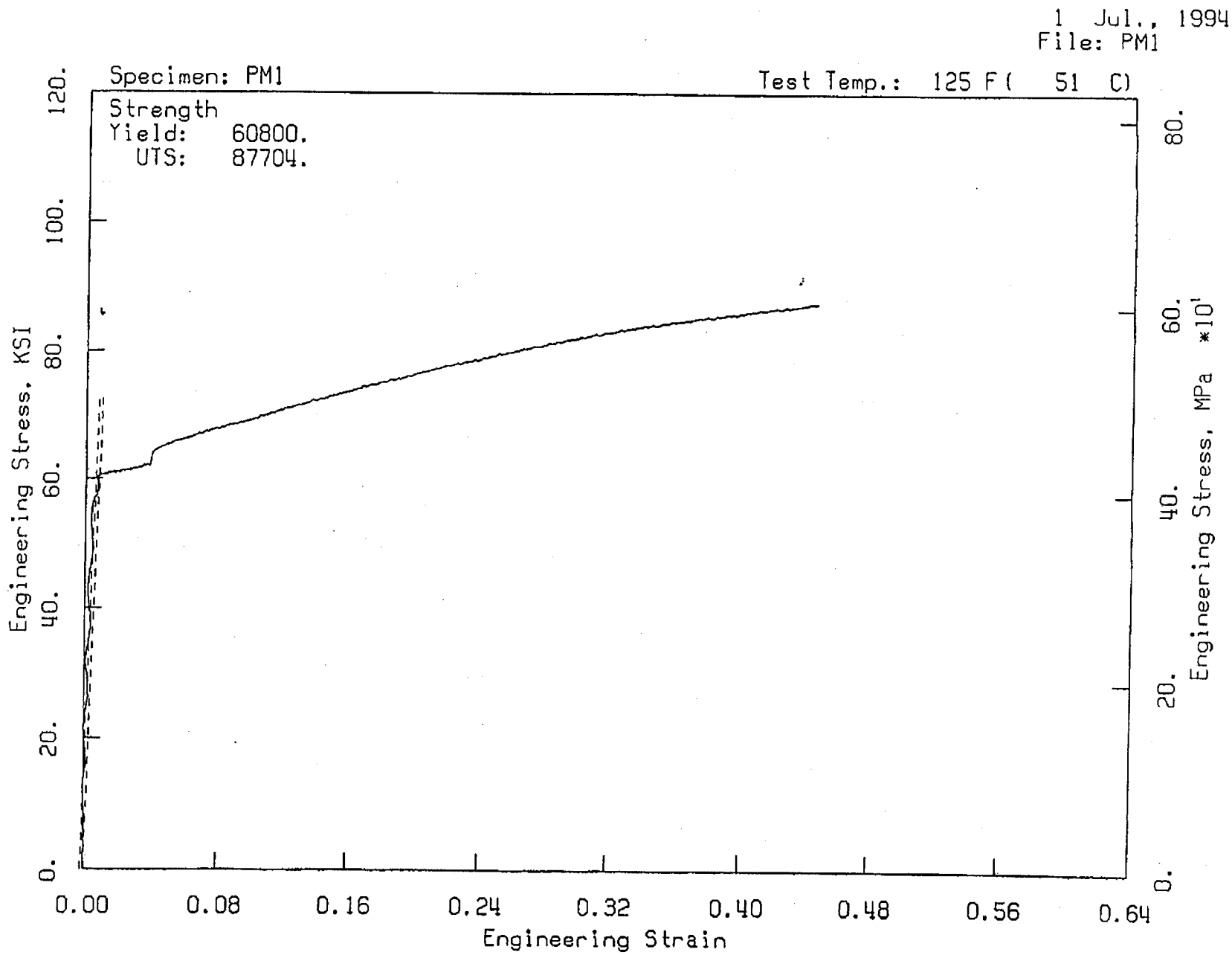

1 Jul., 1994
File: PM1
Specimen: PM1
Test Temp.: 125 F (51 C)
Strength
Yield: 60800.
UTS: 87704.
Engineering Stress, KSI
Engineering Stress, MPa *10¹
Engineering Strain
0.
20.
40.
60.
80.
100.
120.
0.00
0.08
0.16
0.24
0.32
0.40
0.48
0.56
0.64

TADS
<890928.1259> TENSILE DATA ANALYSIS

1 Jul., 1994
File: PM2

SPECIMEN ID PARAMETERS

Date of test	7/1/94	
Operator	BJV	
Project number	0135	
Specimen	PM2	
Test temperature	125 F	52. C
Material	BASE	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1095 in	2.78 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

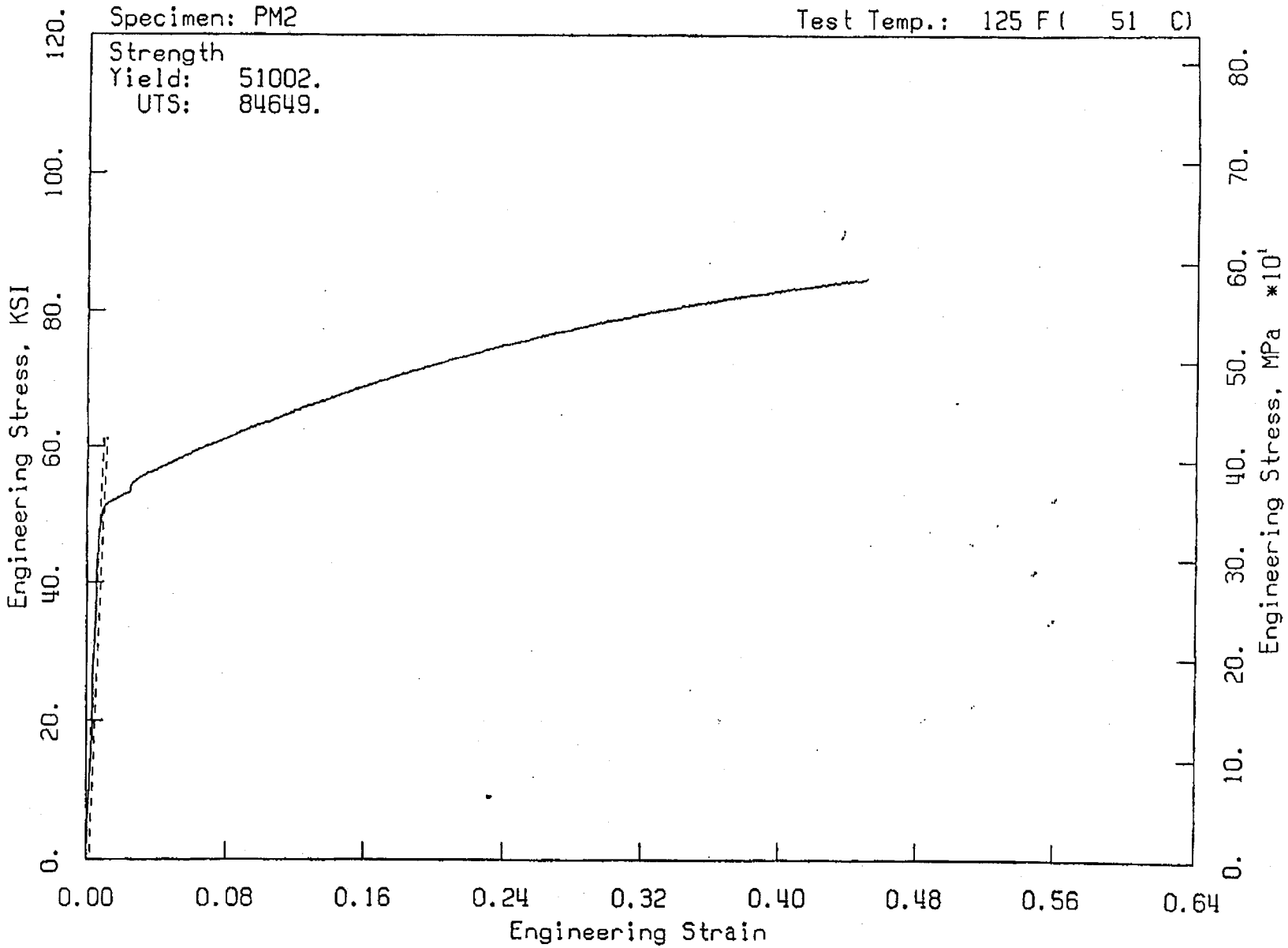
Yield Strength	51002. psi	351.7 MPa
Tensile Strength	84649. psi	583.7 MPa
Fracture Load	4155. lb	18482. N
Fracture Stress	441237. psi	3042.3 MPa
Fracture Strength	84649. psi	583.7 MPa
Young's Modulus	6.35E+06 psi	4.38E+04 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4475	
Total Elongation (Ext) . .	.4475	
Reduction in Diameter. . .	56.2 %	
Reduction in Area	80.8 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	12.410	.028
N	3.603	.048

1 Jul., 1994
File: PM2



TADS
<890928.1259> TENSILE DATA ANALYSIS

1 Jul., 1994
File: PM4

SPECIMEN ID PARAMETERS

Date of test	7/1/94	
Operator	BJV	
Project number	0135	
Specimen	PM4	
Test temperature	125 F	52. C
Material	BASE	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0075 in/min	.190 mm/min
Second. disp rate	.0800 in/min	2.03 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1028 in	2.61 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

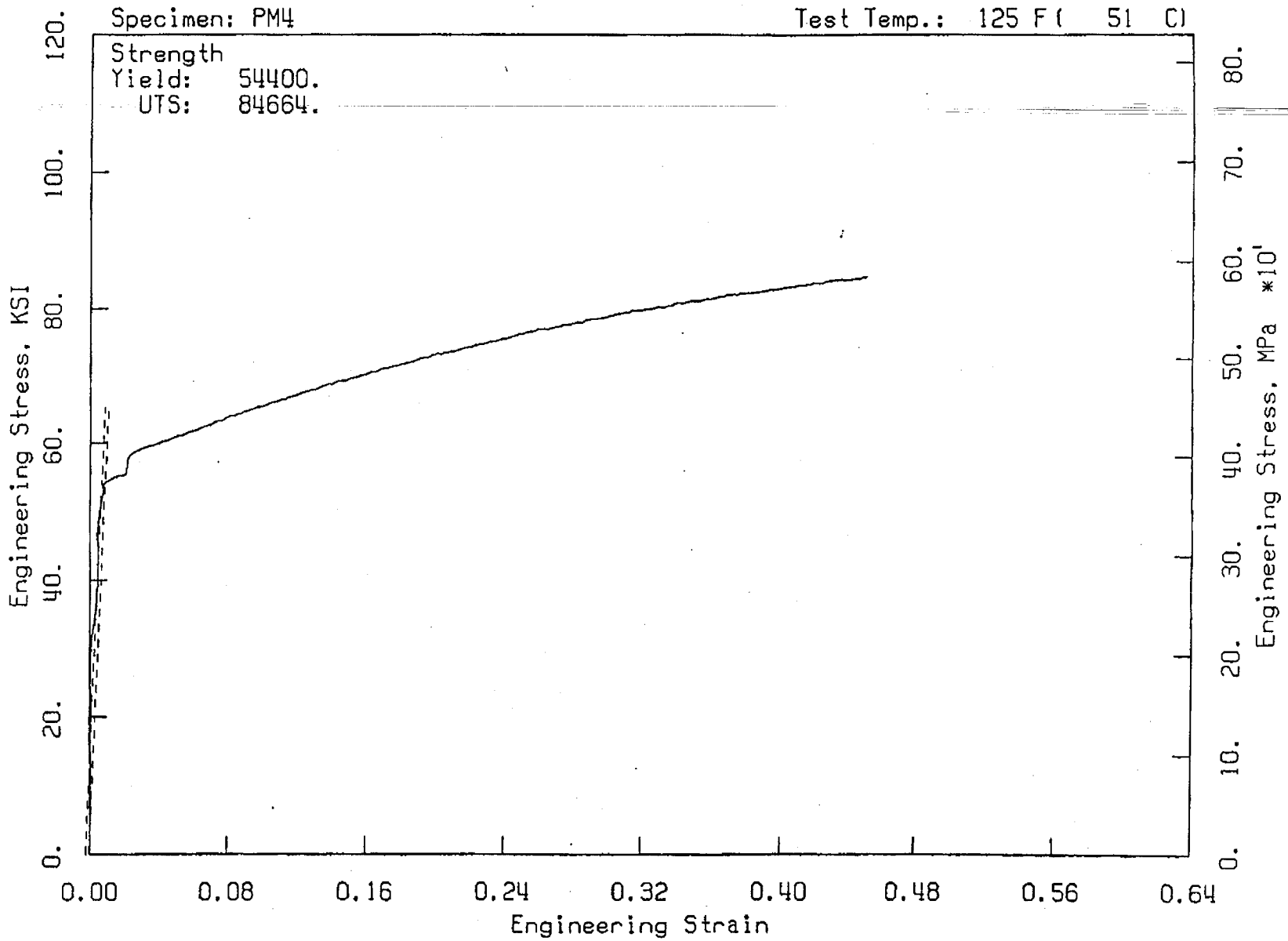
Yield Strength	54400. psi	375.1 MPa
Tensile Strength	84664. psi	583.8 MPa
Fracture Load	4156. lb	18486. N
Fracture Stress	500717. psi	3452.4 MPa
Fracture Strength	84664. psi	583.8 MPa
Young's Modulus	6.04E+06 psi	4.16E+04 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4480	
Total Elongation (Ext) . .	.4480	
Reduction in Diameter. . .	58.9 %	
Reduction in Area	83.1 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	8.975	.038
N	4.371	.077

1 Jul., 1994
File: PM4



TADS
<890928.1259> TENSILE DATA ANALYSIS

27 Jun., 1994
File: PM5

SPECIMEN ID PARAMETERS

Date of test	6/27/94	
Operator	BJV	
Project number	0135	
Specimen	PM5	
Test temperature	125 F	52. C
Material	BASE	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1095 in	2.78 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

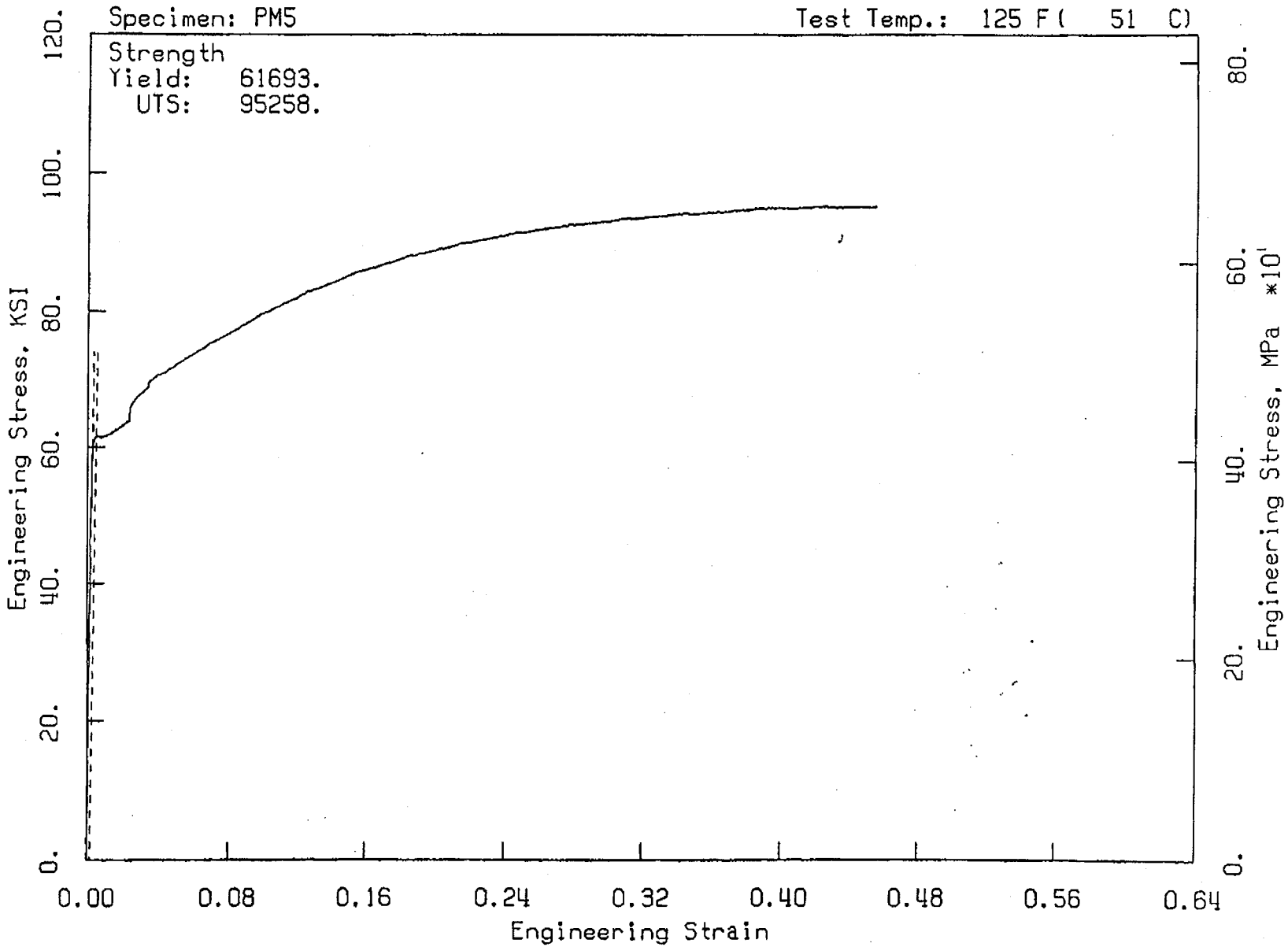
Yield Strength	61693. psi	425.4 MPa
Tensile Strength	95258. psi	656.8 MPa
Fracture Load	4671. lb	20777. N
Fracture Stress	496025. psi	3420.1 MPa
Fracture Strength	95159. psi	656.1 MPa
Young's Modulus	1.95E+07 psi	1.34E+05 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4223	
Total Elongation (Ext) . .	.4523	
Reduction in Diameter. . .	56.2 %	
Reduction in Area	80.8 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	12.284	.013
N	3.436	.023

27 Jun., 1994
File: PM5



TADS
<890928.1259> TENSILE DATA ANALYSIS

27 Jun., 1994
File: PM6

SPECIMEN ID PARAMETERS

Date of test	6/27/94	
Operator	BJV	
Project number	0135	
Specimen	PM6	
Test temperature	125 F	52. C
Material	BASE	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1053 in	2.67 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

Yield Strength	52201. psi	359.9 MPa
Tensile Strength	87774. psi	605.2 MPa
Fracture Load	4309. lb	19165. N
Fracture Stress	495224. psi	3414.6 MPa
Fracture Strength	87774. psi	605.2 MPa
Young's Modulus	1.47E+07 psi	1.02E+05 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4047	
Total Elongation (Ext) . .	.4397	
Reduction in Diameter. . .	57.9 %	
Reduction in Area	82.3 %	

CURVE FIT

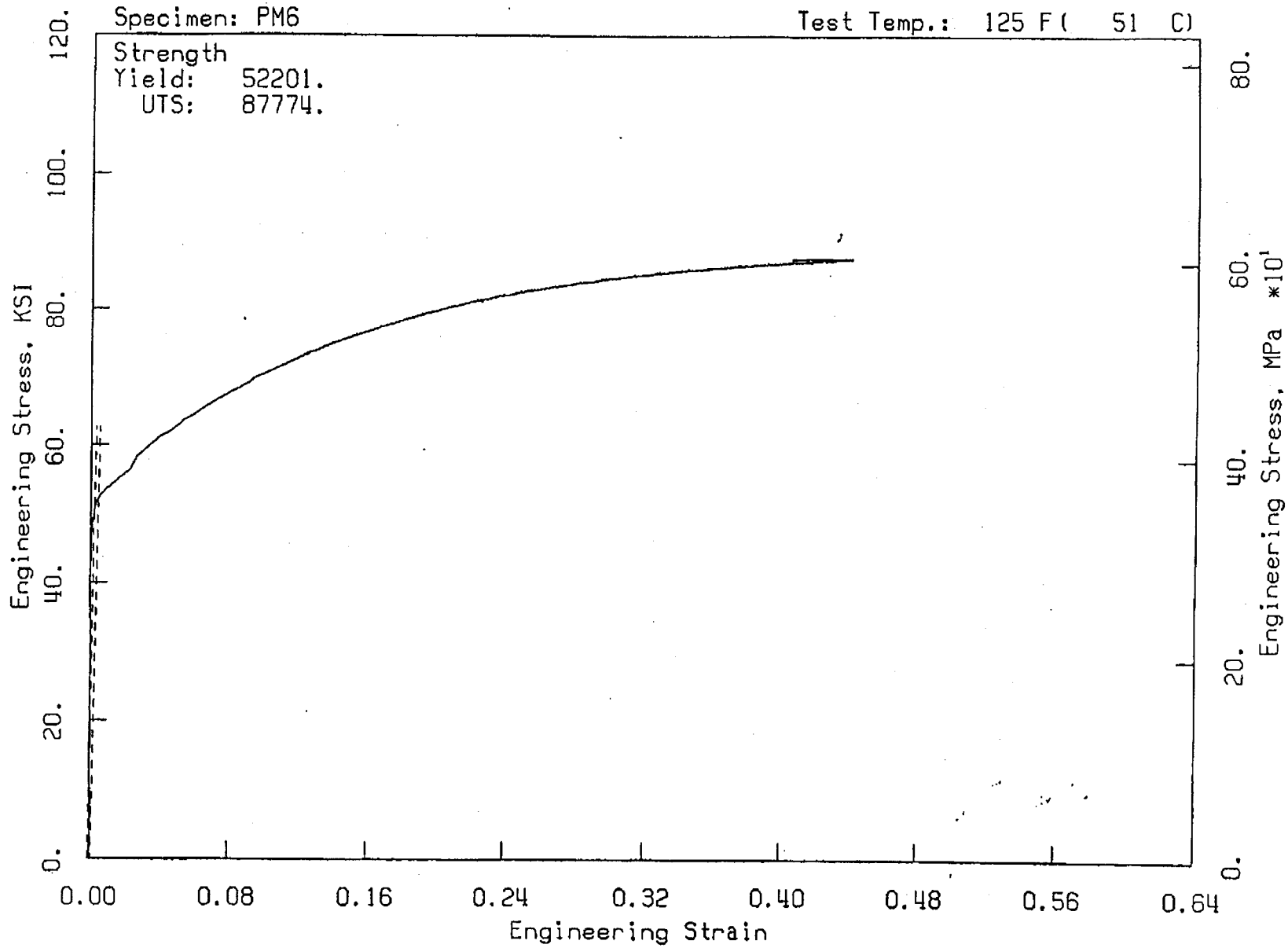
Ramberg-Osgood Equation

		Fit Std Dev
Alpha	11.699	.026
N	3.403	.037

27 Jun., 1994
File: PM6

Specimen: PM6

Test Temp.: 125 F (51 C)



TADS
<890928.1259> TENSILE DATA ANALYSIS

1 Jul., 1994
File: PM7

SPECIMEN ID PARAMETERS

Date of test	7/1/94	
Operator	BJV	
Project number	0125	
Specimen	PM7	
Test temperature	125 F	52. C
Material	BASE	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0075 in/min	.190 mm/min
Second. disp rate	.0800 in/min	2.03 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1032 in	2.62 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

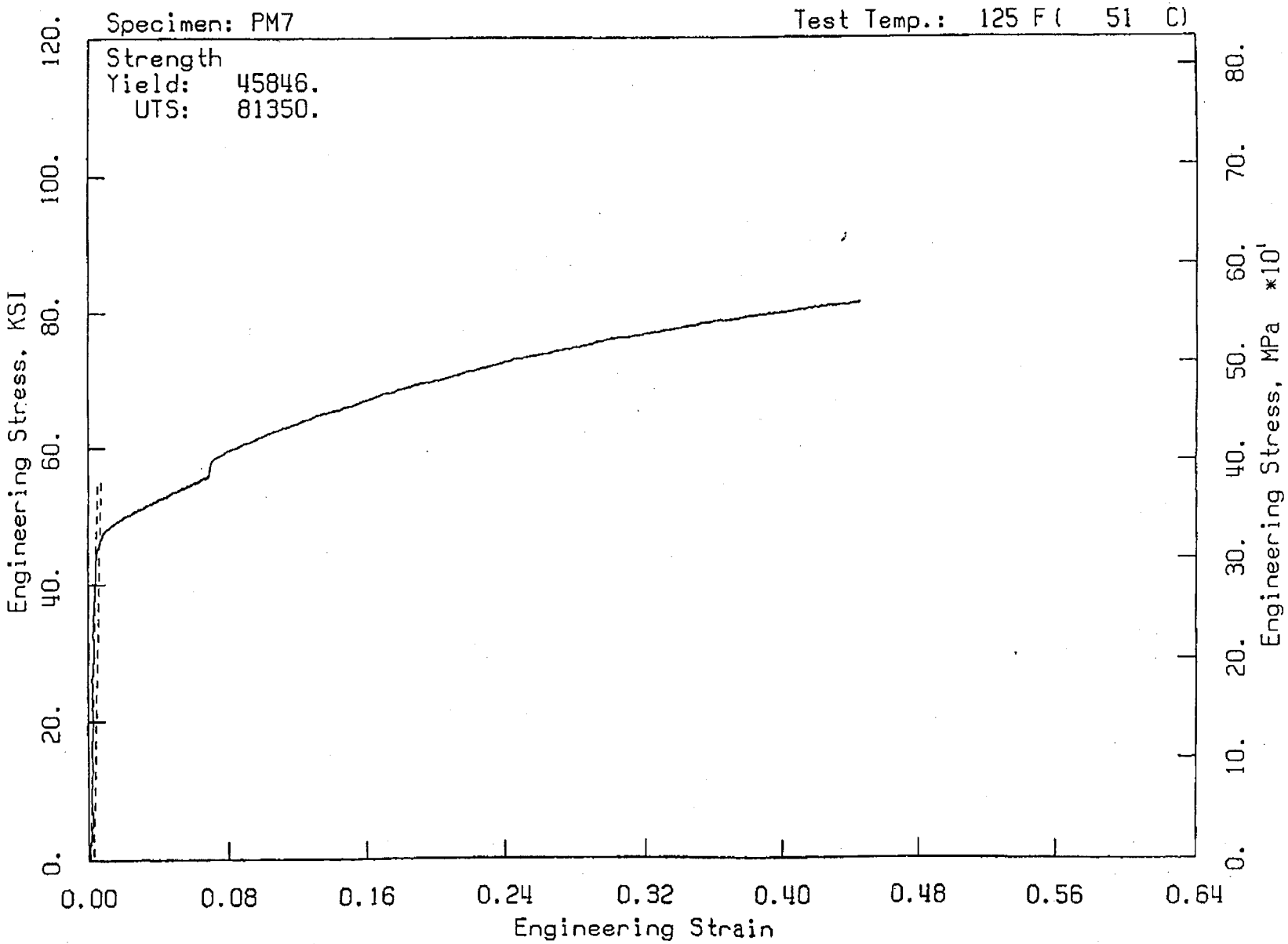
Yield Strength	45846. psi	316.1 MPa
Tensile Strength	81350. psi	560.9 MPa
Fracture Load	3993. lb	17762. N
Fracture Stress	477860. psi	3294.8 MPa
Fracture Strength	81350. psi	560.9 MPa
Young's Modulus	1.28E+07 psi	8.80E+04 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4432	
Total Elongation (Ext) . .	.4432	
Reduction in Diameter. . .	58.7 %	
Reduction in Area	83.0 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	10.457	.024
N	3.749	.054

1 Jul., 1994
File: PM7



TADS
<890928.1259> TENSILE DATA ANALYSIS

28 Jun., 1994
File: HAZ1

SPECIMEN ID PARAMETERS

Date of test	6/27/94	
Operator	BJV	
Project number	0135	
Specimen	HAZ1	
Test temperature	125 F	52. C
Material	HAZ	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1139 in	2.89 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

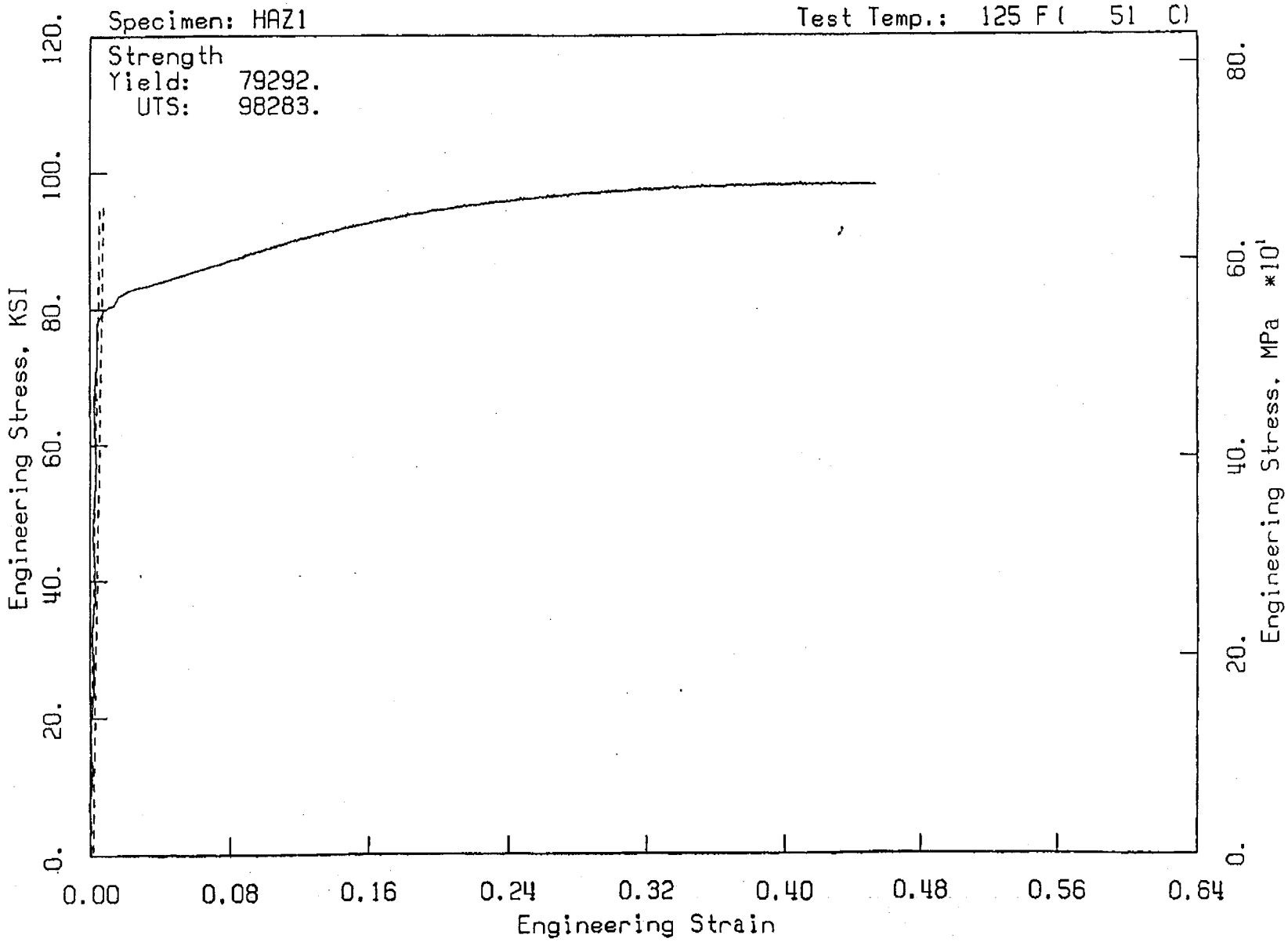
Yield Strength	79292. psi	546.7 MPa
Tensile Strength	98283. psi	677.7 MPa
Fracture Load	4805. lb	21373. N
Fracture Stress	471598. psi	3251.7 MPa
Fracture Strength	97890. psi	675[illegible]0 MPa
Young's Modulus	1.49E+07 psi	1.03E+05 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4056	
Total Elongation (Ext) . .	.4494	
Reduction in Diameter. . .	54.4 %	
Reduction in Area	79.2 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	12.627	.026
N	4.422	.065

28 Jun., 1994
File: HAZ1



TADS
<890928.1259> TENSILE DATA ANALYSIS

27 Jun., 1994
File: HAZ2

SPECIMEN ID PARAMETERS

Date of test	6/27/94	
Operator	BJV	
Project number	0135	
Specimen	HAZ2	
Test temperature	125 F	52. C
Material	HAZ	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1081 in	2.75 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

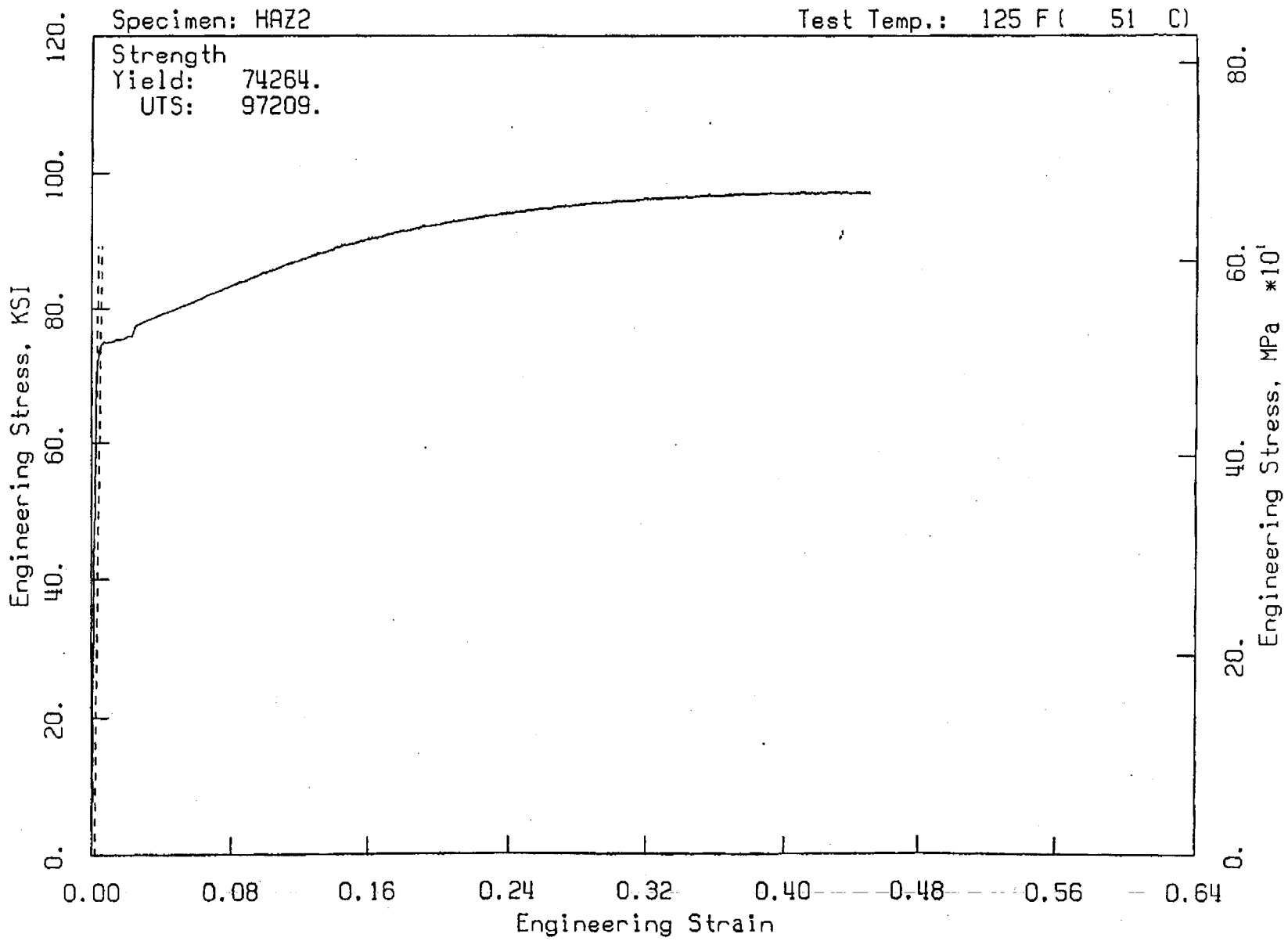
Yield Strength	74264. psi	512.1 MPa
Tensile Strength	97209. psi	670.3 MPa
Fracture Load	4757. lb	21160. N
Fracture Stress	517864. psi	3570.7 MPa
Fracture Strength	96914. psi	668.2 MPa
Young's Modulus	2.22E+07 psi	1.53E+05 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4262	
Total Elongation (Ext) . .	.4470	
Reduction in Diameter. . .	56.7 %	
Reduction in Area	81.3 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	15.942	.011
N	3.604	.023

27 Jun., 1994
File: HAZ2



TADS
<890928.1259> TENSILE DATA ANALYSIS

27 Jun., 1994
File: HAZ3

SPECIMEN ID PARAMETERS

Date of test	6/27/94	
Operator	BJV	
Project number	0135	
Specimen	HAZ3	
Test temperature	125 F	52. C
Material	HAZ	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1050 in	2.67 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

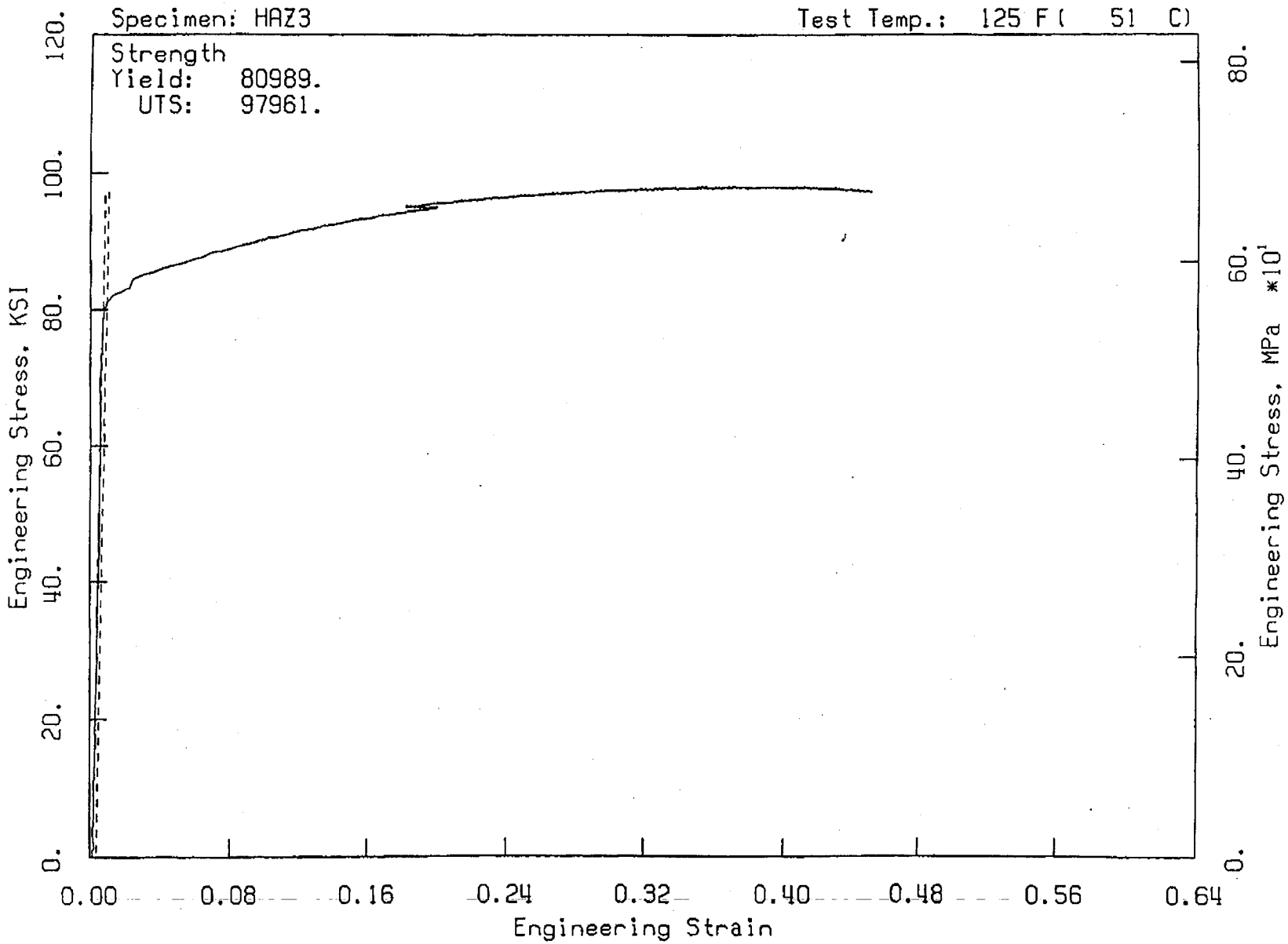
Yield Strength	80989. psi	558.4 MPa
Tensile Strength	97961. psi	675.4 MPa
Fracture Load	4766. lb	21199. N
Fracture Stress	550397. psi	3795.0 MPa
Fracture Strength	97090. psi	669.4 MPa
Young's Modulus	1.44E+07 psi	9.96E+04 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.3496	
Total Elongation (Ext) . .	.4482	
Reduction in Diameter. . .	58.0 %	
Reduction in Area	82.4 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	11.857	.023
N	4.799	.064

27 Jun., 1994
File: HAZ3



TADS
<890928.1259> TENSILE DATA ANALYSIS

27 Jun., 1994
File: HAZ4

SPECIMEN ID PARAMETERS

Date of test	6/27/94	
Operator	BJV	
Project number	0135	
Specimen	HAZ4	
Test temperature	125 F	52. C
Material	HAZ	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1060 in	2.69 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

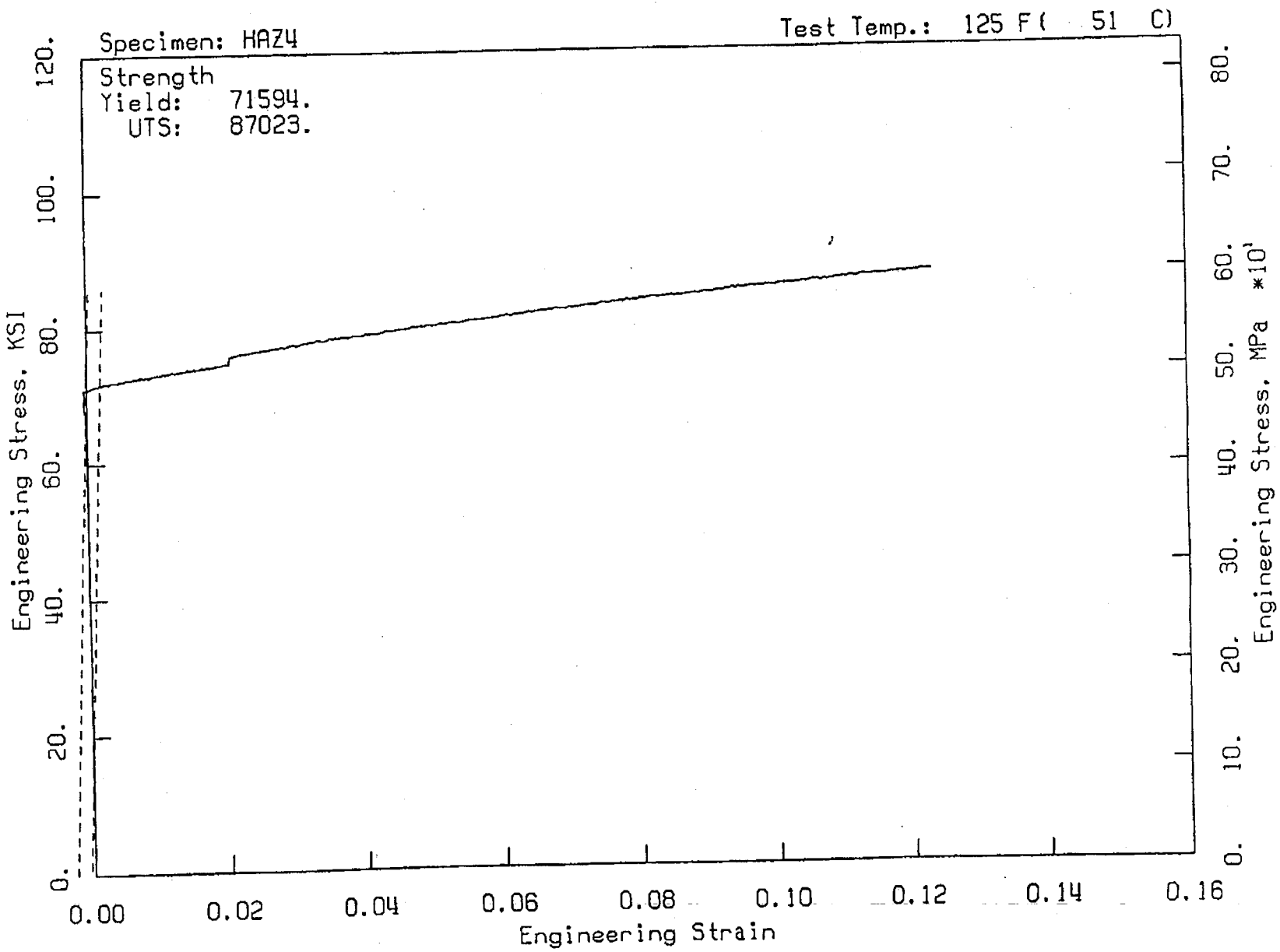
Yield Strength	71594. psi	493.6 MPa
Tensile Strength	87023. psi	600.0 MPa
Fracture Load	4269. lb	18990. N
Fracture Stress	483789. psi	3335.7 MPa
Fracture Strength	86974. psi	599.7 MPa
Young's Modulus	2.96E+07 psi	2.04E+05 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.1198	
Total Elongation (Ext) . .	.1203	
Reduction in Diameter. . .	57.6 %	
Reduction in Area	82.0 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	4.113	.018
N	8.528	.094

27 Jun., 1994
File: HAZ4



TADS
<890928.1259> TENSILE DATA ANALYSIS

27 Jun., 1994
File: HAZ4A

SPECIMEN ID PARAMETERS

Date of test	6/27/94	
Operator	BJV	
Project number	0135	
Specimen	HAZ4A	
Test temperature	125 F	52. C
Material	HAZ	
Modulus	29575. ksi	203920. MPa
Cross Section type	CIRC	
Fluence	0.0000E+00	
Technical Specification . .	TP-78-12	

SET UP PARAMETERS

Initial disp rate	.0100 in/min	.254 mm/min
Second. disp rate	.0400 in/min	1.02 mm/min
Gauge length (Ext)	1.000 in	25.40 mm

DIMENSIONAL

Diameter INITIAL	.2500 in	6.35 mm
FINAL	.1060 in	2.69 mm
Axial Fidical INITIAL . .	1.0000 in	25.40 mm
FINAL . .	.0000 in	.00 mm

TEST RESULTS

Yield Strength	89785. psi	619.1 MPa
Tensile Strength	95769. psi	660.3 MPa
Fracture Load	4692. lb	20870. N
Fracture Stress	531697. psi	3666.0 MPa
Fracture Strength	95586. psi	659.1 MPa
Young's Modulus	6.05E+07 psi	4.17E+05 MPa
Elongation (fiducial). . .	-1.0000	
Uniform Elongation (Ext) .	.4429	
Total Elongation (Ext) . .	.4476	
Reduction in Diameter. . .	57.6 %	
Reduction in Area	82.0 %	

CURVE FIT

Ramberg-Osgood Equation

		Fit Std Dev
Alpha	13.185	.023
N	5.741	.087