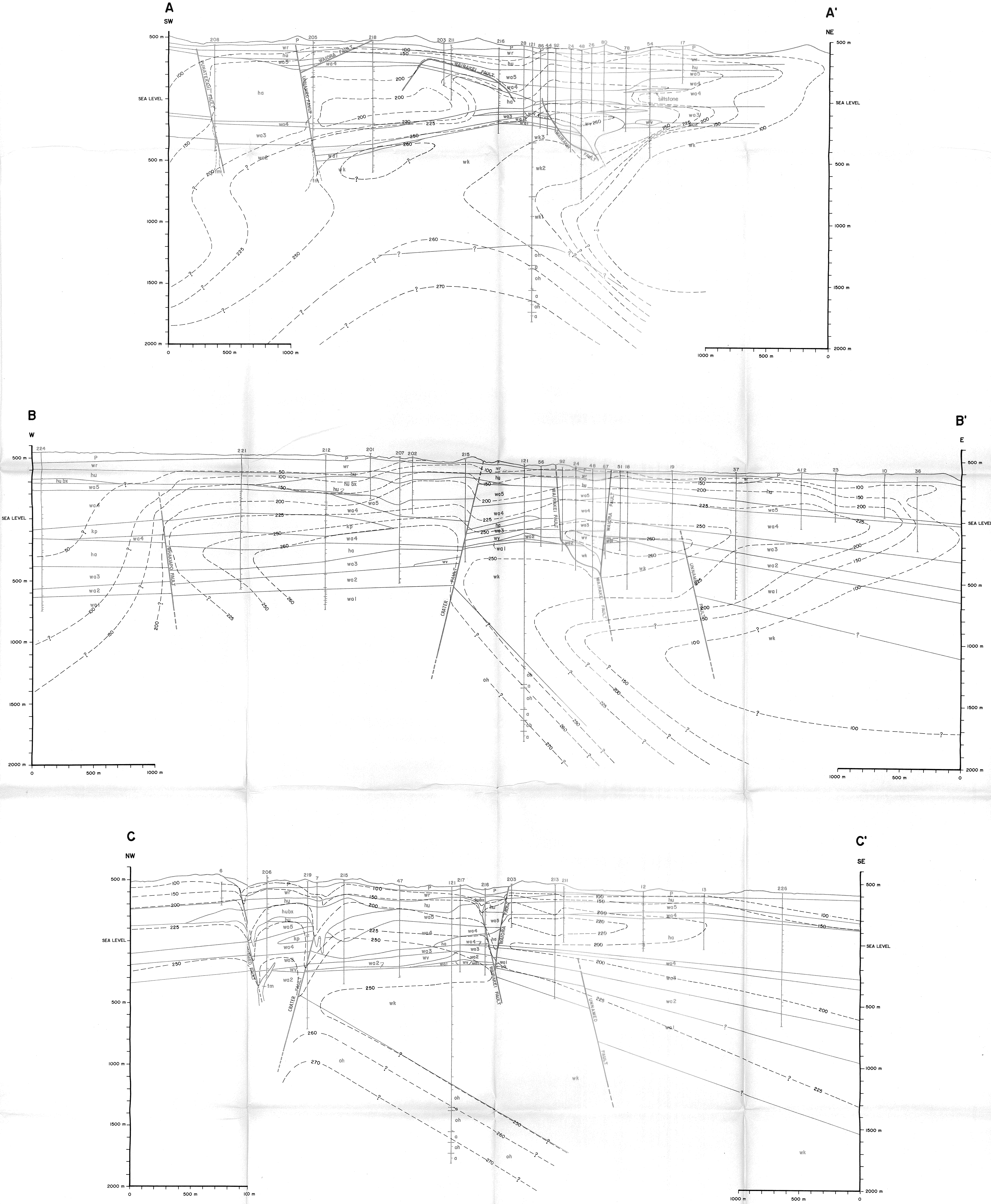


WAIRAKEI GEOTHERMAL AREA



GEOLOGY

HOLOCENE

WAIRAKEI FORMATION

- P** TAUPO PUMICE
RHYOLITE PUMICE AND VOLCANIC ASH DEPOSITS.
- WR** WAIRAKEI BRECCIA
RHYOLITE PUMICEOUS TUFF BRECCIA.
- HU** HUKA FALLS FORMATION
LACUSTRINE TUFFACEOUS MUDSTONE, SILTSTONE AND SANDSTONE (LOCALLY DIATOMACEOUS AND/OR CARBONACEOUS), RHYOLITE VITRIC AND PUMICEOUS TUFF, RHYOLITE TUFF BRECCIA, MINOR BASALT TUFF.
Hubx: HYDROTHERMAL EXPLOSION BRECCIA.

PLEISTOCENE

WAIORA FORMATION

- WA5** MEMBER 5
QUARTZ-BEARING PUMICEOUS RHYOLITE IGIMBRITE, RHYOLITE PUMICE BRECCIA AND RHYOLITE VITRIC TUFF WITH LOCAL ACCRETIONARY LAPILLI, SILTY WATER-LAID TUFF.
- WA4** MEMBER 4
MASSIVE PUMICE AND RHYOLITE BRECCIA, RHYOLITE VITRIC TUFF WITH LOCAL ACCRETIONARY LAPILLI, TUFFACEOUS SANDSTONE, LACUSTRINE MUDSTONE.
Tm: QUARTZ-BEARING RHYOLITE DYKES (2ND DOME).
Hb: GENERALLY QUARTZ FREE, PUMICEOUS-ER-LITE AND/OR SPHERULITIC RHYOLITE WA.
Kp: GENERALLY QUARTZ FREE FLOW-BAND RHYOLITE, LOCALLY PERLITIC AND/OR SPHERULITIC.
- WA3** MEMBER 3
MASSIVE PUMICE AND RHYOLITE BRECCIA, TUFFACEOUS SANDSTONE, MINOR SILTSTONE AND IGIMBRITE, RARE ACCRETIONARY LAPILLI-BEARING TUFF.
- WV** WAIORA VALLEY ANDESITE
GENERALLY FLOW-BANDED QUARTZ-FREE ANDESITE.
- WA2** MEMBER 2
SILTY AND SANDY WATER-LAID TUFF, TUFFACEOUS MUDSTONE, SILTSTONE AND SANDSTONE, PUMICE BRECCIA.
- WA1** MEMBER 1
QUARTZ-BEARING PUMICEOUS IGIMBRITE.
- WK** WAIRAKEI IGIMBRITE
MODERATELY WELDED, CRYSTAL-RICH RHYOLITE IGIMBRITE, COMPOSED OF THREE MEMBERS.
- OH** OHAKURI GROUP
PUMICEOUS TUFF BRECCIA, SANDY WATER-LAID TUFF, TUFFACEOUS SILTSTONE AND SANDSTONE.
A: ANDESITE LAVA AND BRECCIA.

ESTIMATED PREPRODUCTION RESERVOIR TEMPERATURES

—?—260— 260° ISOTHERM, ? WHERE INFERRED

ISOTHERMS ESTIMATED FROM DOWNHOLE TEMPERATURE DATA COLLECTED FROM ALL WELLS SHOWN ON THE CROSS SECTIONS.

MOST WELLS ARE PROJECTED ONTO THE CROSS SECTIONS. SEE PLATE 5 FOR DISTANCES FROM THE WELLS TO THE TRACE OF THE CROSS SECTION PLANES.

GEOLOGY REINTERPRETED FROM PUBLISHED WELL LOGS AND DATA (GRINDLEY, 1965; STEINER, 1977; HEALY, 1984; SEE TEXT FOR REFERENCES), UNPUBLISHED WELL LOGS BY G.W. GRINDLEY, A. STEINER AND J. HEALY (DATA RETAINED BY NEW ZEALAND GEOLOGICAL SURVEY, ROTORUA), DRILLING RECORDS (DATA RETAINED BY MINISTRY OF WORKS AND DEVELOPMENT, WAIRAKEI), AND AUTHOR'S UNPUBLISHED DATA.

PLATE 6 A : WAIRAKEI GEOTHERMAL AREA NORTH ISLAND, NEW ZEALAND

0 500 m 1000 m 1500 m 2000 m

Draughted : D. Montgomery
M.A. Lehman
Date : August 1989

Scale : 1 : 10 000