TO: DISTRIBUTION DATE: 04-10-94

THRU: JIM ALBRIGHT, EES-4 GRP. LDR., 7-4318

FROM: DAVE ANDERSON, EES-4, 7-1441

SUBJECT: **EE-3A LOGGING REPORT FOR APRIL 5TH., 1994**

BACKGROUND:

A Temperature/Casing-Collar Locator (CCL) log of EE-3A was performed on Tuesday, April 5th., 1994. This log was the second of two, (the first was run on February 28th.,1994.), in an attempt to investigate a temperature anomaly occurring between 10,000 to 11,435 ft. The thermal recovery of this zone was slower than expected, which was believed to be caused by either; flow through the cemented zone of the 5 1/2" liner, or an upward flow through the reservoir itself. After the first log was run, the annulus of EE-3A was shut-in for a period of a little more than one month, at which time the log was repeated. If the temperature of this zone were to show signs of recovery after the shut-in period, the integrity of the cement would have been in question. No sign of recovery would point to upward reservoir flow theory. The zone of interest shows no sign of recovery during the shut-in period.

Consistency of logging procedures, hardware, etc., was important so that an accurate comparison could be made. In addition, procedures for both logs were modeled from a December 10th, 1993 temperature log, so that a comparison of all three could be used. The December 10th, log of EE-3A was the first temperature log done since the LTFT, and the log that alerted us to the anomaly.

SIMILARITIES BETWEEN ALL THREE LOGS:

1. The tool that was used for all three logs was the slimline temp./CCl tool, (see, "Operations and Safety Plan", for dimensions and weights).

2. New rubber seals were installed in the control head prior to each log. Some trouble starting downhole was encountered because of this, however, flow from the control head was kept to a minimum with new seals in place.

3. A safety meeting and pressure test of lubricator assembly preceded each day of logging activities.

4. Zero depth was taken at the logging valve gate, (14 ft. above ground level).

5. A depth driven strip chart was used to record weight at the load-cell and CCL.

6. Logging rates were mimicked from log to log.

7. Fluid loss from the control head was measured.

DIFFERENCES BETWEEN LOGS:

1. Wellhead and test pressures differ due to the decay of reservoir pressure as a function of time. Therefore, fluid leakage from the control head is not consistent from log to log.

	12-10-93	02-28-94	04-05-94
Wellhead pressure	920 psi	657 psi	630 psi
Test pressure	1,380 psi	1,000 psi	945 psi

2. The 7,000 ft. turn-around was missed on the 02-28-94 log and done at 7,100 ft., instead.

3. The load-cell did not function properly on either the 02-28-94, or the 04-05-94 log. We were forced to rely on the weight indicator, CCL, and temperature readings for weight and tool movement.

4. T.D. was encountered at three different depths, however much of this is guess work.

12-10-93	02-28-94	04-05-94
12,026 ft.	12,050 ft.	12,030 ft.

FLUID LOSS:

Fluid was measured at approximately 6,800ft., logging in and out during both the 02-28-94 log and the 04-05-94 log.

02-28-94	"Logging in"	"Logging out"
Flow tubes	1.25 gpm	.166 gpm
Case drain	1.66 gpm	5.0 gpm
Spray from top	-none-	2-3 gpm (est.)
TOTAL	2.91 gpm	7.166 to 8.166 gpm

04-05-94	"Logging in"	"Logging out"
Flow tubes	6.25 gpm	2.50 gpm
Case drain	.833 gpm	5.0 gpm
Spray from top	-none-	2-3 gpm (est.)
TOTAL	7.083 gpm	9.5 to 10.5 gpm

* Average loss for 02-28-94 log = 5.038 to 5.538 gpm.

* Average loss for 04-05-94 log = 8.29 to 8.79 gpm.

* Average loss for 12-10-93 log = 6.5 gpm.

TURN AROUNDS:

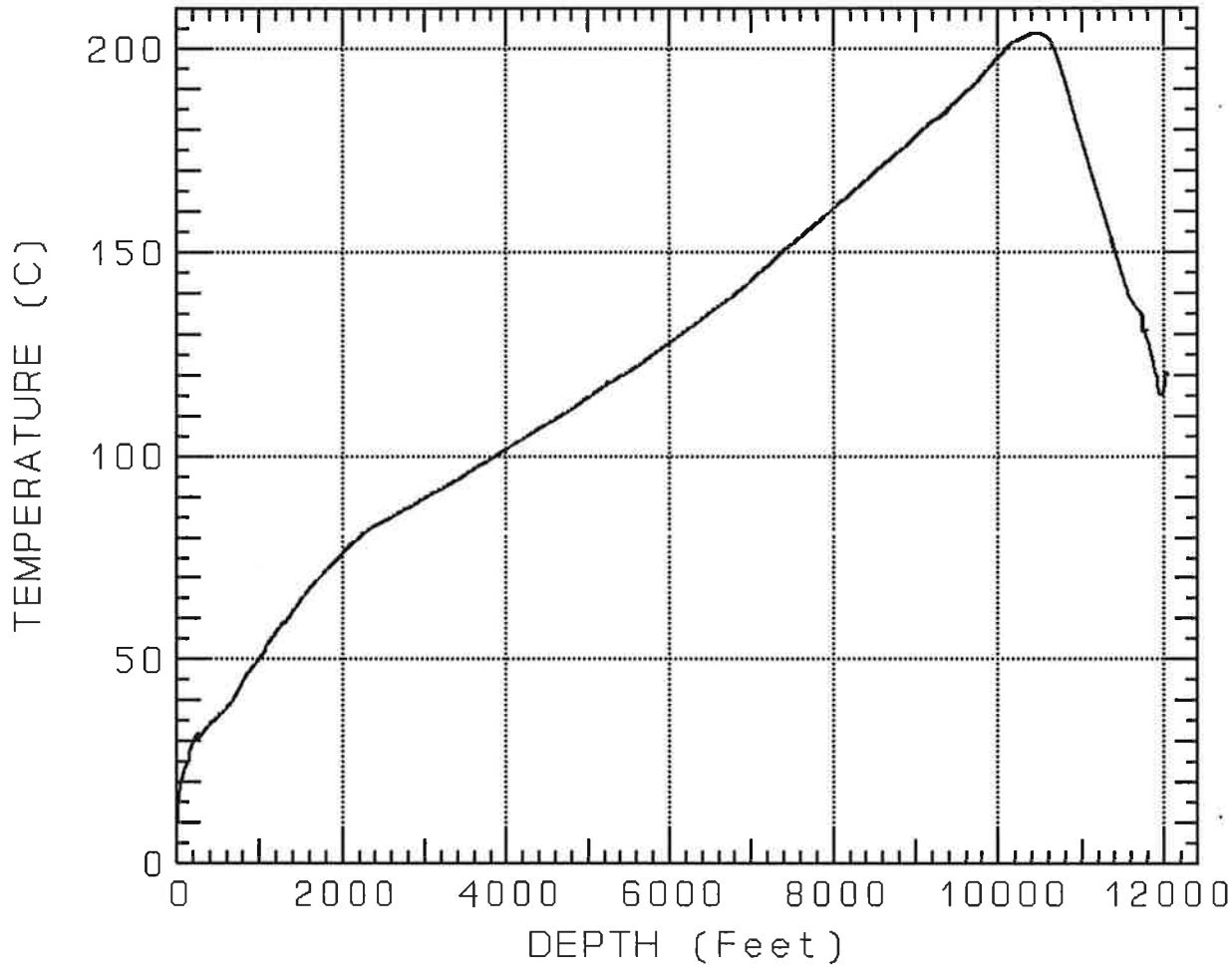
	04-05-94	02-28-94	12-10-93
5,000 ft.	0 ft.	0 ft.	2 ft.
7,000 ft.	1/2 ft.		2 ft.
7,100 ft.		2 ft.	
9,400 ft.	6 ft.	4 1/2 ft.	4 1/2 ft.
10,400 ft.	8 ft.	5 ft.	5 ft.
11,400 ft.	11 ft.	8 ft.	8 ft.

OTHER INFORMATION:

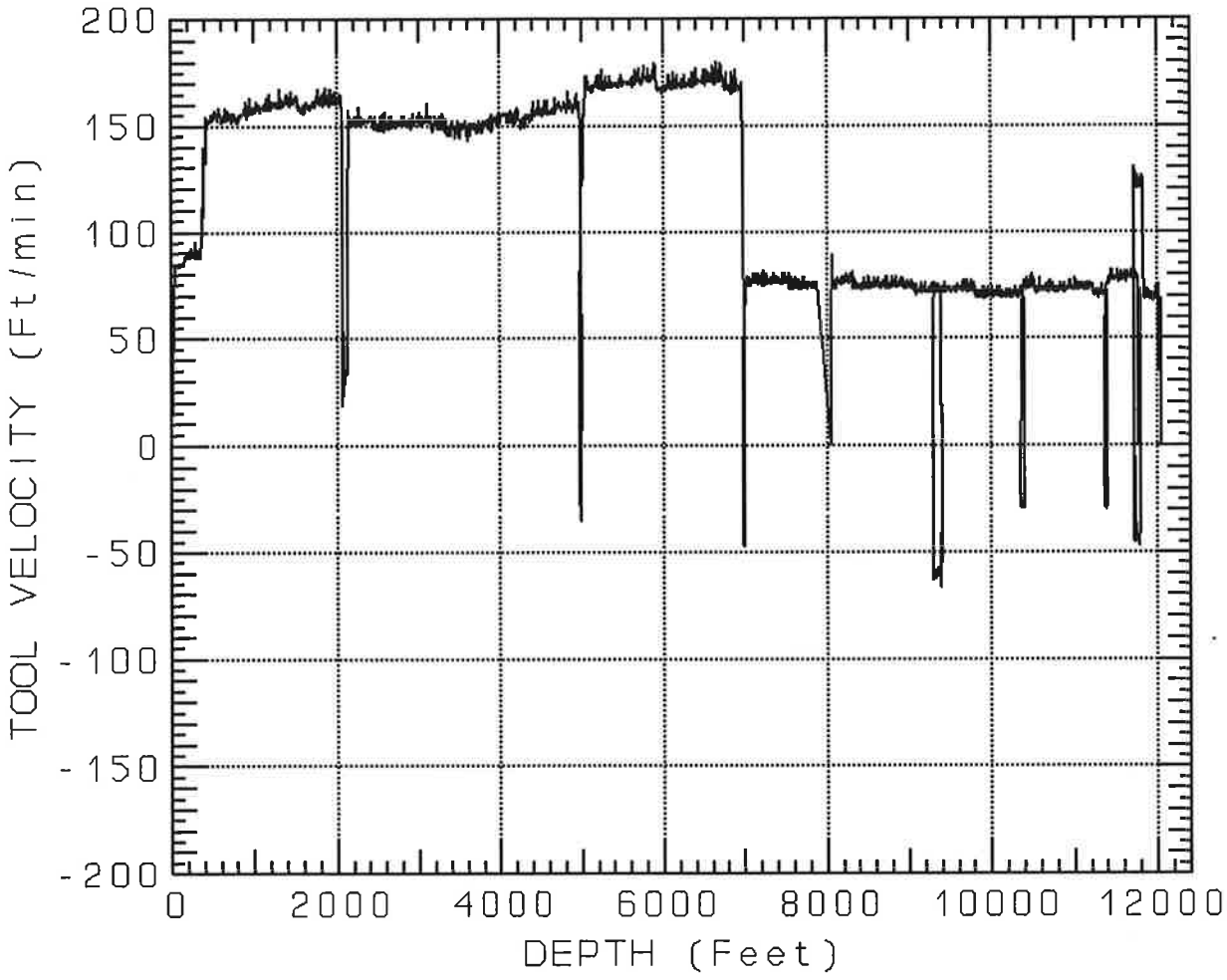
Logging at a rate of 75 ft./min., we encountered a set down at 11,758 ft. We picked up to 11,700 ft. and ran back in at a rate of 130 ft./min., to a depth of 11,790 then slowed back to 75 ft./min.

Also, at the request of Bob Potter, we made two more passes, from 10,000 ft. to TD. One at 75 ft./min., and the second at 40 ft./min., both scanning continuously. (See data attached). We did however speed up from 11,700 ft. to 11,790 ft. as described above, to avoid the set down area.

We then pulled "out of the hole", slowing for the casing shoe, PBR, and the 5 1/2" x 4 1/2" swage.



FENTON HILL EE-3A
5 April 1994



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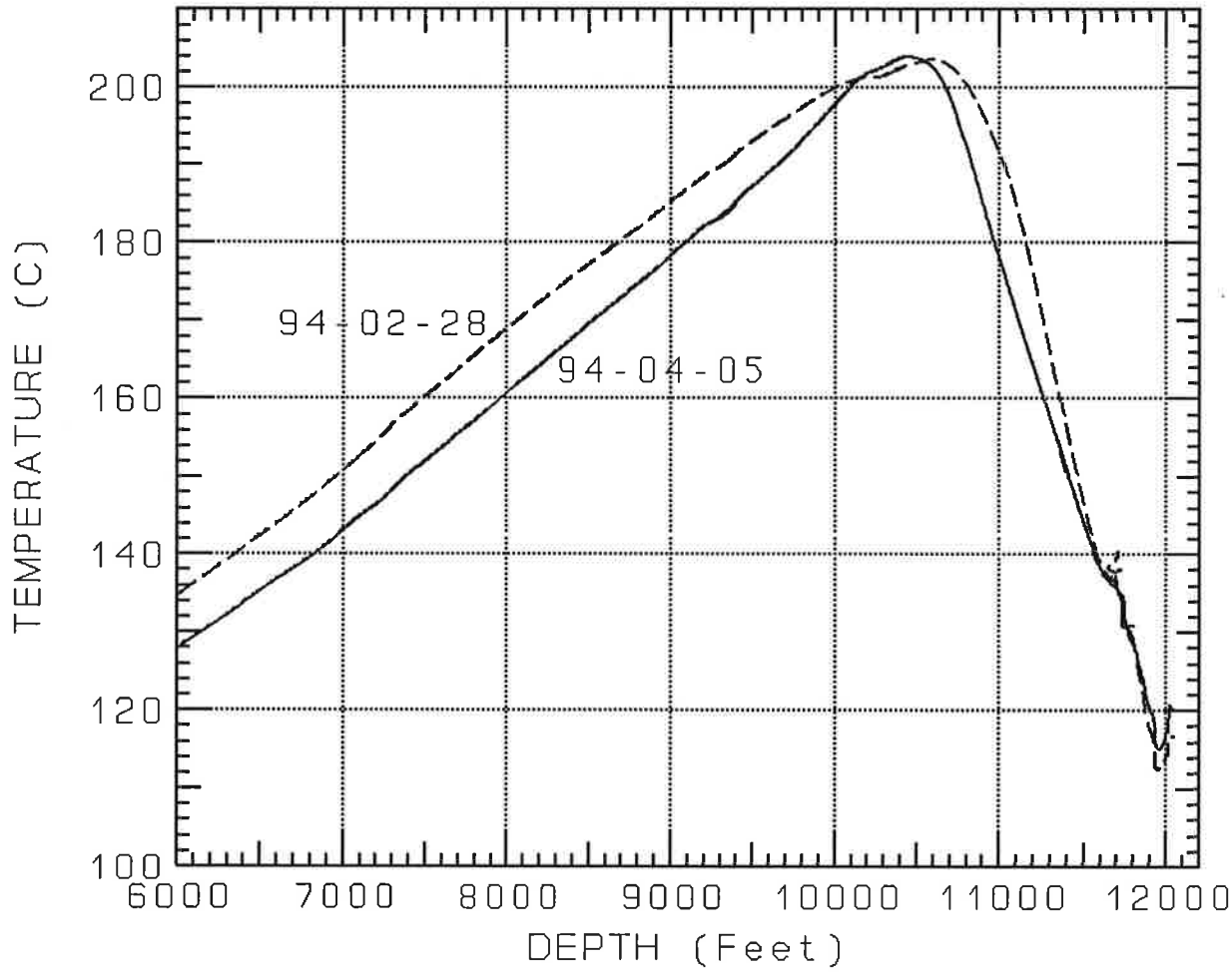

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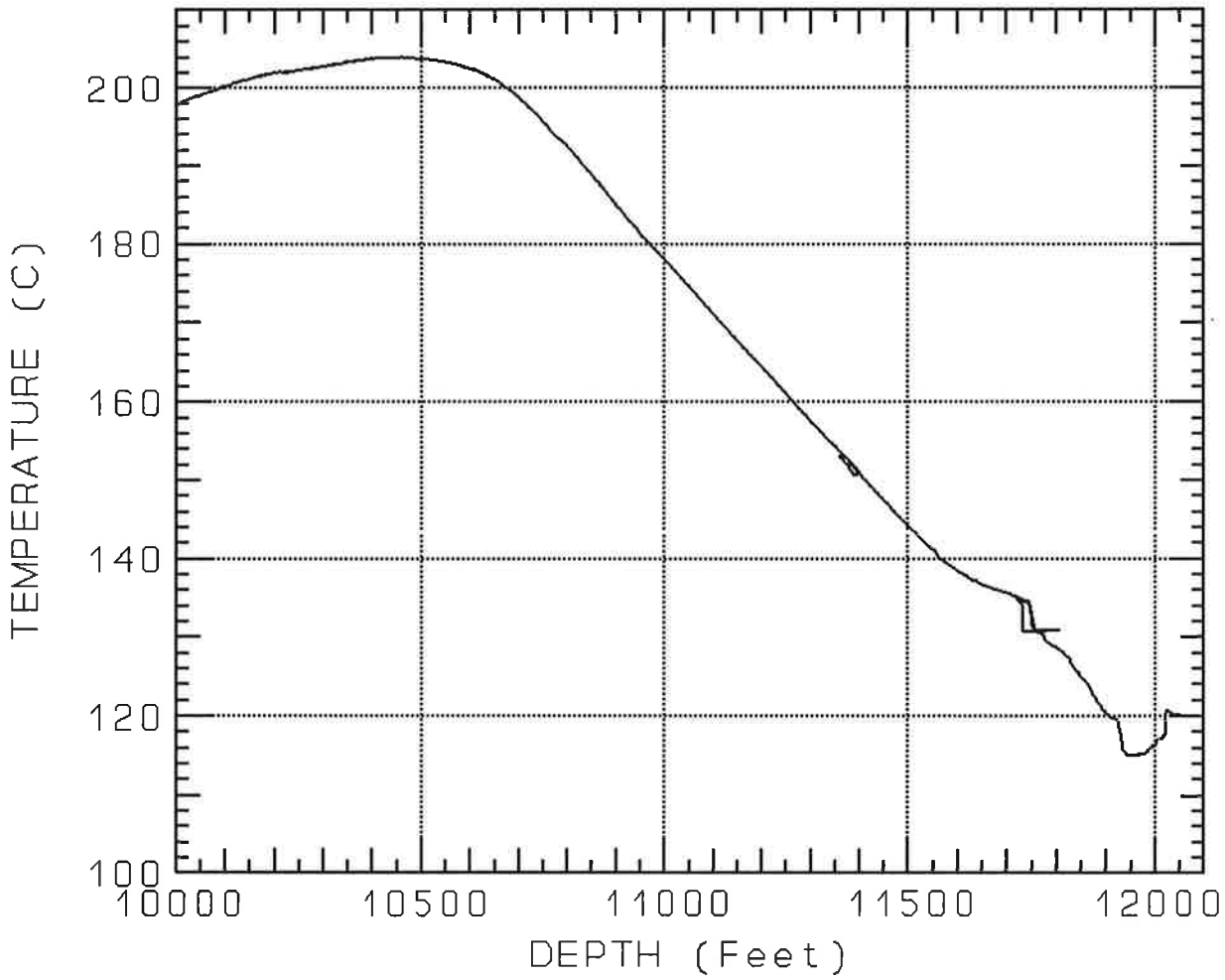
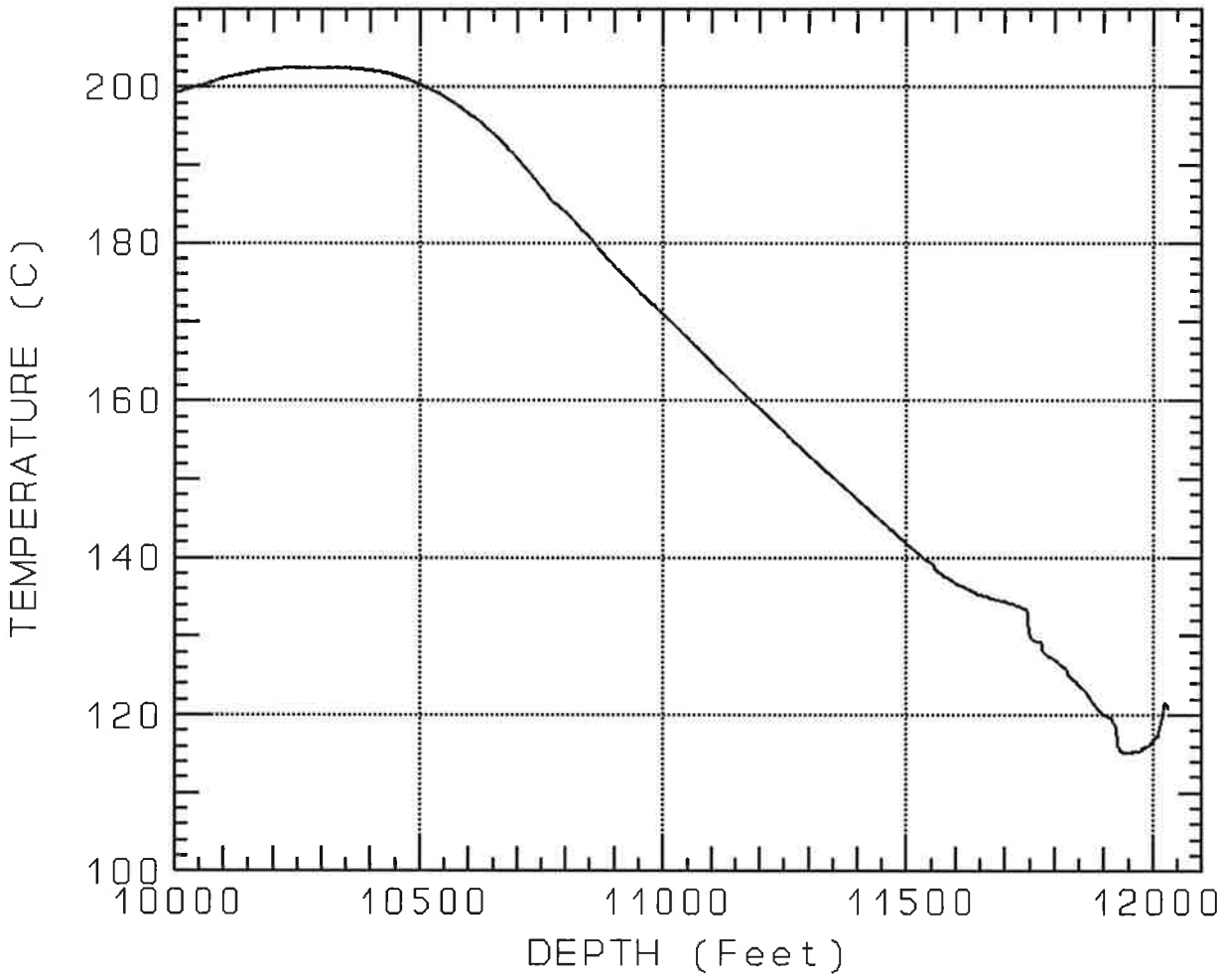


FENTON HILL EE-3A
5 April 1994 First Pass



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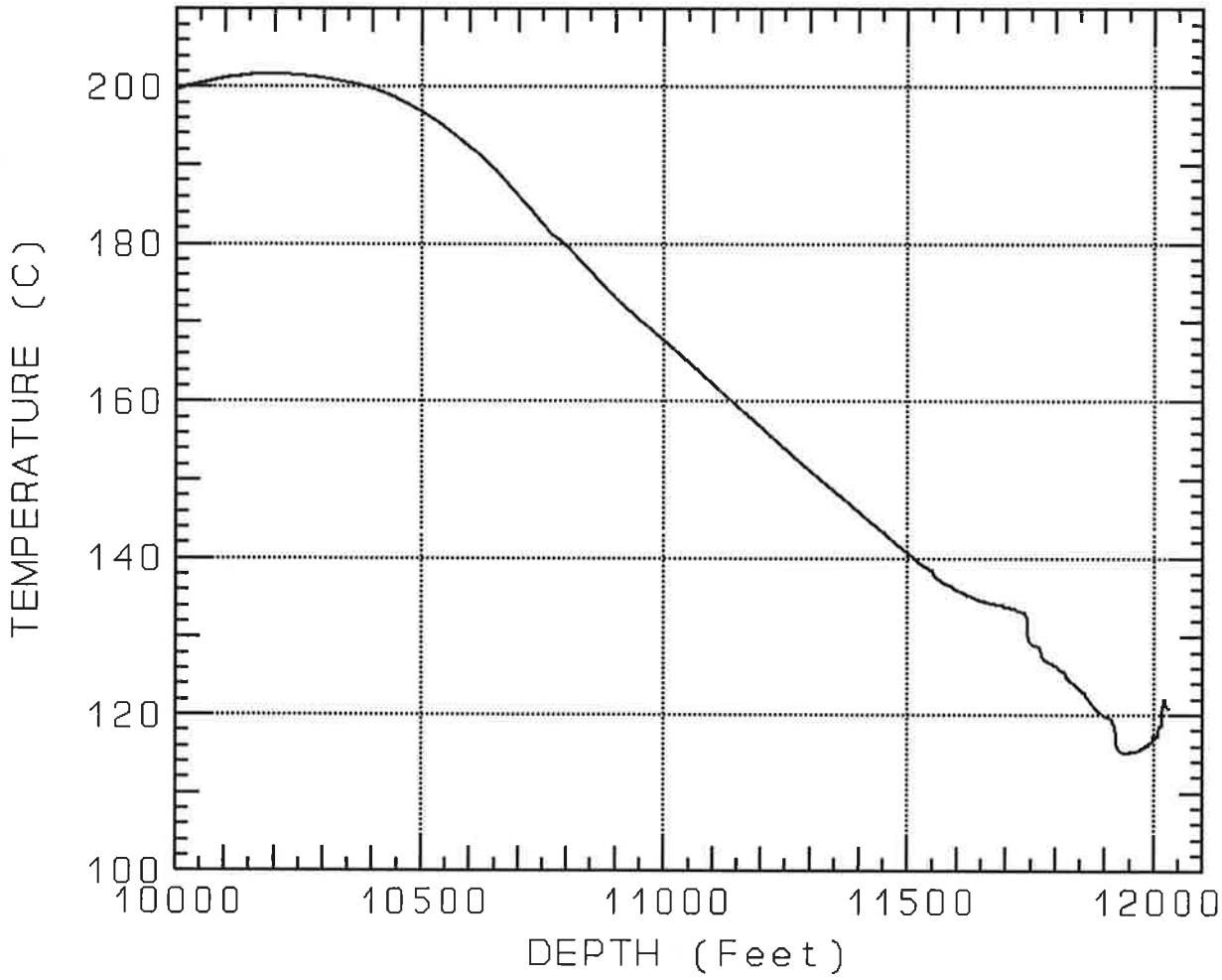

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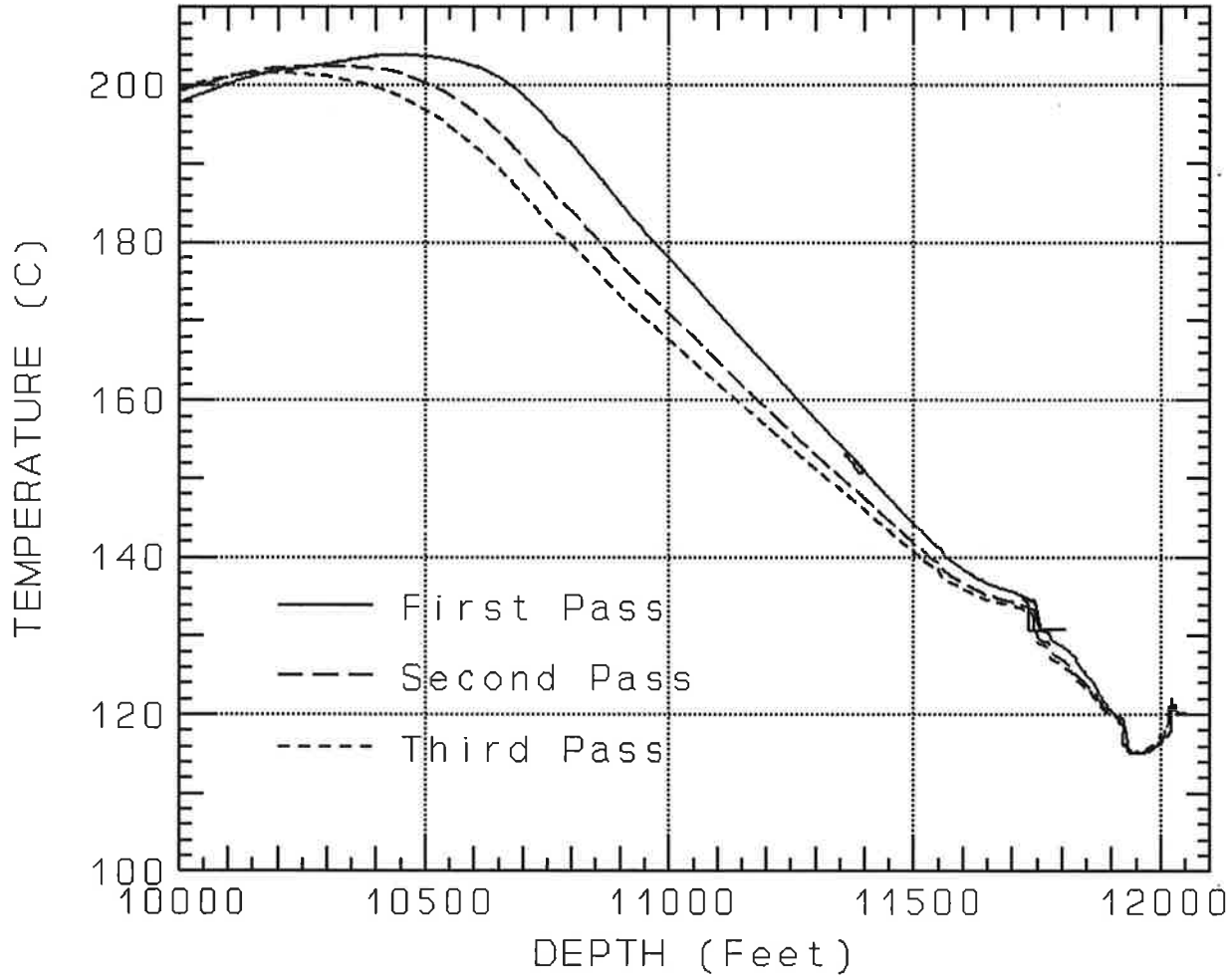

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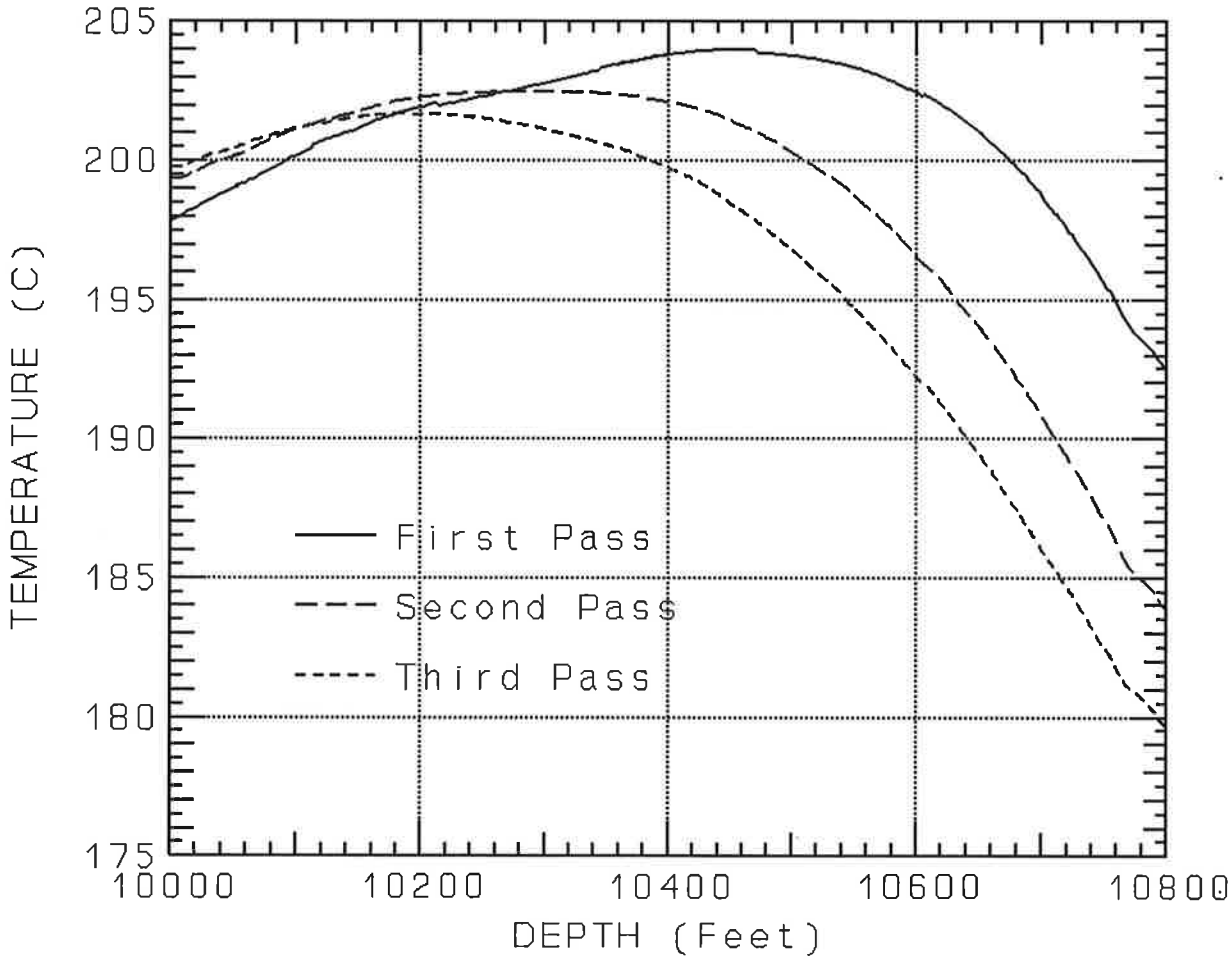

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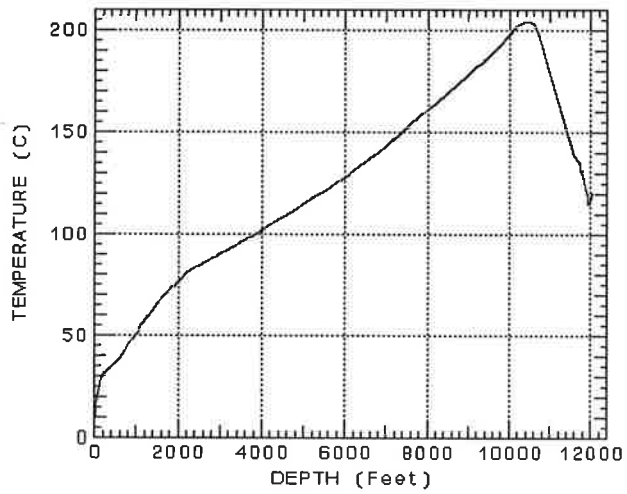

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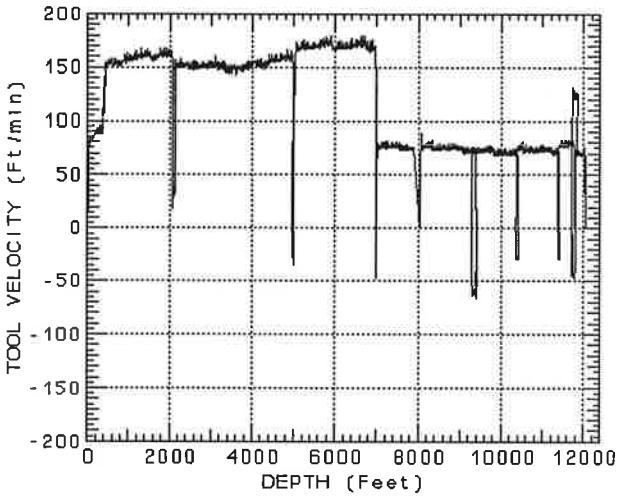

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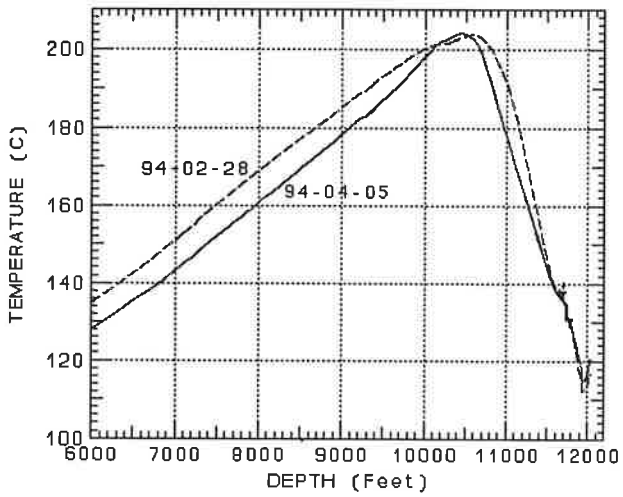

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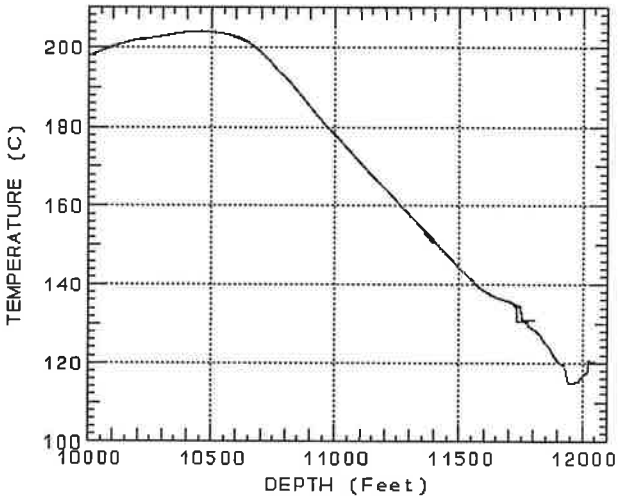

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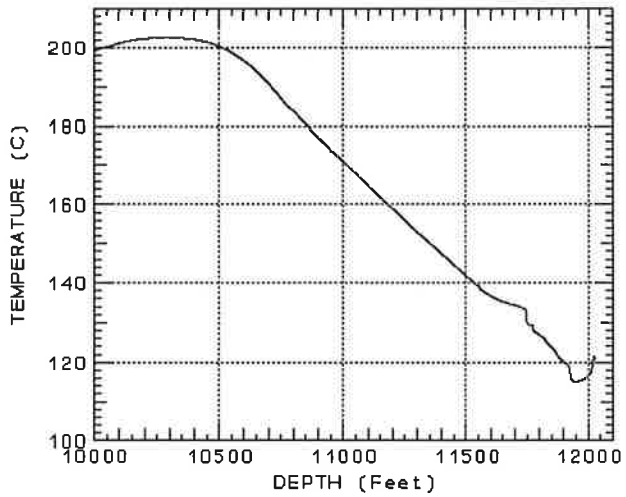

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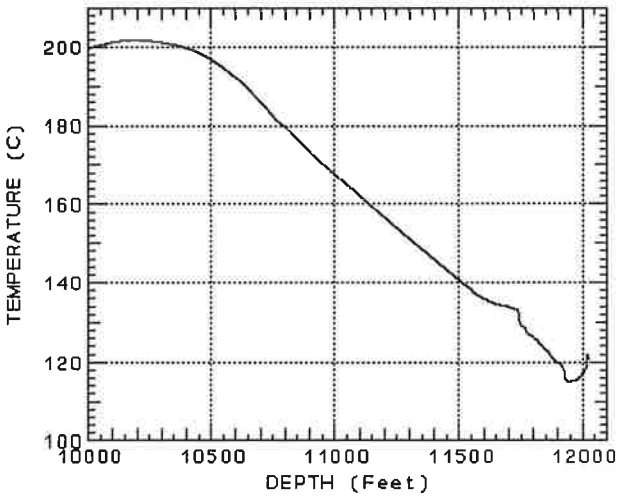

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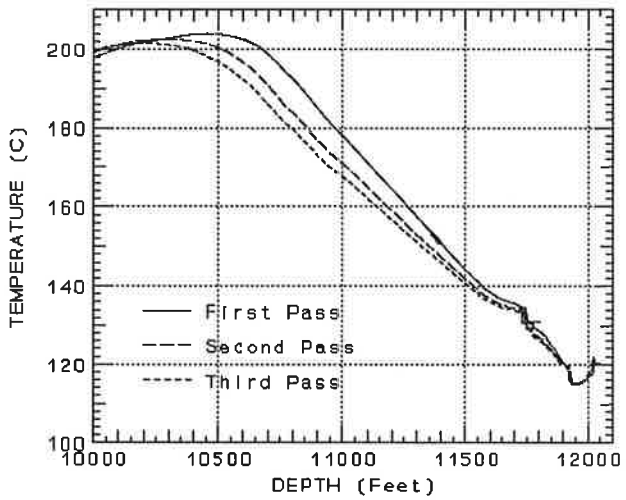

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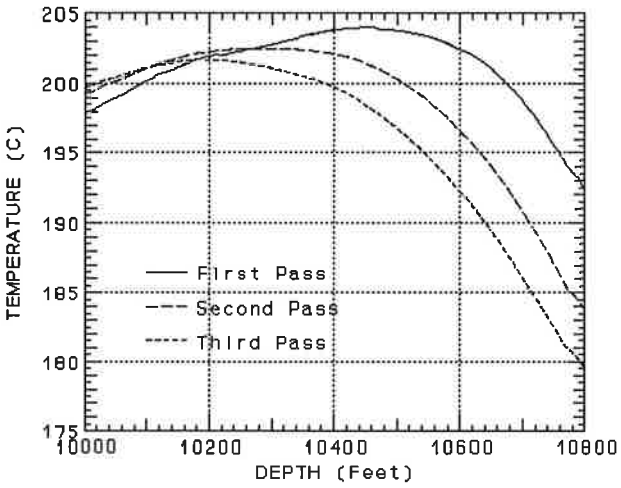

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