# Eureka Energy Company

1010 Kearns Building
Salt Lake City, Utah 84101

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SAN FRANCISCO, CALIFORNIA 94106
(415) 781-4211
TW 910-372-6587


File PG&E
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PRO

January 17, 1979


RECEIVED
JAN 31 1979
STATE OF UTAH
Division of Oil, Gas & Mining


Mr. Jackson W. Moffitt
Area Mining Supervisor
U.S. Geological Survey
8426 Federal Building
126 South State Street
Salt Lake City, Utah 84138

Dear Mr. Moffitt:

Eureka Energy Company, a wholly owned subsidiary of Pacific Gas and Electric Company, herewith submits its annual hydrology monitoring report for the year 1978.

Information gathered during the first half of 1978 was submitted in our six month interim report on July 31, 1978 and is made a part of this report by reference.

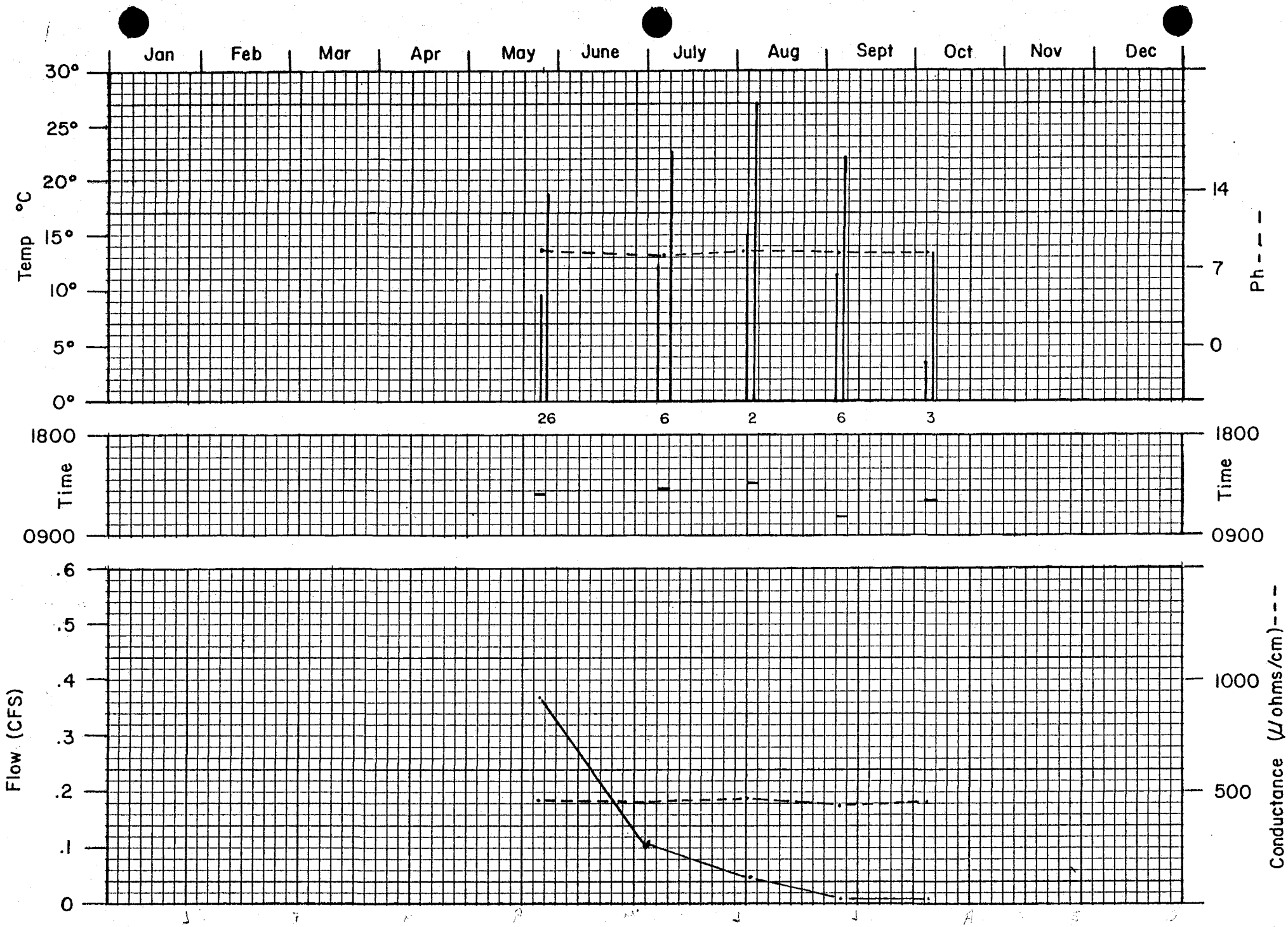
Sincerely yours,

Paul B. Anderson

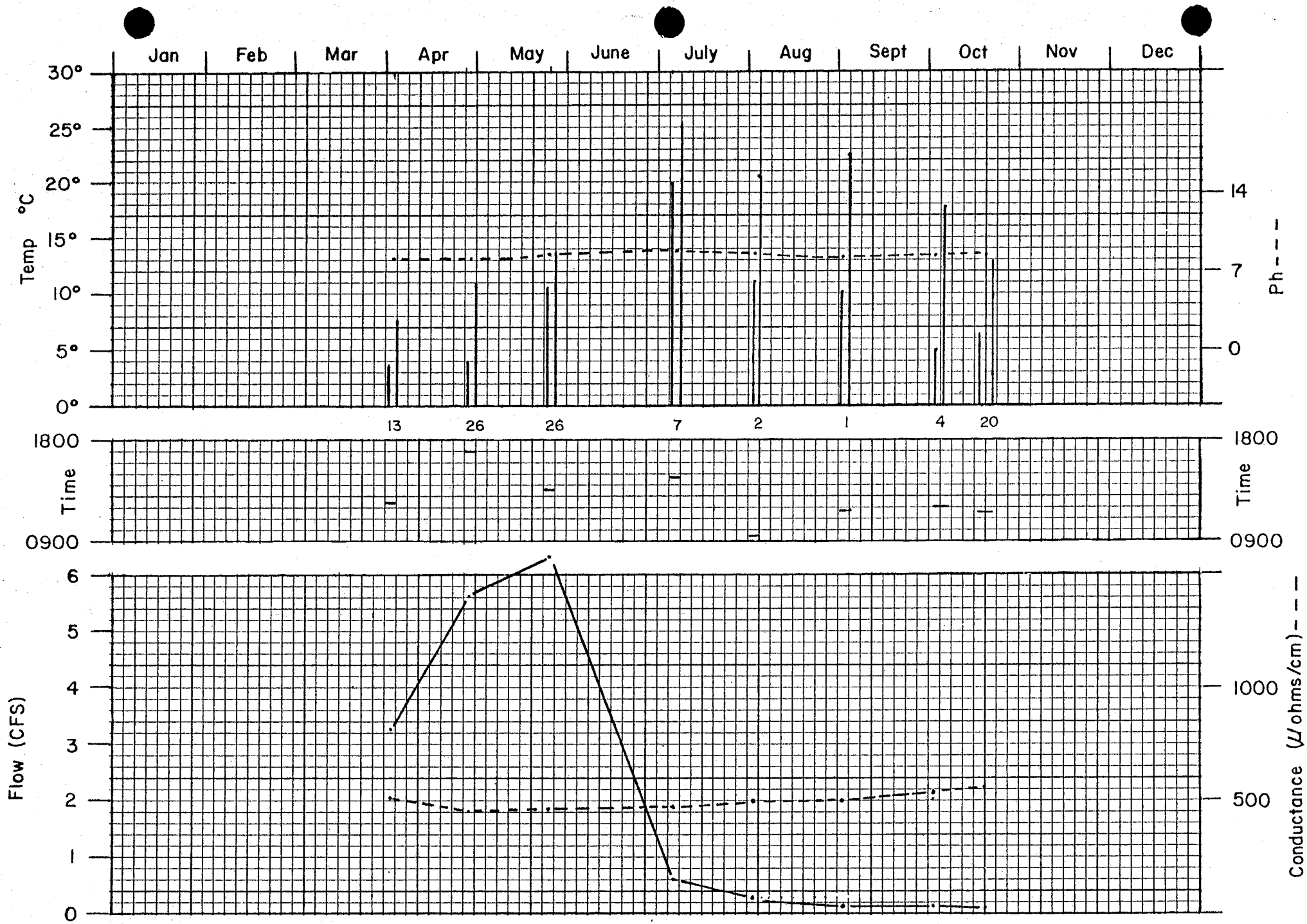
Paul B. Anderson
Geologist
Eureka Energy Company

Enclosure

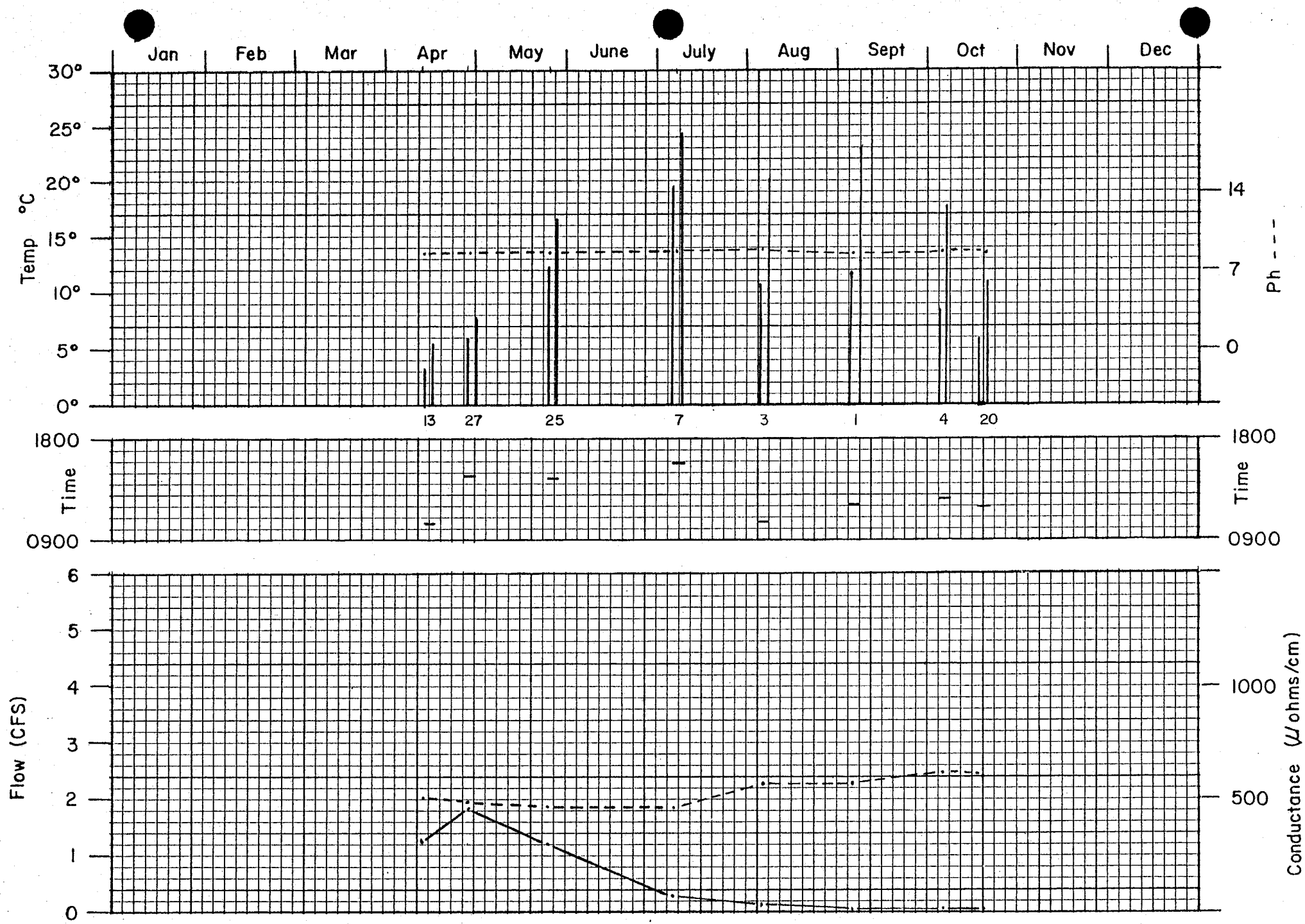
cc: David W. Hess, PGandE
✓Mike Thompson, Oil, Gas and Mining
Greg ~~Lions~~ Lines, Water Resources, USGS



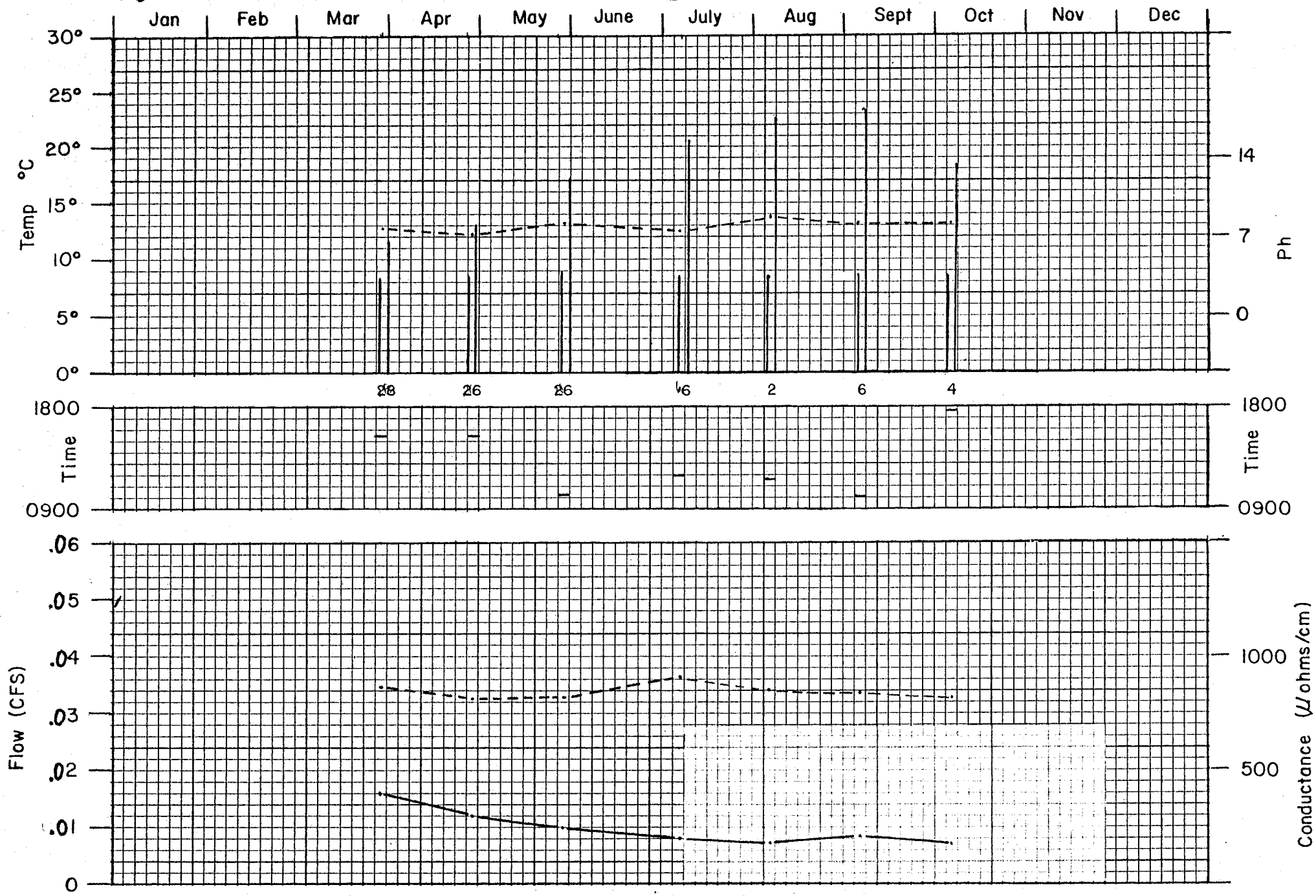

YEAR: 1978 STATION: #4 Water Hole Spr. LOCATION: CNWNE 10-13S-12E



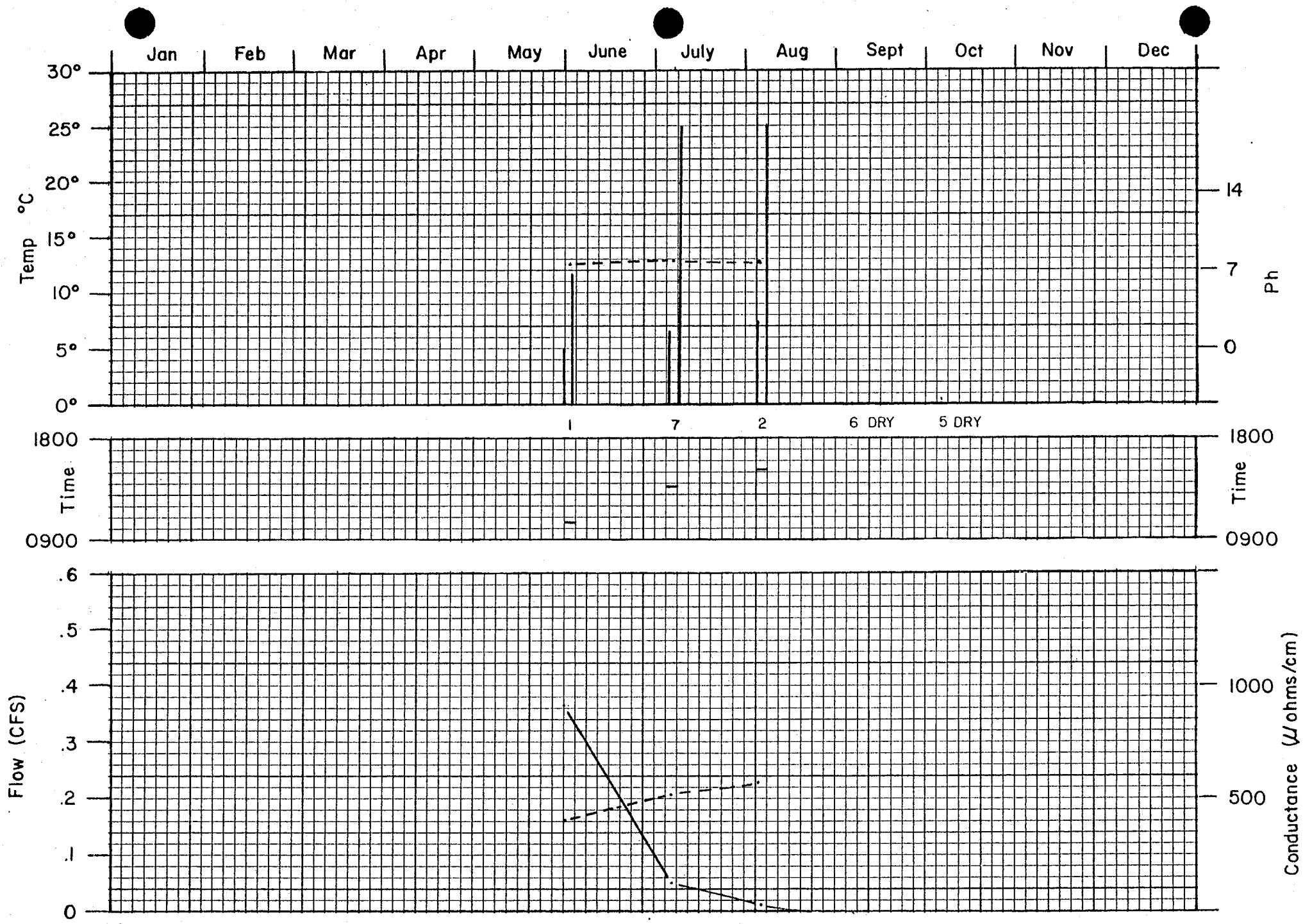

YEAR: 1978 STATION: #5 Dugout Creek LOCATION: NENWSW 23-13S-12E



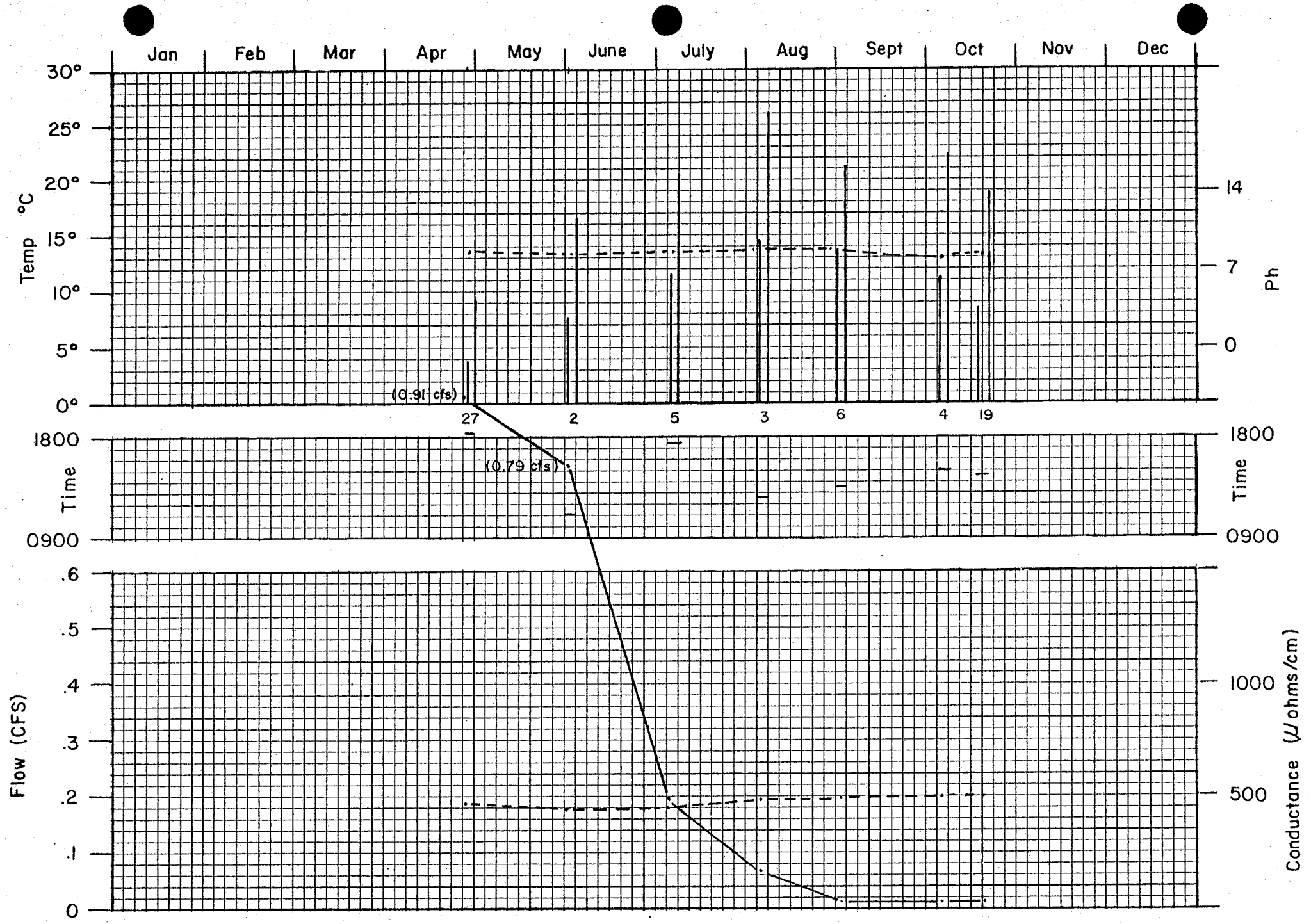

YEAR: 1978 STATION: #7 Left Fork Dugout LOCATION: NWNESENW 23-13S-12E



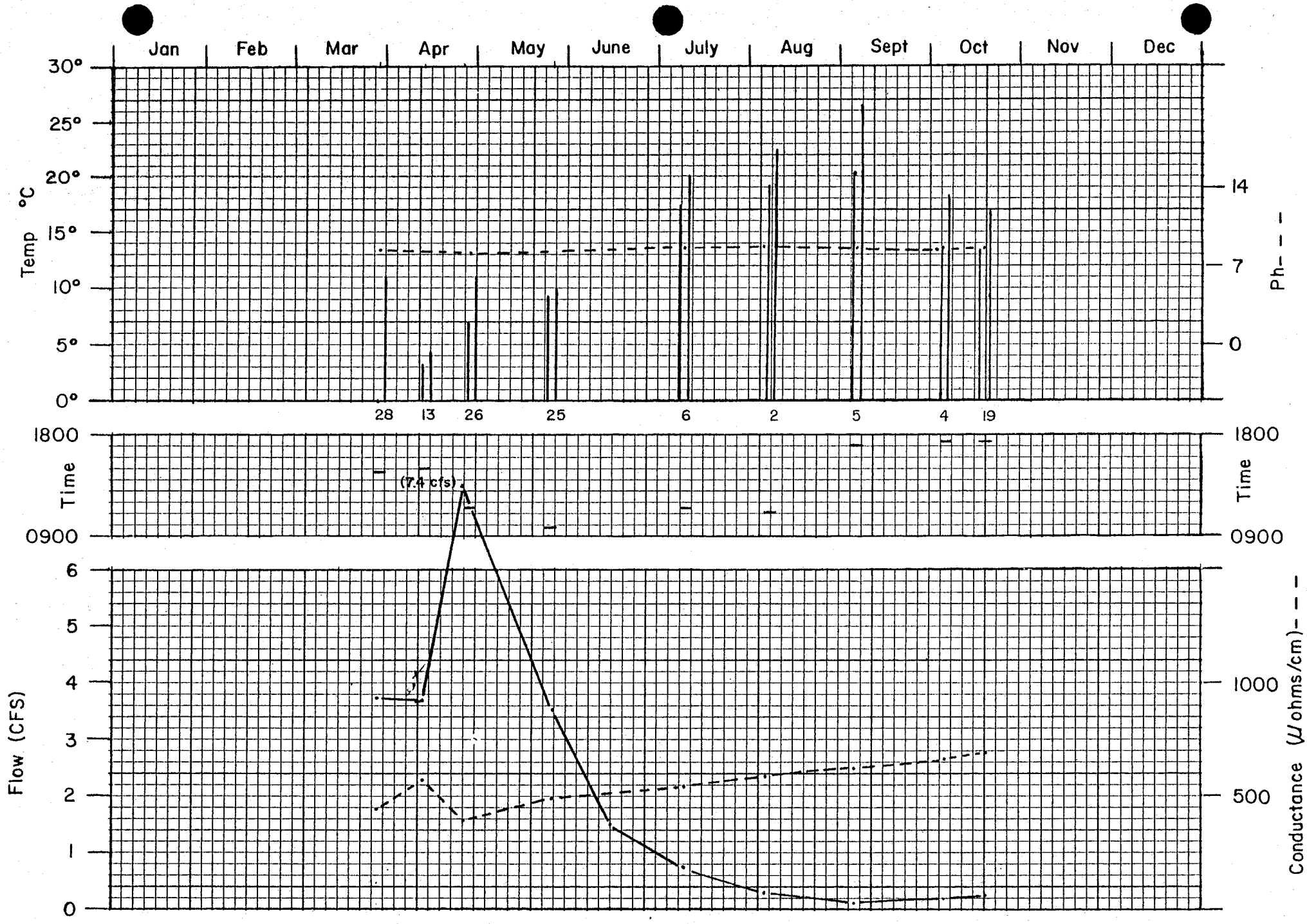

YEAR: 1978 STATION: #8 Sulfur Spring LOCATION: CSENWSW 5-13S-12E



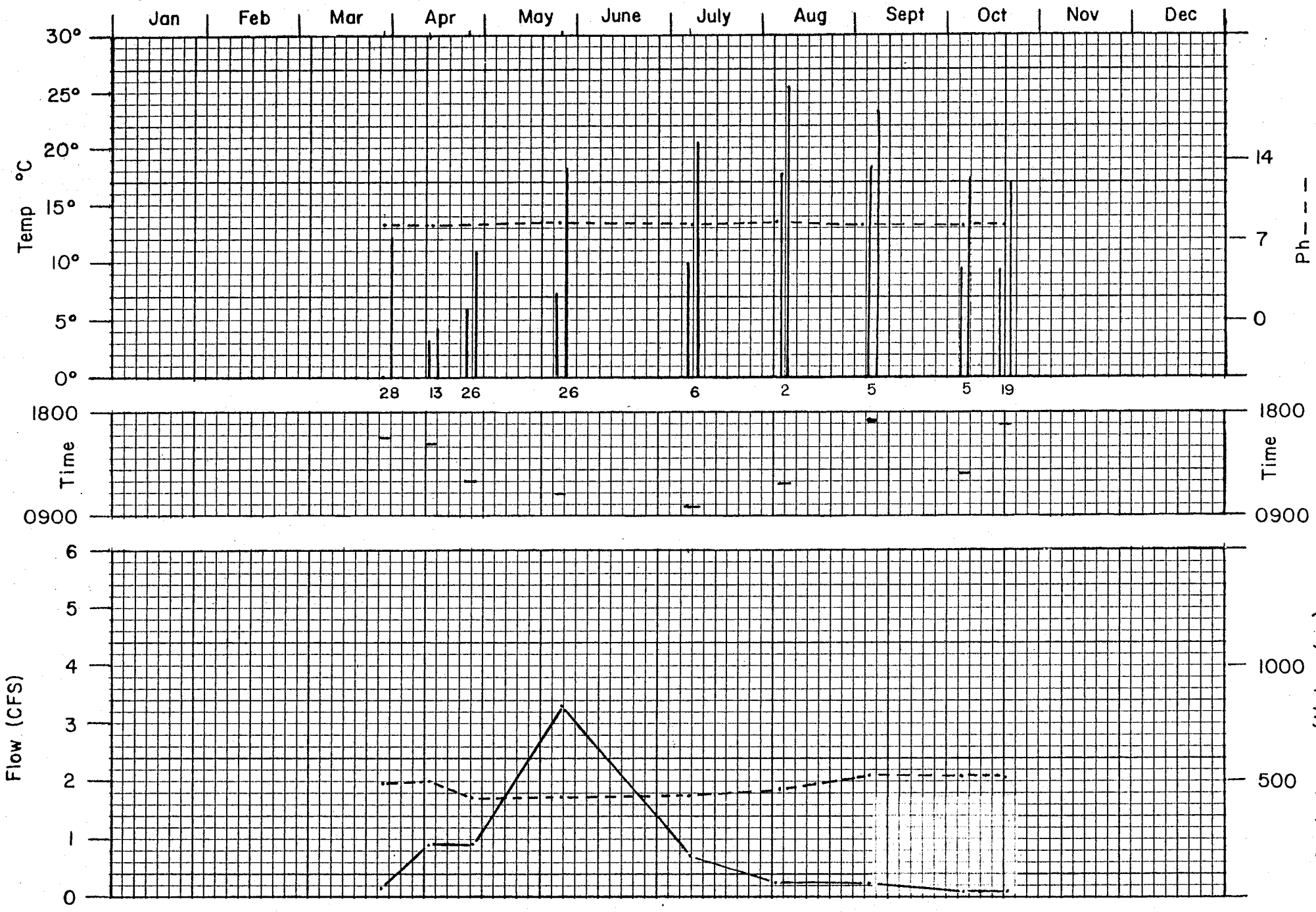

YEAR: 1978 STATION: #14 Buck Spring LOCATION: SWSWNENW 15-13S-12E



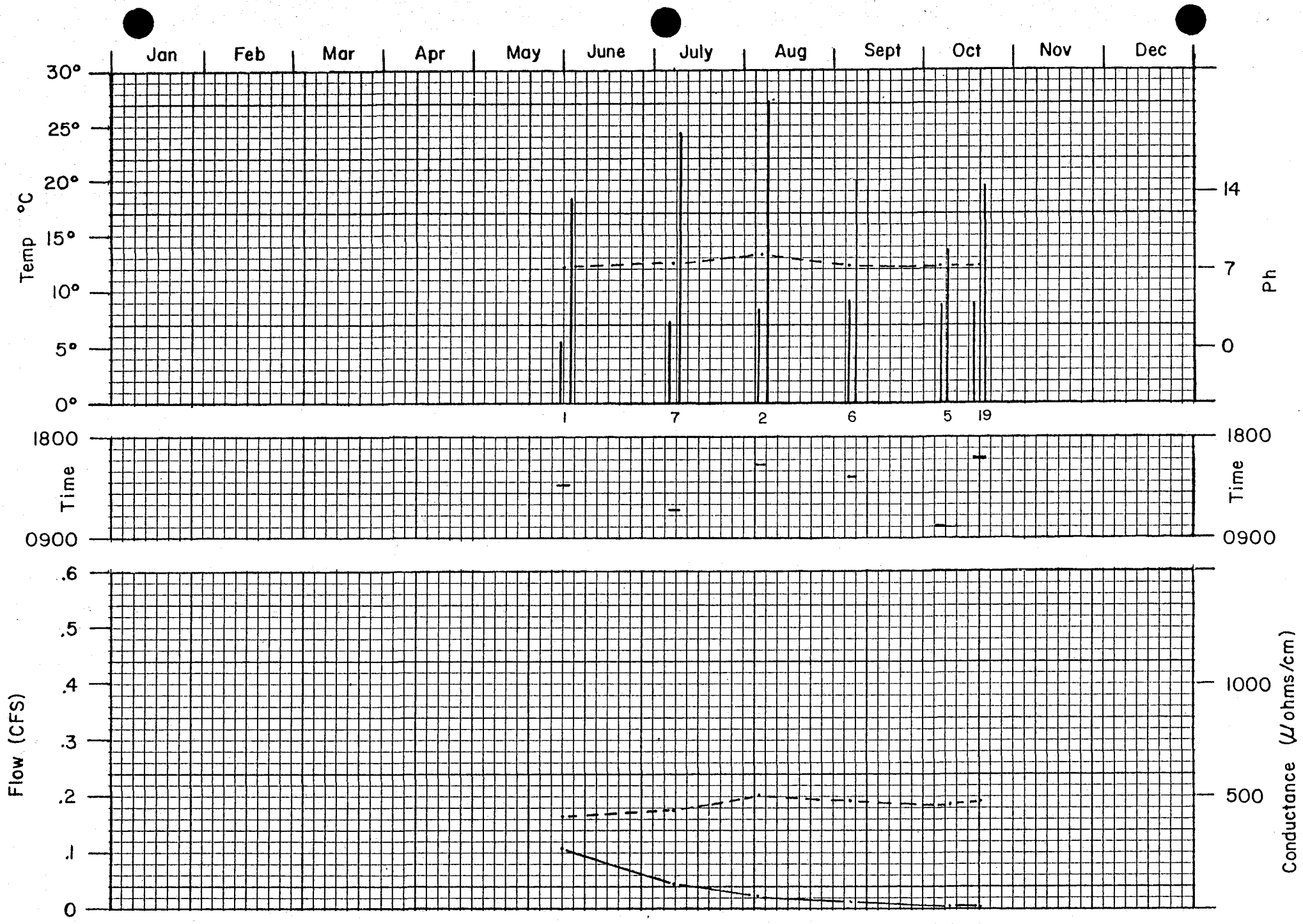

YEAR: 1978 STATION: #21 Fish Creek LOCATION: NENENWSE 16-13S-12E




YEAR: 1978 STATION: #22 Soldier Creek LOCATION: SESENWSW 5-13S-12E

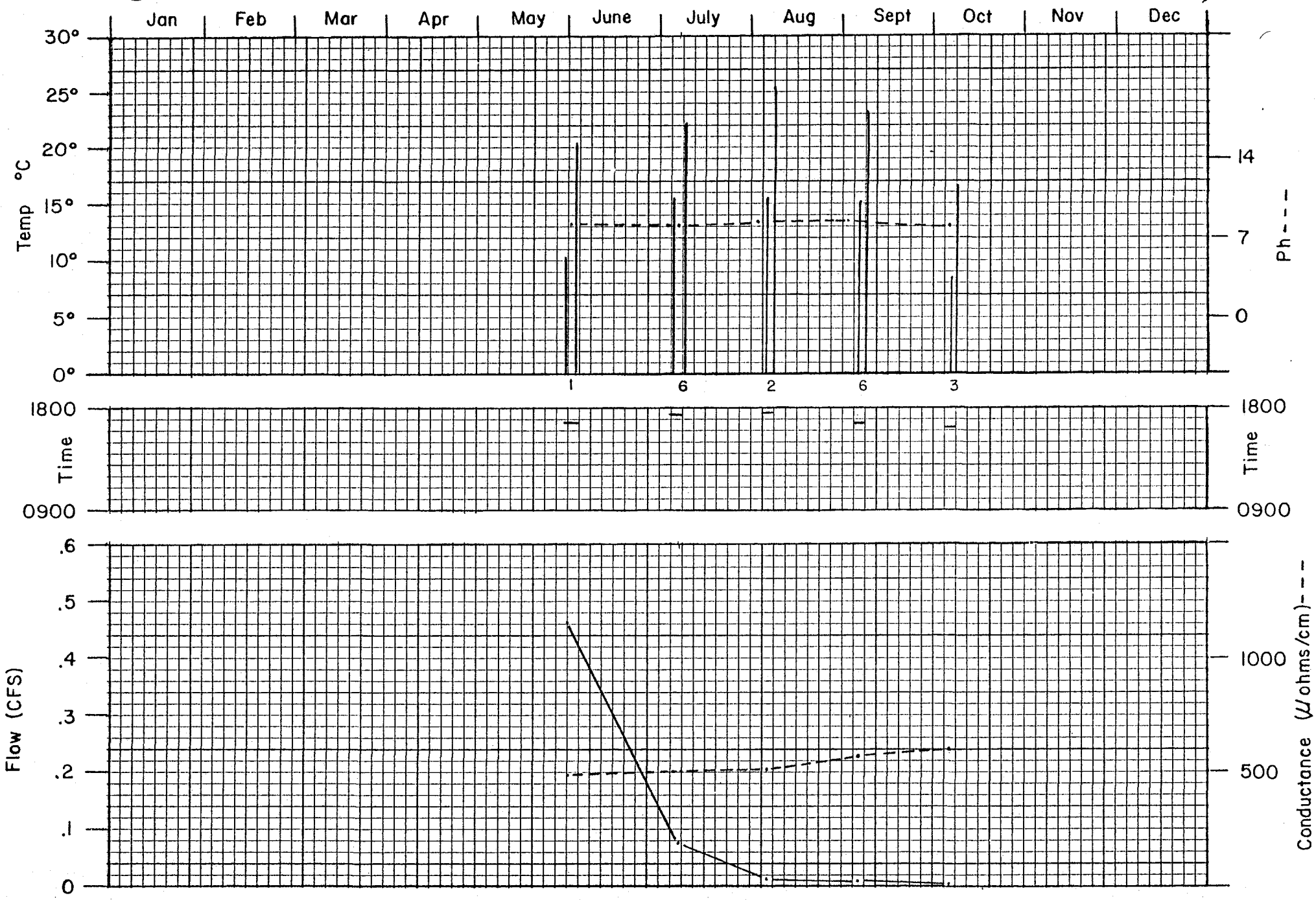



YEAR: 1978 STATION: #23 Pine Creek LOCATION: NWNWSWSW 5-13S-12E

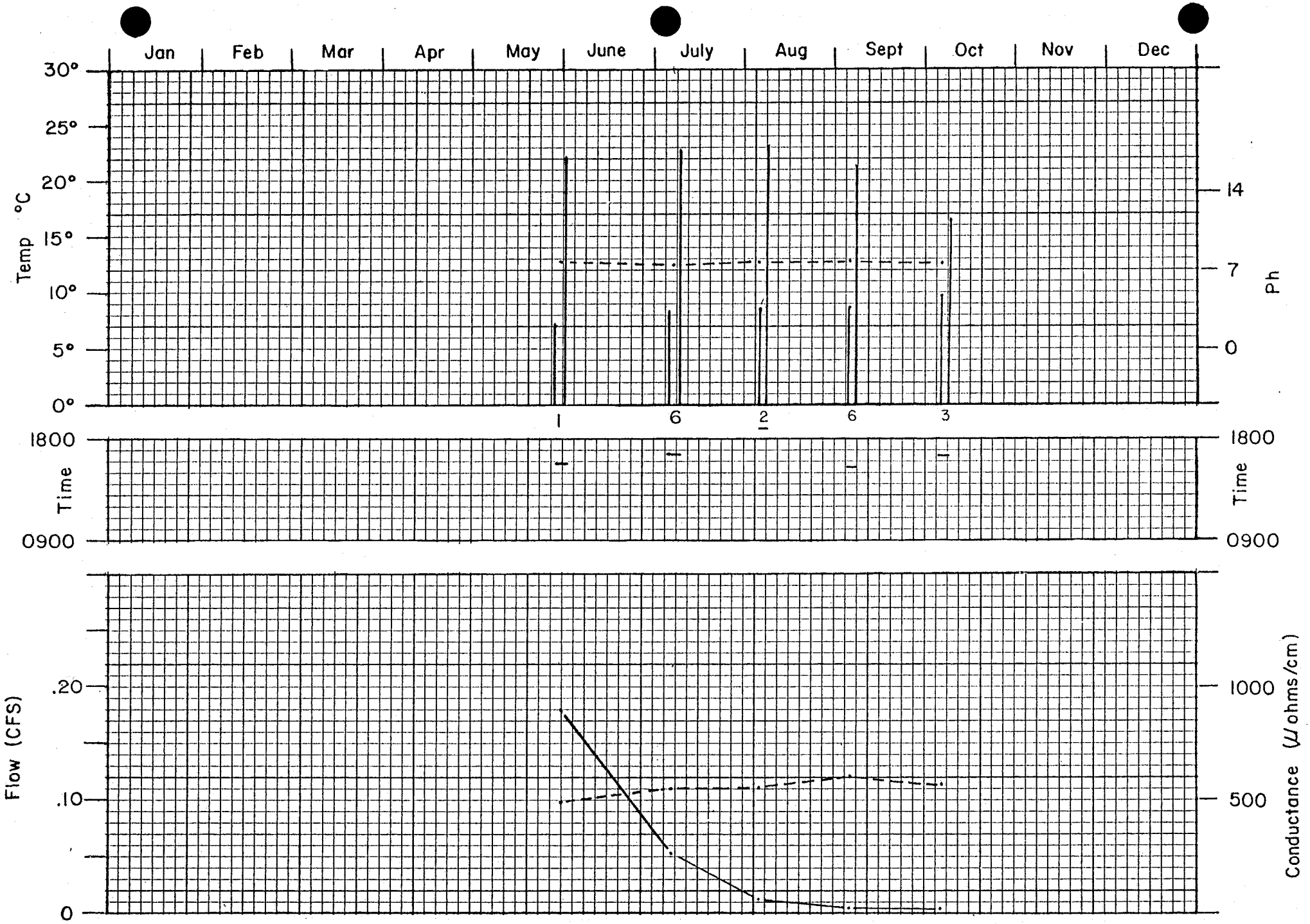



YEAR: 1978 STATION: #30 Upper Pond Spr. (9-1) LOCATION: NESWSESE 9-13S-12E

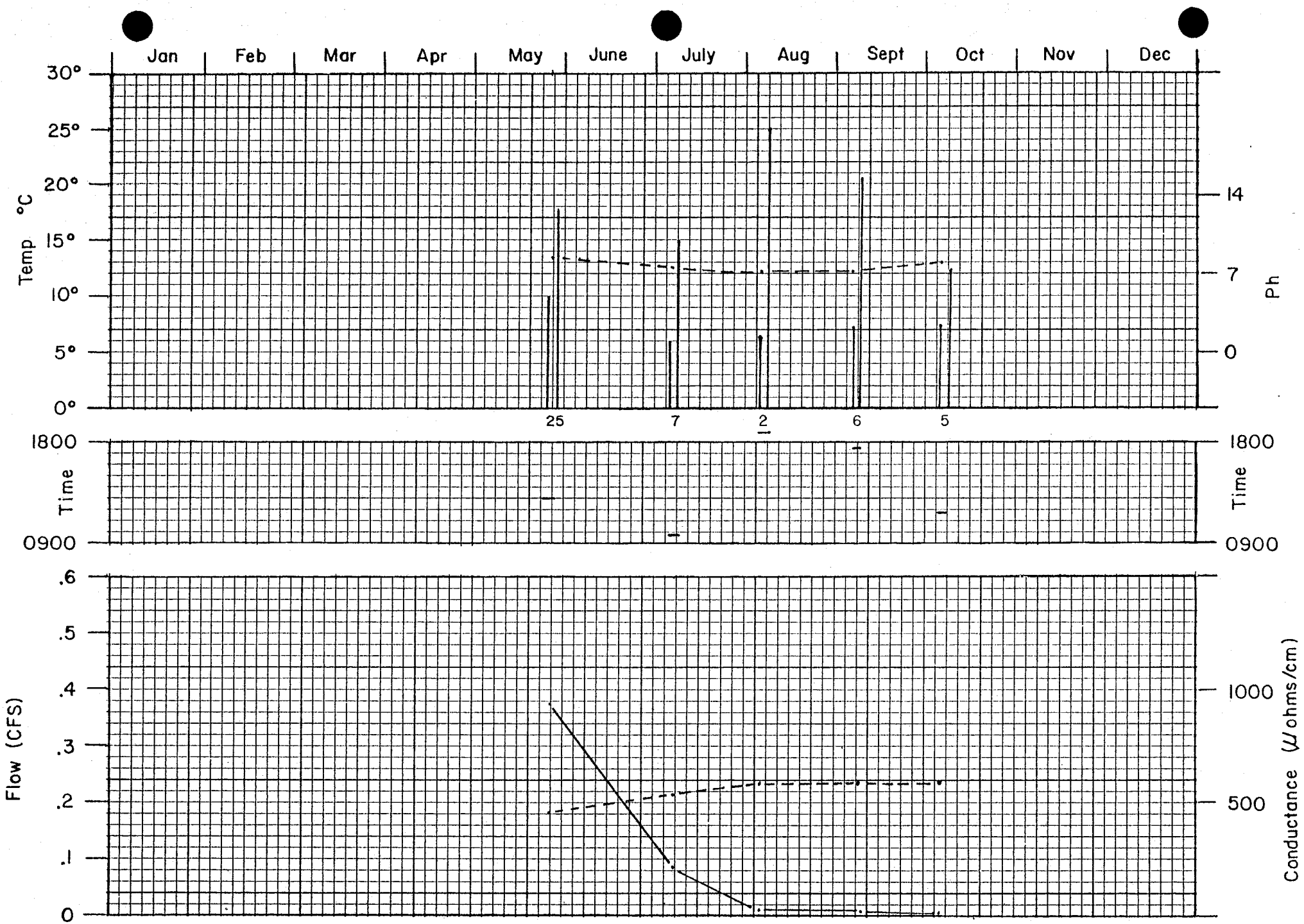
YEAR: 1978 STATION: #31 Pond Spring LOCATION: NWSWSWSE 9-13S-12E



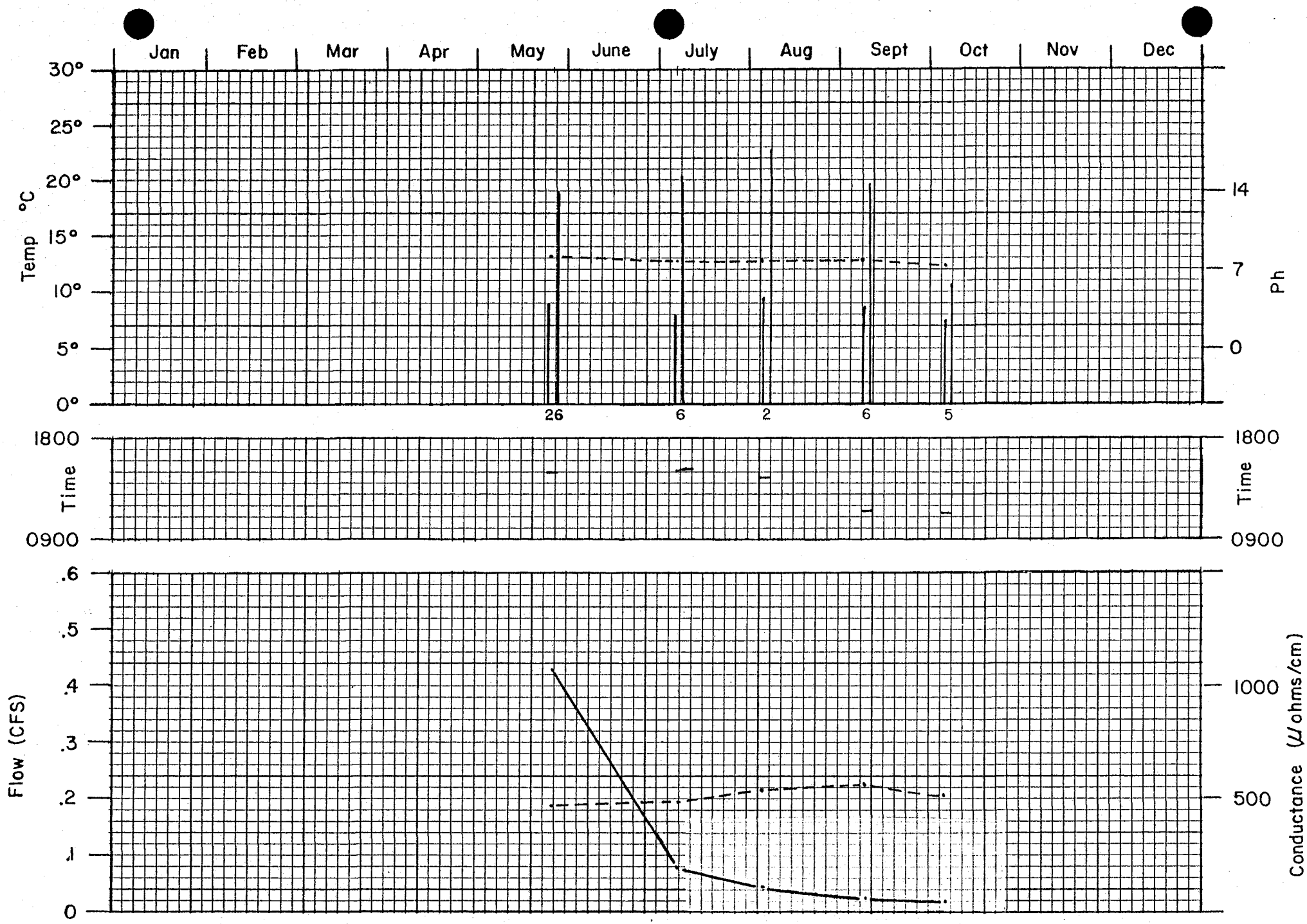

YEAR: 1978 STATION: #37 Little Pine Creek LOCATION: NWNESWSE 8-13S-12E



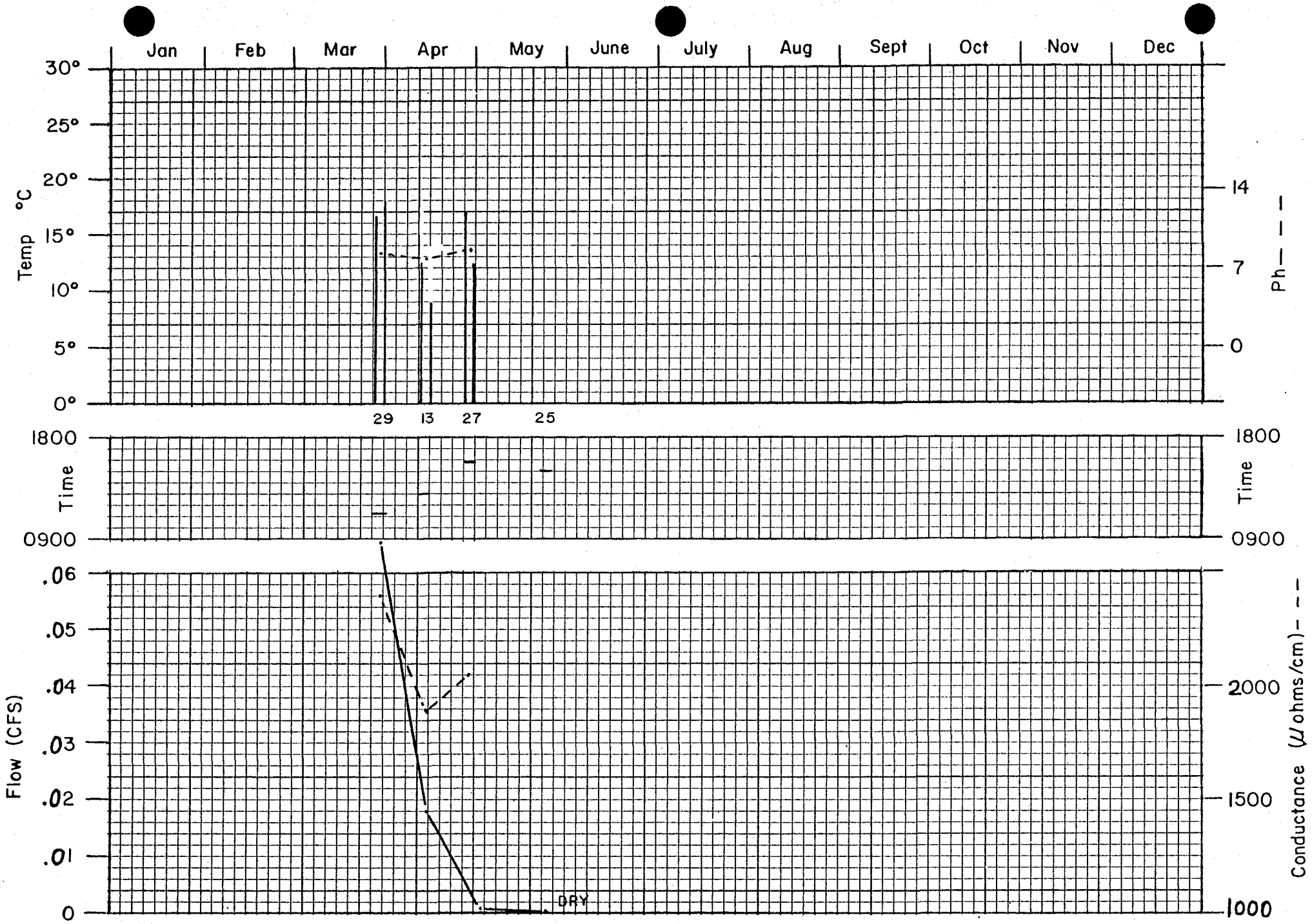

YEAR: 1978 STATION: #39 Little Pine Spring LOCATION: SWNWNWSW 9-13S-12E



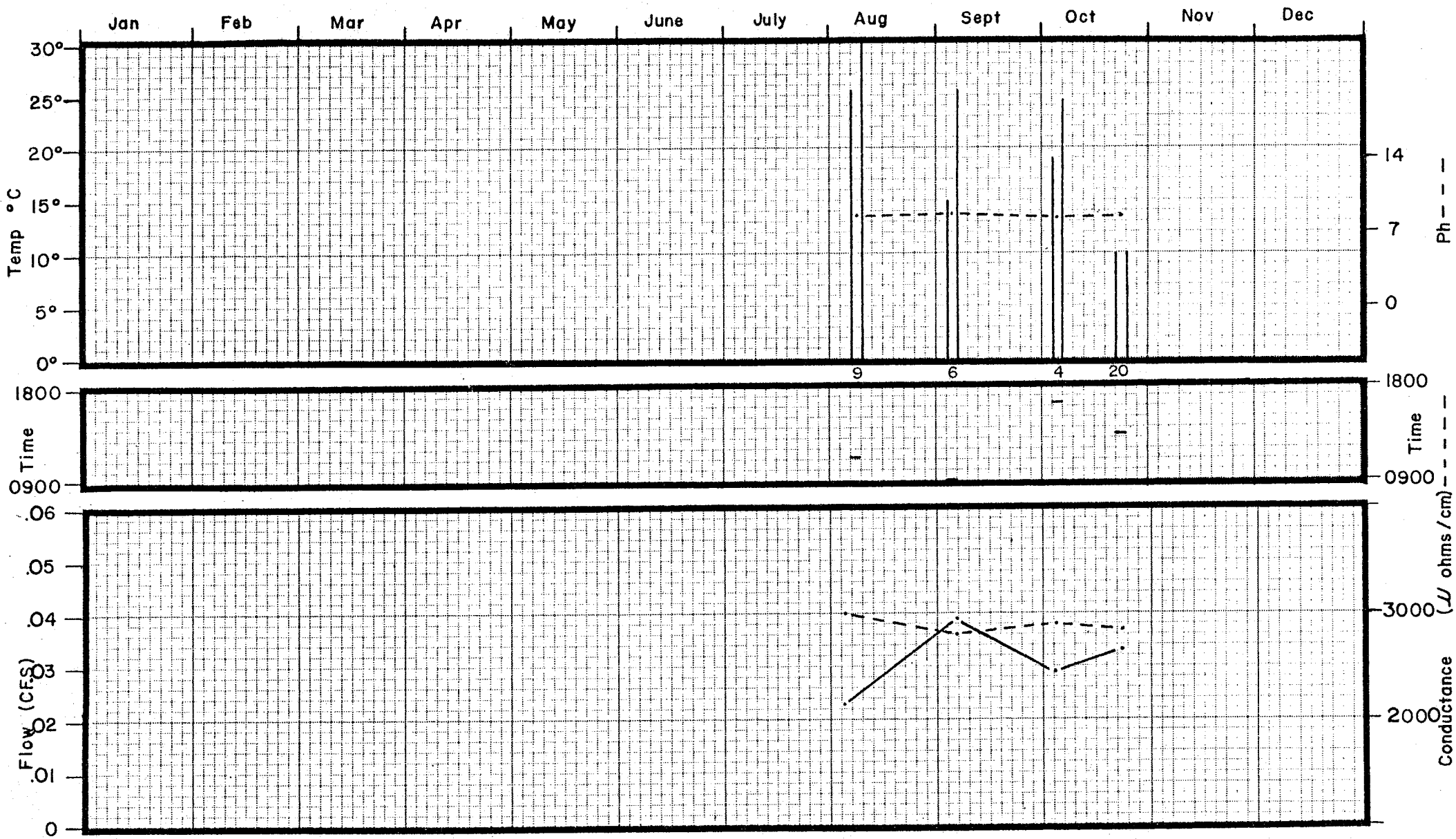

YEAR: 1978 STATION: #42 Pine Spring LOCATION: SENWSENE 10-13S-12E



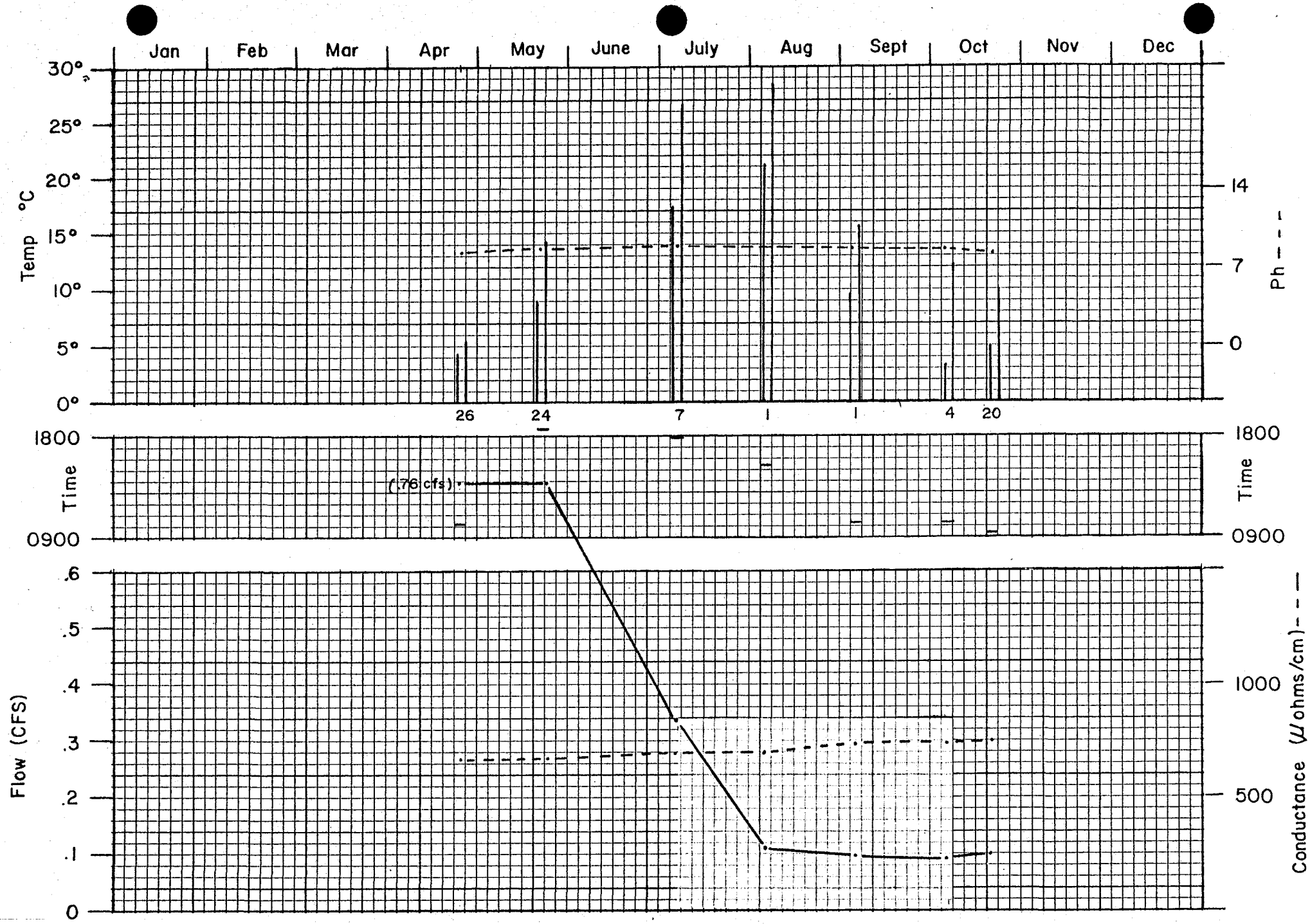

YEAR: 1978 STATION: #44 "Y" Spring LOCATION: SWSESWNE 11-13S-12E



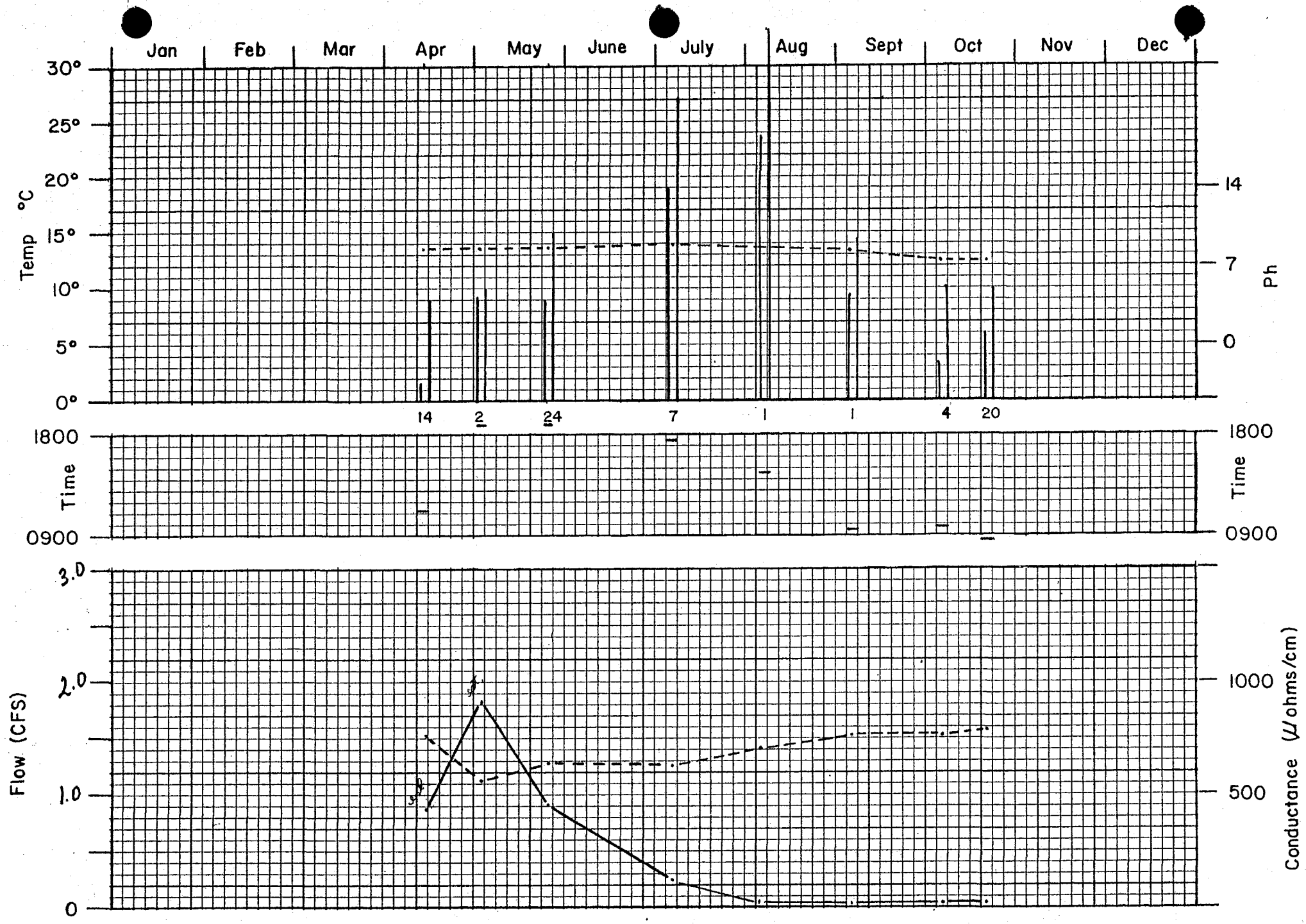

YEAR: 1978 STATION: #46 West Dugout Creek LOCATION: NWSESE 5-14S-12E




YEAR 1978 STATION #48 Soldier Creek - Edwards Ranch (irrigation return) LOCATION SESWSE 12-14S-11E




YEAR: 1978 STATION: PC1 Upper Pace Creek LOCATION: NWSWSE 19-13S-13E




YEAR: 1978 STATION: #PC2 Lower Pace Creek LOCATION: NESWNW 30-13S-13E

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB ID # 306006 RECORD # 3623

SAMPLE LOCATION: SOLDIER CREEK BELOW MINE NEAR WELLINGTON, UTAH
STATION ID: 09313975 LAT.LONG.SEQ.: 394156 1103638 02
DATE OF COLLECTION: BEGIN--781020 END-- TIME--1200
STATE CODE: 49 COUNTY CODE: 007 PROJECT IDENTIFICATION: 464912900
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS:
FIELD VALUE USED FOR BICARB. & CARBONATE. COLLECTED BY JDL. SAMPLES COLLECTED ETR, DIPPED. BED IS MUD ON ROCK. RAINING. WATER IS FOAMY, CLEAR. 100% D.O.=9.5. ATTN G. LINES

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|---|---|---|---|---|---|
| AIR TEMP (DEG C) | | 11.0 | POTASSIUM DISS | MG/L | 3.4 |
| ALK,TOT (AS CACO3) | MG/L | 360 | RESIDUE DIS CALC SUM | MG/L | 590 |
| ANALYZING AGENCY | | 80020 | RESIDUE DIS TON/AFT | | 0.80 |
| BICARBONATE | MG/L | 402 | RESIDUE DIS TON/DAY | | 0.56 |
| CALCIUM DISS | MG/L | 56 | SAR | | 2.1 |
| CARBONATE | MG/L | 18 | SILICA DISSOLVED | MG/L | 8.1 |
| CHLORIDE DISS | MG/L | 15 | SODIUM DISS | MG/L | 90 |
| HARDNESS NONCARB | MG/L | 0 | SODIUM PERCENT | | 36 |
| HARDNESS TOTAL | MG/L | 350 | SP. CONDUCTANCE FLD | | 900 |
| MAGNESIUM DISS | MG/L | 51 | SP. CONDUCTANCE LAB | | 921 |
| OXYGEN DISSOLVED | MG/L | 9.2 | STREAMFLOW(CFS)-INST | | 0.35 |
| PH FIELD | | 8.6 | SULFATE DISS | MG/L | 150 |
| PH LAB | | 8.0 | WATER TEMP (DEG C) | | 7.0 |

| CATIONS | (MG/L) | (MEQ/L) | ANIONS | (MG/L) | (MEQ/L) |
|---|---|---|---|---|---|
| CALCIUM DISS | 56 | 2.795 | BICARBONATE | 402 | 6.589 |
| MAGNESIUM DISS | 51 | 4.196 | CARBONATE | 18 | 0.600 |
| POTASSIUM DISS | 3.4 | 0.087 | CHLORIDE DISS | 15 | 0.424 |
| SODIUM DISS | 90 | 3.915 | SULFATE DISS | 150 | 3.123 |
| TOTAL | | 10.992 | TOTAL | | 10.735 |

PERCENT DIFFERENCE = 1.18

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB ID # 236010 RECORD # 49505 A3 12

SAMPLE LOCATION: SOLDIER CREEK BELOW MINE NEAR WELLINGTON, UTAH
STATION ID: 09313975 LAT.LONG.SEQ.: 394156 1103638 02
DATE OF COLLECTION: BEGIN--780816 END-- TIME--1330
STATE CODE: 49 COUNTY CODE: 007 PROJECT IDENTIFICATION: 464912900
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS:
FIELD VALUE USED FOR BICARB. & CARBONATE. COLL. BY KP, DIP SAMPLED USING ETR METHOD, WATER IS CLEAR, BUT SULFUR SMELL PRESENT, SLUDGE AND ALGAE ON COBBLE BED, 100% D.O.=7.6

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|---|---|---|---|---|---|
| AIR TEMP (DEG C) | | 25.0 | NITROGEN SUSP KJD | MG/L | 0.06 |
| ALK,TOT (AS CACO3) | MG/L | 340 | NITROGEN TOTKJD AS N | MG/L | 0.34 |
| ANALYZING AGENCY | | 80020 | NO2+NO3 AS N DISS | MG/L | 0.01 |
| ARSENIC DISSOLVED | UG/L | 2 | OIL AND GREASE | MG/L | 0.0 |
| BICARBONATE | MG/L | 358 | OXYGEN DISSOLVED | MG/L | 7.6 |
| BORON DISSOLVED | UG/L | 100 | PH FIELD | | 8.6 |
| CALCIUM DISS | MG/L | 51 | PH LAB | | 7.9 |
| CARBON DIS ORGANIC | MG/L | 31 | PHENOLS | UG/L | 2 |
| CARBON ORG SUS | MG/L | 0.7 | PHOS ORTHO DIS AS P | MG/L | 0.00 |
| CARBONATE | MG/L | 26 | PHOSPHATE DIS ORTHO | MG/L | 0.00 |
| CHLORIDE DISS | MG/L | 12 | PHOSPHORUS TOT AS P | MG/L | 0.02 |
| CHROMIUM DISSOLVED | UG/L | 0 | POTASSIUM DISS | MG/L | 3.3 |
| FLUORIDE DISS | MG/L | 0.4 | RESIDUE DIS CALC SUM | MG/L | 506 |
| HARDNESS NONCARB | MG/L | 0 | RESIDUE DIS TON/AFT | | 0.69 |
| HARDNESS TOTAL | MG/L | 320 | RESIDUE DIS TON/DAY | | 0.61 |
| IRON DISSOLVED | UG/L | < 10 | SAR | | 1.7 |
| LEAD DISSOLVED | UG/L | 18 | SELENIUM DISSOLVED | UG/L | 1 |
| LITHIUM DISSOLVED | UG/L | 20 | SILICA DISSOLVED | MG/L | 9.2 |
| MAGNESIUM DISS | MG/L | 47 | SODIUM DISS | MG/L | 70 |
| MANGANESE DISSOLVED | UG/L | 40 | SODIUM PERCENT | | 32 |
| NITR. NH4 AS NH4 DIS | MG/L | 0.01 | SP. CONDUCTANCE FLD | | 1020 |
| NITR. NO2 AS NO2 DIS | MG/L | 0.00 | SP. CONDUCTANCE LAB | | 764 |
| NITROGEN DIS ORG ASN | MG/L | 0.27 | STREAMFLOW(CFS)-INST | | 0.45 |
| NITROGEN DISS KJD | MG/L | 0.28 | STRONTIUM DISSOLVED | UG/L | 460 |
| NITROGEN NH4 ASN DIS | MG/L | 0.01 | SULFATE DISS | MG/L | 110 |
| NITROGEN NO2 ASN DIS | MG/L | 0.00 | WATER TEMP (DEG C) | | 17.0 |
| | | | ZINC DISSOLVED | UG/L | < 3 |

WATER QUALITY ANALYSIS CONTINUED
LAB ID # 236010 RECORD # 49505

SAMPLE LOCATION: SOLDIER CREEK BELOW MINE NEAR WELLINGTON, UTAH
STATION ID: 09313975 LAT.LONG.SEQ.: 394156 1103638 02
DATE OF COLLECTION: BEGIN--780816 END-- TIME--1330

| CATIONS | (MG/L) | (MEQ/L) | ANIONS | (MG/L) | (MEQ/L) |
|---|---|---|---|---|---|
| CALCIUM DISS | 51 | 2.545 | BICARBONATE | 358 | 5.868 |
| MAGNESIUM DISS | 47 | 3.867 | CARBONATE | 26 | 0.867 |
| POTASSIUM DISS | 3.3 | 0.085 | CHLORIDE DISS | 12 | 0.339 |
| SODIUM DISS | 70 | 3.045 | FLUORIDE DISS | 0.4 | 0.022 |
| | | | SULFATE DISS | 110 | 2.291 |
| | | | NO2+NO3 AS N D | 0.01 | 0.001 |
| | TOTAL | 9.540 | | TOTAL | 9.385 |

PERCENT DIFFERENCE = 0.82

Ford Chemical
LABORATORY
Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115

Date: December 14, 1978

Name Pacific Gas & Electric Co.

CERTIFICATE OF ANALYSIS

Address 1015 Kearns Bldg.
Attn: Paul Anderson
Salt Lake City, Utah 84101

78-3057-1

Sample Water received 10/23/78.

| | P.C. #1 Upper Pace Cr.10/20 | PC #2 Lower Pace Cr.10/20 | #5 Dugout Cr. 10/20 | #7 Dugout Cr.10/20 | #21 Fish Cr. 10/19/78 |
|---|---|---|---|---|---|
| Alkalinity as CaCO3 mg/l | 370.0 | 354.0 | 318.0 | 314.0 | 266.0 |
| Bicarbonate as HCO3 mg/l | 451.4 | 431.88 | 387.96 | 383.08 | 324.52 |
| Calcium as Ca mg/l | 91.2 | 98.4 | 47.2 | 43.2 | 36.8 |
| Carbonate as CO3 mg/l | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chloride as Cl mg/l | 8.0 | 8.0 | 2.0 | 4.0 | 4.0 |
| Conductivity umhos/cm | 940.0 | 985.0 | 610.0 | 645.0 | 500.0 |
| Fluoride as F mg/l | 0.26 | 0.27 | 0.26 | 0.26 | 0.24 |
| Hardness as CaCO3 mg/l | 432.0 | 454.0 | 296.0 | 338.0 | 300.0 |
| Hydroxide as OH mg/l | | | | | |
| Magnesium as Mg mg/l | 48.96 | 49.92 | 42.72 | 55.20 | 49.92 |
| pH | | | | | |
| Potassium as K mg/l | 3.02 | 3.34 | 2.77 | 2.49 | 2.20 |
| Sodium as Na mg/l | 58.0 | 61.0 | 45.0 | 34.0 | 14.0 |
| Sulfate as SO4 mg/l | 178.0 | 213.0 | 75.0 | 94.0 | 63.0 |
| Total Dissolved Solids mg/l | 610.0 | 642.0 | 400.0 | 418.0 | 328.0 |
| Turbidity FTU | 2.00 | 1.60 | 0.45 | 0.45 | 0.43 |
| Total Kjeldahl Nitrogen mg/l | 0.10 | 0.11 | 0.10 | 0.12 | 0.10 |
| Ammonia as NH3-N mg/l | 0.10 | 0.05 | 0.08 | 0.06 | 0.05 |
| Nitrate as NO3-N mg/l | 0.02 | 0.02 | 0.03 | 0.02 | 0.02 |
| Nitrite as NO2-N mg/l | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Total Phosphate as PO4-P mg/l | | | | | |
| Ortho Phosphate as PO4-P mg/l | 0.025 | 0.024 | 0.020 | 0.022 | 0.025 |
| Aluminum as Al mg/l | 0.010 | 0.012 | 0.010 | 0.020 | 0.080 |
| Antimony as Sb mg/l | | | | | |
| Arsenic as As mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |

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Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115

| | PC1 | PC2 | #5 | #7 | #21 |
|---|---|---|---|---|---|
| Barium as Ba mg/l | 0.060 | 0.082 | 0.100 | 0.100 | 0.055 |
| Beryllium as Be mg/l | 0.001 | 0.004 | 0.001 | 0.002 | 0.004 |
| Boron as B mg/l | 0.080 | 0.110 | 0.055 | 0.055 | 0.105 |
| Cadmium as Cd mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Chromium as Cr mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Cobalt as Co mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Copper as Cu mg/l | 0.008 | 0.008 | 0.007 | 0.007 | 0.015 |
| Germanium as Ge mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Iron as Fe (Total) mg/l | 0.019 | 0.013 | 0.040 | 0.011 | 0.008 |
| Lead as Pb mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Manganese as Mn mg/l | 0.018 | 0.026 | 0.022 | 0.005 | 0.004 |
| Mercury as Hg mg/l | < 0.0002 | < 0.0002 | < 0.0002 | < 0.0002 | < 0.0002 |
| Molybdenum as Mo mg/l | 0.04 | 0.04 | 0.01 | 0.01 | < 0.01 |
| Nickel as Ni mg/l | 0.003 | 0.001 | < 0.001 | 0.004 | < 0.001 |
| Selenium as Se mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Silver as Ag mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Vanadium as V mg/l | 0.03 | 0.06 | 0.10 | 0.02 | < 0.01 |
| Zinc as Zn mg/l | 0.009 | 0.006 | 0.006 | 0.003 | 0.008 |
| Bio-Chemical Oxygen Demand mg/l | | | | | |
| Chemical Oxygen Demand mg/l | | | | | |
| Total Organic Carbon mg/l | 19.0 | 15.0 | 21.0 | 15.0 | 11.0 |
| Cyanide as CN mg/l | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Silica as SiO2 mg/l | 11.75 | 10.5 | 8.75 | 8.50 | 6.75 |
| Oil and Grease mg/l | 1.2 | 3.0 | < 1.0 | 1.6 | < 1.0 |
| Phenol mg/l | | | | | |
| Surfactants mg/l | | | | | |
| Settleable Solids ml/l | | | | | |
| Suspended Solids mg/l | 1.0 | 2.0 | 1.0 | 2.0 | 2.0 |
| Total Solids mg/l | | | | | |

Lyle L. Ford

FORD CHEMICAL LABORATORY, INC.

Ford Chemical
LABORATORY, INC.
*Bacteriological and Chemical Analysis*
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115
PHONE 485-5761

December 14, 1978

Pacific Gas & Electric Company
1015 Kearns Building
Salt Lake City, Utah 84101

**CERTIFICATE OF ANALYSIS**

Attn: Paul Anderson

78-3057-1

Gentlemen:

The following analysis is on samples of water received on October 23, 1978.

Sample: Water.

| | PC #1 Upper Pace Creek | PC #2 Lower Pace Cr. | #5 Dugout Creek | #7 Dugout Creek | #21 Fish Creek |
|---|---|---|---|---|---|
| Sulfide as S mg/l | ∠ 0.1 | ∠ 0.1 | ∠ 0.1 | ∠ 0.1 | ∠ 0.1 |
| Bismuth as Bi mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Strontium as Sr mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Gallium as Ga mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Lithium as Li mg/l | 0.016 | 0.020 | 0.013 | 0.010 | 0.008 |
| Titanium as Ti mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Zirconium as Zi mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Cesium as Cs mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Thorium as Th mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Yttrium as Yt mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Uranium as U mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | 0.005 |
| Tin as Sn mg/l | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 | ∠ 0.001 |
| Total Carbon mg/l | 66.0 | 45.0 | 36.0 | 41.0 | 29.0 |
| Gross Alpha pic/l ± 3.5 | 3.8 | 3.6 | 3.9 | 4.0 | 3.7 |
| Gross Beta pic/l ± 5.0 | 11.0 | 9.0 | 12.0 | 10.0 | 12.0 |

Sincerely,

FORD CHEMICAL LABORATORY, INC.

Lyle S. Ford

Lyle S. Ford

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* Corrected!

Ford Chemical
LABORATORY
Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115

Date: Dec. 14, 1978

Name Pacific Gas & Electric

Address 1015 Kearns Bldg.

SLC, UT 84101 Attn: Paul Anderson

CERTIFICATE OF ANALYSIS

78-3057-2-A

Sample Water received 10/23/78.

| | #22 Soldier Creek 10/19/78 | #23 Pine Canyon 10/19/78 | #30 9-1 Sprg.Pond 10/19/78 | #47 Anderson Res. 10/20/78 | #48 Edwards Ranch 10/20/78 |
|---|---|---|---|---|---|
| Alkalinity as CaCO3 mg/l | 376.0 | 316.0 | 306.0 | 170.0 | 344.0 |
| Bicarbonate as HCO3 mg/l | 458.72 | 385.52 | 373.32 | 70.76 | 405.04 |
| Calcium as Ca mg/l | 26.4 | 40.0 | 53.6 | 24.8 | 168.0 |
| Carbonate as CO3 mg/l | <0.01 | <0.01 | <0.01 | 67.2 | 7.2 |
| Chloride as Cl mg/l | 16.0 | 4.0 | 2.0 | 24.0 | 62.0 |
| Conductivity umhos/cm | 785.0 | 590.0 | 510.0 | 1600.0 | 4,830 |
| Fluoride as F mg/l | 0.45 | 0.31 | 0.31 | 0.35 | 0.36 |
| Hardness as CaCO3 mg/l | 250.0 | 244.0 | 180.0 | 466.0 | 1,440 |
| Hydroxide as OH mg/l | | | | | |
| Magnesium as Mg mg/l | 44.16 | 34.56 | 11.04 | 96.96 | 244.80 |
| pH | | | | | |
| Potassium as K mg/l | 1.872 | 1.193 | 0.902 | 4.230 | 9.560 |
| Sodium as Na mg/l | 110.0 | 60.0 | 62.0 | 190.0 | 480 |
| Sulfate as SO4 mg/l | 92.0 | 55.0 | 17.0 | 600.0 | 1,980 |
| Total Dissolved Solids mg/l | 512.0 | 385.0 | 330.0 | 1,040 | 3,140 |
| Turbidity FTU | 4.9 | 0.75 | 0.37 | 2.9 | 2.3 |
| * Total Kjeldahl Nitrogen mg/l | 0.12 | 0.11 | 0.65 | 0.80 | 0.15 |
| Ammonia as NH3-N mg/l | 0.10 | 0.10 | 0.50 | 0.50 | 0.13 |
| Nitrate as NO3-N mg/l | 0.02 | 0.02 | 0.11 | 0.02 | 0.60 |
| Nitrite as NO2-N mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Total Phosphate as PO4-P mg/l | | | | | |
| Ortho Phosphate as PO4-P mg/l | 0.065 | 0.045 | 0.020 | 0.024 | 0.022 |
| Aluminum as Al mg/l | 0.090 | 0.040 | 0.010 | 0.085 | 0.030 |
| Antimony as Sb mg/l | | | | | |
| Arsenic as As mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |

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SALT LAKE CITY, UTAH 84115

Date: December 14, 1978

Name Pacific Gas & Electric Co.

Address 1015 Kearns Bldg.
Attn: Paul Anderson
~~Salt Lake City, Utah 84101~~

CERTIFICATE OF ANALYSIS

78-3057-2

Sample Water received 10/23/78.

| | #22 Soldier Cr. Creek 10/19 | #23 Pine Cyn. 10/19 | #30 Spr.Pond 10/19/78 | #47 Anderson Res.10/20 | #48 Edwards Ranch 10/20 |
|---|---|---|---|---|---|
| Alkalinity as CaCO3 mg/l | 376.0 | 316.0 | 306.0 | 170.0 | 344.0 |
| Bicarbonate as HCO3 mg/l | 458.72 | 385.52 | 373.32 | 70.76 | 405.04 |
| Calcium as Ca mg/l | 26.4 | 40.0 | 53.6 | 24.8 | 168.0 |
| Carbonate as CO3 mg/l | < 0.01 | < 0.01 | < 0.01 | 67.2 | 7.2 |
| Chloride as Cl mg/l | 16.0 | 4.0 | 2.0 | 24.0 | 62.0 |
| Conductivity umhos/cm | 785.0 | 590.0 | 510.0 | 1600.0 | 4,830 |
| Fluoride as F mg/l | 0.45 | 0.31 | 0.31 | 0.35 | 0.36 |
| Hardness as CaCO3 mg/l | 250.0 | 244.0 | 180.0 | 466.0 | 1,440 |
| Hydroxide as OH mg/l | | | | | |
| Magnesium as Mg mg/l | 44.16 | 34.56 | 11.04 | 96.96 | 244.80 |
| pH | | | | | |
| Potassium as K mg/l | 1.872 | 1.193 | 0.902 | 4.230 | 9.560 |
| Sodium as Na mg/l | 110.0 | 60.0 | 62.0 | 190.0 | 480 |
| Sulfate as SO4 mg/l | 92.0 | 55.0 | 17.0 | 600.0 | 1,980 |
| Total Dissolved Solids mg/l | 512.0 | 385.0 | 330.0 | 1,040 | 3,140 |
| Turbidity FTU | 4.9 | 0.75 | 0.37 | 2.9 | 2.3 |
| Total Kjeldahl Nitrogen mg/l | | | | | |
| Ammonia as NH3-N mg/l | 0.10 | 0.10 | 0.50 | 0.50 | 0.13 |
| Nitrate as NO3-N mg/l | 0.02 | 0.02 | 0.11 | 0.02 | 0.60 |
| Nitrite as NO2-N mg/l | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Total Phosphate as PO4-P mg/l | | | | | |
| Ortho Phosphate as PO4-P mg/l | 0.065 | 0.045 | 0.020 | 0.024 | 0.022 |
| Aluminum as Al mg/l | 0.090 | 0.040 | 0.010 | 0.085 | 0.030 |
| Antimony as Sb mg/l | | | | | |
| Arsenic as As mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |

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SALT LAKE CITY, UTAH 84115

| | | | | | |
|---|---|---|---|---|---|
| Barium as Ba mg/l | 0.100 | 0.090 | 0.095 | 0.012 | 0.020 |
| Beryllium as Be mg/l | 0.005 | <0.001 | <0.001 | <0.001 | 0.002 |
| Boron as B mg/l | 0.180 | 0.120 | 0.105 | 0.200 | 0.430 |
| Cadmium as Cd mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Chromium as Cr mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt as Co mg/l | <0.001 | <0.001 | <0.001 | 0.014 | 0.039 |
| Copper as Cu mg/l | 0.004 | 0.008 | 0.006 | 0.011 | 0.017 |
| Germanium as Ge mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Iron as Fe (Total) mg/l | 0.045 | 0.087 | 0.006 | 0.091 | 0.026 |
| Lead as Pb mg/l | <0.001 | <0.001 | <0.001 | 0.003 | 0.012 |
| Manganese as Mn mg/l | 0.048 | 0.035 | 0.053 | 0.023 | 0.010 |
| Mercury as Hg mg/l | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Molybdenum as Mo mg/l | 0.01 | 0.01 | 0.02 | 0.03 | 0.03 |
| Nickel as Ni mg/l | 0.026 | <0.001 | <0.001 | 0.065 | 0.203 |
| Selenium as Se mg/l | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 |
| Silver as Ag mg/l | <0.001 | <0.001 | <0.001 | 0.006 | 0.012 |
| Vanadium as V mg/l | 0.02 | 0.01 | <0.01 | <0.01 | <0.01 |
| Zinc as Zn mg/l | 0.003 | 0.010 | 0.008 | 0.008 | 0.017 |
| Bio-Chemical Oxygen Demand mg/l | | | | | |
| Chemical Oxygen Demand mg/l | | | | | |
| Total Organic Carbon mg/l | 17.0 | 20.0 | 15.0 | 8.0 | 19.0 |
| Cyanide as CN mg/l | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silica as SiO2 mg/l | 8.00 | 7.25 | 7.50 | 6.00 | 0.45 |
| Oil and Grease mg/l | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 |
| Phenol mg/l | | | | | |
| Surfactants mg/l | | | | | |
| Settleable Solids ml/l | | | | | |
| Suspended Solids mg/l | 1.0 | 4.0 | 2.0 | 5.0 | 20.0 |
| Total Solids mg/l | | | | | |

Royce D. Ford

FORD CHEMICAL LABORATORY, INC.

Ford Chemical
LABORATORY, INC.
*Bacteriological and Chemical Analysis*
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115
PHONE 485-5761

December 14, 1978

Pacific Gas & Electric Company
1015 Kearns Bldg.
Salt Lake City, Utah 84101

Attn: Paul Anderson

**CERTIFICATE OF ANALYSIS**
78-3057-2

Gentlemen:

The following analysis is on sample of water received on October 23, 1978.

Sample: Water.

| | #22 Soldier Creek | #23 Pine Canyon | #30 9-1 Sprg.Pond | #47 Anderson Reservoir | #48 Edwards Ranch |
|---|---|---|---|---|---|
| Sulfide as S mg/l | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Bismuth as Bi mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Strontium as Si mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Gallium as Ga mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Lithium as Li mg/l | 0.017 | 0.006 | 0.004 | 0.088 | 0.255 |
| Titanium as Ti mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Zirconium as Zi mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Cesium as Cs mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Thorium as Th mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Yttrium as Yt mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Uranium as U mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Tin as Sn mg/l | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Total Carbon mg/l | 42.0 | 33.0 | 31.0 | 22.0 | 42 |
| Gross Alpha pic/l ± 3.5 | 3.7 | 3.8 | 3.6 | 4.0 | 3.8 |
| Gross Beta pic/l ± 5.0 | 11.0 | 12.0 | 14.0 | 12.0 | 10.0 |

Sincerely,

FORD CHEMICAL LABORATORY, INC.

Lyle S. Ford /do

Lyle S. Ford

LSF/do

All reports are submitted as the confidential property of clients. Authorization for publication of our reports, conclusions, or, extracts from or regarding them, is reserved pending our written approval as a mutual protection to clients, the public and ourselves.

Ford Chemical
LABORATORY
Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115

Date: September 1, 1978

Name Pacific Gas & Electric

Address 1015 Kearns Building

Salt Lake City, Utah 84101

CERTIFICATE OF ANALYSIS

78-2056-2

Sample Waters received August 4, 1978.

| | Soldier Creek | Pine Creek | #30 9-1 Spring | #47 Anderson Reservoir | |
|---|---|---|---|---|---|
| Alkalinity as CaCO3 mg/l | | | | | |
| Bicarbonate as HCO3 mg/l | 387.96 | 309.88 | 348.92 | 200.08 | |
| Calcium as Ca mg/l | 32.0 | 44.0 | 75.2 | 32.8 | |
| Carbonate as CO3 mg/l | <0.01 | <0.01 | <0.01 | 21.6 | |
| Chloride as Cl mg/l | 12.0 | 4.0 | 4.0 | 38.0 | |
| Conductivity umhos/cm | 633 | 470 | 470 | 860 | |
| Fluoride as F mg/l | 0.49 | 0.34 | 0.37 | 0.47 | |
| Hardness as CaCO3 mg/l | 236 | 254 | 290 | 368 | |
| Hydroxide as OH mg/l | | | | | |
| Magnesium as Mg mg/l | 37.44 | 34.56 | 24.48 | 68.64 | |
| pH | | | | | |
| Potassium as K mg/l | 1.380 | 1.036 | 0.980 | 4.100 | |
| Sodium as Na mg/l | 71.10 | 22.98 | 11.16 | 58.6 | |
| Sulfate as SO4 mg/l | 67 | 44 | 20 | 240 | |
| Total Dissolved Solids mg/l | 412 | 305 | 310 | 560 | |
| Turbidity FTU | 3.9 | 0.84 | 0.47 | 15.0 ? | |
| Total Kjeldahl Nitrogen mg/l | 0.10 | 0.08 | 0.05 | 0.13 | |
| Ammonia as NH3-N mg/l | <0.01 | <0.01 | <0.01 | 0.10 | |
| Nitrate as NO3-N mg/l | 0.02 | 0.03 | 0.12 | 0.08 | |
| Nitrite as NO2-N mg/l | <0.01 | <0.01 | <0.01 | <0.01 | |
| Total Phosphate as PO4-P mg/l | | | | | |
| Ortho Phosphate as PO4-P mg/l | 0.023 | 0.020 | 0.025 | 0.028 | |
| Aluminum as Al mg/l | 0.010 | 0.040 | 0.010 | 0.130 | |
| Antimony as Sb mg/l | | | | | |
| Arsenic as As mg/l | <0.001 | <0.001 | <0.001 | <0.001 | |

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SALT LAKE CITY, UTAH 84115



| | Soldier Creek | Pine Creek | #30 9-1 Spring | Anderson Reservoir | |
|---|---|---|---|---|---|
| Barium as Ba mg/l | 0.140 | 0.145 | 0.142 | 0.040 | |
| Beryllium as Be mg/l | 0.011 | 0.010 | 0.014 | 0.010 | |
| Boron as B mg/l | 0.020 | 0.010 | 0.013 | 0.050 | |
| Cadmium as Cd mg/l | <0.001 | <0.001 | <0.001 | <0.001 | |
| Chromium as Cr mg/l | <0.001 | <0.001 | <0.001 | 1.134 ? | |
| Cobalt as Co mg/l | 0.009 | 0.003 | 0.006 | 0.014 | |
| Copper as Cu mg/l | 0.009 | 0.018 | 0.020 | 0.023 | |
| Germanium as Ge mg/l | <0.001 | <0.001 | <0.001 | <0.001 | |
| Iron as Fe (Total) mg/l | 0.037 | 0.149 | 0.106 | 0.067 | |
| Lead as Pb mg/l | <0.001 | <0.001 | <0.001 | <0.001 | |
| Manganese as Mn mg/l | 0.018 | 0.025 | 0.023 | 0.022 | |
| Mercury as Hg mg/l | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| Molybdenum as Mo mg/l | <0.01 | 0.02 | 0.01 | 0.04 | |
| Nickel as Ni mg/l | <0.001 | <0.001 | <0.001 | 0.047 | |
| Selenium as Se mg/l | <0.001 | <0.001 | <0.001 | <0.001 | |
| Silver as Ag mg/l | <0.001 | <0.001 | <0.001 | <0.001 | |
| Vanadium as V mg/l | 0.01 | 0.08 | 0.07 | 0.04 | |
| Zinc as Zn mg/l | 0.021 | 0.026 | 0.016 | 0.020 | |
| Bio-Chemical Oxygen Demand mg/l | | | | | |
| Chemical Oxygen Demand mg/l | | | | | |
| Total Organic Carbon mg/l | 6.0 | 1.0 | 1.0 | 2.0 | |
| Cyanide as CN mg/l | <0.01 | <0.01 | <0.01 | <0.01 | |
| Silica as SiO2 mg/l | 7.60 | 6.60 | 6.20 | 2.55 | |
| Oil and Grease mg/l | 2.4 | <1.0 | 2.2 ? | 2.0 | |
| Phenol mg/l | | | | | |
| Surfactants mg/l | | | | | |
| Settleable Solids ml/l | | | | | |
| Suspended Solids mg/l | 11.0 | 6.0 | 2.0 | 7.0 | |
| Total Solids mg/l | | | | | |
| Sulfide as S mg/l | 1.0 | 1.0 | 1.0 | 1.0 | |

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| | Soldier Creek | Pine Creek | #30 9-1 Spring | #47 Anderson Reservoir |
|---|---|---|---|---|
| Bismuth as Bi mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Strontium as Sr mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Gallium as Ga mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Lithium as Li mg/l | 0.017 | 0.005 | 0.005 | 0.053 |
| Titanium as Ti mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Zirconium as Zr mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Cesium as Cs mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Thorium as Th mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Yttrium as Yt mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium as U mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Tin as Sn mg/l | <0.001 | <0.001 | <0.001 | <0.001 |
| Gross Alpha pic/l ± 3.5 | 4.4 | 3.8 | 4.0 | 3.9 |
| Gross Beta pic/l ± 5.0 | 12.0 | 10.0 | 11.0 | 10.0 |

Sincerely,

FORD CHEMICAL LABORATORY, INC.

Lyle S. Ford

LSF:lh

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STATE OF UTAH
Division of Oil, Gas & Mining

Ford Chemical
LABORATORY
Bacteriological and Chemical Analysis
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115

ATTN: John Anderson

Date: September 1,1978

Name Pacific Gas & Electric

Address 1015 Kearns Building

Salt Lake City, UT 84101

CERTIFICATE OF ANALYSIS
78-2056

Sample Waters received August 4, 1978.

| | PC-1 Upper Pace Creek | PC-2 Pace Creek Lower | Dugout Creek | Left Fork Dugout Creek | Fish Creek |
|---|---|---|---|---|---|
| Alkalinity as CaCO3 mg/l | | | | | |
| Bicarbonate as HCO3 mg/l | 351.36 | 348.92 | 348.92 | 339.16 | 346.40 |
| Calcium as Ca mg/l | 42.4 | 48.0 | 55.2 | 48.8 | 44.0 |
| Carbonate as CO3 mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Chloride as Cl mg/l | 6.0 | 6.0 | 2.0 | 2.0 | 4.0 |
| Conductivity umhos/cm | 755 | 810 | 550 | 575 | 520 |
| Fluoride as F mg/l | 0.30 | 0.31 | 0.31 | 0.33 | 0.29 |
| Hardness as CaCO3 mg/l | 354 | 382 | 290 | 304 | 284 |
| Hydroxide as OH mg/l | | | | | |
| Magnesium as Mg mg/l | 59.5 | 62.88 | 36.48 | 43.68 | 41.76 |
| pH | | | | | |
| Potassium as K mg/l | 2.93 | 3.29 | 2.35 | 1.92 | 2.04 |
| Sodium as Na mg/l | 44.40 | 46.00 | 23.39 | 28.19 | 21.0 |
| Sulfate as SO4 mg/l | 160.0 | 185.0 | 66.0 | 82.0 | 50.0 |
| Total Dissolved Solids mg/l | 490 | 525 | 360 | 375 | 338 |
| Turbidity FTU | 25.0 | 29.0 | 14.0 | 10.0 | 0.55 |
| Total Kjeldahl Nitrogen mg/l | 0.10 | 0.15 | 0.11 | 0.05 | <0.02 |
| Ammonia as NH3-N mg/l | <0.01 | 0.10 | <0.01 | <0.01 | <0.01 |
| Nitrate as NO3-N mg/l | 0.05 | 0.07 | 0.03 | 0.02 | 0.02 |
| Nitrite as NO2-N mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Total Phosphate as PO4-P mg/l | | | | | |
| Ortho Phosphate as PO4-P mg/l | 0.020 | 0.025 | 0.023 | 0.020 | 0.024 |
| Aluminum as Al mg/l | 0.050 | 0.070 | 0.090 | 0.030 | 0.010 |
| Antimony as Sb mg/l | | | | | |
| Arsenic as As mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |

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SALT LAKE CITY, UTAH 84115



| | Upper Pace Creek | Lower Pace Creek | Dugout Creek | Left Fk Dugout Creek | Fish Creek |
|---|---|---|---|---|---|
| Barium as Ba mg/l | 0.100 | 0.080 | 0.090 | 0.100 | 0.100 |
| Beryllium as Be mg/l | 0.011 | 0.008 | 0.009 | 0.005 | 0.014 |
| Boron as B mg/l | 0.020 | 0.024 | 0.035 | 0.030 | 0.010 |
| Cadmium as Cd mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Chromium as Cr mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cobalt as Co mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Copper as Cu mg/l | 0.032 | 0.025 | 0.026 | 0.021 | 0.029 |
| Germanium as Ge mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Iron as Fe (Total) mg/l | 1.926 | 0.033 | 0.132 | 0.043 | 0.047 |
| Lead as Pb mg/l | 0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Manganese as Mn mg/l | 0.025 | 0.018 | 0.014 | 0.016 | 0.012 |
| Mercury as Hg mg/l | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Molybdenum as Mo mg/l | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 |
| Nickel as Ni mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Selenium as Se mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Silver as Ag mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Vanadium as V mg/l | 0.03 | 0.08 | 0.02 | 0.03 | 0.02 |
| Zinc as Zn mg/l | 0.010 | 0.017 | 0.016 | 0.019 | 0.024 |
| Bio-Chemical Oxygen Demand mg/l | | | | | |
| Chemical Oxygen Demand mg/l | | | | | |
| Total Organic Carbon mg/l | 114.0 | 54.0 | 45.0 | 9.0 | 3.0 |
| Cyanide as CN mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Silica as SiO2 mg/l | 10.50 | 10.00 | 9.00 | 8.10 | 6.40 |
| Oil and Grease mg/l | 10.2 | 3.2 | 1.8 | <1.0 | <1.0 |
| Phenol mg/l | | | | | |
| Surfactants mg/l | | | | | |
| Settleable Solids ml/l | | | | | |
| Suspended Solids mg/l | 84.0 | 17.0 | 3.0 | 2.0 | 1.0 |
| Total Solids mg/l | | | | | |
| Sulfide as S mg/l | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |

FORD CHEMICAL LABORATORY, INC.

| | Upper Pace Creek | Lower Pace Creek | Dugout Creek | Left Fk Dugout Creek | Fish Creek |
|---|---|---|---|---|---|
| Bismuth as Bi mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Strontium as Sr mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Gallium as Ga mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Lithium as Li mg/l | 0.014 | 0.009 | 0.003 | 0.010 | 0.002 |
| Titanium as Ti mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Zirconium as Zr mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cesium as Cs mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Thorium as Th mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Yttrium as Yt mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Uranium as U mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Tin as Sn mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Gross Alpha pic/l ± 3.5 | 3.6 | 3.8 | 4.0 | 3.8 | 3.6 |
| Gross Beta pic/l ± 5.0 | 10.0 | 11.0 | 10.0 | 12.0 | 14.0 |

Sincerely,

FORD CHEMICAL LABORATORY, INC.

Lyle S. Ford

LSF:lh

Ford Chemical
LABORATORY, INC.
*Bacteriological and Chemical Analysis*
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115
PHONE 485-5761

September 20, 1978

Pacific Gas and Electric Co.
1015 Kearns Building
Salt Lake City, Utah 84101

**CERTIFICATE OF ANALYSIS**

78-2056-3

Attn: Paul Anderson

Gentlemen:

The following analysis is on samples of water received on August 4, 1978:

| | Total Carbon |
|---|---|
| Soldier Creek | 10.0 mg/l |
| Pine Creek | 4.0 mg/l |
| #30 - 9 - 1 Spring | 3.5 mg/l |
| #47 Anderson Spring | 4.1 mg/l |
| PC-1 Upper Pace Creek | 121.0 mg/l |
| PC-2 Pace Creek Lower | 59.0 mg/l |
| Dugout Creek | 50.0 mg/l |
| Left Fork Dugout Creek | 12.0 mg/l |
| Fish Creek | 5.0 mg/l |

Sincerely,

FORD CHEMICAL LABORATORY, INC.

Lyle S. Ford

LSF/do

All reports are submitted as the confidential property of clients. Authorization for publication of our reports, conclusions, or, extracts from or regarding them, is reserved pending our written approval as a mutual protection to clients, the public and ourselves.

SAGE POINT - DUGOUT CANYON PROJECT

SEDIMENT SAMPLING DATA 1978

| Station | pH | Spec. Cond. | Water Temp. | Date | Time | Size Analy. | TSS mg/l | Flow (cfs) |
|---|---|---|---|---|---|---|---|---|
| Soldier Creek #22 | 8.05 | 395 | 7°c | 4/26/78 | 11:30 | Y | 4,460 | 7.90 |
| " | 8.25 | 370 | 10°c | " | 13:30 | Y | 11,790 | 9.50 |
| " | 8.05 | 330 | 9.5°c | " | 15:00 | Y | 18,970 | 11.30 |
| " | 8.15 | 335 | 8°c | " | 18:30 | | 8,420 | 8.86 |
| " | — | — | — | 4/28/78 | 8:30 | | 689 | 4.96 |
| " | 8.35 | 440 | 0°c | 4/13/78 | 14:45 | | 968 | 3.70E |
| " | — | 490 | 49°F | 5/25/78 | 9:45 | | 860 | 3.50 |
| " | — | — | — | 6/ 1/78 | — | | 294 | 2.38 |
| " | 8.70 | 595 | 19°c | 8/ 2/78 | 11:00 | | 11 | 0.29 |
| " | 8.65 | 690 | 13°c | 10/19/78 | 17:30 | | 1 | 0.25 |
| " | — | 380 | 1.5°c | 11/ 2/78 | 20:25 | Y | 18,000 | 2.5 |
| " | — | 360 | 1.5°c | 11/ 2/78 | 19:10 | Y | 42,400 | 19 E |
| " | — | 410 | 2°c | 11/ 2/78 | 21:10 | Y | 15,200 | 1.8 |
| " | — | — | — | 8/16/78 | 9:30 | | 294 | 0.25 |
| " | 8.50 | 625 | 20°c | 9/ 5/78 | 17:00 | | 151 | 0.16 |
| Pine Creek #23 | 8.25 | 500 | 4°c | 4/13/78 | 15:15 | | 455 | 0.89 |
| Pine Creek #23 | 7.90 | 430 | 6°c | 4/26/78 | 12:00 | | 224 | 0.87 |
| " | 8.55 | 470 | 18°c | 8/ 2/78 | 11:50 | | 6 | 0.28 |
| " | 8.35 | 540 | 9°c | 10/19/78 | 17:00 | | 4 | 0.053 |
| Dugout Creek #5 | 8.10 | 505 | 2°c | 4/13/78 | 11:30 | | 526 | 3.22 |
| " | 8.05 | 450 | 4°c | 4/26/78 | 17:00 | | 3,290 | 5.40 |
| " | 8.65 | 460 | 10.5°c | 5/25/78 | 13:30 | | 221 | 6.24 |
| " | — | — | — | 6/ 2/78 | — | | 45 | 4.74 |
| " | 8.65 | 500 | 11°c | 8/ 2/78 | 9:30 | | 3 | 0.26 |
| " | 8.55 | 560 | 8°c | 10/20/78 | 11:30 | | 1 | 0.12 |
| Left Fork Dugout Creek #7 | 8.50 | 505 | 1°c | 4/13/78 | 10:30 | | 733 | 1.23E |
| " | 8.55 | 480 | 6°c | 4/27/78 | 14:45 | | 2,950 | 1.80E |
| " | 8.60 | 465 | 12°c | 5/25/78 | 14:30 | | 225 | 1.21 |
| " | 8.90 | 570 | 10°c | 8/ 2/78 | 10:30 | | 2 | 0.14 |
| " | 8.60 | 600 | 7°c | 10/20/78 | 12:00 | | 2 | 0.049 |
| Right Fork of Dugout Creek #6 | — | — | 6°c | 4/27/78 | 14:50 | | 90 | 1.80E |
| Fish Creek #21 | 8.55 | 470 | 4°c | 4/27/78 | 18:15 | | 186 | 0.90E |
| " | 8.30 | 445 | 8°c | 6/ 2/78 | 11:05 | | 8 | 0.793 |
| " | 8.75 | 490 | 14.5°c | 8/ 3/78 | 12:45 | | 1 | 0.062 |
| " | 8.25 | 500 | 8.5°c | 10/19/78 | 14:30 | | 2 | 0.014 |
| Lower Fish Creek (sec. 16) | — | — | — | 4/27/78 | 17:30 | | 5,320 | 1.0 E |
| West Dugout Wash #46 | 7.90 | 1900 | 12°c | 4/13/78 | 13:00 | | 9 | 0.012 |
| " | 8.50 | 2050 | 17°c | 4/27/78 | 15:50 | | 7 | 0.0034 |
| Dugout Creek in Clark Valley | 8.35 | 550 | 14.5°c | 5/24/78 | 15:00 | | 1,920 | 3-4 E |
| Pace Creek (upper) PC1 | 8.35 | 670 | 4°c | 4/26/78 | 10:10 | | 101 | 0.765 |
| " | 8.65 | 670 | 9°c | 5/24/78 | 18:45 | | 57 | 0.76 |
| " | 7.10? | 700 | 20.5°c | 8/ 1/78 | 15:30 | | 84 | 0.112 |
| " | 8.15 | 750 | 5°c | 10/20/78 | 9:15 | | 1 | 0.10 |
| Pace Creek (lower) PC2 | 8.65 | 770 | 1°c | 4/14/78 | 11:10 | | 82 | 0.89E |
| " | 8.70 | 640 | 9°c | 5/24/78 | 19:30 | | 60 | 0.90E |

SAGE POINT - DUGOUT CANYON PROJECT

| Station | pH | Spec. Cond. | Water Temp. | Date | Time | Size Analy. | TSS mg/l | Flow (cfs) |
|---|---|---|---|---|---|---|---|---|
| Pace Creek (lower) PC2 | 7.10? | 700 | 22°c | 8/ 1/78 | 14:45 | | 17 | 0.093 |
| | 8.45 | 790 | 6°c | 10/20/78 | 8:30 | | 2 | 0.081 |
| | 8.65 | 560 | 9°c | 5/ 2/78 | 18:45 | | 654 | 1.80 E |
| Soldier Creek Dugout Road | —— | 900 | 4°c | 11/ 2/78 | 19:40 | Y | 43,000 | 100 E |
| " | —— | 840 | 4.5°c | 11/ 2/78 | 21:40 | Y | 38,900 | 15 E |
| West Dugout Wash #46 (single stage sampler) | —— | —— | —— | 11/ 3/78 | —— | Y | 30,300 | 24 E |

## SIEVE ANALYSIS

| Size, mm. | | | | | | | | | Pan |
|---|---|---|---|---|---|---|---|---|---|
| Weight, gm. | Gross | 472.3 + 25ml | 04.9 = | | 4771 | | | | |
| | Tare | | | | 26.7 | | | | |
| | Net | | | | 470.4 | | | | |
| % of total | | | | | | | | | |
| % finer than | | | | | | | | | |
| % in class | | | | | | | | | |
| Container no. | | | | | | | | | |

Cut or fold

Stream: Soldier Cr.

Location:

Sampling stations: # 23

Method of sampling:

Remarks:

PIPETTE SUSPEN. Sed. 88.014 gm; Vol. 1000 cc; Conc 6.800 mg/L

Date: 1/21 File no: 7832

| | Time | Gage height |
|---|---|---|
| Start | | 1.1 |
| Finish | | |
| Mean | | |

Temp: Mean vel:

Effective width: Mean depth:

Discharge:

## SAMPLE FRACTIONS

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other | |
|---|---|---|---|---|---|---|---|---|---|
| Portion | | | | All | | | | | |
| Container no. | | | | 433 | | | | | |
| Weight, gm. | Gross | | | 53.8051 | | | | | |
| | Tare | | | 51.7771 | | | | | |
| | Net | | | 2.0280 | | | | | |
| % of total | | | | 23 | | | | | |

## CONCENTRATION DETERMINATIONS

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt.sample,gm. | | PIPETTE ANALYSIS DATA | | | WEIGHT: Sieve ____ gm | | COMPOSITE: Bottles | 1 | |
| Container no. | | Date 1/21/72 By GGP | | | V. A. 2.0280 gm | | Sample 470.4 gm | | |
| Weight, gm. | Gross | Portion used All | | | Pipette 6.8074 gm | | Sed. 88.354 gm | | |
| | Tare | Disp. Agent 10 cc | | | Total 88.354 gm | | Conc 18,770 mg/L | | |
| | Net | | | | | | | x 1.01 | |
| Concentration | | | | | | | | | |

Analysis remarks:

VA/Pipet

## PIPET ANALYSIS

Pipet no: Volume: 1000 Volume factor: 40.9836

| Size, mm. | | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | | |
| Temperature | | 27° | 27° | | | | 27° | 27° | |
| Fall distance | | 10 | 10 | | | | 5 | 3 | |
| Settling time | | | | | | | | | |
| Container no. | | 422 | 423 | | | | 424 | 425 | |
| Weight, gm. | Gross | 46.8879 | 47.7630 | | | | 47.6186 | 45.8618 | |
| | Tare | 46.6224 | 47.5874 | | | | 47.5346 | 45.7942 | |
| | Net | .1745 | .1756 | | | | .0840 | .0676 | |
| | D. S. Corr. | .0090 | .0090 | | | | .0090 | .0090 | |
| | Net sed. | 1655 | .1666 | .1661 | | | .0750 | .0586 | |
| | Finer than | | | 6.8074 | | | 3.0738 | 2.4016 | |
| % finer than | | | | 77 | | | 35 | 27 | |
| % in class | | | | | | | | | |

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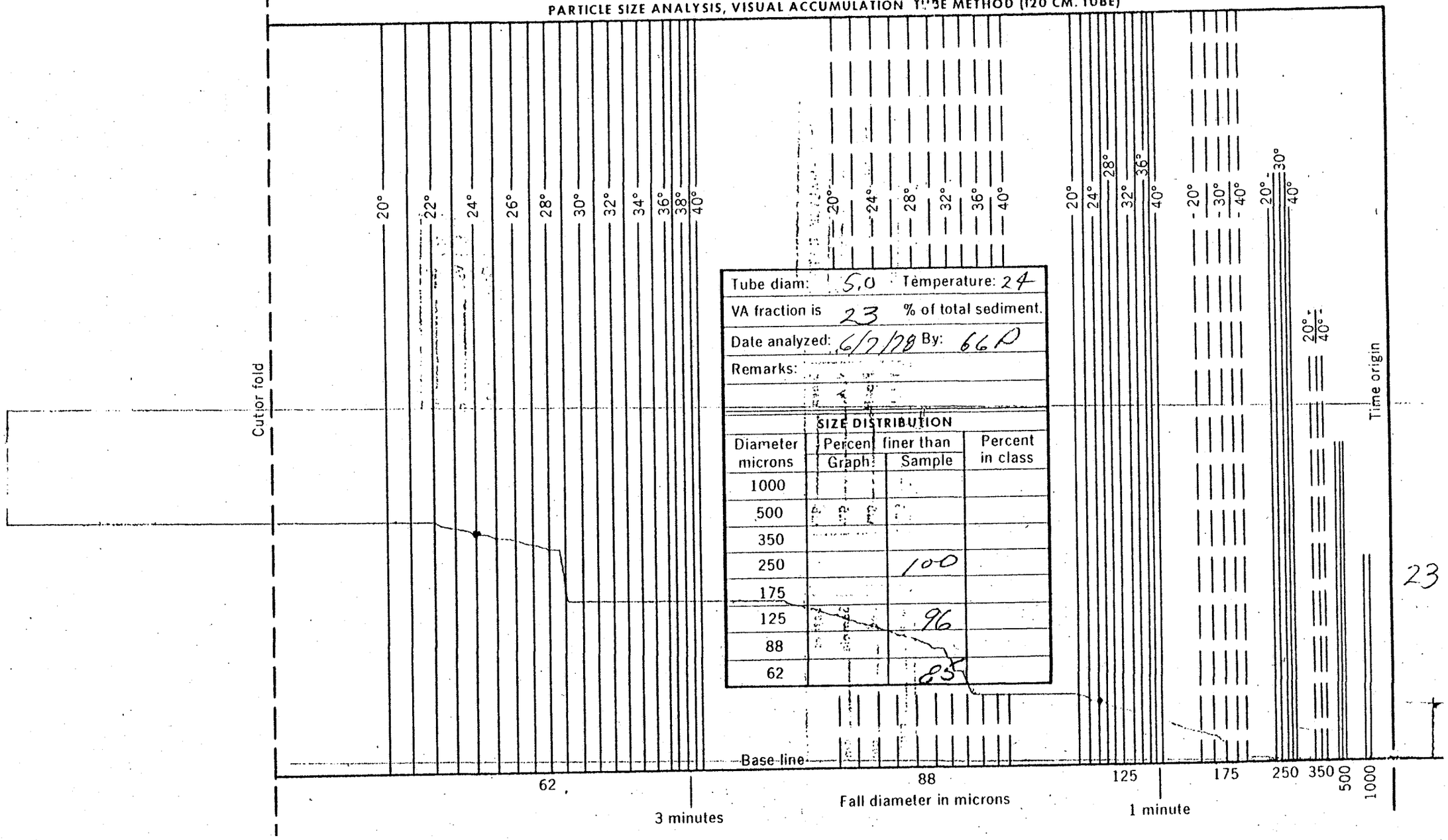
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




Tube diam: 5.0 Temperature: 24

VA fraction is 23 % of total sediment.

Date analyzed: 6/7/78 By: GGP

Remarks:

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Percent finer than Sample | Percent in class |
|---|---|---|---|
| 1000 | | | |
| 500 | | | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 96 | |
| 88 | | | |
| 62 | | 85 | |

23

## SIEVE ANALYSIS

| Size, mm. | | | | | | | | | Pan |
|---|---|---|---|---|---|---|---|---|---|
| Weight, gm. | Gross | 991.5 | +50 mL | 996 = | 1041.1 | | | | |
| | Tare | | | | 59.3 | | | | |
| | Net | | | | 981.8 | | | | |
| % of total | | | | | | | | | |
| % finer than | | | | | | | | | |
| % in class | | | | | | | | | |
| Container no. | | | | | | | | | |

Cut or fold

Stream: Soldier Cr.

Location:

Sampling stations:

Method of sampling:

Remarks:

PIPETTE SUSPEN.: Sed. 10.0984 gm; Vol. 10.00 cc; Conc 10.100 mg/L

Date: 4/26/78 File no: 7834

| | Time | Gage height |
|---|---|---|
| Start | | 1.0 |
| Finish | | |
| Mean | | |

Temp: Mean vel:

Effective width: Mean depth:

Discharge:

## SAMPLE FRACTIONS

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other | |
|---|---|---|---|---|---|---|---|---|---|
| Portion | | | | All | | | | | |
| Container no. | | | | 435 | | | | | |
| Weight, gm. | Gross | | | 45.4775 | | | | | |
| | Tare | | | 44.1145 | | | | | |
| | Net | | | 1.3630 | | | | | |
| % of total | | | | 12 | | | | | |

## CONCENTRATION DETERMINATIONS

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt.sample,gm. | | PIPETTE ANALYSIS DATA | | | WEIGHT: Sieve ____ gm | | COMPOSITE: Bottles 1 | | |
| Container no. | | Date 6/01/78 By EGP | | | V. A. 1.3630 gm | | Sample 981.8 gm | | |
| Weight, gm. | Gross | Portion used All | | | Pipette 10.0984 gm | | Sed. 11.4614 gm | | |
| | Tare | Disp. Agent 10 cc | | | Total 11.4614 gm | | Conc 11.790 mg/L | | |
| | Net | | | | | | | | |
| Concentration | | | | | | | | | x 1.01 |

Analysis remarks: VA/pipet

## PIPET ANALYSIS

Pipet no: Volume: 1000 Volume factor: 40.9836

| Size, mm. | | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | | |
| Temperature | | 27° | 27° | | | | 27° | 27° | |
| Fall distance | | 10 | 10 | | | | 5 | 3 | |
| Settling time | | | | | | | | | |
| Container no. | | 406 | 407 | | | | 408 | 409 | |
| Weight, gm. | Gross | 43.1735 | 44.9376 | | | | 48.5854 | 47.9132 | |
| | Tare | 42.9236 | 44.6818 | | | | 48.4661 | 47.8217 | |
| | Net | .2549 | .2558 | | | | .1193 | .0915 | |
| | D. S. Corr. | .0090 | .0090 | | | | .0090 | .0090 | |
| | Net sed. | .2459 | .2468 | .2464 | | | .1103 | .0825 | |
| | Finer than | | | 10.0984 | | | 4.5205 | 3.3811 | |
| % finer than | | | | 88 | | | 39 | 29 | |
| % in class | | | | | | | | | |

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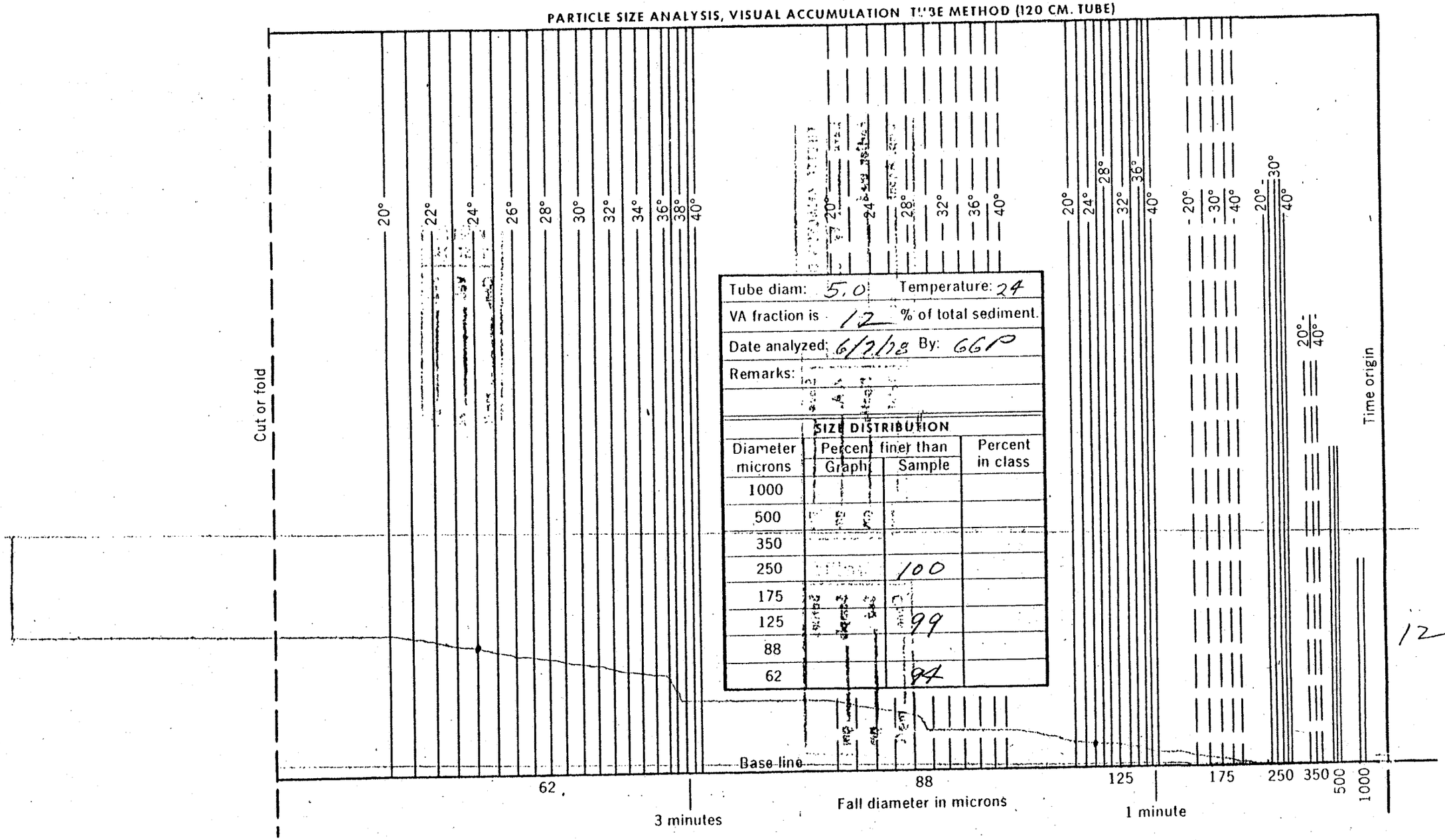
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




Tube diam: 5.0 Temperature: 24

VA fraction is 12 % of total sediment.

Date analyzed: 6/2/78 By: GGP

Remarks:

| Diameter microns | SIZE DISTRIBUTION Percent finer than Graph | Sample | Percent in class |
|---|---|---|---|
| 1000 | | | |
| 500 | | | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 99 | |
| 88 | | | |
| 62 | | 94 | |

12

## SIEVE ANALYSIS

| Size, mm. | | | | | | | | | Pan |
|---|---|---|---|---|---|---|---|---|---|
| Weight, gm. | Gross | 973.3 | + 50 mL | 49.6 = | 1022.9 | | | | |
| | Tare | | | | 58.9 | | | | |
| | Net | | | | 964.0 | | | | |
| % of total | | | | | | | | | |
| % finer than | | | | | | | | | |
| % in class | | | | | | | | | |
| Container no. | | | | | | | | | |

Cut or fold

Stream: Soldier Creek

Location:

Sampling stations: # 23

Method of sampling:

Remarks:

PIPETTE SUSPENS.: Sed. 3.7295 gm; Vol. 1000 cc; Conc. 3.730 mg/L

Date: 4/26 File no: 7335

| | Time | Gage height |
|---|---|---|
| Start | | .90 |
| Finish | | |
| Mean | | |

Temp: Mean vel:

Effective width: Mean depth:

Discharge:

## SAMPLE FRACTIONS

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other |
|---|---|---|---|---|---|---|---|---|
| Portion | | | | VA | | | | |
| Container no. | | | | 236 | | | | |
| Weight, gm. | Gross | | | 44.4119 | | | | |
| | Tare | | | 43.8389 | | | | |
| | Net | | | .5730 | | | | |
| % of total | | | | 13 | | | | |

## CONCENTRATION DETERMINATIONS

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt. sample, gm. | | PIPETTE ANALYSIS DATA | | | | | | | |
| Container no. | | Date 7/8/70 By [illegible] | | | | | | | |
| Weight, gm. | Gross | Portion used All | | | | | | | |
| | Tare | Disp. Agent 10 cc | | | | | | | |
| | Net | | | | | | | | |
| Concentration | | | | | | | | | |

WEIGHT: Sieve ____ gm; V.A. .5730 gm; Pipette 3.7295 gm; Total 4.3025 gm

COMPOSITE: Bottles 1; Sample 964.0 gm; Sed. 4.3025 gm; Conc. 4460 mg/L

Analysis remarks: VA/Pipet

## PIPET ANALYSIS

Pipet no: Volume: 1000 Volume factor: 40.9836

| Size, mm. | | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | | |
| Temperature | | 27° | 27° | | | | 27° | 27° | |
| Fall distance | | 10 | 10 | | | | 5 | 3 | |
| Settling time | | | | | | | | | |
| Container no. | | 410 | 411 | | | | 412 | 413 | |
| Weight, gm. | Gross | 46.1902 | 46.3890 | | | | 47.0844 | 43.7008 | |
| | Tare | 46.0878 | 46.2914 | | | | 47.0322 | 43.6504 | |
| | Net | .1024 | .0976 | | | | .0522 | .0504 | |
| | D. S. Corr. | .0090 | .0090 | | | | .0090 | .0090 | |
| | Net sed. | .0934 | .0886 | .0910 | | | .0432 | .0414 | |
| | Finer than | | | 3.7295 | | | 1.7705 | 1.6967 | |
| % finer than | | | | 87 | | | 41 | 39 | |
| % in class | | | | | | | | | |

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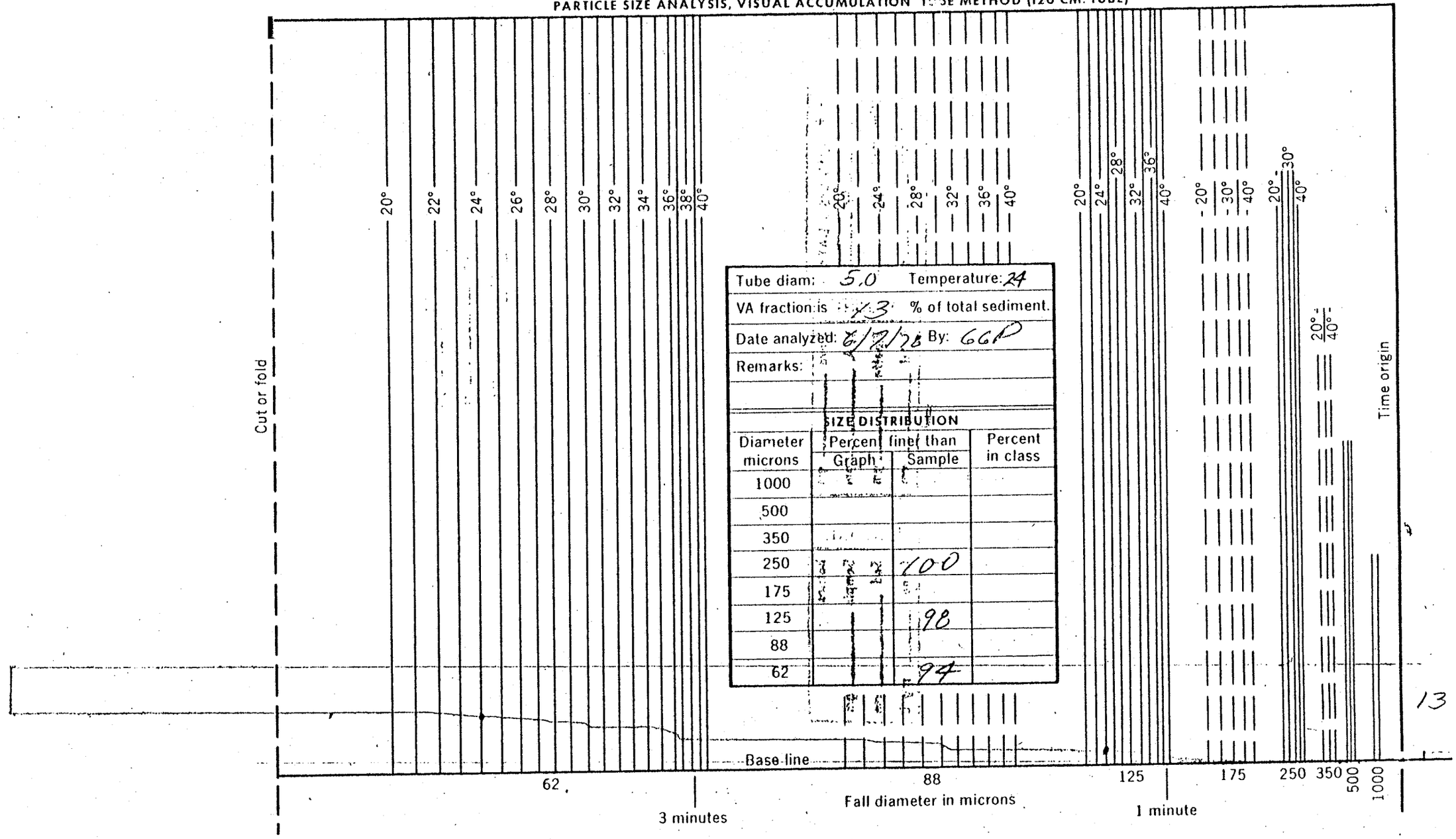
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY–WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




Tube diam: 5.0 Temperature: 24

VA fraction is 1.3 % of total sediment.

Date analyzed: 6/7/78 By: GGP

Remarks:

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Percent finer than Sample | Percent in class |
|---|---|---|---|
| 1000 | | | |
| 500 | | | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 98 | |
| 88 | | | |
| 62 | | 94 | |

13

## SIEVE ANALYSIS

| Size, mm. | | | | | | | | | Pan |
|---|---|---|---|---|---|---|---|---|---|
| Weight, gm. | Gross | 908.5 | 50 ml | 99.6 = | 958.1 | | | | |
| | Tare | | | | 54.9 | | | | |
| | Net | | | | 903.2 | | | | |
| % of total | | | | | | | | | |
| % finer than | | | | | | | | | |
| % in class | | | | | | | | | |
| Container no. | | | | | | | | | |

Cut or fold

Stream: Dupont Ck

Location:

Sampling stations:

Method of sampling:

Remarks:

PIPETTE SUSPEN.: Sed. 4.0984 gm; Vol. 1000 cc; Conc 4100 mg/L

Date: 4/27 File no: 7233

| | Time | Gage height |
|---|---|---|
| Start | | |
| Finish | | |
| Mean | | |

Temp: Mean vel:

Effective width: Mean depth:

Discharge: 4-5 cfs

## SAMPLE FRACTIONS

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other | |
|---|---|---|---|---|---|---|---|---|---|
| Portion | | | | All | | | | | |
| Container no. | | | | 434 | | | | | |
| Weight, gm. | Gross | | | 41.4392 | | | | | |
| | Tare | | | 40.5252 | | | | | |
| | Net | | | .9140 | | | | | |
| % of total | | | | 18 | | | | | |

## CONCENTRATION DETERMINATIONS

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt. sample, gm. | | | | | | | | | |
| Container no. | | | | | | | | | |
| Weight, gm. | Gross | | | | | | | | |
| | Tare | | | | | | | | |
| | Net | | | | | | | | |
| Concentration | | | | | | | | | |

PIPETTE ANALYSIS DATA
Date 6/12/73 By [illegible]
Portion used All
Disp. Agent 10 cc

WEIGHT: Sieve ___ gm; V.A. .9140 gm; Pipette 4.0984 gm; Total 5.0124 gm

COMPOSITE: Bottles 1; Sample 903.2 gm; Sed. 5.0124 gm; Conc 5550 mg/L

Analysis remarks: VA/Pipet

## PIPET ANALYSIS

Pipet no: Volume: 1000 Volume factor: ~~40~~ .9836

| Size, mm. | | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | | |
| Temperature | | 27° | 27° | | | | 27° | 27° | |
| Fall distance | | 10 | 10 | | | | 5 | 3 | |
| Settling time | | | | | | | | | |
| Container no. | | 414 | 415 | | | | 416 | 420 | |
| Weight, gm. | Gross | 44.7476 | 45.3026 | | | | 43.3719 | 45.4506 | |
| | Tare | 44.6381 | 45.1941 | | | | 43.3190 | 45.4046 | |
| | Net | .1095 | .1085 | | | | .0529 | .0460 | |
| | D. S. Corr. | .0090 | .0090 | | | | .0090 | .0090 | |
| | Net sed. | .1005 | .0995 | .1000 | | | .0439 | .0370 | |
| | Finer than | | | 4.0984 | | | 1.7991 | 1.5164 | |
| % finer than | | | | 82 | | | 36 | 30 | |
| % in class | | | | | | | | | |

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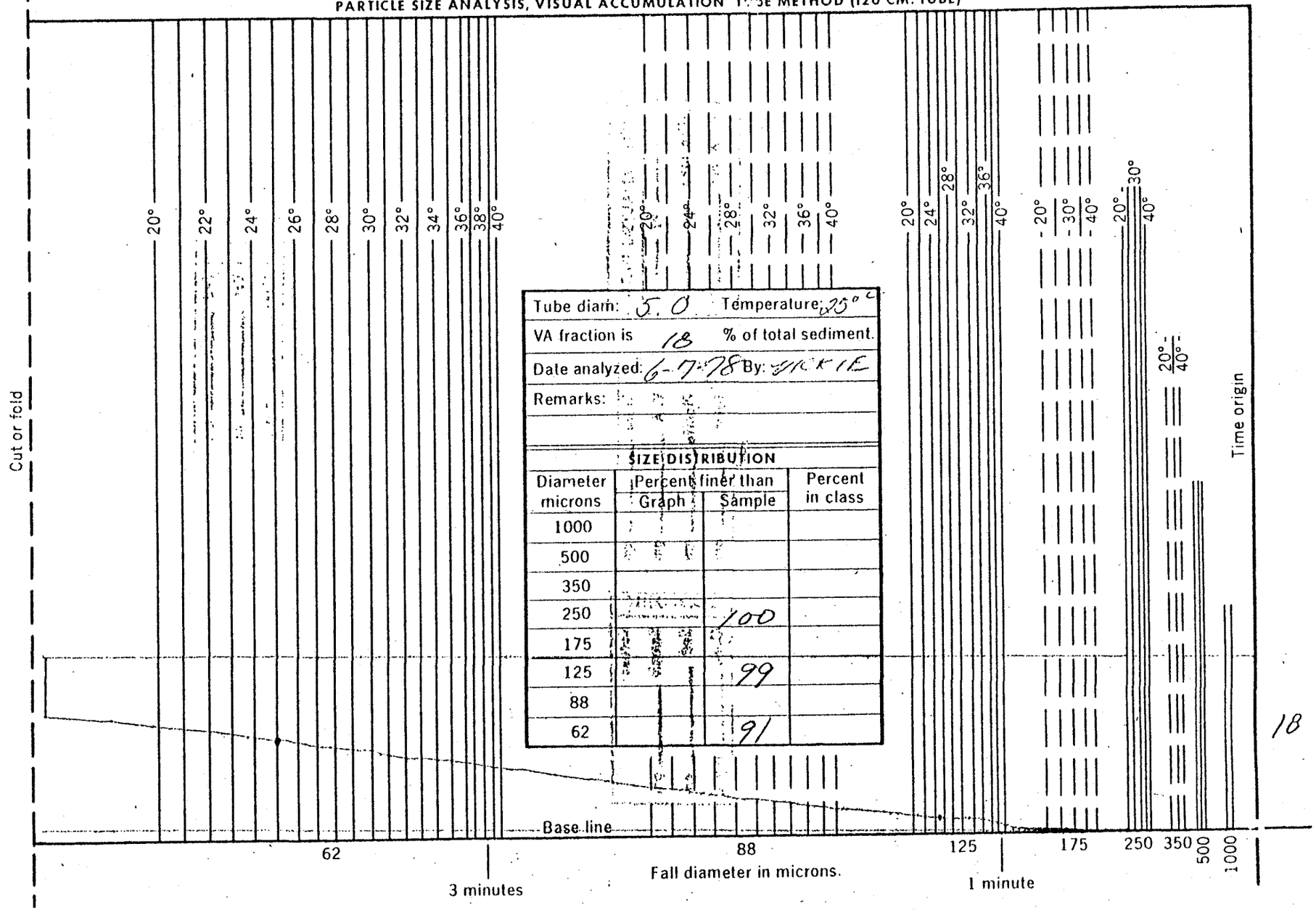
GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




Tube diam: 5.0 Temperature: 25° C

VA fraction is 18 % of total sediment.

Date analyzed: 6-7-78 By: JACKIE

Remarks:

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Percent finer than Sample | Percent in class |
|---|---|---|---|
| 1000 | | | |
| 500 | | | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 99 | |
| 88 | | | |
| 62 | | 91 | |

18

| | | | |
|---|---|---|---|
| Stream: SOLDIER CREEK | Date: 11-2-78 | File no: 7904 | |
| Location: | | Time | Gage height |
| Sampling stations: 1A | Start | 1940 | EST. 16' |
| Method of sampling: | Finish | | |
| Remarks: PIPETTE SUSPEN. Sed. 7.7840 gm | Mean | | |
| Vol. 1000 cc | Temp: | Mean vel: | |
| Conc 7780 mg/L | Effective width: | Mean depth: | |
| | Discharge: | | |

## SAMPLE FRACTIONS

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other |
|---|---|---|---|---|---|---|---|---|
| Portion | | | | ALL | | | 1/2 | |
| Container no. | | | | 231 | | | B47 | |
| Weight, gm. | Gross | | | 48.3933 | | | 105.119 | |
| | Tare | | | 46.4753 | | | 97.802 | TOTAL FINES |
| | Net | | | 1.9180 | | | 7.317 | 15.1010 |
| % of total | | | | 11 | | | | |

## CONCENTRATION DETERMINATIONS

| | | Total | | VA-tube | Pipet | | Dissolved solids | |
|---|---|---|---|---|---|---|---|---|
| Wt. sample, gm. | | | | | | | | |
| Container no. | | | | | | | | |
| Weight, gm. | Gross | | | | | | | |
| | Tare | | | | | | | |
| | Net | | | | | | | |
| Concentration | | | | | | | | |

WEIGHT: Sieve ____ gm; V.A. .9974 gm; Pipette 7.7840 gm; Total 8.7814 gm

PIPETTE ANALYSIS DATA: Date 11-10-77 By [illegible]; Portion used 5290; Disp. Agent 10 cc

COMPOSITE: Bottles 1; Sample 400 gm; Sed. 17.0190 gm; Conc 43.800 mg/l; ×1.03

Analysis remarks: #2

## PIPET ANALYSIS

Pipet no: 4 Volume: 1000 Volume factor: 40

| Size, mm. | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | |
| Temperature | | | | 27°C | | 27°C | 27°C | |
| Fall distance | | | | 10 | | 5 | 3 | |
| Settling time | | | | | | | | |
| Container no. | 406 | 407 | | 408 | | 409 | 410 | |
| Weight, gm. Gross | 43.1281 | 44.8751 | | 48.6122 | | 47.9158 | 46.1606 | |
| Tare | 42.9240 | 44.6820 | | 48.4660 | | 47.8215 | 46.0885 | |
| Net | .2041 | .2931 | | .1462 | | .0945 | .0721 | |
| D. S. Corr. | .0090 | .0090 | | .0090 | | .0090 | .0090 | |
| Net sed. | .1951 | .1941 | .1946 | .1372 | | .0855 | .0631 | |
| Finer than | | | 7.7840 | 5.4880 | | 3.4200 | 2.5240 | |
| % finer than | | | 29 | 62 | | 39 | 29 | |
| % in class | | | | | | | | |

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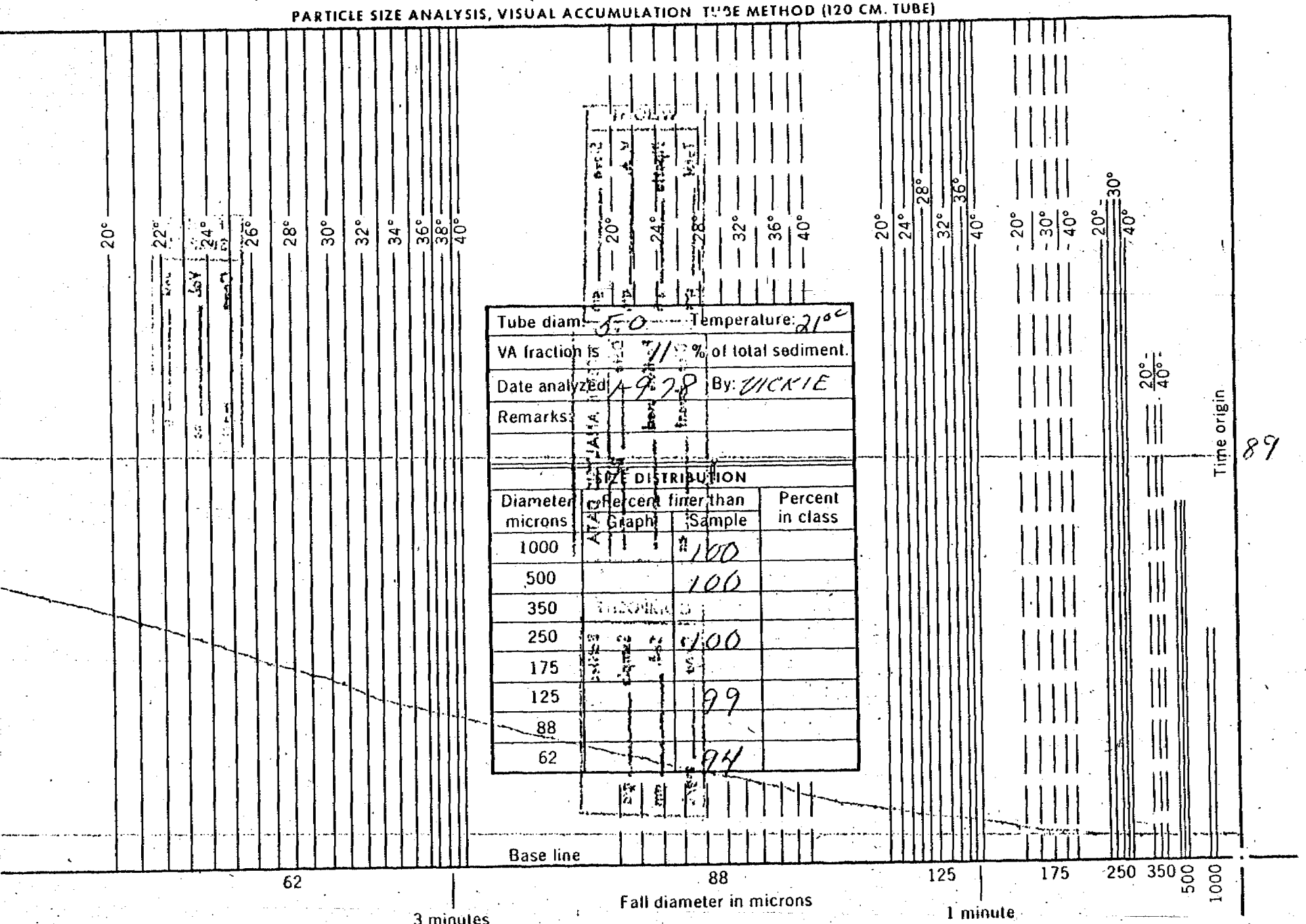
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




| | |
|---|---|
| Tube diam: 5.0 | Temperature: 21°C |
| VA fraction is 11.5 % of total sediment. | |
| Date analyzed 4-9-78 | By: VICKIE |
| Remarks: | |

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Percent finer than Sample | Percent in class |
|---|---|---|---|
| 1000 | | 100 | |
| 500 | | 100 | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 99 | |
| 88 | | | |
| 62 | | 94 | |

89

| | | | |
|---|---|---|---|
| Stream: SOLDIER CREEK | Date: 11-2-78 File no: 7905 | | |
| Location: | | Time | Gage height |
| Sampling stations: 2A | Start | 2025 | 0.41' |
| Method of sampling: | Finish | | |
| Remarks: | Mean | | |
| PIPETTE SUSPEN. Sed. 3.2760 gm | Temp: | Mean vel: | |
| PIPETTE SUSPEN. Vol. 1000 cc | Effective width: | Mean depth: | |
| PIPETTE SUSPEN. Conc 3900 mg/L | Discharge: | | |

**SAMPLE FRACTIONS**

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other | |
|---|---|---|---|---|---|---|---|---|---|
| Portion | | | | ALL | | | 1/2 | | |
| Container no. | | | | 232 | | | 546 | | |
| Weight, gm. | Gross | | | 47.0397 | | | 101.878 | | |
| | Tare | | | 46.7947 | | | 97.966 | TOTAL TARES | |
| | Net | | | .2450 | | | 3.912 | 7.8080 | |
| % of total | | | | 3 | | | | | |

**CONCENTRATION DETERMINATIONS**

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt.sample, gm. | | WEIGHT Sieve ____ gm | | | PIPETTE ANALYSIS DATA | | COMPOSITE Bottles 1 | | |
| Container no. | | V.A. 1225 gm | | | Date 11-10-77 By WCRE | | Sample 407 gm | | |
| Weight, gm. | Gross | Pipette 3.8960 gm | | | Portion used 5070 | | Sed. 8.0531 gm | | |
| | Tare | Total 4.0185 gm | | | Disp. Agent 10 cc | | Conc 19.900 mg/L | | |
| | Net | | | | | | | X1.01 | |
| Concentration | | | | | | | | | |

Analysis remarks: #3

**PIPET ANALYSIS**

Pipet no: 4 Volume: 1000 Volume factor: 40

| Size, mm. | | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | | |
| Temperature | | | | | 27°C | | 27°C | 27°C | |
| Fall distance | | | | | 10 | | 5 | 3 | |
| Settling time | | | | | | | | | |
| Container no. | | 411 | 412 | | 413 | | 414 | 415 | |
| Weight, gm. | Gross | 46.3979 | 47.1388 | | 43.7505 | | 44.7152 | 45.2569 | |
| | Tare | 46.2917 | 47.0321 | | 43.6501 | | 44.6378 | 45.1937 | |
| | Net | .1062 | .1067 | | .1004 | | .0774 | .0632 | |
| | D. S. Corr. | .0090 | .0090 | | .0090 | | .0090 | .0090 | |
| | Net sed. | .0972 | .0977 | .0974 | .0914 | | .0684 | .0542 | |
| | Finer than | | | 3.8960 | 3.6560 | | 2.7360 | 2.1680 | |
| % finer than | | | | 97 | 91 | | 68 | 54 | |
| % in class | | | | | | | | | |

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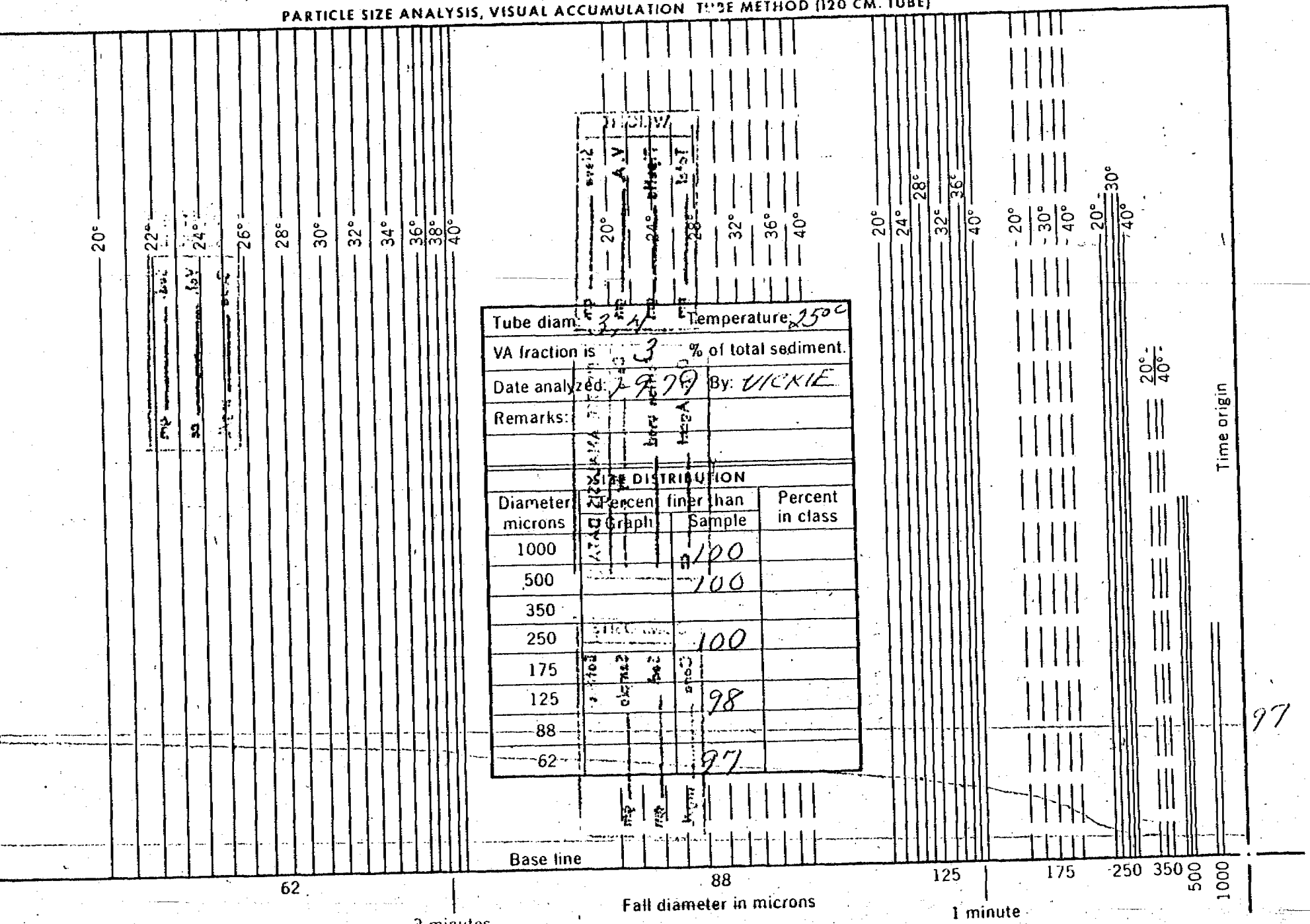
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY–WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




Tube diam: 3 1/4 Temperature: 25°C

VA fraction is 3 % of total sediment.

Date analyzed: 7-9-79 By: VICKIE

Remarks:

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Percent finer than Sample | Percent in class |
|---|---|---|---|
| 1000 | | 100 | |
| 500 | | 100 | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 98 | |
| 88 | | | |
| 62 | | 97 | |

97

| | | | |
|---|---|---|---|
| Stream: SOLDIER CREEK | Date: 11-2-78 | File no: 7906 | |
| Location: | | Time | Gage height |
| Sampling stations: 3A | Start | 1910 | EST. 1.3-1.4 |
| Method of sampling: | Finish | | |
| Remarks: | Mean | | |
| PIPETTE SUSPEN. Sed. 14.2000 gm | Temp: | Mean vel: | |
| PIPETTE SUSPEN. Vol. 1000 cc | Effective width: | Mean depth: | |
| PIPETTE SUSPEN. Conc 14,300 mg/L | Discharge: | | |
| 11.01 | | | |

## SAMPLE FRACTIONS

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other | |
|---|---|---|---|---|---|---|---|---|---|
| Portion | | | | AHL | | | | | |
| Container no. | | | | 234 | | | | | |
| Weight, gm. | Gross | | | 46.5529 | | | | | |
| | Tare | | | 45.8425 | | | | | |
| | Net | | | .7104 | | | | | |
| % of total | | | | 5 | | | | | |

## CONCENTRATION DETERMINATIONS

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt. sample, gm. | | | | | | | | | |
| Container no. | | | | | | | | | |
| Weight, gm. | Gross | | | | | | | | |
| | Tare | | | | | | | | |
| | Net | | | | | | | | |
| Concentration | | | | | | | | | |

WEIGHT: Sieve ____ gm; V.A. .7104 gm; Pipette 14.2000 gm; Total 14.9104 gm

PIPETTE ANALYSIS DATA: Date ____ By ____; Portion used 1069g; Disp. Agent 10 cc

COMPOSITE: Bottles 1; Sample 446 gm; Sed. 14.9104 gm; Conc 34,100 mg/L; X102

Analysis remarks: #4

## PIPET ANALYSIS

Pipet no: 4 Volume: 1000 Volume factor: 40

| Size, mm. | | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | | |
| Temperature | | | | | 27°C | | 27°C | 27°C | |
| Fall distance | | | | | 10 | | 5 | 3 | |
| Settling time | | | | | | | | | |
| Container no. | | 416 | 417 | | 419 | | 420 | 423 | |
| Weight, gm. | Gross | 43.6854 | 49.4468 | | 44.2257 | | 45.5929 | 47.7289 | |
| | Tare | 43.3196 | 49.0847 | | 43.9285 | | 45.4043 | 47.5871 | |
| | Net | .3658 | .3621 | | .2972 | | .1886 | .1418 | |
| | D. S. Corr. | .0090 | .0090 | | .0090 | | .0090 | .0090 | |
| | Net sed. | .3568 | .3531 | .3550 | .2882 | | .1796 | .1328 | |
| | Finer than | | | 14.2000 | 11.5280 | | 7.1840 | 5.3120 | |
| | % finer than | | | 95 | 77 | | 48 | 36 | |
| % in class | | | | | | | | | |

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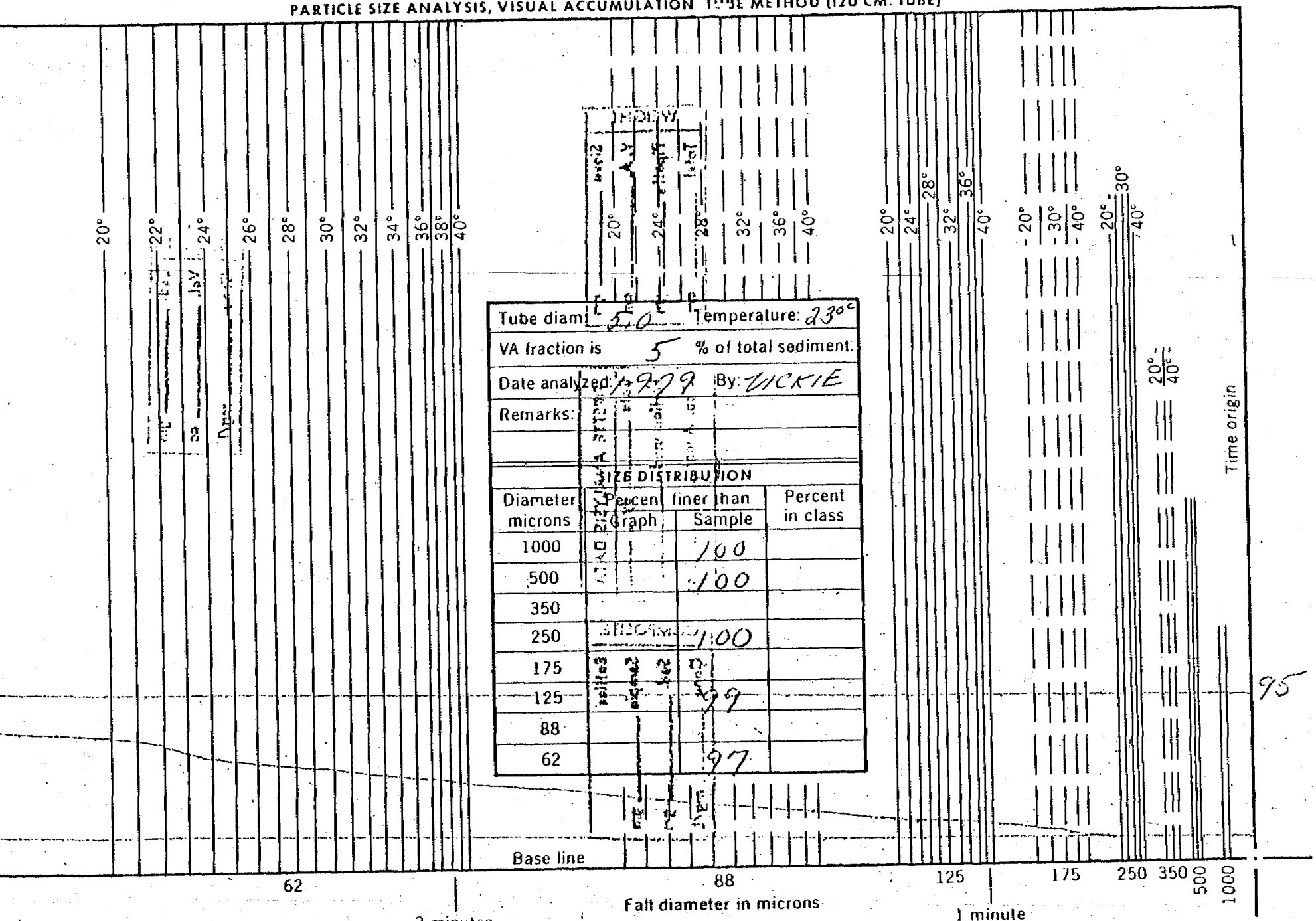
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




Tube diam. 5.0 Temperature: 23°C

VA fraction is 5 % of total sediment.

Date analyzed: 1-9-79 By: VICKIE

Remarks:

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Sample | Percent in class |
|---|---|---|---|
| 1000 | 1 | 100 | |
| 500 | | 100 | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 99 | |
| 88 | | | |
| 62 | | 97 | |

| | | | |
|---|---|---|---|
| Stream: SOLDIER CREEK | | Date: 11-2-78 File no: 7907 | |
| Location: | | | Time / Gage height |
| Sampling stations: N/A | | Start | 2110 / 0.33 |
| Method of sampling: | | Finish | |
| Remarks: | PIPETTE SUSPEN. Sed. 5.6680 gm; Vol. 1000 cc; Conc 5670 mg/L | Mean | |
| | | Temp: | Mean vel: |
| | | Effective width: | Mean depth: |
| | | Discharge: | |

**SAMPLE FRACTIONS**

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other | |
|---|---|---|---|---|---|---|---|---|---|
| Portion | | | | ALL | | | | | |
| Container no. | | | | 236 | | | | | |
| Weight, gm. | Gross | | | 47.1424 | | | | | |
| | Tare | | | 47.0920 | | | | | |
| | Net | | | .0504 | | | | | |
| % of total | | | | 1 | | | | | |

**CONCENTRATION DETERMINATIONS**

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt. sample, gm. | | | | | | | | | |
| Container no. | | | | | | | | | |
| Weight, gm. | Gross | | | | | | | | |
| | Tare | | | | | | | | |
| | Net | | | | | | | | |
| Concentration | | | | | | | | | |

WEIGHT: Sieve ____ gm; V.A. .0504 gm; Pipette 5.6680 gm; Total 5.7184 gm

PIPETTE ANALYSIS DATA: Date 2-10-79 By MCMC; Portion used 100%; Disp. Agent 10 cc

COMPOSITE: Bottles 1; Sample 380 gm; Sed 5.7184 gm; Conc 15,200 mg/L

Analysis remarks: 75

**PIPET ANALYSIS**

Pipet no: 4 Volume: 1000 Volume factor: 40

| Size, mm. | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | |
| Temperature | | | | 27°C | | 27°C | 27°C | |
| Fall distance | | | | 10 | | 5 | 3 | |
| Settling time | | | | | | | | |
| Container no. | 424 | 425 | | 426 | | 427 | 428 | |
| Weight, gm. Gross | 47.6924 | 45.9515 | | 46.7547 | | 46.4132 | 45.1136 | |
| Tare | 47.5419 | 45.8006 | | 46.6089 | | 46.2987 | 45.0229 | |
| Net | .1505 | .1509 | | .1458 | | .1145 | .0907 | |
| D. S. Corr. | .0090 | .0090 | | .0090 | | .0090 | .0090 | |
| Net sed. | .1415 | .1419 | .1417 | .1368 | | .1055 | .0817 | |
| Finer than | | | 5.6680 | 5.4720 | | 4.2200 | 3.2680 | |
| % finer than | | | 99 | 96 | | 74 | 57 | |
| % in class | | | | | | | | |

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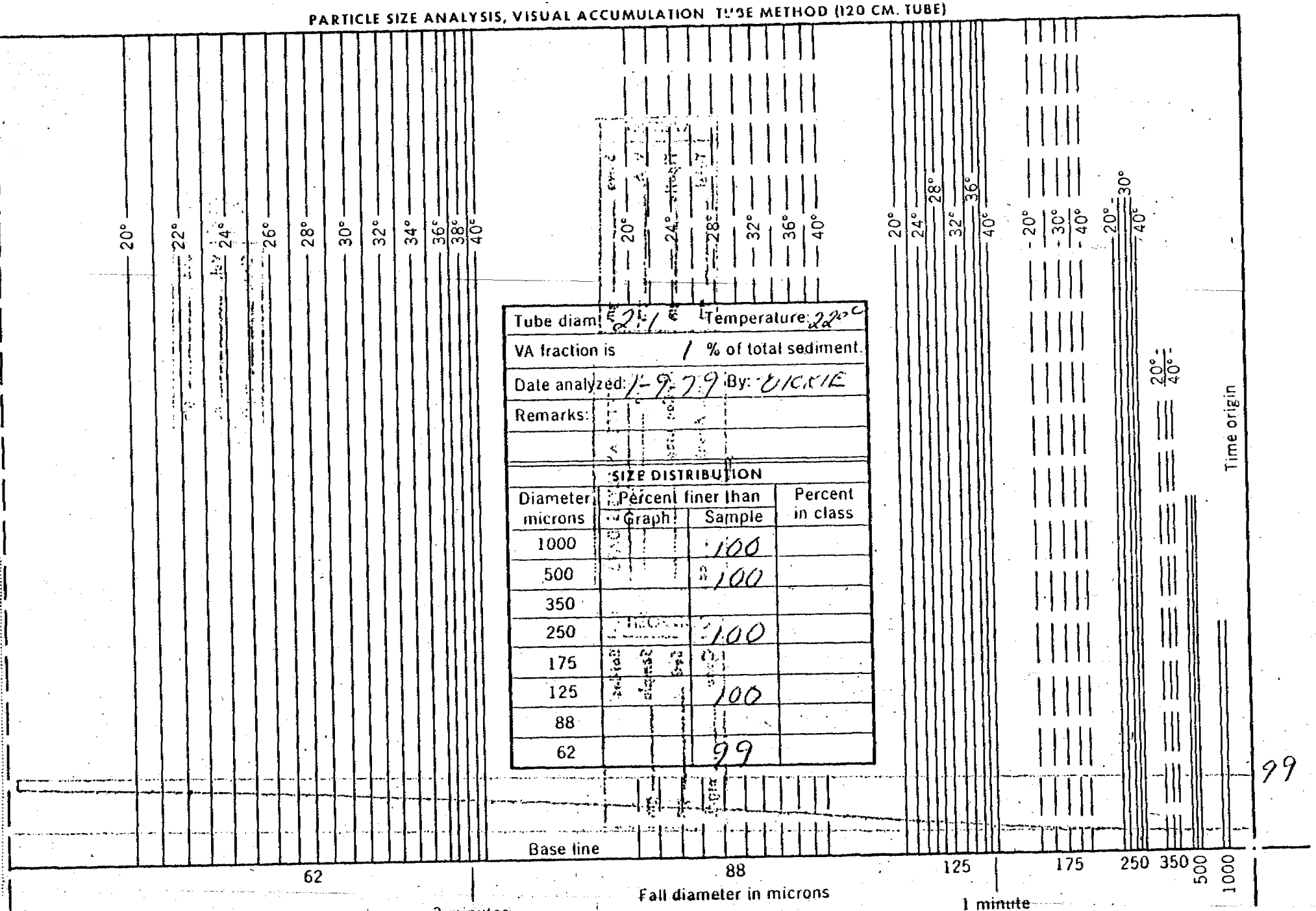
GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

PARTICLE SIZE ANALYSIS, VISUAL ACCUMULATION TUBE METHOD (120 CM. TUBE)




Tube diam: 2.1 Temperature: 22°C

VA fraction is 1 % of total sediment.

Date analyzed: 1-9-79 By: DICKIE

Remarks:

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Percent finer than Sample | Percent in class |
|---|---|---|---|
| 1000 | | 100 | |
| 500 | | 100 | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 100 | |
| 88 | | | |
| 62 | | 99 | |

| | | | |
|---|---|---|---|
| Stream: SHOAR CREEK | Date: 11-2-[illegible] File no: 7908 | | |
| Location: | | Time | Gage height |
| Sampling stations: 5A | Start | 2145 | 0.5' |
| Method of sampling: | Finish | | |
| Remarks: | Mean | | |
| PIPETTE SUSPEN. Sed. 5.6240 gm | Temp: | Mean vel: | |
| PIPETTE SUSPEN. Vol. 1000 cc | Effective width: | Mean depth: | |
| PIPETTE SUSPEN. Conc. 5620 mg/L | Discharge: | | |

## SAMPLE FRACTIONS

| | | Total sample | Sieve fraction | VA-tube fraction | Pipet fraction | Remainder from split fractions: Total | Pipet | Other | |
|---|---|---|---|---|---|---|---|---|---|
| Portion | | | | ALL | | | 1/2 | | |
| Container no. | | | | 237 | | | B36 | | |
| Weight, gm. | Gross | | | 46.1655 | | | 108.534 | | |
| | Tare | | | 46.0784 | | | 102.783 | TOTAL FINES | |
| | Net | | | .0871 | | | 5.751 | 11.3750 | |
| % of total | | | | 1 | | | | | |

## CONCENTRATION DETERMINATIONS

| | | Total | | VA-tube | Pipet | | Dissolved solids | | |
|---|---|---|---|---|---|---|---|---|---|
| Wt. sample, gm | | WEIGHT: Sieve ____ gm | | | PIPETTE ANALYSIS DATA: Date [illegible] By [illegible] | | COMPOSITE: Bottles 1 | | |
| Container no. | | V. A. .0427 gm | | | Portion used 4970 | | Sample 487 gm | | |
| Wt. gm. | Gross | Pipette 5.6240 gm | | | | | Sed. 11.4621 gm | | |
| | Tare | Total 5.6667 gm | | | Disp. Agent 10 cc | | Conc. 28700 mg/L | | |
| | Net | | | | | | | | |
| Concentration | | | | | | | | | x1.02 |

Analysis remarks: #6

## PIPET ANALYSIS

Pipet no: 4 Volume: 1000 Volume factor: 40

| Size, mm. | Conc. | 0.062 | 0.031 | 0.016 | 0.008 | 0.004 | 0.002 | Residue |
|---|---|---|---|---|---|---|---|---|
| Clock time | | | | | | | | |
| Temperature | | | | 27°C | | 27°C | 27°C | |
| Fall distance | | | | 10 | | 5 | 3 | |
| Container no. | 430 | 431 | | 453 | | 434 | 455 | |
| Weight, gm. Gross | 44.2401 | 44.4193 | | 51.9[illegible]5 | | 40.4110 | 44.1[illegible]5 | |
| Tare | 44.6908 | 44.4695 | | 51.7771 | | 40.5252 | 44.1145 | |
| Net | .1493 | .1498 | | .1314 | | .0858 | .0640 | |
| D. S. Corr. | .0090 | .0090 | | .0090 | | .0090 | .0090 | |
| Net sed. | .1403 | .1408 | .1406 | .1224 | | .0768 | .0570 | |
| Finer than | | | 5.6240 | 4.8960 | | 3.0720 | 2.2800 | |
| % finer than | | | 99 | 86 | | 54 | 40 | |
| % in class | | | | | | | | |

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GEOLOGICAL SURVEY—WATER RESOURCES DIVISION

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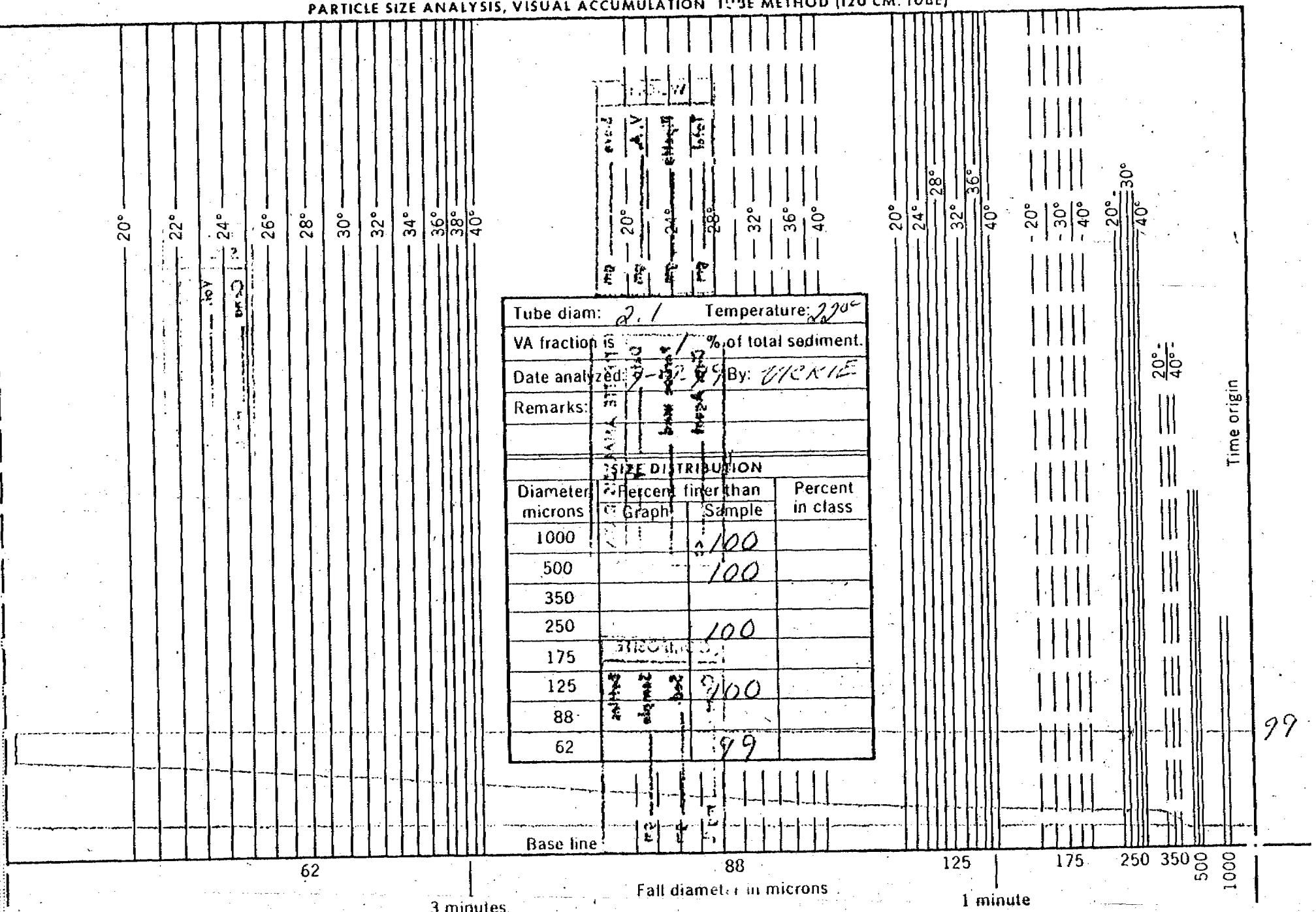


Tube diam: 2.1 Temperature: 22°C

VA fraction is 1 % of total sediment.

Date analyzed: 9-[illegible] By: VICKIE

Remarks:

SIZE DISTRIBUTION

| Diameter microns | Percent finer than Graph | Percent finer than Sample | Percent in class |
|---|---|---|---|
| 1000 | | 100 | |
| 500 | | 100 | |
| 350 | | | |
| 250 | | 100 | |
| 175 | | | |
| 125 | | 100 | |
| 88 | | | |
| 62 | | 99 | |

ORIGINAL -Transmit to General Office

GAGE NO. SP5

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Dugout Creek SP5

AT Sage Point, Carbon County, Ut

MONTH OF December 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS E = estimate |
|---|---|---|---|---|---|---|---|---|
| 1 | | 06 | | 19 | | | | |
| 2 | | .735 | | 50 | | | | |
| 3 | | 19 | | 81 | | | | |
| 4 | | 10 | E | 31 | | | | Gage Froze up No record for the |
| 5 | | 08 | E | 25 | | | | rest of this month |
| 6 | | 06 | E | 19 | | | | |
| 7 | | 06 | E | 19 | | | | |
| 8 | | 06 | E | 19 | | | | |
| 9 | | 06 | | 19 | | | | checked gage - frozen |
| 10 | | 06 | E | 19 | | | | |
| 11 | | 06 | E | 19 | | | | |
| 12 | | 06 | E | 19 | | | | |
| 13 | | 06 | E | 19 | | | | |
| 14 | | 05 | E | 16 | | | | |
| [illegible] | | 05 | E | 16 | | | | |
| 16 | | 05 | E | 16 | | | | |
| 17 | | 05 | E | 16 | | | | |
| 18 | | 05 | E | 16 | | | | |
| 19 | | 05 | E | 16 | | | | |
| 20 | | 05 | E | 16 | | | | |
| 21 | | 05 | E | 16 | | | | |
| 22 | | 04 | E | 12 | | | | |
| 23 | | 04 | E | 12 | | | | |
| 24 | | 04 | E | 12 | | | | |
| 25 | | 04 | E | 12 | | | | |
| 26 | | 04 | E | 12 | | | | |
| 27 | | 04 | E | 12 | | | | |
| 28 | | 04 | E | 12 | | | | |
| 29 | | 03 | E | 09 | | | | |
| 30 | | 03 | E | 09 | | | | |
| 31 | | 03 | E | 09 | | | | |
| TOTAL | | | | 597 | | | | |
| [illegible]LY MEAN | | | | 19 | | | | |
| MAXIMUM | | | | 81 | | | | |
| MINIMUM | | | | 09 | | | | |
| ACRE FT. | | | | 1184 | | | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

62-3316 9/68

ORIGINAL -Transmit to General Office

GAGE NO. SP5

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Dugout Creek SP 5

AT Sage Point, Carbon County, Utah

MONTH OF November 1978

| DAY | | GAGE HEIGHT | DISCHARGE C.F.S. | DISCHARGE MINERS IN. | REMARKS |
|---|---|---|---|---|---|
| 1 | | 05 | 16 | | |
| 2 | | 08 | 25 | | Small flood |
| 3 | | 11 | 37 | | 12' @ 16.5 hrs |
| 4 | | 07 | 22 | | |
| 5 | | 06 | 19 | | |
| 6 | | 07 | 22 | | |
| 7 | | 07 | 22 | | |
| 8 | | 06 | 19 | | |
| 9 | | 07 | 22 | | |
| 10 | | 07 | 22 | | |
| 11 | | 09 | 28 | | |
| 12 | | 14 | 53 | | |
| 13 | | 08 | 25 | | |
| 14 | | 055 | 18 | | |
| [illegible] | | 07 | 22 | | |
| 16 | | 13 | 47 | | |
| 17 | | 24 | 114 | | Flood |
| 18 | | 19 | 81 | | |
| 19 | | 18 | 75 | | |
| 20 | | 17 | 69 | | |
| 21 | | 13 | 47 | | |
| 22 | | 09 | 28 | | |
| 23 | | 08 | 25 | | |
| 24 | | 09 | 28 | | |
| 25 | | 08 | 25 | | |
| 26 | | 09 | 28 | | |
| 27 | | 08 | 25 | | |
| 28 | | 07 | 21 | | 14.5 hrs @ 0.07 |
| 29 | | 06 | 19 | | |
| 30 | | 06 | 19 | | |
| ~~31~~ | | | | | |
| TOTAL | | | 1023 | | |
| [illegible]LY MEAN | | | 34 | | |
| MAXIMUM | | | 114 | | |
| MINIMUM | | | 16 | | |
| ACRE FT. | | | 2029 | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

62-3316 3/68

ORIGINAL -Transmit to General Office

GAGE NO. SP5

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Dugout Creek SP5

AT Sage Point, Carbon Co., Ut.

MONTH OF October 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | 04 | | 12 | | | |
| 2 | | | 04 | | 12 | | | |
| 3 | | | 04 | | 12 | | | |
| 4 | | | 04 | | 12 | | | 12 hrs @ 0.04 + 12 hrs @ .04 |
| 5 | | | 04 | | 12 | | | |
| 6 | | | 04 | | 12 | | | |
| 7 | | | 04 | | 12 | | | |
| 8 | | | 04 | | 12 | | | |
| 9 | | | 04 | | 12 | | | |
| 10 | | | 04 | | 12 | | | |
| 11 | | | 04 | | 12 | | | |
| 12 | | | 04 | | 12 | | | |
| 13 | | | 04 | | 12 | | | |
| 14 | | | 04 | | 12 | | | |
| 15 | | | 04 | | 12 | | | |
| 16 | | | 04 | | 12 | | | |
| 17 | | | 04 | | 12 | | | |
| 18 | | | 04 | | 12 | | | |
| 19 | | | 04 | | 12 | | | |
| 20 | | | 04 | | 12 | | | |
| 21 | | | 07 | | 22 | | | small flood |
| 22 | | | 05 | | 16 | | | |
| 23 | | | 05 | | 16 | | | |
| 24 | | | 04 | | 12 | | | |
| 25 | | | 04 | | 12 | | | |
| 26 | | | 04 | | 12 | | | |
| 27 | | | 04 | | 12 | | | |
| 28 | | | 05 | | 16 | | | |
| 29 | | | 05 | | 16 | | | |
| 30 | | | 04 | | 12 | | | |
| 31 | | | 05 | | 16 | | | |
| TOTAL | | | 1.52 | | 4.02 | | | |
| DAILY MEAN | | | 04 | | .13 | | | |
| MAXIMUM | | | 07 | | .22 | | | |
| MINIMUM | | | 04 | | 12 | | | |
| ACRE FT. | | | | | 7.97 | | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

42-3316 5/68

GAGE NO. ~~FD~~ 5P5

E.D.P. NO. _____

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

STATION Dugout Creek

AT Sage Point, Carbon Co., UT

MONTH OF September 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | 04 | | 12 | | | 11.5 hrs @ 0.04 – 12.5 hrs @ 0.04 |
| 2 | | | 04 | | 12 | | | |
| 3 | | | 04 | | 12 | | | |
| 4 | | | 04 | | 12 | | | |
| 5 | | | 03 | | 09 | | | |
| 6 | | | 03 | | 09 | | | |
| 7 | | | 04 | | 12 | | | |
| 8 | | | 05 | | 16 | | | |
| 9 | | | 05 | | 16 | | | |
| 10 | | | 04 | | 12 | | | |
| 11 | | | 04 | | 12 | | | |
| 12 | | | 04 | | 12 | | | |
| 13 | | | 04 | | 12 | | | |
| 14 | | | 04 | | 12 | | | |
| 15 | | | 04 | | 12 | | | |
| [illegible] | | | 04 | | 12 | | | |
| 17 | | | 04 | | 12 | | | |
| 18 | | | 04 | | 12 | | | |
| 19 | | | 04 | | 12 | | | |
| 20 | | | 04 | | 12 | | | |
| 21 | | | 04 | | 12 | | | |
| 22 | | | 04 | | 12 | | | |
| 23 | | | 04 | | 12 | | | |
| 24 | | | 04 | | 12 | | | |
| 25 | | | 04 | | 12 | | | |
| 26 | | | 04 | | 12 | | | |
| 27 | | | 04 | | 12 | | | |
| 28 | | | 04 | | 12 | | | |
| 29 | | | 04 | | 12 | | | |
| 30 | | | 04 | | 12 | | | |
| 31 | | | | | | | | |
| TOTAL | | 1 | 20 | 3 | 62 | | | |
| DAILY MEAN | | | 04 | | 12 | | | |
| [illegible]AXIMUM | | | 05 | | 16 | | | |
| MINIMUM | | | 03 | | 09 | | | |
| ACRE FT. | | | | 7 | 15 | | | |

OBSERVER F. Anderson

CHECKED BY F. Anderson

62-3316 7/68

ORIGINAL -Transmit to General Office

GAGE NO. SP5

PACIFIC GAS AND ELECTRIC COMPANY

# DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Dugout Creek

AT Sage Point, Carbon County, UT

MONTH OF August 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | 08 | | 215 | | | |
| 2 | | | 08 | | 215 | | | |
| 3 | | | 08 | | 215 | | | 9 hrs @ 0.08 + 15 hrs @ 0.08 |
| 4 | | | 08 | | 215 | | | |
| 5 | | | 08 | | 215 | | | |
| 6 | | | 08 | | 215 | | | |
| 7 | | | 08 | | 215 | | | |
| 8 | | | 08 | | 215 | | | |
| 9 | | | 07 | | 176 | | | |
| 10 | | | 06 | | 139 | | | |
| 11 | | | 06 | | 139 | | | |
| 12 | | | 06 | | 139 | | | |
| 13 | | | 09 | | 256 | | | rains - flood in Soldier Creek |
| 14 | | | 09 | | 256 | | | |
| 15 | | | 07 | | 176 | | | |
| 16 | | | 07 | | 176 | | | |
| 17 | | | 07 | | 176 | | | |
| 18 | | | 08 | | 215 | | | |
| 19 | | | 07 | | 176 | | | |
| 20 | | | 06 | | 139 | | | |
| 21 | | | 06 | | 139 | | | |
| 22 | | | 06 | | 139 | | | |
| 23 | | | 06 | | 139 | | | |
| 24 | | | 06 | | 139 | | | |
| 25 | | | 05 | | 106 | | | |
| 26 | | | 05 | | 106 | | | |
| 27 | | | 05 | | 106 | | | |
| 28 | | | 05 | | 106 | | | |
| 29 | | | 05 | | 106 | | | |
| 30 | | | 04 | | 076 | | | |
| 31 | | | 04 | | 076 | | | |
| TOTAL | | | | 5 | 121 | | | |
| DAILY MEAN | | | | | 165 | | | |
| MAXIMUM | | | | | 256 | | | |
| MINIMUM | | | | | 076 | | | |
| ACRE FT. | | | | 10 | 158 | | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

62-3316 5/68

ORIGINAL -Transmit to General Office

GAGE NO. SP5

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Dugout Creek

AT Sage Point - Carbon Co., UT

MONTH OF July 1978

| DAY | | GAGE HEIGHT | DISCHARGE C.F.S. | DISCHARGE MINERS IN. | REMARKS |
|---|---|---|---|---|---|
| 1 | | 28 | 140 | | |
| 2 | | 27 | 133 | | |
| 3 | | 27 | 133 | | |
| 4 | | 26 | 126 | | |
| 5 | | 26 | 126 | | |
| 6 | | 26 | 126 | | |
| 7 | 15@ | 25* | 097 | | *9 hrs @ 0.16 Drop due to change of intake, F.S. |
| 8 | | 17 | 664 | | |
| 9 | | 17 | 664 | | |
| 10 | | 17 | 664 | | |
| 11 | | 18 | 724 | | |
| 12 | | 17 | 664 | | |
| 13 | | 17 | 664 | | |
| 14 | | 16 | 607 | | |
| 15 | | 16 | 607 | | |
| 16 | | 16 | 607 | | |
| 17 | | 17 | 664 | | small flood - peaked 0.22' (.98 cfs) at ≈ 1:00 |
| 18 | | 16 | 607 | | |
| 19 | | 16 | 607 | | |
| 20 | | 15 | 551 | | |
| 21 | | 13 | 444 | | |
| 22 | | 13 | 444 | | |
| 23 | | 13 | 444 | | |
| 24 | | 13 | 444 | | |
| 25 | | 12 | 394 | | |
| 26 | | 12 | 394 | | |
| 27 | | 10 | 300 | | |
| 28 | | 10 | 300 | | |
| 29 | | 09 | 256 | | |
| 30 | | 10 | 300 | | |
| 31 | | 09 | 256 | | |
| TOTAL | | | 21 080 | | |
| DAILY MEAN | | | 680 | | |
| MAXIMUM | | | 140 | | |
| MINIMUM | | | 256 | | |
| ACRE FT. | | | 41 81 | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

62-2316 8/66

ORIGINAL -Transmit to General Office

GAGE NO SP22

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Soldier Creek SP22

AT Sage Point, Carbon County, UT

MONTH OF December 1977

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS E = Estimate |
|---|---|---|---|---|---|---|---|---|
| 1 | | | 13 | | 47 | | | |
| 2 | | | 13 | | 47 | | | chart change |
| 3 | | | 12 | | 42 | | | |
| 4 | | | 11 | | 36 | | | |
| 5 | | | 14 | | 53 | | | |
| 6 | | | 14 | | 53 | | | |
| 7 | | | 12 | E | 42 | | | Stilling well froze-up, missing |
| 8 | | | 11 | E | 36 | | | " |
| 9 | | | 11 | | 36 | | | checked gage |
| 10 | | | 11 | E | 36 | | | missing |
| 11 | | | 11 | E | 36 | | | " |
| 12 | | | 11 | E | 36 | | | " |
| 13 | | | 11 | E | 36 | | | " |
| 14 | | | 11 | E | 36 | | | " |
| 15 | | | 11 | E | 36 | | | " |
| 16 | | | 11 | E | 36 | | | " |
| 17 | | | 11 | E | 36 | | | " |
| 18 | | | 11 | E | 36 | | | " |
| 19 | | | 11 | E | 36 | | | " |
| 20 | | | 11 | E | 36 | | | " |
| 21 | | | 11 | E | 36 | | | " |
| 22 | | | 10 | E | 31 | | | " |
| 23 | | | 10 | E | 31 | | | " |
| 24 | | | 10 | E | 31 | | | " |
| 25 | | | 10 | E | 31 | | | " |
| 26 | | | 10 | E | 31 | | | " |
| 27 | | | 10 | E | 31 | | | " |
| 28 | | | 10 | E | 31 | | | " |
| 29 | | | 10 | E | 31 | | | " |
| 30 | | | 10 | E | 31 | | | " |
| 31 | | | 10 | E | 31 | | | " |
| TOTAL | | | | 11 | 34 | | | |
| DAILY MEAN | | | | | 37 | | | |
| MAXIMUM | | | | | 53 | | | |
| MINIMUM | | | | | 31 | | | |
| ACRE FT. | | | | 22 | 49 | | | |

OBSERVER F Anderson

CHECKED BY F Anderson

ORIGINAL -Transmit to General Office

GAGE NO SP22

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Soldier Creek SP22

AT Sage Point, Carbon County, UT

MONTH OF November 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | 10 | | 31 | | | |
| 2 | | | 38 | 2 | 22 | | | Flood - peaked at est 1.3-1.4' |
| 3 | | | 15 | | 58 | | | |
| 4 | | | 09 | | 28 | | | |
| 5 | | | 09 | | 28 | | | 12 hrs @ .09 + 12 hrs @ .09 |
| 6 | | | 08 | | 25 | | | |
| 7 | | | 07 | | 22 | | | |
| 8 | | | 07 | | 22 | | | |
| 9 | | | 07 | | 22 | | | |
| 10 | | | 11 | | 36 | | | small flood |
| 11 | | | 14 | | 53 | | | small flood |
| 12 | | | 02 | | 03 | | | |
| 13 | | | 04 | | 12 | | | |
| 14 | | | 12 | | 42 | | | |
| 15 | | | 15 | | 58 | | | |
| 16 | | | 13 | | 47 | | | |
| 17 | | | 13 | | 47 | | | |
| 18 | | | 13 | | 47 | | | |
| 19 | | | 11 | | 36 | | | |
| 20 | | | 08 | | 25 | | | |
| 21 | | | 12 | | 42 | | | |
| 22 | | | 12 | | 42 | | | |
| 23 | | | 12 | | 42 | | | |
| 24 | | | 11 | | 36 | | | |
| 25 | | | 10 | | 31 | | | 19 hrs @ .10 Clock stop float froze |
| 26 | | | — | | 31 | E | | Missing |
| 27 | | | — | | 36 | E | | " |
| 28 | | | 12 | | 42 | | | Bhrs. missing 12 hrs @ .12' (winterized gage) |
| 29 | | | 12 | | 42 | | | |
| 30 | | | 12 | | 42 | | | |
| 31 | | | | | | | | |
| TOTAL | | | | 12 | 50 | | | |
| DAILY MEAN | | | | | 42 | | | |
| MAXIMUM | | | | 2 | 22 | | | |
| MINIMUM | | | | | 22 | | | |
| ACRE FT. | | | | 24 | 79 | | | |

OBSERVER P Anderson

CHECKED BY P Anderson

E = estimate

ORIGINAL -Transmit to General Office

GAGE NO SP22

PACIFIC GAS AND ELECTRIC COMPANY

# DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Soldier Creek SP22

AT Sage Point, Carbon Co., UT

MONTH OF October 1967 8

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | 06 | | 19 | | | |
| 2 | | | 06 | | 19 | | | |
| 3 | | | 06 | | 19 | | | |
| 4 | | | 06 | | 19 | | | 17 hrs. @ 0.06 + 7 hrs at 0.65 |
| 5 | | | 06 | | 19 | | | |
| 6 | | | 06 | | 19 | | | |
| 7 | | | 06 | | 19 | | | |
| 8 | | | 07 | | 22 | | | |
| 9 | | | 07 | | 22 | | | |
| 10 | | | 07 | | 22 | | | |
| 11 | | | 07 | | 22 | | | |
| 12 | | | 07 | | 22 | | | |
| 13 | | | 07 | | 22 | | | |
| 14 | | | 08 | | 25 | | | |
| 15 | | | 08 | | 25 | | | |
| 16 | | | 08 | | 25 | | | |
| 17 | | | 08 | | 25 | | | |
| 18 | | | 08 | | 25 | | | |
| 19 | | | 08 | | 25 | | | |
| 20 | | | 10 | | 31 | | | |
| 21 | | | 14 | | 53 | | | small flood |
| 22 | | | 11 | | 36 | | | |
| 23 | | | 10 | | 31 | | | |
| 24 | | | 10 | | 31 | | | |
| 25 | | | 10 | | 31 | | | |
| 26 | | | 09 | | 28 | | | |
| 27 | | | 09 | | 28 | | | Freezing & Thawing |
| 28 | | | 09 | | 28 | | | |
| 29 | | | 09 | | 28 | | | |
| 30 | | | 10 | | 31 | | | |
| 31 | | | 10 | | 31 | | | |
| TOTAL | | 2 | 53 | 8 | 02 | | | |
| DAILY MEAN | | | 08 | | 26 | | | |
| MAXIMUM | | | 14 | | 53 | | | |
| MINIMUM | | | 06 | | 19 | | | |
| ACRE FT. | | | | 15 | 91 | | | |

OBSERVER P. Anderson

CHECKED BY F. Anderson

MOORE BUSINESS FORMS, INC. M

ORIGINAL -Transmit to General Office

GAGE NO SP22

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Soldier Creek SP22

AT Sage Point, Carbon Co. UT.

MONTH OF September 1967 8

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS E = estimate |
|---|---|---|---|---|---|---|---|---|
| 1 | | 06 | | 19 | | | | |
| 2 | | 06 | | 19 | | | | |
| 3 | | 06 | | 19 | | | | |
| 4 | | 06 | | 19 | | | | |
| 5 | | 06 | | 19 | | | | chart change |
| 6 | | 06 | | 19 | | | | |
| 7 | | 07 | | 22 | | | | |
| 8 | | 08 | | 25 | | | | |
| 9 | | 07 | | 22 | | | | |
| 10 | | 06 | | 19 | | | | |
| 11 | | 07 | | 22 | | | | |
| 12 | | 07 | | 22 | | | | |
| 13 | | 07 | | 22 | | | | |
| 14 | | 06 | | 19 | | | | |
| 15 | | 07 | | 22 | | | | |
| 16 | | 07 | | 22 | | | | |
| 17 | | | | | | | | E Flood - washed around weir peak 2.0' |
| 18 | | 10 | E | 31 | | | | washed around weir - missing record |
| 19 | | 07 | E | 22 | | | | " " |
| 20 | | 07 | E | 22 | | | | " " |
| 21 | | 07 | E | 22 | | | | " " |
| 22 | | 07 | E | 22 | | | | " " |
| 23 | | 07 | E | 22 | | | | " " |
| 24 | | 07 | E | 22 | | | | " " |
| 25 | | 07 | E | 22 | | | | " " |
| 26 | | 07 | E | 22 | | | | " " |
| 27 | | 07 | E | 22 | | | | " " |
| 28 | | 07 | | 22 | | | | |
| 29 | | 06 | | 19 | | | | |
| 30 | | 06 | | 19 | | | | |
| 31 | | | | | | | | |
| TOTAL | | | | | | | | |
| DAILY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

OBSERVER F. Anderson

CHECKED BY F. Anderson

ORIGINAL -Transmit to General Office

GAGE NO SP22

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Soldier Creek

AT Sage Point, Carbon County, Ut.

MONTH OF August 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | 09 | | 22 | | | | |
| 2 | | 08 | | 25 | | | | 10.5 hrs @ 0.09 13.5 hrs @ 0.07 |
| 3 | | 08 | | 25 | | | | |
| 4 | | 07 | | 22 | | | | |
| 5 | | 07 | | 22 | | | | |
| 6 | | 07 | | 22 | | | | |
| 7 | | 08 | | 25 | | | | |
| 8 | | 07 | | 22 | | | | |
| 9 | | 07 | | 22 | | | | |
| 10 | | 07 | | 22 | | | | |
| 11 | | 06 | | 19 | | | | |
| 12 | | 07 | | 22 | | | | |
| 13 | | | | | | | | Flood at ≅ 16:15 washed around weir (peak stage = 2.25') |
| 14 | | — | E | 25 | | | | missing |
| 15 | | — | E | 25 | | | | missing |
| 16 | | 08 | | 25 | | | | 12 hrs @ 0.08 (repaired weir) |
| 17 | | 07 | | 22 | | | | |
| 18 | | 06 | | 19 | | | | |
| 19 | | 06 | | 19 | | | | |
| 20 | | 07 | | 22 | | | | |
| 21 | | 07 | | 22 | | | | |
| 22 | | 08 | | 25 | | | | |
| 23 | | 06 | | 19 | | | | |
| 24 | | 06 | | 19 | | | | |
| 25 | | 06 | | 19 | | | | |
| 26 | | 06 | | 19 | | | | |
| 27 | | 06 | | 19 | | | | |
| 28 | | 06 | | 19 | | | | |
| 29 | | 06 | | 19 | | | | |
| 30 | | 06 | | 19 | | | | |
| 31 | | 06 | | 19 | | | | |
| TOTAL | | | | | | | | |
| DAILY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

ORIGINAL -Transmit to General Office

GAGE NO SP 22

PACIFIC GAS AND ELECTRIC COMPANY

# DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Soldier Creek

AT Sage Point - Carbon Co. UT

MONTH OF July 1968

| DAY | | GAGE HEIGHT | DISCHARGE C.F.S. | DISCHARGE MINERS IN. | REMARKS |
|---|---|---|---|---|---|
| 1 | | 18 | 710 | | |
| 2 | | 17 | 652 | | |
| 3 | | 16 | 595 | | |
| 4 | | 17 | 652 | | |
| 5 | | 17 | 652 | | |
| 6 | 11 hr | 17 | 652 | | changed chart 11:5 hr @ 0.17 |
| 7 | | 16 | 595 | | |
| 8 | | 15 | 540 | | |
| 9 | | 14 | 487 | | |
| 10 | | 13 | 436 | | |
| 11 | | 17 | 652 | | small flood peaked 0.32' at 16:20 |
| 12 | | 14 | 487 | | |
| 13 | | 13 | 436 | | |
| 14 | | 13 | 436 | | |
| 15 | | 13 | 436 | | |
| 16 | | 16 | 595 | | flood peaked 0.53' at 18:40 |
| 17 | | 16 | 595 | | small flood peaked 0.23' at 17:15 |
| 18 | | 14 | 487 | | |
| 19 | | 13 | 436 | | note: monthly diurnal fluctuation |
| 20 | | 12 | 387 | | of about 0.05' - high around |
| 21 | | 12 | 387 | | noon low around 18:00 |
| 22 | | 11 | 339 | | |
| 23 | | 10 | 294 | | |
| 24 | | 10 | 294 | | |
| 25 | | 10 | 294 | | |
| 26 | | 09 | 251 | | |
| 27 | | 08 | 210 | | |
| 28 | | 08 | 210 | | |
| 29 | | 09 | 251 | | |
| 30 | | 08 | 210 | | |
| 31 | | 10 | 294 | | |
| TOTAL | | | 13 952 | | |
| DAILY MEAN | | | 450 | | |
| MAXIMUM | | | 710 | | |
| MINIMUM | | | 210 | | |
| ACRE FT. | | | 27 67 | | |

OBSERVER P. Anderson - A. Spensko

CHECKED BY P. Anderson

ORIGINAL -Transmit to General Office

GAGE NO. SP23

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Pine Creek SP23

AT Sage Point, Carbon County, UT

MONTH OF December 1978

| DAY | | GAGE HEIGHT. | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | No |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| [illegible] | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |
| TOTAL | | | | | | | | |
| [illegible]LY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

readings This month

OBSERVER P. Anderson

CHECKED BY _____

82-3316 9/68

ORIGINAL -Transmit to General Office

GAGE NO. SP23

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Pine Creek SP23

AT Sage Point, Carbon County, MT

MONTH OF November 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| [illegible] | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | current meter discharge by Ed Horciza |
| 28 | | — | — | | 10 | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |
| TOTAL | | | | | | | | |
| [illegible]LY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

OBSERVER E. Horciza & P. Anderson

CHECKED BY _____

62-3316 3/68

ORIGINAL -Transmit to General Office

GAGE NO. SP23

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Pine Creek SP23

AT Sage Point, Carbon County, UT

MONTH OF October 19 78

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | — | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | — | | | 05 | | | flume not working properly |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | — | | | 05 | | | flume not working properly |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |
| TOTAL | | | | | | | | |
| DAILY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

68-3316 8/68

DUPLICATE -Retain In Book

GAGE NO. SP23

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Pine Creek SP 23

AT Sage Point, Carbon, Co., Ut.

MONTH OF September 19 78

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | .05 | | .025 | | | Flume not properly positioned for low flows |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |
| TOTAL | | | | | | | | |
| DAILY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

OBSERVER E. Anderson

CHECKED BY J. Anderson

62-3316 5/68

ORIGINAL -Transmit to General Office

GAGE NO. SP23

PACIFIC GAS AND ELECTRIC COMPANY

# DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Pine Creek

AT Sage Point, Carbon Co., UT

MONTH OF August 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | 28 | | 277 | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | 14 | | 093 | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | 22 | | 189 | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | 20.2? | | 163 | | | possible error in reading due to ponding around the flume. |
| 31 | | | | | | | | |
| TOTAL | | | | | | | | |
| DAILY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

OBSERVER P. Anderson

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62-3310 9/68

ORIGINAL -Transmit to General Office

6" parshall Flume

GAGE NO. SP 23

PACIFIC GAS AND ELECTRIC COMPANY

DAILY MEAN GAGE HEIGHTS AND DISCHARGES

E.D.P. NO. _____

STATION Pine Canyon

AT Sage Point - Carbon Co, Ut

MONTH OF July 1978

| DAY | | GAGE HEIGHT | | DISCHARGE C.F.S. | | DISCHARGE MINERS IN. | | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | 52 | | 73 | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | 31 | | 325 | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |
| TOTAL | | | | | | | | |
| DAILY MEAN | | | | | | | | |
| MAXIMUM | | | | | | | | |
| MINIMUM | | | | | | | | |
| ACRE FT. | | | | | | | | |

OBSERVER P. Anderson

CHECKED BY P. Anderson

62-3318 5/66