

# GEOTHERMAL DATA LOG

**COMPANY** CAITHNESS POWER INC.  
**WELL** 83A-6  
**FIELD** STEAMBOAT  
**COUNTY** WASHOE **STATE** NEVADA  
**LOCATION** NE 1/4 SEC 6 T.17N R.20E  
**ELEVATION** 5762'  KB  DF  GL   
**CONTRACTOR/RIG** VECO NO. 10  
**SPUD DATE** 9/23/87 **TD DATE** 10/14/87  
**TD** 2681' **TRUE VERT DEPTH** \_\_\_\_\_  
**BOTTOM HOLE LOCATION** \_\_\_\_\_  
**WELL STATUS** TESTING  
**COMPANY REPRESENTATIVE** R.Hudson, C.BEIGHLE

HOLE SIZE	CASING RECORD
26" to 438'	20" at 438'
17 1/2" to 2284'	13 3/8" at 2284'
to _____	at _____
to _____	at _____
to _____	at _____
to _____	at _____

### LITHOLOGY SYMBOLS

	Graywacke Type 1		Graywacke Type 2		Graywacke Type 3
	Graywacke Siliceous		Sandstone		Siltstone
	Claystone		Shale or Argillite		Chert
	Limestone		Solution Deposit		Mineralized Zone
	Peridotite		Serpentine		Schist
	Acidic Volcanic		Intermed Volcanic		Basalt or Greenstone
	Melange		META-SEDIMENT		Granodiorite

### STEAM ENTRIES

2672' \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\* = TESTED ZONES

### WATER ENTRIES

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\* = TESTED ZONES

### LOST CIRCULATION ZONES

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### MISC. REMARKS

KB=30' above ground level

\_\_\_\_\_

\_\_\_\_\_

### SECONDARY MINERALS

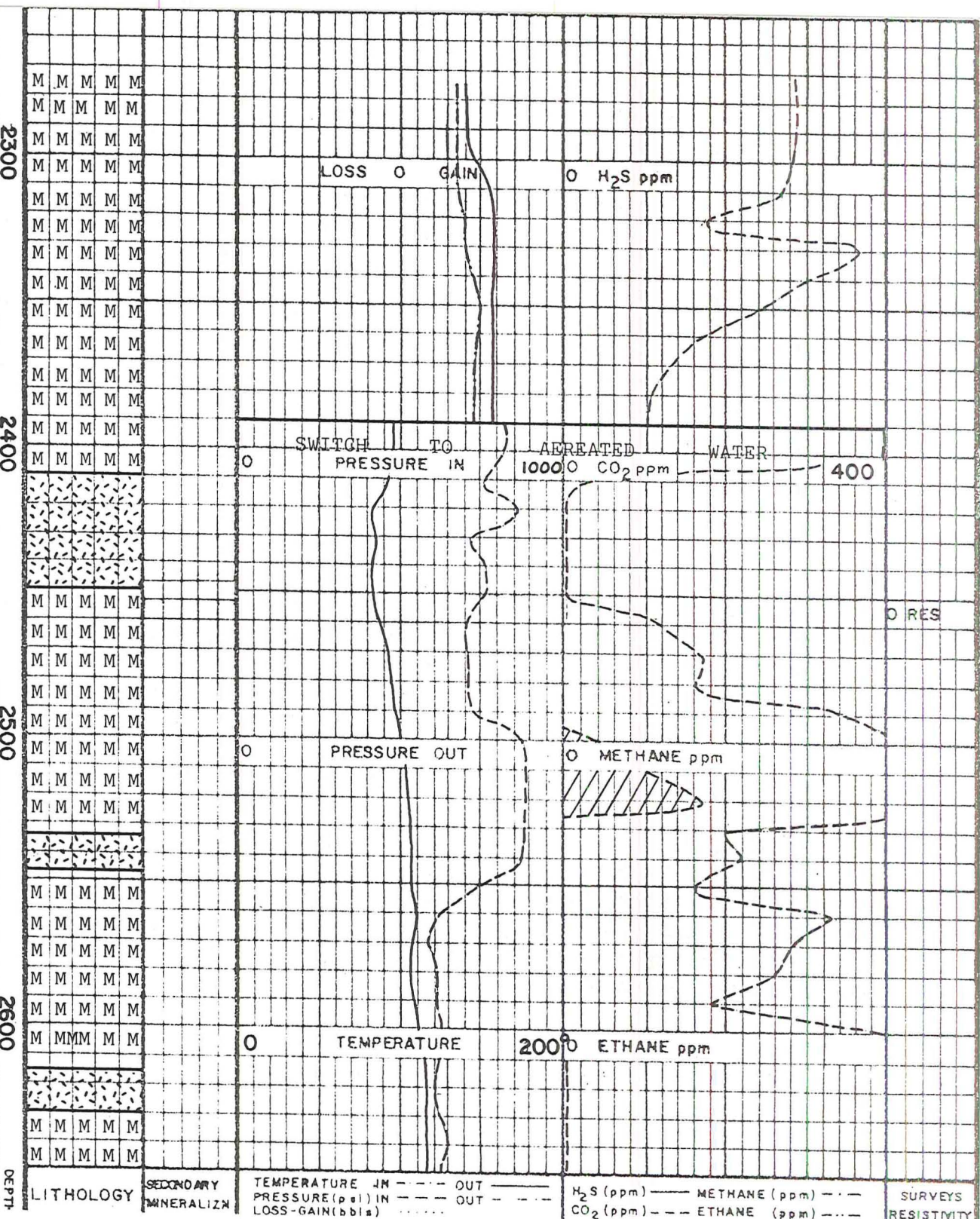
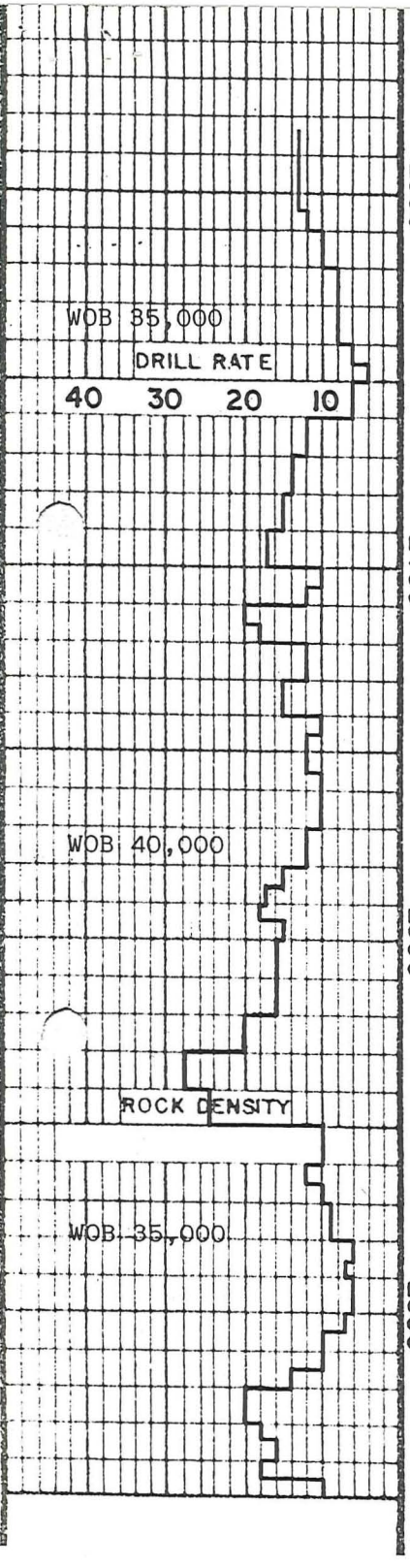
Q = QUARTZ = \_\_\_\_\_  
 C = CALCITE = \_\_\_\_\_  
 P = PYRITE = \_\_\_\_\_  
 E = EPIDOTE = \_\_\_\_\_

NB NEW BIT	W MUD DENSITY PP9
RRB RE-RUN BIT	V FUNNEL VISCOSITY
CB CORE BIT	PV PLASTIC VISCOSITY
WOB WEIGHT ON BIT	YP YIELD POINT
RPM REVS PER MINUTE	F FILTRATE-API
SPM STROKES PER MINUTE	FC FILTER CAKE
CFM CUBIC FT PER MINUTE	SOL SOLIDS-%
NR NO RETURNS	SD SAND CONTENT-%
C CARBIDE TEST	S SALINITY- PPM Cl
LAT LOGGED AFTER TRIP	CA CALCIUM- PPM Ca
BHT BOTTOM HOLE TEMPERATURE	RM MUD RESISTIVITY
TC TIME SINCE CIRCULATION	WIRELINE LOG RUN
	WATER/STEAM ENTRY
	ORIFICE/FLOW TEST

### LOG INTERVAL

**DATE LOGGED** \_\_\_\_\_ to \_\_\_\_\_  
**DEPTH LOGGED** 2280' to 2681'  
**MUD DRILLING** 0 to 2390'  
**AIR DRILLING** 2390' to T.D.  
**TEMPERATURE INSTRUMENT TYPE** J-Thermocouple  
**PRESSURE INSTRUMENT TYPE** Silicon Chip  
**GAS TRAP-AGITATOR** ELEC  AIR   
**LOG SCALE** 1:600 **UNIT NO.** 321  
**LOG PREPARED BY** R.E.Dunlap

DRILL RATE _____ ft/hr <input checked="" type="checkbox"/> min/ft <input type="checkbox"/>	DEPTH LITHOLOGY MINERALIZATION SUCCEDOR	TEMPERATURE °C <input type="checkbox"/> °F <input checked="" type="checkbox"/> IN - - - - - OUT - - - - - PRESSURE KSC <input type="checkbox"/> PSI <input checked="" type="checkbox"/> IN - - - - - OUT - - - - - LOSS/GAIN (bbls) .....	H <sub>2</sub> S ppm _____ CO <sub>2</sub> ppm _____ METHANE ppm _____ ETHANE ppm _____	SURVEYS RESISTIVITY Ω-M	LITHOLOGY DESCRIPTION AND REMARKS
ROCK DENSITY (g/cc) _____		TEMPERATURE _____ PRESSURE _____ LOSS/GAIN (bbls) _____	H <sub>2</sub> S ppm _____ CO <sub>2</sub> ppm _____ METHANE ppm _____ ETHANE ppm _____	SURVEYS RESISTIVITY Ω-M	LITHOLOGY DESCRIPTION AND REMARKS



META-SEDIMENTS: vari-colored med-fine grain firm to hard, alt in pt, w/occ relic grn bound and arg bedding, occ mic books

META-SED: as described w/ abund pyrite and sec qtz, abund vn filling, com chl stn, tr cin

Note: lost 100bbl mud @2375, grad loss thereon switch to aerated H<sub>2</sub>O

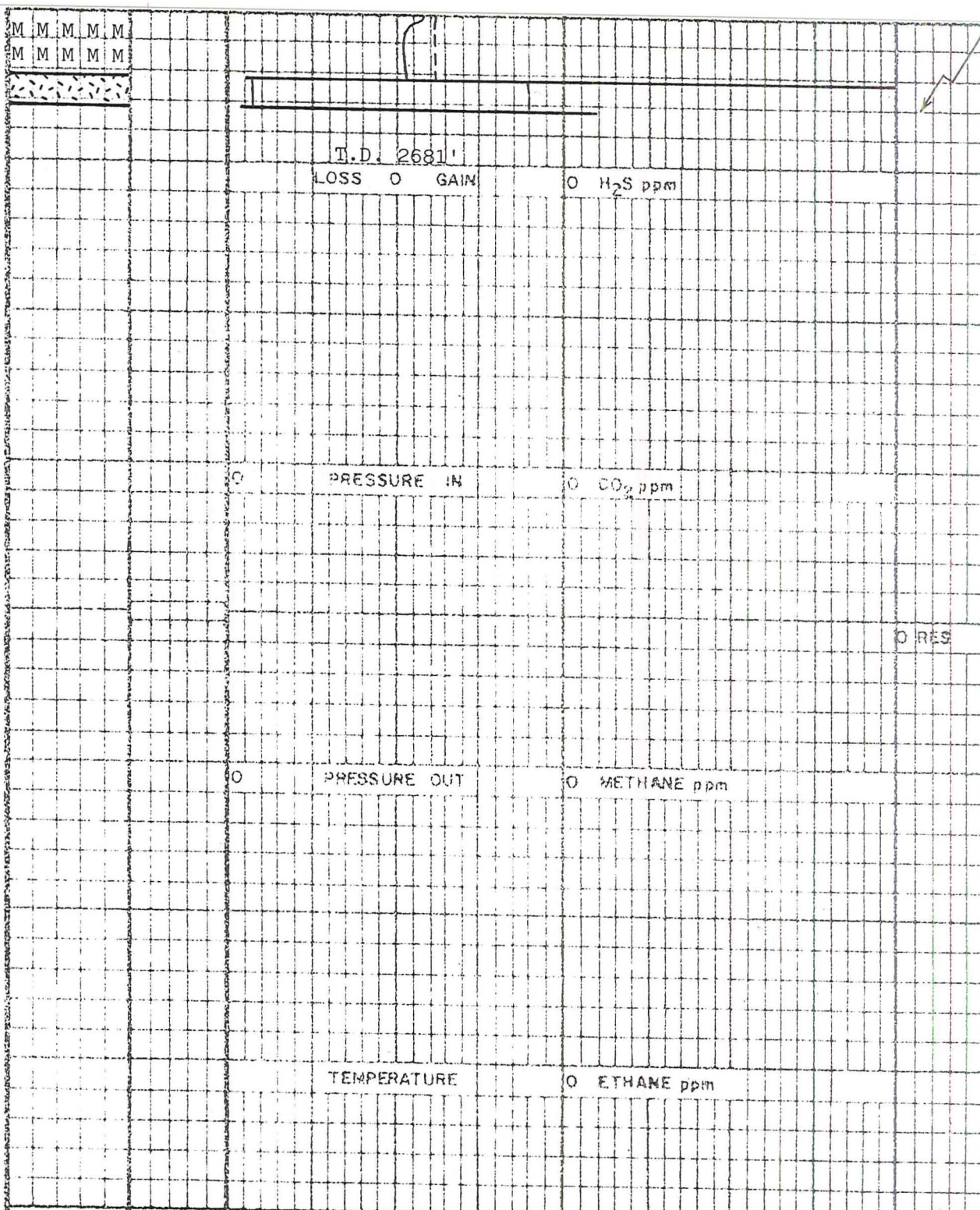
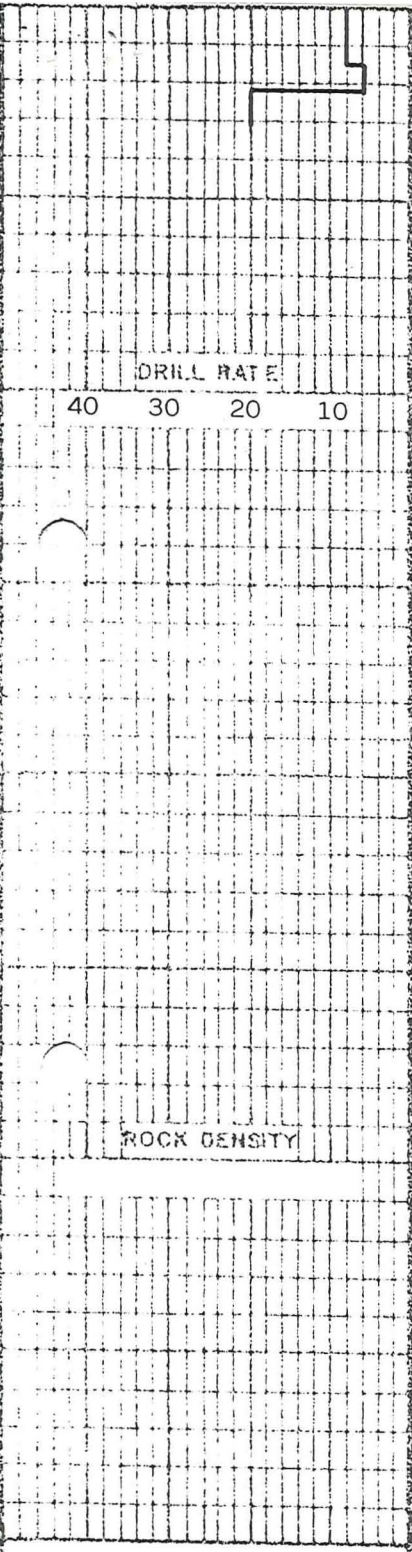
GRANODIORITE: clear to white, overall lt grn cast, 80% qtz, abund biot, com feld, mnr plag

META-SED: med-dk gray m-fn gr w/ occ rel gr bound, tuf in pt w/com assoc exotics of gran origin, com biot, hem

GRANODIORITE: clr-wht overall lt grn cast, cs-med sample size, v-hd, v felsic w/ occ biot bks and chlorite schist

META-SED: Green-dk grn blk w/vari-colored constit, fine gr re-xln in pt, frm to hd, alt in pt var ants meta-schists, tuff, mafics, w/ com hem mnr kaolin alt, com sec qtz vn fl, sl calc.

GRANODIORITE: @2617-



as described w/ 90% qtz  
 and abund pyrite xls  
 META-SED: as described  
 GRANODIORITE: as descr.  
 Note: 1100bbl water  
 loss while circ for trp  
 @ 2672' Test well- 278  
 w/ 1000+gpm and 5.4%CO<sub>2</sub>  
 Note: TD well @ 2681'