

# TEST WELL USW 6-4

ALTITUDE-  
1270.0 MSL

LITHOLOGIC  
LOG

PUMPING  
TESTS

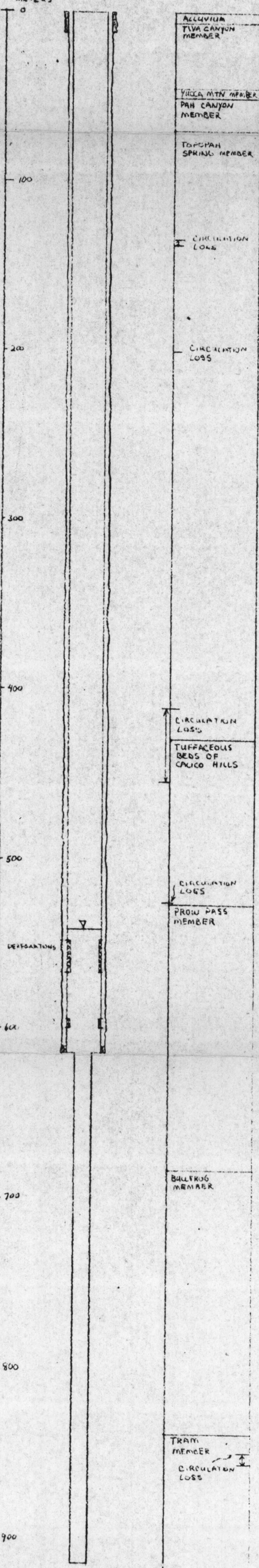
UNIT  
HYDROLOGIC  
UNIT DESCRIPTION

PEROSITY

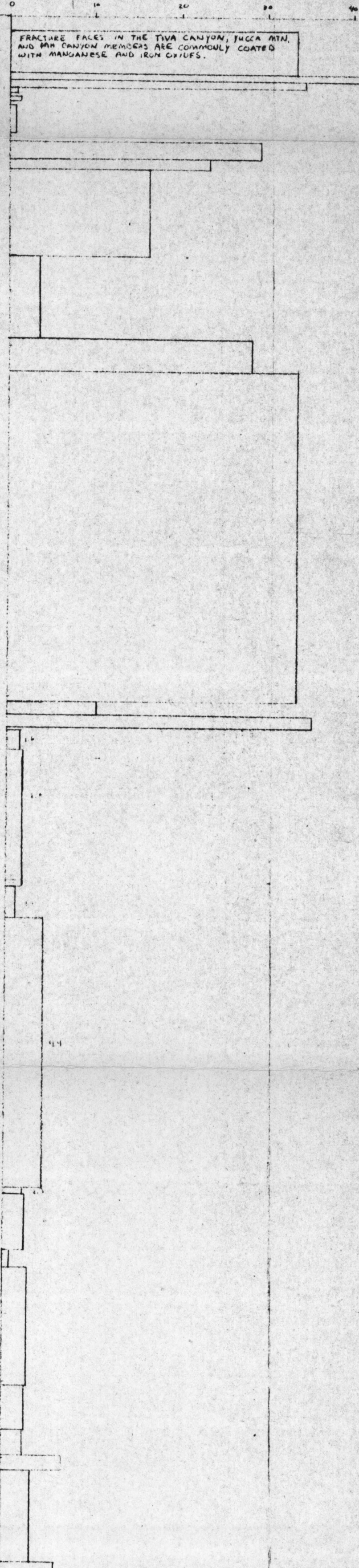
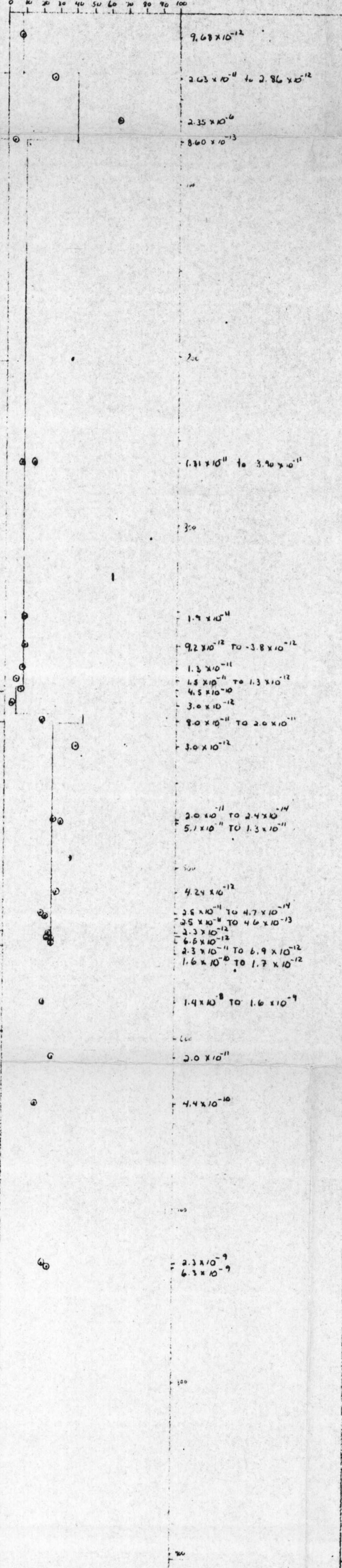
SATURATED HYDRAULIC  
CONDUCTIVITY M/S

FRACTURES / UNIT METER<sup>2</sup>

DEPTH  
METERS



| UNIT  | HYDROLOGIC UNIT                                            | DESCRIPTION                                                                                                                                                                                        |
|-------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I-A   | TIVA CANYON WELDED UNIT                                    | MODERATELY TO DENSELY WELDED, DEVITRIFIED ASH-FLOW TUFF IN THE TIVA CANYON MEMBER OF THE PAINTBRUSH TUFF.                                                                                          |
| I-B   | PAINTBRUSH NONWELDED UNIT                                  | PARTIALLY WELDED TO ADJACENT, VITRIC AND OCCASIONALLY DEVITRIFIED TUFFS OF THE TIVA CANYON, YUCCA MOUNTAIN, PAN CANYON, AND TOPOPAH SPRING MEMBERS OF THE PAINTBRUSH TUFF.                         |
| II-I  | TOPOPAH SPRING WELDED UNIT                                 | MODERATELY TO DENSELY WELDED, DEVITRIFIED EQUIVE OF THE TOPOPAH SPRING MEMBER OF THE PAINTBRUSH TUFF THAT CONTAINS MORE THAN APPROX. 10% BY VOLUME OF VUGS.                                        |
| II-II | TOPOPAH SPRING WELDED UNIT                                 | MODERATELY TO DENSELY WELDED, DEVITRIFIED EQUIVE OF THE TOPOPAH SPRING MEMBER OF THE PAINTBRUSH TUFF THAT CONTAINS LESS THAN APPROX. 10% BY VOLUME OF VUGS. THIS IS THE POTENTIAL REPOSITORY UNIT. |
| III   | TOP SPRING W. BASAL VITROPHRE OF THE TOPOPAH SPRING MEMBER | NONWELDED ASH-FLOW, BEDDED AND REWORKED TUFFS, PRIMARILY REOLITIZED, FROM THE TOPOPAH SPRING MEMBER AND/OR THE CALICO HILLS.                                                                       |
| IV    | REOLITIZED CALICO HILLS NONWELDED UNIT                     | NONWELDED ASH-FLOW, BEDDED AND REWORKED TUFFS, PRIMARILY REOLITIZED, FROM THE TOPOPAH SPRING MEMBER AND/OR THE CALICO HILLS.                                                                       |
| V     | PROW PASS WELDED UNIT                                      | MODERATELY WELDED, DEVITRIFIED EQUIVE OF THE PROW PASS MEMBER OF THE CRATER FLAT TUFF.                                                                                                             |
| VI    | CRATER FLAT NONWELDED UNIT                                 | REOLITIZED PORTIONS OF THE LOWER PROW PASS MEMBER AND OF THE UPPER BULLFROG MEMBER OF THE CRATER FLAT TUFF.                                                                                        |
| VII   | BULLFROG WELDED UNIT                                       | WELDED DEVITRIFIED EQUIVE OF THE BULLFROG MEMBER OF THE CRATER FLAT TUFF.                                                                                                                          |



SUMMARY OF GEOPHYSICAL DATA

| TEST                          | TIME OF TEST (L/S) | PERIOD (MIN) |
|-------------------------------|--------------------|--------------|
| ACUSTIC FRACTURE CALIPER      | 12-138             | 0-603        |
| DENSITY, BOREHOLE COMPENSATED | 556-574            | 12-138       |
| ELECTRIC                      | 143-574            | 533-912      |
| GAMMA RAY                     | 12-138             | 143-574      |
| GEOPHON SURVEY                | 143-574            | 533-912      |
| SYNOPTIC NEUTRON, COMP        | 12-138             | 143-574      |
| SPECTRAL TVISION, OPTICAL     | 143-574            | 533-912      |
| TEMPERATURE (STATIC PUMPING)  | 143-574            | 533-912      |
| 3-D VELOCITY                  | 143-574            | 533-912      |

PUMPING TEST DATA

| TEST     | TIME OF TEST (L/S) | PERIOD (MIN) |
|----------|--------------------|--------------|
| DRAGDOWN | 16                 | 5740         |
| RECOVERY | 16                 | 120          |
| DRAGDOWN | 13                 | 1680         |
| RECOVERY | 13                 | 120          |

PROPERTIES FOR REPRESENTATIVE SAMPLES TAKEN FROM THE UNSATURATED EQUIVE HYDROLOGIC UNITS.

| UNIT | SAMPLE GRAIN | GRAIN | PEROSITY | K M/S   | Sr     | α 1/m    | B     |
|------|--------------|-------|----------|---------|--------|----------|-------|
| I-A  | 64-1         | 2.49  | 0.08     | 9.7E-12 | 0.0020 | 0.821E-2 | 1.558 |
| I-B  | 643-7        | 2.35  | 0.40     | 3.9E-07 | 0.1001 | 0.150E-1 | 2.872 |
| II   | 64-6         | 2.58  | 0.11     | 1.9E-11 | 0.0801 | 0.567E-2 | 1.787 |
| III  | 643-11       | 2.38  | 0.07     | 1.5E-12 | 0.0804 | 0.441E-2 | 2.058 |
| IV-V | 643-14       | 2.37  | 0.46     | 2.7E-07 | 0.0405 | 0.160E-1 | 3.972 |
| IV-Z | 64-11        | 2.23  | 0.28     | 2.0E-11 | 0.1095 | 0.308E-2 | 1.602 |

SUMMARY DATA FOR FRACTURED TUFF SAMPLES

| SAMPLE | GRAIN | GRAIN            | PEROSITY | K M/S   | Sr | α 1/m | B |
|--------|-------|------------------|----------|---------|----|-------|---|
| 64-1F  | 378   | 10 <sup>-5</sup> | 67       | MICRONS |    |       |   |
| 64-2F  | 3.5   | 10 <sup>-5</sup> | 6        | MICRONS |    |       |   |
| 64-3F  | 43    | 10 <sup>-5</sup> | 22       | MICRONS |    |       |   |
| 64-4F  | 79    | 10 <sup>-5</sup> | 31       | MICRONS |    |       |   |
| 64-5F  | 3.1   | 10 <sup>-5</sup> | 6        | MICRONS |    |       |   |

TI  
APERTURE  
CARD

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