010301

Drainage Area  
(square miles): 420

Latitude: 46° 38' 00"

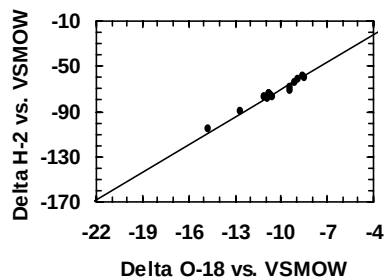
Datum (ft):

Longitude: 92° 05' 38"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/7/1986         | -104.2                                   | -14.69                                    |
| 2/19/1985        | -76.4                                    | -11.04                                    |
| 4/15/1985        | -89.3                                    | -12.65                                    |
| 6/25/1985        | -67.4                                    | -9.44                                     |
| 8/12/1985        | -63.8                                    | -9.09                                     |
| 10/8/1985        | -73.2                                    | -10.78                                    |
| 1/8/1985         | -74.3                                    | -10.77                                    |
| 3/4/1986         | -76.8                                    | -11.07                                    |
| 10/6/1987        | -70.2                                    | -9.38                                     |
| 6/26/1986        | -58.1                                    | -8.62                                     |
| 8/20/1986        | -60.8                                    | -8.88                                     |
| 1/21/1987        | -77.1                                    | -10.88                                    |
| 3/3/1987         | -77.5                                    | -10.92                                    |
| 4/13/1987        | -76.3                                    | -10.56                                    |
| 8/24/1987        | -59.7                                    | -8.46                                     |
| 1/8/1986         | -75.0                                    | -10.65                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wisconsin**

Station Name: **Bad River Near Odanah**

Station Number **04027595**

Hydrologic Unit Code: 04010302

Drainage Area  
(square miles): 597

Latitude: 46° 36' 37"

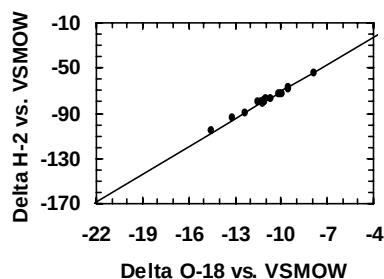
Datum (ft): 668.3

Longitude: 90° 41' 13"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/25/1986        | -68.5                                    | -9.57                                     |
| 2/28/1985        | -77.7                                    | -11.05                                    |
| 4/16/1985        | -93.5                                    | -13.17                                    |
| 6/26/1985        | -72.9                                    | -10.17                                    |
| 8/13/1985        | -53.8                                    | -7.90                                     |
| 10/9/1985        | -80.0                                    | -11.46                                    |
| 1/8/1986         | -79.1                                    | -11.09                                    |
| 1/9/1985         | -76.7                                    | -10.94                                    |
| 4/8/1986         | -104.4                                   | -14.49                                    |
| 10/14/1987       | -77.2                                    | -10.69                                    |
| 8/21/1986        | -72.3                                    | -9.90                                     |
| 11/12/1986       | -80.0                                    | -11.25                                    |
| 1/7/1987         | -79.5                                    | -11.11                                    |
| 2/25/1987        | -80.6                                    | -11.21                                    |
| 4/2/1987         | -89.5                                    | -12.30                                    |
| 6/3/1987         | -67.2                                    | -9.47                                     |
| 8/19/1987        | -72.9                                    | -10.02                                    |
| 3/5/1986         | -79.7                                    | -11.23                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wisconsin**

Station Name: **Popple River Near Fence**

Station Number **04063700**

Hydrologic Unit Code: 04030106

Drainage Area  
(square miles): 139

Latitude: 45° 45' 49"

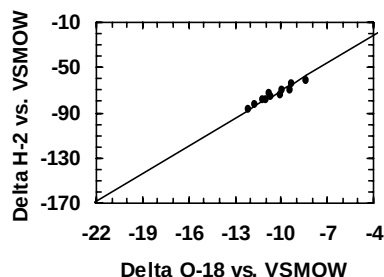
Datum (ft): 1406.16

Longitude: 88° 27' 47"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -60.6                                    | -8.37                                     |
| 5/13/1987        | -73.4                                    | -10.02                                    |
| 1/21/1987        | -78.4                                    | -11.14                                    |
| 11/19/1986       | -74.5                                    | -10.69                                    |
| 8/7/1986         | -69.0                                    | -9.42                                     |
| 4/22/1986        | -86.3                                    | -12.13                                    |
| 1/29/1986        | -77.6                                    | -11.00                                    |
| 11/13/1985       | -72.9                                    | -10.73                                    |
| 9/4/1985         | -63.7                                    | -9.29                                     |
| 6/26/1985        | -69.3                                    | -9.95                                     |
| 3/6/1985         | -82.1                                    | -11.68                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wisconsin**

Station Name: **Menominee River Near McAllister**

Station Number **04067500**

Hydrologic Unit Code: 04030106

Drainage Area  
(square miles): 3930

Latitude: 45° 19' 33"

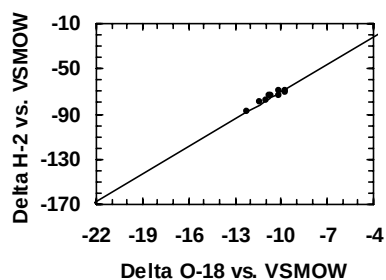
Datum (ft): 630

Longitude: 87° 39' 48"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/6/1986         | -71.3                                    | -9.75                                     |
| 6/24/1986        | -73.8                                    | -10.10                                    |
| 4/23/1986        | -87.7                                    | -12.20                                    |
| 3/12/1986        | -77.7                                    | -10.98                                    |
| 12/18/1985       | -74.3                                    | -10.63                                    |
| 11/14/1985       | -69.2                                    | -10.18                                    |
| 9/5/1985         | -69.8                                    | -9.74                                     |
| 3/7/1985         | -79.9                                    | -11.39                                    |
| 1/24/1985        | -73.9                                    | -10.79                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wisconsin**

Station Name: **Milwaukee River At Milwaukee**

Station Number **04087000**

Hydrologic Unit Code: 04040003

Drainage Area  
(square miles): 696

Latitude: 43° 06' 00"

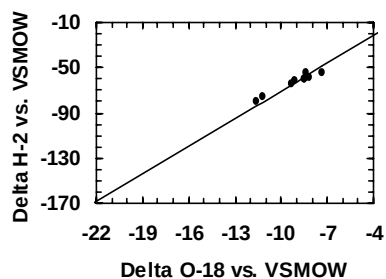
Datum (ft): 607.23

Longitude: 87° 54' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 3/26/1987        | -64.0                                    | -9.30                                     |
| 11/11/1986       | -58.0                                    | -8.38                                     |
| 7/15/1986        | -59.3                                    | -8.43                                     |
| 5/29/1986        | -58.9                                    | -8.52                                     |
| 3/25/1986        | -79.0                                    | -11.55                                    |
| 11/13/1985       | -60.9                                    | -9.11                                     |
| 8/27/1985        | -53.5                                    | -7.32                                     |
| 6/18/1985        | -58.6                                    | -8.21                                     |
| 3/12/1985        | -75.5                                    | -11.19                                    |
| 12/5/1984        | -53.6                                    | -8.35                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wisconsin**

Station Name: **Black River Near Galesville**

Station Number **05382000**

Hydrologic Unit Code: 07040007

Drainage Area  
(square miles): 2080

Latitude: 44° 04' 22"

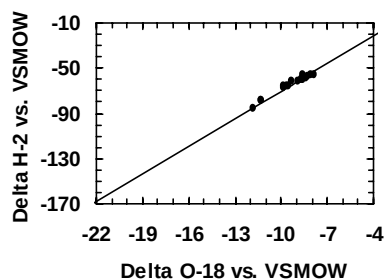
Datum (ft): 658.43

Longitude: 91° 17' 41"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/24/1986        | -58.8                                    | -8.59                                     |
| 2/27/1985        | -77.9                                    | -11.24                                    |
| 4/3/1985         | -77.6                                    | -11.28                                    |
| 6/19/1985        | -59.9                                    | -8.73                                     |
| 8/7/1985         | -59.4                                    | -8.57                                     |
| 10/2/1985        | -55.8                                    | -8.56                                     |
| 1/6/1986         | -64.7                                    | -9.54                                     |
| 1/16/1985        | -66.9                                    | -9.86                                     |
| 4/29/1986        | -65.5                                    | -9.80                                     |
| 8/25/1987        | -55.1                                    | -8.08                                     |
| 9/3/1986         | -57.1                                    | -8.31                                     |
| 11/4/1986        | -60.3                                    | -8.90                                     |
| 1/13/1987        | -61.4                                    | -9.30                                     |
| 3/1/1987         | -85.0                                    | -11.83                                    |
| 5/12/1987        | -58.3                                    | -8.38                                     |
| 7/21/1987        | -55.3                                    | -7.81                                     |
| 3/6/1986         | -64.9                                    | -9.58                                     |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Wyoming**

Station Name: **Wind River At Riverton**

Station Number **06228000**

Hydrologic Unit Code: 10080001

Drainage Area  
(square miles): 2309

Latitude: 43° 00' 38"

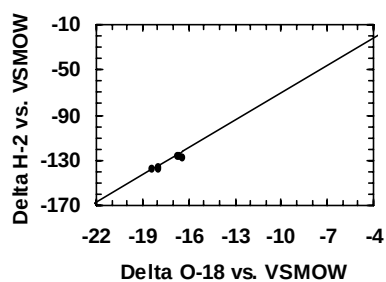
Datum (ft): 4901.56

Longitude: 108° 22' 32"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/8/1987         | -127.0                                   | -16.36                                    |
| 7/29/1987        | -125.6                                   | -16.67                                    |
| 5/26/1987        | -126.7                                   | -16.61                                    |
| 3/12/1987        | -137.1                                   | -17.93                                    |
| 1/12/1987        | -137.8                                   | -18.31                                    |
| 11/12/1986       | -136.4                                   | -17.96                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wyoming**

Station Name: **Wind River Below Boysen Reservoir**

Station Number **06259000**

Hydrologic Unit Code: 10080005

Drainage Area  
(square miles): 7701

Latitude: 43° 25' 30"

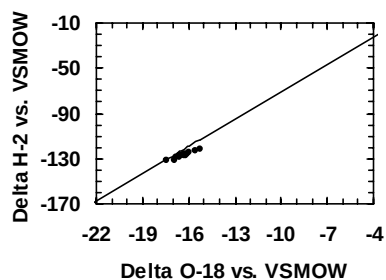
Datum (ft): 4608.58

Longitude: 108° 10' 42"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/15/1987        | -129.6                                   | -16.79                                    |
| 1/29/1987        | -128.8                                   | -16.55                                    |
| 12/15/1986       | -127.0                                   | -16.29                                    |
| 8/6/1986         | -132.1                                   | -16.94                                    |
| 6/9/1986         | -126.9                                   | -16.15                                    |
| 4/7/1986         | -125.1                                   | -15.97                                    |
| 2/5/1986         | -123.5                                   | -15.52                                    |
| 12/4/1985        | -132.0                                   | -17.41                                    |
| 10/3/1985        | -122.1                                   | -15.29                                    |
| 8/6/1985         | -126.3                                   | -16.04                                    |
| 6/5/1985         | -127.6                                   | -16.47                                    |
| 4/3/1985         | -127.8                                   | -16.54                                    |
| 2/11/1985        | -127.8                                   | -16.51                                    |
| 12/5/1984        | -126.7                                   | -16.24                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wyoming**

Station Name: **Encampment Riv Above Hog Park Creek Near Encampment**

Station Number **06623800**

Hydrologic Unit Code: 10180002

Drainage Area  
(square miles): 72.7

Latitude: 41° 01' 25"

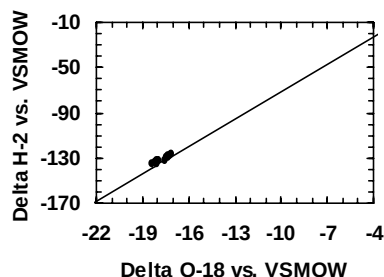
Datum (ft): 8270

Longitude: 106° 49' 27"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 8/19/1987        | -128.8                                   | -17.27                                    |
| 5/28/1987        | -127.4                                   | -17.34                                    |
| 3/25/1987        | -135.2                                   | -18.04                                    |
| 10/1/1986        | -126.4                                   | -17.16                                    |
| 8/27/1986        | -128.1                                   | -17.21                                    |
| 6/5/1986         | -131.7                                   | -17.90                                    |
| 3/12/1986        | -133.8                                   | -18.18                                    |
| 10/3/1985        | -128.6                                   | -17.42                                    |
| 8/27/1985        | -131.1                                   | -17.58                                    |
| 5/9/1985         | -133.9                                   | -18.34                                    |
| 1/8/1985         | -131.9                                   | -18.00                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wyoming**

Station Name: **North Platte River Above Seminole Reservoir Near Sinclair**

Station Number **06630000**

Hydrologic Unit Code: 10180002

Drainage Area  
(square miles): 4175

Latitude: 41° 52' 20"

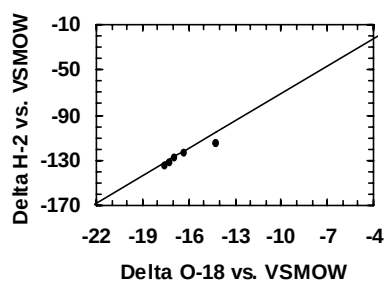
Datum (ft): 6400.75

Longitude: 107° 03' 25"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/16/1987        | -115.1                                   | -14.25                                    |
| 6/30/1987        | -114.4                                   | -14.18                                    |
| 5/18/1987        | -127.6                                   | -16.91                                    |
| 2/25/1987        | -133.9                                   | -17.57                                    |
| 12/1/1986        | -131.8                                   | -17.17                                    |
| 10/2/1986        | -123.7                                   | -16.27                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wyoming**

Station Name: **North Platte River At Alcova**

Station Number **06642000**

Hydrologic Unit Code: 10180007

Drainage Area  
(square miles): 10812

Latitude: 42° 34' 27"

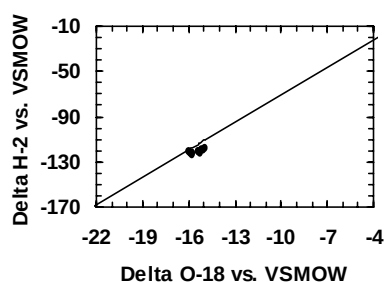
Datum (ft): 5299.4

Longitude: 106° 41' 31"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 7/1/1987         | -120.9                                   | -15.38                                    |
| 4/2/1987         | -121.9                                   | -15.28                                    |
| 8/5/1986         | -121.0                                   | -15.31                                    |
| 4/8/1986         | -119.5                                   | -15.09                                    |
| 2/12/1986        | -119.1                                   | -14.98                                    |
| 12/12/1985       | -117.4                                   | -14.96                                    |
| 10/8/1985        | -119.6                                   | -15.12                                    |
| 7/8/1985         | -123.6                                   | -15.74                                    |
| 5/14/1985        | -122.0                                   | -15.78                                    |
| 3/7/1985         | -120.5                                   | -15.92                                    |
| 1/9/1985         | -121.4                                   | -15.86                                    |
| 12/10/1984       | -122.5                                   | -15.80                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wyoming**

Station Name: **Green River Near La Barge**

Station Number **09209400**

Hydrologic Unit Code: 14040101

Drainage Area  
(square miles): 3910

Latitude: 42° 11' 34"

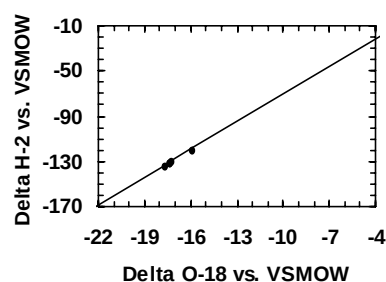
Datum (ft): 6520

Longitude: 110° 09' 45"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 6/16/1987        | -121.0                                   | -15.85                                    |
| 4/20/1987        | -134.9                                   | -17.63                                    |
| 2/18/1987        | -131.6                                   | -17.32                                    |
| 12/1/1986        | -131.1                                   | -17.28                                    |
| 10/3/1986        | -130.0                                   | -17.17                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wyoming**

Station Name: **Green River Near Green River**

Station Number **09217000**

Hydrologic Unit Code: 14040106

Drainage Area  
(square miles): 14000

Latitude: 41° 30' 59"

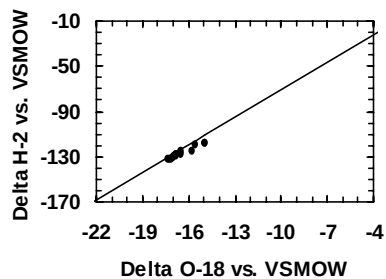
Datum (ft): 6060

Longitude: 109° 26' 54"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 4/15/1986        | -130.6                                   | -17.03                                    |
| 2/20/1985        | -127.3                                   | -16.84                                    |
| 4/24/1985        | -128.9                                   | -16.88                                    |
| 6/4/1985         | -124.4                                   | -16.44                                    |
| 8/14/1985        | -118.3                                   | -14.95                                    |
| 10/25/1985       | -125.1                                   | -15.74                                    |
| 12/13/1984       | -125.7                                   | -16.53                                    |
| 2/13/1986        | -131.3                                   | -17.15                                    |
| 8/18/1987        | -117.4                                   | -14.93                                    |
| 6/10/1986        | -128.6                                   | -16.87                                    |
| 8/5/1986         | -126.9                                   | -16.51                                    |
| 12/18/1986       | -132.1                                   | -17.26                                    |
| 2/19/1987        | -131.7                                   | -17.29                                    |
| 4/2/1987         | -130.3                                   | -17.01                                    |
| 6/17/1987        | -118.8                                   | -15.57                                    |
| 12/17/1985       | -128.6                                   | -16.81                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown



State: **Wyoming**

Station Name: **Bear River At Border**

Station Number **10039500**

Hydrologic Unit Code: 16010102

Drainage Area  
(square miles): 2486

Latitude: 42° 12' 40"

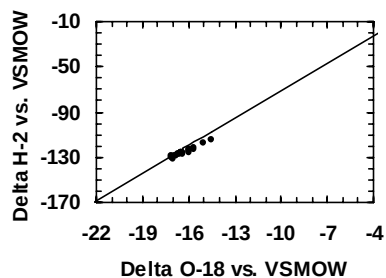
Datum (ft): 6051.63

Longitude: 111° 03' 11"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 9/3/1986         | -125.6                                   | -16.35                                    |
| 4/5/1985         | -131.5                                   | -17.06                                    |
| 5/29/1985        | -126.5                                   | -16.51                                    |
| 7/26/1985        | -121.3                                   | -15.61                                    |
| 9/25/1985        | -125.9                                   | -16.46                                    |
| 11/27/1985       | -129.1                                   | -17.11                                    |
| 1/22/1986        | -130.1                                   | -17.15                                    |
| 3/21/1986        | -126.9                                   | -16.42                                    |
| 12/7/1984        | -127.5                                   | -16.71                                    |
| 7/17/1986        | -126.7                                   | -16.51                                    |
| 10/5/1987        | -125.3                                   | -15.99                                    |
| 12/1/1986        | -128.8                                   | -16.75                                    |
| 1/20/1987        | -128.2                                   | -16.95                                    |
| 3/27/1987        | -126.7                                   | -16.47                                    |
| 6/2/1987         | -114.6                                   | -14.52                                    |
| 7/21/1987        | -118.0                                   | -15.05                                    |
| 8/10/1987        | -122.9                                   | -15.65                                    |
| 8/26/1987        | -122.6                                   | -15.93                                    |
| 9/3/1987         | -125.5                                   | -15.98                                    |
| 4/30/1986        | -127.4                                   | -16.61                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown





State: **Wyoming**

Station Name: **Cache Creek Near Jackson**

Station Number **13018300**

Hydrologic Unit Code: 17040103

Drainage Area  
(square miles): 10.6

Latitude: 43° 27' 08"

Datum (ft): 6750

Longitude: 110° 42' 12"

| Collection Date: | Delta H-2 in per mill relative to VSMOW: | Delta O-18 in per mill relative to VSMOW: |
|------------------|------------------------------------------|-------------------------------------------|
| 5/14/1986        | -134.1                                   | -18.06                                    |
| 1/8/1985         | -135.4                                   | -18.32                                    |
| 3/18/1985        | -135.7                                   | -18.27                                    |
| 5/16/1985        | -133.4                                   | -18.01                                    |
| 7/18/1985        | -135.2                                   | -18.15                                    |
| 9/17/1985        | -134.1                                   | -18.13                                    |
| 11/18/1985       | -135.1                                   | -18.20                                    |
| 11/15/1984       | -135.6                                   | -18.22                                    |
| 3/18/1986        | -134.0                                   | -18.13                                    |
| 9/18/1987        | -135.0                                   | -18.07                                    |
| 7/16/1986        | -134.1                                   | -18.07                                    |
| 9/18/1986        | -133.6                                   | -18.07                                    |
| 11/19/1986       | -135.2                                   | -18.08                                    |
| 1/14/1987        | -136.0                                   | -18.30                                    |
| 3/19/1987        | -135.9                                   | -18.16                                    |
| 5/23/1987        | -131.4                                   | -17.32                                    |
| 7/15/1987        | -134.6                                   | -18.10                                    |
| 1/13/1986        | -136.0                                   | -18.33                                    |

### Delta H-2 vs. Delta O-18

Global Meteoric Water Line  
(Rozanski and others, 1993) shown

