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ENGINEERING NOTE		MME Book No. 640	MT 306	1 OF 4
AUTHOR	DEPARTMENT	LOCATION	DATE	
Donald H. Nelson	Electronics Engineering	B25A-124	November 23, 1981	
PROGRAM — PROJECT — JOB				
TITLE				
Bevatron 20 MeV Injector Copper Tape Solenoids 52-MK2 4 Inch Diameter Solenoid Drwg. No. -12P1486-A1 & A2 - Magnetic Field Measurements				
<p>In October 1981, at the request of Emery Zajec, Magnetic Measurements Engineering provided a measurement system for testing two additional (MT 300 describes the tests conducted on the first, i.e., 12P1486A3) 4 inch diameter solenoids - 12P1486A1 & 12P1486A2.</p> <p>Ed Cyr (MME) set-up test equipment for measuring the axial component of Magnetic Induction on the axis of two solenoids ($B_z(r=0, z)$ vs z).</p> <p>Figure 1 shows the test equipment and Table 1 lists specific equipment.</p> <p>Emery Zajec used the test equipment to measure the two magnets each at three current levels.</p> <p>Figures 2 and 3 display, for magnets A1 and A2 respectively, $B_z(r=0, z)$ vs z for three magnet currents. The purpose of this note is to preserve this information.</p> <p>Distribution: M.I. Green E.C. Hartwig/L.J. Wagner/W.H. Deuser R.M. Richter E. Zajec Magnet Measurements Engineering (4)</p> <p>This work was supported by the U.S. Dept. of Energy under Contract DE-AC03-76SF00098.</p>				

7600-54250

ENGINEERING NOTE

SUBJECT

NAME

ED CYR

DATE

November 23, 1981

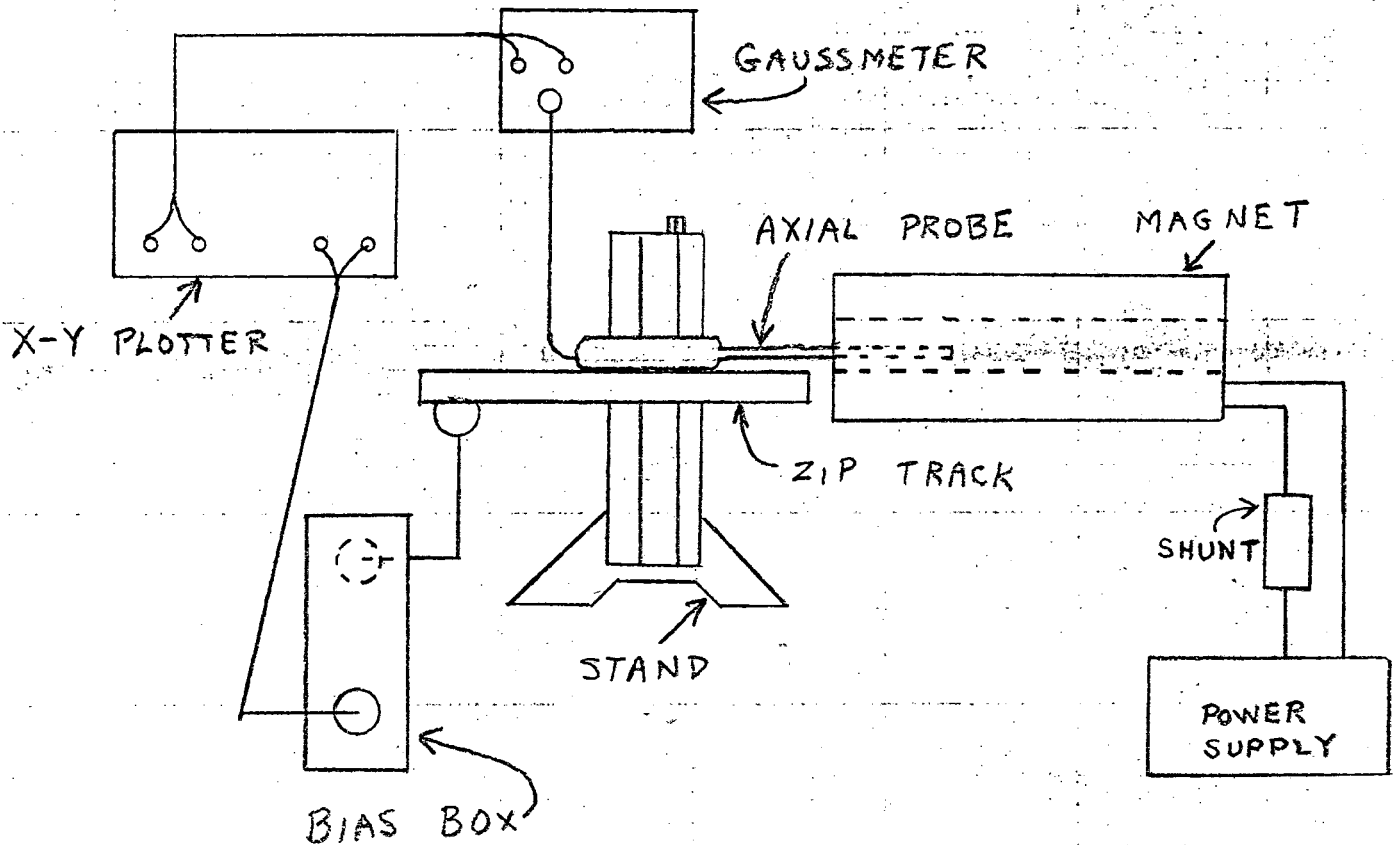
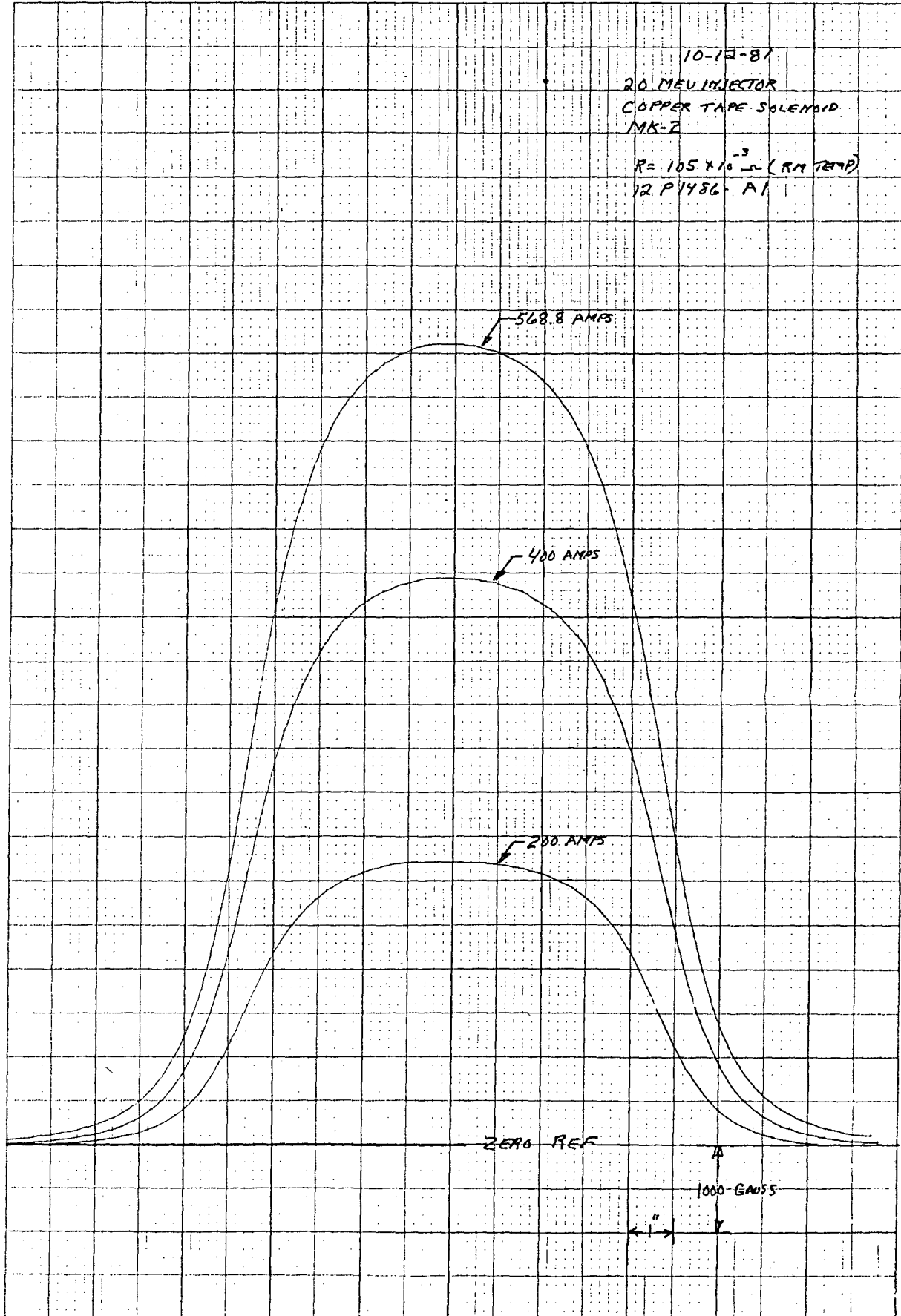


FIGURE 1 TEST EQUIPMENT

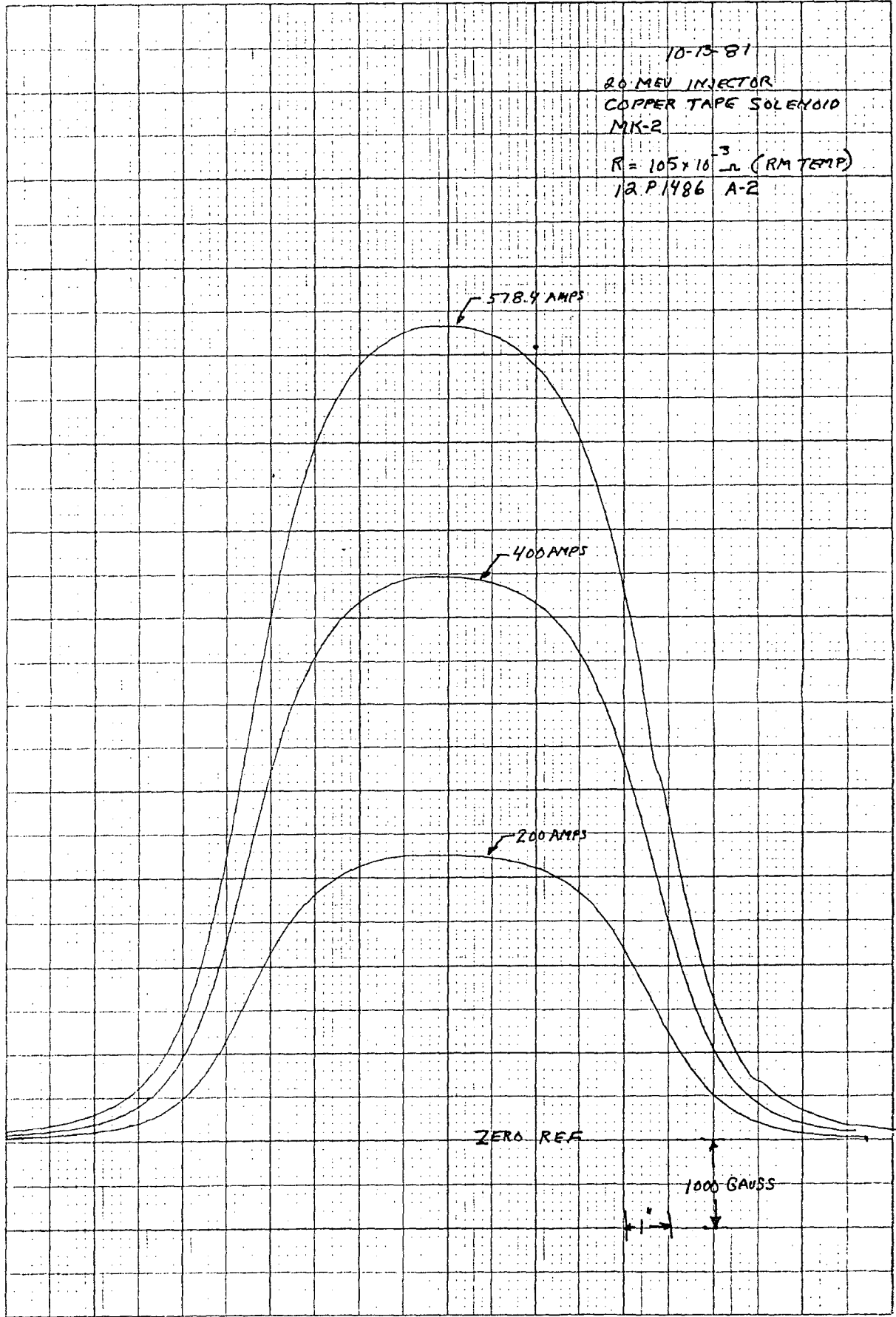
<u>Equipment</u>	<u>Description</u>	<u>Identification</u>
Magnets(Under Test)	4 Inch Dia. x 10 In. Long Solenoid, S2MK2	12P1486A1 & A2
Magnet Power Supply	Dual 49 kW	8Y3605
Current Monitoring Shunt	800 A/1000 mV	—
Gaussmeter	F.W. Bell Model 8512	AEC No. 517835
Probe	F.W. Bell (Axial) Model HAR8-2518	S/N 129089
xy Plotter	Moseley Model 7000AR	AEC No. 159260
Zip Track	MME 16 Inch Linear Positioner	—
Bias Box	Drawing No. 5V8032	—

TABLE I TEST EQUIPMENT



25 SP 723

10-15-81
20 MEV INJECTOR
COPPER TAPE SOLENOID
MK-2
 $R = 105 \times 10^{-3} \Omega$ (RM TEMP)
12 P. 1486 A-2



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LAWRENCE BERKELEY LABORATORY
UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA 94720