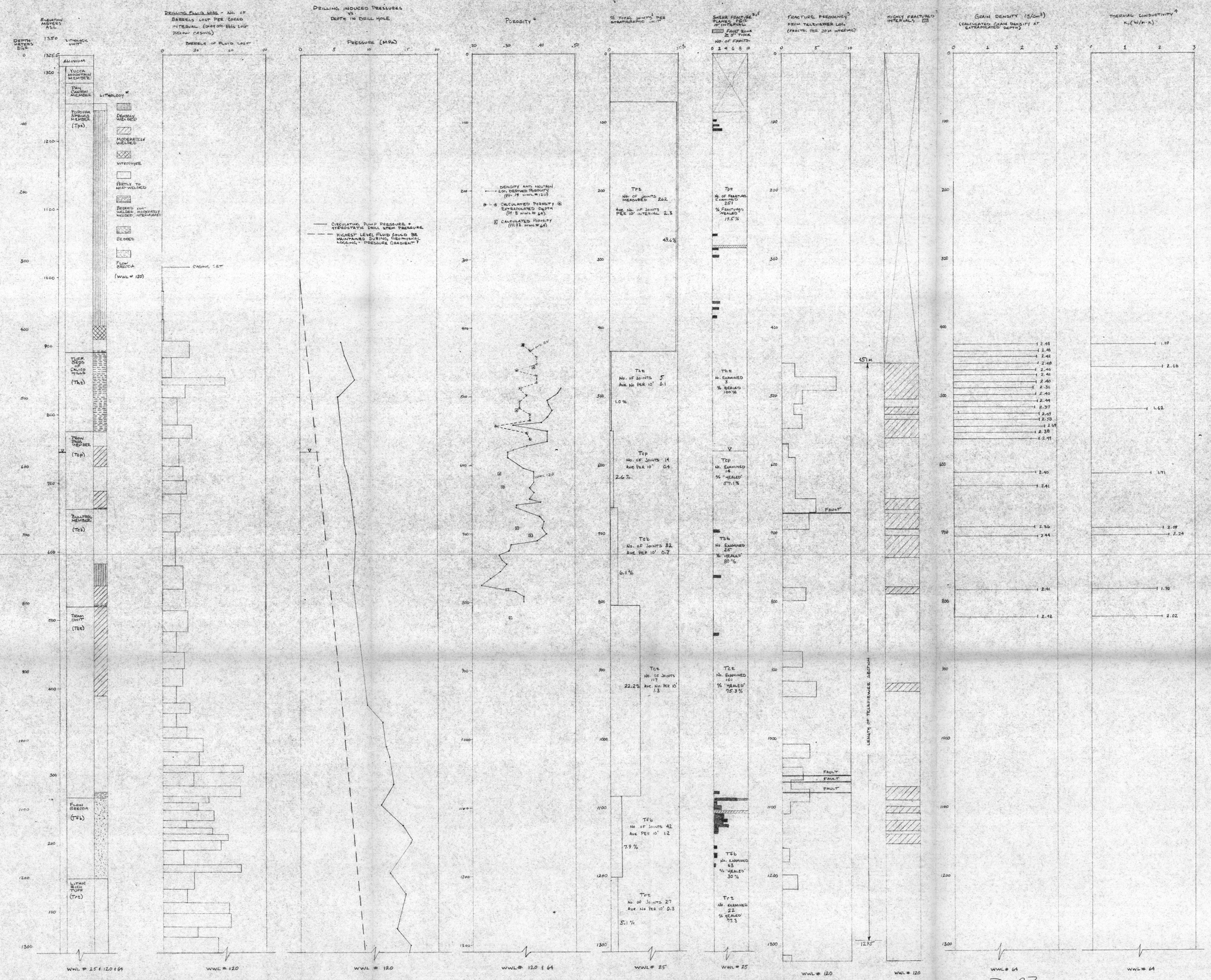
DRILL HOLE DATA USW G-1



D-03

NOTES AND GENERAL INFORMATION - USW-G1

* DEFINITIONS OF DEGREE OF WELDING TERMINOLOGY (WWL# 13)

- NON-WELDED - NO DEFORMATION OF COMPONENTS
- PARTLY WELDED - SHARD DEFORMATION AROUND PROMINENTS; NO FLOW DEFORMATION IN GROUNDMASS
- MODERATELY WELDED - MAJOR SHARD DEFORMATION AROUND PROMINENTS; DEFORMATION AND FLOW IN GROUNDMASS
- DENSELY WELDED - PRONOUNCED SHARD DEFORMATION AND ALIGNMENT
- VITROPHYRIC - GLASSY, ALL VITRIC COMPONENTS ANNEALED

GROUND EL. 1325.5 m

TOTAL DEPTH ≈ 1829 m

CORED FROM 81 m TO 1829 m

TOTAL DRILLING FLUID LOST TO FORMATIONS ≥ 14,000 (WWL# 120) TO 58,161 (WWL# 64)

ACOUSTIC TELEVIEW BOREHOLE LOG WAS RUN BETWEEN 451 m & 1325 m

NOTES: REFER TO REPORTS (WWL# 8) FOR SPECIFIC INFO.

1) JOINTS ARE DEFINED AS FRACTURE PLANES ALONG WHICH DIFFERENTIAL MOVEMENT WERE NOT APPARENT TO MACROSCOPIC EXAMINATION BY CORE INSPECTION

2) SHEAR FRACTURES BY DEFINITION SHOW EVIDENCE OF MOVEMENT ALONG THE FRACT. PLANE - BY CORE INSP.

3) IN THIS COLUMN FRACTURE FREQUENCY REFERS TO ALL FRACTURES APPARENT ON THE TELEVIEWER LOG (I.E. JOINTS AND SHEAR FRACTS) AND IS THEREFORE BIASED TOWARDS THOSE FRACTS. MOST EASILY DETECTABLE BY THE TELEVIEWER LOG

4) $K_{rock} = \left(\frac{K_{rock}}{K_{water}}\right)^{1/3}$ (FIG. 22 WWL# 64)

5) HEALED REFERS TO FRACTURES ALONG WHICH SECONDARY MINERALS HAVE COMPLETELY FILLED ANY WIDE SEAMS. ONLY THOSE FRACT. W/ SOLIDING MTRL. STRONG ENOUGH TO WITHSTAND BREAKING DURING CORE RECOVERY WERE TERMED HEALED. - APPROX. 40% OF THE 5% EXAMINED (FIG 43 WWL# 23)

6) ADDITIONAL AVE. POROSITY, GRAIN DENSITY AND THERMAL CONDUCTIVITY DATA WAS GIVEN IN WWL# 13, BUT WAS NOTED AS "NOT TO BE USED FOR ANALYSIS OF EMPLACEMENT IN TSW PAH CANYON MEMBER, PROFILE MOUNTAIN TUFF"

7) "BOREHOLE PRESSURES DURING DRILLING WERE APPARENTLY SUFFICIENT TO INDUCE HYDRAULIC FRACTURING AND TO DRIVE DRILLING FLUID INTO PREVIOUSLY UNLOCATED PRESENTING FRACTURES. THIS PROBABLY ACCOUNTS FOR THE DIFFICULTY IN MAINTAINING DRILLING FLUID CIRCULATION, AND IS CONSISTENT WITH THE LAW MAGNITUDE HORIZONTAL STRESS MEASURED BY THE HYDROFRACTURE METHOD" (WWL# 120 pp. 17)

A TOTAL OF 61 SHEAR FRACTURES WERE RECOGNIZED IN USW-G1. THE MAJORITY DISTRIBUTED THROUGHOUT THE FLOW BRECCIA AND IN FOUR CONSPICUOUS FAULT ZONES. EVIDENCE SUGGESTS A DOMINANT COMPONENT OF LATERAL SLIP (WWL# 25)

A TOTAL OF 528 JOINTS WERE FOUND IN USW-G1 (AVE. FREQUENCY: 1.0 PER 10'). INCREASE IN JOINT OCCURRENCE ARE COMMONLY ASSOCIATED WITH AN INCREASE IN THE DEGREE OF WELDING WITH SIGNIFICANT PEAKS OCCURRING IN THE BULLFROG AND FLOW BRECCIA AND SHEARED ZONES. MINOR JOINT FREQUENCIES OCCUR IN THE THOPAH SPRINGS AND TRAM UNITS