

Memorandum

STATE OF CALIFORNIA

THE RESOURCES AGENCY

Date: June 24,1986

To:

1. Peter Lee

2. Dick Kretsinger

3. James McDaniel

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From: Department of Water Resources

Subject: Salinity Unit Conversion Equations

Historically, the salinity of waterways in the Sacramento-San Joaquin Delta has been expressed as chlorinity (CL-), total dissolved solids (TDS), and, more recently, electrical conductivity (EC). Since monitoring the EC of water is simple and less expensive than for the other parameters, a greater number of grab samples and continuously monitored salinity samples have been analyzed for EC alone. However, it is desirable to convert EC data to its representative CL or TDS value for many reasons, including: the current definition of water quality criteria in State Water Resources Control Board Decision 1485, the need to express salinity in mass units in water quality simulation models, and the need to compare salinity data and analytical results with past studies and reports.

Computerization of Decision 1485 water quality monitoring data on the National Computer Center (NCC) IBM mainframe computer has facilitated an independent comparative analysis of CL-, TDS, and EC grab sample data monitored at numerous sites in the Delta (relationships have been formulated previously by the U. S. Bureau of Reclamation). Resulting conversion equations and analytical methodology used are reported herein. These equations revise and update similar work completed in 1984 and reported in the Delta Impact Analysis Hydrology and Water Quality Staff Paper.

This report is the product of a group effort. Appreciation is extended to the following people for their technical, editorial, and graphical support: Alan Ng, Robert Plath, Sam Ito, Vera Padjen, Frances O'Hare, and Pamela Casselman.



Data Base Documentation

Grab sample data analyzed for CL-, TDS, and EC were collected from 1968 through 1981 by the Department of Water Resources and the U. S. Bureau of Reclamation. Detailed documentation of the Rource data and data screening editing, and computerization using the Statistical Analysis System (SAS) software are presented in DWR's Preliminary Data Base Development Documentation and User's Guide (completed by the Delta Impact Analysis Program (DIA) in October 1984). (Specifically, these data are stored on the MIN_SOL SAS data set.) Figure 1 (GIF, 36 kb) and Table 1 (GIF, 64 kb) from that report are presented here to assist readers in identifying the monitoring sites for which conversion equations were developed (or attempted).

Only surface water samples (depths 4 feet or less) were included, and data were grouped according to water year type (critical and dry = DRY, above and below normal = NORMAL, and wet = WET). All Decision 1485 salinity samples were taken during the slack water following daylight high tides. Therefore, the conversion equations are not biased by salinity variability caused by daily tidal dynamics. The State Water Resources Control Board water year type classification is based on the Sacramento Valley unimpaired runoff and is defined in Water Right Decision 1485 (August 1978).



Analytical Methods

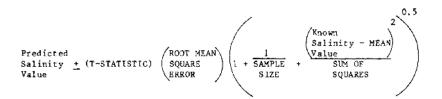
Plots of CL versus EC, TDS versus EC, and CL versus TDS were made initially to determine their relational form. Good linear relationships were observed for most stations, the exceptions being stations with low salinity values and a narrow salinity range (e.g., Sacramento River at Greens Landing). The simple linear regression technique performed by the SAS procedure RSQUARE (see SAS User's Guide: Statistics, Version 5 Edition, 1985) was used to determine the intercept, slope, and relevant statistics for the linear regression equations.

The general form of the resultant equations is:



where INTERCEPT and COEFF are determined using the regression analysis.

The SAS procedure MEANS was used to determine additional statistics required to express the model error expression (95 percent confidence interval for a predicted value). The general form of the model error expression used for determining the 95 percent confidence interval about a predicted salinity value is:



A separate regression was run between each pair of salinity variables for each station reported in Table I and for each water year type (ALL, DRY, NORMAL, and WET). In addition, a difference was observed in regression results when the independent and dependent salinity variables were switched (the direction of the conversion). This is attributed to the corresponding error of estimation for each of the two regression models. Therefore, a set of equations was developed for each of the following conversions: <u>Table of Equations</u>



Results

Results of the conversions are presented in Tables 2 through 7.

Each table is structured identically in the following columns:

| Table Headers | Description |
|-------------------------------|---|
| RKI STATION | River Kilometer Index Station Name |
| YEAR TYPE | ALL, DRY, NORMAL, and WET |
| INTERCEPT | Equation Intercept |
| COEFF | Equation Slope |
| SAMPLE SIZE | Number of observations used in the linear regression |
| R SQUARE | Equation r2 - Statistic, indication of goodness of fit between estimated regression line and sample data |
| ROOT MEAN SQUARE ERROR | Standard Deviation of the random error in the estimated regression (statistic used in model error expression) |
| MEAN | Arithmetic Mean of independent variable (statistic used in model error expression) |
| RANGE MINIMUM | Lowest independent variable value used in linear regression |
| RANGE MAXIMUM | Highest independent variable value used in linear regression |
| SUM OF SQUARES | Independent variable 55 (Statistic used in model error expression) |
| T-STATISTIC 95% CONFIDENCE | T-Statistic table entry for 95 percent confidence (alpha/2=0.025) and applicable sample size |

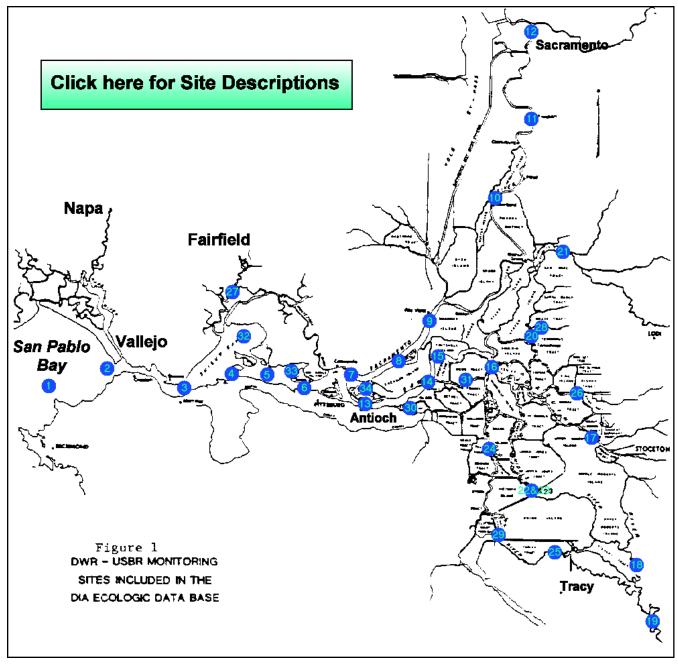
| Table 1 | | | | | | | | | | | |
|------------|-------|----------|----|-----|------|------|--|--|--|--|--|
| MONITORING | SITES | INCLUDED | IN | DIA | DATA | BASE | | | | | |

| Site ID | RKI Name | DWR Broad Water Number | USBR/DWR Number | SWRCB Site (D-1379) | Description | Record Begins |
|------------|----------|---------------------------|--------------------|------------------------|--|------------------|
| 1 | RSACØ32 | EØB 8018 2223 | D41 | | San Pablo Bay N of Pínole Pt at Lt 7 | 1971 |
| 2 | RSACØ4Ø | EØB 8035 2170 | D42 | 29 | E San Pablo Bay nr End Breakwater at Lt 15 | 1971 |
| 3 | RSACØ56 | EØB 8027 2070 | DØ6 | 2 | Sacramento River Ship Channel at Benicía Br | 1968 |
| 4 | RSACØ63 | EØB 8040 2030 | DØ2 | 30 | Suisun Bay SW of Preston Pt nr Lt 14 | 1968 |
| 5 | RSACØ68 | EØB 8Ø36 1593 | DØ8 | | Suisun Bay SW of Middle Ground at Lt 20 | 1968 |
| 6 | RSACØ75 | EØB 8028 1550 | D1Ø | 13 | Sacramento R at Old Railroad Br S of Chipps Is | 1968 |
| 7 | RSACØ84 | 89D 8Ø38 1492 | DØ4 | 14 | Sacramento River 1.5 km E of Pt Sacramento | 1971 |
| 8 | RSACØ92 | B9D 8Ø51 1443 | D22 | 15 | Sacramento River NW of Emmaton at Lt 15 | 1968 |
| 9 | RSAC1Ø1 | B9D 8Ø94 141Ø | D24 | 17 | Sacramento River at Rio Vista Br at Lt 34 | 1968 |
| 10 | RSAC139 | B9D 82Ø7 1327 | CØ3 | 16 | Sacramento R. at Greens Lndg 4 km SW of Hood | 1969 |
| 11 | RSAC155 | B9D 8273 1300 | 11447650* | | Sacramento River at Freeport | 1979 |
| 12 | RSAC175 | AØ2 1000 0000 | 11447500* | | Sacramento River at Sacramento, I-Street Br | 1956 |
| 13 | RSANØØ7 | B9D 8Ø12 1485 | D12 | 20 | San Joaquin R. at Antioch between Lts 7 and 8 | 1968 |
| 14 | RSANØ18 | B9D 8Ø31 1413 | D15 | 22 | San Joaquin River at Jersey Pt and Lt 24 | 1968 |
| 15 | RSANØ24 | B9D 8058 1401 | D16 | 28 | San Joaquin R. at N Tip of Bradford Is, Lt 33 | 1968 |
| 16 | RSANØ35 | B9D 8Ø47 134Ø | D26 | 24 | San Joaquín R. O.5 km SE of Potato Pt & Lt 53 | 1971 |
| 17 | RSANØ56 | B9D 7587 1229 | PØ8 | 27 | San Joaquin R. 1.5 km NW Rough/Ready Is, Lt 40 | 1972 |
| 18 | RSANØ87 | B9D 7472 1184 | CØ7 | | San Joaquin River at Mossdale at I-5 Br | 1973 |
| 19 | RSAN112 | BØ7 Ø2ØØ ØØØØ | C1Ø | 26 | San Joaquin River at Airport Way Br, Vernalis | 1968 |
| 20 | RSMKLØ9 | B9D 8Ø76 1297 | MDØ7 | | South Fork Mokelumne River below Sycamore S1 | 1974 |
| 21 | RMKLØ28 | B9D 8153 1263 | PØ2 | 6 | Mokelumne River at Franklin Rd Br | 1968 |
| 22 | RMID23 | 89D 7535 1293 | P1Ø | 5 | Middle River at Junction with Victoria Canal | 1968 |
| 23 | RMID23 | B9D 7535 1292 | P1ØA | | Middle River at Union Point | 1982 |
| 24 | ROLD21 | B9D 7582 1343 | D28A | 11 | Old River 0.5 km S of North Tip of Palm Tract | 1973 |
| 25 | ROLD59 | B9D 7483 1269 | P12 | | Old River at Tracy Road Br | 1970 |
| 26 | SLOPTØ7 | 89D 8Ø26 1251 | MD10 | | Disappointment Slough at Bishop Cut | 1974 |
| 27 | SLSUS12 | E3S 8108 2028 | S42 | 31 | Suisun Slough at Volanti Slough on Joice Is | 1968 |
| 28 | SLSYC4 | B9D 8Ø85 128Ø | MDØ6 | | Sycamore Slough 4 km E of Mouth | 1974 |
| 29 | CHWSTØ | B9D 7498 1332 | CØ9 | 8 | West Canal at Mouth of Clifton Court Intake | 1973 |
| 30 | LBG82 | B9D 8Ø11 1426 | D14A | 1 | Center of East Half of Big Break | 1968 |
| 31 | LFKT3 | B9D 8Ø26 1368 | D19 | | Franks Tract, Center of NW Quadrant | 1968 |
| 32 | LS8811 | EØB 8070 2023 | DØ7 | | Grizzly Bay Dolphin 2.5 km N of Garnet Pt | 1968 |
| 33 | LS8B22 | EØB 8Ø44 1562 | DØ9 | | Honker Bay 2 km NNW of Simmons Pt | 1968 |
| 34 | LSHL1 | B9D 8Ø26 1476 | D11 | | Sherman Lake 3 km N of Antioch | 1968 |

* USGS site.

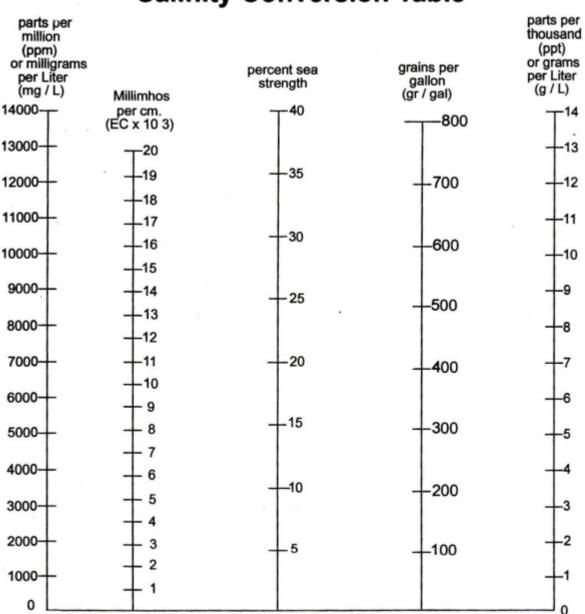


Site Map



| | | | | |
|------------------------------|---|---|--------------------------|---|
| Quantity | To Convert from Metric Unit | To Customary Unit | Multiply Metric | o Convert to Metric Unit Multiply Customary Unit By |
| Length | milimetres (mm) | inches (in) | 0 03937 | 25 4 |
| 201191 | centimetres (cm) for snow depth | inches (in) | 0 3937 | 2 54 |
| | metres (m) | feet (ft) | 3 2808 | 0 3048 |
| | kilometres (km) | miles (mi) | 0 62 139 | 1 6093 |
| Area | square millimetres (mm²) | square inches (in ²) | 0 00 155 | 6 45 16 |
| | square metres (m ²) | square feet (ft ²) | 10 764 | 0.092903 |
| | hectares (ha) | acres (ac) | 2 47 10 | 0 404 69 |
| | square kilometres (km²) | square miles (mi²) | 0 3861 | 2 5 90 |
| Volume | litres (L) | gallons (gal) | 0 264 17 | 3 7854 |
| | megalitres | million gallons (10 ^e gal) | 0 264 17 | 3 7854 |
| | cubic metres (m ³) | cubic feet (ft ³) | 35 3 15 | 0 028317 |
| | cubic metres (m ³) | cubic yards (yd ³) | 1 308 | 0 76455 |
| | cubic dekametres (dam ³) | acre-feet (ac-ft) | 0 8107 | 1 2335 |
| Flow | cubic metres per second (m³/s) | cubic feet per second (ft³/s) | 35 3 15 | 0 0283 17 |
| | litres per minute (L/min) | gallons per minute (gal/min) | 0 264 17 | 3 7854 |
| | litres per day (L/day) | gallons per day (gal/day) | 0 264 17 | 3 7854 |
| | megalitres per day (ML/day) | million gallons per day (mgd) | 0 264 17 | 3 7854 |
| | cubic dekametres per day (dam³/day) | acre-feet per day (ac- ft/day) | 0 8 107 | 1 2335 |
| Mass | kilograms (kg) | pounds (Ib) | 2 2046 | 0 45359 |
| | megagrams (Mg) | tons (short, 2,000 lb) | 1 1023 | 0 907 18 |
| Velocity | metres per second (m/s) | feet per second (ft/s) | 3 2808 | 0 3048 |
| Power | kilowatts (kW) | horsepower (hp) | 1 3405 | 0 746 |
| Pressure | kilopascals (kPa) | pounds per square inch (psi) | 0 14505 | 6 8948 |
| | kilopascals (kPa) | feet head of water | 0 33456 | 2 989 |
| Specific Capacity | litres per minute per metre drawdown | gallons per minute per foot drawdown | 0 08052 | 12 4 19 |
| Concentration | milligrams per litre (mg/L) | parts per million (ppm) | 10 | 10 |
| Electrical Con- ductivity | microsiemens per centimetre (uS/cm) | micromhos per centimetre | e 10 | 10 |
| Temperature | degrees Celsius (°C) | degrees Fahrenheit (°F) | (1 [°] 8 × °C)+ | 32 (°F-32)/1 |
| | | | | |

CONVERSION FACTORS



Salinity Conversion Table

Millimhos and MilliSiemens are equivalent terms.

Sea water is approximately 35 parts per thousand, or 52 millimhos per cm.

1 cubic yard = 27 cubic feet

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1 square yard = 9 square feet
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1 acre = 43,560 square feet or 4,840 square yards
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1 gallon = .133 cubic feet
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1 acre foot = 327,518 gallons

TABLE 2 EC (UMHOS/CM) TO CHLORIDE (MG/L) CONVERSION DUR D1485 GRAB SAMPLE DATA (1968 - 81) CHLCRIDE = INTERCEPT + (EC COEFF * EC)

17:42 THURSDAY, MARCH 20, 1986

| RKI STATION | YEAR TYPE | INTERCEPT | EC COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN SQR ERPOR | EC MEAN | EC RANGE MINIMUM | EC RANGE MAXIMUM | EC SUM OF SQRS | T-STATISTI 95% CONFID |
|------------------|--------------|----------------|----------------------|----------------|----------|------------------------|---------|---------------------|---------------------|-------------------|--------------------------|
| CHWSTO | ALL | -38.0 | 0.244883 | 139 | 0.966771 | 13.63 | 470.2 | 153 | 1480 | 1075/015 | |
| CHWSTO | DRY | -40.9 | 0.257207 | 61 | 0.980780 | 11.65 | 529.3 | | | 12356815 | 1.960 |
| CHWSTO | NORMAL | -22.6 | 0.196642 | 24 | 0.973006 | 5.69 | | 179 | 1480 | 6179262 | 1.960 |
| CHWSTO | WET | -36.1 | 0.232454 | 54 | 0.956478 | 15.11 | 330.4 | 178 | 938 | 663648 | 2.069 |
| LBGB2 | ALL | -40.9 | 0.282173 | 181 | | | 465.4 | 153 | 1320 | 4830349 | 1.960 |
| LBGB2 | DRY | -39.6 | 0.280606 | 54 | 0.988590 | 27.40 | 675.2 | 133 | 4330 | 146227446 | 1.960 |
| LEGB2 | NORMAL | -36.8 | 0.282677 | 37 | 0.979793 | 44.60 | 1196.8 | 135 | 3770 | 63689239 | 1.960 |
| LBGB2 | WET | -43.6 | | | 0.997442 | 6.16 | 382.1 | 142 | 2150 | 6483430 | 1.960 |
| LFKT3 | ALL | -42.1 | 0.284608 0.284592 | 90 193 | 0.993683 | 17.92 | 482.8 | 133 | 4330 | 54851849 | 1.960 |
| LFKT3 | DRY | -47.8 | | | 0.969227 | 23.51 | 452.9 | 121 | 2460 | 41063789 | 1.960 |
| LFKT3 | NORMAL | | 0.293012 | 63 | 0.953026 | 37.13 | 699.9 | 121 | 2080 | 19867344 | 1.960 |
| LFKT3 | WET | -35.4 -39.8 | 0.275060 | 36 | 0.990776 | 7.70 | 315.4 | 137 | 1460 | 2861553 | 1.960 |
| LSBB11 | | | 0.273362 | 94 | 0.983782 | 13.00 | 340.1 | 129 | 2460 | 12614678 | 1.960 |
| | ALL DRY | -114.8 | 0.337623 | 200 | 0.940389 | 640.82 | 8.0838 | 145 | 27000 | 11252709287 | 1.960 |
| LSBB11 LSBB11 | | 149.6 | 0.331574 | 63 | 0.876954 | 879.39 | 14610.7 | 337 | 26000 | 3058024176 | 1.960 |
| | NORMAL | -134.2 | 0.324773 | 40 | 0.866341 | 669.35 | 6602.1 | 171 | 17900 | 1046204422 | 1.960 |
| LSCBII | WET | -96.8 | 0.322985 | 97 | 0.970511 | 370.84 | 6099.0 | 145 | 27000 | 4121727004 | 1.960 |
| LSBB22 | ALL | ~114.5 | 0.339702 | 187 | 0.940541 | 501.86 | 5413.9 | 126 | 21100 | 6424717403 | 1.960 |
| LSDB22 | DRY | -31.7 | 0.329922 | 63 | 0.903995 | 674.78 | 9462.8 | 218 | 19800 | 2402731677 | 1.960 |
| LSDB22 | NORMAL | -70.6 | 0.320354 | 37 | 0.939243 | 129.52 | 3355.8 | 143 | 11800 | 526115668 | 1.960 |
| LSEB22 | WET | -160.2 | 0.354617 | 87 | 0.933510 | 451.95 | 3357.3 | 126 | 21100 | 1933374837 | 1.960 |
| LSHL1 | ALL | -60.6 | 0.315881 | 182 | 0.992695 | 74.75 | 1823.1 | 110 | 12200 | 1369639670 | 1.960 |
| LSHL1 | DRY | -74.7 | 0.320266 | 56 | 0.992702 | 92.62 | 3753.5 | 152 | 10700 | 614311438 | 1.960 |
| LSHL1 | NCRMAL | -43.2 | 0.298677 | 35 | 0.995942 | 18.66 | 852.2 | 140 | 4170 | 42007999 | 1.960 |
| LSHL1 | WET | -57.4 | 0.310250 | 91 | 0.987710 | 74.39 | 1008.6 | 110 | 12200 | 411271238 | 1.960 |
| RITID23 | ALL | -38.0 | 0.244047 | 127 | 0.946826 | 11.18 | 402.8 | 157 | 947 | 4667601 | 1.960 |
| RHID23 | DRY | -43.2 | 0.259561 | 56 | 0.968477 | 9.50 | 436.9 | 211 | 941 | 2224369 | 1.960 |
| RHID23 | NORMAL | -35.1 | 0.248671 | 13 | 0.908406 | 14.09 | 367.3 | 172 | 730 | 350251 | 2.179 |
| RMID23 | WET | -32.8 | 0.223407 | 58 | 0.939311 | 10.66 | 377.8 | 157 | 947 | 1974990 | 1.960 |
| RMKL028 | ALL | -0.5 | 0.055048 | 108 | 0.816175 | 1.70 | 106.7 | 35 | 273 | 449362 | 1.960 |
| RMKL028 | DRY | -1.1 | 0.059508 | 40 | 0.799479 | 1.96 | 150.8 | 45 | 273 | 164998 | 1.960 |
| RMKL028 | NORMAL | • | • | 28 | 0.492559 | 1.51 | 76.9 | 35 | 152 | 38698 | 2.052 |
| RMKL028 | WET | -0.2 | 0.053998 | 40 | 0.807101 | 1.49 | 83.5 | 38 | 268 | 121392 | 1.960 |
| ROLD21 | ALL | -39.0 | 0.263119 | 130 | 0.990330 | 10.87 | 488.6 | 134 | 1730 | 22380038 | 1.960 |
| ROLD21 | DRY | -40.7 | 0.266397 | 62 | 0.990849 | 11.91 | 617.2 | 134 | 1650 | 12978626 | 1.960 |
| ROLD21 | NORMAL | -14.4 | 0.158010 | 18 | 0.948974 | 1.99 | 215.9 | 135 | 338 | 47284 | 2.110 |
| ROLD21 | WET | ~38.0 | 0.258027 | 50 | 0.987827 | 10.78 | 427.3 | 136 | 1730 | 6802945 | 1.960 |
| ROLD59 | ALL | -30.4 | 0.198293 | 160 | 0.955850 | 19.16 | 861.0 | 180 | 2090 | 31948907 | 1.960 |
| R01059 | DRY | -34.9 | 0.201341 | 64 | 0.941378 | 25.02 | 1104.0 | 304 | 2090 | 15374152 | 1,960 |
| ROLD59 | NORMAL | -8.1 | 0.166891 | 30 | 0.947624 | 11.65 | 659.1 | 180 | 1330 | 2467289 | 2.045 |
| ROLD59 | WET | -35.7 | 0.205996 | 66 | 0.964108 | 13.82 | 717.1 | 181 | 1880 | 7737026 | 1.960 |
| RSAC032 | ALL | -1159.2 | 0.395149 | 46 | 0.934768 | 760.39 | 34708.7 | 11400 | 43200 | 2334776522 | 1.950 |
| RSAC032 | DRY | -3229.7 | 0.456334 | 10 | 0.869365 | 466.74 | 38480.0 | 33900 | 42800 | 55696000 | 2.262 |
| RSAC032 | NORMAL | | | 8 | 0.607617 | 1450.43 | 37175.0 | 28600 | 43100 | 193455000 | 2.365 |
| RSAC032 | WET | -1100.0 | 0.388638 | 28 | 0.971386 | 551.42 | 32657.1 | 11400 | 43200 | 1776888571 | 2.052 |
| RSAC040 | ALL | -584.6 | 0.350305 | 86 | 0.898279 | 1154.24 | 31125.2 | 6020 | 43900 | 6814994145 | 1.960 |
| RSAC040 | DRY | 1298.7 | 0.339260 | 43 | 0.780488 | 1216.74 | 34625.6 | 15400 | 42000 | 1875101860 | 1.960 |
| RSAC040 | NORMAL | 405.5 | 0.333396 | 9 | 0.843376 | 1035.06 | 30411.1 | 17200 | 33000 | 363308389 | 2.306 |
| RSAC040 | WET | -725.7 | 0.369574 | 34 | 0.954300 | 833.05 | 26887.4 | 6020 | 43900 | 3434511462 | 1.960 |
| RSAC056 | ALL | -254.0 | 0.363876 | 210 | 0.916001 | 1034.04 | 18620.9 | 153 | 38000 | 18317106531 | 1.960 |
| RSAC056 | DRY | 3.3 | 0.354578 | 63 | 0.864911 | 971.85 | 26017.9 | 7440 | 35800 | 2775220232 | 1.960 |
| | | | | | | | | | | | |

17:42 THURSDAY, MARCH 20, 1986

TABLE 2 (CONT) EC (UMHOS/CM) TO CHLORIDE (MG/L) CONVERSION DWR D1485 GPAB SAMPLE DATA (1968 - 81) CHLORIDE = INTERCEPT + (EC COEFF * EC)

| | | | L L | ALUAIDE | - 1000000 | | | | EC RANGE | EC SUM | T-STATISTIC |
|--------------|--------|-----------|----------|----------------|-----------|-----------|----------------|----------|----------|-------------------|----------------|
| RKI STATION | YEAR | INTERCEPT | EC COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN | EC MEAN | EC RANGE | MAXIMUM | OF SQRS | 95% CONFID |
| | TYPE | | | 5125 | | SVA ERROR | | | | | |
| RSAC056 | NORMAL | 502.79 | 0.321962 | 45 | 0.788956 | 1178.08 | 16568.9 | 1050 | 27400 | 2152216844 | 1.960 |
| RSAC056 | NET | -258.55 | 0.350956 | 102 | 0.919033 | 953.83 | 14957.5 | 153 | 38000 | 8384184701 | 1.960 |
| RSAC063 | ALL | -42.70 | 0.342288 | 83 | 0.892831 | 662.29 | 7110.0 | 124 | 20100 | 2526403691 | 1.960 |
| RSAC063 | DRY | | | 4 | 0.940733 | 329.23 | 9506.3 | 7340 | 12600 | 15282669 | 3.182 |
| RSAC063 | NORMAL | 136.39 | 0.304088 | 27 | 0.747683 | 1019.22 | 7746.4 | 175 | 20100 | 832239432 | 2.056 |
| RSAC063 | WET | -120.94 | 0.361845 | 52 | 0,969725 | 365.18 | 6595.3 | 124 | 18300 | 1631204193 | 1.960 |
| RSAC068 | ALL | -109.61 | 0.341547 | 159 | 0.973571 | 416.29 | 8340.3 | 124 | 27000 | 8624908343 | 1.960 |
| RSAC068 | DRY | 35.05 | 0.337941 | 63 | 0.947151 | 542.80 | 12972.3 | 327 | 24000 | 2820446355 | 1.960 |
| RSAC068 | NCRMAL | -130.18 | 0.335122 | 29 | 0.980443 | 234.18 | 4973.2 | 175 | 15000 | 660941133 | 2.048 |
| RSAC068 | WET | -117.50 | 0.330261 | 67 | 0.900428 | 311.69 | 5442.2 | 124 | 27000 | 2900300241 | 1.960 |
| RSAC075 | ALL | -101.92 | 0.335216 | 201 | 0.979912 | 272.37 | 5097.3 | 125 | 21700 | 6408730010 | 1.960 |
| RSAC075 | DRY | -90.31 | 0.339264 | 62 | 0.957774 | 424.94 | 9330.5 | 228 | 19500 | 2135072025 | |
| RSAC075 | NOPMAL | -28.91 | 0.300914 | 41 | 0.979300 | 165.30 | 3429.0 | 171 | 12700 | 556772353 | 1.960 |
| RSAC075 | WET | -102.66 | 0.331421 | 98 | 0.971885 | 140.45 | 3117.1 | 125 | 21700 | 2107495141 | |
| RSAC084 | ALL | -69.06 | 0.320539 | 154 | 0.993696 | 96.56 | 2914.3 | 129 | 13900 | 2174291756 | 1.960 |
| RSAC084 | DRY | -75.69 | 0.320484 | 63 | 0.991862 | 119.98 | 5007. 0 | 159 | 13100 | 1042131258 | |
| RSAC084 | NORMAL | -42.50 | 0.304466 | 26 | 0.990561 | 17.64 | 901.8 | 132 | 5560 | 55919968 | 2.060 1.960 |
| RSAC084 | WET | -74.67 | 0.324965 | 65 | 0.992166 | 88.95 | 1691.1 | 129 | 13900 | 597788457 | |
| RSAC092 | ALL | -46.27 | 0.311208 | 185 | 0.960890 | 118.64 | 1065.2 | 92 | 10000 | 653380926 | 1.960 |
| RSAC092 | DEX | -41.24 | 0.310309 | 62 | 0.925339 | 204.64 | 2103.1 | 129 | 7100 | 323402417 | 1.960 |
| R54C092 | NORMAL | -30.62 | 0.259152 | 40 | 0.931032 | 9.09 | 291.2 | 128 | 1190 | 2417666 | 1.960 |
| RSAC092 | WET | -49.28 | 0.311852 | 83 | 0.997620 | 25.29 | 662.9 | 92 | 10000 | 223375563 | 1.960 |
| R5AC101 | ALL | -37.35 | 0.274340 | 204 | 0.994274 | 10.97 | 334.6 | 108 | 3500 | 56053312 | 1.960 |
| RSACI01 | DRY | -38.42 | 0.267361 | 62 | 0.992712 | 13.26 | 537.3 | | 2100 | 20100219 | 1.960 |
| RSAC101 | NORMAL | | | 43 | 0.559810 | 3.33 | 160.5 | | 270 | 52035 | 1.960 |
| RSAC101 | HET | -37.95 | 0.281978 | 99 | 0.997315 | 8.38 | 283.3 | | 3500 | 31790050 | 1.960 |
| RSAC139 | ALL | 5, , , , | | 176 | 0.153729 | 5.43 | 157.4 | | 356 | 299513 | 1.960 |
| RSAC139 | DRY | | | 63 | 0.631849 | 1.62 | 176.0 | | 356 | 114778 | 1.960 |
| RSAC139 | NORMAL | | | 40 | 0.282048 | 3.92 | 141.4 | | 208 | 28670 | 1.960 |
| R5AC139 | WET | | | 73 | 0.103396 | 7.77 | 150.1 | | 308 | 120075 | 1.960 |
| RSAN007 | ALL | -70.06 | 0.318528 | 210 | 0.981884 | 118.88 | 1964.0 | | 12600 | 1570152132 | 1.960 |
| RSAN007 | DRY | -87.79 | 0.321869 | 63 | 0.969296 | 189.21 | 3941.9 | | 10800 | 665442508 | 1.960 |
| RSAN007 | NORMAL | | 0.298450 | | 0.998587 | 13.45 | 1010.5 | | 4110 | 63321587 | 1.960 |
| RSAN007 | WET | -70.55 | 0.318329 | | 0.985849 | 83.47 | 1160.1 | | 12600 | 488634548 | 1,960 1,960 |
| RSAN018 | ALL | -43.11 | 0.284828 | | 0,989826 | 30.61 | 731.8 | | 6490 | 258490290 | |
| RSAN018 | DRY | -40.95 | 0.283236 | | 0.987895 | 42.56 | 1424-4 | | 4540 | 110536505 | |
| ESAN018 | NCRHAL | | 0.276378 | | 0.990562 | 9.98 | 409.0 | | 1540 | 6566919 | |
| RSAN018 | WET | -46.17 | 0.287403 | | 0.983163 | 29.02 | 509.5 | | 6490 | 100449002 | |
| RSAN024 | ALL | -40.18 | 0.277622 | | 0.977217 | 32.36 | 594.5 | | 4240 | 99670875 | |
| RSAN024 | DRY | -35.43 | 0.266916 | | 0.955240 | 48.55 | 940.6 | | 2880 | 42370746 | |
| RSAN024 | NORMAL | | 0.251368 | | 0.978344 | 7.78 | 273.6 | | 863 | 1253810 | |
| RSAH024 | WET | -44.21 | 0.292848 | | 0.995413 | 14.89 | 450.6 | | 4240 | 43769606 | |
| RSAN035 | ALL | -28.90 | 0.236468 | | 0.959229 | 7.90 | 256.9 | | 922 | 4409993 | |
| RSAN035 | DRY | -31.19 | 0.241837 | | 0.948203 | 10.37 | 326.4 | | 780 | 2021363 | |
| RSAN035 | NORMAL | | 0.263958 | | 0.972713 | 4.27 | 197.8 | | 572 | 297908 | |
| RSAN035 | WET | -27.81 | 0.228266 | | 0.968084 | 6.18 | 225.9 | | 922 | 1601088 | |
| RSAN056 | ALL | -17.07 | 0.182888 | | 0.911356 | 11.68 | 519.7 | | 1410 | 6452262 | |
| RSAN056 | DRY | -8.38 | 0.172258 | | 0.808628 | 15.72 | 594.9 | | 1075 | 2076982 | |
| RSAN056 | NORMAL | | 0.185830 | | 0.950563 | 5.02 | 442.4 | | 669 | 364419 3411309 | |
| RSAN056 | WET | -20.27 | 0.184516 | | 0.960608 | 8.56 | 483.6 | 180 | 1410 | 3411309 | 1.700 |
| N J AN U J U | | | | | | | | | | | |

17:42 THURSDAY, MARCH 20, 1986

TABLE 2 (CONT) EC (UMHOS/CM) TO CHLORIDE (MG/L) CONVERSION DWR D1485 GRAB SAMPLE DATA (1968 - 81) CHLORIDE = INTERCEPT + (EC COEFF * EC)

| | | | · · · | INCOMIDE | - INTERC | | LUEFF * | | | | |
|-------------|--------|-----------|----------|----------|----------|-----------|---------|----------|----------|------------|-------------|
| RKI STATION | YEAR | INTERCEPT | EC COEFF | SAMPLE | R SQUARE | ROOT MEAN | EC MEAN | EC RANGE | EC RANGE | EC SUM | T-STATISTIC |
| | TYPE | | | SIZE | | SOR ERFOR | | MINIHUM | MAXIMUM | OF SQRS | 95% CONFID |
| | | | | | | | | | | | |
| RSAN087 | ALL | -21.80 | 0.184641 | 130 | 0.953895 | 16.115 | 750.76 | 153 | 1750 | 20172854 | 1.960 |
| RSAN087 | DRY | -24.85 | 0.189106 | 64 | 0.951761 | 17.131 | 918.92 | 242 | 1720 | 10038959 | 1.960 |
| R5AN087 | NORMAL | -19.20 | 0.181034 | 24 | 0.879605 | 17.645 | 560.42 | 153 | 1230 | 1526990 | 2.069 |
| RSAN087 | WET | -16.51 | 0.172689 | 42 | 0.955128 | 13.252 | 603.29 | 193 | 1750 | 5014109 | 1.960 |
| RSAN112 | ALL | -23.28 | 0.184503 | 183 | 0.933083 | 19.737 | 737.79 | 130 | 1850 | 28382352 | 1.960 |
| RSAN112 | DRY | -36.00 | 0.200146 | 64 | 0.947509 | 21.964 | 947.89 | 263 | 1850 | 13478432 | 1.960 |
| RSAN112 | NORMAL | 5.05 | 0.138460 | 40 | 0.804754 | 23.306 | 670.22 | 140 | 1830 | 4437643 | 1.960 |
| RSAN112 | WET | -19.42 | 0.177360 | 79 | 0.969794 | 9.093 | 601.80 | 130 | 1740 | 6497547 | 1.960 |
| RSMKL09 | ALL | | | 116 | 0.011838 | 495.914 | 172.38 | 83 | 292 | 230863 | 1.960 |
| RSI1KL09 | DRY | | | 60 | 0.683710 | 2.149 | 188.88 | 114 | 292 | 89222 | 1.960 |
| RSMKL09 | NORMAL | | • | 17 | 0.697005 | 1.155 | 133.35 | 83 | 182 | 13182 | 2.120 |
| RSHKL09 | WET | | | 39 | 0.041642 | 850.008 | 164.00 | 92 | 288 | 83486 | 1.960 |
| SLDPT07 | ALL | -15.65 | 0.161550 | 124 | 0.891043 | 4.492 | 273.85 | 142 | 451 | 771396 | 1.960 |
| SLDPT07 | DRY | -21.06 | 0.179421 | 64 | 0.886644 | 4.608 | 292.08 | 146 | 447 | 319837 | 1.960 |
| SLOPT07 | NORMAL | -12.81 | 0.158376 | 20 | 0.961543 | 2.321 | 250.75 | 142 | 407 | 96672 | 2.093 |
| SLDPT07 | WET | -12.45 | 0.146258 | 40 | 0.896557 | 4.491 | 256.22 | 150 | 451 | 310525 | 1,960 |
| SLSUS12 | ALL | -165.43 | 0.337615 | 92 | 0.989280 | 161.245 | 6608.59 | 780 | 16400 | 1894525566 | 1.960 |
| SLSUS12 | DRY | -271.99 | 0.348584 | 22 | 0.990321 | 142.952 | 8288.18 | 2300 | 16400 | 344152327 | 2.080 |
| SLSUS12 | NORMAL | -170.50 | 0.339898 | 16 | 0.994139 | 145.250 | 7393.75 | 1400 | 15800 | 433669175 | 2.131 |
| SLSUS12 | WET | -138.67 | 0.333419 | 54 | 0.986095 | 173.573 | 5691.67 | 780 | 16300 | 999377400 | 1.960 |
| SLSYC4 | ALL | -7.23 | 0.116736 | 117 | 0.813455 | 3.895 | 190.38 | 81 | 407 | 558697 | 1.960 |
| SLSYC4 | DRY | -11.46 | 0.138704 | 60 | 0.830995 | 4.013 | 207.68 | 100 | 407 | 238763 | 1.960 |
| SLSYC4 | NO2MAL | -1.68 | 0.076583 | 18 | 0.950439 | 1.038 | 148.28 | 85 | 337 | 71486 | 2.110 |
| SLSYC4 | KET | -4.65 | 0.100775 | 39 | 0.800055 | 3.672 | 183.18 | 81 | 334 | 196556 | 1.960 |

19:42 THURSDAY, MARCH 20, 1986

TABLE 3 CL (MG/L) TO EC (UTHOS/CM) CONVERSION DNR D1485 GRAB SAMPLE DATA (1968 - 81) EC = INTERCEPT + (CL COEFF * CL)

| RKI STATION | YEAR | INTERCEPT | CL COEFF | SAMPLE | R SQUARE | ROOT MEAN | CL MEAN | CL RANGE | CL RANGE | CL SUM | T-STATISTIC |
|-------------|--------|-----------|----------|--------|----------|-----------|---------|----------|----------|------------|-------------|
| | TYPE | | | SIZE | | SOR ERROR | | MINIMUM | MAXIMUM | OF SQRS | 95% CONFID |
| CHWSTO | ALL | 165.6 | 3.9479 | 139 | 0.966771 | 54.75 | 77.1 | 13.0 | 321 | 766478 | 1.960 |
| CHWSTO | DRY | 166.0 | 3.8132 | 61 | 0.980780 | 44.87 | 95.3 | 17.0 | 321 | 416804 | 1.960 |
| CHINSTO | NORMAL | 120.5 | 4.9481 | 24 | 0.973006 | 28.54 | 42.4 | 13.0 | 175 | 26374 | 2.069 |
| CHUSTO | WET | 168.9 | 4.1145 | 54 | 0.956478 | 63.58 | 72.1 | 13.0 | 300 | 272908 | 1.960 |
| LBGB2 | ALL | 151.1 | 3.5035 | 181 | 0.988590 | 76.55 | 147.6 | 4.0 | 1280 | 11777272 | 1.960 |
| LBG32 | DRY | 162.4 | 3.4917 | 54 | 0.979793 | 157.32 | 296.2 | 8.9 | 1100 | 5118301 | 1.960 |
| LBGB2 | NCPMAL | 130.8 | 3.5286 | 37 | 0.997442 | 21.77 | 71.2 | 6.7 | 585 | 519394 | 1.960 |
| LBGB2 | WET | 155.1 | 3.4914 | 90 | 0.993683 | 62.75 | 93.8 | 4.0 | 1280 | 4471352 | 1.960 |
| LFKT3 | ALL | 157.2 | 3.4057 | 193 | 0.969227 | 81.34 | 86.8 | 4.0 | 700 | 3431460 | 1.960 |
| LFKT3 | DRY | 128.2 | 3.2525 | 63 | 0.953026 | 123.69 | 157.3 | 7.4 | 634 | 1789801 | 1.960 |
| LFKT3 | NORMAL | 130.5 | 3.6020 | 36 | 0.990776 | 27.86 | 51.3 | 6.0 | 378 | 218514 | 1.960 |
| LFKT3 | NET | 148.8 | 3.5988 | 94 | 0.983782 | 47.16 | 53.2 | 4.0 | 700 | 958196 | 1.960 |
| LSBB11 | ALL | 849.1 | 2.7853 | 200 | 0.940389 | 1840.60 | 2883.6 | 5.0 | 9200 | 1363998346 | 1.960 |
| LSDB11 | DRY | 1402.1 | 2.6443 | 63 | 0.876954 | 2483.64 | 4994.1 | 46.0 | 8780 | 383375503 | 1.960 |
| LSBB11 | NORMAL | 1240.4 | 2.6675 | 40 | 0.866341 | 1918.30 | 2010.0 | 9.4 | 6100 | 127376379 | 1.960 |
| LS8511 | KET | 470.8 | 3.0048 | 97 | 0.970511 | 1131.12 | 1873.1 | 5.0 | 9200 | 443041884 | 1.960 |
| LSBB22 | ALL | 639.9 | 2.7769 | 187 | 0.940541 | 1435.98 | 1719.2 | 3.0 | 9400 | 783629661 | 1.960 |
| LSBB22 | DRY | 995.3 | 2.7400 | 63 | 0.903995 | 1944.62 | 3070.3 | 20.0 | 7340 | 289308080 | 1.960 |
| LSD322 | NORMAL | 254.2 | 3.0800 | 37 | 0.909243 | 402.12 | 1004.4 | 8.0 | 3870 | 54580730 | 1.960 |
| LSDB22 | WET | 645.0 | 2.6324 | 87 | 0.933510 | 1231.37 | 1030.3 | 3.0 | 9400 | 261118898 | 1.960 |
| LSHL1 | ALL | 203.7 | 3.1426 | 182 | 0.992695 | 235.76 | 515.3 | 3.0 | 3480 | 137669222 | 1.960 |
| LSHL1 | DRY | 259.0 | 3.0996 | 56 | 0.992702 | 288.13 | 1127.4 | 15.0 | 3480 | 63473428 | 1.960 |
| LSHL1 | NORMAL | 146.9 | 3.3379 | 35 | 0.996°42 | 62.39 | 211.3 | 6.6 | 1210 | 3758936 | 1,960 |
| LSHL1 | WET | 195.1 | 3.1836 | 91 | 0.987710 | 238.31 | 255.5 | 3.0 | 3440 | 40079569 | 1.960 |
| RMID23 | ALL | 168.9 | 3.8797 | 127 | 0.946826 | 44.56 | 60.3 | 10.0 | 227 | 293610 | 1.960 |
| RMID23 | DRY | 175.0 | 3.7312 | 56 | 0.968477 | 36.03 | 70.2 | 20.0 | 227 | 154737 | 1.960 |
| RMID23 | NORMAL | 161.9 | 3.6530 | 13 | 0.908406 | 54.00 | 56.2 | 15.0 | 173 | 23842 | 2.179 |
| RMID23 | WET | 160.7 | 4.2045 | 58 | 0.939311 | 46.26 | 51.6 | 10.0 | 215 | 104942 | 1.960 |
| RMKL028 | ALL | 26.6 | 14.8265 | 108 | 0.816175 | 27.92 | 5.4 | 0.3 | 18 | 1668 | 1.960 |
| RMKL028 | DRY | 45.7 | 13.4348 | 40 | 0.799479 | 29.51 | 7.8 | 0.4 | 18 | 731 | 1.960 |
| RI1KL028 | NORMAL | | | 28 | 0.492559 | 27.48 | 3.6 | 0.3 | 10 | 118 | 2.052 |
| RMKL028 | WET | 19.6 | 14.9468 | 40 | 0.807101 | 24.82 | 4.3 | 1.8 | 16 | 439 | 1.960 |
| ROLD21 | ALL | 151.7 | 3.7638 | 130 | 0.990330 | 41.12 | 89.5 | 7.0 | 428 | 1564536 | 1.960 |
| ROLD21 | DRY | 157.0 | 3.7194 | 62 | 0.990849 | 44.47 | 123.7 | 9.4 | 410 | 929564 | 1.960 |
| ROLD21 | NORMAL | 97.8 | 6.0059 | 18 | 0.948994 | 12.28 | 19.7 | 7.0 | 42 | 1244 | 2.110 |
| ROLD21 | WET | 150.8 | 3.8284 | 50 | 0.987827 | 41.54 | 72.2 | 9.0 | 428 | 458507 | 1.960 |
| ROLD59 | ALL | 184.8 | 4.8204 | 160 | 0.955850 | 94.49 | 140.3 | 19.0 | 382 | 1314258 | 1.960 |
| ROLD59 | DRY | 227.7 | 4.6755 | 64 | 0.941378 | 120.57 | 187.4 | 35.0 | 382 | 662054 | 1.960 |
| ROLD59 | NORMAL | 80.5 | 5.6781 | 30 | 0.947624 | 67.94 | 101.9 | 22.0 | 213 | 72519 | 2.045 |
| ROLD59 | NET | 192.8 | 4.6802 | 66 | 0.964108 | 65.87 | 112.0 | 19.0 | 350 | 340537 | 1.960 |
| RSAC032 | ALL | 5006.4 | 2.3656 | 46 | 0.934768 | 1860.49 | 12555.9 | 3420.0 | 16200 | 389998915 | 1.960 |
| RSAC032 | DRY | 11179.9 | 1.9051 | 10 | 0.869365 | 953.67 | 14330.0 | 11800.0 | 16200 | 13341000 | 2.262 |
| RSAC032 | NORMAL | | | 8 | 0.607617 | 3556.88 | 13712.5 | 10400.0 | 16200 | 32168750 | 2.365 |
| RSAC032 | WET | 3683.9 | 2.4995 | 28 | 0.971386 | 1398.41 | 11591.8 | 3420.0 | 16100 | 276286611 | 2.052 |
| RSAC040 | ALL | 4545.1 | 2.3589 | 85 | 0.898279 | 2872.76 | 11268.0 | 1560.0 | 16300 | 1100167564 | 1.960 |
| RSAC040 | DRY | 4612.9 | 2.3006 | 43 | 0.780488 | 3168.47 | 13045.8 | 5040.0 | 15800 | 276518647 | 1.960 |
| RSAC040 | NORMAL | 3737.3 | 2.5297 | 9 | 0.843376 | 2851.14 | 10544.4 | 6100.0 | 13300 | 47382222 | 2.306 |
| PSAC040 | WET | 3090.2 | 2.5835 | 34 | 0.954800 | 2202.55 | 9211.2 | 1560.0 | 16300 | 491310353 | 1.960 |
| RSAC056 | ALL | 2203.7 | 2.5173 | 210 | 0.916001 | 2719.78 | 6521.7 | 12.0 | 14700 | 2647693413 | 1.960 |
| RSAC056 | DRY | 3506.8 | 2.3724 | 63 | 0.864911 | 2479.09 | 9488.9 | 2190.0 | 13100 | 426488022 | 1.960 |

19:42 THURSDAY, MARCH 20, 1986 2

TABLE 3 (CON'T) CL (MG/L) TO EC (UMHOS/CH) CONVERSION DUR D1465 GRAB SAMPLE DATA (1968 - 81) EC = INTERCEPT + (CL COEFF * CL)

| | | | | EC = | TNIESCENT | + 1 | | , | | | |
|-------------|--------------|-----------|----------|----------------|----------------------|------------------------|---------|---------------------|---------------------|-------------------|---------------------------|
| RKI STATION | YEAR TYPE | INTERCEPT | CL COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN SGR ERROR | CL MEAN | CL RANGE MINIMUM | CL RANGE MAXIMUM | CL SUM OF SQRS | T-STATISTIC 95% CONFID |
| | | 00// 71 | 0 45047 | 45 | 0.788956 | 3250.09 | 5837.33 | 246.0 | 9950 | 282775450 | 1.960 |
| RSAC056 | NORMAL | 2264.71 | 2.45047 | | 0.919033 | 2605.46 | 4990.88 | 12.0 | 14700 | 1123661547 | 1.960 |
| RSAC056 | WET | 1833.11 | 2.61865 | 102 83 | 0.892831 | 1828.28 | 2390.97 | 8.0 | 7670 | 331524691 | 1.960 |
| RSAC063 | ALL | 873.36 | 2.60842 | 83 4 | 0.940733 | 672.96 | 3340.00 | 2620.0 | 4950 | 3657800 | 3.182 |
| RSAC063 | DRY | | | | | 2898.19 | 2491.96 | 11.0 | 7670 | 102926711 | 2.056 |
| RSAC063 | NORMAL | 1619.19 | 2.45878 | 27 | 0.747683 0.969725 | 993.83 | 2265.53 | 8.0 | 7100 | 220243990 | 1.960 |
| RSAC063 | WET | 523.79 | 2.67995 | 52 | 0.973671 | 1202.67 | 2738.93 | 6.0 | 9900 | 1033339791 | 1.960 |
| RSAC068 | ALL | 532.08 | 2.85077 | 159 | 0.947151 | 1563.19 | 4418.92 | 39.0 | 8160 | 340078533 | 1.960 |
| RSAC068 | DRY | 587.33 | 2.80272 | 63 | 0.920443 | 691.92 | 1536.45 | 12.0 | 5020 | 75708675 | 2.048 |
| RSAC068 | NORMAL | 478.12 | 2.92563 | 29 | | 934.50 | 1679.83 | 6.0 | 9900 | 322657656 | 1.960 |
| RSAC068 | WET | 455.33 | 2.96855 | 67 | 0.980428 0.979912 | 804.31 | 1606.78 | 3.0 | 7700 | 734909413 | 1.960 |
| RSAC075 | ALL | 400.32 | 2.92323 | 201 | 0.957774 | 1225.80 | 3075.18 | 21.0 | 6650 | 256581821 | 1.960 |
| RSAC075 | DRY | 648.95 | 2.82309 | 62 | | 543.61 | 1002.93 | 9.2 | 3470 | 51481095 | 1.960 |
| RSAC075 | NCRMAL | 165.07 | 3.25441 | 41 | 0.979300 | 422.07 | 930.42 | 3.0 | 7700 | 233381137 | 1.960 |
| RSAC075 | WET | 332.54 | 2.99282 | 98 | 0.991835 | 300.30 | 865.10 | 6.5 | 4400 | 224815499 | 1.960 |
| RSAC084 | ALL | 232.45 | 3.10003 | 154 | 0.993696 | 372.86 | 1528.97 | 18.0 | 4100 | 107915594 | 1.960 |
| RSAC084 | DRY | 274.98 | 3.09489 | 63 | 0.991862 | 57.90 | 232.07 | 6.5 | 1700 | 5191235 | 2.060 |
| RSAC084 | NORMAL | 140.69 | 3.27971 | 26 | 0.978561 | 272.64 | 474.88 | 6.9 | 4400 | 63626425 | 1.960 |
| RSAC084 | WET | 241.23 | 3.05314 | 65 | 0.992166 | | 285.22 | 1.0 | 3200 | 65855923 | 1.960 |
| RSAC092 | ALL | 184.54 | 3.08761 | 165 | 0.960390 | 373.68 634.37 | 611.36 | 8.4 | 2720 | 33653556 | 1.960 |
| R5AC092 | DRY | 280.01 | 2,98199 | 62 | 0.925339 | 34.74 | 44.83 | 4.3 | 301 | 165509 | 1.960 |
| RSAC092 | NORMAL | 121.45 | 3.78555 | 40 | 0.981032 | | 157.44 | 1.0 | 3200 | 21775443 | 1.960 |
| RSAC092 | WET | 159.23 | 3.19902 | 83 | 0.997620 | 81.01 | 54.45 | 1.0 | 950 | 4242998 | 1.960 |
| RSAC101 | ALL | 137.27 | 3.62424 | 204 | 0.994274 | 39.86 49.41 | 105.23 | 6.9 | 519 | 1447349 | 1.960 |
| RSAC101 | DRY | 146.59 | 3.71300 | 62 | 0.992712 | 23.64 | 105.25 | 3.6 | 29 | 1033 | 1.960 |
| RSAC101 | NORMAL | • | · | 43 | 0.559810 | | 41.94 | 1.0 | 950 | 2534476 | 1.960 |
| RSAC101 | WET | 134.98 | 3.53686 | 99 | 0.997315 | 29.66 | 7.62 | 1.5 | 69 | 6053 | 1.960 |
| RSAC139 | ALL | • | • | 176 | 0.153729 | 33.17 | 7.98 | 4.1 | 18 | 433 | 1.960 |
| RSAC139 | DRY | • | • | 63 | 0.631849 | 26.32 | 6.96 | 2.0 | 31 | 812 | 1.950 |
| RSAC139 | NORMAL | • | • | 40 | 0.282048 | 23.27 38.94 | 7.66 | 1.5 | 69 | 4782 | 1.960 |
| RSAC139 | WET | • | • | 73 | 0.103396 | | 555.53 | | 4400 | 162246987 | 1.960 |
| RSAN007 | ALL | 251.54 | 3.03257 | 210 | 0.981834 | 369.81 | 1180.97 | | 3610 | 71123156 | 1.960 |
| RSAN007 | DRY | 385.41 | 3.01147 | 63 | 0.969295 | 578.74 | 260.27 | | 1200 | 5647636 | 1.960 |
| RSAN007 | NORMAL | | 3.34624 | 43 | 0.990687 | 45.03 | 293.74 | | 4400 | 50225805 | 1.960 |
| RSAH007 | WET | 234.92 | 3.09695 | 104 | 0.985849 | 260.37 106.93 | 165.33 | | 2000 | 21186068 | 1.960 |
| RSAH018 | ALL | 157.27 | 3.47517 | 232 | 0.989826 | | 362.50 | | 1310 | 8976191 | 1.960 |
| RSAN018 | DRY | 160.06 | 3.48789 | 62 | 0.987895 | 149.34 35.93 | 77.71 | | 410 | 506390 | 1.960 |
| PSAN018 | NCRMAL | | 3.58409 | 50 | 0.990562 | | 99.96 | | 2000 | 8396514 | 1.960 |
| RSAN018 | WET | 164.78 | 3.43825 | 120 | 0.988163 | 100.38 | 124.87 | | 1200 | 7861139 | 1.960 |
| RSAN024 | ALL | 154.99 | 3.51995 | 173 | 0.977217 | 115.24 | 215.64 | | 798 | 3160104 | 1.960 |
| RSAN024 | DRY | 168.92 | 3.57831 | 62 | 0.955240 | 177.79 | 39.09 | | 198 | 80939 | 1.960 |
| RSAN024 | NOPMAL | | 3.89177 | 31 | 0.978344 | 30.60 | 87.76 | | 1200 | 3770970 | 1.960 |
| RSAN024 | WET | 152.34 | 3.39908 | 80 | 0.995413 | 50.73 | 31.86 | | 192 | 257075 | 1.960 |
| RSAN035 | ALL | 127.69 | 4.05649 | 170 | 0.959229 | 32.71 41.77 | 47.75 | | 180 | 124677 | 1.960 |
| RSAN035 | DRY | 139.21 | 3.92084 | 62 | 0.948203 | | 20.52 | | 128 | 21339 | |
| RSAN035 | NORMAL | | 3.68510 | 34 | 0.972713 | 15.94 | 20.52 | | 192 | 86176 | 1.960 |
| R5AN035 | WET | 125.14 | 4.24104 | 74 | 0.968084 | 26.64 | 77.97 | | 260 | 236806 | 1.960 |
| RSAN056 | ALL | 131.15 | 4.98315 | 156 | 0.911356 | 60.94 | 94.10 | | 198 | 76215 | |
| RSAN056 | DRY | 153.16 | 4.69428 | 61 | 0.808628 | 82.08 | 64.43 | | 112 | 13239 | |
| RSAN056 | NORMAL | | 5.11523 | 28 | 0.950563 | 26.32 | 68.96 | | 260 | 120905 | |
| RSAN056 | WET | 124.57 | 5.20609 | 67 | 0.960608 | 45.47 | 00.90 | | 207 | / | |
| | | | | | | | | | | | |

| | | |)) | 19:42 THURSDAY, MARCH 20, 1986 | | | | | | | |
|-------------|--------------|-----------|----------|--------------------------------|----------|-----------|---------|---------------------|---------------------|-------------------|---------------------------|
| RKI STATION | YEAR TYPE | INTERCEPT | CL COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN | CL MEAN | CL RANGE MINIMUM | CL RANGE MAXIMUM | CL SUM OF SQRS | T-STATISTIC 95% CONFID |
| RSAN087 | ALL | 147.228 | 5.1662 | 130 | 0.953895 | 85.242 | 116.82 | 15.0 | 312 | 720979 | 1,960 |
| RSAN087 | DRY | 169.404 | 5.0330 | 64 | 0.951761 | 88.379 | 148.92 | 22.0 | 312 | 377199 | 1.960 |
| RSAN087 | NORMAL | 160.783 | 4.8588 | 24 | 0.879605 | 91.414 | 82.25 | 16.0 | 235 | 56894 | 2.069 |
| RSAN037 | WET | 118.409 | 5.5309 | 42 | 0.955128 | 74.999 | 87.67 | 15.0 | 306 | 156553 | 1.960 |
| RSAN112 | ALL | 167.123 | 5.0573 | 183 | 0.933083 | 103.334 | 112.84 | 6.0 | 383 | 1053710 | 1.960 |
| RSAN112 | DRY | 220.173 | 4.7341 | 64 | 0.947509 | 106.823 | 153.72 | 26.0 | 383 | 569837 | 1.960 |
| RSAN112 | NORMAL | 101.503 | 5.8122 | 40 | 0.804754 | 151.000 | 97.85 | 15.0 | 210 | 105715 | 1.960 |
| RSAN112 | NET | 124.357 | 5.4679 | 79 | 0.969794 | 50.487 | 87.32 | 6.0 | 295 | 210757 | 1.960 |
| RSHKL09 | ALL | | | 116 | 0.011838 | 44.734 | 56.65 | 3.6 | 5360 | 28371934 | 1.960 |
| R5tlKL09 | DRY | | | 60 | 0.688710 | 21.883 | 12.05 | 6.4 | 23 | 860 | 1.960 |
| RSHKL09 | NORMAL | | | 17 | 0.697005 | 16.318 | 7.53 | 3.6 | 11 | 66 | 2.120 |
| RSMKL09 | KET | | | 39 | 0.041642 | 46.502 | 146.68 | 4.5 | 5360 | 27894565 | 1.960 |
| SLDPT07 | ALL | 116.163 | 5.5156 | 124 | 0.891043 | 26.247 | 28.59 | 8.0 | 73 | 22594 | 1.960 |
| SLDPT07 | DRY | 137.186 | 4.9417 | 64 | 0.886644 | 24.182 | 31.34 | 14.0 | 73 | 11612 | 1.960 |
| SLOPT07 | NORMAL | 87.433 | 6.0713 | 20 | 0.961543 | 14.372 | 26.90 | 11.0 | 55 | 2522 | 2.093 |
| SLOPT07 | WET | 102.823 | 6.1300 | 40 | 0.896557 | 29.074 | 25.02 | 8.0 | 65 | 7409 | 1.960 |
| SLSUS12 | ALL | 555.587 | 2.9302 | 92 | 0,989280 | 475.038 | 2065.73 | 188.0 | 5250 | 218285378 | 1.960 |
| SLSUS12 | DRY | 852.951 | 2.8410 | 22 | 0.990321 | 403.103 | 2617.14 | 552.0 | 5250 | 42227037 | 2.080 |
| SLSUS12 | NOPMAL | 542.007 | 2.9248 | 16 | 0.994139 | 426.081 | 2342.63 | 400.0 | 5149 | 50397516 | 2.131 |
| SLSUS12 | WET | 489.274 | 2.9575 | 54 | 0.986095 | 516.953 | 1759.04 | 188.0 | 5190 | 112665744 | 1.960 |
| SLSYC4 | ALL | 85.926 | 6.9701 | 117 | 0.813455 | 30.104 | 14.99 | 3.9 | 52 | 9355 | 1.960 |
| SLSYC4 | DRY | 103.767 | 5.9911 | 60 | 0.830995 | 26.377 | 17.34 | 6.9 | 52 | 5528 | 1.960 |
| SLSYC4 | NORMAL | 26.902 | 12.5417 | 18 | 0.960489 | 13.206 | 9.68 | 3.9 | 23 | 437 | 2.110 |
| SLSYC4 | WET | 73.581 | 7.9370 | 39 | 0.800055 | 32.591 | 13.81 | 4.0 | 32 | 2495 | 1.960 |

19:18 THURSDAY, MARCH 20, 1986

TABLE 4 EC (UMHOS/CM) TO TOS (MG/L) CONVERSION DMR D1485 GRAB SAMPLE DATA (1968 - 81) TDS = INTERCEPT + (EC COEFF * EC)

| RKI STATION | YEAR TYPE | INTERCEPT | EC COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN | EC MEAN | EC RANGE MINIMUM | EC RANGE MAXIMUM | EC SUM OF SQRS | T-STATISTIC 95% CONFID |
|--------------------|--------------|-----------|----------|----------------|------------|-----------|---------|---------------------|---------------------|-------------------|---------------------------|
| CHWST0 | ALL | 19.2 | 0.528851 | 131 | 0.965307 | 30.49 | 469.3 | 153 | 1480 | 11929179 | 1.960 |
| CHWSTO | DRY | 23.1 | 0.525874 | 61 | 0.967669 | 31.11 | 529.3 | 179 | 1480 | 6179262 | 1.960 |
| CHWSTO | NORMAL | | | 19 | 0.393995 | 53.19 | 289.1 | 178 | 520 | 151495 | 2.101 |
| CHWSTO | WET | 8.5 | 0.539136 | 51 | 0.992964 | 14.14 | 464.7 | 153 | 1320 | 4760119 | 1.950 |
| LBGB2 | ALL | 11.7 | 0.528474 | 126 | 0.991513 | 50.22 | 817.9 | 135 | 4330 | 130798951 | 1.960 |
| LBGB2 | DRY | 21.3 | 0.520074 | 54 | 0.991526 | 53.21 | 1196.8 | 135 | 3770 | 63689239 | 1.960 |
| LBG32 | NORMAL | 20.1 | 0.501728 | 19 | 0.820105 | 14.56 | 204.8 | 142 | 350 | 65263 | 2.101 |
| LEG82 | WET | 3.7 | 0.539799 | 53 | 0.989704 | 54.34 | 651.6 | 135 | 4330 | 50684209 | 1.960 |
| LFKT3 | ALL | 15.8 | 0.516952 | 47 | 0.992763 | 15.06 | 402.1 | 164 | 1740 | 5237612 | 1.960 |
| LFKT3 | DRY | 11.3 | 0.524087 | 26 | 0.995571 | 15.09 | 456.7 | 177 | 1740 | 4473826 | 2.060 |
| LFKT3 | WET | 33.2 | 0.469280 | 21 | 0.976549 | 12.74 | 334.7 | 164 | 779 | 590915 | 2.086 |
| LSEB11 | ALL | 12.4 | 0.622551 | 137 | 0.968966 | 899.86 | 9830.5 | 146 | 27000 | 8806437550 | 1.960 |
| LSEBII | DRY | 135.3 | 0.627707 | 62 | 0.932497 | 1192.52 | 14480.3 | 337 | 26000 | 2991532466 | 1.960 |
| LSEB11 | NORMAL | -143.6 | 0.686891 | 19 | 0.951358 | 378.75 | 2918.2 | 171 | 8130 | 101091739 | 2.101 |
| LSE311 | WET | 40.0 | 0.585943 | 56 | 0.983952 | 463.59 | 7027.8 | 146 | 27000 | 3025676024 | 1.960 |
| LS5B22 | ALL | -289.1 | 0.641331 | 48 | 0.937074 | 857.17 | 5404.0 | 192 | 17800 | 1223692170 | 1.960 |
| LS8922 | DRY | -334.1 | 0.670419 | 27 | 0.972208 | 660.69 | 6469.4 | 218 | 17800 | 849342561 | 2.056 |
| LSDB22 | WET | -20.9 | 0.529201 | 21 | 0.833075 | 948.01 | 4034.2 | 192 | 12400 | 304298159 | 2.086 |
| LSHL1 | ALL | -50.3 | 0.595180 | 43 | 0.995391 | 86.02 | 1601.0 | 163 | 8680 | 184978246 | 1.960 |
| LSHL1 | DRY | -69.5 | 0.604955 | 22 | 0.998325 | 64.46 | 2111.5 | 213 | 8680 | 135338399 | 2.080 |
| LSHL1 | WET | -13.6 | 0.559426 | 21 | 0.986788 | 91.43 | 1066.3 | 163 | 5660 | 37904205 | 2.085 |
| RHID23 | ALL | 18.3 | 0.523394 | 92 | 0.931026 | 15.04 | 426.2 | 200 | 947 | 3840506 | 1.960 |
| RH1023 | DRY | 21.3 | 0.523698 | 53 | 0.931587 | 14.71 | 445.8 | 211 | 941 | 2144963 | 1.960 |
| RMID23 | WET | 16.1 | 0.518350 | 39 | 0.902132 | 14.75 | 399.5 | 200 | 947 | 1647408 | 1.960 |
| RMKL028 | ALL | 15.9 | 0.511038 | 90 | 0.915543 | 10.69 | 108.8 | 35 | 273 | 417260 | 1.960 |
| RMKL028 | DRY | 15.4 | 0.524562 | 40 | 0.854331 | 13.69 | 150.8 | 45 | 273 | 164998 | 1.960 |
| RHKL028 | NORMAL | 11.8 | 0.556525 | 20 | 0.874120 | 6.58 | 64.1 | 35 | 148 | 17463 | 2.093 |
| RMKL028 | WET | 20.7 | 0.430403 | 30 | 0.935539 | 7.00 | 82.6 | 38 | 268 | 103743 | 2.045 |
| ROLD21 | ALL | 16.2 | 0.525194 | 130 | 0.993795 | 17.35 | 489.6 | 134 | 1730 | 22380038 | 1.960 |
| ROLD21 | DRY | 17.8 | 0.525804 | 62 | 0.992733 | 20.92 | 617.2 | 134 | 1650 | 12978626 | 1.960 |
| ROLD21 | NORMAL | 8.1 | 0.564826 | 18 | 0.830098 | 13.50 | 215.9 | 135 | 338 | 47284 | 2.110 |
| ROLD21 | HET | 15.6 | 0.520688 | 50 | 0.995352 | 13.38 | 427.3 | 136 | 1730 | 6802945 | 1.960 |
| ROLD59 | ALL | -12.2 | 0.593205 | 45 | 0.976433 | 30.68 | 682.5 | 211 | 1670 | 4765039 | 1.960 |
| ROLD59 | DRY | -21.4 | 0.610705 | 25 | 0.977707 | 32.83 | 769.4 | 315 | 1670 | 2915536 | 2.064 |
| ROLD59 | WET | 11.4 | 0.542767 | 20 | 0.976431 | 23.72 | 573.8 | 211 | 973 | 1424617 | 2.093 |
| RSAC032 | ALL | -2468.9 | 0.759055 | 20 | 0.964241 | 1098.63 | 35585.0 | 11400 | 43200 | 1014745500 | 2.093 |
| RSAC032 | DRY | -2230.4 | 0.766123 | 10 | 0.713065 | 1282.31 | 38480.0 | 33900 | 42800 | 55696000 | 2.262 |
| RSAC032 | WET | -1786.9 | 0.724318 | 10 | 0.972900 | 609.19 | 32690.0 | 11400 | 43200 | 791429000 | 2.262 |
| RSAC040 | ALL | -186.8 | 0.700708 | 64 | 0.903563 | 2215.37 | 32105.8 | 6020 | 43700 | 5806646761 | 1.960 |
| RSAC040 | DRY | 1840.7 | 0.655699 | 40 | 0.770278 | 2495.64 | 34732.5 | 15400 | 42000 | 1845807750 | 1.960 |
| RSAC040 | WET | -556.5 | 0.636140 | 24 | 0.974201 | 1351.88 | 27727.9 | 6020 | 43900 | 3224876196 | 2.069 |
| RSAC056 | ALL | -164.6 | 0.678122 | 140 | 0.966509 | 1249.45 | 19793.6 | 153 | 38000 | 13520088460 | 1.960 |
| RSAC056 | DRX | -124.1 | 0.683869 | 63 | 0.901995 * | 1520.47 | 26017.9 | 7440 | 35800 | 2775220232 | 1.960 |
| RSAC056 | NORMAL | -298.3 | 0.726931 | 19 | 0.963239 | 749.04 | 11747.4 | 1050 | 19500 | 472947768 | 2.101 |
| RSAC056 | WET | -151.8 | 0.654935 | 58 | 0.980631 | 921.61 | 15668.6 | 153 | 38000 | 5614160103 | 1.960 |
| RSAC063 | ALL | -169.6 | 0.665309 | 54 | 0.978563 | 503.76 | 6356.5 | 124 | 18300 | 1360901919 | 1.960 |
| RSAC063 | DRY | (nn (| | 4 | 0.953073 | 453.86 | 9506.3 | 7340 | 12600 | 15282669 | 3.182 |
| RSAC063 | NORMAL | -402.6 | 0.721855 | 19 | 0.981999 | 420.07 | 5341.2 | 175 | 16800 | 314056003 | 2.101 |
| RSAC063 RSAC068 | WET | -73.2 | 0.652794 | 31 | 0.931773 | 514.65 | 6572.4 | 124 | 18300 | 970847251 | 1.960 |
| H 310000 | ALL | -199.5 | 0.625346 | 47 | 0.990446 | 377.62 | 7948.6 | 195 | 23500 | 1700961183 | 1.960 |

19:18 THURSDAY, MARCH 20, 1986

TABLE 4 (CONT) EC (UMMOS/CM) TO TDS (MS/L) CONVERSION DWR D1485 GRAB SAMPLE DATA (1968 - 81) TDS = INTERCEPT + (EC COEFF * EC)

| RKI STATION | YEAR | INTERCEPT | EC COEFF | | R SQUARE | ROOT MEAN | EC MEAN | EC RANGE | EC RANGE | EC SUM | T-STATISTIC |
|-------------|------------|-----------|----------|------|----------|-----------|---------|----------|----------|------------|-------------|
| | TYPE | | | SIZE | | SOR ERROR | | MINIMUM | MAXIMUM | OF SGRS | 95% CONFID |
| RSAC068 | DRY | -268.01 | 0.642721 | 26 | 0.990494 | 404.99 | 9505.58 | 327 | 23500 | 992932980 | 2.060 |
| RSAC068 | WET | -43.00 | 0.579469 | 21 | 0.997676 | 152.77 | 6020.85 | 195 | 17000 | 566959555 | 2.086 |
| RSAC075 | ALL | -60.06 | 0.614206 | 138 | 0.993415 | 312.87 | 5929.36 | 125 | 21700 | 5323508446 | 1.960 |
| RSAC075 | DRY | -89.05 | 0.624258 | 62 | 0.983173 | 407.40 | 9330.45 | 228 | 19500 | 2135072025 | 1.960 |
| RSAC075 | NORMAL | -17.67 | 0.587866 | 19 | 0.990990 | 56.59 | 893.21 | 171 | 3760 | 17323363 | 2.101 |
| RSAC075 | WET | -43.10 | 0.590224 | 57 | 0.997582 | 163.40 | 3908.65 | 125 | 21700 | 1739293001 | 1.960 |
| RSAC084 | ALL | -10.78 | 0.537844 | 139 | 0.990956 | 219.38 | 3075.94 | 129 | 13900 | 2090688384 | 1.960 |
| RSAC084 | DRY | -12.33 | 0.593233 | 63 | 0.983960 | 313.06 | 5006.97 | 159 | 13100 | 1042131258 | 1.960 |
| RSAC084 | NORMAL | 7.42 | 0.580763 | 19 | 0.994641 | 17.22 | 330.42 | 132 | 1750 | 2773665 | 2.101 |
| RSAC084 | WET | -11.71 | 0.570394 | 57 | 0.998456 | 73.02 | 1855.81 | 129 | 13900 | 582926775 | 1.960 |
| RSAC092 | ALL | -1.71 | 0.559661 | 140 | 0.995524 | 79.29 | 1307.95 | 117 | 10000 | 616037925 | 1.960 |
| RSAC092 | DRY | 2.18 | 0.554062 | 62 | 0.993166 | 106.70 | 2103.08 | 129 | 7100 | 323402417 | 1.960 |
| RSAC092 | NCRMAL | 2.27 | 0.524246 | 20 | 0.914719 | 7.84 | 175.15 | 128 | 248 | 34743 | 2.093 |
| RSAC092 | WET | -6.12 | 0.571423 | 58 | 0.998066 | 49.35 | 848.60 | 117 | 10000 | 215499662 | 1.960 |
| RSAC101 | ALL | 12.16 | 0.528973 | 139 | 0.995419 | 19.75 | 415.33 | 108 | 3500 | 53141345 | 1.960 |
| R5AC101 | DRY | 14.48 | 0.523341 | 62 | 0.991878 | 27.41 | 537.29 | 125 | 2100 | 20100219 | 1.960 |
| RSAC101 | NCEMAL | 21.13 | 0.470326 | 19 | 0.835985 | 5.37 | 151.47 | 117 | 193 | 11279 | 2.101 |
| RSAC101 | WET | 11.41 | 0.532934 | 58 | 0.999236 | 10.90 | 371.40 | 108 | 3500 | 30672908 | 1.960 |
| RSAC139 | ALL | 38.97 | 0.375404 | 135 | 0.703077 | 10.69 | 160.90 | 64 | 356 | 263419 | 1.960 |
| RSAC139 | DRY | | | 63 | 0.587404 | 11.97 | 176.03 | 118 | 356 | 114778 | 1.960 |
| RSAC139 | NCRMAL | | | 21 | 0.428096 | 11.00 | 137.00 | 100 | 202 | 16916 | 2.086 |
| RSAC139 | WET | 35.58 | 0.385575 | 52 | 0.831855 | 7.81 | 152.21 | 64 | 308 | 101379 | 1.960 |
| RSAH007 | ALL | -11.28 | 0.559226 | 140 | 0.993820 | 140.89 | 2482.83 | 131 | 12600 | 1359531186 | 1.960 |
| PSAN007 | DRY | -6.08 | 0.575395 | 63 | 0.991493 | 176.03 | 3941.86 | 203 | 10800 | 665442508 | 1.960 |
| RSAN007 | NORMAL | 0.25 | 0.567893 | 19 | 0.991536 | 13.71 | 311.79 | 138 | 1150 | 1161511 | 2.101 |
| PSAN007 | WET | -16.06 | 0.550011 | 58 | 0.995876 | 97.50 | 1609.22 | 131 | 12600 | 424995494 | 1.960 |
| RSAN018 | ALL | 14.53 | 0.524482 | 138 | 0.991711 | 62.08 | 983.86 | 128 | 6490 | 227969731 | 1.960 |
| RSAN018 | DRY | 23.18 | 0.519732 | 62 | 0.987811 | 78.36 | 1424.42 | 148 | 4540 | 110536505 | 1.960 |
| RSAN018 | NORMAL | 13.70 | 0.527911 | 19 | 0.972621 | 7.73 | 219.89 | 134 | 516 | 166660 | 2.101 |
| RSAN018 | NET | 8.79 | 0.529366 | 57 | 0.994186 | 52.15 | 759.30 | 128 | 6490 | 91269218 | 1.960 |
| RSAN024 | ALL | 7.92 | 0.535695 | 137 | 0.986593 | 52.17 | 672.94 | 122 | 4240 | 94210168 | 1.960 |
| RSAN024 | DRY | 17.14 | 0.520033 | 62 | 0.974285 | 71.00 | 940.65 | 122 | 2880 | 42370746 | 1.960 |
| RSAN024 | NORMAL | 22.56 | 0.470408 | 19 | 0.841859 | 7.43 | 172.00 | 132 | 233 | 21814 | 2.101 |
| RSAN024 | WET | 1.47 | 0.555677 | 56 | 0.997408 | 24.89 | 546.52 | 125 | 4240 | 41711412 | 1.960 |
| RSAN035 | ALL | 21.28 | 0.496184 | 138 | 0.980265 | 12.03 | 270.46 | 121 | 922 | 3969784 | 1.960 |
| RSAN035 | DRY | 20.95 | 0.503111 | 62 | 0.974243 | 15.01 | 326.42 | 121 | 780 | 2021363 | 1.950 |
| RSAN035 | NCRHAL | 12.21 | 0.531734 | 19 | 0.889997 | 4,97 | 160.84 | 122 | 232 | 12005 | 2.101 |
| RSAN035 | KET | 25.19 | 0.476264 | 57 | 0.986689 | 9.07 | 246.14 | 121 | 922 | 1480249 | 1.960 |
| R5AN056 | ALL | 11.52 | 0.543031 | 132 | 0.973304 | 18.87 | 526.64 | 187 | 1410 | 5724956 | 1.960 |
| RSAN056 | DRY | 3.35 | 0.562937 | 61 | 0.968873 | 18.93 | 594.89 | 242 | 1075 | 2076982 | 1.960 |
| RSAN056 | NORMAL | 23.76 | 0.532903 | 18 | 0.969409 | 10.94 | 432.78 | 187 | 620 | 213507 | 2.110 |
| RSAN056 | WET | 14.35 | 0.522799 | 53 | 0.979102 | 18.14 | 479.98 | 204 | 1410 | 2876399 | 1.960 |
| RSAN087 | ALL | 5.12 | 0.575156 | 123 | 0.979696 | 33.37 | 748.04 | 153 | 1750 | 19651223 | 1.960 |
| R\$AH087 | DRY | 1.59 | 0.586728 | 64 | 0.979478 | 34.17 | 918.92 | 242 | 1720 | 10038959 | 1.960 |
| RSAH087 | NORMAL | 5.44 | 0.563139 | 20 | 0.985000 | 13.82 | 495.15 | 153 | 843 | 699139 | 2.093 |
| RSAN087 | WET | 27.39 | 0.521039 | 39 | 0.973655 | 31.12 | 597.31 | 193 | 1750 | 4879130 | 1.960 |
| RSAN112 | ALL | -2.67 | 0.583793 | 138 | 0.980632 | 34.78 | 742.49 | 140 | 1850 | 24445160 | 1.960 |
| RSAN112 | DRY | 5.52 | 0.583542 | 64 | 0.981214 | 37.65 | 947.89 | 263 | 1850 | 13478432 | 1.960 |
| R5AH112 | NORMAL | 2.53 | 0.576392 | 21 | 0.956527 | 22.82 | 495.76 | 140 | 778 | 655182 | 2.086 |
| RSAN112 | WET | 6.69 | 0.550722 | 53 | 0.968005 | 31.77 | 592.21 | 217 | 1740 | 5136059 | 1.960 |

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19:18 THURSDAY, MARCH 20, 1986

TABLE 4 (CON'T) EC (UMHOS/CM) TO TDS (MG/L) CONVERSION DMR D1405 GRAB SAMPLE DATA (1968 - 81) TDS = INTERCEPT + (EC COEFF * EC)

| RKI STATION | YEAR TYPE | INTERCEPT | EC COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN | EC MEAN | EC RANGE MINIMUM | EC RANGE MAXIMUM | EC SUM OF SGRS | T-STATISTIC 95% CONFID |
|------------------|--------------|---------------|----------------------|----------------|----------|-----------|---------|---------------------|---------------------|-------------------|---------------------------|
| RSMKL09 | ALL | | | 44 | 0.04095 | 1537.91 | 176.34 | 103 | 245 | 56592 | 1.960 |
| RSHKL09 | DRY | 4.26 | 0.581103 | 22 | 0.86662 | 8.46 | 182.27 | 137 | 245 | 27566 | 2.080 |
| RSMKL09 | WET | 41.20 | | 22 | 0.10245 | 2131.56 | 170.41 | 103 | 238 | 27477 | 2.080 |
| SLOPT07 | ALL | 9.03 | 0.565379 | 46 | 0.93925 | 10.47 | 268.74 | 188 | 447 | 232641 | 1,960 |
| SLOPTO7 | DRY | 12.35 | 0.555271 | 25 | 0.94025 | 11.10 | 272.96 | 188 | 447 | 144749 | 2.064 |
| SLOPTO7 | WET | 4.01 | 0.584106 | 21 | 0.93857 | 10.11 | 263.71 | 195 | 433 | 86916 | 2.086 |
| SLSUS12 | ALL | -208.89 | 0.635844 | 62 | 0.98664 | 343.19 | 6592.18 | 815 | 16400 | 1290948831 | 1.960 |
| | DRY | -366.38 | 0.662391 | 22 | 0.98409 | 349.40 | 8288.18 | 2300 | 16400 | 344152327 | 2.080 |
| SLSUS12 | | -300.30 | 0.052371 | 2 | 1.00000 | 2 | 1500.00 | 1400 | 1600 | 20000 | 12.706 |
| SLSUS12 | NORMAL | ~192.94 | 0.624062 | 38 | 0.98812 | 325.08 | 5878.29 | 815 | 16300 | 812268314 | 1.960 |
| SLSUSIZ | WET | | 0.578339 | 43 | 0.95442 | 9.57 | 198.91 | 81 | 407 | 235096 | 1.960 |
| SLSYC4 | ALL | 3.45 | | 22 | 0.96419 | 9.06 | 205.36 | 125 | 407 | 137867 | 2.080 |
| SLSYC4 SLSYC4 | DRY WET | 6.63 -0.20 | 0.566091 0.593847 | 21 | 0.94214 | 10.39 | 191.10 | 81 | 334 | 94724 | 2.086 |

19:38 THURSDAY, MARCH 20, 1986

TABLE 5 TDS (MG/L) TO EC (UTHOS/CM) CONVERSION DWR D1485 GRAB SAMPLE DATA (1968 - 81) EC = INTERCEPT + (TDS COEFF * TDS)

| | | | | 20 | 2001200200 | | | | | | |
|-------------|--------------|-----------|-----------|----------------|------------|------------------------|----------------|----------------------|----------------------|--------------------|--------------------------|
| RKI STATION | YEAR TYPE | INTERCEPT | TOS COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN Sor Error | TD5 MEAN | TOS RANGE MINIMUM | TDS RANGE MAXIMUM | TDS SUM OF SQRS | T-STATISTI 95% CONFID |
| | | 10.7 | 1.82529 | 131 | 0.965307 | 56.64 | 267.4 | 96 | 730 | 3456297 | 1.960 |
| CHWSTO | ALL | -18.7 | | 61 | 0.967669 | 58.19 | 301.5 | 124 | 730 | 1765929 | 1.960 |
| CHWSTO | DRY | -25.4 | 1.84012 | | 0.393995 | 73.49 | 180.6 | 104 | 365 | 79357 | 2.101 |
| CHUSTO | NORMAL | | | 19 51 | 0.992964 | 26.14 | 259.0 | 96 | 713 | 1393415 | 1.960 |
| CHWSTO | WET | -12.3 | 1.84177 | | 0.991513 | 94.61 | 443.9 | 80 | 2630 | 36842869 | 1,960 |
| LBGB2 | ALL | -15.0 | 1.87618 | 126 | | 101.87 | 643.8 | 85 | 2040 | 17373660 | 1.960 |
| LBGB2 | DRY | -30.5 | 1.90651 | 54 | 0.991526 | 26.28 | 122.8 | 80 | 209 | 20033 | 2.101 |
| LBGB2 | NORMAL | 4.0 | 1.63456 | 19 | 0.820105 | 100.17 | 355.5 | 84 | 2630 | 14919117 | 1.960 |
| LBG32 | WET | -0.2 | 1.83384 | 53 | 0.989904 | 29.02 | 223.7 | 96 | 939 | 1409899 | 1.960 |
| LFKT3 | ALL | -27.4 | 1.92042 | 47 | 0.992763 | 29.02 | 250.7 | 100 | 939 | 1234278 | 2.060 |
| LFKT3 | DRY | -19.5 | 1.89963 | 26 | 0.995571 | 26.83 | 190.2 | 96 | 407 | 133218 | 2.086 |
| LFKT3 | WET | -61.3 | 2.03159 | 21 | 0.976849 | 1422.83 | 6132.3 | 72 | 16700 | 3522444736 | 1.960 |
| LSBB11 | ALL | 285.8 | 1.55644 | 137 | 0.968965 | | 9224.7 | 188 | 16500 | 1264036807 | 1.960 |
| LSBB11 | DRY | 776.4 | 1.43556 | 62 | 0.932497 | 1834.56 | 1860.8 | 116 | 5800 | 50135777 | 2.101 |
| LSEB11 | NORMAL | 340.9 | 1.38502 | 19 | 0.951358 | 537.82 | 4157.9 | 72 | 16700 | 1050406907 | 1.960 |
| LSBB11 | MET | 10.1 | 1.68730 | 56 | 0.988952 | 786.79 | | 110 | 14300 | 537109433 | 1.960 |
| LSB822 | ALL | 762.5 | 1.46114 | 48 | 0.937074 | 1293.82 | 3176.6 | 139 | 14300 | 392660107 | 2.056 |
| LSEB22 | DRY | 664.3 | 1.45015 | 27 | 0.972208 | 971.69 | 4003.1 | 110 | 7080 | 102295701 | 2.086 |
| LSEB22 | WET | 706.2 | 1.57421 | 21 | 0.833075 | 1635.06 | 2114.0 | 104 | 5290 | 65829932 | 1.960 |
| LSHLI | ALL | 91.5 | 1.67242 | 43 | 0.995391 | 144.20 | 902.6 | 131 | 5290 | 49612985 | 2.080 |
| LSHL1 | DRY | 118.3 | 1.65025 | 22 | 0.998325 | 106.46 | 1207.8 | 104 | 3330 | 12021212 | 2.086 |
| LSHL1 | WET | 38.1 | 1.76393 | 21 | 0.925788 | 162.35 | 582.9 | | 544 | 1072422 | 1.960 |
| RMID23 | ALL | -26.2 | 1.87435 | 92 | 0.981026 | 28.45 | 241.3 | 114 | 544 | 599313 | 1.960 |
| RMID23 | DRY | -31.7 | 1.87434 | 53 | 0.981537 | 27.83 | 254.7 | 114 | 510 | 450690 | 1.960 |
| RMID23 | WET | -23.3 | 1.89473 | 39 | 0.982132 | 28.21 | 223.1 | 121 26 | 190 | 119024 | 1.960 |
| RMKL028 | ALL | -19.3 | 1.79153 | 90 | 0.915543 | 20.01 | 71.5 | 32 | 190 | 52528 | 1.960 |
| RMKL028 | DRY | -4.9 | 1.64772 | 40 | 0.864331 | 24.27 | 94.5 | 26 | 98 | 6187 | 2.093 |
| RMKL028 | NORMAL | -10.5 | 1.57078 | 20 | 0.874180 | 11.05 | 47.5 | 30 | 136 | 21312 | 2.045 |
| RHKL028 | WET | -38.9 | 2.13408 | 30 | 0.935589 | 15.45 | 56.9 | 88 | 932 | 6211598 | 1.960 |
| POLD21 | ALL | -27.7 | 1.89224 | 130 | 0.993795 | 32.94 | 272.8 | 93 | 860 | 3614464 | 1.960 |
| ROLD21 | DRY | -29.1 | 1.88803 | 62 | 0.992733 | 39.65 | 342.3 | | 199 | 17999 | 2.110 |
| ROLD21 | NORMAL | | 1.48382 | 18 | 0.833098 | 21.87 | 130.1 | 88 92 | 932 | 1852979 | 1.960 |
| ROLD21 | MET | -27.9 | 1.91163 | 50 | 0.995362 | 25.64 | 238.1 | | 970 | 1717243 | 1.960 |
| ROLD59 | ALL | 36.2 | 1.64604 | 45 | 0.976433 | 51.10 | 392.6 | 126 | 970 | 1112172 | 2.064 |
| ROLD59 | DRY | 51.5 | 1.60095 | 25 | 0.977707 | 53.16 | 448.4 | 174 | 553 | 429817 | 2.093 |
| ROLD59 | WET | -7.0 | 1.79899 | 20 | 0.976431 | 43.19 | 322.8 | 126 6510 | 29800 | 607620695 | 2.093 |
| RSAC032 | ALL | 4405.5 | 1.26898 | 20 | 0.954241 | 1419.82 | 24570.5 | | 29800 | 45845000 | 2.262 |
| R5AC032 | DRY | 13117.2 | 0.93074 | 10 | 0.713065 | 1413.38 | 27250.0 | 22200 | 29600 | 418181290 | 2.262 |
| RSAC032 | WET | 2681.7 | 1.37081 | 10 | 0.992900 | 838.07 | 21891.0 | 6510 | 30000 | 3155299200 | 1.960 |
| RSAC040 | ALL | 3337.0 | 1.28950 | 64 | 0.903553 | 3005.30 | 22310.0 | 2990 | 29900 | 1030261397 | 1.960 |
| RSAC040 | DRY | 5816.5 | 1.17474 | 40 | 0.770278 | 3340.43 | 24614.8 | 9090 | 30000 | 1553438062 | 2.069 |
| RSAC040 | WET | 1505.5 | 1.41783 | 24 | 0.974201 | 1944.68 | 18468.8 | | 24900 | 6432640883 | 1.960 |
| RSAC056 | ALL | 897.6 | 1.42527 | 140 | 0.966509 | 1811.40 | 13257.9 | | | 1438926098 | 1.960 |
| RSAC056 | DRY | 2713.6 | 1.31896 | 63 | 0.901995 | 2111.58 | 17668.7 | | 24300 | 259456986 | 2.101 |
| RSAC056 | NORMAL | | 1.32508 | 19 | 0.963239 | 1011.30 | 8241.3 | | 13800 | 2455699769 | 1.960 |
| RSAC056 | WET | 530.8 | 1.49730 | 58 | 0.980631 | 1393.48 | 10110.1 | 106 | 24900 | 615580817 | 1.960 |
| RSAC063 | ALL | 385.7 | 1.47084 | 54 | 0.978563 | 749.03 | 4059.4 | | 12600 8200 | 8779275 | |
| RSAC063 | DRY | | | 4 | 0.953073 | 598.82 | 5717.5 | | | 166646325 | |
| RSAC063 | NORMAL | . 643.8 | 1.36038 | 19 | 0.981999 | 576.67 | 3452.9 | | 12600 | 421397945 | |
| RSAC063 | WET | 229.9 | 1.50375 | 31 | 0.981773 | 781.16 | 4217.2 | | 12200 | | |
| RSAC068 | ALL | 392.0 | 1.58384 | 47 | 0.990446 | 600.96 | 4771. 1 | 118 | 15400 | 671591284 | 1.900 |
| | | | | | | | | | | | |

19:38 THURSDAY, MARCH 20, 1986

TABLE 5 (CONT) TDS (MG/L) TO EC (UMHOS/CM) CONVERSION DWR D1485 GRAB SAMPLE DATA (1968 - 81) EC = INTERCEPT + (TDS COEFF * TDS)

| RKI STATION | YEAR | INTERCEPT | TDS COEFF | SAMPLE | R SQUARE | ROOT MEAN | TDS MEAN | TDS RANGE | TDS RANGE MAXIMUM | TDS SUM OF SQRS | T-STATISTIC 95% CONFID |
|-------------|--------|-----------|-----------|--------|----------|-----------|----------|-----------|----------------------|--------------------|---------------------------|
| | TYPE | | | 512E | | SUR ERROR | | 111111100 | | •••• | |
| RSAC068 | DRY | 503.386 | 1.54110 | 26 | 0.990494 | 627.121 | 5841.42 | 176 | 15400 | 414107128 | 2.060 |
| RSAC068 | WET | 88.020 | 1.72171 | 21 | 0.997676 | 263.324 | 3445.90 | 118 | 10000 | 190819786 | 2.086 |
| RSAC075 | ALL | 136.183 | 1.61740 | 138 | 0.993415 | 507.707 | 3581.79 | 81 | 13400 | 2021598179 | 1.960 |
| RSAC075 | DRY | 251.309 | 1.58296 | 62 | 0.988173 | 648.742 | 5735.56 | 120 | 12200 | 841992203 | 1.960 |
| RSAC075 | NORMAL | 37.830 | 1.68574 | 19 | 0.990990 | 95.821 | 507.42 | 81 | 2340 | 6041157 | 2.101 |
| RSAC075 | WET | 82.300 | 1.69018 | 57 | 0.997532 | 276.510 | 2263.88 | 84 | 13400 | 607376538 | 1.960 |
| RSAC084 | ALL | 45.983 | 1.68575 | 139 | 0.990956 | 371.498 | 1797.40 | 78 | 7990 | 729053877 | 1.960 |
| RSAC084 | DRY | 100.837 | 1.65364 | 63 | 0.983960 | 523.473 | 2957.92 | 98 | 7990 | 372730353 | 1.960 |
| RSAC084 | NORMAL | -10.937 | 1.71265 | 19 | 0.994641 | 29.569 | 199.32 | 78 | 1040 | 940556 | 2.101 |
| RSAC084 | WET | 23.362 | 1.75047 | 57 | 0.993456 | 127.912 | 1047.40 | 82 | 7940 | 189948266 | 1.960 |
| RSAC092 | ALL | 8.875 | 1.77830 | 140 | 0.975524 | 141.358 | 730.30 | 62 | 5930 | 193823437 | 1.960 |
| RSAC092 | DRY | 10.462 | 1.79252 | 62 | 0.993166 | 191.921 | 1167.42 | 82 | 4390 | 99962865 | 1.960 |
| RSAC092 | NOPHAL | 11.334 | 1.56564 | 20 | 0.914719 | 12.830 | 104.60 | 62 | 160 | 12965 | 2.093 |
| RSAC092 | WET | 12.328 | 1.74663 | 53 | 0.998066 | 86.273 | 478.79 | 73 | 5930 | 70502220 | 1.960 |
| RSAC101 | ALL | -21.413 | 1.88369 | 139 | 0.995419 | 37.272 | 231.86 | 68 | 1870 | 14923053 | 1.960 |
| RSAC101 | DRY | -23.070 | 1.89528 | 62 | 0.991878 | 52.163 | 295.66 | 82 | 1130 | 5550252 | 1.960 |
| RSAC101 | NORMAL | -12.707 | 1.77746 | 19 | 0.835935 | 10.432 | 92.37 | 70 | 116 | 2984 | 2.101 |
| RSACIOI | WET | -21.119 | 1.87497 | 58 | 0.999236 | 20.450 | 209.34 | 68 | 1870 | 8718337 | 1.960 |
| RSAC139 | ALL | -26.542 | 1.88618 | 136 | 0.703077 | 23,955 | 99.38 | 62 | 153 | 52428 | 1.960 |
| RSAC139 | DRY | 20.512 | | 63 | 0.537404 | 27.363 | 107.73 | 76 | 146 | 21171 | 1.960 |
| RSAC139 | NORMAL | • | | 21 | 0.428096 | 22.555 | 86.81 | 62 | 120 | 4019 | 2.086 |
| RSAC139 | WET | -51.169 | 2.15744 | 52 | 0.831855 | 18.454 | 94.27 | 64 | 153 | 18118 | 1.960 |
| RSAN007 | ALL | 35.032 | 1.74591 | 140 | 0.993320 | 246.740 | 1402.01 | 77 | 7120 | 443252696 | 1.960 |
| RSAN007 | DRY | 44.001 | 1.72315 | 63 | 0.991493 | 304.628 | 2262.05 | 94 | 6230 | 222204221 | 1.960 |
| RSAN007 | NORMAL | 2.198 | 1.74599 | 19 | 0.991536 | 24.048 | 177.32 | 77 | 674 | 377788 | 2.101 |
| RSAN007 | WET | 35.708 | 1.81065 | 58 | 0.995876 | 176.904 | 869.03 | 83 | 7120 | 129098520 | 1.960 |
| RSAN018 | ALL | -19.318 | 1.87084 | 138 | 0.991711 | 117.874 | 530.54 | 79 | 3690 | 63234292 | 1.960 |
| RSAN018 | DRY | -26.700 | 1.90062 | 62 | 0.937811 | 149.853 | 763.50 | 88 | 2520 | 30226729 | 1,960 |
| RSAN018 | HORMAL | -20.704 | 1.85376 | 19 | 0.978621 | 14.477 | 129.79 | 79 | 291 | 47461 | 2.101 |
| RSAN018 | WET | -12.094 | 1.87807 | 57 | 0.994186 | 98.222 | 410.74 | 86 | 3690 | 25725811 | 1.960 |
| RSAN024 | ALL | -5.560 | 1.84171 | 137 | 0.936593 | 96.729 | 368.41 | 74 | 2450 | 27402763 | 1.960 |
| RSAN024 | DRY | -7.922 | 1.87350 | 62 | 0.974285 | 134.758 | 506.31 | 80 | 1530 | 11760959 | 1.960 |
| RSAN024 | NORMAL | -12.492 | 1.75971 | 19 | 0.841859 | 14.245 | 104.84 | 74 | 136 | 5931 | 2.101 |
| RSAN024 | WET | -1.228 | 1.79494 | 56 | 0.997408 | 44.743 | 305.16 | 79 | 2450 | 12912998 | 1.960 |
| RSAN035 | ALL | -36.700 | 1.97561 | 139 | 0.980265 | 24.001 | 155.48 | 70 | 464 | 997030 | 1.960 |
| RSAN035 | DRY | -32.165 | 1.93644 | 62 | 0.974243 | 29.457 | 185.18 | 81 | 435 | 525175 | 1.960 |
| RSAN035 | NORMAL | -2.746 | 1.67376 | 19 | 0.889997 | 8.814 | 97.74 | 70 | 138 | 3814 | 2.101 |
| RSAN035 | WET | -48.918 | 2.07173 | 57 | 0.926689 | 18.927 | 142.42 | 79 | 464 | 340290 | 1.960 |
| RSAN056 | ALL | -6.595 | 1.79235 | 132 | 0.973304 | 34.287 | 297.51 | 116 | 735 | 1734495 | 1.960 |
| RSAN056 | DRY | 12.757 | 1.72110 | 61 | 0.963873 | 33.102 | 338.23 | 146 | 633 | 679337 | 1.960 |
| RSAN056 | NORMAL | | 1.81911 | 18 | 0.969409 | 20.204 | 254.39 | 116 | 347 | 62546 | 2.110 |
| RSAN056 | WET | -16.843 | 1.87281 | 53 | 0.979102 | 34.331 | 265.28 | 124 | 735 | 802955 | 1.960 |
| RSAN087 | ALL | 6.471 | 1.70336 | 123 | 0.979695 | 57.424 | 435.36 | 79 | 1020 | 6635432 | 1.960 |
| RSAN087 | DRY | 16.200 | 1.66939 | 64 | 0.979478 | 57.645 | 540.75 | 134 | 1020 | 3528320 | 1.960 |
| RSAN087 | NORMAL | | 1.73373 | 20 | 0.985000 | 24.138 | 286.75 | 79 | 474 | 229106 | 2.093 |
| RSAN087 | WET | -35.456 | 1.26268 | 39 | 0.973655 | 53.941 | 338.62 | 112 | 963 | 1360435 | 1.960 |
| RSANI12 | ALL | 18.874 | 1.67976 | 138 | 0.980632 | 59.003 | 430.78 | 81 | 1150 | 8495793 | 1.960 |
| RSAN112 | DRY | 8.522 | 1.68148 | 64 | 0.981214 | 63.906 | 558.66 | 150 | 1150 | 4677568 | 1.960 |
| RSAN112 | NORMAL | | 1.65951 | 21 | 0.956527 | 38.718 | 288.29 | 81 | 472 | 227562 | 2.086 |
| RSAN112 | WET | 7.191 | 1.75770 | 53 | 0.968005 | 56.764 | 332.83 | 128 | 975 | 1609225 | 1.960 |
| | | | | | | | | | | | |

19:38 THURSDAY, MARCH 20, 1986

TABLE 5 (CONT) TDS (MG/L) TO EC (UTHOS/CM) CONVERSION DMR D1485 GRAB SAMPLE DATA (1968 - 81) EC = INTERCEPT + (TDS COEFF * TDS)

| RKI STATION | YEAR TYPE | INTERCEPT | TDS COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN SGR EPROR | TDS MEAN | TDS RANGE MINIMUM | TDS RANGE Maximum | TDS SUM OF SQRS | T-STATISTIC 95% CONFID |
|-------------|--------------|-----------|-----------|----------------|----------|------------------------|----------|----------------------|----------------------|--------------------|---------------------------|
| RSMKL09 | ALL | | | 44 | 0.04095 | 35.948 | 339.95 | 66 | 10400 | 103577960 | 1.0/0 |
| RSHKL09 | DRY | 17.954 | 1.49134 | 22 | 0.86662 | 13.559 | 110.18 | 81 | 156 | 103577980 | 1.960 |
| RSMKL09 | WET | | | 22 | 0.10245 | 35.116 | 569.73 | 66 | 10400 | 101244216 | 2.080 |
| SLDPT07 | ALL | 1.349 | 1.65835 | 46 | 0.93925 | 17.922 | 161.24 | 111 | 268 | 79454 | 1.960 |
| SLDPT07 | DRY | -4.609 | 1.69332 | 25 | 0.94025 | 19.391 | 163.92 | 111 | 268 | 47466 | 2.064 |
| SLDPT07 | WET | 9.756 | 1.60685 | 21 | 0.93857 | 16.764 | 158.05 | 122 | 250 | 31595 | 2.084 |
| SLSUS12 | ALL | 412.195 | 1.55170 | 62 | 0.98664 | 536.126 | 3982.71 | 621 | 10100 | 528994293 | 1.960 |
| SLSUS12 | DRY | 676.199 | 1.43566 | 22 | 0.98409 | 523.263 | 5123.64 | 1220 | 9970 | 153442509 | 2.080 |
| SLSUS12 | NORMAL | | | 2 | 1.00000 | | 1070.00 | 950 | 1180 | 24200 | 12.706 |
| SL5U512 | WET | 375.354 | 1.58336 | 38 | 0.98312 | 517.802 | 3475.47 | 621 | 10100 | 320145169 | 1.960 |
| SLSYC4 | ALL | 3.367 | 1.65029 | 43 | 0.95442 | 16.166 | 118.49 | 57 | 239 | 82389 | 1.960 |
| SLSYC4 | DRY | -3.910 | 1.70325 | 22 | 0.96419 | 15.710 | 123.45 | 76 | 239 | 45821 | 2.080 |
| SLSYC4 | WET | 11.367 | 1.50650 | 21 | 0.94214 | 16.984 | 113.29 | 57 | 206 | 35456 | 2.080 |

19:47 THURSDAY, MARCH 20, 1986

TABLE 6 CHLORIDE (MG/L) TO TDS (MG/L) CONVERSION DHR D1485 GRAB SAMPLE DATA (1968 - 81) TDS = INTERCEPT + (CL COEFF * CHLORIDE)

| RKI STATION | YEAR TYPE | INTERCEPT | CL COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN | CL MEAN | CL RANGE MINIMUM | CL RANGE MAXIMUM | CL SUM OF SQRS | T-STATISTIC 95% CONFID |
|-------------|--------------|-----------|----------|----------------|----------|-----------|----------------|---------------------|---------------------|-------------------|---------------------------|
| CHWSTO | ALL | 105.82 | 2.08475 | 132 | 0.940943 | 39.68 | 77.1 | 13.0 | 321.0 | 750452 | 1.960 |
| CHWSTO | DRY | 109.53 | 2.01358 | 62 | 0.956665 | 35.89 | 94.2 | 17.0 | 321.0 | 420869 | 1.960 |
| CHWSTO | NCRMAL | • | | 19 | 0.332677 | 55.81 | 34.1 | 13.0 | 75.0 | 4738 | 2.101 |
| CHUSTO | WET | 98.63 | 2.21558 | 51 | 0.952450 | 36.77 | 72.4 | 13.0 | 300.0 | 270364 | 1.960 |
| LEGE2 | ALL | 93.25 | 1.85815 | 127 | 0.990021 | 54.75 | 192.3 | 6.7 | 1280.0 | 10767862 | 1.960 |
| LBGB2 | DRY | 102.66 | 1.82878 | 55 | 0.983126 | 75.25 | 302.3 | 8.9 | 1100.0 | 5227673 | 1.960 |
| LBGB2 | NORMAL | 80.72 | 1.96131 | 19 | 0.765522 | 16.62 | 21.5 | 6.7 | 62.0 | 3987 | 2.101 |
| LBGB2 | WET | 92.21 | 1.83319 | 53 | 0.996039 | 34.04 | 139.4 | 10.0 | 1280.0 | 4167989 | 1.960 |
| LFKT3 | ALL | 99.23 | 1.88473 | 47 | 0.986405 | 20.64 | 66.0 | 10.0 | 444.0 | 391511 | 1.960 |
| LFKT3 | DRY | 97.69 | 1.88936 | 26 | 0.991331 | 21.11 | 81.0 | 10.0 | 444.0 | 342769 | 2.060 |
| LFKT3 | WET | 101.43 | 1.86865 | 21 | 0.937152 | 20.99 | 47.5 | 11.0 | 158.0 | 35753 | 2.036 |
| LSBB11 | ALL | 249.72 | 1.78730 | 138 | 0.975190 | 805.91 | 3315.4 | 6.9 | 9200.0 | 1086245491 | 1,950 |
| LSCB11 | DRY | 443.58 | 1.75795 | 63 | 0.941222 | 1107.68 | 5022.9 | 46.0 | 8780.0 | 387815462 | 1.960 |
| LSBB11 | NORMAL | 259.48 | 1.75240 | 19 | 0.935001 | 437.83 | 913.8 | 9.4 | 2920.0 | 15264799 | 2.101 |
| LSEB11 | WET | 132.03 | 1.79953 | 56 | 0.990871 | 421.40 | 2209.4 | 6.9 | 9200.0 | 321406634 | 1.960 |
| LSEB22 | ALL | 280.30 | 1.79195 | 48 | 0.913903 | 1002.61 | 1616.3 | 12.0 | 7340.0 | 152867180 | 1.960 |
| LSEB22 | DRY | 403.78 | 1.75306 | 27 | 0.884183 | 1348.73 | 2047.3 | 20.0 | 7340.0 | 112328960 | 2.056 |
| LSBB22 | WET | 124.24 | 1.87339 | 21 | 0.997442 | 117.36 | 1062.1 | 12.0 | 3840.0 | 29073005 | 2.086 |
| LSHL1 | ALL | 100.20 | 1.87010 | 43 | 0.993710 | 45.51 | 427.3 | 9.0 | 2850.0 | 18639210 | 1.960 |
| LSHL1 | DRY | 105.15 | 1.87023 | 22 | 0.993887 | 52.55 | 539.6 | 16.0 | 2850.0 | 14168427 | 2.080 |
| LSHL1 | NET | 91.32 | 1.91135 | 21 | 0.997905 | 36.40 | 257.2 | 9.0 | 1660.0 | 3283657 | 2.086 |
| RHID23 | ALL | 110.12 | 1.99752 | 92 | 0.930883 | 28.70 | 65.7 | 16.0 | 227.0 | 250194 | 1.960 |
| RMID23 | DRY | 114.03 | 1.94579 | 53 | 0.949867 | 24.27 | 72.3 | 20.0 | 227.0 | 150357 | 1.960 |
| RMID23 | WET | 105.30 | 2.07844 | 39 | 0.904474 | 34.11 | 56.7 | 16.0 | 215.0 | 94362 | 1.960 |
| R11KL028 | ALL | 27.77 | 7.72338 | 87 | 0.771616 | 17.67 | 5.7 | 0.3 | 18.0 | 1539 | 1.960 |
| RITKL028 | DRY | 33.62 | 7.13830 | 40 | 0.703958 | 20.06 | 7.8 | 0.4 | 18.0 | 731 | 1.960 |
| RMKL028 | NORMAL | | | 20 | 0.357277 | 14.86 | 2.9 | 0.3 | 7.1 | 43 | 2.093 |
| RIKL028 | WET | 26.13 | 6.57754 | 29 | 0.806189 | 12.26 | 4.6 | 1.8 | 16.0 | 390 | 2.048 |
| ROLD21 | ALL | 96.06 | 1.97678 | 131 | 0.982648 | 29.07 | 90.4 | 7.0 | 428.0 | 1579426 | 1.960 |
| ROLD21 | DRY | 100.60 | 1.95642 | 63 | 0.982353 | 32.50 | 105.1 | 9.4 | 410.0 | 937236 | 1.960 |
| ROLD21 | NCRMAL | 64.08 | 3.35477 | 18 | 0,777855 | 15.81 | 19.7 | 7.0 | 42.0 | 1244 | 2.110 |
| R01021 | WET | 94.35 | 1.99013 | 50 | 0.980030 | 27.77 | 72.2 | 9.0 | 428.0 | 458507 | 1.960 |
| ROLD59 | ALL | 89.23 | 3.15449 | 45 | 0.954349 | 42.70 | 96.2 | 20.0 | 338.0 | 164695 | 1.960 |
| ROLD59 | DRY | 106.57 | 3.03612 | 25 | 0.938849 | 54.38 | 112.6 | 35.0 | 338.0 | 113274 | 2.064 |
| ROLD59 | WET | 63.97 | 3.42210 | 20 | 0.987680 | 17.15 | 75.6 | 20.0 | 147.0 | 36251 | 2.093 |
| RSAC032 | ALL | 366.43 | 1.86479 | 20 | 0.970396 | 999.67 | 12979.5 | 3420.0 | 16200.0 | 169558895 | 2.093 |
| RSAC032 | DRY | 2818.86 | 1.70439 | 10 | 0.845846 | 939.89 | 14330.0 | 11800.0 | 16200.0 | 13341000 | 2.262 |
| RSAC032 | HET | 420.75 | 1.84627 | 10 | 0.976040 | 1119.14 | 11629.0 | 3420.0 | 16100.0 | 119740890 | 2.262 |
| RSAC040 | ALL | 470.47 | 1.85760 | 65 | 0.967863 | 1274.64 | 11802.3 | 1560.0 | 16300.0 | 893335154 | 1.960 |
| RSAC040 | DRY | 355.58 | 1.86692 | 41 | 0.926252 | 1402.47 | 13035.9 | 5040.0 | 15800.0 | 276426195 | 1.960 |
| RSAC040 | WET | 534.41 | 1.84985 | 24 | 0.983579 | 1078.54 | 9695.0 | 1560.0 | 16300.0 | 447944000 | 2.069 |
| RSAC056 | ALL | 881.94 | 1.74789 | 141 | 0.928989 | 1827.71 | 7122.4 | 12.0 | 14700.0 | 1988300275 | 1.960 |
| RSAC056 | DRY | 706.15 | 1.78970 | 64 | 0.941630 | 1177.83 | 9529.7 | 2190.0 | 13100.0 | 433199394 | 1.960 |
| RSAC056 | NCRHAL | | | 19 | 0.477991 | 2822.59 | 4300.7 | 274.0 | 7170.0 | 84669644 | 2.101 |
| RSAC056 | WET | 930.49 | 1.70291 | 58 | 0.914379 | 1937.69 | 5390.5 | 12.0 | 14700.0 | 774312468 | 1.960 |
| RSAC063 | ALL | 518.95 | 1.67413 | 54 | 0.794126 | 1561.14 | 2114.8 | 8.8 | 7100.0 | 174420224 | 1.960 |
| RSAC063 | DRY | • | • | 4 | 0.999217 | 58.62 | 3340.0 | 2620.0 | 4950.0 | 3657800 | 3.182 |
| RSAC063 | NORMAL | ·* | | 19 | 0.296410 | 2626.23 | 1567.0 | 11.0 | 4060.0 | 25870264 | 2.101 |
| RSAC063 | WET | 137.36 | 1.77965 | 31 | 0.993645 | 303.89 | 2292.5 | 8.8 | 7100.0 | 132207085 | 1.960 |
| RSAC068 | ALL | 225.47 | 1.79412 | 47 | 0.954799 | 821.33 | 253 3.6 | 15.0 | 7640.0 | 199211393 | 1.960 |

19:47 THURSDAY, MARCH 20, 1986

TABLE 6 (CON'T) CHLORIDE (MG/L) TO TDS (MG/L) CONVERSION DVR D1465 GRAB SAMPLE DATA (1968 - 81) TDS = INTERCEPT + (CL COEFF * CHLORIDE)

| RKI STATION | YEAR TYPE | INTERCEPT | CL COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN SQR ERROR | CL MEAN | CL RANGE MINIMUM | CL RANGE MAXIMUM | CL SUM OF SQRS | T-STATISTIC 95% CONFID |
|-------------|---------------|------------------|--------------------|----------------|----------------------|------------------------|-----------------|---------------------|---------------------|-----------------------|---------------------------|
| RSAC068 | DRY | 255.775 | 1.77800 | 26 | 0.930506 | 1095.03 | 3141.54 | 39.0 | 7640 | 121890360 | 2.060 |
| R5AC068 | WET | 164.994 | 1.84222 | 21 | 0.992698 | 270.81 | 1780.95 | 15.0 | 5380 | 55815667 | 2.086 |
| RSAC075 | ALL | 170.699 | 1.79535 | 145 | 0.983439 | 491.36 | 1947.73 | 7.5 | 7700 | 636062820 | 1.960 |
| RSAC075 | DRY | 264.897 | 1.78536 | 69 | 0.964694 | 682.90 | 3042.77 | 21.0 | 6650 | 267843914 | 1.960 |
| RSAC075 | NORMAL | 80.795 | 1.84133 | 19 | 0.999334 | 15.38 | 231.69 | 9.2 | 1220 | 1780609 | 2.101 |
| RSAC075 | WET | 162.625 | 1.75958 | 57 | 0.995971 | 210.94 | 1194.18 | 7.5 | 7700 | 195381914 | 1.960 |
| RSAC084 | ALL | 111.645 | 1.83660 | 140 | 0.992204 | 205.64 | 935.10 | 6.5 | 4400 | 220191200 | 1.960 |
| RSAC084 | DRY | 130.255 | 1.85532 | 64 | 0.987824 | 274.35 | 1551.64 | 18.0 | 4100 | 109988189 | 1.960 |
| RSAC084 | NCRMAL | 78.055 | 2.02136 | 19 | 0.997542 | 11.66 | 59.99 | 6.5 | 472 | 229629 | 2.101 |
| R5AC084 | WET | 112.288 | 1.74932 | 57 | 0.998037 | 82.34 | 534.56 | 6.9 | 4400 | 61950345 | 1.960 |
| R5AC092 | ALL | 109.520 | 1.73085 | 141 | 0.954648 | 254.49 | 367.55 | 4.3 | 3200 | 63252645 | 1.960 |
| RSAC092 | DRY | 159.884 | 1.66200 | 63 | 0.916833 | 374.48 | 622.77 | 8.4 | 2720 | 34161802 | 1.960 |
| RSAC092 | HORMAL | 67.904 | 2.63622 | 20 | 0.849106 | 10.43 | 13.92 | 4.3 | 32 | 1584 | 2.093 |
| RSAC092 | WET | 90.839 | 1.82770 | 58 | 0.999084 | 33.97 | 212.26 | 4.7 | 3200 | 21086035 | 1.960 |
| RSAC101 | ALL | 86.401 | 1.92167 | 139 | 0.997034 | 18.26 | 78.79 | 3.0 | 950 | 4160200 | 1.960 |
| RSAC101 | DRY | 89.866 | 1.95791 | 63 | 0.995640 | 18.12 | 110.35 | 6.9 | 519 | 1549878 | 1.960 |
| R5AC101 | NORMAL | | | 19 | 0.536606 | 9.02 | 7.83 | 3.6 | 13 | 87 | 2.101 |
| RSAC101 | WET | 83.609 | 1.88612 | 57 | 0.993619 | 14.79 | 67.55 | 3.0 | 950 | 2444748 | 1.960 |
| RSAC139 | ALL | | | 139 | 0.463452 | 14.37 | 7.31 | 1.5 | 18 | 1105 | 1.960 |
| RSAC139 | DRY | | | 64 | 0.349952 | 14.96 | 7.96 | 4.1 | 18 | 434 | 1.960 |
| RSAC139 | NCRMAL | • | | 21 | 0.366760 | 11.57 | 6.12 | 2.9 | 12 | 107 | 2.086 |
| RSAC139 | WET | | | 54 | 0.554251 | 12.50 | 6.99 | 1.5 | 16 | 501 | 1.960 |
| RSAN007 | ALL | 147.801 | 1.74783 | 141 | 0.979235 | 260.75 | 731.61 | 8.4 | 4400 | 145888152 72861882 | 1.960 |
| RSAN007 | DRY | 211.660 | 1.73997 | 64 | 0.963909 | 364.99 | 1201.73 | 15.0 | 3610 | | 2.101 |
| RSAN007 | NORMAL | 74.879 | 1.92797 | 19 | 0.994837 | 10.71 | 53.13 | 8.5 | 307 | 101111 44935325 | 1.960 |
| RSAN007 | MET | 133.446 | 1.69053 | 58 | 0.994741 | 110.11 | 435.12 | 8.4 | 4400 | 19087210 | 1.960 |
| RSAN018 | ALL | 99.541 | 1.83441 | 140 | 0.994160 | 52.29 | 237.50 | 7.4 | 2000 | 9097783 | 1.960 |
| RSAN018 | DRY | 100.775 | 1.83743 | 63 | 0.992465 | 61.83 | 368.08 | 11.0 | 1310 104 | 11015 | 2.093 |
| RSAN018 | NORMAL | 76.790 | 2.03774 | 20 | 0.942212 | 12.48 | 25.18 | 7.4 8.5 | 2000 | 7724773 | 1.960 |
| RSAN018 | KET | 105.514 | 1.82023 | 57 | 0.994872 | 48.98 | 167.68 | 5.9 | 1200 | 7629953 | 1.960 |
| RSAN024 | ALL | 88.716 | 1.91139 | 138 | 0.937519 | 50.90 | 149.79 | | 798 | 3280909 | 1.960 |
| R5AN024 | DRY | 94.541 | 1.91703 | 63 | 0.976294 | 69.28 | 221.20 | 6.9 5.9 | 28 | 837 | 2.101 |
| RSAN024 | NORMAL | • | • | 19 | 0.635149 | 11.28 | 13.52 115.68 | 8.0 | 1200 | 3608942 | 1.960 |
| R5AN024 | WET | 86.762 | 1.88797 | 56 | 0.996197 | 30.16 18.01 | 34.71 | 4.5 | 192 | 230419 | 1.950 |
| RSAN035 | ALL | 85.232 | 2.03808 | 139 | 0.955622 | 19.25 | 47.96 | 5.4 | 180 | 124850 | 1.960 |
| RSAN035 | DRY | 89.421 | 2.00916 | 63 | 0.957083 0.699224 | 8.21 | 10.94 | 4.5 | 21 | 209 | 2.101 |
| RSAN035 | NORMAL | | | 19 | 0.099224 | 17.91 | 27.98 | 7.5 | 192 | 80981 | 1.960 |
| RSAN035 | KET | 86.574 | 1.99605 | 57 | 0.883635 | 40.22 | 80.04 | 19.0 | 260 | 218901 | 1.960 |
| RSAN056 | ALL | 82.719 | 2.71135 | 133 | 0.795046 | 50.39 | 95.13 | 23.0 | 198 | 80233 | 1.960 |
| RSAN056 | DRY | 84.181 | 2.71376 2.68925 | 18 | 0.892416 | 20.51 | 63.33 | | 97 | 7718 | 2.110 |
| RSAN056 | NORMAL | 84.069 | 2.68385 | 53 | 0.934735 | 32.06 | 68.06 | 19.0 | 260 | 104199 | 1.960 |
| RSAN056 | WET | 82.629 87.323 | 3.00543 | 124 | 0.945520 | 54.44 | 115.72 | 15.0 | 312 | 694687 | 1.960 |
| RSAN087 | ALL | 100.042 | 2.95933 | 64 | 0.936241 | 60.24 | 148.92 | 22.0 | 312 | 377199 | 1.960 |
| RSAN087 | DRY | - | 3.28238 | 20 | 0.765333 | 54.65 | 67.85 | 16.0 | 123 | 16275 | 2.093 |
| RSAN087 | NORMAL WET | 87.187 | 2.92474 | 40 | 0.944912 | 44.48 | 86.52 | 15.0 | 306 | 150738 | 1.960 |
| RSAN087 | ALL | 87.187 | 2.92474 | 139 | 0.954787 | 52.95 | 114.25 | | 383 | 940746 | 1.960 |
| RSAN112 | DRY | 130.396 | 2.78600 | 64 | 0.945567 | 64.08 | 153.72 | 26.0 | 383 | 569837 | 1.960 |
| R5AN112 | NORMAL | | 3.24702 | 21 | 0.847576 | 42.73 | 69.00 | | 121 | 18294 | 2.006 |
| RSAN112 | | 72.322 | 3.09025 | 54 | 0.963137 | 33.95 | 85.07 | | 295 | 163952 | 1.960 |
| RSAN112 | WET | 12.322 | 3.09025 | 24 | 31 70 31 37 | 22.72 | | | | | |

19:47 THURSDAY, MARCH 20, 1986

TABLE 6 (CONT) CHLORIDE (HS/L) TO TDS (HS/L) CONVERSION DI TDS

| | | | SAMPLE DATA (+ (CL COEFF | | | | | |
|-------|---|--------|-------------------------------|---------|----------|----------|--------|-----|
| AMPLE | R | SQUARE | ROOT MEAN | CL MEAN | CL RANGE | CL RANGE | CL SUM | T-5 |

| RKI STATION | YEAR TYPE | INTERCEPT | CL COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN SCR ERRCR | CL MEAN | CL RANGE MINIMUM | CL RANGE MAXIMUM | CL SUM OF SQRS | T-STATISTIC 95% CONFID |
|-------------|--------------|-----------|----------|----------------|----------|------------------------|---------|---------------------|---------------------|-------------------|---------------------------|
| RSMKL09 | ALL | 86.370 | 1.92424 | 44 | 0.99989 | 16.332 | 131.78 | 5 | 5360 | 27970587 | 1.960 |
| RSIIKL09 | DRY | | | 22 | 0.63713 | 13.960 | 10.93 | 7 | 23 | 359 | 2.080 |
| RSMKL09 | WET | 83.457 | 1.92475 | 22 | 0.99995 | 15.516 | 252.64 | 5 | 5360 | 27327548 | 2.080 |
| SLDPT07 | ALL | 78.289 | 3.17977 | 46 | 0.84314 | 16.830 | 26.09 | 12 | 68 | 6626 | 1.960 |
| SLDPT07 | DPY | 84.205 | 2.93069 | 25 | 0.82911 | 18.780 | 27.20 | 14 | 68 | 4582 | 2.064 |
| SLDPT07 | WET | 64.351 | 3.78339 | 21 | 0.89537 | 13.190 | 24.76 | 12 | 50 | 1976 | 2.036 |
| SLSUS12 | ALL | 89.684 | 1.87905 | 61 | 0.98010 | 422.115 | 2079.51 | 205 | 5250 | 146620111 | 1.960 |
| SLSUS12 | DRY | 156.633 | 1.89736 | 22 | 0.99123 | 259.463 | 2617.14 | 552 | 5250 | 42227037 | 2.080 |
| SLSUS12 | NORMAL | | | 2 | 1.00000 | | 440.00 | 400 | 480 | 3200 | 12.706 |
| SLSUS12 | WET | 59.774 | 1.85335 | 37 | 0.97337 | 493.471 | 1848.46 | 206 | 5190 | 90679741 | 1.960 |
| SLSYC4 | ALL | 60.996 | 3.53266 | 43 | 0.84724 | 17.521 | 16.27 | 4 | 52 | 5593 | 1.960 |
| SLSYC4 | DRY | 62.329 | 3.23492 | 22 | 0.92084 | 13.467 | 18.90 | 8 | 52 | 4032 | 2.080 |
| SLSYC4 | WET | 47.041 | 4.89664 | 21 | 0.84651 | 16.924 | 13.53 | 4 | 30 | 1252 | 2.086 |

18:30 FRIDAY, MARCH 28, 1986

TABLE 7 TDS (MG/L) TO CHLORIDE (MG/L) CONVERSION DWR D1405 GRAB SAMPLE DATA (1968 - 01) CHLORIDE = INTERCEPT + (TDS COEFF * TDS)

TDS MEAN TDS RANGE TDS RANGE TDS SUM T-STATIS ROOT MEAN RKI STATION YEAR INTERCEPT TDS COEFF SAMPLE R SQUARE 95% CONF1 SQR ERROR MINIMUM MAXIMUM OF SQRS TYPE SIZE 1.960 0.451346 132 0.940943 18.46 266.6 96 730 3466299 CHWSTO -43.21 ALL 0.956665 17.43 299.3 124 730 1783717 1.960 CHWSTO DRY -47.95 0.475106 62 2.101 NORMAL 19 0.332677 13.64 180.6 104 365 79357 CHWSTO 713 1393415 1.960 96 CHWSTO WET -38.96 0.429888 51 0.952450 16.20 259.0 1.960 450.6 80 2630 37553057 LBGB2 ALL -47.76 0.532800 127 0.990021 29.32 17783694 1.960 0.983126 40.80 655.5 85 2040 ~50.09 0.537596 55 LBGB2 DRY HORMAL -26.47 0.390312 19 0.765522 7.42 122.8 80 209 20033 2.101 LBGB2 LBGB2 WET -48.09 0.527509 53 0.996039 17.99 355.5 84 2630 14919117 1.960 1.960 -51.03 0.523366 47 0.986405 10.88 223.7 96 939 1409899 LFKT3 ALL 939 1234278 2.060 0.991331 250.7 100 LFKT3 DRY -50.55 0.524691 26 11.13 133218 2.086 0.501512 0.937152 10.87 190.2 96 407 LFKT3 ME T -47.89 21 72 16700 3560209255 1.960 LSBB11 -53.96 0.545470 0.975190 445.16 6177.0 ALL 138 1,960 LSBB11 DRY 57.74 0.535409 63 0.941222 611.30 9273.5 188 16500 1273344198 2.101 LSEB11 NORMAL -79.05 0.533553 19 0.935001 241.59 1860.8 116 5800 50135777 1.960 1050406907 16700 LS8811 WET -80.06 0.550627 56 0.990871 233.10 4157.9 72 1.960 0.913908 110 14300 537109433 534.88 3176.6 LSBB22 ALL -3.80 0.510008 48 392660107 721.38 4003.1 139 14300 2.056 0.502931 27 0.884183 I SBB22 DRY 34.04 110 7080 102295701 2.086 WET -63.43 0.532427 21 0.997442 62.56 2114.0 LSBB22 1.960 LSHL1 ALL -52.73 0.531767 43 0.998710 24.22 902.6 104 5290 65829982 2.080 49612985 LSHL1 ORY -55.50 0.534098 22 0.993887 28.08 1207.8 131 5290 12021212 2.086 3330 LSHLI WET -47.14 0.522095 21 0.997905 19.03 532.9 104 241.3 114 544 1072422 1.960 RHID23 ALI -46.78 0.466018 92 0.930883 13.86 544 599313 1.960 0.949867 12.16 254.7 114 0.488165 53 RM1023 DRY -52.04 0.904474 223.1 510 450690 1.960 WET -40.41 0.435169 39 15.61 121 RMID23 119004 1.960 FMKL028 -1.48 0.099900 89 0.771616 2.01 71.5 26 190 ALL 1.960 52528 190 RHKL028 DRY -1.56 0.099318 40 0.708958 2.37 94.5 32 47.5 98 2.093 6187 RMKL028 NORMAL 20 0.357277 1.24 26 20936 2.048 30 136 RMKL028 1 T T -2.31 0.122567 29 0.806189 1.67 56.3 6280851 1.960 0.497095 14.58 274.8 88 932 -46.18 131 0.982648 ROLD21 ALL 345.4 93 860 3651781 1.960 ROLD21 DRY -48.31 0.502118 63 0.982353 16.47 0.777855 4.16 130.1 88 199 17999 2.110 ROLD21 NORMAL -10.49 0.231865 18 1852979 1.960 932 ROLD21 WET -45.02 0.492445 50 0.980030 13.81 238.1 92 970 1717243 1.960 ROLD59 ALL -22.60 0.302536 45 0.954349 13.22 392.6 126 0.938849 17.35 448.4 174 970 1112172 2.064 25 ROLD59 **NPY** ~26.07 0.309227 126 553 429817 2.093 0.987680 4.98 322.8 WET -17.53 0.288618 20 POLD59 0.970396 528.08 24570.5 6510 29800 607620695 2.093 RSAC032 ALL 193.57 0.520377 20 45845000 2.262 0.845846 507.02 27250.0 22200 29800 RSAC032 DRY 810.50 0.496128 10 2.262 29600 418181290 6510 RSAC032 WET 56.20 0.528655 10 0.975040 598.86 21891.0 1.960 2990 30000 3184975606 675.06 22394.5 RSAC040 ALL 134.17 0.521028 65 0.967863 1040159756 1.960 24692.4 9090 29900 0.926252 722.99 RSAC040 DPY 784.95 0.496140 41 2.069 2990 30000 1558438062 -124.95 0.531706 0.983579 578.23 18468.8 RSAC040 WET 24 37.03 0.531491 141 0.928989 1007.85 13331.2 106 24900 6538842221 1.960 RSAC056 ALL 1.960 24300 1473556373 0.941630 638.62 17761.4 4280 RSAC056 DRY 184.71 0.526139 64 259456986 2.101 13800 580 RSAC056 NORMAL 19 0.477991 1612.42 8241.3 10110.1 106 24900 2455699769 1.960 0.536950 1088.06 RSAC056 WET -38.08 58 0.914379 615580817 1.960 830.99 4059.4 94 12600 RSAC063 ALL 189.23 0.474352 54 0.794126 37.84 5717.5 4540 8200 8779275 3.182 4 0.999217 RSAC063 DRY 3452.9 107 12600 166646325 2.101 NORMAL 19 0.296410 1034.75 RSAC063 421397945 1,960 -62.13 0.558337 0.993645 170.21 4217.2 94 12200 RSAC063 WET 31 671591284 1.960 118 15400 -5.47 0.532182 47 0.954799 447.33 4771.1 RSAC068 ALL

TABLE 7 (CON'T) TDS (MG/L) TO CHLORIDE (MG/L) CONVERSION DWR D1485 GRAB SAMPLE DATA (1968 - 81) CHLORIDE = INTERCEPT + (TDS COEFF * TDS)

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18:30 FRIDAY, MARCH 28, 1986

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| RKI STATION | YEAR TYPE | INTERCEPT | TDS COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN SOR ERROR | TDS MEAN | TDS RANGE MINIMUM | TDS RANGE MAXIMUM | TDS SUM OF SQRS | T-STATISTI 95% CONFID |
|-------------|--------------|---|-----------|----------------|----------|------------------------|------------------|----------------------|----------------------|--------------------|--------------------------|
| R5AC068 | DRY | 84.461 | 0.523345 | 26 | 0.930506 | 594.092 | 5841.42 | 176 | 15400 | 414107128 | 2.060 |
| RSAC068 | WET | -75.903 | 0.538859 | 21 | 0.992698 | 146.464 | 3445.90 | 118 | 10000 | 190819786 | 2.086 |
| RSAC075 | ALL | -61.248 | 0.547769 | 145 | 0.983439 | 271.407 | 3667.57 | 81 ` | 13400 | 2084740502 | 1.960 |
| RSAC075 | DRY | -35.705 | 0.540337 | 69 | 0.964594 | 375.690 | 5697.32 | 120 | 12200 | 884996627 | 1.960 |
| RSAC075 | NORMAL | -43.695 | 0.542725 | 19 | 0.999334 | 8.351 | 507.42 | 81 | 2340 | 6041157 | 2.101 |
| RSAC075 | WET | -87.238 | 0.566026 | 57 | 0.995971 | 119.638 | 2263.88 | 84 | 13400 | 607376538 | 1.960 |
| RSAC084 | ALL | -53.025 | 0.540240 | 140 | 0.992204 | 111.532 | 1829.06 | 78 | 7990 | 748561516 | 1.960 |
| RSAC084 | DRY | -50.459 | 0.532428 | 64 | 0.987824 | 146.970 | 3009.05 | 98 | 7990 | 383269567 | 1.960 |
| RSAC084 | NORMAL | -38.373 | 0.493499 | 19 | 0.997542 | 5.763 | 199.32 | 78 | 1040 | 940556 | 2.101 |
| RSAC084 | WET | -63.014 | 0.570529 | 57 | 0.998037 | 47.022 | 1047.40 | 82 | 7940 | 189948266 | 1.960 |
| R5AC092 | ALL | -43.737 | 0.551548 | 141 | 0.954648 | 143.659 | 745.69 | 62 | 5930 | 198497648 | 1.960 |
| RSAC092 | DRY | -36.442 | 0.551675 | 63 | 0.916883 | 215.750 | 1194.92 | 82 | 4390 | 102917053 | 1.960 |
| RSAC092 | NORMAL | -19.771 | 0.322092 | 20 | 0.849106 | 3.644 | 104.60 | 62 | 160 | 12965 | 2.093 |
| RSAC092 | WET | -49.461 | 0.546634 | 58 | 0.999084 | 18.576 | 478.79 | 73 | 5930 | 70502220 | 1.960 |
| RSAC101 | ALL | -44.594 | 0.518838 | 139 | 0.997034 | 9.490 | 237.81 | 68 | 1870 | 15408535 | 1.960 |
| RSAC101 | ORY | -45.374 | 0.509032 | 63 | 0.996640 | 9.239 | 305.92 | 82 | 1130 | 5961375 | 1.960 |
| RSAC101 | NORMAL | | | 19 | 0.536606 | 1.542 | 92.37 | 70 | 116 | 2984 | 2.101 |
| RSAC101 | WET | -44.174 | 0.529457 | 57 | 0.998619 | 7.834 | 211.02 | 68 | 1870 | 8709087 | 1.960 |
| R5AC139 | ALL | | | 139 | 0.463452 | 2.081 | 99.18 | 62 | 153 | 52733 | 1.960 |
| RSAC139 | DRY | | | 64 | 0.349952 | 2.134 | 107.58 | 76 | 146 | 21332 | 1.960 |
| RSAC139 | NORMAL | | | 21 | 0.366760 | 1.887 | 86.81 | 62 | 120 | 4019 | 2.086 |
| RSAC139 | WET | | | 54 | 0.554251 | 2.073 | 94.04 | 64 | 153 | 18226 | 1.960 |
| RSAN007 | ALL | -67.614 | 0.560258 | 141 | 0.979235 | 147.629 | 1426.54 | 77 | 7120 | 455125555 | 1.960 |
| RSAN007 | DRY | -73.884 | 0.553981 | 64 | 0.963909 | 205.947 | 2302.64 | 94 | 6230 | 228848119 | 1.960 |
| RSAND07 | NORMAL | -38.364 | 0.516001 | 19 | 0.994837 | 5.541 | 177.32 | 77 | 674 | 377788 | 2.101 |
| RSAN007 | WET | -76.234 | 0.588421 | 58 | 0.994741 | 64.959 | 869.03 | 83 | 7120 | 129098520 | 1.960 |
| RSAN018 | ALL | ~52.559 | 0.541950 | 140 | 0.994160 | 28.422 | 535.22 | 79 | 3690 | 64606972 | 1.960 |
| RSAN018 | DRY | -51.659 | 0.540138 | 63 | 0.992465 | 33.523 | 777.10 | 88 | 2520 | 30948677 | 1.960 |
| RSAN018 | NORMAL | -34.051 | 0.462381 | 20 | 0.942212 | 5.947 | 128.10 | 79 | 291 | 48546 | 2.093 |
| RSAN018 | WET | -56.810 | 0.546565 | 57 | 0.994872 | 26.838 | 410.74 | 86 | 3690 | 25725811 | 1.960 |
| RSAN024 | ALL | -43.965 | 0.516649 | 138 | 0.987519 | 26.462 | 375.01 | 74 | 2450 | 28227740 | 1.960 |
| RSAN024 | DRY | -42.904 | 0.509276 | 63 | 0.976294 | 35.708 | 518.59 | 80 | 1530 | 12350059 | 1.960 |
| RSAN024 | NORMAL | • | • | 19 | 0.635149 | 4.239 | 104.84 | 74 | 136 | 5931 | 2.101 |
| RSAN024 | HET | -45.341 | 0.527654 | 56 | 0.996197 | 15.943 | 305.16 | 79 | 2450 | 12912998 | 1.960 |
| RSAN035 | ALL | -38.424 | 0.468883 | 139 | 0.955622 | 8.639 | 155.96 | 70 | 464 | 1001557 | 1.960 |
| RSAN035 | DRY | -40.538 | 0.476361 | 63 | 0.957083 | 9.372 | 185.78 | 81 | 435 | 526583 | 2.101 |
| RSAN035 | NORMAL | • | .* | 19 | 0.699224 | 1.924 | 97.74 | 70 | 138 | 3814 340290 | 1.960 |
| RSAN035 | WET | -39.672 | 0.475010 | 57 | 0.948142 | 8.738 | 142.42 | 79 116 | 464 735 | 1821154 | 1.960 |
| · RSAN056 | ALL | -17.645 | 0.325902 | 133 | 0.883635 | 13.944 | 299.73 | | 633 | 743198 | 1.960 |
| PSAN056 | DRY | -5.165 | 0.292968 | 62 | 0.795046 | 16.555 | 342.34 | 146 116 | 347 | 62546 | 2.110 |
| RSAN056 | NORMAL | -21.034 | 0.331845 | 18 | 0.892416 | 7.204 | 254.39 | 124 | 735 | 802955 | 1.960 |
| RSAN056 | NET | -24.337 | 0.348281 | 53 | 0.934735 | 11.547 | 265.28 | 79 | 1020 | 6636408 | 1.960 |
| RSAN087 | ALL | -21.168 | 0.314603 | 124 | 0.945520 | 17.613 | 435.10 540.75 | 134 | 1020 | 3528320 | 1.960 |
| RSAN087 | DRY | -22.155 | 0.316370 | 64 | 0.936241 | 19.695 | 286.75 | 79 | 474 | 229106 | 2.093 |
| RSAN087 | NORMAL | 0.990 | 0.233164 | 20 | 0.765333 | 14.566 | | 112 | 963 | 1364603 | 1.960 |
| RSAN087 | WET | -23.401 | 0.323075 | 40 | 0.944912 | 14.782 | 340.25 431.01 | 81 | 1150 | 8496761 | 1.960 |
| RSAN112 | ALL | -25.883 | 0.325134 | 139 | 0.954787 | 17.620 | 558.66 | 150 | 1150 | 4677568 | 1.960 |
| RSAN112 | DRY | -35.889 | 0.339400 | 64 | 0.945567 | 22.367 | 288.29 | 81 | 472 | 227562 | 2.086 |
| RSAN112 | NORMAL | -6.252 | 0.261032 | 21 | 0.847576 | 12.114 | 335.22 | 128 | 975 | 1625601 | 1.960 |
| RSAN112 | WET | -19.405 | 0.311670 | 54 | 0.963137 | 10.781 | 335.22 | 120 | 713 | 1025001 | |

18:30 FRIDAY, MARCH 28, 1986

TABLE 7 (CON'T) TDS (MG/L) TO CHLORIDE (MG/L) CONVERSION DWR D1485 GRAB SAMPLE DATA (1968 - 81) CHLORIDE = INTERCEPT + (TDS COEFF * TDS)

| RKI STATION | YEAR TYPE | INTERCEPT | TDS COEFF | SAMPLE SIZE | R SQUARE | ROOT MEAN SCR ERROR | TDS MEAN | TDS RANGE MINIMUM | TDS RANGE Maximum | tds Sum of Sqrs | T-STATISTIC 95% CONFID |
|-------------|--------------|-----------|-----------|----------------|----------|------------------------|----------|----------------------|----------------------|--------------------|---------------------------|
| RSMKL09 | ALL | -44.866 | 0.519629 | 44 | 0.99989 | 8.487 | 339.95 | 66 | 10400 | 103577960 | 1.960 |
| RSMKL09 | DRY | | | 22 | 0.63713 | 2.552 | 110.18 | 81 | 156 | 10741 | 2.080 |
| RSMKL09 | WET | -43.346 | 0.519523 | 22 | 0.99995 | 8.061 | 569.73 | 66 | 10400 | 101244216 | 2.080 |
| SLOPT07 | ALL | -16.667 | 0.265159 | 46 | 0.84314 | 4.860 | 161.24 | 111 | 268 | 79454 | 1.960 |
| SLOPT07 | DRY | -19.174 | 0.282907 | 25 | 0.82911 | 5.835 | 163.92 | 111 | 268 | 47466 | 2.064 |
| SLDPT07 | WET | -12.637 | 0.236628 | 21 | 0.89537 | 3,299 | 158.05 | 122 | 250 | 31595 | 2.086 |
| SLSUS12 | ALL | -5.390 | 0.521592 | 61 | 0,98010 | 222.396 | 3997.18 | 621 | 10100 | 528202343 | 1.960 |
| SLSUS12 | DRY | -58,869 | 0.522286 | 22 | 0.99123 | 136.113 | 5123.64 | 1220 | 9970 | 153442509 | 2.080 |
| SLSUS12 | NORMAL | 501007 | | 2 | 1.00000 | | 1070.00 | 960 | 1180 | 24200 | 12.706 |
| SLSUS12 | WET | 17.840 | 0.525192 | 37 | 0,97337 | 262.689 | 3485.62 | 621 | 10100 | 320000379 | 1.960 |
| SLSYC4 | ALL | -12.143 | 0.239829 | 43 | 0.84724 | 4,565 | 118.49 | 57 | 239 | 82389 | 1.960 |
| SLSYC4 | DRY | -16.247 | 0.284656 | 22 | 0.92084 | 3,995 | 123.45 | 76 | 239 | 45821 | 2.080 |
| SLSYC4 | WET | -6.056 | 0.172876 | 21 | 0.84651 | 3.180 | 113.29 | 57 | 206 | 35456 | 2.086 |