fermi
national accelerator laboratory

TM-743
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M1 USERS' GUIDE

Stan Ecklund
May, 1977

The following material is an attempt to provide some documentation on the M1 beam line in the Meson Laboratory. In addition, the following references will be useful to the User of the M1 beam.

1. Meson Laboratory Preliminary Design Report. J. R. Orr and A. L. Read

2. Magnet Data, TM-632. T. E. Toohig

3. Controls Group Manual

4. Transport Users' Manual. K. L. Brown, R. Rothacker, D. C. Carey, C. Iselin, March 1974, NAL-91

5. M1 Beam Survey. Phys. Letter 51B, 303, August, 1974. NAL-Pub 74/13-EXP

6. Septum Magnets for Secondary Beams at NAL. R. Carrigan, J. Jagger, G. Michelassi, K. Pretzl, J. Satti, S. Snowdon, and A. Wehmann, IEEE Transactions on Nuclear Science, Vol NS-20 #3, 3 June 1973

7. On Pion Production in High Energy Collisions. C. L. Wang, BNL 18798, Phys Letters B

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1. M1 Basic Properties

The M1 beam is a three-stage beam capable of transporting charged particles with momentum up to 400 GeV/c. The production angle is nominally 3.9 mr but may be varied (after August, 1977) from near 0 to over 5 mr by steering the incident proton beam. At the first focus, the beam is dispersed in momentum by 30 mm/%. The beam is momentum recombined at and after the second focus. The beam is switched between east and west branches by a 12 mr bend at the second focus. The third stage incorporates a parallel region with two differential Cerenkov counters. This allows π-K-P separation up to about 250 GeV/c (350 GeV/c after August, 1977). An additional threshold or pseudodifferential Cerenkov counter, 100 feet long, is also located in the third stage. Variable collimators are positioned so as to control the apertures and flux of the beam. Profile monitors are located at each focus and at each end of the third stage parallel region.

The basic properties are noted in Table I.

TABLE I

Target			
Width		±0.79	mm
Height		±0.79	mm
Length		203.0	mm
Material		Be	
Production Angle	θ_p	3.91	mr
Lab Angle	θ_v	0.0	mr
	θ_h	-3.0	mr

		Medium Tune		High Tune	
Momentum Range	p_{min}	20	GeV/c	20	GeV/c
	p_{max}	250	GeV/c	400	GeV/c
Angle Aperature Limit	$\Delta\theta_h$	+ 0.0 - 0.7	mr	+ 0.0 - 0.5	mr mr
	$\Delta\theta_v$	± 1.4	mr	± 0.6	mr
Momentum Aperature Limit	$\Delta p/p$	± 2.0	%	± 2.0	%
Solid Angle		1.5	μster	0.5	μster
Dispersion at Momentum Slit		30.0	mm/%	30.0	mm/%
Angular Divergence in Cerenkov Region	$\Delta\theta_h$	± 0.1	mr	$\Delta\theta_h$ = 0.05 mr	
	$\Delta\theta_v$	± 0.1	mr	$\Delta\theta_v$ = 0.05 mr	
Measured Fluxes Per 10^{13} Incident 400 GeV Protons		3×10^7 @-175		10^6 @ -280 4×10^5 @ -300 3×10^4 @ -350 2×10^7 @ +300	

2. Guide to Printout

All distances are in feet, and angles in radians.

The coordinate system is the "Meson" system, Z axis along M3, X horizontal positive to the west.

The program lists the coordinates of the Beam Center Line as Z and XBCL. THETA is the angle of the beam. XN is the X coordinate of the magnet. This is the magnet center except in the case of the septum dipoles (B1, B2, B3, B4, B4A), when it refers to the outside edge on the septum side. The OFFSET is the horizontal offset from a reference line of the magnet. The offset lines are:

M1.1	3 mr beam line from target
M1.2	Line connecting new bend points 1 and 2
M1.3	Line connecting new bend points 2 and 3
M1.4	M1 West beam line

M1 400 GEV B LINE MAY 1977, STAN ECKLUND, FILE BSM1.DAT[105,7]

ZCENT	XCENT	GLF	LENGTH	TYPE	LABEL	CONTROL	EXCIT	SLOPE	ILIM	IMAX	COMMENTS
0.0	0.00	-3.00	0.00		0F						EPB TARGET
20.7	-0.06	-3.00	8.50	COLL	C2						TRAIN COLLIMATOR
33.7	-0.09	-3.00	8.50	COLL	C3						TRAIN COLLIMATOR
46.7	-0.12	-3.00	8.50	COLL	C4						TRAIN COLLIMATOR
45.1	-0.14	-3.00	0.00		DIK0						ENCLOSURE WALL
54.4	-0.17	-3.00	10.00	QUAD	Q1	E1Q1	19.54	A/KG/IN	70	100	SPLIT QUAD 1/2-3Q1
67.5	-0.20	-3.00	10.00	QUAD	Q2	E1Q2	19.54	A/KG/IN	70	100	SPLIT QUAD 1/2-3Q1
75.5	-0.24	-3.00	10.00	QUAD	Q3	E1Q3	19.54	A/KG/IN	70	100	SPLIT QUAD 1/2-3Q120
90.0	-0.28	-4.33	13.25	BEND	B1	1G1AI,BV	336.	A/KG	3000	4000	M1 SEPTUM DIPOLE
101.5	-0.34	-7.00	13.25	BEND	B2	1G1AI,BV	336.	A/KG	3000	4000	M1 SEPTUM DIPOLE
112.9	-0.43	-9.33	10.00	QUAD	Q4	E1Q4	19.54	A/KG/IN	70	100	SPLIT QUAD 1/2-3Q120
124.0	-0.52	-9.33	10.00	QUAD	Q5	E1Q4	19.54	A/KG/IN	70	100	SPLIT QUAD 1/2-3Q120
135.5	-0.63	-9.67	13.25	BEND	B3	1G1AI,BV	336.	A/KG	3000	4000	M1 SEPTUM DIPOLE
146.9	-0.75	-13.34	13.25	BEND	B4	1G1AI,BV	336.	A/KG	3000	4000	M1 SEPTUM DIPOLE
158.4	-0.91	-16.00	13.25	BEND	B5	1G1AI,BV	336.	A/KG	3000	4000	M1 SEPTUM DIPOLE
163.1	-1.06	-16.34	6.00	COLL	C3H	S1C3H					HOR. COLLIMATOR, VACUU
182.8	-1.34	-23.29	19.92	BEND	B6	1G2AI,BV	258.9	A/KG	4000	5000	B2 DIPOLE
224.0	-1.85	-27.98	19.92	BEND	B7	1G2AI,BV	258.9	A/KG	4000	5000	B2 DIPOLE
225.2	-2.53	-35.74	19.92	BEND	B8	1G2AI,BV	258.9	A/KG	4000	5000	B2 DIPOLE
239.5	-3.05	-37.69	5.00	QUAD	Q6	E1Q6	19.15	A/KG/IN	70	100	3Q60
244.9	-3.27	-37.69	2.50	VERN	V1	T1V1	40.	A/KG	65	100	VERT. VERNIER, GAP=4.5 IN
250.8	-3.50	-39.69	6.00	COLL	C4V	S1C4V					VERT. COLLIMATOR, VACUUM
261.4	-3.92	-39.69	10.00	QUAD	Q7	E1Q7	19.15	A/KG/IN	70	100	3Q120
269.0	-4.22	-39.69	0.00		DIK1						ENCLOSURE WALL
363.0	-7.95	-39.69	0.00		DIK2						ENCLOSURE WALL
371.9	-8.30	-39.69	3.00		BS1	1BS1					BEAM STOP (CRITICAL DEVICE)
403.7	-9.56	-39.69	7.00	QUAD	Q8	E1Q8	729.1	A/KG/IN	4000	5000	MAIN RING QUAD, 2" H X 5" W
413.6	-9.95	-39.69	4.33	QUAD	Q9	1Q8	729.1	A/KG/IN	4000	5000	MAIN RING QUAD, 2" H X 5" W
419.3	-10.18	-39.69	4.33	QUAD	Q10	1Q8	729.1	A/KG/IN	4000	5000	MAIN RING QUAD, 2" H X 5" W
428.9	-10.56	-39.69	2.50	VERN	V3	T1V3	50.	A/KG	65	100	VERT. VERNIER, GAP=5.0 IN
442.9	-11.12	-39.69	4.00	COLL	C5H	S1C5H					HOR. COLLIMATOR, VACUUM
448.3	-11.33	-39.69	4.00	COLL	C6V	S1C6V					VERT. COLLIMATOR, VACUUM
451.5	-11.46	-39.69	0.00		1F						FOCUS
451.5	-11.46	-39.69	0.00		PM1	1PH(V)450					PROFILE MONITOR, 2 MM X 2 MM
451.5	-11.46	-39.69	0.00		LC1						LEAD CONVERTER, VARIABLE THICKNESS
455.0	-11.60	-39.69	0.00		DIK3						ENCLOSURE WALL
650.0	-19.33	-39.69	0.00		DIK4						ENCLOSURE WALL
657.2	-19.61	-39.69	4.00	COLL	C7V	S1C7V					VERT. COLLIMATOR, VACUUM
662.2	-19.81	-39.69	2.50	COLL	C7H						FIXED 2.5" HORIZ. COLLIMATOR
666.2	-19.97	-39.69	2.50	VERN	V5	1V5	40.	A/KG	65	100	VERT. VERNIER, GAP=4.5 IN
679.9	-20.56	-44.19	19.92	BEND	B9	1G3AI,BV	258.9	A/KG	4000	5000	B2 DIPOLE
701.1	-21.59	-53.34	19.92	BEND	B10	1G3AI,BV	258.9	A/KG	4000	5000	B2 DIPOLE
729.3	-22.82	-65.49	19.92	BEND	B11	1G3AI,BV	258.9	A/KG	4000	5000	B2 DIPOLE
743.5	-24.24	-71.63	19.92	BEND	B12	1G3AI,BV	258.9	A/KG	4000	5000	B2 DIPOLE
761.4	-25.57	-76.20	10.00	QUAD	Q11	E1Q11	19.15	A/KG/IN	70	100	3Q120
772.9	-26.44	-76.20	10.00	QUAD	Q12	E1Q12	19.15	A/KG/IN	70	100	3Q120
781.9	-27.13	-76.20	5.00	QUAD	Q13A	E1Q13A	19.15	A/KG/IN	70	100	3Q120
792.8	-27.81	-76.20	10.00	QUAD	Q13	E1Q13	19.15	A/KG/IN	70	100	3Q120
802.3	-28.69	-76.20	10.00	QUAD	Q14	E1Q14	19.15	A/KG/IN	70	100	3Q120
810.0	-29.27	-76.20	0.00		DIK5						ENCLOSURE WALL
862.0	-34.77	-76.20	0.00		DIK6						ENCLOSURE WALL
883.4	-34.88	-76.20	0.00		2F						FOCUS
883.4	-34.88	-76.20	0.00		PM2	1PH(V)800					PROFILE MONITOR, 2 MM X 2 MM
886.1	-35.08	-76.20	4.00	COLL	C8H	S1C8H					HOR. COLLIMATOR, AIR
889.0	-35.30	-76.20	0.00		LC2						LEAD CONVERTER, VARIABLE THICKNESS
899.9	-35.14	-76.20	20.00	BEND	B13	1G4AI	133.2	A/KG	2000	5000	B2 DIPOLE WITH 1" SHIM
917.9	-37.52	-76.20	2.50	VERN	V6	T1V6	40.	A/KG	65	100	VERT. VERNIER, GAP=4.5 IN

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M1 400 GEV BEAM LINE MAY 1977, STAN ECKLUND. FILE DSM1.DAT[105,711]

ZCENT	XCENT	ANGLE	LENGTH	TYPE	LABEL	CONTROL	EXCIT	SLOPE	ILIN	IMAX	COMMENTS
1019.4	-44.57	-76.20	10.00	QUAD	Q15	E1Q15	19.15	A/KG/IN	70	100	30120
1025.0	-45.69	-76.20	10.00	QUAD	Q16	E1Q16	19.15	A/KG/IN	70	100	30120
1036.5	-46.57	-76.20	10.00	QUAD	Q17	E1Q17	19.15	A/KG/IN	70	100	30120
1051.1	-47.68	-76.20	10.00	QUAD	Q18	E1Q18	19.15	A/KG/IN	70	100	30120
1059.4	-48.32	-76.20	0.00		PM3	1PH(V)105					PROFILE MONITOR, 2 MM x 2 MM
1085.8	-50.33	-76.20	53.00		K1	1K1					CERENKOV COUNTER
1141.8	-54.61	-76.20	53.00		K2	1K2					CERENKOV COUNTER
1171.6	-56.89	-76.20	0.00		PM4	1PH(V)117					PROFILE MONITOR, 2 MM x 2 MM
1183.4	-57.56	-76.20	10.00	QUAD	Q19	E1Q19	19.15	A/KG/IN	70	100	30120
1195.1	-58.68	-76.20	10.00	QUAD	Q20	E1Q20	19.15	A/KG/IN	70	100	30120
1214.5	-59.55	-76.20	10.00	QUAD	Q21	E1Q21	19.15	A/KG/IN	70	100	30120
1221.2	-60.67	-76.20	10.00	QUAD	Q22	E1Q22	19.15	A/KG/IN	70	100	30120
1229.6	-61.31	-76.20	2.50	VERN	V7	T1V7	40.	A/KG	65	100	VERT. VERNIER, GAP=4.5 IN
1233.5	-61.61	-76.20	2.50	VERN	V8	T1V8	50.	A/KG	65	100	HOR. VERNIER, GAP=5.0"
1285.2	-65.79	-76.20	94.00		K3	1PW2					CERENKOV COUNTER
1437.5	-77.18	-76.20	0.00		3F	0.					FOCUS
1437.5	-77.18	-76.20	0.00		PM5	1PH(V)140					PROFILE MONITOR, 2 MM x 2 MM
1491.2	-81.29	-77.04	6.00	BEND	A456						BM109 (E456)
1493.2	-81.91	-73.64	6.00	BEND	B456						BM109 (E456)
1543.1	-85.40	-79.46	10.00	QUAD	Q23	E1Q23	19.15	A/KG/IN	70	100	30120
1553.1	-86.59	-79.46	10.00	QUAD	Q24	E1Q24	19.15	A/KG/IN	70	100	30120
1647.6	-93.73	-79.46	0.00		4F	0.					

M1 400 GEV BEAM LINE MAY 1977. STAN ECKLUND. FILE BSM1.DAT[105,711]

N	TYPE	NAME			Z	XBCL	THETA	XN	SET--REF	
1		BF	0.00		0.00	0.0000	-0.00300	0.0000	0.0000	M1.1
2	COLL	C2	8.50	ENT	16.50	-0.0495	-0.00300	-0.0495	0.0000	M1.1
				CENT	20.75	-0.0622	-0.00300	-0.0622	0.0000	M1.1
				EXIT	25.00	-0.0750	-0.00300	-0.0750	0.0000	M1.1
3	COLL	C3	8.50	ENT	26.50	-0.0795	-0.00300	-0.0795	0.0000	M1.1
				CENT	30.75	-0.0922	-0.00300	-0.0922	0.0000	M1.1
				EXIT	35.00	-0.1050	-0.00300	-0.1050	0.0000	M1.1
4	COLL	C4	8.50	ENT	36.50	-0.1095	-0.00300	-0.1095	0.0000	M1.1
				CENT	40.75	-0.1222	-0.00300	-0.1222	0.0000	M1.1
				EXIT	45.00	-0.1350	-0.00300	-0.1350	0.0000	M1.1
5		DIK0	0.00		45.10	-0.1353	-0.00300	-0.1353	0.0000	M1.1
6	QUAD	Q1	10.00	ENT	51.40	-0.1542	-0.00300	-0.1542	0.0000	M1.1
				CENT	56.40	-0.1692	-0.00300	-0.1692	-0.0000	M1.1
				EXIT	61.40	-0.1842	-0.00300	-0.1842	-0.0000	M1.1
7	QUAD	Q2	10.00	ENT	62.46	-0.1874	-0.00300	-0.1874	-0.0000	M1.1
				CENT	67.46	-0.2024	-0.00300	-0.2024	-0.0000	M1.1
				EXIT	72.46	-0.2174	-0.00300	-0.2174	-0.0000	M1.1
8	QUAD	Q3	10.00	ENT	73.53	-0.2206	-0.00300	-0.2206	-0.0000	M1.1
				CENT	78.53	-0.2356	-0.00300	-0.2356	-0.0000	M1.1
				EXIT	83.53	-0.2506	-0.00300	-0.2506	-0.0000	M1.1
9	BEND	B1	15.25	ENT	84.85	-0.2546	-0.00300	-0.0621	0.1725	M1.1
				CENT	89.98	-0.2768	-0.00433	-0.0975	0.1725	M1.1
				EXIT	95.10	-0.2990	-0.00567	-0.1129	0.1724	M1.1
10	BEND	B2	15.25	ENT	96.34	-0.3060	-0.00567	-0.1131	0.1759	M1.1
				CENT	101.47	-0.3419	-0.00700	-0.1341	0.1703	M1.1
				EXIT	106.59	-0.3778	-0.00833	-0.1552	0.1646	M1.1
11	QUAD	Q4	10.00	ENT	107.92	-0.3888	-0.00833	-0.3888	-0.0651	M1.1
				CENT	112.92	-0.4305	-0.00833	-0.4305	-0.0917	M1.1
				EXIT	117.92	-0.4722	-0.00833	-0.4722	-0.1184	M1.1
12	QUAD	Q5	10.00	ENT	118.99	-0.4811	-0.00833	-0.4811	-0.1241	M1.1
				CENT	123.99	-0.5228	-0.00833	-0.5228	-0.1503	M1.1
				EXIT	128.99	-0.5645	-0.00833	-0.5645	-0.1775	M1.1
13	BEND	B3	15.25	ENT	130.34	-0.5757	-0.00833	-0.3531	0.0379	M1.1
				CENT	135.46	-0.6252	-0.00967	-0.4026	0.0038	M1.1
				EXIT	140.59	-0.6748	-0.01100	-0.4522	-0.0304	M1.1
14	BEND	B4	15.25	ENT	141.79	-0.6861	-0.01100	-0.4655	-0.0401	M1.1
				CENT	146.92	-0.7513	-0.01234	-0.5287	-0.0879	M1.1
				EXIT	152.04	-0.8145	-0.01367	-0.5919	-0.1358	M1.1

BEND POINTS

	Z	X	THC	THS	DTF
1	0.00	0.0000	0.00000	-0.00300	-0.00302
2	126.45	-2.3793	-0.00320	-0.01634	-0.01334
3	2[illegible]4.31	-[illegible].6465	-0.01634	-0.03962	-0.02328
4	711.72	-21.7713	-0.03962	-0.07620	-0.03658

M1 400 GEV BEAM LINE MAY 1977, STAN ECKLUND. FILE BSM1.DAT[105,7[illegible]]

N	TYPE	NAM			Z	XBCL	THETA	XN	OFFSET--REF	
15	BEND	B5	13.25	ENT	153.27	-0.8312	-0.01367	-0.6086	-0.1488	M1.1
				CENT	158.39	-0.9041	-0.01500	-0.6855	-0.2103	M1.1
				EXIT	163.51	-0.9850	-0.01634	-0.7624	-0.2716	M1.1
16	COLL	C3H	6.00	ENT	165.15	-1.0116	-0.01634	-1.0116	-0.0000	M1.2
				CENT	168.15	-1.0606	-0.01634	-1.0606	-0.0000	M1.2
				EXIT	171.14	-1.1096	-0.01634	-1.1096	-0.0000	M1.2
17	BEND	B6	19.92	ENT	172.79	-1.1366	-0.01634	-1.2199	-0.0833	M1.2
				CENT	182.75	-1.3379	-0.02022	-1.3747	-0.0754	M1.2
				EXIT	192.71	-1.5392	-0.02410	-1.5295	-0.0676	M1.2
18	BEND	B7	19.92	ENT	194.04	-1.5714	-0.02410	-1.5617	-0.0780	M1.2
				CENT	204.00	-1.8500	-0.02798	-1.8403	-0.1939	M1.2
				EXIT	213.95	-2.1286	-0.03186	-2.1189	-0.3098	M1.2
19	BEND	B8	19.92	ENT	215.29	-2.1713	-0.03186	-2.1616	-0.3306	M1.2
				CENT	225.25	-2.5271	-0.03574	-2.5174	-0.5238	M1.2
				EXIT	235.20	-2.8829	-0.03962	-2.8732	-0.7170	M1.2
20	QUAD	Q6	5.00	ENT	237.02	-2.9550	-0.03962	-2.9550	-0.0000	M1.3
				CENT	239.51	-3.0540	-0.03962	-3.0540	-0.0000	M1.3
				EXIT	242.01	-3.1531	-0.03962	-3.1531	-0.0000	M1.3
21	VERN	V1	2.50	ENT	243.61	-3.2164	-0.03962	-3.2164	-0.0000	M1.3
				CENT	244.86	-3.2659	-0.03962	-3.2659	-0.0000	M1.3
				EXIT	246.11	-3.3154	-0.03962	-3.3154	-0.0000	M1.3
22	COLL	C4V	6.00	ENT	247.76	-3.3807	-0.03962	-3.3807	-0.0000	M1.3
				CENT	253.75	-3.4995	-0.03962	-3.4995	0.0000	M1.3
				EXIT	253.75	-3.6183	-0.03962	-3.6183	0.0000	M1.3
23	QUAD	Q7	10.00	ENT	256.38	-3.7226	-0.03962	-3.7226	0.0000	M1.3
				CENT	261.38	-3.9206	-0.03962	-3.9206	-0.0000	M1.3
				EXIT	266.37	-4.1186	-0.03962	-4.1186	-0.0000	M1.3
24		DIK1	3.00		269.00	-4.2226	-0.03962	-4.2226	-0.0000	M1.3
25		DIK2	2.00		363.00	-7.9487	-0.03962	-7.9487	-0.0000	M1.3
26		BS1	3.00	ENT	369.37	-8.2408	-0.03962	-8.2408	-0.0000	M1.3
				CENT	371.87	-8.3002	-0.03962	-8.3002	-0.0000	M1.3
				EXIT	373.36	-8.3596	-0.03962	-8.3596	-0.0000	M1.3
27	QUAD	Q8	7.00	ENT	400.18	-9.4224	-0.03962	-9.4224	-0.0000	M1.3
				CENT	403.67	-9.5611	-0.03962	-9.5611	-0.0000	M1.3
				EXIT	407.17	-9.6997	-0.03962	-9.6997	-0.0000	M1.3
28	QUAD	Q9	4.33	ENT	411.39	-9.8668	-0.03962	-9.8668	-0.0000	M1.3
				CENT	413.55	-9.9526	-0.03962	-9.9526	-0.0000	M1.3
				EXIT	415.72	-10.0384	-0.03962	-10.0384	-0.0000	M1.3

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N	TYPE	NAME			Z	XBCL	THETA	XN	OFFSET--REF	
9	QUAD	Q10	4.33	ENT	417.13	-10.0943	-0.03962	-10.0943	-0.0000	M1.3
				CENT	419.29	-10.1801	-0.03962	-10.1801	-0.0000	M1.3
				EXIT	421.46	-10.2659	-0.03962	-10.2659	-0.0000	M1.3
0	VERN	V3	2.50	ENT	427.70	-10.5134	-0.03962	-10.5134	-0.0000	M1.3
				CENT	428.95	-10.5630	-0.03962	-10.5630	-0.0000	M1.3
				EXIT	430.20	-10.6125	-0.03962	-10.6125	-0.0000	M1.3
1	COLL	C5H	4.00	ENT	440.95	-11.0387	-0.03962	-11.0387	-0.0000	M1.3
				CENT	442.95	-11.1179	-0.03962	-11.1179	-0.0000	M1.3
				EXIT	444.95	-11.1971	-0.03962	-11.1971	-0.0000	M1.3
2	COLL	C6V	4.00	ENT	446.30	-11.2537	-0.03962	-11.2537	-0.0000	M1.3
				CENT	448.30	-11.3299	-0.03962	-11.3299	-0.0000	M1.3
				EXIT	450.30	-11.4091	-0.03962	-11.4091	-0.0000	M1.3
3		1F	0.00		451.49	-11.4563	-0.03962	-11.4563	-0.0000	M1.3
4		PM1	2.00		451.49	-11.4563	-0.03962	-11.4563	-0.0000	M1.3
5		LC1	2.00		451.49	-11.4563	-0.03962	-11.4563	-0.0000	M1.3
6		DIK3	5.00		455.00	-11.5955	-0.03962	-11.5955	-0.0000	M1.3
7		DIK4	2.00		650.00	-19.3252	-0.03962	-19.3252	-0.0000	M1.3
8	COLL	C7V	4.00	ENT	655.24	-19.5327	-0.03962	-19.5327	-0.0000	M1.3
				CENT	657.24	-19.6119	-0.03962	-19.6119	-0.0000	M1.3
				EXIT	659.24	-19.6911	-0.03962	-19.6911	-0.0000	M1.3
9	COLL	C7H	2.50	ENT	660.96	-19.7597	-0.03962	-19.7597	-0.0000	M1.3
				CENT	662.21	-19.8092	-0.03962	-19.8092	-0.0000	M1.3
				EXIT	663.46	-19.8587	-0.03962	-19.8587	-0.0000	M1.3
0	VERN	V5	2.50	ENT	664.96	-19.9181	-0.03962	-19.9181	-0.0000	M1.3
				CENT	666.21	-19.9676	-0.03962	-19.9676	-0.0000	M1.3
				EXIT	667.46	-20.0171	-0.03962	-20.0171	-0.0000	M1.3
1	BEND	B9	19.92	ENT	669.95	-20.1157	-0.03962	-20.1043	0.0114	M1.3
				CENT	679.90	-20.5557	-0.04419	-20.5442	-0.0341	M1.3
				EXIT	689.84	-20.9956	-0.04876	-20.9841	-0.0796	M1.3
2	BEND	B10	19.92	ENT	691.13	-21.0585	-0.04876	-21.0470	-0.0914	M1.3
				CENT	701.08	-21.5003	-0.05334	-21.5779	-0.2282	M1.3
				EXIT	711.02	-22.1202	-0.05791	-22.1086	-0.3647	M1.3
3	BEND	B11	19.92	ENT	712.33	-22.1960	-0.05791	-22.1846	-0.3886	M1.3
				CENT	722.27	-22.8178	-0.06248	-22.8064	-0.6163	M1.3
				EXIT	732.21	-23.4397	-0.06705	-23.4282	-0.8439	M1.3
4	BEND	B12	19.92	ENT	733.56	-23.5378	-0.06705	-23.5194	-0.8813	M1.3
				CENT	743.50	-24.2435	-0.07163	-24.2320	-1.2900	M1.3
				EXIT	753.43	-24.9561	-0.07620	-24.9447	-1.5187	M1.3

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N	TYPE	NAME	L		Z	XBCL	THETA	XN	OFFSET--REF
45	QUAD	Q11	10.00	ENT	755.43	-25.1853	-0.07620	-25.1853	0.0000 M1.4
				CENT	761.42	-25.5659	-0.07620	-25.5659	-0.0000 M1.4
				EXIT	766.42	-25.9465	-0.07620	-25.9465	-0.0000 M1.4
46	QUAD	Q12	10.00	ENT	767.90	-26.0607	-0.07620	-26.0607	-0.0000 M1.4
				CENT	772.88	-26.4414	-0.07620	-26.4414	-0.0000 M1.4
				EXIT	777.87	-26.8220	-0.07620	-26.8220	-0.0000 M1.4
47	QUAD	Q13A	5.00	ENT	779.36	-26.9362	-0.07620	-26.9362	-0.0000 M1.4
				CENT	781.86	-27.1265	-0.07620	-27.1265	-0.0000 M1.4
				EXIT	784.35	-27.3168	-0.07620	-27.3168	-0.0000 M1.4
48	QUAD	Q13	10.00	ENT	785.85	-27.4310	-0.07620	-27.4310	-0.0000 M1.4
				CENT	790.83	-27.8116	-0.07620	-27.8116	-0.0000 M1.4
				EXIT	795.82	-28.1922	-0.07620	-28.1922	-0.0000 M1.4
49	QUAD	Q14	10.00	ENT	797.31	-28.3064	-0.07620	-28.3064	-0.0000 M1.4
				CENT	802.30	-28.6871	-0.07620	-28.6871	-0.0000 M1.4
				EXIT	807.28	-29.0677	-0.07620	-29.0677	-0.0000 M1.4
50		DIK5	0.00		810.00	-29.2746	-0.07620	-29.2746	-0.0000 M1.4
51		DIK6	0.00		881.99	-34.7717	-0.07620	-34.7717	-0.0000 M1.4
52		2F	0.00		883.37	-34.8768	-0.07620	-34.8768	-0.0000 M1.4
53		PH2	0.00		883.37	-34.8768	-0.07620	-34.8768	-0.0000 M1.4
54	COLL	C8H	4.00	ENT	884.09	-34.9316	-0.07620	-34.9316	-0.0000 M1.4
				CENT	886.78	-35.0839	-0.07620	-35.0839	-0.0000 M1.4
				EXIT	888.08	-35.2361	-0.07620	-35.2361	-0.0000 M1.4
55		LC2	0.00		888.97	-35.3046	-0.07620	-35.3046	-0.0000 M1.4
56	BEND	B13	20.00	ENT	889.97	-35.3807	-0.07620	-35.3807	-0.0000 M1.4
				CENT	899.94	-36.1420	-0.07620	-36.1420	-0.0000 M1.4
				EXIT	909.91	-36.9033	-0.07620	-36.9033	-0.0000 M1.4
57	VERN	V6	2.50	ENT	916.70	-37.4217	-0.07620	-37.4217	-0.0000 M1.4
				CENT	917.95	-37.5168	-0.07620	-37.5168	-0.0000 M1.4
				EXIT	919.20	-37.6120	-0.07620	-37.6120	-0.0000 M1.4
58	QUAD	Q15	10.00	ENT	1005.40	-44.1937	-0.07620	-44.1937	-0.0000 M1.4
				CENT	1010.39	-44.5743	-0.07620	-44.5743	-0.0000 M1.4
				EXIT	1015.37	-44.9550	-0.07620	-44.9550	-0.0000 M1.4
59	QUAD	Q16	10.00	ENT	1019.98	-45.3067	-0.07620	-45.3067	-0.0000 M1.4
				CENT	1024.97	-45.6873	-0.07620	-45.6873	-0.0000 M1.4
				EXIT	1029.95	-46.0679	-0.07620	-46.0679	-0.0000 M1.4
60	QUAD	Q17	10.00	ENT	1031.49	-46.1852	-0.07620	-46.1852	-0.0000 M1.4
				CENT	1036.47	-46.5658	-0.07620	-46.5658	-0.0000 M1.4
				EXIT	1041.46	-46.9464	-0.07620	-46.9464	-0.0000 M1.4

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N	TYPE	NAME	L		Z	XBCL	THETA	XN	OFFSET--REF
61	QUAD	Q18	12.00	ENT	1046.11	-47.3016	-0.07620	-47.3016	-0.0000 M1.4
				CENT	1051.10	-47.6823	-0.07620	-47.6823	-0.0000 M1.4
				EXIT	1056.08	-48.0629	-0.07620	-48.0629	-0.0000 M1.4
62		PM3	0.00		1059.40	-48.3164	-0.07620	-48.3164	-0.0000 M1.4
63		K1	53.00	ENT	1059.40	-48.3164	-0.07620	-48.3164	-0.0000 M1.4
				CENT	1086.83	-50.3337	-0.07620	-50.3337	-0.0000 M1.4
				EXIT	1112.25	-52.3511	-0.07620	-52.3511	-0.0000 M1.4
64		K2	53.00	ENT	1115.38	-52.5902	-0.07620	-52.5902	-0.0000 M1.4
				CENT	1141.80	-54.6075	-0.07620	-54.6075	-0.0000 M1.4
				EXIT	1168.23	-56.6248	-0.07620	-56.6248	-0.0000 M1.4
65		PM4	0.00		1171.65	-56.8860	-0.07620	-56.8860	-0.0000 M1.4
66	QUAD	Q19	12.00	ENT	1175.44	-57.1752	-0.07620	-57.1752	-0.0000 M1.4
				CENT	1180.42	-57.5559	-0.07620	-57.5559	-0.0000 M1.4
				EXIT	1185.41	-57.9365	-0.07620	-57.9365	-0.0000 M1.4
67	QUAD	Q20	12.00	ENT	1190.13	-58.2951	-0.07620	-58.2951	-0.0000 M1.4
				CENT	1195.09	-58.6757	-0.07620	-58.6757	-0.0000 M1.4
				EXIT	1200.07	-59.0563	-0.07620	-59.0563	-0.0000 M1.4
68	QUAD	Q21	12.00	ENT	1201.51	-59.1657	-0.07620	-59.1657	-0.0000 M1.4
				CENT	1206.49	-59.5463	-0.07620	-59.5463	-0.0000 M1.4
				EXIT	1211.48	-59.9270	-0.07620	-59.9270	-0.0000 M1.4
69	QUAD	Q22	10.00	ENT	1216.20	-60.2878	-0.07620	-60.2878	-0.0000 M1.4
				CENT	1221.19	-60.6684	-0.07620	-60.6684	-0.0000 M1.4
				EXIT	1226.17	-61.0491	-0.07620	-61.0491	-0.0000 M1.4
70	VERN	V7	2.50	ENT	1228.35	-61.2150	-0.07620	-61.2150	-0.0000 M1.4
				CENT	1229.59	-61.3102	-0.07620	-61.3102	-0.0000 M1.4
				EXIT	1230.84	-61.4053	-0.07620	-61.4053	-0.0000 M1.4
71	VERN	V8	2.50	ENT	1232.24	-61.5119	-0.07620	-61.5119	-0.0000 M1.4
				CENT	1233.48	-61.6071	-0.07620	-61.6071	-0.0000 M1.4
				EXIT	1234.73	-61.7022	-0.07620	-61.7022	-0.0000 M1.4
72		K3	94.80	ENT	1240.97	-62.1788	-0.07620	-62.1788	-0.0000 M1.4
				CENT	1288.23	-65.7870	-0.07620	-65.7870	-0.0000 M1.4
				EXIT	1335.49	-69.3952	-0.07620	-69.3952	-0.0000 M1.4
73		JF	0.00		1437.50	-77.1831	-0.07620	-77.1831	-0.0000 M1.4
74		PM5	0.00		1437.50	-77.1831	-0.07620	-77.1831	-0.0000 M1.4
75	BEND	A456	6.00	ENT	1480.22	-81.0559	-0.07620	-81.0559	-0.0000 M1.4
				CENT	1491.22	-81.2867	-0.07781	-81.2867	-0.0025 M1.4
				EXIT	1494.21	-81.5176	-0.07783	-81.5176	-0.0049 M1.4

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N	TYPE	NAME	L		Z	XBCL	THETA	XN	OFFSET--REF
76	BEND	B456	6.00	ENT	1496.20	-81.6731	-0.07783	-81.6731	-0.0082 M1.4
				CENT	1499.19	-81.9087	-0.07864	-81.9087	-0.0155 M1.4
				EXIT	1502.18	-82.1444	-0.07946	-82.1444	-0.0228 M1.4
77	QUAD	Q23	12.00	ENT	1538.13	-85.0066	-0.07946	-85.0066	-0.1403 M1.4
				CENT	1543.11	-85.4035	-0.07946	-85.4035	-0.1566 M1.4
				EXIT	1548.10	-85.8004	-0.07946	-85.8004	-0.1729 M1.4
78	QUAD	Q24	12.00	ENT	1553.08	-86.1973	-0.07946	-86.1973	-0.1892 M1.4
				CENT	1558.07	-86.5941	-0.07946	-86.5941	-0.2054 M1.4
				EXIT	1563.05	-86.9910	-0.07946	-86.9910	-0.2217 M1.4
79		4F	8.00		1647.63	-93.7259	-0.07946	-93.7259	-0.4982 M1.4

3. Individual Device Descriptions

3.1 Train

The Meson train has a target with cross section 1/16" x 1/16" and a length of 8". Downstream of the target are three collimators which define all the Meson beam lines. The M1 aperature of these collimators is given in Table 3.1.

TABLE 3.1

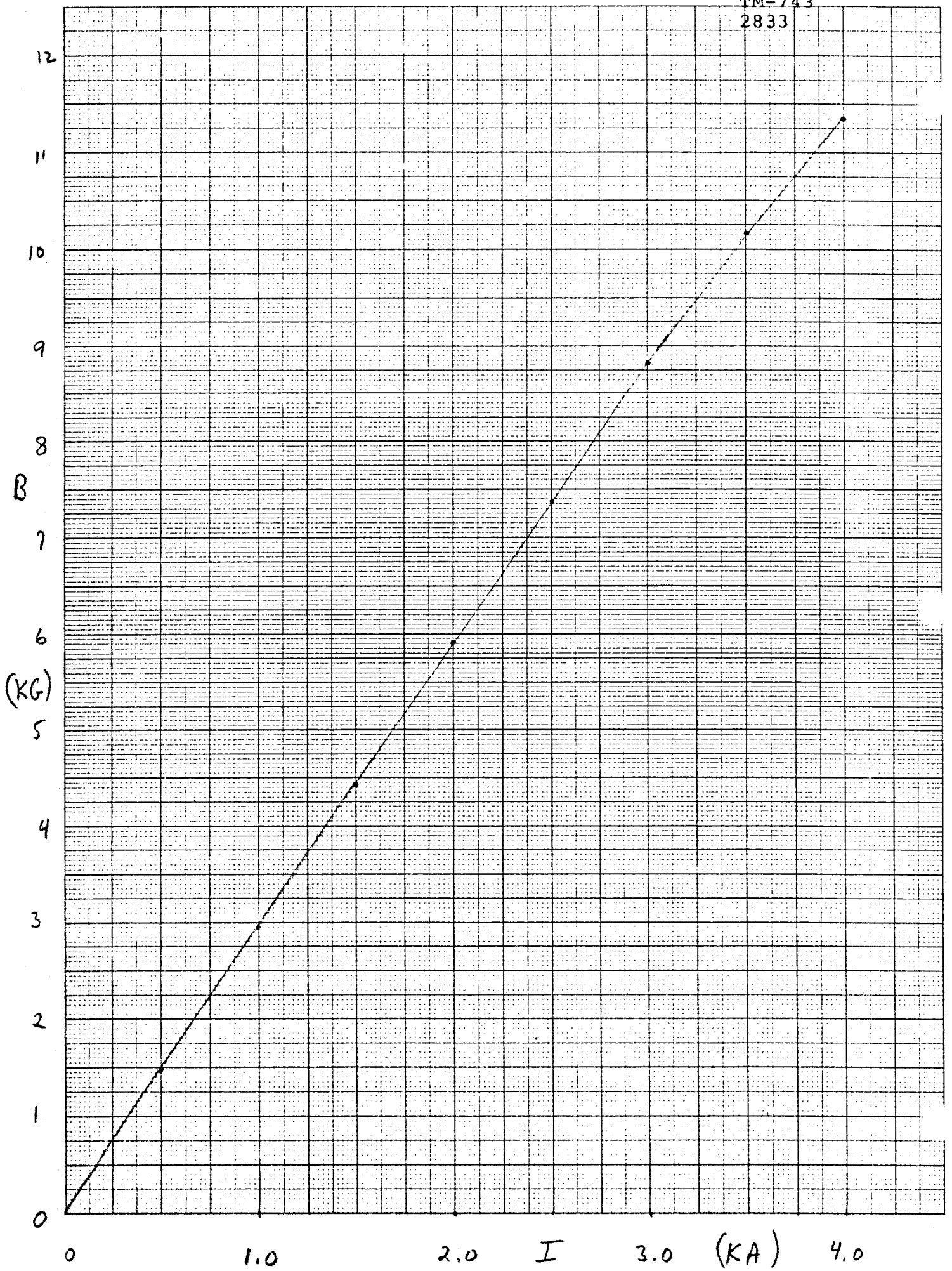
M1 Target Train Aperatures

	Z	$\Delta X(\Delta\theta_x)$	$\Delta Y(\Delta\theta_y)$	X_{inner}	X_{outer}	θ_{inner} (mr)	θ_{outer} (mr)
C_{2u}	198"	.28"	1.09"				
C_{2d}	300	.36	1.58				
C_{3u}	318	.33	1.62	.896"	1.235	2.818	3.884
C_{3d}	420	.40	2.11	1.200	1.613	2.857	3.840
C_{4u}	438	.41	2.19	1.255	1.680	2.865	3.836
C_{4d}	540	.48	2.69	1.560	2.058	2.889	3.211

3.2 M1 Septa Magnets

There are five 12-turn 10.25' long M1 septum magnets. The measured excitation curve is given in the Figure 3.2. Their maximum field is 11.4 kG.

fig 3.2 M1 Septum B5 (Serial #9)



3.3 M1 Half Quads

A septum quadrupole was made from half of a 3Q120 quadrupole. This results in a quadrupole with 10% less strength than a 3Q120 and a half circle aperture of diameter 3". They are used in the Front End Hall where the beam is still too close to the M2 line to use 3Q120's. An excitation curve is shown in the Figure 3.3.

Q1, Q2, and Q3 have separate power supplies. Q4 and Q5 are wired in series.

3.4 Collimators

The collimators are either 4' or 6' long, vacuum or air, horizontal or vertical, as noted in the element list. They are controlled from the Control console with Set-up and Set-down commands. Readout units are in inches. The first three collimators should be used to control the beam aperture, C4V the vertical angle aperture, and C5H the momentum aperture. The other collimators should be used to clean up the beam.

3.5 Vernier Magnets

The vernier magnets are 2½" long with a gap of 4". They run as high as 2.5 kG at 100 Amperes which gives

Fig 3.3 EXCITATION CURVE FOR ½ QUADS (Q1, Q2

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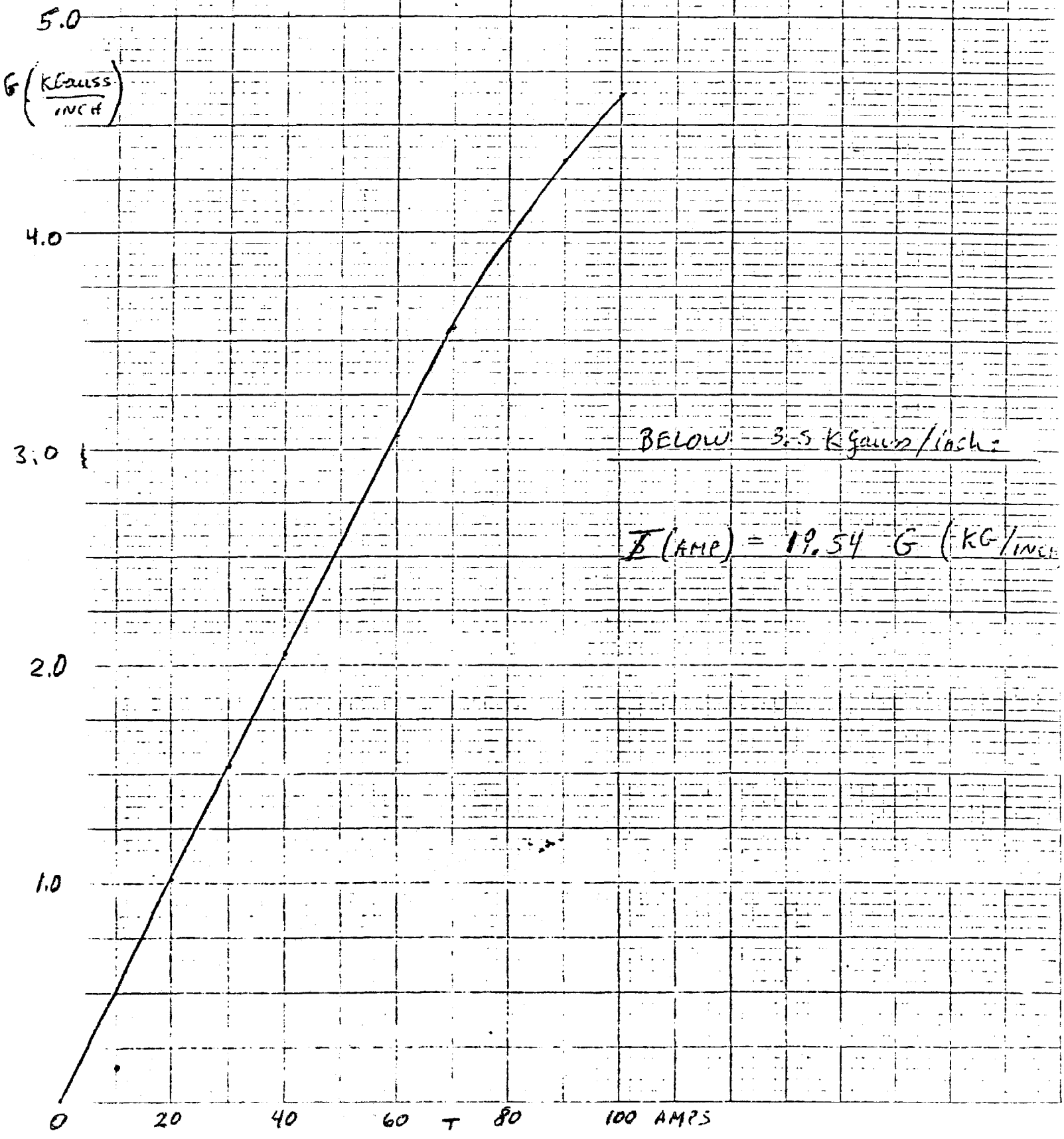

a transverse kick of 0.057 GeV (0.57 mr @ 100 GeV). A few vernier magnets have been opened up to a 5" gap and are proportionately weaker.

3.6 3Q120 Quadrupole Magnets

The 3Q120 is a 10' long magnet with a 3' diameter aperture. They are capable of gradients up to 5 kG/in with a linear excitation up to 4 kG/in. The "good" field aperture is estimated to be only 2" diameter.

3.7 Profile Monitors

There are two types of profile monitors. One for use in high fluxes is called a Gain Chamber. It is constructed like a PWC but run at low gain and has an analogue integrator attached to each wire. The monitor at 450' is of this type. The other type, a so-called TYPE A Chamber is a PWC with the usual amplifier-discriminator-scaler on each wire. Each scaler has a maximum count of 4093, so the entire set of scalers on a given plane is gated off when maximum count is reached by any one. The readout of both types of profile monitors is controlled by the control computer and displayed on the TV system.

3.8 B13

M1B13 is a Main Ring B2 Dipole which has been shimmed with ½" of steel both above and below the median plane. This allows a field as high as 26 kG at 5400 Amps. The vertical aperture is reduced to about 3/4" and the horizontal aperture is about 3". The measured excitation curve is shown in Figure 3.8.

3.9 Lead Converters

There are a set of lead converters which can be rotated into the beam remotely from the MS2 or MS3 service buildings.

3.10 Kycia Cerenkov Counter

There are facilities for two differential Cerenkov counters. They can be configured in a number of ways by changing the mirrors at the downstream end and the lengths. The table shows the various possibilities.

	K1		K2		
	θ_c (mr)	L (ft)	θ_c (mr)	L (ft)	Total Length
1.	15	53	15	53	106'
2.	7.5	106'	-	-	106'
3.	5.0	159'	-	-	159'
4.	7.5	106'	15	53	159'
5.	5.0	159'	15	53	212'

Fig 3.8

M1B13 Excitation Curve (B2 with 1" Shim)

Stan Eckland
13 Jan 77

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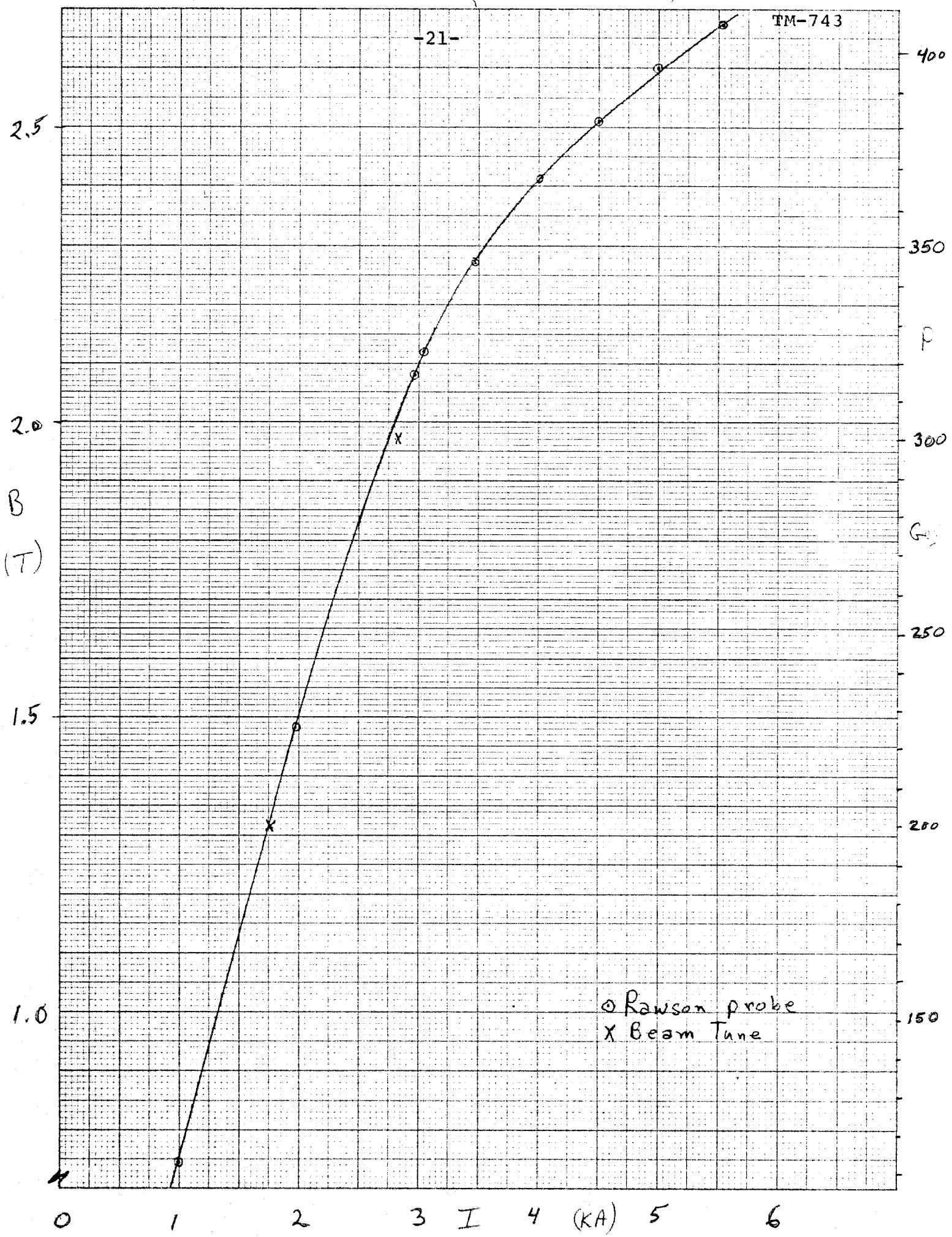

The upstream counter (K1) has a smaller aperture and is usually used for K identification. The angle of the mirror at the downstream end is remotely adjustable through the control system. A local control also exists. The readback has a calibration of .667 mr/volt.

The pressure in the counter is also controlled from the control system with the readback in PSIA.

Thr primary mirror focuses the Cerenkov light onto a set of mirror light pipes at the upstream end. Six phototubes (RCA-C31000 M) see light at the desired angle θ_c. The signals from these phototubes go to local amplifiers, discriminators, and a majority logic coincidence. Light outside the θ_c window hits six other phototubes (RCA-8575) which are used in anticoincidence. Both types of phototubes have high rate transistorized tube bases (C. Kerns model) with + high voltage. The signals are clipped and AC coupled. Two of the 8575 bases, one on each counter, have average anode current sensors. This is used to trip off the high voltage in case excessive light in the counter, which might damage the phototubes. (Over $15,000 is invested in phototubes for the two counters.) The trip level is adjustable so accidental trips under normal use should not be a problem.

3.11 Pruss Cerenkov Counter

This counter has two phototubes (C31000 M), one which see Cerenkov light at less than 5 mr to the counter axis, and one that covers greater than 5 mr. It may be used either as a threshold counter or pseudodifferential. Its pressure is controlled by the control computer with readback in PSIA units. A manual adjustment of the primary mirror can be made.

3.12 Beam Stop

There is a 3' long vacuum beam stop at 372'. (An additional 6' beam stop is under construction.) It is put in when there is a radiation trip and otherwise controlled from the users' control console.

3.13 Main Ring Quads

The Main Ring quadrupoles are used for field lenses at the first focus. They are wired in series with the first (Q8) opposite polarity to the second (Q9) and third (Q10). Q9 and Q10 are shorted out by a bus bar for operation over 300 GeV/c.

4. General Tune Considerations

There are a number of different tunes in use in the M1

line. Depending upon energy, desired intensity, spotsize and divergence, different quad excitations are needed. Five tunes are provided here as existence proofs.

Tunes are given for east and west branches, and maximum momenta of 250 GeV/c and 400 GeV/c. One tune is given for the west branch at 400 GeV with the longer parallel region (for K1 and K2). The different tunes differ primarily in how the front end is set. All the tunes have the focii at the same places (at the profile monitors PM1, PM2, and PM5). The first focus is momentum dispersed horizontally. After the second focus and the switch magnet B13 the beam is momemtum recombined. This recombination is obtained even in the case of the east branch, by proper tuning of the first stage. This feature was not possible previous to the October, 1976 upgrade. The crucial new feature is the quads Q6 and Q7 located after the second bend point. They are tuned to affect the recombination along with Q8, Q9, and Q10. Q6 and Q7 also provide the degree of freedom needed to adjust the vertical size of the beam in the parallel region (for K1 and K2) and, hence, the degree of parallelness. The 400 GeV tunes are more parallel than 250 GeV tunes to match the Cerenkov counter needs. Quadrupoles Q1 through Q5 are tuned as a doublet (DDDFF) to achieve the first focus. The 250 GeV tunes run a different

configuration in Q1 through Q5 (DDFFF) in order to gain more solid angle at the cost of a higher gradient for a given momentum. The field lenses Q8-Q10 are run as a doublet at the lower momentum.

```
TTTTTTTTTTTTTTT     FFFFFFFFFFFFFFF       222222222       555555555555555       000000000       EEEEEEEEEEEEEEE
TTTTTTTTTTTTTTT     FFFFFFFFFFFFFFF       222222222       555555555555555       000000000       EEEEEEEEEEEEEEE
TTTTTTTTTTTTTTT     FFFFFFFFFFFFFFF       222222222       555555555555555       000000000       EEEEEEEEEEEEEEE
      TTT           FFF                 222         222   555                 000         000   EEE
      TTT           FFF                 222         222   555                 000         000   EEE
      TTT           FFF                 222         222   555                 000         000   EEE
      TTT           FFF                             222   555555555           000      000000   EEE
      TTT           FFF                             222   555555555           000      000000   EEE
      TTT           FFF                             222   555555555           000      000000   EEE
      TTT           FFFFFFFFFFFF                222                 555       000   000   000   EEEEEEEEEEEE
      TTT           FFFFFFFFFFFF                222                 555       000   000   000   EEEEEEEEEEEE
      TTT           FFFFFFFFFFFF                222                 555       000   000   000   EEEEEEEEEEEE
      TTT           FFF                       222                       555   000000      000   EEE
      TTT           FFF                       222                       555   000000      000   EEE
      TTT           FFF                       222                       555   000000      000   EEE
      TTT           FFF                     222             555         555   000         000   EEE
      TTT           FFF                     222             555         555   000         000   EEE
      TTT           FFF                     222             555         555   000         000   EEE
      TTT           FFF                 222222222222222       555555555           000000000       EEEEEEEEEEEEEEE
      TTT           FFF                 222222222222222       555555555           000000000       EEEEEEEEEEEEEEE
      TTT           FFF                 222222222222222       555555555           000000000       EEEEEEEEEEEEEEE

DDDDDDDDDDDD            AAAAAAAAA       TTTTTTTTTTTTTTT
DDDDDDDDDDDD            AAAAAAAAA       TTTTTTTTTTTTTTT
DDDDDDDDDDDD            AAAAAAAAA       TTTTTTTTTTTTTTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAAAAAAAAAAAAAA         TTT
DDD         DDD     AAAAAAAAAAAAAAA         TTT
DDD         DDD     AAAAAAAAAAAAAAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDDDDDDDDDDD        AAA         AAA         TTT
DDDDDDDDDDDD        AAA         AAA         TTT
DDDDDDDDDDDD        AAA         AAA         TTT
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LPTSPL VERSION 6(344)  RUNNING ON LPT000
*START* USER ECKLUND,S. [105,711] JOB  TF250E SEQ. 26125 DATE 03-MAY-77 22:13:40 MONITOR FERMILAB 602.1 *START*
REQUEST CREATED: 03-MAY-77  22:15:12
FILE: DSKC0:TF250F.DAT[105,711] CREATED: 29-APR-77 16:26:00 <155>  PRINTED: 03-MAY-77 22:14:01
QUEUE SWITCHES:  /PRINT:ARROW /FILE:FORT /COPIES:1 /SPACING:1 /LIMIT:560 /FORMS:NORMAL
FILE WILL BE RENAMED TO <055> PROTECTION
```

```
"250 GEV M1E

 2
15.                          8.00000   "FT  "        0.30480 ;
15.                          7.00000   "MR  "        0.05730 ;
13.                         19.00000;
13.                          3.00000;
13.                          6.00000;
13.                         12.00000;
13.              "POFF"     18.00000;
 1.000000                    0.15900    1.00000     0.15900     1.00000     0.00000     2.00000   400.00000;
16.00                       19.00000   -3.00000;
 3.0             "0F  "      0.00000;
 3.0                        16.50000;
 3.0             "C2  "      8.50000;
 3.0                         1.50000;
 3.0             "C3  "      8.50000;
 3.0                         1.50000;
 3.0             "C4  "      8.50000;
 3.0                         0.10000;
 3.0             "DIK0"      0.00000;
 3.0                         6.30000;
 5.00            "D1  "     10.00000   -7.56070     2.54000;
 3.0                         1.06300;
 5.00            "D2  "     10.00000   -7.56070     2.54000;
 3.0                         1.07200;
 5.00            "D3  "     10.00000    7.20000     2.54000;
 3.0                         1.32000;
 2.0                         1.33367;
 4.000           "A1  "     10.25000   11.39147     0.00000;
 2.0                         1.33367;
 3.0                         1.24000;
 2.0                         1.33367;
 4.000           "A2  "     10.25000   11.39147     0.00000;
 2.0                         1.33367;
 3.0                         1.32500;
 5.00            "D4  "     10.00000    2.07172     2.54000;
 3.0                         1.07500;
 5.00            "D5  "     10.00000    2.07172     2.54000;
 3.0                         1.34400;
 2.0                         1.33367;
 4.000           "A3  "     10.25000   11.39147     0.00000;
 2.0                         1.33367;
 3.0                         1.20800;
 2.0                         1.33367;
 4.000           "A4  "     10.25000   11.39147     0.00000;
 2.0                         1.33367;
 3.0                         1.22200;
 2.0                         1.33367;
 4.000           "A5  "     10.25000   11.39147     0.00000;
 2.0                         1.33367;
 3.0                         1.34000;
 3.0                         0.29100;
 3.0             "C3W "      6.00000;
 3.0                         0.29200;
 3.0                         1.35800;
 2.0                         3.88016;
 4.000           "A6  "     19.91667   17.05637     0.00000;
```

```
2.0                     3.88016;
3.0                     1.33700;
2.0                     3.88016;
4.000        "A7  "    19.91667    17.05637     0.00000;
2.0                     3.88016;
3.0                     1.34200;
2.0                     3.88016;
4.000        "A8  "    19.91667    17.05637     0.00000;
2.0                     3.88016;
3.0                     1.82000;
5.00         "n6  "     5.00000     3.00000     2.54000;
3.0                     1.59900;
3.0          "v1  "     2.50000;
3.0                     1.41900;
3.0                     0.22900;
3.0          "C4V "     6.00000;
3.0                     0.22900;
3.0                     2.40300;
5.00         "n7  "    10.00000    -1.39040     2.54000;
3.0                     2.62500;
3.0          "ñIK1"     0.00000;
3.0                    94.07600;
3.0          "ñIK2"     0.00000;
3.0                     7.26000;
3.0                     0.11500;
3.0          "AS1 "     3.00000;
3.0                     0.11500;
3.0                    26.71800;
5.00         "n8  "     7.00000    -8.32775     2.54000;
3.0                     4.22000;
5.00         "n9  "     4.33300     8.32775     2.54000;
3.0                     1.41000;
5.00         "n10 "     4.33300     8.32775     2.54000;
3.0                     6.25000;
3.0          "v3  "     2.50000;
3.0                    10.46900;
3.0                     0.29200;
3.0          "C5H "     4.00000;
3.0                     0.29300;
3.0                     0.83000;
3.0                     0.23000;
3.0          "C6V "     4.00000;
3.0                     0.23000;
3.0                     0.96000;
3.0          "iF  "     0.00000;
* -10.       "iF12"    -1.00000     2.00000     0.00000     0.00010;
* -10.       "iF34"    -3.00000     4.00000     0.00000     0.00010;
3.0          "PM1 "     0.00000;
3.0          "iC1 "     0.00000;
3.0                     3.51500;
3.0          "ñIK3"     0.00000;
3.0                   195.15800;
3.0          "ñIK4"     0.00000;
3.0                     5.01000;
3.0                     0.23000;
3.0          "C7V "     4.00000;
3.0                     0.23000;
3.0                     1.50000;
3.0          "C7H "     2.50000;
3.0                     1.50000;
```

```
   3.0          "V5  "      2.50000;
   3.0                      2.49000;
   2.0                      4.57275;
   4.000        "R9  "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      1.29000;
   2.0                      4.57275;
   4.000        "R10 "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      1.31000;
   2.0                      4.57275;
   4.000        "R11 "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      1.36000;
   2.0                      4.57275;
   4.000        "R12 "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      3.01000;
   5.00         "Q11 "     10.00000     5.05987     2.54000;
   3.0                      1.50000;
   5.00         "Q12 "     10.00000     5.05987     2.54000;
   3.0                      1.50000;
   5.00         "Q13A"      5.00000    -4.91839     2.54000;
   3.0                      1.50000;
   5.00         "Q13 "     10.00000    -4.91839     2.54000;
   3.0                      1.50000;
   5.00         "Q14 "     10.00000    -4.91839     2.54000;
   3.0                      2.72000;
   3.0          "ñIK5"      0.00000;
   3.0                     72.20900;
   3.0          "ñIK6"      0.00000;
   3.0                      1.38000;
   3.0          "2F  "      0.00000;
* -10.          "2F12"     -1.00000     2.00000     0.00000     0.00010;
* -10.          "2F34"     -3.00000     4.00000     0.00000     0.00010;
   3.0          "PM2 "      0.00000;
   3.0                      0.72000;
   3.0          "C8H "      4.00000;
   3.0                      0.90000;
   3.0          "IC2 "      0.00000;
   3.0                      1.00000;
   2.0                      0.00000;
   4.000        "R13 "     19.91667    26.37613     0.00000;
   2.0                      0.00000;
* -10.          "2F16"     -1.00000     6.00000     0.00000     0.00010;
* -10.          "2F26"     -2.00000     6.00000     0.00000     0.00010;
   3.0                      6.81000;
   3.0          "V6  "      2.50000;
   3.0          "PAR "     86.45800;
   5.00         "Q15 "     10.00000    -4.26383     2.54000;
   3.0          "ñ10 "      4.62000;
   5.00         "Q16 "     10.00000    -4.26383     2.54000;
   3.0          "ñ11 "      1.54000;
   5.00         "Q17 "     10.00000     3.55423     2.54000;
   3.0          "ñ12 "      4.66600;
   5.00         "Q18 "     10.00000     3.55423     2.54000;
   3.0                      3.33000;
   3.0          "PM3 "      0.00000;
  -10.          "3F22"     -2.00000     2.00000     0.00000     0.00010;
  -10.          "3F44"     -4.00000     4.00000     0.00000     0.00010;
```

```
 3.0          "k1  "     53.00000;
 3.0                      3.14100;
 3.0          "k2  "     53.00000;
 3.0                      3.43000;
 3.0          "PM4 "      0.00000;
 3.0                      3.80000;
 5.00         "n19 "     10.00000     2.82723     2.54000;
 3.0                      4.71000;
 5.00         "n20 "     10.00000     2.82723     2.54000;
 3.0                      1.43700;
 5.00         "n21 "     10.00000    -3.16247     2.54000;
 3.0                      4.74000;
 5.00         "n22 "     10.00000    -3.16247     2.54000;
 3.0                      2.18000;
 3.0          "v7  "      2.50000;
 3.0                      1.40000;
 3.0          "v8  "      2.50000;
 3.0                      6.26000;
 3.0          "k3  "     94.79600;
 3.0                    102.30300;
 3.0          "3F  "      0.00000;
-10.          "3F12"     -1.00000     2.00000     0.00000     0.00010;
-10.          "3F34"     -3.00000     4.00000     0.00000     0.00010;
 3.0          "PM5 "      0.00000;
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250 GEV M1E

```
                                  R11       R12       R21       R22       R33       R34       R43       R44       R16       R26
*BEAM*          1.                400.00000 GEV
    0.000 FT                      0.0000    0.0000    0.0000 FT         0.000     0.000     0.000 MR
                                  0.159 CM  1.000 MR  0.159 CM          1.000 MR  0.000 CM  2.000 PC  0.000     0.000
*THETA0*        16.               19.   -0.30000E+01
*DRIFT*         3.      "0F  "    0.00000 FT
    0.000 FT                      0.0000    0.0000    0.0000 FT        -3.000     0.000     0.000 MR
                                  0.159 CM  1.000 MR  0.159 CM          1.000 MR  0.000 CM  2.000 PC  0.000     0.000
                                  1.0000    0.0000    0.0000    1.0000  1.0000    0.0000    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                16.50000 FT
    16.500 FT                     -0.0495   0.0000    16.4999 FT       -3.000     0.000     0.000 MR
                                  0.527 CM  1.000 MR  0.527 CM          1.000 MR  0.000 CM  2.000 PC  0.953     0.953
                                  1.0000    0.5029    0.0000    1.0000  1.0000    0.5029    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C2  "    8.50000 FT
    25.000 FT                     -0.0750   0.0000    24.9999 FT       -3.000     0.000     0.000 MR
                                  0.778 CM  1.000 MR  0.778 CM          1.000 MR  0.000 CM  2.000 PC  0.979     0.979
                                  1.0000    0.7620    0.0000    1.0000  1.0000    0.7620    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                1.50000 FT
    26.500 FT                     -0.0795   0.0000    26.4999 FT       -3.000     0.000     0.000 MR
                                  0.823 CM  1.000 MR  0.823 CM          1.000 MR  0.000 CM  2.000 PC  0.981     0.981
                                  1.0000    0.8077    0.0000    1.0000  1.0000    0.8077    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C3  "    8.50000 FT
    35.000 FT                     -0.1050   0.0000    34.9998 FT       -3.000     0.000     0.000 MR
                                  1.079 CM  1.000 MR  1.079 CM          1.000 MR  0.000 CM  2.000 PC  0.989     0.989
                                  1.0000    1.0668    0.0000    1.0000  1.0000    1.0668    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                1.50000 FT
    36.500 FT                     -0.1095   0.0000    36.4998 FT       -3.000     0.000     0.000 MR
                                  1.124 CM  1.000 MR  1.124 CM          1.000 MR  0.000 CM  2.000 PC  0.990     0.990
                                  1.0000    1.1125    0.0000    1.0000  1.0000    1.1125    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C4  "    8.50000 FT
    45.000 FT                     -0.1350   0.0000    44.9998 FT       -3.000     0.000     0.000 MR
                                  1.381 CM  1.000 MR  1.381 CM          1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                  1.0000    1.3716    0.0000    1.0000  1.0000    1.3716    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                0.10000 FT
    45.100 FT                     -0.1353   0.0000    45.0998 FT       -3.000     0.000     0.000 MR
                                  1.384 CM  1.000 MR  1.384 CM          1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                  1.0000    1.3746    0.0000    1.0000  1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "DIK0"    0.00000 FT
    45.100 FT                     -0.1353   0.0000    45.0998 FT       -3.000     0.000     0.000 MR
                                  1.384 CM  1.000 MR  1.384 CM          1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                  1.0000    1.3746    0.0000    1.0000  1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3                 6.30000 FT
    51.400 FT                     -0.1542   0.0000    51.3998 FT       -3.000     0.000     0.000 MR
                                  1.575 CM  1.000 MR  1.575 CM          1.000 MR  0.000 CM  2.000 PC  0.995     0.995
                                  1.0000    1.5667    0.0000    1.0000  1.0000    1.5667    0.0000    1.0000    0.0000    0.0000
*QUAD*          5.      "Q1  "    10.00000 FT       -7.56070 KG       2.54000 CM  (  -46.62089 FT  )
    61.400 FT                     -0.1842   0.0000    61.3997 FT       -3.000     0.000     0.000 MR
                                  2.055 CM  2.211 MR  1.707 CM          0.167 MR  0.000 CM  2.000 PC  0.999    -0.831
                                  1.1054    2.0473    0.7037    2.2079  0.8981    1.7015   -0.6567   -0.1308    0.0000    0.0000
*DRIFT*         3.                1.06300 FT
    62.463 FT                     -0.1874   0.0000    62.4627 FT       -3.000     0.000     0.000 MR
                                  2.126 CM  2.211 MR  1.703 CM          0.167 MR  0.000 CM  2.000 PC  0.999    -0.830
                                  1.1282    2.1188    0.7037    2.2079  0.8769    1.6972   -0.6567   -0.1308    0.0000    0.0000
*QUAD*          5.      "Q2  "    10.00000 FT       -7.56070 KG       2.54000 CM  (  -46.62089 FT  )
    72.463 FT                     -0.2174   0.0000    72.4627 FT       -3.000     0.000     0.000 MR
                                  3.048 CM  3.940 MR  1.489 CM          1.246 MR  0.000 CM  2.000 PC  1.000    -0.996
                                  1.4692    3.0387    1.5719    3.9318  0.5942    1.4859   -1.1657   -1.2321    0.0000    0.0000
*DRIFT*         3.                1.07200 FT
```

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73.535                          -0.2206     0.0000    73.5347 FT        -3.000     0.000     0.000 MR
                                 3.176 CM    3.940 MR     1.44[illegible]M     1.246 MR     0.000 CM     2.000 PC       1.00    -0.996
                                 1.5205   3.1672   1.5719   3.9318       0.5561   1.4456  -1.1657  -1.2321       0.0000   0.0000
*QUAD*          5.      "Q3.  "  10.00000 FT        7.20000 KG        2.54000 CM   (   52.37108 FT  )
  83.535 FT                     -0.2506     0.0000    83.5346 FT        -3.000     0.000     0.000 MR
                                 4.030 CM    1.568 MR     1.203 CM     0.415 MR     0.000 CM     2.000 PC       1.000   -0.948
                                 1.8364   4.0191   0.4667   1.5660       0.2448   1.2026  -0.9106  -0.3885       0.0000   0.0000
*DRIFT*         3.              1.32000 FT
  84.855 FT                     -0.2546     0.0000    84.8546 FT        -3.000     0.000     0.000 MR
                                 4.093 CM    1.568 MR     1.187 CM     0.415 MR     0.000 CM     2.000 PC       1.000   -0.946
                                 1.8552   4.0821   0.4667   1.5660       0.2082   1.1870  -0.9106  -0.3885       0.0000   0.0000
*ROTAT*         2.              1.33367 MR
  84.855 FT                     -0.2546     0.0000    84.8546 FT        -3.000     0.000     0.000 MR
                                 4.093 CM    1.568 MR     1.187 CM     0.415 MR     0.000 CM     2.000 PC       1.000   -0.946
                                 1.8552   4.0821   0.4668   1.5661       0.2082   1.1870  -0.9106  -0.3885       0.0000   0.0000
*BEND*          4.      "B1  "  10.25000 FT       11.39147 KG        0.00000   (  3842.767 FT  ,   2.667 MR  )
  95.105 FT                     -0.2990     0.0000    95.1045 FT        -5.667     0.000     0.000 MR
                                 4.582 CM    1.569 MR     1.066 CM     0.415 MR     0.012 CM     2.000 PC       0.999   -0.933
                                 2.0010   4.5714   0.4667   1.5660      -0.0763   1.0656  -0.9106  -0.3885       0.0042   0.0267
*ROTAT*         2.              1.33367 MR
  95.105 FT                     -0.2990     0.0000    95.1045 FT        -5.667     0.000     0.000 MR
                                 4.582 CM    1.569 MR     1.066 CM     0.415 MR     0.012 CM     2.000 PC       0.999   -0.933
                                 2.0010   4.5714   0.4667   1.5660      -0.0763   1.0656  -0.9106  -0.3885       0.0042   0.0267
*DRIFT*         3.              1.24000 FT
  96.345 FT                     -0.3060     0.0000    96.3445 FT        -5.667     0.000     0.000 MR
                                 4.642 CM    1.569 MR     1.051 CM     0.415 MR     0.012 CM     2.000 PC       0.999   -0.931
                                 2.0187   4.6305   0.4667   1.5660      -0.1107   1.0509  -0.9106  -0.3885       0.0052   0.0267
*ROTAT*         2.              1.33367 MR
  96.345 FT                     -0.3060     0.0000    96.3445 FT        -5.667     0.000     0.000 MR
                                 4.642 CM    1.569 MR     1.051 CM     0.415 MR     0.012 CM     2.000 PC       0.999   -0.931
                                 2.0187   4.6305   0.4668   1.5661      -0.1107   1.0509  -0.9106  -0.3885       0.0052   0.0267
*BEND*          4.      "B2  "  10.25000 FT       11.39147 KG        0.00000   (  3842.767 FT  ,   2.667 MR  )
 106.595 FT                     -0.3778     0.0000   106.5942 FT        -8.335     0.000     0.000 MR
                                 5.131 CM    1.571 MR     0.932 CM     0.415 MR     0.025 CM     2.000 PC       0.998   -0.911
                                 2.1645   5.1198   0.4667   1.5660      -0.3952   0.9296  -0.9106  -0.3885       0.0177   0.0533
*ROTAT*         2.              1.33367 MR
 106.595 FT                     -0.3778     0.0000   106.5942 FT        -8.335     0.000     0.000 MR
                                 5.131 CM    1.571 MR     0.932 CM     0.415 MR     0.025 CM     2.000 PC       0.998   -0.911
                                 2.1645   5.1198   0.4667   1.5660      -0.3952   0.9296  -0.9106  -0.3885       0.0177   0.0533
*DRIFT*         3.              1.32500 FT
 107.920 FT                     -0.3888     0.0000   107.9192 FT        -8.335     0.000     0.000 MR
                                 5.195 CM    1.571 MR     0.916 CM     0.415 MR     0.025 CM     2.000 PC       0.998   -0.908
                                 2.1833   5.1831   0.4667   1.5660      -0.4320   0.9139  -0.9106  -0.3885       0.0198   0.0533
*QUAD*          5.      "Q4  "  10.00000 FT        2.07172 KG        2.54000 CM   (  177.75818 FT  )
 117.920 FT                     -0.4722     0.0000   117.9189 FT        -8.335     0.000     0.000 MR
                                 5.522 CM    0.573 MR     0.828 CM     0.279 MR     0.025 CM     2.000 PC       0.987   -0.727
                                 2.2626   5.5094   0.0506   0.5651      -0.7245   0.8204  -1.0178  -0.2277       0.0354   0.0482
*DRIFT*         3.              1.07500 FT
 118.995 FT                     -0.4811     0.0000   118.9938 FT        -8.335     0.000     0.000 MR
                                 5.540 CM    0.573 MR     0.822 CM     0.279 MR     0.025 CM     2.000 PC       0.987   -0.721
                                 2.2642   5.5279   0.0506   0.5651      -0.7579   0.8129  -1.0178  -0.2277       0.0370   0.0482
*QUAD*          5.      "Q5  "  10.00000 FT        2.07172 KG        2.54000 CM   (  177.75818 FT  )
 128.995 FT                     -0.5645     0.0000   128.9935 FT        -8.335     0.000     0.000 MR
                                 5.554 CM    0.481 MR     0.786 CM     0.206 MR     0.025 CM     2.000 PC      -0.981   -0.182
                                 2.2155   5.5423  -0.3687  -0.4711      -1.0927   0.7660  -1.1894  -0.0813       0.0505   0.0420
*DRIFT*         3.              1.34400 FT
 130.339 FT                     -0.5757     0.0000   130.3374 FT        -8.335     0.000     0.000 MR
                                 5.535 CM    0.481 MR     0.784 CM     0.206 MR     0.025 CM     2.000 PC      -0.981   -0.172
                                 2.2004   5.5230  -0.3687  -0.4711       1.1414   0.7627  -1.1894  -0.0813       0.0521   0.0420
*ROTAT*         2.              1.33367 MR
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  130.339 FT                    -0.5757     0.0000   130.3374 FT      -8.335     0.000     0.000 MR
                                 5.535 CM     0.481 MR     0.784 CM     0.206 MR     0.025 CM     2.000 PC      -0.981   -0.172
                                 2.2004   5.5230  -0.3687  -0.4710     -1.1414   0.7627  -1.1894  -0.0813       0.0521   0.0400
*BEND*          4.     "B3  "   10.25000 FT       11.39147 KG        0.00000      (  3842.767 FT  ,   2.667 MR  )
  140.589 FT                    -0.6748     0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                                 5.388 CM     0.493 MR     0.776 CM     0.206 MR     0.039 CM     2.000 PC      -0.954   -0.091
                                 2.0852   5.3758  -0.3688  -0.4712     -1.5130   0.7373  -1.1894  -0.0813       0.0688   0.0667
*ROTAT*         2.               1.33367 MR
  140.589 FT                    -0.6748     0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                                 5.388 CM     0.493 MR     0.776 CM     0.206 MR     0.039 CM     2.000 PC      -0.954   -0.091
                                 2.0852   5.3758  -0.3687  -0.4711     -1.5130   0.7373  -1.1894  -0.0813       0.0688   0.0667
*DRIFT*         3.               1.20800 FT
  141.797 FT                    -0.6881     0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                                 5.370 CM     0.493 MR     0.775 CM     0.206 MR     0.039 CM     2.000 PC      -0.953   -0.081
                                 2.0716   5.3585  -0.3687  -0.4711     -1.5568   0.7343  -1.1894  -0.0813       0.0712   0.0667
*ROTAT*         2.               1.33367 MR
  141.797 FT                    -0.6881     0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                                 5.370 CM     0.493 MR     0.775 CM     0.206 MR     0.039 CM     2.000 PC      -0.953   -0.081
                                 2.0716   5.3585  -0.3687  -0.4710     -1.5568   0.7343  -1.1894  -0.0813       0.0712   0.0667
*BEND*          4.     "B4  "   10.25000 FT       11.39147 KG        0.00000      (  3842.767 FT  ,   2.667 MR  )
  152.047 FT                    -0.8145     0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                                 5.224 CM     0.510 MR     0.772 CM     0.206 MR     0.053 CM     2.000 PC      -0.915    0.002
                                 1.9564   5.2113  -0.3688  -0.4712     -1.9283   0.7089  -1.1894  -0.0813       0.0962   0.0933
*ROTAT*         2.               1.33367 MR
  152.047 FT                    -0.8145     0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                                 5.224 CM     0.510 MR     0.772 CM     0.206 MR     0.053 CM     2.000 PC      -0.915    0.002
                                 1.9564   5.2113  -0.3687  -0.4711     -1.9283   0.7089  -1.1893  -0.0814       0.0962   0.0933
*DRIFT*         3.               1.22200 FT
  153.269 FT                    -0.8312     0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                                 5.207 CM     0.510 MR     0.772 CM     0.206 MR     0.053 CM     2.000 PC      -0.914    0.012
                                 1.9427   5.1938  -0.3687  -0.4711     -1.9726   0.7059  -1.1893  -0.0814       0.0997   0.0933
*ROTAT*         2.               1.33367 MR
  153.269 FT                    -0.8312     0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                                 5.207 CM     0.510 MR     0.772 CM     0.206 MR     0.053 CM     2.000 PC      -0.914    0.012
                                 1.9427   5.1938  -0.3687  -0.4710     -1.9726   0.7059  -1.1893  -0.0814       0.0997   0.0933
*BEND*          4.     "B5  "   10.25000 FT       11.39147 KG        0.00000      (  3842.767 FT  ,   2.667 MR  )
  163.519 FT                    -0.9850     0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                                 5.062 CM     0.532 MR     0.776 CM     0.206 MR     0.067 CM     2.000 PC      -0.866    0.095
                                 1.8275   5.0466  -0.3688  -0.4712     -2.3442   0.6805  -1.1893  -0.0814       0.1330   0.1200
*ROTAT*         2.               1.33367 MR
  163.519 FT                    -0.9850     0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                                 5.062 CM     0.532 MR     0.776 CM     0.206 MR     0.067 CM     2.000 PC      -0.866    0.095
                                 1.8275   5.0466  -0.3687  -0.4711     -2.3442   0.6805  -1.1893  -0.0814       0.1330   0.1200
*DRIFT*         3.               1.34000 FT
  164.859 FT                    -1.0069     0.0000   164.8546 FT     -16.337     0.000     0.000 MR
                                 5.043 CM     0.532 MR     0.777 CM     0.206 MR     0.067 CM     2.000 PC      -0.864    0.105
                                 1.8124   5.0273  -0.3687  -0.4711     -2.3928   0.6771  -1.1893  -0.0814       0.1379   0.1200
*DRIFT*         3.               0.29100 FT
  165.150 FT                    -1.0116     0.0000   165.1456 FT     -16.337     0.000     0.000 MR
                                 5.039 CM     0.532 MR     0.777 CM     0.206 MR     0.067 CM     2.000 PC      -0.864    0.108
                                 1.8091   5.0232  -0.3687  -0.4711     -2.4033   0.6764  -1.1893  -0.0814       0.1390   0.1200
*DRIFT*         3.     "C3H "    6.00000 FT
  171.150 FT                    -1.1096     0.0000   171.1448 FT     -16.337     0.000     0.000 MR
                                 4.955 CM     0.532 MR     0.782 CM     0.206 MR     0.067 CM     2.000 PC      -0.859    0.155
                                 1.7417   4.9370  -0.3687  -0.4711     -2.6208   0.6615  -1.1893  -0.0814       0.1609   0.1200
*DRIFT*         3.               0.29200 FT
  171.442 FT                    -1.1144     0.0000   171.4368 FT     -16.337     0.000     0.000 MR
                                 4.951 CM     0.532 MR     0.782 CM     0.206 MR     0.067 CM     2.000 PC      -0.859    0.157
                                 1.7384   4.9328  -0.3687  -0.4711     -2.6314   0.6608  -1.1893  -0.0814       0.1620   0.1200
*DRIFT*         3.               1.35800 FT
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 172.800 FT                  -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                              4.932 CM     0.532 MR     0.[illegible] CM     0.206 MR     0.067 CM     2.000 PC      -0.[illegible]     0.168
                              1.7232   4.9133  -0.3687  -0.4711     -2.6806   0.6574  -1.1893  -0.0814     0.1670   0.1200
*ROTAT*          2.           3.88016 MR
 172.800 FT                  -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                              4.932 CM     0.532 MR     0.784 CM     0.206 MR     0.067 CM     2.000 PC      -0.858     0.168
                              1.7232   4.9133  -0.3687  -0.4709     -2.6806   0.6574  -1.1892  -0.0814     0.1670   0.1200
*BEND*           4.    "B6  "  19.91667 FT      17.05637 KG      0.00000      (  2566.476 FT  ,   7.760 MR  )
 192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                              4.663 CM     0.618 MR     0.814 CM     0.206 MR     0.104 CM     2.000 PC      -0.690     0.315
                              1.4993   4.6273  -0.3688  -0.4713     -3.4025   0.6080  -1.1892  -0.0814     0.2634   0.1976
*ROTAT*          2.           3.88016 MR
 192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                              4.663 CM     0.618 MR     0.814 CM     0.206 MR     0.104 CM     2.000 PC      -0.689     0.315
                              1.4993   4.6273  -0.3687  -0.4711     -3.4025   0.6080  -1.1890  -0.0814     0.2634   0.1976
*DRIFT*          3.           1.33700 FT
 194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                              4.646 CM     0.618 MR     0.817 CM     0.206 MR     0.104 CM     2.000 PC      -0.686     0.324
                              1.4843   4.6081  -0.3687  -0.4711     -3.4510   0.6047  -1.1890  -0.0814     0.2714   0.1976
*ROTAT*          2.           3.88016 MR
 194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                              4.646 CM     0.618 MR     0.817 CM     0.206 MR     0.104 CM     2.000 PC      -0.686     0.324
                              1.4843   4.6081  -0.3687  -0.4709     -3.4510   0.6047  -1.1888  -0.0815     0.2714   0.1976
*BEND*           4.    "B7  "  19.91667 FT      17.05637 KG      0.00000      (  2566.476 FT  ,   7.760 MR  )
 213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                              4.406 CM     0.727 MR     0.865 CM     0.206 MR     0.139 CM     2.000 PC      -0.497     0.450
                              1.2604   4.3222  -0.3688  -0.4713     -4.1727   0.5553  -1.1888  -0.0815     0.4150   0.2752
*ROTAT*          2.           3.88016 MR
 213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                              4.406 CM     0.727 MR     0.865 CM     0.206 MR     0.139 CM     2.000 PC      -0.497     0.450
                              1.2604   4.3222  -0.3687  -0.4711     -4.1727   0.5553  -1.1886  -0.0815     0.4150   0.2752
*DRIFT*          3.           1.34200 FT
 215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                              4.391 CM     0.727 MR     0.869 CM     0.206 MR     0.139 CM     2.000 PC      -0.492     0.458
                              1.2453   4.3029  -0.3687  -0.4711     -4.2213   0.5519  -1.1886  -0.0815     0.4262   0.2752
*ROTAT*          2.           3.88016 MR
 215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                              4.391 CM     0.727 MR     0.869 CM     0.206 MR     0.139 CM     2.000 PC      -0.492     0.458
                              1.2453   4.3029  -0.3687  -0.4709     -4.2213   0.5519  -1.1884  -0.0815     0.4262   0.2752
*BEND*           4.    "B8  "  19.91667 FT      17.05637 KG      0.00000      (  2566.476 FT  ,   7.760 MR  )
 235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                              4.205 CM     0.851 MR     0.933 CM     0.206 MR     0.172 CM     2.000 PC      -0.289     0.560
                              1.0215   4.0169  -0.3688  -0.4713     -4.9427   0.5024  -1.1884  -0.0815     0.6168   0.3528
*ROTAT*          2.           3.88016 MR
 235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                              4.205 CM     0.850 MR     0.933 CM     0.206 MR     0.172 CM     2.000 PC      -0.288     0.560
                              1.0215   4.0169  -0.3687  -0.4711     -4.9427   0.5024  -1.188   0.0815     0.6168   0.3528
*DRIFT*          3.           1.82000 FT
 237.049 FT                  -2.9550     0.0000   237.0163 FT      -39.618     0.000     0.000 MR
                              4.192 CM     0.850 MR     0.939 CM     0.206 MR     0.172 CM     2.000 PC      -0.278     0.568
                              1.0010   3.9908  -0.3687  -0.4711     -5.0086   0.4979  -1.1882  -0.0815     0.6364   0.3528
*QUAD*           5.    "Q6  "  5.00000 FT       3.00000 KG       2.54000 CM   (  244.02839 FT  )
 242.049 FT                  -3.1531     0.0000   242.0124 FT      -39.618     0.000     0.000 MR
                              4.115 CM     1.136 MR     0.967 CM     0.299 MR     0.172 CM     2.000 PC      -0.680     0.835
                              0.9348   3.8783  -0.4995  -1.0028     -5.2419   0.4906  -1.8784  -0.0150     0.6835   0.2636
*DRIFT*          3.           1.59900 FT
 243.648 FT                  -3.2164     0.0000   243.6102 FT      -39.618     0.000     0.000 MR
                              4.077 CM     1.136 MR     0.979 CM     0.299 MR     0.172 CM     2.000 PC      -0.673     0.840
                              0.9104   3.8294  -0.4995  -1.0028     -5.3335   0.4898  -1.8784  -0.0150     0.6963   0.2636
*DRIFT*          3.    "V1  "  2.50000 FT
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246.148 FT                    -3.3154     0.0000   246.1082 FT      -39.618     0.000     0.000 MR
                               4.020 CM     1.136 MR     0.999 CM     0.299 MR     0.172 CM     2.000 PC     -0.661    0.846
                               0.8724   3.7530  -0.4995  -1.0028      -5.4766   0.4887  -1.8784  -0.0150      0.7164   0.2636
*DRIFT*          3.           1.41900 FT
247.567 FT                    -3.3716     0.0000   247.5261 FT      -39.618     0.000     0.000 MR
                               3.987 CM     1.136 MR     1.010 CM     0.299 MR     0.172 CM     2.000 PC     -0.654    0.850
                               0.8507   3.7096  -0.4995  -1.0028      -5.5578   0.4880  -1.8784  -0.0150      0.7278   0.2636
*DRIFT*          3.           0.22900 FT
247.796 FT                    -3.3807     0.0000   247.7549 FT      -39.618     0.000     0.000 MR
                               3.982 CM     1.136 MR     1.011 CM     0.299 MR     0.172 CM     2.000 PC     -0.653    0.851
                               0.8473   3.7026  -0.4995  -1.0028      -5.5709   0.4879  -1.8784  -0.0150      0.7297   0.2636
*DRIFT*          3.   "C4V "  6.00000 FT
253.796 FT                    -3.6183     0.0000   253.7502 FT      -39.618     0.000     0.000 MR
                               3.850 CM     1.136 MR     1.058 CM     0.299 MR     0.172 CM     2.000 PC     -0.622    0.865
                               0.7559   3.5192  -0.4995  -1.0028      -5.9145   0.4852  -1.8784  -0.0150      0.7779   0.2636
*DRIFT*          3.           0.22900 FT
254.025 FT                    -3.6274     0.0000   253.9790 FT      -39.618     0.000     0.000 MR
                               3.845 CM     1.136 MR     1.060 CM     0.299 MR     0.172 CM     2.000 PC     -0.620    0.865
                               0.7524   3.5122  -0.4995  -1.0028      -5.9276   0.4851  -1.8784  -0.0150      0.7797   0.2636
*DRIFT*          3.           2.40300 FT
256.428 FT                    -3.7226     0.0000   256.3801 FT      -39.618     0.000     0.000 MR
                               3.794 CM     1.136 MR     1.079 CM     0.299 MR     0.172 CM     2.000 PC     -0.607    0.870
                               0.7158   3.4388  -0.4995  -1.0028      -6.0652   0.4840  -1.8784  -0.0150      0.7990   0.2636
*QUAD*           5.   "Q7  "  10.00000 FT      -1.39040 KG        2.54000 CM   ( -260.70399 FT  )
266.428 FT                    -4.1186     0.0000   266.3723 FT      -39.618     0.000     0.000 MR
                               3.665 CM     0.947 MR     1.138 CM     0.189 MR     0.172 CM     2.000 PC     -0.164    0.672
                               0.5763   3.1969  -0.4190  -0.5892      -6.5188   0.4703  -1.0891  -0.0748      0.8952   0.3692
*DRIFT*          3.           2.62500 FT
269.053 FT                    -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                               3.654 CM     0.947 MR     1.148 CM     0.189 MR     0.172 CM     2.000 PC     -0.143    0.679
                               0.5428   3.1498  -0.4190  -0.5892      -6.6060   0.4643  -1.0891  -0.0748      0.9247   0.3692
*DRIFT*          3.   "DIK1"  0.00000 FT
269.053 FT                    -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                               3.654 CM     0.947 MR     1.148 CM     0.189 MR     0.172 CM     2.000 PC     -0.143    0.679
                               0.5428   3.1498  -0.4190  -0.5892      -6.6060   0.4643  -1.0891  -0.0748      0.9247   0.3692
*DRIFT*          3.           94.07600 FT
363.129 FT                    -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                               4.228 CM     0.947 MR     1.567 CM     0.189 MR     0.172 CM     2.000 PC      0.518    0.843
                              -0.6587   1.4602  -0.4190  -0.5892      -9.7289   0.2497  -1.0891  -0.0748      1.9835   0.3692
*DRIFT*          3.   "DIK2"  0.00000 FT
363.129 FT                    -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                               4.228 CM     0.947 MR     1.567 CM     0.189 MR     0.172 CM     2.000 PC      0.518    0.843
                              -0.6587   1.4602  -0.4190  -0.5892      -9.7289   0.2497  -1.0891  -0.0748      1.9835   0.3692
*DRIFT*          3.           7.26000 FT
370.389 FT                    -8.2363     0.0000   370.2517 FT      -39.618     0.000     0.000 MR
                               4.341 CM     0.947 MR     1.602 CM     0.189 MR     0.172 CM     2.000 PC      0.553    0.850
                              -0.7515   1.3298  -0.4190  -0.5892      -9.9699   0.2331  -1.0891  -0.0748      2.0652   0.3692
*DRIFT*          3.           0.11500 FT
370.504 FT                    -8.2408     0.0000   370.3666 FT      -39.618     0.000     0.000 MR
                               4.343 CM     0.947 MR     1.603 CM     0.189 MR     0.172 CM     2.000 PC      0.554    0.851
                              -0.7529   1.3278  -0.4190  -0.5892      -9.9737   0.2329  -1.0891  -0.0748      2.0665   0.3692
*DRIFT*          3.   "BS1 "  3.00000 FT
373.504 FT                    -8.3596     0.0000   373.3643 FT      -39.618     0.000     0.000 MR
                               4.391 CM     0.947 MR     1.618 CM     0.189 MR     0.172 CM     2.000 PC      0.567    0.854
                              -0.7913   1.2739  -0.4190  -0.5892      -10.0733  0.2260  -1.0891  -0.0748      2.1002   0.3692
*DRIFT*          3.           0.11500 FT
373.619 FT                    -8.3642     0.0000   373.4792 FT      -39.618     0.000     0.000 MR
                               4.393 CM     0.947 MR     1.618 CM     0.189 MR     0.172 CM     2.000 PC      0.568    0.854
                              -0.7927   1.2718  -0.4190  -0.5892      -10.0771  0.2258  -1.0891  -0.0748      2.1015   0.3692
*DRIFT*          3.           26.71800 FT
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400.337 FT                  -9.4224     0.0000   400.1762          -39.618     0.000     0.000 MR
                             4.873 CM     0.947 MR     1.    CM     0.189 MR     0.172 CM     2.000 PC      0.       0.877
                            -1.1340   0.7920  -0.4190  -0.5892    -10.9640   0.1648  -1.0891  -0.0748      2.4022   0.3692
*QUAD*          5.    "08  "  7.00000 FT        -8.32775 KG       2.54000 CM   (  -61.42567 FT  )
  407.337 FT                -9.6997     0.0000   407.1707 FT       -39.618     0.000     0.000 MR
                             5.288 CM     3.356 MR     1.689 CM     0.750 MR     0.172 CM     2.000 PC      0.981   -0.992
                            -1.2890   0.7086  -1.0483  -0.1995    -10.5845   0.1400   4.6130  -0.1555      2.6181   1.0731
*DRIFT*         3.          4.22000 FT
  411.557 FT                -9.8668     0.0000   411.3874 FT       -39.618     0.000     0.000 MR
                             5.712 CM     3.356 MR     1.593 CM     0.750 MR     0.172 CM     2.000 PC      0.984   -0.991
                            -1.4239   0.6830  -1.0483  -0.1995     -9.9912   0.1200   4.6130  -0.1555      2.8333   1.0731
*QUAD*          5.    "09  "  4.33300 FT         8.32775 KG       2.54000 CM   (  101.81996 FT  )
  415.890 FT                -10.0384    0.0000   415.7170 FT       -39.618     0.000     0.000 MR
                             6.024 CM     1.512 MR     1.529 CM     0.259 MR     0.172 CM     2.000 PC      0.926   -0.916
                            -1.5309   0.6422  -0.5671  -0.4153     -9.5925   0.1019   1.4465  -0.1196      2.9922   0.7245
*DRIFT*         3.          1.41000 FT
  417.300 FT                -10.0943    0.0000   417.1259 FT       -39.618     0.000     0.000 MR
                             6.084 CM     1.512 MR     1.518 CM     0.259 MR     0.172 CM     2.000 PC      0.928   -0.915
                            -1.5553   0.6244  -0.5671  -0.4153     -9.5303   0.0968   1.4465  -0.1196      3.0233   0.7245
*QUAD*          5.    "010 "  4.33300 FT         8.32775 KG       2.54000 CM   (  101.81996 FT  )
  421.633 FT                -10.2659    0.0000   421.4555 FT       -39.618     0.000     0.000 MR
                             6.138 CM     0.807 MR     1.520 CM     0.276 MR     0.172 CM     2.000 PC     -0.722    0.925
                            -1.5965   0.5566  -0.0539  -0.6076     -9.5429   0.0830  -1.6374  -0.0906      3.0538  -0.2652
*DRIFT*         3.          6.25000 FT
  427.883 FT                -10.5134    0.0000   427.7006 FT       -39.618     0.000     0.000 MR
                             6.028 CM     0.807 MR     1.568 CM     0.276 MR     0.172 CM     2.000 PC     -0.710    0.930
                            -1.6067   0.4408  -0.0539  -0.6076     -9.8548   0.0657  -1.6374  -0.0906      3.0233  -0.2652
*DRIFT*         3.    "V3  "  2.50000 FT
  430.383 FT                -10.6125    0.0000   430.1986 FT       -39.618     0.000     0.000 MR
                             5.985 CM     0.807 MR     1.588 CM     0.276 MR     0.172 CM     2.000 PC     -0.705    0.932
                            -1.6108   0.3945  -0.0539  -0.6076     -9.9796   0.0588  -1.6374  -0.0906      2.9831  -0.2652
*DRIFT*         3.          10.46900 FT
  440.852 FT                -11.0271    0.0000   440.6594 FT       -39.618     0.000     0.000 MR
                             5.806 CM     0.807 MR     1.670 CM     0.276 MR     0.172 CM     2.000 PC     -0.682    0.938
                            -1.6280   0.2007  -0.0539  -0.6076    -10.5021   0.0299  -1.6374  -0.0906      2.8984  -0.2652
*DRIFT*         3.          0.29200 FT
  441.144 FT                -11.0387    0.0000   440.9512 FT       -39.618     0.000     0.000 MR
                             5.801 CM     0.807 MR     1.672 CM     0.276 MR     0.172 CM     2.000 PC     -0.681    0.939
                            -1.6285   0.1953  -0.0539  -0.6076    -10.5167   0.0291  -1.6374  -0.0906      2.8961  -0.2652
*DRIFT*         3.    "C5H "  4.00000 FT
  445.144 FT                -11.1971    0.0000   444.9481 FT       -39.618     0.000     0.000 MR
                             5.735 CM     0.807 MR     1.704 CM     0.276 MR     0.172 CM     2.000 PC     -0.672    0.941
                            -1.6351   0.1212  -0.0539  -0.6076    -10.7163   0.0181  -1.6374  -0.0906      2.8637  -0.2652
*DRIFT*         3.          0.29300 FT
  445.437 FT                -11.2087    0.0000   445.2408 FT       -39.618     0.000     0.000 MR
                             5.730 CM     0.807 MR     1.706 CM     0.276 MR     0.172 CM     2.000 PC     -0.671    0.941
                            -1.6356   0.1157  -0.0539  -0.6076    -10.7309   0.0173  -1.6374  -0.0906      2.8614  -0.2652
*DRIFT*         3.          0.83000 FT
  446.267 FT                -11.2416    0.0000   446.0702 FT       -39.618     0.000     0.000 MR
                             5.716 CM     0.807 MR     1.713 CM     0.276 MR     0.172 CM     2.000 PC     -0.670    0.942
                            -1.6369   0.1004  -0.0539  -0.6076    -10.7723   0.0150  -1.6374  -0.0906      2.8547  -0.2652
*DRIFT*         3.          0.23000 FT
  446.497 FT                -11.2507    0.0000   446.3000 FT       -39.618     0.000     0.000 MR
                             5.712 CM     0.807 MR     1.715 CM     0.276 MR     0.172 CM     2.000 PC     -0.669    0.942
                            -1.6373   0.0961  -0.0539  -0.6076    -10.7838   0.0143  -1.6374  -0.0906      2.8528  -0.2652
*DRIFT*         3.    "C6V "  4.00000 FT
  450.497 FT                -11.4091    0.0000   450.2969 FT       -39.618     0.000     0.000 MR
                             5.647 CM     0.807 MR     1.746 CM     0.276 MR     0.172 CM     2.0    C     -0.659    0.944
                            -1.6439   0.0220  -0.0539  -0.6076    -10.9835   0.0033  -1.6374  -0.0906      2.8205  -0.2652
*DRIFT*         3.          0.23000 FT
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450.727 FT                    -11.4182     0.0000   450.5267 FT     -39.618     0.000     0.000 MR
                                5.643 CM     0.807 MR     1.748 CM     0.276 MR     0.172 CM     2.000 PC     -0.659     0.944
                               -1.6443   0.0178  -0.0539  -0.6076    -10.9949   0.0027  -1.6374  -0.0906      2.8186  -0.2652
*DRIFT*          3.            0.96000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT     -39.618     0.000     0.000 MR
                                5.628 CM     0.807 MR     1.756 CM     0.276 MR     0.172 CM     2.000 PC     -0.656     0.944
                               -1.6458  -0.0000  -0.0539  -0.6076    -11.0429   0.0000  -1.6374  -0.0906      2.8109  -0.2652
*DRIFT*          3.   "1F  "    0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT     -39.618     0.000     0.000 MR
                                5.628 CM     0.807 MR     1.756 CM     0.276 MR     0.172 CM     2.000 PC     -0.656     0.944
                               -1.6458  -0.0000  -0.0539  -0.6076    -11.0429   0.0000  -1.6374  -0.0906      2.8109  -0.2652
*DRIFT*          3.   "PM1 "    0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT     -39.618     0.000     0.000 MR
                                5.628 CM     0.807 MR     1.756 CM     0.276 MR     0.172 CM     2.000 PC     -0.656     0.944
                               -1.6458  -0.0000  -0.0539  -0.6076    -11.0429   0.0000  -1.6374  -0.0906      2.8109  -0.2652
*DRIFT*          3.   "LC1 "    0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT     -39.618     0.000     0.000 MR
                                5.628 CM     0.807 MR     1.756 CM     0.276 MR     0.172 CM     2.000 PC     -0.656     0.944
                               -1.6458  -0.0000  -0.0539  -0.6076    -11.0429   0.0000  -1.6374  -0.0906      2.8109  -0.2652
*DRIFT*          3.            3.51500 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT     -39.618     0.000     0.000 MR
                                5.571 CM     0.807 MR     1.784 CM     0.276 MR     0.172 CM     2.000 PC     -0.647     0.946
                               -1.6516  -0.0651  -0.0539  -0.6076    -11.2183  -0.0097  -1.6374  -0.0906      2.7825  -0.2652
*DRIFT*          3.   "DIK3"    0.00000 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT     -39.618     0.000     0.000 MR
                                5.571 CM     0.807 MR     1.784 CM     0.276 MR     0.172 CM     2.000 PC     -0.647     0.946
                               -1.6516  -0.0651  -0.0539  -0.6076    -11.2183  -0.0097  -1.6374  -0.0906      2.7825  -0.2652
*DRIFT*          3.          195.15800 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT     -39.618     0.000     0.000 MR
                                4.410 CM     0.807 MR     3.377 CM     0.276 MR     0.172 CM     2.000 PC      0.270     0.985
                               -1.9721  -3.6793  -0.0539  -0.6076    -20.9585  -0.5484  -1.6374  -0.0906      1.2051  -0.2652
*DRIFT*          3.   "DIK4"    0.00000 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT     -39.618     0.000     0.000 MR
                                4.410 CM     0.807 MR     3.377 CM     0.276 MR     0.172 CM     2.000 PC      0.270     0.985
                               -1.9721  -3.6793  -0.0539  -0.6076    -20.9585  -0.5484  -1.6374  -0.0906      1.2051  -0.2652
*DRIFT*          3.            5.01000 FT
655.370 FT                    -19.5236     0.0000   655.0091 FT     -39.618     0.000     0.000 MR
                                4.444 CM     0.807 MR     3.419 CM     0.276 MR     0.172 CM     2.000 PC      0.296     0.986
                               -1.9803  -3.7721  -0.0539  -0.6076    -21.2085  -0.5622  -1.6374  -0.0906      1.1646  -0.2652
*DRIFT*          3.            0.23000 FT
655.600 FT                    -19.5327     0.0000   655.2389 FT     -39.618     0.000     0.000 MR
                                4.446 CM     0.807 MR     3.421 CM     0.276 MR     0.172 CM     2.000 PC      0.297     0.986
                               -1.9807  -3.7764  -0.0539  -0.6076    -21.2200  -0.5628  -1.6374  -0.0906      1.1627  -0.2652
*DRIFT*          3.   "C7V "    4.00000 FT
659.600 FT                    -19.6911     0.0000   659.2358 FT     -39.618     0.000     0.000 MR
                                4.476 CM     0.807 MR     3.454 CM     0.276 MR     0.172 CM     2.000 PC      0.317     0.986
                               -1.9872  -3.8504  -0.0539  -0.6076    -21.4196  -0.5739  -1.6374  -0.0906      1.1304  -0.2652
*DRIFT*          3.            0.23000 FT
659.830 FT                    -19.7002     0.0000   659.4656 FT     -39.618     0.000     0.000 MR
                                4.478 CM     0.807 MR     3.456 CM     0.276 MR     0.172 CM     2.000 PC      0.318     0.986
                               -1.9876  -3.8547  -0.0539  -0.6076    -21.4311  -0.5745  -1.6374  -0.0906      1.1285  -0.2652
*DRIFT*          3.            1.50000 FT
661.330 FT                    -19.7597     0.0000   660.9644 FT     -39.618     0.000     0.000 MR
                                4.490 CM     0.807 MR     3.468 CM     0.276 MR     0.172 CM     2.000 PC      0.325     0.986
                               -1.9901  -3.8825  -0.0539  -0.6076    -21.5060  -0.5786  -1.6374  -0.0906      1.1164  -0.2652
*DRIFT*          3.   "C7H "    2.50000 FT
663.830 FT                    -19.8587     0.0000   663.4625 FT     -39.618     0.000     0.000 MR
                                4.510 CM     0.807 MR     3.489 CM     0.276 MR     0.172 CM     2.000 PC      0.337     0.986
                               -1.9942  -3.9288  -0.0539  -0.6076    -21.6307  -0.5855  -1.6374  -0.0906      1.0962  -0.2652
*DRIFT*          3.            1.50000 FT
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665.330                          -19.9181     0.0000   664,9613 F        -39,618     0,000     0,000 MR
                                   4.523 CM     0.807 MR     3,5[illegible] CM     0,276 MR     0,172 CM     2,000 PC      0,3      0,986
                                  -1.9967  -3.9566  -0,0539  -0,6076     -21.7056  -0,5897  -1.6374  -0,0906      1,0841  -0,2652
*DRIFT*          3.     "V5  "    2.50000 FT
  667.830 FT                     -20.0171     0.0000   667,4593 FT       -39,618     0,000     0,000 MR
                                   4.544 CM     0.807 MR     3,522 CM     0,276 MR     0,172 CM     2,000 PC      0,356    0,986
                                  -2.0008  -4.0029  -0,0539  -0,6076     -21.8304  -0,5966  -1.6374  -0,0906      1,0639  -0,2652
*DRIFT*          3.               2.49000 FT
  670.320 FT                     -20.1157     0.0000   669,9474 FT       -39,618     0,000     0,000 MR
                                   4.567 CM     0.807 MR     3,543 CM     0,276 MR     0,172 CM     2,000 PC      0,368    0,987
                                  -2.0049  -4.0490  -0,0539  -0,6076     -21.9546  -0,6035  -1.6374  -0,0906      1,0437  -0,2652
*ROTAT*          2.               4.57275 MR
  670.320 FT                     -20.1157     0.0000   669,9474 FT       -39,618     0,000     0,000 MR
                                   4.567 CM     0.807 MR     3,543 CM     0,275 MR     0,172 CM     2,000 PC      0,368    0,987
                                  -2.0049  -4.0490  -0,0540  -0,6079     -21.9546  -0,6035  -1.6359  -0,0905      1,0437  -0,2651
*BEND*           4.     "B9  "    19.91667 FT      20,10081 KG       0,00000      (  2177,761 FT  ,   9,145 MR  )
  690.237 FT                     -20.9956     0.0000   689,8445 FT       -48,763     0,000     0,000 MR
                                   4.789 CM     0.700 MR     3,708 CM     0,275 MR     0,137 CM     2,000 PC      0,612    0,988
                                  -2.0376  -4.4178  -0,0537  -0,6073     -22.9478  -0,6584  -1.6359  -0,0905      0,9105  -0,1738
*ROTAT*          2.               4.57275 MR
  690.237 FT                     -20.9956     0.0000   689,8445 FT       -48,763     0,000     0,000 MR
                                   4.789 CM     0.700 MR     3,708 CM     0,275 MR     0,137 CM     2,000 PC      0,613    0,988
                                  -2.0376  -4.4178  -0,0539  -0,6076     -22.9478  -0,6584  -1.6343  -0,0905      0,9105  -0,1737
*DRIFT*          3.               1.29000 FT
  691.527 FT                     -21.0584     0.0000   691,1330 FT       -48,763     0,000     0,000 MR
                                   4.806 CM     0.700 MR     3,718 CM     0,275 MR     0,137 CM     2,000 PC      0,616    0,988
                                  -2.0397  -4.4417  -0,0539  -0,6076     -23.0120  -0,6620  -1.6343  -0,0905      0,9037  -0,1737
*ROTAT*          2.               4.57275 MR
  691.527 FT                     -21.0584     0.0000   691,1330 FT       -48,763     0,000     0,000 MR
                                   4.806 CM     0.700 MR     3,718 CM     0,275 MR     0,137 CM     2,000 PC      0,617    0,988
                                  -2.0397  -4.4417  -0,0540  -0,6079     -23.0120  -0,6620  -1.6328  -0,0904      0,9037  -0,1737
*BEND*           4.     "B10 "    19.91667 FT      20,10081 KG       0,00000      (  2177,761 FT  ,   9,145 MR  )
  711.443 FT                     -22.1202     0.0000   711,0213 FT       -57,909     0,000     0,000 MR
                                   5.097 CM     0.629 MR     3,883 CM     0,275 MR     0,104 CM     2,000 PC      0,827    0,989
                                  -2.0724  -4.8106  -0,0537  -0,6073     -24.0032  -0,7169  -1.6328  -0,0904      0,8260  -0,0823
*ROTAT*          2.               4.57275 MR
  711.443 FT                     -22.1202     0.0000   711,0213 FT       -57,909     0,000     0,000 MR
                                   5.097 CM     0.630 MR     3,883 CM     0,275 MR     0,104 CM     2,000 PC      0,827    0,989
                                  -2.0724  -4.8106  -0,0539  -0,6076     -24.0032  -0,7169  -1.6311  -0,0904      0,8260  -0,0823
*DRIFT*          3.               1.31000 FT
  712.753 FT                     -22.1960     0.0000   712,3291 FT       -57,909     0,000     0,000 MR
                                   5.118 CM     0.630 MR     3,894 CM     0,275 MR     0,104 CM     2,000 PC      0,829    0,989
                                  -2.0745  -4.8348  -0,0539  -0,6076     -24.0683  -0,7205  -1.6311  -0,0904      0,8227  -0,0823
*ROTAT*          2.               4.57275 MR
  712.753 FT                     -22.1960     0.0000   712,3291 FT       -57,909     0,000     0,000 MR
                                   5.118 CM     0.630 MR     3,894 CM     0,274 MR     0,104 CM     2,000 PC      0,829    0,989
                                  -2.0745  -4.8348  -0,0540  -0,6079     -24.0683  -0,7205  -1.6295  -0,0903      0,8227  -0,0822
*BEND*           4.     "B11 "    19.91667 FT      20,10081 KG       0,00000      (  2177,761 FT  ,   9,145 MR  )
  732.670 FT                     -23.4396     0.0000   732,2068 FT       -67,054     0,000     0,000 MR
                                   5.455 CM     0.608 MR     4,059 CM     0,274 MR     0,079 CM     2,000 PC      0,963    0,993
                                  -2.1072  -5.2037  -0,0537  -0,6072     -25.0575  -0,7753  -1.6295  -0,0903      0,8005   0,0291
*ROTAT*          2.               4.57275 MR
  732.670 FT                     -23.4396     0.0000   732,2068 FT       -67,054     0,000     0,000 MR
                                   5.455 CM     0.608 MR     4,059 CM     0,274 MR     0,079 CM     2,000 PC      0,963    0,993
                                  -2.1072  -5.2037  -0,0539  -0,6076     -25.0575  -0,7753  -1.6277  -0,0903      0,8005   0,0292
*DRIFT*          3.               1.36000 FT
  734.030 FT                     -23.5308     0.0000   733,5637 FT       -67,054     0,000     0,000 MR
                                   5.479 CM     0.606 MR     4,070 CM     0,274 MR     0,079 CM     2,000 PC      0,964    0,993
                                  -2.1095  -5.2288  -0,0539  -0,6076     -25.1250  -0,7790  -1.6277  -0,0903      0,8009   0,0292
*ROTAT*          2.               4.57275 MR
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734.030 FT                    -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                               5.479 CM     0.608 MR     4.070 CM     0.274 MR     0.079 CM     2.000 PC       0.964    0.990
                              -2.1095  -5.2288  -0.0540  -0.6080    -25.1250  -0.7790  -1.6260  -0.0902       0.8009   0.0092
*BEND*          4.     "B12 "  19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,   9.145 MR  )
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                               5.851 CM     0.640 MR     4.235 CM     0.274 MR     0.081 CM     2.000 PC       0.999    0.991
                              -2.1422  -5.5977  -0.0537  -0.6072    -26.1121  -0.8338  -1.6260  -0.0902       0.8342   0.1006
*ROTAT*         2.             4.57275 MR
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                               5.851 CM     0.640 MR     4.235 CM     0.274 MR     0.081 CM     2.000 PC       0.999    0.991
                              -2.1422  -5.5977  -0.0539  -0.6076    -26.1121  -0.8338  -1.6242  -0.0902       0.8342   0.1006
*DRIFT*         3.             3.01000 FT
756.957 FT                    -25.1852     0.0000   756.4305 FT      -76.200     0.000     0.000 MR
                               5.910 CM     0.640 MR     4.260 CM     0.274 MR     0.081 CM     2.000 PC       0.999    0.991
                              -2.1471  -5.6534  -0.0539  -0.6076    -26.2611  -0.8421  -1.6242  -0.0902       0.8435   0.1006
*QUAD*          5.     "Q11 "  10.00000 FT         5.05987 KG        2.54000 CM      (   73.78869 FT  )
766.957 FT                    -25.9465     0.0000   766.4015 FT      -76.200     0.000     0.000 MR
                               5.695 CM     2.032 MR     4.643 CM     2.274 MR     0.081 CM     2.000 PC      -1.000    1.000
                              -2.0160  -5.4468   0.9045   1.9477    -28.6101  -0.9293 -13.9671  -0.4886       0.8156  -0.2813
*DRIFT*         3.             1.50000 FT
768.457 FT                    -26.0607     0.0000   767.8972 FT      -76.200     0.000     0.000 MR
                               5.602 CM     2.032 MR     4.747 CM     2.274 MR     0.081 CM     2.000 PC      -1.000    1.000
                              -1.9746  -5.3577   0.9045   1.9477    -29.2487  -0.9516 -13.9671  -0.4886       0.8028  -0.2813
*QUAD*          5.     "Q12 "  10.00000 FT         5.05987 KG        2.54000 CM      (   73.78869 FT  )
778.457 FT                    -26.8220     0.0000   777.8681 FT      -76.200     0.000     0.000 MR
                               4.613 CM     4.384 MR     5.789 CM     4.644 MR     0.081 CM     2.000 PC      -1.000    1.000
                              -1.5699  -4.4104   1.7204   4.1964    -35.6570  -1.1708 -28.5671  -0.9660       0.6640  -0.6189
*DRIFT*         3.             1.50000 FT
779.957 FT                    -26.9361     0.0000   779.3638 FT      -76.200     0.000     0.000 MR
                               4.412 CM     4.384 MR     6.001 CM     4.644 MR     0.081 CM     2.000 PC      -1.000    1.000
                              -1.4912  -4.2186   1.7204   4.1964    -36.9631  -1.2149 -28.5671  -0.9660       0.6357  -0.6189
*QUAD*          5.     "Q13A"  5.00000 FT        -4.91839 KG        2.54000 CM      ( -147.50694 FT  )
784.957 FT                    -27.3168     0.0000   784.3493 FT      -76.200     0.000     0.000 MR
                               3.815 CM     3.476 MR     6.604 CM     3.246 MR     0.081 CM     2.000 PC      -1.000    1.000
                              -1.2528  -3.6467   1.4178   3.3290    -40.6711  -1.3409 -19.9576  -0.6826       0.5516  -0.4880
*DRIFT*         3.             1.50000 FT
786.457 FT                    -27.4310     0.0000   785.8449 FT      -76.200     0.000     0.000 MR
                               3.656 CM     3.476 MR     6.753 CM     3.246 MR     0.081 CM     2.000 PC      -1.000    1.000
                              -1.1879  -3.4945   1.4178   3.3290    -41.5835  -1.3721 -19.9576  -0.6826       0.5292  -0.4880
*QUAD*          5.     "Q13 "  10.00000 FT        -4.91839 KG        2.54000 CM      (  -72.52768 FT  )
796.457 FT                    -28.1922     0.0000   795.8159 FT      -76.200     0.000     0.000 MR
                               2.822 CM     2.062 MR     7.270 CM     0.111 MR     0.081 CM     2.000 PC      -0.999    0.980
                              -0.8270  -2.6951   0.9771   1.9752    -44.7589  -1.4841  -0.6433  -0.0437       0.4132  -0.2819
*DRIFT*         3.             1.50000 FT
797.957 FT                    -28.3064     0.0000   797.3116 FT      -76.200     0.000     0.000 MR
                               2.728 CM     2.062 MR     7.275 CM     0.111 MR     0.081 CM     2.000 PC      -0.999    0.981
                              -0.7823  -2.6048   0.9771   1.9752    -44.7883  -1.4861  -0.6433  -0.0437       0.4003  -0.2819
*QUAD*          5.     "Q14 "  10.00000 FT        -4.91839 KG        2.54000 CM      (  -72.52768 FT  )
807.957 FT                    -29.0677     0.0000   807.2825 FT      -76.200     0.000     0.000 MR
                               2.272 CM     0.968 MR     6.822 CM     3.044 MR     0.081 CM     2.000 PC      -0.996   -1.000
                              -0.5311  -2.1667   0.6899   0.9316    -41.9944  -1.4000  18.7694   0.6019       0.3398  -0.1200
*DRIFT*         3.             2.72000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                               2.192 CM     0.968 MR     6.570 CM     3.044 MR     0.081 CM     2.000 PC      -0.995   -1.000
                              -0.4739  -2.0895   0.6899   0.9316    -40.4383  -1.3501  18.7694   0.6019       0.3298  -0.1200
*DRIFT*         3.     "DIK5"  0.00000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                               2.192 CM     0.968 MR     6.570 CM     3.044 MR     0.081 CM     2.000 PC      -0.995   -1.000
                              -0.4739  -2.0895   0.6899   0.9316    -40.4383  -1.3501  18.7694   0.6019       0.3298  -0.1200
*DRIFT*         3.             72.20900 FT
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882.88[illegible] FT                  -34.7717     0.0000   881.9941 [illegible]      -76.200     0.000     0.000 MR
                                       0.215 CM     0.968 MR     0.[illegible] CM     3.044 MR     0.081 CM     2.000 PC      -0.       0.929
                                       1.0445  -0.0392   0.6899   0.9316              0.8719  -0.0253  18.7694   0.6019      0.0657  -0.1200
*DRIFT*          3.     "DIK6"        0.00000 FT
  882.886 FT                           -34.7717     0.0000   881.9941 FT      -76.200     0.000     0.000 MR
                                       0.215 CM     0.968 MR     0.141 CM     3.044 MR     0.081 CM     2.000 PC      -0.239    0.929
                                       1.0445  -0.0392   0.6899   0.9316              0.8719  -0.0253  18.7694   0.6019      0.0657  -0.1200
*DRIFT*          3.                    1.38000 FT
  884.266 FT                           -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                                       0.209 CM     0.968 MR     0.264 CM     3.044 MR     0.081 CM     2.000 PC      -0.051    0.980
                                       1.0735   0.0000   0.6899   0.9316              1.6614   0.0000  18.7694   0.6019      0.0606  -0.1200
*DRIFT*          3.     "2F  "        0.00000 FT
  884.266 FT                           -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                                       0.209 CM     0.968 MR     0.264 CM     3.044 MR     0.081 CM     2.000 PC      -0.051    0.980
                                       1.0735   0.0000   0.6899   0.9316              1.6614   0.0000  18.7694   0.6019      0.0606  -0.1200
*DRIFT*          3.     "PM2 "        0.00000 FT
  884.266 FT                           -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                                       0.209 CM     0.968 MR     0.264 CM     3.044 MR     0.081 CM     2.000 PC      -0.051    0.980
                                       1.0735   0.0000   0.6899   0.9316              1.6614   0.0000  18.7694   0.6019      0.0606  -0.1200
*DRIFT*          3.                    0.72000 FT
  884.986 FT                           -34.9316     0.0000   884.0880 FT      -76.200     0.000     0.000 MR
                                       0.209 CM     0.968 MR     0.330 CM     3.044 MR     0.081 CM     2.000 PC      0.050     0.987
                                       1.0886   0.0205   0.6899   0.9316              2.0733   0.0132  18.7694   0.6019      0.0580  -0.1200
*DRIFT*          3.     "C8H "        4.00000 FT
  888.986 FT                           -35.2361     0.0000   888.0764 FT      -76.200     0.000     0.000 MR
                                       0.245 CM     0.968 MR     0.699 CM     3.044 MR     0.081 CM     2.000 PC      0.524     0.997
                                       1.1727   0.1340   0.6899   0.9316              4.3616   0.0866  18.7694   0.6019      0.0434  -0.1200
*DRIFT*          3.                    0.90000 FT
  889.886 FT                           -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                                       0.260 CM     0.968 MR     0.782 CM     3.044 MR     0.081 CM     2.000 PC      0.596     0.998
                                       1.1916   0.1596   0.6899   0.9316              4.8765   0.1031  18.7694   0.6019      0.0401  -0.1200
*DRIFT*          3.     "LC2 "        0.00000 FT
  889.886 FT                           -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                                       0.260 CM     0.968 MR     0.782 CM     3.044 MR     0.081 CM     2.000 PC      0.596     0.998
                                       1.1916   0.1596   0.6899   0.9316              4.8765   0.1031  18.7694   0.6019      0.0401  -0.1200
*DRIFT*          3.                    1.00000 FT
  890.886 FT                           -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                                       0.279 CM     0.968 MR     0.875 CM     3.044 MR     0.081 CM     2.000 PC      0.662     0.998
                                       1.2127   0.1880   0.6899   0.9316              5.4486   0.1215  18.7694   0.6019      0.0364  -0.1200
*ROTAT*          2.                    0.00000 MR
  890.886 FT                           -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                                       0.279 CM     0.968 MR     0.875 CM     3.044 MR     0.081 CM     2.000 PC      0.662     0.998
                                       1.2127   0.1880   0.6899   0.9316              5.4486   0.1215  18.7694   0.6019      0.0364  -0.1200
*BEND*           4.     "B13 "       19.91667 FT        26.37613 KG        0.00000        (  1659.635 FT  ,  12.001 MR  )
  910.802 FT                           -37.0160     0.0000   909.8202 FT      -88.200     0.000     0.000 MR
                                       0.797 CM     0.938 MR     2.722 CM     3.044 MR     0.081 CM     2.000 PC      0.977     1.000
                                       1.6314   0.7535   0.6895   0.9315             16.8428   0.4869  18.7694   0.6019      0.0000    0.0000
*ROTAT*          2.                    0.00000 MR
  910.802 FT                           -37.0160     0.0000   909.8202 FT      -88.200     0.000     0.000 MR
                                       0.797 CM     0.938 MR     2.722 CM     3.044 MR     0.081 CM     2.000 PC      0.977     1.000
                                       1.6314   0.7535   0.6895   0.9315             16.8428   0.4869  18.7694   0.6019      0.0000    0.0000
*DRIFT*          3.                    6.81000 FT
  917.612 FT                           -37.6159     0.0000   916.6037 FT      -88.200     0.000     0.000 MR
                                       0.988 CM     0.938 MR     3.354 CM     3.044 MR     0.081 CM     2.000 PC      0.985     1.000
                                       1.7745   0.9468   0.6895   0.9315             20.7387   0.6118  18.7694   0.6019      0.0000    0.0000
*DRIFT*          3.     "V6  "        2.50000 FT
  920.112 FT                           -37.8361     0.0000   919.0940 FT      -88.200     0.000     0.000 MR
                                       1.058 CM     0.938 MR     3.586 CM     3.044 MR     0.081 CM     2.000 PC      0.987     1.000
                                       1.8270   1.0178   0.6895   0.9315             22.1690   0.6577  18.7694   0.6019      0.0000    0.0000
*DRIFT*          3.     "PAR "       86.45800 FT
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1006.570 FT                    -45.4518     0.0000  1005.2159 FT      -88.200     0.000     0.000 MR
                                3.520 CM     0.938 MR    11.608 CM      3.044 MR     0.081 CM     2.000 PC      0.999    1.000
                                3.6441   3.4724   0.6895   0.9315      71.6309   2.2439  18.7694   0.6019      0.0000   0.0000
*QUAD*          5.     "Q15 "  10.00000 FT        -4.26383 KG       2.54000 CM   (  -83.91022 FT  )
 1016.570 FT                   -46.3327     0.0000  1015.1770 FT      -88.200     0.000     0.000 MR
                                4.019 CM     2.369 MR    11.846 CM      1.497 MR     0.081 CM     2.000 PC      1.000   -1.000
                                4.0734   3.9668   2.1550   2.3441      73.0953   2.2940  -9.2539  -0.2767      0.0000   0.0000
*DRIFT*         3.     "D10 "  4.62000 FT
 1021.190 FT                   -46.7397     0.0000  1019.7791 FT      -88.200     0.000     0.000 MR
                                4.353 CM     2.369 MR    11.636 CM      1.497 MR     0.081 CM     2.000 PC      1.000   -1.000
                                4.3769   4.2969   2.1550   2.3441      71.7922   2.2550  -9.2539  -0.2767      0.0000   0.0000
*QUAD*          5.     "Q16 "  10.00000 FT        -4.26383 KG       2.54000 CM   (  -83.91022 FT  )
 1031.190 FT                   -47.6205     0.0000  1029.7402 FT      -88.200     0.000     0.000 MR
                                5.346 CM     4.211 MR    10.515 CM      5.786 MR     0.081 CM     2.000 PC      1.000   -1.000
                                5.3049   5.2790   3.9935   4.1625      64.8713   2.0418 -35.7160  -1.1087      0.0000   0.0000
*DRIFT*         3.     "D11 "  1.54000 FT
 1032.730 FT                   -47.7562     0.0000  1031.2742 FT      -88.200     0.000     0.000 MR
                                5.544 CM     4.211 MR    10.243 CM      5.786 MR     0.081 CM     2.000 PC      1.000   -1.000
                                5.4924   5.4744   3.9935   4.1625      63.1948   1.9897 -35.7160  -1.1087      0.0000   0.0000
*QUAD*          5.     "Q17 "  10.00000 FT         3.55423 KG       2.54000 CM   (  104.32114 FT  )
 1042.730 FT                   -48.6370     0.0000  1041.2354 FT      -88.200     0.000     0.000 MR
                                6.538 CM     2.264 MR     8.954 CM      2.743 MR     0.081 CM     2.000 PC      1.000   -1.000
                                6.4245   6.4581   2.0733   2.2397      55.2346   1.7440 -16.9396  -0.5168      0.0000   0.0000
*DRIFT*         3.     "D12 "  4.66600 FT
 1047.396 FT                   -49.0480     0.0000  1045.8832 FT      -88.200     0.000     0.000 MR
                                6.860 CM     2.264 MR     8.564 CM      2.743 MR     0.081 CM     2.000 PC      1.000   -1.000
                                6.7194   6.7766   2.0733   2.2397      52.8255   1.6705 -16.9396  -0.5168      0.0000   0.0000
*QUAD*          5.     "Q18 "  10.00000 FT         3.55423 KG       2.54000 CM   (  104.32114 FT  )
 1057.396 FT                   -49.9289     0.0000  1055.8443 FT      -88.200     0.000     0.000 MR
                                7.208 CM     0.022 MR     8.135 CM      0.097 MR     0.081 CM     2.000 PC     -0.141   -0.979
                                7.0164   7.1208  -0.1401   0.0003      50.1725   1.5925  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "      3.33000 FT
 1060.726 FT                   -50.2222     0.0000  1059.1614 FT      -88.200     0.000     0.000 MR
                                7.207 CM     0.022 MR     8.125 CM      0.097 MR     0.081 CM     2.000 PC     -0.141   -0.979
                                7.0022   7.1208  -0.1401   0.0003      50.1106   1.5925  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "PM3 "  0.00000 FT
 1060.726 FT                   -50.2222     0.0000  1059.1614 FT      -88.200     0.000     0.000 MR
                                7.207 CM     0.022 MR     8.125 CM      0.097 MR     0.081 CM     2.000 PC     -0.141   -0.979
                                7.0022   7.1208  -0.1401   0.0003      50.1106   1.5925  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "K1  "  53.00000 FT
 1113.726 FT                   -54.8908     0.0000  1111.9554 FT      -88.200     0.000     0.000 MR
                                7.202 CM     0.022 MR     7.972 CM      0.097 MR     0.081 CM     2.000 PC     -0.136   -0.979
                                6.7758   7.1213  -0.1401   0.0003      49.1254   1.5935  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "      3.14100 FT
 1116.867 FT                   -55.1675     0.0000  1115.0842 FT      -88.200     0.000     0.000 MR
                                7.202 CM     0.022 MR     7.963 CM      0.097 MR     0.081 CM     2.000 PC     -0.136   -0.979
                                6.7624   7.1213  -0.1401   0.0003      49.0670   1.5935  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "K2  "  53.00000 FT
 1169.867 FT                   -59.8360     0.0000  1167.8782 FT      -88.200     0.000     0.000 MR
                                7.197 CM     0.022 MR     7.810 CM      0.097 MR     0.081 CM     2.000 PC     -0.131   -0.978
                                6.5360   7.1218  -0.1401   0.0003      48.0819   1.5944  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "      3.43000 FT
 1173.297 FT                   -60.1381     0.0000  1171.2948 FT      -88.200     0.000     0.000 MR
                                7.197 CM     0.022 MR     7.800 CM      0.097 MR     0.081 CM     2.000 PC     -0.131   -0.978
                                6.5213   7.1218  -0.1401   0.0003      48.0182   1.5945  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "PM4 "  0.00000 FT
 1173.297 FT                   -60.1381     0.0000  1171.2948 FT      -88.200     0.000     0.000 MR
                                7.197 CM     0.022 MR     7.800 CM      0.097 MR     0.081 CM     2.000 PC     -0.131   -0.978
                                6.5213   7.1218  -0.1401   0.0003      48.0182   1.5945  -0.6098   0.0006      0.0000   -0.0000
*DRIFT*         3.     "      3.80000 FT
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                                  -60.4729     0.0000  1175.0801 FT      -88.200     0.000     0.000 MR
                                    7.197 CM     0.022 MR     7.7[illegible] CM     0.097 MR     0.081 CM     2.000 PC      -0.1      -0.976
                                    6.5051   7.1219  -0.1401   0.0[illegible]3     47.9475   1.5946  -0.6098   0.0006       0.0     -0.0000
*QUAD*          5.      "Q19 "   10.00000 FT        2.82723 KG        2.54000 CM   (  130.70906 FT  )
 1187.097 FT                      -61.3537     0.0000  1185.0412 FT      -88.200     0.000     0.000 MR
                                    6.919 CM     1.809 MR     8.063 CM     1.908 MR     0.081 CM     2.000 PC      -1.000     1.000
                                    6.2125   6.8478  -1.7675  -1.7873     49.6293   1.6569  11.7164   0.4113       0.0000    -0.0000
*DRIFT*         3.               4.71000 FT
 1191.807 FT                      -61.7686     0.0000  1189.7329 FT      -88.200     0.000     0.000 MR
                                    6.659 CM     1.809 MR     8.337 CM     1.908 MR     0.081 CM     2.000 PC      -1.000     1.000
                                    5.9587   6.5912  -1.7675  -1.7873     51.3113   1.7160  11.7164   0.4113       0.0000    -0.0000
*QUAD*          5.      "Q20 "   10.00000 FT        2.82723 KG        2.54000 CM   (  130.70906 FT  )
 1201.807 FT                      -62.6495     0.0000  1199.6940 FT      -88.200     0.000     0.000 MR
                                    5.858 CM     3.411 MR     9.251 CM     4.130 MR     0.081 CM     2.000 PC      -1.000     1.000
                                    5.1975   5.7996  -3.1952  -3.3729     56.9300   1.9099  25.3897   0.8693       0.0000    -0.0000
*DRIFT*         3.               1.43700 FT
 1203.244 FT                      -62.7761     0.0000  1201.1254 FT      -88.200     0.000     0.000 MR
                                    5.709 CM     3.411 MR     9.432 CM     4.130 MR     0.081 CM     2.000 PC      -1.000     1.000
                                    5.0576   5.6519  -3.1952  -3.3729     58.0421   1.9480  25.3897   0.8693       0.0000    -0.0000
*QUAD*          5.      "Q21 "   10.00000 FT       -3.16247 KG        2.54000 CM   ( -113.69962 FT  )
 1213.244 FT                      -63.6569     0.0000  1211.0865 FT      -88.200     0.000     0.000 MR
                                    4.903 CM     1.913 MR    10.267 CM     1.308 MR     0.081 CM     2.000 PC      -1.000     1.000
                                    4.2904   4.8557  -1.8753  -1.8893     63.1718   2.1253   8.0259   0.2858       0.0000    -0.0000
*DRIFT*         3.               4.74000 FT
 1217.984 FT                      -64.0744     0.0000  1215.8081 FT      -88.200     0.000     0.000 MR
                                    4.627 CM     1.913 MR    10.456 CM     1.308 MR     0.081 CM     2.000 PC      -1.000     1.000
                                    4.0194   4.5827  -1.8753  -1.8893     64.3313   2.1666   8.0259   0.2858       0.0000    -0.0000
*QUAD*          5.      "Q22 "   10.00000 FT       -3.16247 KG        2.54000 CM   ( -113.69962 FT  )
 1227.984 FT                      -64.9553     0.0000  1225.7692 FT      -88.200     0.000     0.000 MR
                                    4.238 CM     0.662 MR    10.399 CM     1.680 MR     0.081 CM     2.000 PC      -0.998     -1.000
                                    3.6150   4.1986  -0.7973  -0.6494     63.9739   2.1593 -10.3537  -0.3338       0.0000    -0.0000
*DRIFT*         3.               2.18000 FT
 1230.164 FT                      -65.1473     0.0000  1227.9408 FT      -88.200     0.000     0.000 MR
                                    4.194 CM     0.662 MR    10.287 CM     1.680 MR     0.081 CM     2.000 PC      -0.998     -1.000
                                    3.5620   4.1554  -0.7973  -0.6494     63.2860   2.1371 -10.3537  -0.3338       0.0000    -0.0000
*DRIFT*         3.      "V7  "   2.50000 FT
 1232.664 FT                      -65.3675     0.0000  1230.4310 FT      -88.200     0.000     0.000 MR
                                    4.144 CM     0.662 MR    10.159 CM     1.680 MR     0.081 CM     2.000 PC      -0.998     -1.000
                                    3.5013   4.1059  -0.7973  -0.6494     62.4970   2.1116 -10.3537  -0.3338       0.0000    -0.0000
*DRIFT*         3.               1.40000 FT
 1234.064 FT                      -65.4909     0.0000  1231.8256 FT      -88.200     0.000     0.000 MR
                                    4.115 CM     0.662 MR    10.087 CM     1.680 MR     0.081 CM     2.000 PC      -0.998     -1.000
                                    3.4673   4.0782  -0.7973  -0.6494     62.0552   2.0974 -10.3537  -0.3338       0.0000    -0.0000
*DRIFT*         3.      "V8  "   2.50000 FT
 1236.564 FT                      -65.7111     0.0000  1234.3159 FT      -88.200     0.000     0.000 MR
                                    4.065 CM     0.662 MR     9.959 CM     1.680 MR     0.081 CM     2.000 PC      -0.998     -1.000
                                    3.4065   4.0287  -0.7973  -0.6494     61.2663   2.0720 -10.3537  -0.3338       0.0000    -0.0000
*DRIFT*         3.               6.26000 FT
 1242.824 FT                      -66.2625     0.0000  1240.5515 FT      -88.200     0.000     0.000 MR
                                    3.939 CM     0.662 MR     9.639 CM     1.680 MR     0.081 CM     2.000 PC      -0.998     -1.000
                                    3.2544   3.9048  -0.7973  -0.6494     59.2907   2.0083 -10.3537  -0.3338       0.0000    -0.0000
*DRIFT*         3.      "K3  "   94.79600 FT
 1337.620 FT                      -74.6127     0.0000  1334.9790 FT      -88.200     0.000     0.000 MR
                                    2.034 CM     0.662 MR     4.786 CM     1.680 MR     0.081 CM     2.000 PC      -0.993     -1.000
                                    0.9505   2.0284  -0.7973  -0.6494     29.3748   1.0437 -10.3537  -0.3338       0.0000    -0.0000
*DRIFT*         3.              102.30300 FT
 1439.923 FT                      -83.6241     0.0000  1436.8844 FT      -88.200     0.000     0.003 MR
                                    0.244 CM     0.662 MR     0.463 CM     1.680 MR     0.081 CM     2.000 PC       0.178      0.979
                                   -1.5357   0.0033  -0.7973  -0.6494     -2.9102   0.0028 -10.3537  -0.3338      -0.0000    -0.0000
*DRIFT*         3.      "3F  "   0.00000 FT
```

```
 1439.923 FT                    -83.6241     0.0000  1436.8844 FT      -88.200     0.000     0.000 MR
                                 0.244 CM     0.662 MR     0.463 CM     1.680 MR     0.081 CM     2.000 PC      0.178     0.979
                                -1.5357   0.0033  -0.7973  -0.6494      -2.9102   0.0028 -10.3537  -0.3338     -0.0000   -0.0000
*DRIFT*        3.      "PM5 "    0.00000 FT
 1439.923 FT                    -83.6241     0.0000  1436.8844 FT      -88.200     0.000     0.000 MR
                                 0.244 CM     0.662 MR     0.463 CM     1.680 MR     0.081 CM     2.000 PC      0.178     0.979
                                -1.5357   0.0033  -0.7973  -0.6494      -2.9102   0.0028 -10.3537  -0.3338     -0.0000   -0.0000

*LENGTH*       1439.92329 FT
```

```
TTTTTTTTTTTTTT     FFFFFFFFFFFFFFF      222222222      555555555555555      000000000      WWW        WWW
TTTTTTTTTTTTTT     FFFFFFFFFFFFFFF      222222222      555555555555555      000000000      WWW        WWW
TTTTTTTTTTTTTTT    FFFFFFFFFFFFFFF      222222222      555555555555555      000000000      WWW        WWW
     TTT           FFF                222        222    555                000        000    WWW        WWW
     TTT           FFF                222        222    555                000        000    WWW        WWW
     TTT           FFF                222        222    555                000        000    WWW        WWW
     TTT           FFF                           222    555555555          000      000000   WWW        WWW
     TTT           FFF                           222    555555555          000      000000   WWW        WWW
     TTT           FFF                           222    555555555          000      000000   WWW        WWW
     TTT           FFFFFFFFFFFF                222                555      000   000   000   WWW        WWW
     TTT           FFFFFFFFFFFF                222                555      000   000   000   WWW        WWW
     TTT           FFFFFFFFFFFF                222                555      000   000   000   WWW        WWW
     TTT           FFF                      222                      555   000000      000   WWW   WWW   WWW
     TTT           FFF                      222                      555   000000      000   WWW   WWW   WWW
     TTT           FFF                      222                      555   000000      000   WWW   WWW   WWW
     TTT           FFF                    222            555        555   000         000   WWWWWW   WWWWWW
     TTT           FFF                    222            555        555   000         000   WWWWWW   WWWWWW
     TTT           FFF                    222            555        555   000         000   WWWWWW   WWWWWW
     TTT           FFF                222222222222222      555555555          000000000      WWW        WWW
     TTT           FFF                222222222222222      555555555          000000000      WWW        WWW
     TTT           FFF                222222222222222      555555555          000000000      WWW        WWW


DDDDDDDDDDDD           AAAAAAAAA        TTTTTTTTTTTTTTT
DDDDDDDDDDDD           AAAAAAAAA        TTTTTTTTTTTTTTT
DDDDDDDDDDDD           AAAAAAAAA        TTTTTTTTTTTTTTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAAAAAAAAAAAAAA          TTT
DDD        DDD     AAAAAAAAAAAAAAA          TTT
DDD        DDD     AAAAAAAAAAAAAAA          TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDD        DDD     AAA        AAA           TTT
DDDDDDDDDDDD       AAA        AAA           TTT
DDDDDDDDDDDD       AAA        AAA           TTT
DDDDDDDDDDDD       AAA        AAA           TTT
```

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LPTSPL VERSION 6(344)  RUNNING ON LPT000
 *START* USER ECK:UNO,S. [105,711] JOB  TF250E SEQ. 26125 DATE 03-MAY-77 22:13:40 MONITOR FERMILAB 602.1 *START*
REQUEST CREATED: 03-MAY-77  22:15:12
FILE: DSKC0:TF250W.DAT[105,711] CREATED: 29-APR-77 12:57:00 <155>  PRINTED: 03-MAY-77 22:16:29
QUEUE SWITCHES:  /PRINT:ARROW /FILE:FORT /COPIES:1 /SPACING:1 /LIMIT:532 /FORMS:NORMAL
FILE WILL BE RENAMED TO <055> PROTECTION
```

```
*250 GEV M1W

 2
15.                          8.00000   "FT  "        0.30480 ;
15.                          7.00000   "MR  "        0.05730 ;
13.                         19.00000;
13.                          3.00000;
13.                          6.00000;
13.                         12.00000;
*13.            "POFF"      18.00000;
 1.000000                    0.15900    1.00000     0.15900     1.00000     0.00000     2.00000   400.00000;
16.00                       19.00000   -3.00000;
 3.0            "0F  "       0.00000;
 3.0                         16.50000;
 3.0            "C2  "       8.50000;
 3.0                          1.50000;
 3.0            "C3  "       8.50000;
 3.0                          1.50000;
 3.0            "C4  "       8.50000;
 3.0                          0.10000;
 3.0            "DIK0"       0.00000;
 3.0                          6.30000;
 5.00           "Q1  "      10.00000   -7.56549     2.54000;
 3.0                          1.06300;
 5.00           "Q2  "      10.00000   -7.56549     2.54000;
 3.0                          1.07200;
 5.00           "Q3  "      10.00000    7.20000     2.54000;
 3.0                          1.32000;
 2.0                          1.33367;
 4.000          "A1  "      10.25000   11.39147     0.00000;
 2.0                          1.33367;
 3.0                          1.24000;
 2.0                          1.33367;
 4.000          "A2  "      10.25000   11.39147     0.00000;
 2.0                          1.33367;
 3.0                          1.32500;
 5.00           "Q4  "      10.00000    2.17238     2.54000;
 3.0                          1.07500;
 5.00           "Q5  "      10.00000    2.17238     2.54000;
 3.0                          1.34400;
 2.0                          1.33367;
 4.000          "A3  "      10.25000   11.39147     0.00000;
 2.0                          1.33367;
 3.0                          1.20800;
 2.0                          1.33367;
 4.000          "A4  "      10.25000   11.39147     0.00000;
 2.0                          1.33367;
 3.0                          1.22200;
 2.0                          1.33367;
 4.000          "A5  "      10.25000   11.39147     0.00000;
 2.0                          1.33367;
 3.0                          1.34000;
 3.0                          0.29100;
 3.0            "C3H "       6.00000;
 3.0                          0.29200;
 3.0                          1.35800;
 2.0                          3.88016;
 4.000          "A6  "      19.91667   17.05637     0.00000;
```

```
 2.0                    3.88016;
 3.0                    1.33700;
 2.0                    3.88016;
 4.000      "A7  "     19.91667    17.05637     0.00000;
 2.0                    3.88016;
 3.0                    1.34200;
 2.0                    3.88016;
 4.000      "A8  "     19.91667    17.05637     0.00000;
 2.0                    3.88016;
 3.0                    1.82000;
• 5.00      "D6  "      5.00000     2.00000     2.54000;
 3.0                    1.59900;
 3.0        "V1  "      2.50000;
 3.0                    1.41900;
 3.0                    0.22900;
 3.0        "C4V "      6.00000;
 3.0                    0.22900;
 3.0                    2.40300;
• 5.00      "D7  "     10.00000    -1.27474     2.54000;
 3.0                    2.62500;
 3.0        "DIK1"      0.00000;
 3.0                   94.07600;
 3.0        "DIK2"      0.00000;
 3.0                    7.26000;
 3.0                    0.11500;
 3.0        "AS1 "      3.00000;
 3.0                    0.11500;
 3.0                   26.71800;
• 5.00      "D8  "      7.00000    -9.14955     2.54000;
 3.0                    4.22000;
• 5.00      "D9  "      4.33300     9.14955     2.54000;
 3.0                    1.41000;
• 5.00      "D10 "      4.33300     9.14955     2.54000;
 3.0                    6.25000;
 3.0        "V3  "      2.50000;
 3.0                   10.46900;
 3.0                    0.29200;
 3.0        "C5H "      4.00000;
 3.0                    0.29300;
 3.0                    0.83000;
 3.0                    0.23000;
 3.0        "C6V "      4.00000;
 3.0                    0.23000;
 3.0                    0.96000;
 3.0        "IF  "      0.00000;
• -10.      "IF12"     -1.00000     2.00000     0.00000     0.00010;
• -10.      "IF34"     -3.00000     4.00000     0.00000     0.00010;
 3.0        "PM1 "      0.00000;
 3.0        "IC1 "      0.00000;
 3.0                    3.51500;
 3.0        "DIK3"      0.00000;
 3.0                  195.15800;
 3.0        "DIK4"      0.00000;
 3.0                    5.01000;
 3.0                    0.23000;
 3.0        "C7V "      4.00000;
 3.0                    0.23000;
 3.0                    1.50000;
 3.0        "C7H "      2.50000;
 3.0                    1.50000;
```

```
 3.0            "V5  "      2.50000;
 3.0                        2.49000;
 2.0                        4.57275;
 4.000          "A9  "     19.91667    20.10081     0.00000;
 2.0                        4.57275;
 3.0                        1.29000;
 2.0                        4.57275;
 4.000          "A10 "     19.91667    20.10081     0.00000;
 2.0                        4.57275;
 3.0                        1.31000;
 2.0                        4.57275;
 4.000          "A11 "     19.91667    20.10081     0.00000;
 2.0                        4.57275;
 3.0                        1.36000;
 2.0                        4.57275;
 4.000          "A12 "     19.91667    20.10081     0.00000;
 2.0                        4.57275;
 3.0                        3.01000;
 5.00           "n11 "     10.00000     5.05987     2.54000;
 3.0                        1.50000;
 5.00           "n12 "     10.00000     5.05987     2.54000;
 3.0                        1.50000;
 5.00           "n13A"      5.00000    -4.91839     2.54000;
 3.0                        1.50000;
 5.00           "n13 "     10.00000    -4.91839     2.54000;
 3.0                        1.50000;
 5.00           "n14 "     10.00000    -4.91839     2.54000;
 3.0                        2.72000;
 3.0            "nIK5"      0.00000;
 3.0                       72.20900;
 3.0            "nIK6"      0.00000;
 3.0                        1.38000;
 3.0            "2F  "      0.00000;
-10.            "2F12"     -1.00000     2.00000     0.00000     0.00010;
-10.            "2F34"     -3.00000     4.00000     0.00000     0.00010;
 3.0            "PM2 "      0.00000;
 3.0                        0.72000;
 3.0            "n8H "      4.00000;
 3.0                        0.90000;
 3.0            "IC2 "      0.00000;
 3.0                        1.00000;
 2.0                        0.00000;
 4.000          "A13 "     20.00000     0.00000     0.00000;
 2.0                        0.00000;
-10.            "2F16"     -1.00000     6.00000     0.00000     0.00010;
-10.            "2F26"     -2.00000     6.00000     0.00000     0.00010;
 3.0                        6.81000;
 3.0            "V6  "      2.50000;
 3.0            "PAR "     06.45800;
 5.00           "n15 "     10.00000    -4.26383     2.54000;
 3.0            "n10 "      4.62000;
 5.00           "n16 "     10.00000    -4.26383     2.54000;
 3.0            "n11 "      1.54000;
 5.00           "n17 "     10.00000     3.55423     2.54000;
 3.0            "n12 "      4.66600;
 5.00           "n18 "     10.00000     3.55423     2.54000;
 3.0                        3.33000;
 3.0            "PM3 "      0.00000;
 10.            "3F22"     -2.00000     2.00000     0.00000     0    010;
 10.            "3F44"     -4.00000     4.00000     0.00000     0.00010;
```

```
  3.0          "k1  "     53.00000;
  3.0                      3.14100;
  3.0          "k2  "     53.00000;
  3.0                      3.43000;
  3.0          "pM4 "      0.00000;
  3.0                      3.80000;
  5.00         "n19 "     10.00000     2.82723     2.54000;
  3.0                      4.71000;
  5.00         "n20 "     10.00000     2.82723     2.54000;
  3.0                      1.43700;
  5.00         "n21 "     10.00000    -3.16247     2.54000;
  3.0                      4.74000;
  5.00         "n22 "     10.00000    -3.16247     2.54000;
  3.0                      2.18000;
  3.0          "v7  "      2.50000;
  3.0                      1.40000;
  3.0          "v8  "      2.50000;
  3.0                      6.26000;
  3.0          "k3  "     94.79600;
  3.0                    102.30300;
  3.0          "3F  "      0.00000;
 -10.          "3F12"     -1.00000     2.00000     0.00000     0.00010;
 -10.          "3F34"     -3.00000     4.00000     0.00000     0.00010;
  3.0          "pM5 "      0.00000;
SENTINEL
```

```
                                        R11       R12       R21       R22       R33       R34       R43       R44       R16       R26
*BEAM*          1.                    400.00000 GEV
    0.000 FT                          0.0000    0.0000    0.0000 FT         0.000     0.000     0.000 MR
                                      0.159 CM  1.000 MR  0.159 CM  1.000 MR  0.000 CM  2.000 PC  0.000     0.000
*THETA2*        16.                   19.   -0.30000E+01
*DRIFT*         3.      "0F  "        0.00000 FT
    0.000 FT                          0.0000    0.0000    0.0000 FT        -3.000     0.000     0.000 MR
                                      0.159 CM  1.000 MR  0.159 CM  1.000 MR  0.000 CM  2.000 PC  0.000     0.000
                                      1.0000    0.0000    0.0000    1.0000    1.0000    0.0000    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                    16.50000 FT
    16.500 FT                         -0.0495   0.0000   16.4999 FT        -3.000     0.000     0.000 MR
                                      0.527 CM  1.000 MR  0.527 CM  1.000 MR  0.000 CM  2.000 PC  0.953     0.953
                                      1.0000    0.5029    0.0000    1.0000    1.0000    0.5029    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C2  "        8.50000 FT
    25.000 FT                         -0.0750   0.0000   24.9999 FT        -3.000     0.000     0.000 MR
                                      0.778 CM  1.000 MR  0.778 CM  1.000 MR  0.000 CM  2.000 PC  0.979     0.979
                                      1.0000    0.7620    0.0000    1.0000    1.0000    0.7620    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                    1.50000 FT
    26.500 FT                         -0.0795   0.0000   26.4999 FT        -3.000     0.000     0.000 MR
                                      0.823 CM  1.000 MR  0.823 CM  1.000 MR  0.000 CM  2.000 PC  0.981     0.981
                                      1.0000    0.8077    0.0000    1.0000    1.0000    0.8077    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C3  "        8.50000 FT
    35.000 FT                         -0.1050   0.0000   34.9998 FT        -3.000     0.000     0.000 MR
                                      1.079 CM  1.000 MR  1.079 CM  1.000 MR  0.000 CM  2.000 PC  0.989     0.989
                                      1.0000    1.0668    0.0000    1.0000    1.0000    1.0668    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                    1.50000 FT
    36.500 FT                         -0.1095   0.0000   36.4998 FT        -3.000     0.000     0.000 MR
                                      1.124 CM  1.000 MR  1.124 CM  1.000 MR  0.000 CM  2.000 PC  0.990     0.990
                                      1.0000    1.1125    0.0000    1.0000    1.0000    1.1125    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C4  "        8.50000 FT
    45.000 FT                         -0.1350   0.0000   44.9998 FT        -3.000     0.000     0.000 MR
                                      1.381 CM  1.000 MR  1.381 CM  1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                      1.0000    1.3716    0.0000    1.0000    1.0000    1.3716    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                    0.10000 FT
    45.100 FT                         -0.1353   0.0000   45.0998 FT        -3.000     0.000     0.000 MR
                                      1.384 CM  1.000 MR  1.384 CM  1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                      1.0000    1.3746    0.0000    1.0000    1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "DIKO"        0.00000 FT
    45.100 FT                         -0.1353   0.0000   45.0998 FT        -3.000     0.000     0.000 MR
                                      1.384 CM  1.000 MR  1.384 CM  1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                      1.0000    1.3746    0.0000    1.0000    1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                    6.30000 FT
    51.400 FT                         -0.1542   0.0000   51.3998 FT        -3.000     0.000     0.000 MR
                                      1.575 CM  1.000 MR  1.575 CM  1.000 MR  0.000 CM  2.000 PC  0.995     0.995
                                      1.0000    1.5667    0.0000    1.0000    1.0000    1.5667    0.0000    1.0000    0.0000    0.0000
*QUAD*          5.      "Q1  "        10.00000 FT       -7.56549 KG       2.54000 CM  (  -46.59036 FT  )
    61.400 FT                         -0.1842   0.0000   61.3997 FT        -3.000     0.000     0.000 MR
                                      2.055 CM  2.212 MR  1.707 CM  0.168 MR  0.000 CM  2.000 PC  0.999    -0.832
                                      1.1055    2.0474    0.7042    2.2087    0.8981    1.7014   -0.6571   -0.1315    0.0000    0.0000
*DRIFT*         3.                    1.06300 FT
    62.463 FT                         -0.1874   0.0000   62.4627 FT        -3.000     0.000     0.000 MR
                                      2.127 CM  2.212 MR  1.703 CM  0.168 MR  0.000 CM  2.000 PC  0.999    -0.831
                                      1.1283    2.1190    0.7042    2.2087    0.8768    1.6971   -0.6571   -0.1315    0.0000    0.0000
*QUAD*          5.      "Q2  "        10.00000 FT       -7.56549 KG       2.54000 CM  (  -46.59036 FT  )
    72.463 FT                         -0.2174   0.0000   72.4627 FT        -3.000     0.000     0.000 MR
                                      3.048 CM  3.942 MR  1.488 CM  1.247 MR  0.000 CM  2.000 PC  1.000    -0.996
                                      1.4695    3.0393    1.5730    3.9339    0.5940    1.4855   -1.1664   -1.2333    0.0000    0.0000
DRIFT*          3.                    1.07200 FT
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   73.535 FT                    -0.2206     0.0000    73.5347 FT       -3.000     0.000     0.000 MR
                                 3.177 CM    3.942 MR    1.4[illegible] CM    1.247 MR    0.000 CM    2.000 PC      1.0     -0.996
                                 1.5209   3.1678   1.5730   3.9339      0.5559   1.4452  -1.1664  -1.2333      0.0000   0.0000
*QUAD*          5.     "Q3      10.00000 FT       7.20000 KG       2.54000 CM   (   52.37108 FT  )
   83.535 FT                    -0.2506     0.0000    83.5346 FT       -3.000     0.000     0.000 MR
                                 4.031 CM    1.569 MR    1.202 CM    0.416 MR    0.000 CM    2.000 PC      1.000   -0.948
                                 1.8371   4.0203   0.4676   1.5675      0.2443   1.2017  -0.9114  -0.3901      0.0000   0.0000
*DRIFT*         3.               1.32000 FT
   84.855 FT                    -0.2546     0.0000    84.8546 FT       -3.000     0.000     0.000 MR
                                 4.094 CM    1.569 MR    1.186 CM    0.416 MR    0.000 CM    2.000 PC      1.000   -0.947
                                 1.8559   4.0833   0.4676   1.5675      0.2077   1.1860  -0.9114  -0.3901      0.0000   0.0000
*ROTAT*         2.               1.33367 MR
   84.855 FT                    -0.2546     0.0000    84.8546 FT       -3.000     0.000     0.000 MR
                                 4.094 CM    1.569 MR    1.186 CM    0.416 MR    0.000 CM    2.000 PC      1.000   -0.947
                                 1.8559   4.0833   0.4676   1.5676      0.2077   1.1860  -0.9115  -0.3901      0.0000   0.0000
*BEND*          4.     "B1  "   10.25000 FT      11.39147 KG       0.00000   (  3842.767 FT  ,   2.667 MR  )
   95.105 FT                    -0.2990     0.0000    95.1045 FT       -5.667     0.000     0.000 MR
                                 4.584 CM    1.570 MR    1.064 CM    0.416 MR    0.012 CM    2.000 PC      0.999   -0.933
                                 2.0020   4.5731   0.4675   1.5675     -0.0771   1.0641  -0.9115  -0.3901      0.0242   0.0267
*ROTAT*         2.               1.33367 MR
   95.105 FT                    -0.2990     0.0000    95.1045 FT       -5.667     0.000     0.000 MR
                                 4.584 CM    1.570 MR    1.064 CM    0.416 MR    0.012 CM    2.000 PC      0.999   -0.933
                                 2.0020   4.5731   0.4676   1.5675     -0.0771   1.0641  -0.9114  -0.3902      0.0242   0.0267
*DRIFT*         3.               1.24000 FT
   96.345 FT                    -0.3060     0.0000    96.3445 FT       -5.667     0.000     0.000 MR
                                 4.643 CM    1.570 MR    1.050 CM    0.416 MR    0.012 CM    2.000 PC      0.999   -0.931
                                 2.0196   4.6323   0.4676   1.5675     -0.1115   1.0494  -0.9114  -0.3902      0.0252   0.0267
*ROTAT*         2.               1.33367 MR
   96.345 FT                    -0.3060     0.0000    96.3445 FT       -5.667     0.000     0.000 MR
                                 4.643 CM    1.570 MR    1.050 CM    0.416 MR    0.012 CM    2.000 PC      0.999   -0.931
                                 2.0196   4.6323   0.4676   1.5676     -0.1115   1.0494  -0.9114  -0.3902      0.0252   0.0267
*BEND*          4.     "B2  "   10.25000 FT      11.39147 KG       0.00000   (  3842.767 FT  ,   2.667 MR  )
  106.595 FT                    -0.3778     0.0000   106.5942 FT       -8.335     0.000     0.000 MR
                                 5.134 CM    1.573 MR    0.930 CM    0.416 MR    0.025 CM    2.000 PC      0.998   -0.912
                                 2.1657   5.1220   0.4675   1.5675     -0.3963   0.9275  -0.9114  -0.3902      0.0177   0.0533
*ROTAT*         2.               1.33367 MR
  106.595 FT                    -0.3778     0.0000   106.5942 FT       -8.335     0.000     0.000 MR
                                 5.134 CM    1.573 MR    0.930 CM    0.416 MR    0.025 CM    2.000 PC      0.998   -0.912
                                 2.1657   5.1220   0.4676   1.5675     -0.3963   0.9275  -0.9114  -0.3902      0.0177   0.0533
*DRIFT*         3.               1.32500 FT
  107.920 FT                    -0.3888     0.0000   107.9192 FT       -8.335     0.000     0.000 MR
                                 5.197 CM    1.573 MR    0.914 CM    0.416 MR    0.025 CM    2.000 PC      0.998   -0.909
                                 2.1846   5.1854   0.4676   1.5675     -0.4331   0.9117  -0.9114  -0.3902      0.0198   0.0533
*QUAD*          5.     "Q4  "   10.00000 FT       2.17238 KG       2.54000 CM   (  169.59996 FT  )
  117.920 FT                    -0.4722     0.0000   117.9189 FT       -8.335     0.000     0.000 MR
                                 5.517 CM    0.527 MR    0.827 CM    0.275 MR    0.025 CM    2.000 PC      0.984   -0.716
                                 2.2610   5.5048   0.0311   0.5180     -0.7266   0.8189  -1.0242  -0.2219      0.0353   0.0479
*DRIFT*         3.               1.07500 FT
  118.995 FT                    -0.4811     0.0000   118.9938 FT       -8.335     0.000     0.000 MR
                                 5.534 CM    0.527 MR    0.821 CM    0.275 MR    0.025 CM    2.000 PC      0.984   -0.710
                                 2.2620   5.5218   0.0311   0.5180     -0.7602   0.8116  -1.0242  -0.2219      0.0369   0.0479
*QUAD*          5.     "Q5  "   10.00000 FT       2.17238 KG       2.54000 CM   (  169.59996 FT  )
  128.995 FT                    -0.5645     0.0000   128.9935 FT       -8.335     0.000     0.000 MR
                                 5.527 CM    0.575 MR    0.787 CM    0.203 MR    0.025 CM    2.000 PC     -0.987   -0.119
                                 2.2044   5.5145  -0.4074  -0.5655     -1.0982   0.7676  -1.2048  -0.0684      0.0503   0.0394
*DRIFT*         3.               1.34400 FT
  130.339 FT                    -0.5757     0.0000   130.3374 FT       -8.335     0.000     0.000 MR
                                 5.503 CM    0.575 MR    0.786 CM    0.203 MR    0.025 CM    2.000 PC     -0.987   -0.109
                                 2.1877   5.4913  -0.4074  -0.5655     -1.1478   0.7648  -1.2048  -0.0684      0.0519   0.0394
*ROTAT*         2.               1.33367 MR
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130.339 FT                    -0.5957    0.0000   130.3374 FT      -8.335     0.000     0.000 MR
                               5.503 CM    0.575 MR    0.786 CM    0.203 MR    0.025 CM    2.000 PC    -0.987   -0.109
                               2.1877   5.4913  -0.4074  -0.5654   -1.1476   0.7648  -1.2048  -0.0684    0.0519   0.0394
*BEND*          4.     "B3  "  10.25000 FT      11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
140.589 FT                    -0.6748    0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                               5.326 CM    0.584 MR    0.782 CM    0.203 MR    0.039 CM    2.000 PC    -0.967   -0.028
                               2.0604   5.3146  -0.4074  -0.5656   -1.5240   0.7434  -1.2048  -0.0684    0.0684   0.0660
*ROTAT*         2.             1.33367 MR
140.589 FT                    -0.6748    0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                               5.326 CM    0.584 MR    0.782 CM    0.203 MR    0.039 CM    2.000 PC    -0.967   -0.028
                               2.0604   5.3146  -0.4074  -0.5655   -1.5240   0.7434  -1.2048  -0.0684    0.0684   0.0660
*DRIFT*         3.             1.20800 FT
141.797 FT                    -0.6881    0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                               5.306 CM    0.584 MR    0.782 CM    0.203 MR    0.039 CM    2.000 PC    -0.966   -0.019
                               2.0454   5.2938  -0.4074  -0.5655   -1.5684   0.7409  -1.2048  -0.0684    0.0708   0.0660
*ROTAT*         2.             1.33367 MR
141.797 FT                    -0.6881    0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                               5.306 CM    0.584 MR    0.782 CM    0.203 MR    0.039 CM    2.000 PC    -0.966   -0.019
                               2.0454   5.2938  -0.4074  -0.5654   -1.5684   0.7409  -1.2048  -0.0685    0.0708   0.0660
*BEND*          4.     "B4  "  10.25000 FT      11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
152.047 FT                    -0.8145    0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                               5.130 CM    0.599 MR    0.783 CM    0.203 MR    0.053 CM    2.000 PC    -0.937    0.063
                               1.9181   5.1171  -0.4074  -0.5656   -1.9448   0.7195  -1.2048  -0.0685    0.0956   0.0927
*ROTAT*         2.             1.33367 MR
152.047 FT                    -0.8145    0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                               5.130 CM    0.599 MR    0.783 CM    0.203 MR    0.053 CM    2.000 PC    -0.937    0.063
                               1.9181   5.1171  -0.4074  -0.5655   -1.9448   0.7195  -1.2048  -0.0685    0.0956   0.0927
*DRIFT*         3.             1.22200 FT
153.269 FT                    -0.8312    0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                               5.109 CM    0.599 MR    0.784 CM    0.203 MR    0.053 CM    2.000 PC    -0.937    0.072
                               1.9029   5.0961  -0.4074  -0.5655   -1.9896   0.7170  -1.2048  -0.0685    0.0990   0.0927
*ROTAT*         2.             1.33367 MR
153.269 FT                    -0.8312    0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                               5.109 CM    0.599 MR    0.784 CM    0.203 MR    0.053 CM    2.000 PC    -0.937    0.072
                               1.9029   5.0961  -0.4074  -0.5654   -1.9896   0.7170  -1.2047  -0.0685    0.0990   0.0927
*BEND*          4.     "B5  "  10.25000 FT      11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
163.519 FT                    -0.9850    0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                               4.935 CM    0.617 MR    0.791 CM    0.203 MR    0.066 CM    2.000 PC    -0.899    0.152
                               1.7757   4.9194  -0.4074  -0.5656   -2.3660   0.6956  -1.2047  -0.0685    0.1322   0.1194
*ROTAT*         2.             1.33367 MR
163.519 FT                    -0.9850    0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                               4.935 CM    0.617 MR    0.791 CM    0.203 MR    0.066 CM    2.000 PC    -0.899    0.152
                               1.7757   4.9194  -0.4074  -0.5655   -2.3660   0.6956  -1.2047  -0.0685    0.1322   0.1194
*DRIFT*         3.             1.34000 FT
164.859 FT                    -1.0069    0.0000   164.8546 FT     -16.337     0.000     0.000 MR
                               4.912 CM    0.617 MR    0.792 CM    0.203 MR    0.066 CM    2.000 PC    -0.898    0.162
                               1.7590   4.8963  -0.4074  -0.5655   -2.4152   0.6928  -1.2047  -0.0685    0.1371   0.1194
*DRIFT*         3.             0.29100 FT
165.150 FT                    -1.0116    0.0000   165.1456 FT     -16.337     0.000     0.000 MR
                               4.907 CM    0.617 MR    0.792 CM    0.203 MR    0.066 CM    2.000 PC    -0.897    0.164
                               1.7554   4.8913  -0.4074  -0.5655   -2.4259   0.6922  -1.2047  -0.0685    0.1381   0.1194
*DRIFT*         3.     "C3H "  6.00000 FT
171.150 FT                    -1.1096    0.0000   171.1448 FT     -16.337     0.000     0.000 MR
                               4.806 CM    0.617 MR    0.799 CM    0.203 MR    0.066 CM    2.000 PC    -0.893    0.209
                               1.6809   4.7879  -0.4074  -0.5655   -2.6462   0.6797  -1.2047  -0.0685    0.1599   0.1194
*DRIFT*         3.             0.29200 FT
171.442 FT                    -1.1144    0.0000   171.4368 FT     -16.337     0.000     0.000 MR
                               4.801 CM    0.617 MR    0.800 CM    0.203 MR    0.066 CM    2.000 PC    -0.893    0.212
                               1.6773   4.7828  -0.4074  -0.5655   -2.6569   0.6790  -1.2047  -0.0685    0.1610   0.1194
*DRIFT*         3.             1.35800 FT
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172.800 FT                  -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                             4.778 CM     0.617 MR     0.801        0.203 MR     0.066 CM     2.000 PC     -0.89     0.222
                             1.6604   4.7594  -0.4074  -0.5655      -2.7068   0.6762  -1.2047  -0.0685     0.1660    0.1194
*ROTAT*        2.            3.88016 MR
172.800 FT                  -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                             4.778 CM     0.617 MR     0.802 CM     0.203 MR     0.066 CM     2.000 PC     -0.891    0.221
                             1.6604   4.7594  -0.4073  -0.5653      -2.7068   0.6762  -1.2046  -0.0685     0.1660    0.1194
*BEND*         4.     "R6  "  19.91667 FT      17.05637 KG        0.00000     (  2566.476 FT  ,   7.760 MR  )
192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                             4.453 CM     0.692 MR     0.838 CM     0.203 MR     0.102 CM     2.000 PC     -0.748    0.359
                             1.4131   4.4161  -0.4075  -0.5657      -3.4381   0.6346  -1.2046  -0.0685     0.2620    0.1970
*ROTAT*        2.            3.88016 MR
192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                             4.453 CM     0.692 MR     0.838 CM     0.203 MR     0.102 CM     2.000 PC     -0.748    0.359
                             1.4131   4.4161  -0.4074  -0.5655      -3.4381   0.6346  -1.2044  -0.0685     0.2620    0.1970
*DRIFT*        3.            1.33700 FT
194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                             4.432 CM     0.692 MR     0.841 CM     0.203 MR     0.102 CM     2.000 PC     -0.745    0.368
                             1.3965   4.3931  -0.4074  -0.5655      -3.4871   0.6318  -1.2044  -0.0685     0.2700    0.1970
*ROTAT*        2.            3.88016 MR
194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                             4.432 CM     0.692 MR     0.841 CM     0.203 MR     0.102 CM     2.000 PC     -0.745    0.368
                             1.3965   4.3931  -0.4073  -0.5653      -3.4871   0.6318  -1.2042  -0.0686     0.2700    0.1970
*BEND*         4.     "R7  "  19.91667 FT      17.05637 KG        0.00000     (  2566.476 FT  ,   7.760 MR  )
213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                             4.137 CM     0.791 MR     0.893 CM     0.203 MR     0.135 CM     2.000 PC     -0.565    0.484
                             1.1492   4.0498  -0.4075  -0.5657      -4.2182   0.5902  -1.2042  -0.0686     0.4132    0.2746
*ROTAT*        2.            3.88016 MR
213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                             4.137 CM     0.791 MR     0.893 CM     0.203 MR     0.135 CM     2.000 PC     -0.565    0.484
                             1.1492   4.0498  -0.4074  -0.5655      -4.2182   0.5902  -1.2040  -0.0686     0.4132    0.2746
*DRIFT*        3.            1.34200 FT
215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                             4.119 CM     0.791 MR     0.897 CM     0.203 MR     0.135 CM     2.000 PC     -0.559    0.491
                             1.1325   4.0267  -0.4074  -0.5655      -4.2674   0.5874  -1.2040  -0.0686     0.4244    0.2746
*ROTAT*        2.            3.88016 MR
215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                             4.119 CM     0.791 MR     0.897 CM     0.203 MR     0.135 CM     2.000 PC     -0.559    0.491
                             1.1325   4.0267  -0.4073  -0.5653      -4.2674   0.5874  -1.2038  -0.0686     0.4244    0.2746
*BEND*         4.     "R8  "  19.91667 FT      17.05637 KG        0.00000     (  2566.476 FT  ,   7.760 MR  )
235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                             3.886 CM     0.906 MR     0.964 CM     0.203 MR     0.166 CM     2.000 PC     -0.349    0.585
                             0.8852   3.6834  -0.4074  -0.5657      -4.9982   0.5457  -1.2038  -0.0686     0.6146    0.3522
*ROTAT*        2.            3.88016 MR
235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                             3.886 CM     0.906 MR     0.964 CM     0.203 MR     0.166 CM     2.000 PC     -0.348    0.585
                             0.8852   3.6834  -0.4074  -0.5655      -4.9982   0.5457  -1.2036  -0.0687     0.6146    0.3522
*DRIFT*        3.            1.82000 FT
237.049 FT                  -2.9550     0.0000   237.0163 FT      -39.618     0.000     0.000 MR
                             3.868 CM     0.906 MR     0.971 CM     0.203 MR     0.166 CM     2.000 PC     -0.337    0.592
                             0.8626   3.6520  -0.4074  -0.5655      -5.0650   0.5419  -1.2036  -0.0687     0.6342    0.3522
*QUAD*         5.     "Q6  "  5.00000 FT       2.00000 KG         2.54000 CM    (  365.62426 FT  )
242.249 FT                  -3.1531     0.0000   242.0124 FT      -39.618     0.000     0.000 MR
                             3.798 CM     1.068 MR     0.996 CM     0.266 MR     0.166 CM     2.000 PC     -0.582    0.800
                             0.7948   3.5410  -0.4820  -0.8893      -5.2836   0.5351  -1.6684  -0.0203     0.6834    0.2929
*DRIFT*        3.            1.59900 FT
243.648 FT                  -3.2164     0.0000   243.6102 FT      -39.618     0.000     0.000 MR
                             3.768 CM     1.068 MR     1.006 CM     0.266 MR     0.166 CM     2.000 PC     -0.572    0.805
                             0.7713   3.4977  -0.4820  -0.8893      -5.3649   0.5342  -1.6684  -0.0203     0.6977    0.2929
*DRIFT*        3.     "V1  "  2.50000 FT
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246.148 FT                    -3.3154     0.0000   246.1082 FT      -39.618     0.000     0.000 MR
                               3.722 CM     1.068 MR     1.023 CM     0.266 MR     0.166 CM     2.000 PC     -0.558     0.812
                              0.7345   3.4299  -0.4820  -0.8893     -5.4920    0.5326  -1.6684  -0.0203     0.7200    0.2929
*DRIFT*          3.           1.41900 FT
  247.567 FT                  -3.3716     0.0000   247.5261 FT      -39.618     0.000     0.000 MR
                               3.696 CM     1.068 MR     1.032 CM     0.266 MR     0.166 CM     2.000 PC     -0.549     0.815
                              0.7137   3.3914  -0.4820  -0.8893     -5.5642    0.5317  -1.6684  -0.0203     0.7326    0.2929
*DRIFT*          3.           0.22900 FT
  247.796 FT                  -3.3807     0.0000   247.7549 FT      -39.618     0.000     0.000 MR
                               3.692 CM     1.068 MR     1.034 CM     0.266 MR     0.166 CM     2.000 PC     -0.548     0.816
                              0.7103   3.3852  -0.4820  -0.8893     -5.5758    0.5316  -1.6684  -0.0203     0.7347    0.2929
*DRIFT*          3.   "C4V "  6.00000 FT
  253.796 FT                  -3.6183     0.0000   253.7502 FT      -39.618     0.000     0.000 MR
                               3.589 CM     1.068 MR     1.074 CM     0.266 MR     0.166 CM     2.000 PC     -0.509     0.831
                              0.6222   3.2226  -0.4820  -0.8893     -5.8810    0.5279  -1.6684  -0.0203     0.7883    0.2929
*DRIFT*          3.           0.22900 FT
  254.025 FT                  -3.6274     0.0000   253.9790 FT      -39.618     0.000     0.000 MR
                               3.585 CM     1.068 MR     1.075 CM     0.266 MR     0.166 CM     2.000 PC     -0.507     0.831
                              0.6188   3.2164  -0.4820  -0.8893     -5.8926    0.5277  -1.6684  -0.0203     0.7903    0.2929
*DRIFT*          3.           2.40300 FT
  256.428 FT                  -3.7226     0.0000   256.3801 FT      -39.618     0.000     0.000 MR
                               3.546 CM     1.068 MR     1.092 CM     0.266 MR     0.166 CM     2.000 PC     -0.491     0.837
                              0.5835   3.1512  -0.4820  -0.8893     -6.0148    0.5263  -1.6684  -0.0203     0.8117    0.2929
*QUAD*           5.   "Q7  "  10.00000 FT      -1.27474 KG      2.54000 CM   ( -284.50771 FT  )
  266.428 FT                  -4.1186     0.0000   266.3723 FT      -39.618     0.000     0.000 MR
                               3.459 CM     0.955 MR     1.141 CM     0.171 MR     0.166 CM     2.000 PC     -0.048     0.582
                              0.4460   2.9338  -0.4232  -0.5415     -6.4156    0.5109  -0.9538  -0.0799     0.9158    0.3916
*DRIFT*          3.           2.62500 FT
  269.053 FT                  -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                               3.456 CM     0.955 MR     1.149 CM     0.171 MR     0.166 CM     2.000 PC     -0.026     0.590
                              0.4121   2.8905  -0.4232  -0.5415     -6.4919    0.5045  -0.9538  -0.0799     0.9471    0.3916
*DRIFT*          3.   "DIK1"  0.00000 FT
  269.053 FT                  -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                               3.456 CM     0.955 MR     1.149 CM     0.171 MR     0.166 CM     2.000 PC     -0.026     0.590
                              0.4121   2.8905  -0.4232  -0.5415     -6.4919    0.5045  -0.9538  -0.0799     0.9471    0.3916
*DRIFT*          3.           94.07600 FT
  363.129 FT                  -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                               4.353 CM     0.955 MR     1.493 CM     0.171 MR     0.166 CM     2.000 PC     0.608     0.783
                             -0.8013   1.3377  -0.4232  -0.5415     -9.2268    0.2754  -0.9538  -0.0799     2.0701    0.3916
*DRIFT*          3.   "DIK2"  0.00000 FT
  363.129 FT                  -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                               4.353 CM     0.955 MR     1.493 CM     0.171 MR     0.166 CM     2.000 PC     0.608     0.783
                             -0.8013   1.3377  -0.4232  -0.5415     -9.2268    0.2754  -0.9538  -0.0799     2.0701    0.3916
*DRIFT*          3.           7.26000 FT
  370.389 FT                  -8.2363     0.0000   370.2517 FT      -39.618     0.000     0.000 MR
                               4.484 CM     0.955 MR     1.523 CM     0.171 MR     0.166 CM     2.000 PC     0.637     0.793
                             -0.8949   1.2179  -0.4232  -0.5415     -9.4378    0.2577  -0.9538  -0.0799     2.1567    0.3916
*DRIFT*          3.           0.11500 FT
  370.504 FT                  -8.2408     0.0000   370.3666 FT      -39.618     0.000     0.000 MR
                               4.486 CM     0.955 MR     1.523 CM     0.171 MR     0.166 CM     2.000 PC     0.638     0.793
                             -0.8964   1.2160  -0.4232  -0.5415     -9.4412    0.2574  -0.9538  -0.0799     2.1581    0.3916
*DRIFT*          3.   "DS1 "  3.00000 FT
  373.504 FT                  -8.3596     0.0000   373.3643 FT      -39.618     0.000     0.000 MR
                               4.543 CM     0.955 MR     1.536 CM     0.171 MR     0.166 CM     2.000 PC     0.649     0.797
                             -0.9351   1.1664  -0.4232  -0.5415     -9.5284    0.2501  -0.9538  -0.0799     2.1939    0.3916
*DRIFT*          3.           0.11500 FT
  373.619 FT                  -8.3642     0.0000   373.4792 FT      -39.618     0.000     0.000 MR
                               4.545 CM     0.955 MR     1.536 CM     0.171 MR     0.166 CM     2.000 PC     0.650     0.797
                             -0.9366   1.1645  -0.4232  -0.5415     -9.5317    0.2499  -0.9538  -0.0799     2.1953    0.3916
*DRIFT*          3.           26.71600 FT
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400.337 FT                    -9.4224     0.0000   400.1762 FT      -39.618     0.000     0.000 MR
                               5.084 CM     0.955 MR     1.64[illegible]     0.171 MR     0.166 CM     2.000 P[illegible]      0.73     0.827
                              -1.2812   0.7235  -0.4232  -0.54[illegible]    -10.3084   0.1848  -0.9538  -0.0799      2.514[illegible]   0.3916
*QUAD*          5.     "08  "  7.00000 FT        -9.14955 KG        2.54000 CM   (  -55.80652 FT  )
407.337 FT                    -9.6997     0.0000   407.1707 FT      -39.618     0.000     0.000 MR
                               5.554 CM     3.796 MR     1.579 CM     0.803 MR     0.166 CM     2.000 PC      0.988    -0.992
                              -1.4529   0.6505  -1.2027  -0.1498     -9.8808   0.1568   4.9213  -0.1793      2.7556   1.8940
*DRIFT*         3.            4.22000 FT
411.557 FT                    -9.8668     0.0000   411.3874 FT      -39.618     0.000     0.000 MR
                               6.037 CM     3.796 MR     1.476 CM     0.803 MR     0.166 CM     2.000 PC      0.990    -0.991
                              -1.6076   0.6313  -1.2027  -0.1498     -9.2478   0.1338   4.9213  -0.1793      2.9992   1.8940
*QUAD*          5.     "09  "  4.33300 FT         9.14955 KG        2.54000 CM   (   92.74017 FT  )
415.890 FT                   -10.0384     0.0000   415.7170 FT      -39.618     0.000     0.000 MR
                               6.388 CM     1.623 MR     1.406 CM     0.304 MR     0.166 CM     2.000 PC      0.948    -0.928
                              -1.7275   0.5968  -0.6057  -0.3696     -8.8113   0.1131   1.7143  -0.1355      3.1770   0.7886
*DRIFT*         3.            1.41000 FT
417.300 FT                   -10.0943     0.0000   417.1259 FT      -39.618     0.000     0.000 MR
                               6.454 CM     1.623 MR     1.393 CM     0.304 MR     0.166 CM     2.000 PC      0.949    -0.927
                              -1.7535   0.5809  -0.6057  -0.3696     -8.7376   0.1072   1.7143  -0.1355      3.2109   0.7886
*QUAD*          5.     "010 "  4.33300 FT         9.14955 KG        2.54000 CM   (   92.74017 FT  )
421.633 FT                   -10.2659     0.0000   421.4555 FT      -39.618     0.000     0.000 MR
                               6.505 CM     0.925 MR     1.389 CM     0.242 MR     0.166 CM     2.000 PC     -0.836    0.881
                              -1.7918   0.5189   0.0288  -0.5664     -8.7160   0.0917  -1.3852  -0.1002      3.2389  -0.3658
*DRIFT*         3.            6.25000 FT
427.883 FT                   -10.5134     0.0000   427.7006 FT      -39.618     0.000     0.000 MR
                               6.356 CM     0.925 MR     1.430 CM     0.242 MR     0.166 CM     2.000 PC     -0.828    0.888
                              -1.7863   0.4110   0.0288  -0.5664     -8.9799   0.0727  -1.3852  -0.1002      3.1693  -0.3658
*DRIFT*         3.     "V3  "  2.50000 FT
430.383 FT                   -10.6125     0.0000   430.1986 FT      -39.618     0.000     0.000 MR
                               6.300 CM     0.925 MR     1.446 CM     0.242 MR     0.166 CM     2.000 PC     -0.825    0.891
                              -1.7841   0.3678   0.0288  -0.5664     -9.0854   0.0650  -1.3852  -0.1002      3.1414  -0.3658
*DRIFT*         3.           10.46900 FT
440.852 FT                   -11.0271     0.0000   440.6594 FT      -39.618     0.000     0.000 MR
                               6.059 CM     0.925 MR     1.515 CM     0.242 MR     0.166 CM     2.000 PC     -0.809    0.901
                              -1.7749   0.1871   0.0288  -0.5664     -9.5274   0.0331  -1.3852  -0.1002      3.0247  -0.3658
*DRIFT*         3.            0.29200 FT
441.144 FT                   -11.0387     0.0000   440.9512 FT      -39.618     0.000     0.000 MR
                               6.052 CM     0.925 MR     1.517 CM     0.242 MR     0.166 CM     2.000 PC     -0.808    0.901
                              -1.7746   0.1820   0.0288  -0.5664     -9.5398   0.0322  -1.3852  -0.1002      3.0214  -0.3658
*DRIFT*         3.     "C5H "  4.00000 FT
445.144 FT                   -11.1971     0.0000   444.9481 FT      -39.618     0.000     0.000 MR
                               5.961 CM     0.925 MR     1.544 CM     0.242 MR     0.166 CM     2.000 PC     -0.802    0.905
                              -1.7711   0.1130   0.0288  -0.5664     -9.7087   0.0200  -1.3852  -0.1002      2.9768  -0.3658
*DRIFT*         3.            0.29300 FT
445.437 FT                   -11.2087     0.0000   445.2408 FT      -39.618     0.000     0.000 MR
                               5.955 CM     0.925 MR     1.546 CM     0.242 MR     0.166 CM     2.000 PC     -0.801    0.905
                              -1.7709   0.1079   0.0288  -0.5664     -9.7210   0.0191  -1.3852  -0.1002      2.9735  -0.3658
*DRIFT*         3.            0.83000 FT
446.267 FT                   -11.2416     0.0000   446.0702 FT      -39.618     0.000     0.000 MR
                               5.936 CM     0.925 MR     1.551 CM     0.242 MR     0.166 CM     2.000 PC     -0.800    0.906
                              -1.7702   0.0936   0.0288  -0.5664     -9.7561   0.0165  -1.3852  -0.1002      2.9643  -0.3658
*DRIFT*         3.            0.23000 FT
446.497 FT                   -11.2507     0.0000   446.3000 FT      -39.618     0.000     0.000 MR
                               5.931 CM     0.925 MR     1.553 CM     0.242 MR     0.166 CM     2.000 PC     -0.799    0.906
                              -1.7699   0.0896   0.0288  -0.5664     -9.7658   0.0158  -1.3852  -0.1002      2.9617  -0.3658
*DRIFT*         3.     "C6V "  4.00000 FT
450.497 FT                   -11.4091     0.0000   450.2969 FT      -39.618     0.000     0.000 MR
                               5.841 CM     0.925 MR     1.580 CM     0.242 MR     0.166 CM     2.000 PC     -0.792    0.909
                              -1.7664   0.0205   0.0288  -0.5664     -9.9347   0.0036  -1.3852  -0.1002      2.9171  -0.3658
*DRIFT*         3.            0.23000 FT
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450.727 FT                    -11.4182     0.0000   450.5267 FT      -39.618     0.000     0.000 MR
                               5.836 CM     0.925 MR     1.581 CM     0.242 MR     0.166 CM     2.000 PC      -0.792     0.910
                              -1.7662   0.0166   0.0288  -0.5664      -9.9444   0.0029  -1.3852  -0.1002       2.9145  -0.3658
*DRIFT*          3.           0.96000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.925 MR     1.588 CM     0.242 MR     0.166 CM     2.000 PC      -0.790     0.910
                              -1.7654  -0.0000   0.0288  -0.5664      -9.9849   0.0000  -1.3852  -0.1002       2.9038  -0.3658
*DRIFT*          3.    "1F  "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.925 MR     1.588 CM     0.242 MR     0.166 CM     2.000 PC      -0.790     0.910
                              -1.7654  -0.0000   0.0288  -0.5664      -9.9849   0.0000  -1.3852  -0.1002       2.9038  -0.3658
*DRIFT*          3.    "PM1 "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.925 MR     1.588 CM     0.242 MR     0.166 CM     2.000 PC      -0.790     0.910
                              -1.7654  -0.0000   0.0288  -0.5664      -9.9849   0.0000  -1.3852  -0.1002       2.9038  -0.3658
*DRIFT*          3.    "LC1 "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.925 MR     1.588 CM     0.242 MR     0.166 CM     2.000 PC      -0.790     0.910
                              -1.7654  -0.0000   0.0288  -0.5664      -9.9849   0.0000  -1.3852  -0.1002       2.9038  -0.3658
*DRIFT*          3.           3.51500 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                               5.736 CM     0.925 MR     1.611 CM     0.242 MR     0.166 CM     2.000 PC      -0.783     0.913
                              -1.7623  -0.0607   0.0288  -0.5664     -10.1333  -0.0107  -1.3852  -0.1002       2.8646  -0.3658
*DRIFT*          3.    "DIK3"  0.00000 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                               5.736 CM     0.925 MR     1.611 CM     0.242 MR     0.166 CM     2.000 PC      -0.783     0.913
                              -1.7623  -0.0607   0.0288  -0.5664     -10.1333  -0.0107  -1.3852  -0.1002       2.8646  -0.3658
*DRIFT*          3.           195.15800 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                               3.705 CM     0.925 MR     2.984 CM     0.242 MR     0.166 CM     2.000 PC       0.273     0.975
                              -1.5910  -3.4301   0.0288  -0.5664     -18.3730  -0.6065  -1.3852  -0.1002       0.6886  -0.3658
*DRIFT*          3.    "DIK4"  0.00000 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                               3.705 CM     0.925 MR     2.984 CM     0.242 MR     0.166 CM     2.000 PC       0.273     0.975
                              -1.5910  -3.4301   0.0288  -0.5664     -18.3730  -0.6065  -1.3852  -0.1002       0.6886  -0.3658
*DRIFT*          3.           5.01000 FT
655.370 FT                    -19.5236     0.0000   655.0091 FT      -39.618     0.000     0.000 MR
                               3.746 CM     0.925 MR     3.020 CM     0.242 MR     0.166 CM     2.000 PC       0.307     0.976
                              -1.5866  -3.5166   0.0288  -0.5664     -18.5846  -0.6218  -1.3852  -0.1002       0.6327  -0.3658
*DRIFT*          3.           0.23000 FT
655.600 FT                    -19.5327     0.0000   655.2389 FT      -39.618     0.000     0.000 MR
                               3.748 CM     0.925 MR     3.021 CM     0.242 MR     0.166 CM     2.000 PC       0.309     0.976
                              -1.5864  -3.5206   0.0288  -0.5664     -18.5943  -0.6225  -1.3852  -0.1002       0.6302  -0.3658
*DRIFT*          3.    "C7V "  4.00000 FT
659.600 FT                    -19.6911     0.0000   659.2358 FT      -39.618     0.000     0.000 MR
                               3.784 CM     0.925 MR     3.050 CM     0.242 MR     0.166 CM     2.000 PC       0.336     0.977
                              -1.5829  -3.5897   0.0288  -0.5664     -18.7632  -0.6347  -1.3852  -0.1002       0.5856  -0.3658
*DRIFT*          3.           0.23000 FT
659.830 FT                    -19.7002     0.0000   659.4656 FT      -39.618     0.000     0.000 MR
                               3.786 CM     0.925 MR     3.052 CM     0.242 MR     0.166 CM     2.000 PC       0.337     0.977
                              -1.5826  -3.5936   0.0288  -0.5664     -18.7729  -0.6354  -1.3852  -0.1002       0.5830  -0.3658
*DRIFT*          3.           1.50000 FT
661.330 FT                    -19.7597     0.0000   660.9644 FT      -39.618     0.000     0.000 MR
                               3.801 CM     0.925 MR     3.063 CM     0.242 MR     0.166 CM     2.000 PC       0.347     0.977
                              -1.5813  -3.6195   0.0288  -0.5664     -18.8362  -0.6400  -1.3852  -0.1002       0.5663  -0.3658
*DRIFT*          3.    "C7H "  2.50000 FT
663.830 FT                    -19.8587     0.0000   663.4625 FT      -39.618     0.000     0.000 MR
                               3.826 CM     0.925 MR     3.081 CM     0.242 MR     0.166 CM     2.000 PC       0.363     0.977
                              -1.5791  -3.6627   0.0288  -0.5664     -18.9418  -0.6476  -1.3852  -0.1002       0.5384  -0.3658
*DRIFT*          3.           1.50000 FT
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665.330                    -19.9161    0.0000   664.9613 F      -39.618     0.000     0.000 MR
                            3.842 CM    0.925 MR    3.09  CM     0.242 MR    0.166 CM    2.000 PC      0.3     0.977
                           -1.5778  -3.6886   0.0288  -0.5664   -19.0051  -0.6522  -1.3852  -0.1002     0.5217  -0.3658
 DRIFT*        3.     "V5. "   2.50000 FT
 667.830 FT                -20.0171    0.0000   667.4593 FT     -39.618     0.000     0.000 MR
                            3.868 CM    0.925 MR    3.109 CM     0.242 MR    0.166 CM    2.000 PC      0.388   0.977
                           -1.5756  -3.7318   0.0288  -0.5664   -19.1106  -0.6598  -1.3852  -0.1002     0.4938  -0.3658
*DRIFT*        3.                2.49000 FT
 670.320 FT                -20.1157    0.0000   669.9474 FT     -39.618     0.000     0.000 MR
                            3.896 CM    0.925 MR    3.127 CM     0.242 MR    0.166 CM    2.000 PC      0.404   0.978
                           -1.5734  -3.7748   0.0288  -0.5664   -19.2158  -0.6674  -1.3852  -0.1002     0.4660  -0.3658
*ROTAT*        2.                4.57275 MR
 670.320 FT                -20.1157    0.0000   669.9474 FT     -39.618     0.000     0.000 MR
                            3.896 CM    0.925 MR    3.127 CM     0.242 MR    0.166 CM    2.000 PC      0.404   0.978
                           -1.5734  -3.7748   0.0287  -0.5667   -19.2158  -0.6674  -1.3839  -0.1001     0.4660  -0.3658
*BEND*         4.     "R9  "   19.91667 FT      20.10081 KG      0.00000     (  2177.761 FT  ,   9.145 MR  )
 690.237 FT                -20.9956    0.0000   689.8445 FT     -48.763     0.000     0.000 MR
                            4.162 CM    0.788 MR    3.271 CM     0.242 MR    0.131 CM    2.000 PC      0.619   0.980
                           -1.5560  -4.1186   0.0289  -0.5662   -20.0559  -0.7282  -1.3839  -0.1001     0.2717  -0.2744
*ROTAT*        2.                4.57275 MR
 690.237 FT                -20.9956    0.0000   689.8445 FT     -48.763     0.000     0.000 MR
                            4.162 CM    0.789 MR    3.271 CM     0.242 MR    0.131 CM    2.000 PC      0.620   0.980
                           -1.5560  -4.1186   0.0288  -0.5664   -20.0559  -0.7282  -1.3825  -0.1001     0.2717  -0.2744
*DRIFT*        3.                1.29000 FT
 691.527 FT                -21.0584    0.0000   691.1330 FT     -48.763     0.000     0.000 MR
                            4.181 CM    0.789 MR    3.280 CM     0.242 MR    0.131 CM    2.000 PC      0.624   0.980
                           -1.5548  -4.1409   0.0288  -0.5664   -20.1102  -0.7321  -1.3825  -0.1001     0.2609  -0.2744
*ROTAT*        2.                4.57275 MR
 691.527 FT                -21.0584    0.0000   691.1330 FT     -48.763     0.000     0.000 MR
                            4.181 CM    0.789 MR    3.280 CM     0.241 MR    0.131 CM    2.000 PC      0.624   0.980
                           -1.5548  -4.1409   0.0287  -0.5667   -20.1102  -0.7321  -1.3811  -0.1000     0.2609  -0.2743
*BEND*         4.     "R10 "   19.91667 FT      20.10081 KG      0.00000     (  2177.761 FT  ,   9.145 MR  )
 711.443 FT                -22.1202    0.0000   711.0213 FT     -57.909     0.000     0.000 MR
                            4.498 CM    0.674 MR    3.424 CM     0.241 MR    0.093 CM    2.000 PC      0.808   0.981
                           -1.5373  -4.4848   0.0289  -0.5661   -20.9486  -0.7928  -1.3811  -0.1000     0.1221  -0.1829
*ROTAT*        2.                4.57275 MR
 711.443 FT                -22.1202    0.0000   711.0213 FT     -57.909     0.000     0.000 MR
                            4.498 CM    0.674 MR    3.424 CM     0.241 MR    0.093 CM    2.000 PC      0.808   0.981
                           -1.5373  -4.4848   0.0288  -0.5664   -20.9486  -0.7928  -1.3797  -0.1000     0.1221  -0.1829
*DRIFT*        3.                1.31000 FT
 712.753 FT                -22.1960    0.0000   712.3291 FT     -57.909     0.000     0.000 MR
                            4.520 CM    0.674 MR    3.433 CM     0.241 MR    0.093 CM    2.000 PC      0.810   0.981
                           -1.5362  -4.5074   0.0288  -0.5664   -21.0037  -0.7968  -1.3797  -0.1000     0.1148  -0.1829
*ROTAT*        2.                4.57275 MR
 712.753 FT                -22.1960    0.0000   712.3291 FT     -57.909     0.000     0.000 MR
                            4.520 CM    0.675 MR    3.433 CM     0.241 MR    0.093 CM    2.000 PC      0.810   0.981
                           -1.5362  -4.5074   0.0287  -0.5668   -21.0037  -0.7968  -1.3782  -0.0999     0.1148  -0.1829
*BEND*         4.     "B11 "   19.91667 FT      20.10081 KG      0.00000     (  2177.761 FT  ,   9.145 MR  )
 732.670 FT                -23.4396    0.0000   732.2068 FT     -67.054     0.000     0.000 MR
                            4.858 CM    0.595 MR    3.577 CM     0.241 MR    0.055 CM    2.000 PC      0.946   0.983
                           -1.5187  -4.8512   0.0289  -0.5661   -21.8404  -0.8574  -1.3782  -0.0999     0.0315  -0.0915
*ROTAT*        2.                4.57275 MR
 732.670 FT                -23.4396    0.0000   732.2068 FT     -67.054     0.000     0.000 MR
                            4.858 CM    0.595 MR    3.577 CM     0.241 MR    0.055 CM    2.000 PC      0.946   0.983
                           -1.5187  -4.8512   0.0288  -0.5664   -21.8404  -0.8574  -1.3767  -0.0998     0.0315  -0.0915
*DRIFT*        3.                1.36000 FT
 734.030 FT                -23.5308    0.0000   733.5637 FT     -67.054     0.000     0.000 MR
                            4.881 CM    0.595 MR    3.587 CM     0.241 MR    0.055 CM    2.000 PC      0.946   0.983
                           -1.5175  -4.8747   0.0288  -0.5664   -21.8975  -0.8616  -1.3767  -0.0998     0.0278  -0.0915
*ROTAT*        2.                4.57275 MR
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734.030 FT                    -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                                4.881 CM     0.596 MR     3.387 CM     0.240 MR     0.055 CM     2.000 PC      0.947    0.983
                              -1.5175  -4.8747   0.0287  -0.5668     -21.8975  -0.8616  -1.3752  -0.0998      0.0278  -0.0915
*BEND*          4.     "B12 "  19.91667 FT        20.10081 KG        0.00000     (  2177.761 FT  ,   9.145 MR  )
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                                5.224 CM     0.566 MR     3.730 CM     0.240 MR     0.029 CM     2.000 PC      0.999    0.984
                              -1.5000  -5.2186   0.0289  -0.5661     -22.7323  -0.9222  -1.3752  -0.0998     -0.0000  -0.0000
*ROTAT*         2.             4.57275 MR
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                                5.224 CM     0.566 MR     3.730 CM     0.240 MR     0.029 CM     2.000 PC      0.999    0.984
                              -1.5000  -5.2186   0.0288  -0.5664     -22.7323  -0.9222  -1.3736  -0.0997     -0.0000  -0.0000
*DRIFT*         3.             3.01000 FT
756.957 FT                    -25.1852     0.0000   756.4305 FT      -76.200     0.000     0.000 MR
                                5.276 CM     0.566 MR     3.752 CM     0.240 MR     0.029 CM     2.000 PC      0.999    0.984
                              -1.4974  -5.2705   0.0288  -0.5664     -22.8583  -0.9313  -1.3736  -0.0997     -0.0000  -0.0000
*QUAD*          5.     "Q11 "  10.00000 FT         5.05987 KG        2.54000 CM     (   73.78869 FT  )
766.957 FT                    -25.9465     0.0000   766.4015 FT      -76.200     0.000     0.000 MR
                                5.083 CM     1.819 MR     4.089 CM     2.001 MR     0.029 CM     2.000 PC     -1.000    1.000
                              -1.3861  -5.0779   0.6926   1.8158     -24.8904  -1.0277 -12.1144  -0.5404     -0.0000   0.0000
*DRIFT*         3.             1.50000 FT
768.457 FT                    -26.0607     0.0000   767.8972 FT      -76.200     0.000     0.000 MR
                                5.000 CM     1.819 MR     4.180 CM     2.001 MR     0.029 CM     2.000 PC     -1.000    1.000
                              -1.3545  -4.9949   0.6926   1.8158     -25.4443  -1.0524 -12.1144  -0.5404     -0.0000   0.0000
*QUAD*          5.     "Q12 "  10.00000 FT         5.05987 KG        2.54000 CM     (   73.78869 FT  )
778.457 FT                    -26.8220     0.0000   777.8681 FT      -76.200     0.000     0.000 MR
                                4.115 CM     3.917 MR     5.097 CM     4.087 MR     0.029 CM     2.000 PC     -1.030    1.030
                              -1.0554  -4.1117   1.2474   3.9122     -31.0079  -1.2948 -24.8129  -1.0684     -0.0000   0.0000
*DRIFT*         3.             1.50000 FT
779.957 FT                    -26.9361     0.0000   779.3638 FT      -76.200     0.000     0.000 MR
                                3.936 CM     3.917 MR     5.284 CM     4.067 MR     0.029 CM     2.000 PC     -1.000    1.000
                              -0.9983  -3.9329   1.2474   3.9122     -32.1423  -1.3437 -24.8129  -1.0684     -0.0000   0.0000
*QUAD*          5.     "Q13A"   5.00000 FT        -4.91839 KG        2.54000 CM     ( -147.50694 FT  )
784.957 FT                    -27.3168     0.0000   784.3493 FT      -76.200     0.000     0.000 MR
                                3.402 CM     3.108 MR     5.815 CM     2.857 MR     0.029 CM     2.000 PC     -1.000    1.000
                              -0.8240  -3.3997   1.0464   3.1036     -35.3624  -1.4830 -17.3267  -0.7549     -0.0000   0.0000
*DRIFT*         3.             1.50000 FT
786.457 FT                    -27.4310     0.0000   785.8449 FT      -76.200     0.000     0.000 MR
                                3.260 CM     3.108 MR     5.946 CM     2.857 MR     0.029 CM     2.000 PC     -1.000    1.000
                              -0.7762  -3.2579   1.0464   3.1036     -36.1546  -1.5175 -17.3267  -0.7549     -0.0000   0.0000
*QUAD*          5.     "Q13 "  10.00000 FT        -4.91839 KG        2.54000 CM     (  -72.52768 FT  )
796.457 FT                    -28.1922     0.0000   795.8159 FT      -76.200     0.000     0.000 MR
                                2.514 CM     1.845 MR     6.400 CM     0.098 MR     0.029 CM     2.000 PC     -0.999    0.967
                              -0.5030  -2.5126   0.7666   1.8414     -38.9078  -1.6413  -0.5357  -0.0483     -0.0000   0.0000
*DRIFT*         3.             1.50000 FT
797.957 FT                    -28.3064     0.0000   797.3116 FT      -76.200     0.000     0.000 MR
                                2.430 CM     1.845 MR     6.405 CM     0.098 MR     0.029 CM     2.000 PC     -0.999    0.967
                              -0.4679  -2.4284   0.7666   1.8414     -38.9323  -1.6435  -0.5357  -0.0483     -0.0000   0.0000
*QUAD*          5.     "Q14 "  10.00000 FT        -4.91839 KG        2.54000 CM     (  -72.52768 FT  )
807.957 FT                    -29.0677     0.0000   807.2825 FT      -76.200     0.000     0.000 MR
                                2.020 CM     0.874 MR     6.006 CM     2.682 MR     0.029 CM     2.000 PC     -0.996   -1.000
                              -0.2609  -2.0200   0.6072   0.8685     -36.4967  -1.5484  16.3373   0.6657     -0.0000   0.0000
*DRIFT*         3.             2.72000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                                1.948 CM     0.874 MR     5.784 CM     2.682 MR     0.029 CM     2.000 PC     -0.996   -1.000
                              -0.2105  -1.9480   0.6072   0.8685     -35.1423  -1.4932  16.3373   0.6657     -0.0000   0.0000
*DRIFT*         3.     "DIK5"   0.00000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                                1.948 CM     0.874 MR     5.784 CM     2.682 MR     0.029 CM     2.000 PC     -0.996   -1.000
                              -0.2105  -1.9480   0.6072   0.8685     -35.1423  -1.4932  16.3373   0.6657     -0.0000   0.0000
*DRIFT*         3.             72.20900 FT
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882.886 FT                    -34.7717     0.0000   881.9941 FT      -76.200     0.000     0.000 MR
                               0.183 CM     0.874 MR     0.13[illegible]      2.682 MR     0.029 CM     2.000 PC      -0.09[illegible]    0.894
                               1.1259  -0.0365   0.6072   0.8685       0.8150  -0.0280  16.3373   0.6657     -0.0300    0.0000
*DRIFT*        3.     "DIK6"   0.00000 FT
882.886 FT                    -34.7717     0.0000   881.9941 FT      -76.200     0.000     0.000 MR
                               0.183 CM     0.874 MR     0.133 CM     2.682 MR     0.029 CM     2.000 PC      -0.090    0.894
                               1.1259  -0.0365   0.6072   0.8685       0.8150  -0.0280  16.3373   0.6657     -0.0000    0.0000
*DRIFT*        3.             1.38000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.183 CM     0.874 MR     0.239 CM     2.682 MR     0.029 CM     2.000 PC       0.111    0.969
                               1.1514   0.0000   0.6072   0.8685       1.5022   0.0000  16.3373   0.6657     -0.0000    0.0000
*DRIFT*        3.     "2F  "   0.00000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.183 CM     0.874 MR     0.239 CM     2.682 MR     0.029 CM     2.000 PC       0.111    0.969
                               1.1514   0.0000   0.6072   0.8685       1.5022   0.0000  16.3373   0.6657     -0.0000    0.0000
DRIFT*         3.     "PM2 "   0.00000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.183 CM     0.874 MR     0.239 CM     2.682 MR     0.029 CM     2.000 PC       0.111    0.969
                               1.1514   0.0000   0.6072   0.8685       1.5022   0.0000  16.3373   0.6657     -0.0000    0.0000
DRIFT*         3.             0.72000 FT
884.986 FT                    -34.9316     0.0000   884.0880 FT      -76.200     0.000     0.000 MR
                               0.186 CM     0.874 MR     0.296 CM     2.682 MR     0.029 CM     2.000 PC       0.212    0.980
                               1.1648   0.0191   0.6072   0.8685       1.8607   0.0146  16.3373   0.6657     -0.0000    0.0000
DRIFT*         3.     "C8H "   4.00000 FT
888.986 FT                    -35.2361     0.0000   888.0764 FT      -76.200     0.000     0.000 MR
                               0.233 CM     0.874 MR     0.620 CM     2.682 MR     0.029 CM     2.000 PC       0.626    0.995
                               1.2388   0.1250   0.6072   0.8685       3.8526   0.0958  16.3373   0.6657     -0.0000    0.0000
DRIFT*         3.             0.90000 FT
889.886 FT                    -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                               0.249 CM     0.874 MR     0.693 CM     2.682 MR     0.029 CM     2.000 PC       0.683    0.996
                               1.2555   0.1488   0.6072   0.8685       4.3007   0.1140  16.3373   0.6657     -0.0000    0.0000
*DRIFT*        3.     "LC2 "   0.00000 FT
889.886 FT                    -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                               0.249 CM     0.874 MR     0.693 CM     2.682 MR     0.029 CM     2.000 PC       0.683    0.996
                               1.2555   0.1488   0.6072   0.8685       4.3007   0.1140  16.3373   0.6657     -0.0000    0.0000
*DRIFT*        3.             1.00000 FT
890.886 FT                    -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                               0.268 CM     0.874 MR     0.775 CM     2.682 MR     0.029 CM     2.000 PC       0.734    0.997
                               1.2740   0.1753   0.6072   0.8685       4.7987   0.1343  16.3373   0.6657     -0.0000    0.0000
*ROTAT*        2.             0.00000 MR
890.886 FT                    -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                               0.268 CM     0.874 MR     0.775 CM     2.682 MR     0.029 CM     2.000 PC       0.734    0.997
                               1.2740   0.1753   0.6072   0.8685       4.7987   0.1343  16.3373   0.6657     -0.0000    0.0000
*BEND*         4.     "B13 "  20.00000 FT        0.00000 KG        0.00000        (     0.000 FT  ,   0.000 MR  )
910.886 FT                    -36.9032     0.0000   909.9128 FT      -76.200     0.000     0.000 MR
                               0.752 CM     0.874 MR     2.408 CM     2.682 MR     0.029 CM     2.000 PC       0.970    1.000
                               1.6441   0.7047   0.6072   0.8685      14.7579   0.5401  16.3373   0.6657     -0.0000    0.0000
*ROTAT*        2.             0.00000 MR
910.886 FT                    -36.9032     0.0000   909.9128 FT      -76.200     0.000     0.000 MR
                               0.752 CM     0.874 MR     2.408 CM     2.682 MR     0.029 CM     2.000 PC       0.970    1.000
                               1.6441   0.7047   0.6072   0.8685      14.7579   0.5401  16.3373   0.6657     -0.0000    0.0000
*DRIFT*        3.             6.81000 FT
917.696 FT                    -37.4216     0.0000   916.7031 FT      -76.200     0.000     0.000 MR
                               0.929 CM     0.874 MR     2.964 CM     2.682 MR     0.029 CM     2.000 PC       0.981    1.000
                               1.7702   0.8850   0.6072   0.8685      18.1490   0.6783  16.3373   0.6657     -0.0000    0.0000
*DRIFT*        3.     "V6  "   2.50000 FT
920.196 FT                    -37.6120     0.0000   919.1958 FT      -76.200     0.000     0.000 MR
                               0.994 CM     0.874 MR     3.169 CM     2.682 MR     0.029 CM     2.000 PC       0.983    1.000
                               1.8164   0.9511   0.6072   0.8685      19.3939   0.7291  16.3373   0.6657     -0.0000    0.0000
*DRIFT*        3.     "PAR "  86.45800 FT
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 1006.654 FT                    -44.1937     0.0000  1005.4029 FT      -76.200      0.000      0.000 MR
                                 3.285 CM     0.874 MR    10.235 CM      2.682 MR      0.029 CM      2.000 PC        0.998    1.000
                                 3.4166   3.2398   0.6072   0.8685      62.4467   2.4834  16.3373   0.6657        0.0000   0.0000
*QUAD*          5.     "Q15 "   10.00000 FT        -4.26383 KG        2.54000 CM   (  -83.91022 FT  )
 1016.654 FT                    -44.9549     0.0000  1015.3739 FT      -76.200      0.000      0.000 MR
                                 3.750 CM     2.209 MR    10.444 CM      1.323 MR      0.029 CM      2.000 PC        1.000   -1.000
                                 3.8069   3.7009   1.9789   2.1865      63.7157   2.5386  -8.0915  -0.3067        0.0000   0.0000
*DRIFT*         3.     "D10 "   4.62000 FT
 1021.274 FT                    -45.3066     0.0000  1019.9805 FT      -76.200      0.000      0.000 MR
                                 4.061 CM     2.209 MR    10.258 CM      1.323 MR      0.029 CM      2.000 PC        1.000   -1.000
                                 4.0856   4.0088   1.9789   2.1865      62.5763   2.4954  -8.0915  -0.3067        0.0000   0.0000
*QUAD*          5.     "Q16 "   10.00000 FT        -4.26383 KG        2.54000 CM   (  -83.91022 FT  )
 1031.274 FT                    -46.0679     0.0000  1029.9515 FT      -76.200      0.000      0.000 MR
                                 4.987 CM     3.927 MR     9.269 CM      5.103 MR      0.029 CM      2.000 PC        1.000   -1.000
                                 4.9417   4.9248   3.6931   3.8829      56.5362   2.2593 -31.1552  -1.2274        0.0000   0.0000
*DRIFT*         3.     "D11 "   1.54000 FT
 1032.814 FT                    -46.1851     0.0000  1031.4870 FT      -76.200      0.000      0.000 MR
                                 5.171 CM     3.927 MR     9.029 CM      5.103 MR      0.029 CM      2.000 PC        1.000   -1.000
                                 5.1150   5.1071   3.6931   3.8829      55.0738   2.2017 -31.1552  -1.2274        0.0000   0.0000
*QUAD*          5.     "Q17 "   10.00000 FT         3.55423 KG        2.54000 CM   (  104.32114 FT  )
 1042.814 FT                    -46.9464     0.0000  1041.4580 FT      -76.200      0.000      0.000 MR
                                 6.099 CM     2.111 MR     7.892 CM      2.421 MR      0.029 CM      2.000 PC        1.000   -1.000
                                 5.9753   6.0247   1.9060   2.0891      48.1275   1.9296 -14.7931  -0.5723        0.0000   0.0000
*DRIFT*         3.     "D12 "   4.66600 FT
 1047.480 FT                    -47.3016     0.0000  1046.1105 FT      -76.200      0.000      0.000 MR
                                 6.399 CM     2.111 MR     7.548 CM      2.421 MR      0.029 CM      2.000 PC        1.000   -1.000
                                 6.2464   6.3218   1.9060   2.0891      46.0237   1.8482 -14.7931  -0.5723        0.0000   0.0000
*QUAD*          5.     "Q18 "   10.00000 FT         3.55423 KG        2.54000 CM   (  104.32114 FT  )
 1057.480 FT                    -48.0628     0.0000  1056.0815 FT      -76.200      0.000      0.000 MR
                                 6.723 CM     0.024 MR     7.168 CM      0.090 MR      0.029 CM      2.000 PC       -0.154   -0.969
                                 6.5161   6.6428  -0.1505   0.0000      43.7015   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "        3.33000 FT
 1060.810 FT                    -48.3163     0.0000  1059.4018 FT      -76.200      0.000      0.000 MR
                                 6.723 CM     0.024 MR     7.160 CM      0.090 MR      0.029 CM      2.000 PC       -0.154   -0.969
                                 6.5008   6.6428  -0.1505   0.0000      43.6439   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "PM3 "   0.00000 FT
 1060.810 FT                    -48.3163     0.0000  1059.4018 FT      -76.200      0.000      0.000 MR
                                 6.723 CM     0.024 MR     7.160 CM      0.090 MR      0.029 CM      2.000 PC       -0.154   -0.969
                                 6.5008   6.6428  -0.1505   0.0000      43.6439   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "K1  "   53.00000 FT
 1113.810 FT                    -52.3510     0.0000  1112.2480 FT      -76.200      0.000      0.000 MR
                                 6.717 CM     0.024 MR     7.018 CM      0.090 MR      0.029 CM      2.000 PC       -0.148   -0.968
                                 6.2577   6.6428  -0.1505   0.0000      42.7268   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "        3.14100 FT
 1116.951 FT                    -52.5901     0.0000  1115.3799 FT      -76.200      0.000      0.000 MR
                                 6.717 CM     0.024 MR     7.010 CM      0.090 MR      0.029 CM      2.000 PC       -0.148   -0.968
                                 6.2432   6.6428  -0.1505   0.0000      42.6725   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "K2  "   53.00000 FT
 1169.951 FT                    -56.6248     0.0000  1168.2261 FT      -76.200      0.000      0.000 MR
                                 6.711 CM     0.024 MR     6.869 CM      0.090 MR      0.029 CM      2.000 PC       -0.142   -0.967
                                 6.0001   6.6428  -0.1505   0.0000      41.7554   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "        3.43000 FT
 1173.381 FT                    -56.8859     0.0000  1171.6462 FT      -76.200      0.000      0.000 MR
                                 6.711 CM     0.024 MR     6.860 CM      0.090 MR      0.029 CM      2.000 PC       -0.142   -0.966
                                 5.9843   6.6428  -0.1505   0.0000      41.6961   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "PM4 "   0.00000 FT
 1173.381 FT                    -56.8859     0.0000  1171.6462 FT      -76.200      0.000      0.000 MR
                                 6.711 CM     0.024 MR     6.860 CM      0.090 MR      0.029 CM      2.000 PC       -0.142   -0.966
                                 5.9843   6.6428  -0.1505   0.0000      41.6961   1.7617  -0.5677  -0.0000        0.0000   0.0000
*DRIFT*         3.     "        3.80000 FT
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1177.181 FT                    -57.1752.    0.0000  1175.4352          -76.200     0.000     0.000 MR
                                6.710 CM     0.024 MR     6.6   CM       0.090 MR     0.029 CM     2.000 PC      -0.1     -0.966
                                5.9669   6.6428  -0.1505   0.0000       41.6303   1.7617  -0.5677  -0.0000       0.0000    2.0000
*QUAD*          5.     "Q19 "  10.00000 FT        2.82723 KG        2.54000 CM   (  130.70906 FT  )
 1187.181 FT                   -57.9364     0.0000  1185.4061 FT      -76.200     0.000     0.000 MR
                                6.451 CM     1.688 MR     7.090 CM      1.674 MR     0.029 CM     2.000 PC      -1.000    1.000
                                5.6919   6.3870  -1.6424  -1.6674       43.0787   1.8304  10.1330   0.4538       0.0000   -0.0000
*DRIFT*         3.              4.71000 FT
 1191.891 FT                   -58.2950     0.0000  1190.1025 FT      -76.200     0.000     0.000 MR
                                6.209 CM     1.688 MR     7.330 CM      1.674 MR     0.029 CM     2.000 PC      -1.000    1.000
                                5.4561   6.1477  -1.6424  -1.6674       44.5334   1.8956  10.1330   0.4538       0.0000   -0.0000
*QUAD*          5.     "Q20 "  10.00000 FT        2.82723 KG        2.54000 CM   (  130.70906 FT  )
 1201.891 FT                   -59.0562     0.0000  1200.0735 FT      -76.200     0.000     0.000 MR
                                5.462 CM     3.181 MR     8.133 CM      3.627 MR     0.029 CM     2.000 PC      -1.000    1.000
                                4.7518   5.4093  -2.9487  -3.1463       49.3989   2.1096  21.9988   0.9597       0.0000   -0.0000
*DRIFT*         3.              1.43700 FT
 1203.328 FT                   -59.1656     0.0000  1201.5063 FT      -76.200     0.000     0.000 MR
                                5.322 CM     3.181 MR     8.292 CM      3.627 MR     0.029 CM     2.000 PC      -1.000    1.000
                                4.6227   5.2715  -2.9487  -3.1463       50.3625   2.1516  21.9988   0.9597       0.0000   -0.0000
*QUAD*          5.     "Q21 "  10.00000 FT       -3.16247 KG        2.54000 CM   ( -113.69962 FT  )
 1213.328 FT                   -59.9269     0.0000  1211.4773 FT      -76.200     0.000     0.000 MR
                                4.571 CM     1.784 MR     9.024 CM      1.147 MR     0.029 CM     2.000 PC      -1.000    1.000
                                3.9127   4.5288  -1.7436  -1.7625       54.8039   2.3474   6.9338   0.3152       0.0000   -0.0000
*DRIFT*         3.              4.74000 FT
 1218.068 FT                   -60.2877     0.0000  1216.2035 FT      -76.200     0.000     0.000 MR
                                4.314 CM     1.784 MR     9.190 CM      1.147 MR     0.029 CM     2.000 PC      -1.000    1.000
                                3.6608   4.2741  -1.7436  -1.7625       55.8057   2.3929   6.9338   0.3152       0.0000   -0.0000
*QUAD*          5.     "Q22 "  10.00000 FT       -3.16247 KG        2.54000 CM   ( -113.69962 FT  )
 1228.068 FT                   -61.0490     0.0000  1226.1745 FT      -76.200     0.000     0.000 MR
                                3.950 CM     0.618 MR     9.139 CM      1.479 MR     0.029 CM     2.000 PC      -0.998   -1.000
                                3.2815   3.9157  -0.7634  -0.6062       55.4871   2.3846  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.              2.18000 FT
 1230.248 FT                   -61.2150     0.0000  1228.3482 FT      -76.200     0.000     0.000 MR
                                3.909 CM     0.618 MR     9.041 CM      1.479 MR     0.029 CM     2.000 PC      -0.998   -1.000
                                3.2307   3.8754  -0.7634  -0.6062       54.8885   2.3601  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.     "V7  "  2.50000 FT
 1232.748 FT                   -61.4053     0.0000  1230.8409 FT      -76.200     0.000     0.000 MR
                                3.862 CM     0.618 MR     8.928 CM      1.479 MR     0.029 CM     2.000 PC      -0.998   -1.000
                                3.1726   3.8293  -0.7634  -0.6062       54.2021   2.3320  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.              1.40000 FT
 1234.148 FT                   -61.5118     0.0000  1232.2369 FT      -76.200     0.000     0.000 MR
                                3.836 CM     0.618 MR     8.865 CM      1.479 MR     0.029 CM     2.000 PC      -0.998   -1.000
                                3.1400   3.8034  -0.7634  -0.6062       53.8176   2.3162  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.     "V8  "  2.50000 FT
 1236.648 FT                   -61.7022     0.0000  1234.7296 FT      -76.200     0.000     0.000 MR
                                3.789 CM     0.618 MR     8.752 CM      1.479 MR     0.029 CM     2.000 PC      -0.998   -1.000
                                3.0818   3.7572  -0.7634  -0.6062       53.1312   2.2881  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.              6.26000 FT
 1242.908 FT                   -62.1787     0.0000  1240.9715 FT      -76.200     0.000     0.000 MR
                                3.671 CM     0.618 MR     8.470 CM      1.479 MR     0.029 CM     2.000 PC      -0.998   -1.000
                                2.9362   3.6415  -0.7634  -0.6062       51.4122   2.2177  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.     "K3  "  94.79600 FT
 1337.704 FT                   -69.3951     0.0000  1335.4924 FT      -76.200     0.000     0.000 MR
                                1.894 CM     0.618 MR     4.197 CM      1.479 MR     0.029 CM     2.000 PC      -0.991   -1.000
                                0.7306   1.8901  -0.7634  -0.6062       25.3822   1.1511  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.             102.30300 FT
 1440.007 FT                   -77.1830     0.0000  1437.4985 FT      -76.200     0.000     0.000 MR
                                0.262 CM     0.618 MR     0.431 CM      1.479 MR     0.029 CM     2.000 PC       0.196    0.966
                               -1.6497   0.0000  -0.7634  -0.6062       -2.7091  -0.0000  -9.0088  -0.3691       0.0000   -0.0000
*DRIFT*         3.     "3F  "  0.00000 FT
```

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1440.007 FT                    -77.1830     0.0000  1437.4985 FT      -76.200     0.000     0.000 MR
                                0.262 CM     0.618 MR     0.431 CM     1.479 MR     0.029 CM     2.000 PC      0.196    0.968
                               -1.6497   0.0000  -0.7634  -0.6062      -2.7091  -0.0000  -9.0088  -0.3691      0.0000  -0.0000
*DRIFT*        3.     "PM5 "   0.00000 FT
 1440.207 FT                   -77.1830     0.0000  1437.4985 FT      -76.200     0.000     0.000 MR
                                0.262 CM     0.618 MR     0.431 CM     1.479 MR     0.029 CM     2.000 PC      0.196    0.968
                               -1.6497   0.0000  -0.7634  -0.6062      -2.7091  -0.0000  -9.0088  -0.3691      0.0000  -0.0000

*LENGTH*       1440.00664 FT
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TTTTTTTTTTTTT     FFFFFFFFFFFFFFF     444     444          0   00000          000000000        EEEEEEEEEEEEEEE
TTTTTTTTTTTTT     FFFFFFFFFFFFFFF     444     444          0   00000          000000000        EEEEEEEEEEEEEEE
TTTTTTTTTTTTTTT   FFFFFFFFFFFFFFF     444     444          000000000          000000000        EEEEEEEEEEEEEEE
      TTT         FFF                 444     444        000        000     000        000     EEE
      TTT         FFF                 444     444        000        000     000        000     EEE
      TTT         FFF                 444     444        000        000     000        000     EEE
      TTT         FFF                 444     444        000     000000     000     000000     EEE
      TTT         FFF                 444     444        000     000000     000     000000     EEE
      TTT         FFF                 444     444        000     000000     000     000000     EEE
      TTT         FFFFFFFFFFFF        444444444444444    000   000   000     000   000   000     EEEEEEEEEEEE
      TTT         FFFFFFFFFFFF        444444444444444    000   000   000     000   000   000     EEEEEEEEEEEE
      TTT         FFFFFFFFFFFF        444444444444444    000   000   000     000   000   000     EEEEEEEEEEEE
      TTT         FFF                         444        000000      000     000000      000     EEE
      TTT         FFF                         444        000000      000     000000      000     EEE
      TTT         FFF                         444        000000      000     000000      000     EEE
      TTT         FFF                         444        000        000     000        000     EEE
      TTT         FFF                         444        000        000     000        000     EEE
      TTT         FFF                         444        000        000     000        000     EEE
      TTT         FFF                         444          000000000          000000000        EEEEEEEEEEEEEEE
      TTT         FFF                         444          000000000          000000000        EEEEEEEEEEEEEEE
      TTT         FFF                         444          000000000          000000000        EEEEEEEEEEEEEEE

DDDDDDDDDDDD          AAAAAAAAA        TTTTTTTTTTTTTTT
DDDDDDDDDDDD          AAAAAAAAA        TTTTTTTTTTTTTTT
DDDDDDDDDDDD          AAAAAAAAA        TTTTTTTTTTTTTTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAAAAAAAAAAAAAA          TTT
DDD         DDD     AAAAAAAAAAAAAAA          TTT
DDD         DDD     AAAAAAAAAAAAAAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDD         DDD     AAA         AAA          TTT
DDDDDDDDDDDD        AAA         AAA          TTT
DDDDDDDDDDDD        AAA         AAA          TTT
DDDDDDDDDDDD        AAA         AAA          TTT
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LPTSPL VERSION 6(344)  RUNNING ON LPT000
 *START* USER ECKLUND,S. [105,711] JOB  TF250E SEQ. 26125 DATE 03-MAY-77 22:13:40 MONITOR FERMILAB 602.1 *START*
REQUEST CREATED: 03-MAY-77  22:15:12
FILE: DSKC0:TF400F.DAT[105,711] CREATED: 29-APR-77 12:38:00 <155>  PRINTED: 03-MAY-77 22:19:06
QUEUE SWITCHES:  /PRINT:ARROW /FILE:FORT /COPIES:1 /SPACING:1 /LIMIT:504 /FORMS:NORMAL
FILE WILL BE RENAMED TO <055> PROTECTION
```

```
"400 GEV M1L
  2
 15.                    8.00000   "FT  "        0.30480 ;
 15.                    7.00000   "MR  "        0.05730 ;
 13.                   19.00000;
 13.                    3.00000;
 13.                    6.00000;
 13.                   12.00000;
* -13.          "POFF"  18.00000;
 1.000000               0.15900    1.00000     0.15900     1.00000     0.00000     2.00000   400.00000;
 16.00                 19.00000   -3.00000;
 3.0            "0F  "  0.00000;
 3.0                   16.50000;
 3.0            "C2  "  8.50000;
 3.0                    1.50000;
 3.0            "C3  "  8.50000;
 3.0                    1.50000;
 3.0            "C4  "  8.50000;
 3.0                    0.10000;
 3.0            "DIK0"  0.00000;
 3.0                    6.30000;
* 5.00          "Q1  "  10.00000   -3.38169     2.54000;
 3.0                    1.06300;
* 5.00          "Q2  "  10.00000   -3.38169     2.54000;
 3.0                    1.07200;
* 5.00          "Q3  "  10.00000   -3.38169     2.54000;
 3.0                    1.32000;
 2.0                    1.33367;
 4.000          "R1  "  10.25000   11.39147     0.00000;
 2.0                    1.33367;
 3.0                    1.24000;
 2.0                    1.33367;
 4.000          "R2  "  10.25000   11.39147     0.00000;
 2.0                    1.33367;
 3.0                    1.32500;
* 5.00          "Q4  "  10.00000    3.48188     2.54000;
 3.0                    1.07500;
* 5.00          "Q5  "  10.00000    3.48188     2.54000;
 3.0                    1.34400;
 2.0                    1.33367;
 4.000          "R3  "  10.25000   11.39147     0.00000;
 2.0                    1.33367;
 3.0                    1.20800;
 2.0                    1.33367;
 4.000          "R4  "  10.25000   11.39147     0.00000;
 2.0                    1.33367;
 3.0                    1.22200;
 2.0                    1.33367;
 4.000          "R5  "  10.25000   11.39147     0.00000;
 2.0                    1.33367;
 3.0                    1.34200;
 3.0                    0.29100;
 3.0            "C3H "  6.00000;
 3.0                    0.29200;
 3.0                    1.35800;
 2.0                    3.88016;
 4.000          "R6  "  19.91667   17.05637     0.00000;
```

```
 2.0                    3.88016;
 3.0                    1.33700;
 2.0                    3.88016;
 4.030      "R7  "     19.91667    17.05637     0.00000;
 2.0                    3.88016;
 3.0                    1.34200;
 2.0                    3.88016;
 4.000      "R8  "     19.91667    17.05637     0.00000;
 2.0                    3.88016;
 3.0                    1.82000;
 5.00       "Q6  "      5.00000     4.00000     2.54000;
 3.0                    1.59900;
 3.0        "V1  "      2.50000;
 3.0                    1.41900;
 3.0                    0.22900;
 3.0        "C4V "      6.00000;
 3.0                    0.22900;
 3.0                    2.40300;
 5.00       "Q7  "     10.00000    -4.50248     2.54000;
 3.0                    2.62500;
 3.0        "ñIK1"      0.00000;
 3.0                   94.07600;
 3.0        "ñIK2"      0.00000;
 3.0                    7.26200;
 3.0                    0.11500;
 3.0        "RS1 "      3.00000;
 3.0                    0.11500;
 3.0                   26.71800;
 5.00       "Q8  "      7.00000     4.11593     2.54000;
 3.0                    4.22000;
 5.00       "Q9  "      4.33300     0.00000     2.54000;
 3.0                    1.41000;
 5.00       "Q10 "      4.33300     0.00000     2.54000;
 3.0                    6.25000;
 3.0        "V3  "      2.50000;
 3.0                   10.46900;
 3.0                    0.29200;
 3.0        "C5H "      4.00000;
 3.0                    0.29300;
 3.0                    0.83000;
 3.0                    0.23000;
 3.0        "C6V "      4.00000;
 3.0                    0.23000;
 3.0                    0.96000;
 3.0        "iF  "      0.00000;
-10.        "iF12"     -1.00000     2.00000     0.00000     0.00010;
-10.        "iF34"     -3.00000     4.00000     0.00000     0.00010;
 3.0        "PM1 "      0.00000;
 3.0        "iC1 "      0.00000;
 3.0                    3.51500;
 3.0        "ñIK3"      0.00000;
 3.0                  195.15800;
 3.0        "ñIK4"      0.00000;
 3.0                    5.01000;
 3.0                    0.23000;
 3.0        "C7V "      4.00000;
 3.0                    0.23000;
 3.0                    1.52000;
 3.0        "C7H "      2.50000;
 3.0                    1.50000;
```

```
  3.0          "V5  "     2.50000;
  3.0                     2.49000;
  2.0                     4.57275;
  4.000        "A9  "    19.91667    20.10081     0.00000;
  2.0                     4.57275;
  3.0                     1.29000;
  2.0                     4.57275;
  4.000        "A10 "    19.91667    20.10081     0.00000;
  2.0                     4.57275;
  3.0                     1.31000;
  2.0                     4.57275;
  4.000        "A11 "    19.91667    20.10081     0.00000;
  2.0                     4.57275;
  3.0                     1.36000;
  2.0                     4.57275;
  4.000        "A12 "    19.91667    20.10081     0.00000;
  2.0                     4.57275;
  3.0                     3.01000;
  5.00         "D11 "    10.00000     5.05987     2.54000;
  3.0                     1.50000;
  5.00         "D12 "    10.00000     5.05987     2.54000;
  3.0                     1.50000;
  5.00         "D13A"     5.00000    -4.91839     2.54000;
  3.0                     1.50000;
  5.00         "D13 "    10.00000    -4.91839     2.54000;
  3.0                     1.50000;
  5.00         "D14 "    10.00000    -4.91839     2.54000;
  3.0                     2.72000;
  3.0          "DIK5"     0.00000;
  3.0                    72.20900;
  3.0          "DIK6"     0.00000;
  3.0                     1.38000;
  3.0          "PF  "     0.00000;
-10.           "PF12"    -1.00000     2.00000     0.00000     0.00010;
-10.           "PF34"    -3.00000     4.00000     0.00000     0.00010;
  3.0          "PM2 "     0.00000;
  3.0                     0.72000;
  3.0          "D8H "     4.00000;
  3.0                     0.90000;
  3.0          "IC2 "     0.00000;
  3.0                     1.00000;
  2.0                     0.00000;
  4.000        "A13 "    19.91667    26.37613     0.00000;
  2.0                     0.00000;
-10.           "PF16"    -1.00000     6.00000     0.00000     0.00010;
-10.           "PF26"    -2.00000     6.00000     0.00000     0.00010;
  3.0                     6.81000;
  3.0          "V6  "     2.50000;
  3.0          "PAR "    86.45800;
  5.00         "D15 "    10.00000    -4.26383     2.54000;
  3.0          "D10 "     4.62000;
  5.00         "D16 "    10.00000    -4.26383     2.54000;
  3.0          "D11 "     1.54000;
  5.00         "D17 "    10.00000     3.55423     2.54000;
  3.0          "D12 "     4.66600;
  5.00         "D18 "    10.00000     3.55423     2.54000;
  3.0                     3.33000;
  3.0          "PM3 "     0.00000;
-10.           "3F22"    -2.00000     2.00000     0.00000      .00010;
-10.           "3F44"    -4.00000     4.00000     0.00000      .00010;
```

```
   3.0          "k1  "     53.00000;
   3.0                      3.14100;
   3.0          "k2  "     53.00000;
   3.0                      3.43000;
   3.0          "PM4 "      0.00000;
   3.0                      3.80000;
 * 5.00         "n19 "     10.00000     2.82723     2.54000;
   3.0                      4.71000;
 * 5.00         "n20 "     10.00000     2.82723     2.54000;
   3.0                      1.43700;
 * 5.00         "n21 "     10.00000    -3.16247     2.54000;
   3.0                      4.74000;
 * 5.00         "n22 "     10.00000    -3.16247     2.54000;
   3.0                      2.18000;
   3.0          "v7  "      2.50000;
   3.0                      1.40000;
   3.0          "v8  "      2.50000;
   3.0                      6.26000;
   3.0          "k3  "     94.79600;
   3.0                    102.30300;
   3.0          "3F  "      0.00000;
 -10.           "3F12"     -1.00300     2.00000     0.00000     0.00010;
 -10.           "3F34"     -3.00000     4.00000     0.00000     0.00010;
   3.0          "PM5 "      0.00000;
```

SENTINEL

400 GEV MIE

			R11	R12	R21	R22	R33	R34	R43	R44	R16	R26
BEAM	1.		400.00000 GEV									
0.000 FT			0.0000	0.0000	0.0000 FT		0.000	0.000	0.000 MR			
			0.159 CM	1.000 MR	0.159 CM		1.000 MR	0.000 CM		2.000 PC	0.000	0.000
THETA0	16.		19.	-0.30000E+01								
DRIFT	3.	"0F "	0.00000 FT									
0.000 FT			0.0000	0.0000	0.0000 FT		-3.000	0.000	0.000 MR			
			0.159 CM	1.000 MR	0.159 CM		1.000 MR	0.000 CM		2.000 PC	0.000	0.000
			1.0000	0.0000	0.0000	1.0000	1.0000	0.0000	0.0000	1.0000	0.0000	0.0000
DRIFT	3.		16.52000 FT									
16.520 FT			-0.0495	0.0000	16.4999 FT		-3.000	0.000	0.000 MR			
			0.527 CM	1.000 MR	0.527 CM		1.000 MR	0.000 CM		2.000 PC	0.953	0.953
			1.0000	0.5029	0.0000	1.0000	1.0000	0.5029	0.0000	1.0000	0.0000	0.0000
DRIFT	3.	"C2 "	8.50000 FT									
25.000 FT			-0.0750	0.0000	24.9999 FT		-3.000	0.000	0.000 MR			
			0.778 CM	1.000 MR	0.778 CM		1.000 MR	0.000 CM		2.000 PC	0.979	0.979
			1.0000	0.7620	0.0000	1.0000	1.0000	0.7620	0.0000	1.0000	0.0000	0.0000
DRIFT	3.		1.50000 FT									
26.500 FT			-0.0795	0.0000	26.4999 FT		-3.000	0.000	0.000 MR			
			0.823 CM	1.000 MR	0.823 CM		1.000 MR	0.000 CM		2.000 PC	0.981	0.981
			1.0000	0.8077	0.0000	1.0000	1.0000	0.8077	0.0000	1.0000	0.0000	0.0000
DRIFT	3.	"C3 "	8.50000 FT									
35.000 FT			-0.1050	0.0000	34.9998 FT		-3.000	0.000	0.000 MR			
			1.079 CM	1.000 MR	1.079 CM		1.000 MR	0.000 CM		2.000 PC	0.989	0.989
			1.0000	1.0668	0.0000	1.0000	1.0000	1.0668	0.0000	1.0000	0.0000	0.0000
DRIFT	3.		1.50000 FT									
36.500 FT			-0.1095	0.0000	36.4998 FT		-3.000	0.000	0.000 MR			
			1.124 CM	1.000 MR	1.124 CM		1.000 MR	0.000 CM		2.000 PC	0.993	0.993
			1.0000	1.1125	0.0000	1.0000	1.0000	1.1125	0.0000	1.0000	0.0000	0.0000
DRIFT	3.	"C4 "	8.50000 FT									
45.000 FT			-0.1350	0.0000	44.9998 FT		-3.000	0.000	0.000 MR			
			1.381 CM	1.000 MR	1.381 CM		1.000 MR	0.000 CM		2.000 PC	0.993	0.993
			1.0000	1.3716	0.0000	1.0000	1.0000	1.3716	0.0000	1.0000	0.0000	0.0000
DRIFT	3.		0.10000 FT									
45.100 FT			-0.1353	0.0000	45.0998 FT		-3.000	0.000	0.000 MR			
			1.384 CM	1.000 MR	1.384 CM		1.000 MR	0.000 CM		2.000 PC	0.993	0.993
			1.0000	1.3746	0.0000	1.0000	1.0000	1.3746	0.0000	1.0000	0.0000	0.0000
DRIFT	3.	"DIK0"	0.00000 FT									
45.100 FT			-0.1353	0.0000	45.0998 FT		-3.000	0.000	0.000 MR			
			1.384 CM	1.000 MR	1.384 CM		1.000 MR	0.000 CM		2.000 PC	0.993	0.993
			1.0000	1.3746	0.0000	1.0000	1.0000	1.3746	0.0000	1.0000	0.0000	0.0000
DRIFT	3.		6.30000 FT									
51.400 FT			-0.1542	0.0000	51.3998 FT		-3.000	0.000	0.000 MR			
			1.575 CM	1.000 MR	1.575 CM		1.000 MR	0.000 CM		2.000 PC	0.995	0.995
			1.0000	1.5667	0.0000	1.0000	1.0000	1.5667	0.0000	1.0000	0.0000	0.0000
QUAD	5.	"Q1 "	10.00000 FT		-3.38169 KG		2.54000 CM		(-106.22317 FT)			
61.400 FT			-0.1842	0.0000	61.3997 FT		-3.000	0.000	0.000 MR			
			1.956 CM	1.531 MR	1.801 CM		0.487 MR	0.000 CM		2.000 PC	0.999	0.983
			1.0467	1.9494	0.3089	1.5306	0.9540	1.7947	-0.2995	0.4848	0.0000	0.0000
DRIFT	3.		1.06300 FT									
62.463 FT			-0.1874	0.0000	62.4627 FT		-3.000	0.000	0.000 MR			
			2.006 CM	1.531 MR	1.817 CM		0.487 MR	0.000 CM		2.000 PC	0.999	0.984
			1.0567	1.9990	0.3089	1.5306	0.9443	1.8104	-0.2995	0.4848	0.0000	0.0000
QUAD	5.	"Q2 "	10.00000 FT		-3.38169 KG		2.54000 CM		(-106.22317 FT)			
72.463 FT			-0.2174	0.0000	72.4627 FT		-3.000	0.000	0.000 MR			
			2.573 CM	2.222 MR	1.877 CM		0.120 MR	0.000 CM		2.000 PC	1.000	-0.711
			1.2017	2.5661	0.6497	2.2195	0.8110	1.8727	-0.5685	-0.0796	0.0000	0.0000
DRIFT	3.		1.07200 FT									

```
 73.535 FT                  -0.2206     0.0000    73.5347 FT       -3.000      0.000      0.000 MR
                             2.646 CM    2.222 MR    1.874          0.120 MR    0.000 CM    2.000 PC      1.000    -0.710
                             1.2229   2.6386   0.6497   2.2195      0.7924   1.8701  -0.5685  -0.0796    0.0000    0.0000
*QUAD*          5.    "03 "  10.00000 FT       -3.38169 KG       2.54000 CM   ( -106.22317 FT  )
 83.535 FT                  -0.2506     0.0000    83.5346 FT       -3.000      0.000      0.000 MR
                             3.457 CM    3.143 MR    1.763 CM       0.648 MR    0.000 CM    2.000 PC      1.000    -0.990
                             1.4811   3.4489   1.0577   3.1382      0.5854   1.7602  -0.7796  -0.6360    0.0000    0.0000
*DRIFT*         3.          1.32000 FT
 84.855 FT                  -0.2546     0.0000    84.8546 FT       -3.000      0.000      0.000 MR
                             3.583 CM    3.143 MR    1.737 CM       0.648 MR    0.000 CM    2.000 PC      1.000    -0.990
                             1.5237   3.5752   1.0577   3.1382      0.5540   1.7346  -0.7796  -0.6360    0.0000    0.0000
*ROTAT*         2.          1.33367 MR
 84.855 FT                  -0.2546     0.0000    84.8546 FT       -3.000      0.000      0.000 MR
                             3.583 CM    3.143 MR    1.737 CM       0.648 MR    0.000 CM    2.000 PC      1.000    -0.990
                             1.5237   3.5752   1.0577   3.1382      0.5540   1.7346  -0.7796  -0.6360    0.0000    0.0000
*BEND*          4.    "B1 "  10.25000 FT       11.39147 KG       0.00000      (  3842.767 FT  ,   2.667 MR  )
 95.105 FT                  -0.2990     0.0000    95.1045 FT       -5.667      0.000      0.000 MR
                             4.565 CM    3.143 MR    1.537 CM       0.648 MR    0.011 CM    2.000 PC      1.000    -0.987
                             1.8541   4.5556   1.0577   3.1381      0.3104   1.5359  -0.7796  -0.6360    0.0042    0.0267
*ROTAT*         2.          1.33367 MR
 95.105 FT                  -0.2990     0.0000    95.1045 FT       -5.667      0.000      0.000 MR
                             4.565 CM    3.143 MR    1.537 CM       0.648 MR    0.011 CM    2.000 PC      1.000    -0.987
                             1.8541   4.5556   1.0577   3.1382      0.3104   1.5359  -0.7796  -0.6360    0.0042    0.0267
*DRIFT*         3.          1.24000 FT
 96.345 FT                  -0.3060     0.0000    96.3445 FT       -5.667      0.000      0.000 MR
                             4.684 CM    3.143 MR    1.513 CM       0.648 MR    0.011 CM    2.000 PC      1.000    -0.987
                             1.8941   4.6742   1.0577   3.1382      0.2810   1.5118  -0.7796  -0.6360    0.0052    0.0267
*ROTAT*         2.          1.33367 MR
 96.345 FT                  -0.3060     0.0000    96.3445 FT       -5.667      0.000      0.000 MR
                             4.684 CM    3.143 MR    1.513 CM       0.648 MR    0.011 CM    2.000 PC      1.000    -0.987
                             1.8941   4.6742   1.0577   3.1382      0.2810   1.5118  -0.7796  -0.6360    0.0052    0.0267
*BEND*          4.    "B2 "  10.25000 FT       11.39147 KG       0.00000      (  3842.767 FT  ,   2.667 MR  )
106.595 FT                  -0.3778     0.0000   106.5942 FT       -8.335      0.000      0.000 MR
                             5.666 CM    3.144 MR    1.313 CM      -0.648 MR    0.025 CM    2.000 PC      1.000    -0.982
                             2.2246   5.6546   1.0577   3.1381      0.0374   1.3131  -0.7796  -0.6360    0.0177    0.0533
*ROTAT*         2.          1.33367 MR
106.595 FT                  -0.3778     0.0000   106.5942 FT       -8.335      0.000      0.000 MR
                             5.666 CM    3.144 MR    1.313 CM       0.648 MR    0.025 CM    2.000 PC      1.000    -0.982
                             2.2246   5.6546   1.0577   3.1382      0.0374   1.3131  -0.7796  -0.6360    0.0177    0.0533
*DRIFT*         3.          1.32500 FT
107.920 FT                  -0.3888     0.0000   107.9192 FT       -8.335      0.000      0.000 MR
                             5.793 CM    3.144 MR    1.287 CM       0.648 MR    0.025 CM    2.000 PC      1.000    -0.982
                             2.2673   5.7813   1.0577   3.1382      0.0059   1.2874  -0.7796  -0.6360    0.0198    0.0533
*QUAD*          5.    "04 "  10.00000 FT        3.48188 KG       2.54000 CM   (  106.45350 FT  )
117.920 FT                  -0.4722     0.0000   117.9189 FT       -8.335      0.000      0.000 MR
                             6.461 CM    1.212 MR    1.153 CM       0.288 MR    0.025 CM    2.000 PC      0.998    -0.878
                             2.4772   6.4490   0.3089   1.2078     -0.2353   1.1524  -0.8153  -0.2570    0.0349    0.0447
*DRIFT*         3.          1.07500 FT
118.995 FT                  -0.4811     0.0000   118.9938 FT       -8.335      0.000      0.000 MR
                             6.501 CM    1.212 MR    1.145 CM       0.288 MR    0.025 CM    2.000 PC      0.998    -0.876
                             2.4873   6.4886   0.3089   1.2078     -0.2620   1.1440  -0.8153  -0.2570    0.0364    0.0447
*QUAD*          5.    "05 "  10.00000 FT        3.48188 KG       2.54000 CM   (  106.45350 FT  )
128.995 FT                  -0.5645     0.0000   128.9935 FT       -8.335      0.000      0.000 MR
                             6.556 CM    0.855 MR    1.123 CM       0.177 MR    0.025 CM    2.000 PC     -0.996     0.597
                             2.4622   6.5437  -0.4723  -0.8491     -0.5270   1.1194  -0.9378   0.0946    0.0480    0.0314
*DRIFT*         3.          1.34400 FT
130.339 FT                  -0.5757     0.0000   130.3374 FT       -8.335      0.000      0.000 MR
                             6.521 CM    0.855 MR    1.127 CM       0.177 MR    0.025 CM    2.000 PC     -0.996     0.601
                             2.4429   6.5089  -0.4723  -0.8491     -0.5655   1.1233  -0.9378   0.0946    0.0493    0.0314
*ROTAT*         2.          1.33367 MR
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130.339 FT                    -0.5757     0.0000   130.3374 FT      -8.335     0.000     0.000 MR
                               6.521 CM    0.855 MR    1.127 CM     0.177 MR    0.025 CM    2.000 PC     -0.996    0.601
                               2.4429   6.5089  -0.4723  -0.8491    -0.5655   1.1233  -0.9378   0.0946     0.0493   0.0314
*BEND*          4.     "B3  "  10.25000 FT       11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
140.589 FT                    -0.6748     0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                               6.256 CM    0.860 MR    1.161 CM     0.177 MR    0.042 CM    2.000 PC     -0.987    0.631
                               2.2953   6.2436  -0.4724  -0.8492    -0.8585   1.1528  -0.9378   0.0946     0.0633   0.0581
*ROTAT*         2.             1.33367 MR
140.589 FT                    -0.6748     0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                               6.256 CM    0.860 MR    1.161 CM     0.177 MR    0.042 CM    2.000 PC     -0.987    0.631
                               2.2953   6.2436  -0.4723  -0.8491    -0.8585   1.1528  -0.9378   0.0945     0.0633   0.0581
*DRIFT*         3.             1.20800 FT
141.797 FT                    -0.6881     0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                               6.224 CM    0.860 MR    1.165 CM     0.177 MR    0.042 CM    2.000 PC     -0.987    0.634
                               2.2779   6.2123  -0.4723  -0.8491    -0.8930   1.1563  -0.9378   0.0945     0.0654   0.0581
*ROTAT*         2.             1.33367 MR
141.797 FT                    -0.6881     0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                               6.224 CM    0.860 MR    1.165 CM     0.177 MR    0.042 CM    2.000 PC     -0.987    0.634
                               2.2779   6.2123  -0.4723  -0.8491    -0.8930   1.1563  -0.9378   0.0945     0.0654   0.0581
*BEND*          4.     "B4  "  10.25000 FT       11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
152.047 FT                    -0.8145     0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                               5.959 CM    0.869 MR    1.201 CM     0.177 MR    0.058 CM    2.000 PC     -0.974    0.661
                               2.1304   5.9470  -0.4724  -0.8492    -1.1860   1.1859  -0.9378   0.0945     0.0878   0.0847
*ROTAT*         2.             1.33367 MR
152.047 FT                    -0.8145     0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                               5.959 CM    0.869 MR    1.201 CM     0.177 MR    0.058 CM    2.000 PC     -0.974    0.661
                               2.1304   5.9470  -0.4723  -0.8491    -1.1860   1.1859  -0.9378   0.0945     0.0878   0.0847
*DRIFT*         3.             1.22200 FT
153.269 FT                    -0.8312     0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                               5.928 CM    0.869 MR    1.205 CM     0.177 MR    0.058 CM    2.000 PC     -0.974    0.664
                               2.1128   5.9154  -0.4723  -0.8491    -1.2209   1.1894  -0.9378   0.0945     0.0909   0.0847
*ROTAT*         2.             1.33367 MR
153.269 FT                    -0.8312     0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                               5.928 CM    0.869 MR    1.205 CM     0.177 MR    0.058 CM    2.000 PC     -0.974    0.664
                               2.1128   5.9154  -0.4723  -0.8491    -1.2209   1.1894  -0.9378   0.0945     0.0909   0.0847
*BEND*          4.     "B5  "  10.25000 FT       11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
163.519 FT                    -0.9850     0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                               5.664 CM    0.881 MR    1.242 CM     0.177 MR    0.073 CM    2.000 PC     -0.955    0.689
                               1.9652   5.6501  -0.4724  -0.8492    -1.5139   1.2189  -0.9378   0.0945     0.1215   0.1114
*ROTAT*         2.             1.33367 MR
163.519 FT                    -0.9850     0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                               5.664 CM    0.881 MR    1.242 CM     0.177 MR    0.073 CM    2.000 PC     -0.955    0.689
                               1.9652   5.6501  -0.4723  -0.8491    -1.5139   1.2189  -0.9378   0.0945     0.1215   0.1114
*DRIFT*         3.             1.34000 FT
164.859 FT                    -1.0069     0.0000   164.8546 FT     -16.337     0.000     0.000 MR
                               5.630 CM    0.881 MR    1.247 CM     0.177 MR    0.073 CM    2.000 PC     -0.955    0.692
                               1.9459   5.6154  -0.4723  -0.8491    -1.5522   1.2228  -0.9378   0.0945     0.1261   0.1114
*DRIFT*         3.             0.29100 FT
165.150 FT                    -1.0116     0.0000   165.1456 FT     -16.337     0.000     0.000 MR
                               5.622 CM    0.881 MR    1.249 CM     0.177 MR    0.073 CM    2.000 PC     -0.955    0.692
                               1.9417   5.6079  -0.4723  -0.8491    -1.5605   1.2236  -0.9378   0.0945     0.1271   0.1114
*DRIFT*         3.     "C3H "  6.00000 FT
171.150 FT                    -1.1096     0.0000   171.1448 FT     -16.337     0.000     0.000 MR
                               5.469 CM    0.881 MR    1.271 CM     0.177 MR    0.073 CM    2.000 PC     -0.952    0.706
                               1.8554   5.4526  -0.4723  -0.8491    -1.7320   1.2409  -0.9378   0.0945     0.1475   0.1114
*DRIFT*         3.             0.29200 FT
171.442 FT                    -1.1144     0.0000   171.4368 FT     -16.337     0.000     0.000 MR
                               5.461 CM    0.881 MR    1.272 CM     0.177 MR    0.073 CM    2.000 PC     -0.952    0.706
                               1.8512   5.4451  -0.4723  -0.8491    -1.7404   1.2417  -0.9378   0.0945     0.1485   0.1114
*DRIFT*         3.             1.35800 FT
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172.800 FT                    -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                               5.426 CM     0.881 MR     1.27[illegible] M     0.177 MR     0.073 CM     2.000 PC     -0.95[illegible]     0.709
                               1.8316   5.4099  -0.4723  -0.8491     -1.7792   1.2456  -0.9378   0.0945      0.1531   0.1114
*ROTAT*          2.            3.88016 MR
  172.800 FT                  -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                               5.426 CM     0.881 MR     1.277 CM     0.176 MR     0.073 CM     2.000 PC     -0.951     0.709
                               1.8316   5.4099  -0.4722  -0.8489     -1.7792   1.2456  -0.9377   0.0944      0.1531   0.1114
*BEND*           4.     "B6  "  19.91667 FT      17.05637 KG       0.00000      (  2566.476 FT  ,   7.760 MR  )
  192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                               4.925 CM     0.933 MR     1.355 CM     0.176 MR     0.114 CM     2.000 PC     -0.869     0.747
                               1.5449   4.8945  -0.4724  -0.8494     -2.3484   1.3030  -0.9377   0.0944      0.2442   0.1890
*ROTAT*          2.            3.88016 MR
  192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                               4.925 CM     0.933 MR     1.355 CM     0.176 MR     0.114 CM     2.000 PC     -0.869     0.747
                               1.5449   4.8945  -0.4723  -0.8491     -2.3484   1.3030  -0.9376   0.0944      0.2442   0.1890
*DRIFT*          3.            1.33700 FT
  194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                               4.892 CM     0.933 MR     1.361 CM     0.176 MR     0.114 CM     2.000 PC     -0.867     0.749
                               1.5256   4.8599  -0.4723  -0.8491     -2.3866   1.3068  -0.9376   0.0944      0.2520   0.1890
*ROTAT*          2.            3.88016 MR
  194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                               4.892 CM     0.932 MR     1.361 CM     0.176 MR     0.114 CM     2.000 PC     -0.867     0.749
                               1.5256   4.8599  -0.4723  -0.8489     -2.3866   1.3068  -0.9374   0.0943      0.2520   0.1890
*BEND*           4.     "B7  "  19.91667 FT      17.05637 KG       0.00000      (  2566.476 FT  ,   7.760 MR  )
  213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                               4.418 CM     1.006 MR     1.443 CM     0.176 MR     0.149 CM     2.000 PC     -0.740     0.781
                               1.2389   4.3444  -0.4724  -0.8493     -2.9557   1.3641  -0.9374   0.0943      0.3902   0.2666
*ROTAT*          2.            3.88016 MR
  213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                               4.418 CM     1.005 MR     1.443 CM     0.176 MR     0.149 CM     2.000 PC     -0.740     0.781
                               1.2389   4.3444  -0.4723  -0.8491     -2.9557   1.3641  -0.9373   0.0942      0.3902   0.2666
*DRIFT*          3.            1.34200 FT
  215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                               4.388 CM     1.005 MR     1.448 CM     0.176 MR     0.149 CM     2.000 PC     -0.736     0.783
                               1.2196   4.3097  -0.4723  -0.8491     -2.9940   1.3679  -0.9373   0.0942      0.4012   0.2666
*ROTAT*          2.            3.88016 MR
  215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                               4.388 CM     1.005 MR     1.448 CM     0.176 MR     0.149 CM     2.000 PC     -0.736     0.782
                               1.2196   4.3097  -0.4723  -0.8489     -2.9940   1.3679  -0.9372   0.0942      0.4012   0.2666
*BEND*           4.     "B8  "  19.91667 FT      17.05637 KG       0.00000      (  2566.476 FT  ,   7.760 MR  )
  235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                               3.974 CM     1.096 MR     1.534 CM     0.176 MR     0.181 CM     2.000 PC     -0.557     0.829
                               0.9328   3.7942  -0.4724  -0.8493     -3.5629   1.4251  -0.9372   0.0942      0.5866   0.3442
*ROTAT*          2.            3.88016 MR
  235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                               3.974 CM     1.096 MR     1.534 CM     0.176 MR     0.181 CM     2.000 PC     -0.557     0.829
                               0.9328   3.7942  -0.4723  -0.8491     -3.5629   1.4251  -0.9370   0.0941      0.5866   0.3442
*DRIFT*          3.            1.82000 FT
  237.049 FT                  -2.9550     0.0000   237.0163 FT      -39.618     0.000     0.000 MR
                               3.941 CM     1.096 MR     1.541 CM     0.176 MR     0.181 CM     2.000 PC     -0.546     0.811
                               0.9066   3.7471  -0.4723  -0.8491     -3.6149   1.4303  -0.9370   0.0941      0.6057   0.3442
*QUAD*           5.     "Q6  "  5.00000 FT       4.00000 KG        2.54000 CM   (  183.23080 FT  )
  242.049 FT                  -3.1531     0.0000   242.0124 FT      -39.618     0.000     0.000 MR
                               3.799 CM     1.581 MR     1.585 CM     0.436 MR     0.181 CM     2.000 PC     -0.798     0.973
                               0.8226   3.5670  -0.6282  -1.5084     -3.8080   1.4643  -1.6031   0.3538      0.6496   0.2311
*DRIFT*          3.            1.59900 FT
  243.648 FT                  -3.2164     0.0000   243.6102 FT      -39.618     0.000     0.000 MR
                               3.737 CM     1.581 MR     1.605 CM     0.436 MR     0.181 CM     2.000 PC     -0.791     0.974
                               0.7920   3.4935  -0.6282  -1.5084     -3.8862   1.4816  -1.6031   0.3538      0.6629   0.2311
*DRIFT*          3.     "V1  "  2.50000 FT
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246.148 FT                    -3.3154     0.0000   246.1082 FT      -39.618     0.000     0.000 MR
                               3.643 CM     1.581 MR     1.638 CM     0.436 MR     0.181 CM     2.000 PC     -0.778     0.975
                               0.7441   3.3786  -0.6282  -1.5084     -4.0083   1.5086  -1.6031   0.3538      0.6785     0.2311
*DRIFT*          3.           1.41900 FT
247.567 FT                    -3.3716     0.0000   247.5261 FT      -39.618     0.000     0.000 MR
                               3.590 CM     1.581 MR     1.656 CM     0.436 MR     0.181 CM     2.000 PC     -0.771     0.975
                               0.7169   3.3133  -0.6282  -1.5084     -4.0776   1.5239  -1.6031   0.3538      0.6885     0.2311
*DRIFT*          3.           0.22900 FT
247.796 FT                    -3.3807     0.0000   247.7549 FT      -39.618     0.000     0.000 MR
                               3.581 CM     1.581 MR     1.659 CM     0.436 MR     0.181 CM     2.000 PC     -0.769     0.976
                               0.7125   3.3028  -0.6282  -1.5084     -4.0888   1.5263  -1.6031   0.3538      0.6901     0.2311
*DRIFT*          3.   "C4V "  6.00000 FT
253.796 FT                    -3.6183     0.0000   253.7502 FT      -39.618     0.000     0.000 MR
                               3.364 CM     1.581 MR     1.737 CM     0.436 MR     0.181 CM     2.000 PC     -0.733     0.978
                               0.5977   3.0269  -0.6282  -1.5084     -4.3820   1.5910  -1.6031   0.3538      0.7323     0.2311
*DRIFT*          3.           0.22900 FT
254.025 FT                    -3.6274     0.0000   253.9790 FT      -39.618     0.000     0.000 MR
                               3.356 CM     1.581 MR     1.740 CM     0.436 MR     0.181 CM     2.000 PC     -0.732     0.978
                               0.5933   3.0164  -0.6282  -1.5084     -4.3932   1.5935  -1.6031   0.3538      0.7339     0.2311
*DRIFT*          3.           2.40300 FT
256.428 FT                    -3.7226     0.0000   256.3801 FT      -39.618     0.000     0.000 MR
                               3.272 CM     1.581 MR     1.771 CM     0.436 MR     0.181 CM     2.000 PC     -0.715     0.979
                               0.5473   2.9059  -0.6282  -1.5084     -4.5106   1.6194  -1.6031   0.3538      0.7539     0.2311
*QUAD*           5.   "Q7  "  10.00000 FT        -4.50248 KG        2.54000 CM   (  -79.37672 FT  )
266.428 FT                    -4.1186     0.0000   266.3723 FT      -39.618     0.000     0.000 MR
                               3.143 CM     1.184 MR     1.791 CM     0.313 MR     0.181 CM     2.000 PC      0.236    -0.959
                               0.3859   2.6178  -0.4412  -0.4014     -4.7137   1.6262   0.2841  -0.3101      0.8696     0.5558
*DRIFT*          3.           2.62500 FT
269.053 FT                    -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                               3.167 CM     1.184 MR     1.767 CM     0.313 MR     0.181 CM     2.000 PC      0.264    -0.958
                               0.3506   2.5857  -0.4412  -0.4014     -4.6910   1.6013   0.2841  -0.3101      0.9140     0.5558
*DRIFT*          3.   "DIK1"  0.00000 FT
269.053 FT                    -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                               3.167 CM     1.184 MR     1.767 CM     0.313 MR     0.181 CM     2.000 PC      0.264    -0.958
                               0.3506   2.5857  -0.4412  -0.4014     -4.6910   1.6013   0.2841  -0.3101      0.9140     0.5558
*DRIFT*          3.           94.07600 FT
363.129 FT                    -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                               5.219 CM     1.184 MR     0.942 CM     0.313 MR     0.181 CM     2.000 PC      0.811    -0.842
                              -0.9144   1.4347  -0.4412  -0.4014     -3.8765   0.7120   0.2841  -0.3101      2.5078     0.5558
*DRIFT*          3.   "DIK2"  0.00000 FT
363.129 FT                    -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                               5.219 CM     1.184 MR     0.942 CM     0.313 MR     0.181 CM     2.000 PC      0.811    -0.842
                              -0.9144   1.4347  -0.4412  -0.4014     -3.8765   0.7120   0.2841  -0.3101      2.5078     0.5558
*DRIFT*          3.           7.26000 FT
370.389 FT                    -8.2363     0.0000   370.2517 FT      -39.618     0.000     0.000 MR
                               5.433 CM     1.184 MR     0.884 CM     0.313 MR     0.181 CM     2.000 PC      0.827    -0.819
                              -1.0120   1.3458  -0.4412  -0.4014     -3.8136   0.6434   0.2841  -0.3101      2.6308     0.5558
*DRIFT*          3.           0.11500 FT
370.504 FT                    -8.2408     0.0000   370.3666 FT      -39.618     0.000     0.000 MR
                               5.437 CM     1.184 MR     0.883 CM     0.313 MR     0.181 CM     2.000 PC      0.827    -0.819
                              -1.0136   1.3444  -0.4412  -0.4014     -3.8126   0.6423   0.2841  -0.3101      2.6328     0.5558
*DRIFT*          3.   "BS1 "  3.00000 FT
373.504 FT                    -8.3596     0.0000   373.3643 FT      -39.618     0.000     0.000 MR
                               5.527 CM     1.184 MR     0.860 CM     0.313 MR     0.181 CM     2.000 PC      0.833    -0.837
                              -1.0539   1.3077  -0.4412  -0.4014     -3.7866   0.6140   0.2841  -0.3101      2.6836     0.5558
*DRIFT*          3.           0.11500 FT
373.619 FT                    -8.3642     0.0000   373.4792 FT      -39.618     0.000     0.000 MR
                               5.530 CM     1.184 MR     0.859 CM     0.313 MR     0.181 CM     2.000 PC      0.834    -0.837
                              -1.0555   1.3063  -0.4412  -0.4014     -3.7857   0.6129   0.2841  -0.3101      2.6855     0.5558
*DRIFT*          3.           26.71800 FT
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400.337                    -9.4224     0.0000   400.1762 FT      -39.618     0.000     0.000 MR
                            6.356 CM    1.164 MR     0.671 CM     0.313 MR     0.181 CM     2.000 PC      0.87    -0.653
                           -1.4147   0.9794  -0.4412  -0.4014    -3.5543    0.3603    0.2841  -0.3101     3.1382    0.5558
*QUAD*          5.    "Q8  "   7.00000 FT        4.11593 KG        2.54000 CM   (  127.78677 FT  )
  407.337 FT                -9.6997     0.0000   407.1707 FT      -39.618     0.000     0.000 MR
                            6.402 CM    0.833 MR     0.647 CM     0.246 MR     0.181 CM     2.000 PC     -0.735    -0.064
                           -1.4691   0.8676  -0.0658  -0.6418    -3.5919    0.3035   -0.6376  -0.2245     3.1693   -0.2652
*DRIFT*         3.                4.22000 FT
  411.557 FT                -9.8668     0.0000   411.3874 FT      -39.618     0.000     0.000 MR
                            6.324 CM    0.833 MR     0.645 CM     0.246 MR     0.181 CM     2.000 PC     -0.727    -0.015
                           -1.4775   0.7851  -0.0658  -0.6418    -3.6739    0.2746   -0.6376  -0.2245     3.1352   -0.2652
*QUAD*          5.    "Q9  "   4.33300 FT        0.00000 KG        2.54000 CM   (    0.00000 FT  )
  415.890 FT               -10.0384     0.0000   415.7170 FT      -39.618     0.000     0.000 MR
                            6.244 CM    0.833 MR     0.646 CM     0.246 MR     0.181 CM     2.000 PC     -0.718     0.035
                           -1.4862   0.7003  -0.0658  -0.6418    -3.7581    0.2450   -0.6376  -0.2245     3.1002   -0.2652
*DRIFT*         3.                1.41000 FT
  417.300 FT               -10.0943     0.0000   417.1259 FT      -39.618     0.000     0.000 MR
                            6.219 CM    0.833 MR     0.646 CM     0.246 MR     0.181 CM     2.000 PC     -0.716     0.051
                           -1.4891   0.6727  -0.0658  -0.6418    -3.7855    0.2353   -0.6376  -0.2245     3.0888   -0.2652
*QUAD*          5.    "Q10 "   4.33300 FT        0.00000 KG        2.54000 CM   (    0.00000 FT  )
  421.633 FT               -10.2659     0.0000   421.4555 FT      -39.618     0.000     0.000 MR
                            6.140 CM    0.833 MR     0.649 CM     0.246 MR     0.181 CM     2.000 PC     -0.707     0.101
                           -1.4978   0.5879  -0.0658  -0.6418    -3.8697    0.2057   -0.6376  -0.2245     3.0538   -0.2652
*DRIFT*         3.                6.25000 FT
  427.883 FT               -10.5134     0.0000   427.7006 FT      -39.618     0.000     0.000 MR
                            6.029 CM    0.833 MR     0.655 CM     0.246 MR     0.181 CM     2.000 PC     -0.694     0.172
                           -1.5103   0.4657  -0.0658  -0.6418    -3.9911    0.1629   -0.6376  -0.2245     3.0033   -0.2652
*DRIFT*         3.    "V3  "   2.50000 FT
  430.383 FT               -10.6125     0.0000   430.1986 FT      -39.618     0.000     0.000 MR
                            5.986 CM    0.833 MR     0.659 CM     0.246 MR     0.181 CM     2.000 PC     -0.688     0.200
                           -1.5153   0.4168  -0.0658  -0.6418    -4.0397    0.1458   -0.6376  -0.2245     2.9831   -0.2652
*DRIFT*         3.                10.46900 FT
  440.852 FT               -11.0271     0.0000   440.6594 FT      -39.618     0.000     0.000 MR
                            5.806 CM    0.833 MR     0.679 CM     0.246 MR     0.181 CM     2.000 PC     -0.664     0.309
                           -1.5363   0.2120  -0.0658  -0.6418    -4.2432    0.0742   -0.6376  -0.2245     2.8984   -0.2652
*DRIFT*         3.                0.29200 FT
  441.144 FT               -11.0387     0.0000   440.9512 FT      -39.618     0.000     0.000 MR
                            5.801 CM    0.833 MR     0.679 CM     0.246 MR     0.181 CM     2.000 PC     -0.663     0.312
                           -1.5369   0.2063  -0.0658  -0.6418    -4.2489    0.0722   -0.6376  -0.2245     2.8961   -0.2652
*DRIFT*         3.    "C5H "   4.00000 FT
  445.144 FT               -11.1971     0.0000   444.9481 FT      -39.618     0.000     0.000 MR
                            5.734 CM    0.833 MR     0.689 CM     0.246 MR     0.181 CM     2.000 PC     -0.653     0.351
                           -1.5449   0.1280  -0.0658  -0.6418    -4.3266    0.0448   -0.6376  -0.2245     2.8637   -0.2652
*DRIFT*         3.                0.29300 FT
  445.437 FT               -11.2087     0.0000   445.2408 FT      -39.618     0.000     0.000 MR
                            5.729 CM    0.833 MR     0.690 CM     0.246 MR     0.181 CM     2.000 PC     -0.652     0.354
                           -1.5455   0.1223  -0.0658  -0.6418    -4.3323    0.0428   -0.6376  -0.2245     2.8614   -0.2652
*DRIFT*         3.                0.83000 FT
  446.267 FT               -11.2416     0.0000   446.0702 FT      -39.618     0.000     0.000 MR
                            5.716 CM    0.833 MR     0.692 CM     0.246 MR     0.181 CM     2.000 PC     -0.650     0.362
                           -1.5472   0.1060  -0.0658  -0.6418    -4.3484    0.0371   -0.6376  -0.2245     2.8547   -0.2652
*DRIFT*         3.                0.23000 FT
  446.497 FT               -11.2507     0.0000   446.3000 FT      -39.618     0.000     0.000 MR
                            5.712 CM    0.833 MR     0.693 CM     0.246 MR     0.181 CM     2.000 PC     -0.649     0.364
                           -1.5476   0.1015  -0.0658  -0.6418    -4.3529    0.0355   -0.6376  -0.2245     2.8528   -0.2652
*DRIFT*         3.    "C6V "   4.00000 FT
  450.497 FT               -11.4091     0.0000   450.2969 FT      -39.618     0.000     0.000 MR
                            5.646 CM    0.833 MR     0.705 CM     0.246 MR     0.181 CM     2.000 PC     -0.639     0.401
                           -1.5557   0.0233  -0.0658  -0.6418    -4.4306    0.0081   -0.6376  -0.2245     2.8205   -0.2652
*DRIFT*         3.                0.23000 FT
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450.727 FT                    -11.4182     0.0000   450.5267 FT      -39.618     0.000     0.000 MR
                                5.643 CM     0.833 MR     0.705 CM     0.246 MR     0.181 CM     2.000 PC      -0.638     0.403
                               -1.5561   0.0188  -0.0658  -0.6418     -4.4351   0.0066  -0.6376  -0.2245       2.8186  -0.2652
*DRIFT*          3.            0.96000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.627 CM     0.833 MR     0.708 CM     0.246 MR     0.181 CM     2.000 PC      -0.636     0.411
                               -1.5580  -0.0000  -0.0658  -0.6418     -4.4537   0.0000  -0.6376  -0.2245       2.8109  -0.2652
*DRIFT*          3.    "1F  "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.627 CM     0.833 MR     0.708 CM     0.246 MR     0.181 CM     2.000 PC      -0.636     0.411
                               -1.5580  -0.0000  -0.0658  -0.6418     -4.4537   0.0000  -0.6376  -0.2245       2.8109  -0.2652
*DRIFT*          3.    "PM1 "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.627 CM     0.833 MR     0.708 CM     0.246 MR     0.181 CM     2.000 PC      -0.636     0.411
                               -1.5580  -0.0000  -0.0658  -0.6418     -4.4537   0.0000  -0.6376  -0.2245       2.8109  -0.2652
*DRIFT*          3.    "LC1 "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.627 CM     0.833 MR     0.708 CM     0.246 MR     0.181 CM     2.000 PC      -0.636     0.411
                               -1.5580  -0.0000  -0.0658  -0.6418     -4.4537   0.0000  -0.6376  -0.2245       2.8109  -0.2652
*DRIFT*          3.            3.51500 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                                5.571 CM     0.833 MR     0.719 CM     0.246 MR     0.181 CM     2.000 PC      -0.626     0.442
                               -1.5651  -0.0688  -0.0658  -0.6418     -4.5220  -0.0241  -0.6376  -0.2245       2.7825  -0.2652
*DRIFT*          3.    "DIK3"  0.00000 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                                5.571 CM     0.833 MR     0.719 CM     0.246 MR     0.181 CM     2.000 PC      -0.626     0.442
                               -1.5651  -0.0688  -0.0658  -0.6418     -4.5220  -0.0241  -0.6376  -0.2245       2.7825  -0.2652
*DRIFT*          3.            195.15800 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                                4.584 CM     0.833 MR     1.896 CM     0.246 MR     0.181 CM     2.000 PC       0.320     0.940
                               -1.9566  -3.8866  -0.0658  -0.6418     -8.3146  -1.3597  -0.6376  -0.2245       1.2051  -0.2652
*DRIFT*          3.    "DIK4"  0.00000 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                                4.584 CM     0.833 MR     1.896 CM     0.246 MR     0.181 CM     2.000 PC       0.320     0.940
                               -1.9566  -3.8866  -0.0658  -0.6418     -8.3146  -1.3597  -0.6376  -0.2245       1.2051  -0.2652
*DRIFT*          3.            5.01000 FT
655.370 FT                    -19.5236     0.0000   655.0091 FT      -39.618     0.000     0.000 MR
                                4.626 CM     0.833 MR     1.932 CM     0.246 MR     0.181 CM     2.000 PC       0.344     0.943
                               -1.9666  -3.9846  -0.0658  -0.6418     -8.4120  -1.3939  -0.6376  -0.2245       1.1646  -0.2652
*DRIFT*          3.            0.23000 FT
655.600 FT                    -19.5327     0.0000   655.2389 FT      -39.618     0.000     0.000 MR
                                4.628 CM     0.833 MR     1.933 CM     0.246 MR     0.181 CM     2.000 PC       0.345     0.943
                               -1.9671  -3.9891  -0.0658  -0.6418     -8.4165  -1.3955  -0.6376  -0.2245       1.1627  -0.2652
*DRIFT*          3.    "C7V "  4.00000 FT
659.600 FT                    -19.6911     0.0000   659.2358 FT      -39.618     0.000     0.000 MR
                                4.664 CM     0.833 MR     1.962 CM     0.246 MR     0.181 CM     2.000 PC       0.364     0.944
                               -1.9751  -4.0674  -0.0658  -0.6418     -8.4942  -1.4229  -0.6376  -0.2245       1.1304  -0.2652
*DRIFT*          3.            0.23000 FT
659.830 FT                    -19.7002     0.0000   659.4656 FT      -39.618     0.000     0.000 MR
                                4.666 CM     0.833 MR     1.963 CM     0.246 MR     0.181 CM     2.000 PC       0.365     0.944
                               -1.9756  -4.0719  -0.0658  -0.6418     -8.4987  -1.4245  -0.6376  -0.2245       1.1285  -0.2652
*DRIFT*          3.            1.50000 FT
661.330 FT                    -19.7597     0.0000   660.9644 FT      -39.618     0.000     0.000 MR
                                4.680 CM     0.833 MR     1.974 CM     0.246 MR     0.181 CM     2.000 PC       0.372     0.945
                               -1.9786  -4.1012  -0.0658  -0.6418     -8.5278  -1.4347  -0.6376  -0.2245       1.1164  -0.2652
*DRIFT*          3.    "C7H "  2.50000 FT
663.830 FT                    -19.8587     0.0000   663.4625 FT      -39.618     0.000     0.000 MR
                                4.704 CM     0.833 MR     1.992 CM     0.246 MR     0.181 CM     2.000 PC       0.384     0.946
                               -1.9836  -4.1501  -0.0658  -0.6418     -8.5764  -1.4518  -0.6376  -0.2245       1.0962  -0.2652
*DRIFT*          3.            1.50000 FT
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                                  -19.9181     0.0000   664.9613 FT      -39.618     0.000     0.000 MR
                                    4.719 CM     0.833 MR     2.0[illegible] CM     0.246 MR     0.181 CM     2.000 PC        0.3[illegible]     0.947
                                   -1.9866  -4.1795  -0.0658  -0.6418      -8.6055  -1.4621  -0.6376  -0.2245        1.0841  -0.2652
*DRIFT*          3.      "V5  "    2.50000 FT
  667.830 FT                      -20.0171     0.0000   667.4593 FT      -39.618     0.000     0.000 MR
                                    4.744 CM     0.833 MR     2.020 CM     0.246 MR     0.181 CM     2.000 PC        0.402     0.948
                                   -1.9916  -4.2284  -0.0658  -0.6418      -8.6541  -1.4792  -0.6376  -0.2245        1.0639  -0.2652
*DRIFT*          3.              2.49000 FT
  670.320 FT                      -20.1157     0.0000   669.9474 FT      -39.618     0.000     0.000 MR
                                    4.770 CM     0.833 MR     2.038 CM     0.246 MR     0.181 CM     2.000 PC        0.413     0.949
                                   -1.9966  -4.2771  -0.0658  -0.6418      -8.7025  -1.4963  -0.6376  -0.2245        1.0437  -0.2652
*ROTAT*          2.              4.57275 MR
  670.320 FT                      -20.1157     0.0000   669.9474 FT      -39.618     0.000     0.000 MR
                                    4.770 CM     0.833 MR     2.038 CM     0.246 MR     0.181 CM     2.000 PC        0.414     0.948
                                   -1.9966  -4.2771  -0.0660  -0.6421      -8.7025  -1.4963  -0.6370  -0.2244        1.0437  -0.2651
*BEND*           4.      "B9  "   19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,    9.145 MR  )
  690.237 FT                      -20.9956     0.0000   689.8445 FT      -48.763     0.000     0.000 MR
                                    5.020 CM     0.730 MR     2.180 CM     0.246 MR     0.144 CM     2.000 PC        0.645     0.955
                                   -2.0366  -4.6667  -0.0657  -0.6415      -9.0892  -1.6325  -0.6370  -0.2244        0.9105  -0.1738
*ROTAT*          2.              4.57275 MR
  690.237 FT                      -20.9956     0.0000   689.8445 FT      -48.763     0.000     0.000 MR
                                    5.020 CM     0.730 MR     2.180 CM     0.246 MR     0.144 CM     2.000 PC        0.646     0.955
                                   -2.0366  -4.6667  -0.0658  -0.6418      -9.0892  -1.6325  -0.6364  -0.2243        0.9105  -0.1737
*DRIFT*          3.              1.29000 FT
  691.527 FT                      -21.0584     0.0000   691.1330 FT      -48.763     0.000     0.000 MR
                                    5.038 CM     0.730 MR     2.190 CM     0.246 MR     0.144 CM     2.000 PC        0.649     0.955
                                   -2.0392  -4.6920  -0.0658  -0.6418      -9.1142  -1.6413  -0.6364  -0.2243        0.9037  -0.1737
*ROTAT*          2.              4.57275 MR
  691.527 FT                      -21.0584     0.0000   691.1330 FT      -48.763     0.000     0.000 MR
                                    5.038 CM     0.730 MR     2.190 CM     0.246 MR     0.144 CM     2.000 PC        0.649     0.955
                                   -2.0392  -4.6920  -0.0660  -0.6422      -9.1142  -1.6413  -0.6357  -0.2242        0.9037  -0.1737
*BEND*           4.      "B10 "   19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,    9.145 MR  )
  711.443 FT                      -22.1202     0.0000   711.0213 FT      -57.909     0.000     0.000 MR
                                    5.354 CM     0.662 MR     2.333 CM     0.246 MR     0.107 CM     2.000 PC        0.844     0.961
                                   -2.0791  -5.0816  -0.0657  -0.6415      -9.5001  -1.7774  -0.6357  -0.2242        0.8260  -0.0823
*ROTAT*          2.              4.57275 MR
  711.443 FT                      -22.1202     0.0000   711.0213 FT      -57.909     0.000     0.000 MR
                                    5.354 CM     0.663 MR     2.333 CM     0.246 MR     0.107 CM     2.000 PC        0.844     0.961
                                   -2.0791  -5.0816  -0.0658  -0.6418      -9.5001  -1.7774  -0.6351  -0.2241        0.8260  -0.0823
*DRIFT*          3.              1.31000 FT
  712.753 FT                      -22.1960     0.0000   712.3291 FT      -57.909     0.000     0.000 MR
                                    5.376 CM     0.663 MR     2.342 CM     0.246 MR     0.107 CM     2.000 PC        0.845     0.961
                                   -2.0817  -5.1072  -0.0658  -0.6418      -9.5255  -1.7864  -0.6351  -0.2241        0.8227  -0.0823
*ROTAT*          2.              4.57275 MR
  712.753 FT                      -22.1960     0.0000   712.3291 FT      -57.909     0.000     0.000 MR
                                    5.376 CM     0.663 MR     2.342 CM     0.246 MR     0.107 CM     2.000 PC        0.845     0.961
                                   -2.0817  -5.1072  -0.0660  -0.6422      -9.5255  -1.7864  -0.6344  -0.2240        0.8227  -0.0822
*BEND*           4.      "B11 "   19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,    9.145 MR  )
  732.670 FT                      -23.4396     0.0000   732.2068 FT      -67.054     0.000     0.000 MR
                                    5.735 CM     0.642 MR     2.486 CM     0.246 MR     0.080 CM     2.000 PC        0.967     0.965
                                   -2.1217  -5.4968  -0.0657  -0.6414      -9.9106  -1.9223  -0.6344  -0.2240        0.8205     0.0091
*ROTAT*          2.              4.57275 MR
  732.670 FT                      -23.4396     0.0000   732.2068 FT      -67.054     0.000     0.000 MR
                                    5.735 CM     0.642 MR     2.486 CM     0.245 MR     0.080 CM     2.000 PC        0.967     0.965
                                   -2.1217  -5.4968  -0.0658  -0.6418      -9.9106  -1.9223  -0.6337  -0.2238        0.8205     0.0092
*DRIFT*          3.              1.36000 FT
  734.030 FT                      -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                                    5.761 CM     0.642 MR     2.495 CM     0.245 MR     0.080 CM     2.000 PC        0.967     0.966
                                   -2.1244  -5.5234  -0.0658  -0.6418      -9.9369  -1.9316  -0.6337  -0.2238        0.8209     0.0092
*ROTAT*          2.              4.57275 MR
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734.030 FT                    -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                                5.761 CM     0.643 MR     2.495 CM     0.245 MR     0.080 CM     2.000 PC       0.967    0.966
                              -2.1244  -5.5234  -0.0660  -0.6422      -9.9369  -1.9316  -0.6330  -0.2237       0.8009   0.1092
*BEND*          4.     "B12 "  19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,   9.145 MR  )
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                                6.154 CM     0.672 MR     2.640 CM     0.245 MR     0.080 CM     2.000 PC       0.999    0.969
                              -2.1644  -5.9131  -0.0657  -0.6414     -10.3212  -2.0674  -0.6330  -0.2237       0.8342   0.1006
*ROTAT*         2.              4.57275 MR
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                                6.154 CM     0.673 MR     2.640 CM     0.245 MR     0.080 CM     2.000 PC       0.999    0.969
                              -2.1644  -5.9131  -0.0658  -0.6418     -10.3212  -2.0674  -0.6323  -0.2235       0.8342   0.1006
*DRIFT*         3.              3.01000 FT
756.957 FT                    -25.1852     0.0000   756.4305 FT      -76.200     0.000     0.000 MR
                                6.215 CM     0.673 MR     2.661 CM     0.245 MR     0.080 CM     2.000 PC       0.999    0.970
                              -2.1704  -5.9719  -0.0658  -0.6418     -10.3792  -2.0879  -0.6323  -0.2235       0.8435   0.1006
*QUAD*          5.     "Q11 "  10.00000 FT         5.05987 KG        2.54000 CM    (    73.78869 FT  )
766.957 FT                    -25.9465     0.0000   766.4015 FT      -76.200     0.000     0.000 MR
                                5.989 CM     2.138 MR     2.922 CM     1.495 MR     0.080 CM     2.000 PC      -1.000    0.999
                              -2.0412  -5.7537   0.9037   2.0575     -11.3046  -2.3041  -5.5100  -1.2115       0.8156  -0.2813
*DRIFT*         3.              1.50000 FT
768.457 FT                    -26.0607     0.0000   767.8972 FT      -76.200     0.000     0.000 MR
                                5.892 CM     2.138 MR     2.991 CM     1.495 MR     0.080 CM     2.000 PC      -1.000    0.999
                              -1.9999  -5.6596   0.9037   2.0575     -11.5565  -2.3595  -5.5100  -1.2115       0.8028  -0.2813
*QUAD*          5.     "Q12 "  10.00000 FT         5.05987 KG        2.54000 CM    (    73.78869 FT  )
778.457 FT                    -26.8220     0.0000   777.8681 FT      -76.200     0.000     0.000 MR
                                4.851 CM     4.611 MR     3.666 CM     2.992 MR     0.080 CM     2.000 PC      -1.000    1.000
                              -1.5937  -4.6589   1.7310   4.4328     -14.0859  -2.9029 -11.2780  -2.3952       0.6640  -0.6189
*DRIFT*         3.              1.50000 FT
779.957 FT                    -26.9361     0.0000   779.3638 FT      -76.200     0.000     0.000 MR
                                4.640 CM     4.611 MR     3.803 CM     2.992 MR     0.080 CM     2.000 PC      -1.000    1.000
                              -1.5145  -4.4562   1.7310   4.4328     -14.6015  -3.0124 -11.2780  -2.3952       0.6357  -0.6189
*QUAD*          5.     "Q13A"   5.00000 FT        -4.91839 KG        2.54000 CM    ( -147.50694 FT  )
784.957 FT                    -27.3168     0.0000   784.3493 FT      -76.200     0.000     0.000 MR
                                4.012 CM     3.657 MR     4.193 CM     2.105 MR     0.080 CM     2.000 PC      -1.000    1.000
                              -1.2748  -3.8522   1.4234   3.5166     -16.0652  -3.3248  -7.8771  -1.6925       0.5516  -0.4880
*DRIFT*         3.              1.50000 FT
786.457 FT                    -27.4310     0.0000   785.8449 FT      -76.200     0.000     0.000 MR
                                3.845 CM     3.657 MR     4.289 CM     2.105 MR     0.080 CM     2.000 PC      -1.000    1.000
                              -1.2098  -3.6914   1.4234   3.5166     -16.4254  -3.4022  -7.8771  -1.6925       0.5292  -0.4880
*QUAD*          5.     "Q13 "  10.00000 FT        -4.91839 KG        2.54000 CM    (  -72.52768 FT  )
796.457 FT                    -28.1922     0.0000   795.8159 FT      -76.200     0.000     0.000 MR
                                2.968 CM     2.167 MR     4.630 CM     0.115 MR     0.080 CM     2.000 PC      -0.999    0.955
                              -0.8486  -2.8470   0.9732   2.0865     -17.6778  -3.6797  -0.2485  -0.1083       0.4132  -0.2819
*DRIFT*         3.              1.50000 FT
797.957 FT                    -28.3064     0.0000   797.3116 FT      -76.200     0.000     0.000 MR
                                2.869 CM     2.167 MR     4.635 CM     0.115 MR     0.080 CM     2.000 PC      -0.999    0.955
                              -0.8041  -2.7516   0.9732   2.0865     -17.6892  -3.6847  -0.2485  -0.1083       0.4003  -0.2819
*QUAD*          5.     "Q14 "  10.00000 FT        -4.91839 KG        2.54000 CM    (  -72.52768 FT  )
807.957 FT                    -29.0677     0.0000   807.2825 FT      -76.200     0.000     0.000 MR
                                2.389 CM     1.019 MR     4.359 CM     1.902 MR     0.080 CM     2.000 PC      -0.996   -1.000
                              -0.5556  -2.2888   0.6758   0.9841     -16.5841  -3.4713   7.4183   1.4925       0.3398  -0.1220
*DRIFT*         3.              2.72000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                                2.305 CM     1.019 MR     4.202 CM     1.902 MR     0.080 CM     2.000 PC      -0.996   -1.000
                              -0.4995  -2.2072   0.6758   0.9841     -15.9690  -3.3476   7.4183   1.4925       0.3298  -0.1230
*DRIFT*         3.     "DIK5"   0.00000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                                2.305 CM     1.019 MR     4.202 CM     1.902 MR     0.080 CM     2.000 PC      -0.996   -1.000
                              -0.4995  -2.2072   0.6758   0.9841     -15.9690  -3.3476   7.4183   1.4925       0.3298  -0.1230
*DRIFT*         3.              72.20900 FT
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882.886                    -34.7717     0.0000                    -76.200     0.000     0.000 MR
                            0.209 CM     1.019 MR     0.0   CM     1.902 MR     0.080 CM     2.000 PC     -0.2     -0.165
                            0.9878  -0.0414   0.6758   0.9841     0.3580  -0.0628   7.4183   1.4925      0.0657  -0.1200
*DRIFT*        3.    "DIK6"  0.00000 FT
  882.886 FT               -34.7717     0.0000   881.9941 FT    -76.200     0.000     0.000 MR
                            0.209 CM     1.019 MR     0.085 CM     1.902 MR     0.080 CM     2.000 PC     -0.260   -0.165
                            0.9878  -0.0414   0.6758   0.9841     0.3580  -0.0628   7.4183   1.4925      0.0657  -0.1200
*DRIFT*        3.            1.38000 FT
  884.266 FT               -34.8768     0.0000   883.3701 FT    -76.200     0.000     0.000 MR
                            0.202 CM     1.019 MR     0.107 CM     1.902 MR     0.080 CM     2.000 PC     -0.057    0.620
                            1.0162   0.0000   0.6758   0.9841     0.6701   0.0000   7.4183   1.4925      0.0606  -0.1200
*DRIFT*        3.    "2F  "  0.00000 FT
  884.266 FT               -34.8768     0.0000   883.3701 FT    -76.200     0.000     0.000 MR
                            0.202 CM     1.019 MR     0.107 CM     1.902 MR     0.080 CM     2.000 PC     -0.057    0.620
                            1.0162   0.0000   0.6758   0.9841     0.6701   0.0000   7.4183   1.4925      0.0606  -0.1200
*DRIFT*        3.    "PM2 "  0.00000 FT
  884.266 FT               -34.8768     0.0000   883.3701 FT    -76.200     0.000     0.000 MR
                            0.202 CM     1.019 MR     0.107 CM     1.902 MR     0.080 CM     2.000 PC     -0.057    0.620
                            1.0162   0.0000   0.6758   0.9841     0.6701   0.0000   7.4183   1.4925      0.0606  -0.1200
*DRIFT*        3.            0.72000 FT
  884.986 FT               -34.9316     0.0000   884.0880 FT    -76.200     0.000     0.000 MR
                            0.202 CM     1.019 MR     0.136 CM     1.902 MR     0.080 CM     2.000 PC      0.054    0.790
                            1.0310   0.0216   0.6758   0.9841     0.8329   0.0328   7.4183   1.4925      0.0580  -0.1200
*DRIFT*        3.    "C8H "  4.00000 FT
  888.986 FT               -35.2361     0.0000   888.0764 FT    -76.200     0.000     0.000 MR
                            0.243 CM     1.019 MR     0.350 CM     1.902 MR     0.080 CM     2.000 PC      0.556    0.971
                            1.1134   0.1416   0.6758   0.9841     1.7373   0.2147   7.4183   1.4925      0.0434  -0.1200
*DRIFT*        3.            0.90000 FT
  889.886 FT               -35.3046     0.0000   888.9738 FT    -76.200     0.000     0.000 MR
                            0.259 CM     1.019 MR     0.401 CM     1.902 MR     0.080 CM     2.000 PC      0.628    0.978
                            1.1320   0.1686   0.6758   0.9841     1.9408   0.2557   7.4183   1.4925      0.0401  -0.1200
*DRIFT*        3.    "LC2 "  0.00000 FT
  889.886 FT               -35.3046     0.0000   888.9738 FT    -76.200     0.000     0.000 MR
                            0.259 CM     1.019 MR     0.401 CM     1.902 MR     0.080 CM     2.000 PC      0.628    0.978
                            1.1320   0.1686   0.6758   0.9841     1.9408   0.2557   7.4183   1.4925      0.0401  -0.1200
*DRIFT*        3.            1.00000 FT
  890.886 FT               -35.3807     0.0000   889.9709 FT    -76.200     0.000     0.000 MR
                            0.280 CM     1.019 MR     0.458 CM     1.902 MR     0.080 CM     2.000 PC      0.693    0.983
                            1.1526   0.1986   0.6758   0.9841     2.1669   0.3011   7.4183   1.4925      0.0364  -0.1200
*ROTAT*        2.            0.00000 MR
  890.886 FT               -35.3807     0.0000   889.9709 FT    -76.200     0.000     0.000 MR
                            0.280 CM     1.019 MR     0.458 CM     1.902 MR     0.080 CM     2.000 PC      0.693    0.983
                            1.1526   0.1986   0.6758   0.9841     2.1669   0.3011   7.4183   1.4925      0.0364  -0.1200
*BEND*         4.    "B13 "  19.91667 FT        26.37613 KG        0.00000      (  1659.635 FT  ,  12.001 MR  )
  910.802 FT               -37.0160     0.0000   909.8202 FT    -88.200     0.000     0.000 MR
                            0.834 CM     0.990 MR     1.607 CM     1.902 MR     0.080 CM     2.000 PC      0.981    0.999
                            1.5627   0.7959   0.6755   0.9839     6.6702   1.2072   7.4183   1.4925      0.0000   0.0000
*ROTAT*        2.            0.00000 MR
  910.802 FT               -37.0160     0.0000   909.8202 FT    -88.200     0.000     0.000 MR
                            0.834 CM     0.990 MR     1.607 CM     1.902 MR     0.080 CM     2.000 PC      0.981    0.999
                            1.5627   0.7959   0.6755   0.9839     6.6702   1.2072   7.4183   1.4925      0.0000   0.0000
*DRIFT*        3.            6.81000 FT
  917.612 FT               -37.6159     0.0000   916.6037 FT    -88.200     0.000     0.000 MR
                            1.036 CM     0.990 MR     2.001 CM     1.902 MR     0.080 CM     2.000 PC      0.988    0.999
                            1.7029   1.0002   0.6755   0.9839     8.2100   1.5170   7.4183   1.4925      0.0000   0.0000
*DRIFT*        3.    "V6  "  2.50000 FT
  920.112 FT               -37.8361     0.0000   919.0940 FT    -88.200     0.000     0.000 MR
                            1.111 CM     0.990 MR     2.146 CM     1.902 MR     0.080 CM     2.000 PC      0.989    0.999
                            1.7544   1.0751   0.6755   0.9839     8.7753   1.6307   7.4183   1.4925      0.0000   0.0000
*DRIFT*        3.    "PAR "  86.45800 FT
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1006.570 FT                    -45.4518     0.0000  1005.2159 FT      -88.200     0.000     0.000 MR
                                3.711 CM     0.992 MR     7.158 CM     1.902 MR     0.080 CM     2.000 PC      0.999    1.000
                                3.5344   3.6681   0.6755   0.9839    28.3242   5.5637   7.4183   1.4925      0.0000   0.0000
*QUAD*          5.     "Q15 "   10.00000 FT       -4.26383 KG       2.54000 CM   (  -83.91022 FT  )
 1016.570 FT                   -46.3327     0.0000  1015.1770 FT      -88.200     0.000     0.000 MR
                                4.237 CM     2.499 MR     7.312 CM     0.900 MR     0.080 CM     2.000 PC      1.000   -1.000
                                3.9529   4.1903   2.0972   2.4762    28.9022   5.6878  -3.6625  -0.6861      0.0000   0.0000
*DRIFT*         3.     "D10 "   4.62000 FT
 1021.190 FT                   -46.7397     0.0000  1019.7791 FT      -88.200     0.000     0.000 MR
                                4.589 CM     2.499 MR     7.186 CM     0.900 MR     0.080 CM     2.000 PC      1.000   -1.000
                                4.2482   4.5390   2.0972   2.4762    28.3865   5.5911  -3.6625  -0.6861      0.0000   0.0000
*QUAD*          5.     "Q16 "   10.00000 FT       -4.26383 KG       2.54000 CM   (  -83.91022 FT  )
 1031.190 FT                   -47.6205     0.0000  1029.7402 FT      -88.200     0.000     0.000 MR
                                5.636 CM     4.440 MR     6.501 CM     3.550 MR     0.080 CM     2.000 PC      1.000   -1.000
                                5.1506   5.5764   3.8820   4.3970    25.6489   5.0625 -14.1253  -2.7490      0.0000   0.0000
*DRIFT*         3.     "D11 "   1.54000 FT
 1032.730 FT                   -47.7562     0.0000  1031.2742 FT      -88.200     0.000     0.000 MR
                                5.645 CM     4.440 MR     6.334 CM     3.550 MR     0.080 CM     2.000 PC      1.000   -1.000
                                5.3329   5.7828   3.8820   4.3970    24.9859   4.9334 -14.1253  -2.7490      0.0000   0.0000
*QUAD*          5.     "Q17 "   10.00000 FT        3.55423 KG       2.54000 CM   (  104.32114 FT  )
 1042.730 FT                   -48.6370     0.0000  1041.2354 FT      -88.200     0.000     0.000 MR
                                6.894 CM     2.388 MR     5.546 CM     1.666 MR     0.080 CM     2.000 PC      1.000   -1.000
                                6.2393   6.8219   2.0173   2.3659    21.8373   4.3242  -6.7017  -1.2813      0.0000   0.0000
*DRIFT*         3.     "D12 "   4.66600 FT
 1047.396 FT                   -49.0480     0.0000  1045.8832 FT      -88.200     0.000     0.000 MR
                                7.233 CM     2.388 MR     5.309 CM     1.666 MR     0.080 CM     2.000 PC      1.000   -1.000
                                6.5262   7.1584   2.0173   2.3659    20.8842   4.1419  -6.7017  -1.2813      0.0000   0.0000
*QUAD*          5.     "Q18 "   10.00000 FT        3.55423 KG       2.54000 CM   (  104.32114 FT  )
 1057.396 FT                   -49.9289     0.0000  1055.8443 FT      -88.200     0.000     0.000 MR
                                7.600 CM     0.021 MR     5.053 CM     0.039 MR     0.080 CM     2.000 PC     -0.128   -0.595
                                6.8158   7.5220  -0.1327   0.0003    19.8339   3.9485  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     3.33000 FT
 1060.726 FT                   -50.2222     0.0000  1059.1614 FT      -88.200     0.000     0.000 MR
                                7.599 CM     0.021 MR     5.051 CM     0.039 MR     0.080 CM     2.000 PC     -0.127   -0.595
                                6.8023   7.5220  -0.1327   0.0003    19.8089   3.9486  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     "PM3 "   0.00000 FT
 1060.726 FT                   -50.2222     0.0000  1059.1614 FT      -88.200     0.000     0.000 MR
                                7.599 CM     0.021 MR     5.051 CM     0.039 MR     0.080 CM     2.000 PC     -0.127   -0.595
                                6.8023   7.5220  -0.1327   0.0003    19.8089   3.9486  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     "K1  "   53.00000 FT
 1113.726 FT                   -54.8908     0.0000  1111.9554 FT      -88.200     0.000     0.000 MR
                                7.595 CM     0.021 MR     5.014 CM     0.039 MR     0.080 CM     2.000 PC     -0.123   -0.586
                                6.5880   7.5225  -0.1327   0.0003    19.4114   3.9509  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     3.14100 FT
 1116.867 FT                   -55.1675     0.0000  1115.0842 FT      -88.200     0.000     0.000 MR
                                7.595 CM     0.021 MR     5.011 CM     0.039 MR     0.080 CM     2.000 PC     -0.123   -0.586
                                6.5753   7.5225  -0.1327   0.0003    19.3878   3.9510  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     "K2  "   53.00000 FT
 1169.867 FT                   -59.8360     0.0000  1167.8782 FT      -88.200     0.000     0.000 MR
                                7.591 CM     0.021 MR     4.975 CM     0.039 MR     0.080 CM     2.000 PC     -0.118   -0.578
                                6.3610   7.5231  -0.1327   0.0003    18.9902   3.9534  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     3.43000 FT
 1173.297 FT                   -60.1381     0.0000  1171.2948 FT      -88.200     0.000     0.000 MR
                                7.590 CM     0.021 MR     4.972 CM     0.039 MR     0.080 CM     2.000 PC     -0.118   -0.577
                                6.3471   7.5231  -0.1327   0.0003    18.9645   3.9535  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     "PM4 "   0.00000 FT
 1173.297 FT                   -60.1381     0.0000  1171.2948 FT      -88.200     0.000     0.000 MR
                                7.590 CM     0.021 MR     4.972 CM     0.039 MR     0.080 CM     2.000 PC     -0.118   -0.577
                                6.3471   7.5231  -0.1327   0.0003    18.9645   3.9535  -0.2461   0.0014      0.0000   -0.0000
*DRIFT*         3.     3.80000 FT
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1177.097                    -60.4729     0.0000  1175.0801 FT      -88.200     0.000     0.000 MR
                             7.590 CM     0.021 MR     4.97[illegible] M     0.039 MR     0.080 CM     2.000 PC     -0.11    -0.576
                             6.3318   7.5231  -0.1327   0.0003     18.9360   3.9537  -0.2461   0.0014     0.0000   -0.0000
*QUAD*          5.    "Q19 "  10.00000 FT        2.82723 KG      2.54000 CM   (  130.70906 FT  )
 1187.097 FT                -61.3537     0.0000  1185.0412 FT      -88.200     0.000     0.000 MR
                             7.297 CM     1.908 MR     5.156 CM     1.257 MR     0.080 CM     2.000 PC     -1.000    1.000
                             6.0481   7.2336  -1.7168  -1.8880     19.5986   4.1083   4.6217   1.0198     0.0000   -0.0000
*DRIFT*         3.            4.71000 FT
 1191.807 FT                -61.7686     0.0000  1189.7329 FT      -88.200     0.000     0.000 MR
                             7.023 CM     1.908 MR     5.337 CM     1.257 MR     0.080 CM     2.000 PC     -1.000    1.000
                             5.8016   6.9625  -1.7168  -1.8880     20.2621   4.2547   4.6217   1.0198     0.0000   -0.0000
*QUAD*          5.    "Q20 "  10.00000 FT        2.82723 KG      2.54000 CM   (  130.70906 FT  )
 1201.807 FT                -62.6495     0.0000  1199.6940 FT      -88.200     0.000     0.000 MR
                             6.179 CM     3.597 MR     5.933 CM     2.680 MR     0.080 CM     2.000 PC     -1.000    1.000
                             5.0617   6.1264  -3.1070  -3.5629     22.4793   4.7355  10.0209   2.1555     0.0000   -0.0000
*DRIFT*         3.            1.43700 FT
 1203.244 FT                -62.7761     0.0000  1201.1254 FT      -88.200     0.000     0.000 MR
                             6.021 CM     3.597 MR     6.050 CM     2.680 MR     0.080 CM     2.000 PC     -1.000    1.000
                             4.9256   5.9703  -3.1070  -3.5629     22.9182   4.8299  10.0209   2.1555     0.0000   -0.0000
*QUAD*          5.    "Q21 "  10.00000 FT       -3.16247 KG      2.54000 CM   ( -113.69962 FT  )
 1213.244 FT                -63.6569     0.0000  1211.0865 FT      -88.200     0.000     0.000 MR
                             5.172 CM     2.017 MR     6.595 CM     0.869 MR     0.080 CM     2.000 PC     -1.000    1.000
                             4.1799   5.1293  -1.8213  -1.9957     24.9424   5.2696   3.1649   0.7088     0.0000   -0.0000
*DRIFT*         3.            4.74000 FT
 1217.984 FT                -64.0744     0.0000  1215.8081 FT      -88.200     0.000     0.000 MR
                             4.881 CM     2.017 MR     6.721 CM     0.869 MR     0.080 CM     2.000 PC     -1.000    1.000
                             3.9168   4.8409  -1.8213  -1.9957     25.3996   5.3720   3.1649   0.7088     0.0000   -0.0000
*QUAD*          5.    "Q22 "  10.00000 FT       -3.16247 KG      2.54000 CM   ( -113.69962 FT  )
 1227.984 FT                -64.9553     0.0000  1225.7692 FT      -88.200     0.000     0.000 MR
                             4.470 CM     0.697 MR     6.693 CM     1.053 MR     0.080 CM     2.000 PC     -0.999   -1.000
                             3.5246   4.4351  -0.7706  -0.6860     25.2574   5.3538  -4.0917  -0.8277     0.0000   -0.0000
*DRIFT*         3.            2.18000 FT
 1230.164 FT                -65.1473     0.0000  1227.9408 FT      -88.200     0.000     0.000 MR
                             4.424 CM     0.697 MR     6.623 CM     1.053 MR     0.080 CM     2.000 PC     -0.999   -1.000
                             3.4734   4.3896  -0.7706  -0.6860     24.9855   5.2988  -4.0917  -0.8277     0.0000   -0.0000
*DRIFT*         3.    "V7  "  2.50000 FT
 1232.664 FT                -65.3675     0.0000  1230.4310 FT      -88.200     0.000     0.000 MR
                             4.371 CM     0.697 MR     6.542 CM     1.053 MR     0.080 CM     2.000 PC     -0.999   -1.000
                             3.4146   4.3373  -0.7706  -0.6860     24.6737   5.2357  -4.0917  -0.8277     0.0000   -0.0000
*DRIFT*         3.            1.40000 FT
 1234.064 FT                -65.4909     0.0000  1231.8256 FT      -88.200     0.000     0.000 MR
                             4.341 CM     0.697 MR     6.498 CM     1.053 MR     0.080 CM     2.000 PC     -0.999   -1.000
                             3.3817   4.3080  -0.7706  -0.6860     24.4991   5.2004  -4.0917  -0.8277     0.0000   -0.0000
*DRIFT*         3.    "V8  "  2.52000 FT
 1236.564 FT                -65.7111     0.0000  1234.3159 FT      -88.200     0.000     0.000 MR
                             4.285 CM     0.697 MR     6.417 CM     1.053 MR     0.080 CM     2.000 PC     -0.999   -1.000
                             3.3232   4.2557  -0.7706  -0.6860     24.1373   5.1373  -4.0917  -0.8277     0.0000   -0.0000
DRIFT*          3.            6.26000 FT
 1242.824 FT                -66.2625     0.0000  1240.5515 FT      -88.200     0.000     0.000 MR
                             4.156 CM     0.697 MR     6.217 CM     1.053 MR     0.080 CM     2.000 PC     -0.998   -1.000
                             3.1760   4.1248  -0.7706  -0.6860     23.4066   4.9794  -4.0917  -0.8277     0.0000   -0.0000
DRIFT*          3.    "K3  "  94.79600 FT
 1337.620 FT                -74.6127     0.0000  1334.9790 FT      -88.200     0.000     0.000 MR
                             2.140 CM     0.697 MR     3.178 CM     1.053 MR     0.080 CM     2.000 PC     -0.994   -1.000
                             0.9493   2.1427  -0.7706  -0.6860     11.5042   2.3070  -4.0917  -0.8277     0.0000   -0.0000
DRIFT*          3.            102.30300 FT
 1439.923 FT                -83.6241     0.0000  1436.0844 FT      -88.200     0.000     0.000 MR
                             0.241 CM     0.697 MR     0.187 CM     1.053 MR     0.080 CM     2.000 PC     -0.141   -0.000
                            -1.4537   0.0035  -0.7706  -0.6860     -1.1744   0.0040  -4.0917  -0.8277     0.0000    0.000
                             0.00000 FT
```

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1439.923 FT                    -83.6241     0.0000  1436.8844 FT      -88.200     0.000     0.000 MR
                                0.231 CM     0.697 MR     0.187 CM     1.053 MR     0.080 CM     2.000 PC       0.161     0.589
                               -1.4537   0.0035 -0.7706  -0.6860      -1.1744   0.0068  -4.0917  -0.8277      -0.0000  -0.0000
*DRIFT*          3.     "PM5 "   0.00000 FT
 1439.923 FT                    -83.6241     0.0000  1436.8844 FT      -88.200     0.000     0.000 MR
                                0.231 CM     0.697 MR     0.187 CM     1.053 MR     0.080 CM     2.000 PC       0.161     0.589
                               -1.4537   0.0035 -0.7706  -0.6860      -1.1744   0.0068  -4.0917  -0.8277      -0.0000  -0.0000

*LENGTH*       1439.92329 FT
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TTTTTTTTTTTTTTT     FFFFFFFFFFFFFFF     444     444     000000000     000000000     WWW     WWW
TTTTTTTTTTTTTTT     FFFFFFFFFFFFFFF     444     444     000000000     000000000     WWW     WWW
TTTTTTTTTTTTTTT     FFFFFFFFFFFFFFF     444     444     000000000     000000000     WWW     WWW
   TTT              FFF                 444     444     000     000     000     000     WWW     WWW
   TTT              FFF                 444     444     000     000     000     000     WWW     WWW
   TTT              FFF                 444     444     000     000     000     000     WWW     WWW
   TTT              FFF                 444     444     000   000000    000   000000    WWW     WWW
   TTT              FFF                 444     444     000   000000    000   000000    WWW     WWW
   TTT              FFF                 444     444     000   000000    000   000000    WWW     WWW
   TTT              FFFFFFFFFFFFF       444444444444444 000   000   000 000   000   000 WWW     WWW
   TTT              FFFFFFFFFFFFF       444444444444444 000   000   000 000   000   000 WWW     WWW
   TTT              FFFFFFFFFFFFF       444444444444444 000   000   000 000   000   000 WWW     WWW
   TTT              FFF                 444             000000    000   000000    000   WWW WWW WWW
   TTT              FFF                 444             000000    000   000000    000   WWW WWW WWW
   TTT              FFF                 444             000000    000   000000    000   WWW WWW WWW
   TTT              FFF                 444             000     000     000     000     WWWWWW  WWWWWW
   TTT              FFF                 444             000     000     000     000     WWWWWW  WWWWWW
   TTT              FFF                 444             000     000     000     000     WWWWWW  WWWWWW
   TTT              FFF                 444             000000000       000000000       WWW     WWW
   TTT              FFF                 444             000000000       000000000       WWW     WWW
   TTT              FFF                 444             000000000       000000000       WWW     WWW

DDDDDDDDDDDD            AAAAAAAAA       TTTTTTTTTTTTTTT
DDDDDDDDDDDD            AAAAAAAAA       TTTTTTTTTTTTTTT
DDDDDDDDDDDD            AAAAAAAAA       TTTTTTTTTTTTTTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAAAAAAAAAAAAAA         TTT
DDD         DDD     AAAAAAAAAAAAAAA         TTT
DDD         DDD     AAAAAAAAAAAAAAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDD         DDD     AAA         AAA         TTT
DDDDDDDDDDDD        AAA         AAA         TTT
DDDDDDDDDDDD        AAA         AAA         TTT
DDDDDDDDDDDD        AAA         AAA         TTT

LPTSPL VERSION 6(344)  RUNNING ON LPT000
 *START* USER ECKLUNDS, [105,711] JOB  TF400W SEQ, 26126 DATE 03-MAY-77 22:22:34 MONITOR FERMILAB 602,1 *START*
REQUEST CREATED: 03-MAY-77  22:19:02
FILE: DSKC3:TF400W.DAT[105,711] CREATED: 29-APR-77 16:06:00 <155>  PRINTED: 03-MAY-77 22:22:48
QUEUE SWITCHES:  /PRINT:ARROW /FILE:FORT /COPIES:1 /SPACING:1 /LIMIT:398 /FORMS:NORMAL
FILE WILL BE RENAMED TO <055> PROTECTION
```

```
"400 GEV M1W

  2
 15.                    8.00000   "FT  "        0.30480 ;
 15.                    7.00000   "MR  "        0.05730 ;
 13.                   19.00000;
 13.                    3.00000;
 13.                    6.00000;
 13.                   12.00000;
* -13.        "POFF"   18.00000;
  1.000000              0.15900    1.00000     0.15900     1.00000     0.00000     2.00000   400.00000;
 16.00                 19.00000   -3.00000;
  3.0         "0F  "    0.00000;
  3.0                  16.50000;
  3.0         "C2  "    8.50000;
  3.0                   1.50000;
  3.0         "C3  "    8.50000;
  3.0                   1.50000;
  3.0         "C4  "    8.50000;
  3.0                   0.10000;
  3.0         "DIK0"    0.00000;
  3.0                   6.30000;
* 5.00        "Q1  "   10.00000   -3.11122     2.54000;
  3.0                   1.06300;
* 5.00        "Q2  "   10.00000   -3.11122     2.54000;
  3.0                   1.07200;
* 5.00        "Q3  "   10.00000   -3.11122     2.54000;
  3.0                   1.32000;
  2.0                   1.33367;
  4.000       "A1  "   10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.24000;
  2.0                   1.33367;
  4.000       "A2  "   10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.32500;
* 5.00        "Q4  "   10.00000    3.51124     2.54000;
  3.0                   1.07500;
* 5.00        "Q5  "   10.00000    3.51124     2.54000;
  3.0                   1.34400;
  2.0                   1.33367;
  4.000       "A3  "   10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.20800;
  2.0                   1.33367;
  4.000       "A4  "   10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.22200;
  2.0                   1.33367;
  4.000       "A5  "   10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.34000;
  3.0                   0.29100;
  3.0         "C3W "    6.00000;
  3.0                   0.29200;
  3.0                   1.35800;
  2.0                   3.88016;
  4.000       "A6  "   19.91667   17.05637     0.00000;
```

```
2.0                     3.88016;
3.0                     1.33700;
2.0                     3.88016;
4.000        "R7  "    19.91667    17.05637     0.00000;
2.0                     3.88016;
3.0                     1.34200;
2.0                     3.88016;
4.000        "R8  "    19.91667    17.05637     0.00000;
2.0                     3.88016;
3.0                     1.82000;
5.00         "Q6  "     5.00000     3.00000     2.54000;
3.0                     1.59900;
3.0          "V1  "     2.50000;
3.0                     1.41900;
3.0                     0.22900;
3.0          "C4V "     6.00000;
3.0                     0.22900;
3.0                     2.43300;
5.00         "Q7  "    10.00000    -4.70903     2.54000;
3.0                     2.62500;
3.0          "ÑIK1"     0.00000;
3.0                    94.07600;
3.0          "ÑIK2"     0.00000;
3.0                     7.26000;
3.0                     0.11500;
3.0          "RS1 "     3.00000;
3.0                     0.11500;
3.0                    26.71800;
5.00         "Q8  "     7.00000     4.54085     2.54000;
3.0                     4.22000;
5.00         "Q9  "     4.33300     0.00000     2.54000;
3.0                     1.41000;
5.00         "Q10 "     4.33300     0.00000     2.54000;
3.0                     6.25000;
3.0          "V3  "     2.50000;
3.0                    10.46900;
3.0                     0.29200;
3.0          "C5H "     4.00000;
3.0                     0.29300;
3.0                     0.83000;
3.0                     0.23000;
3.0          "C6V "     4.00000;
3.0                     0.23000;
3.0                     0.96000;
3.0          "IF  "     0.00000;
-10.         "IF12"    -1.00000     2.00000     0.00000     0.00010;
-10.         "IF34"    -3.00000     4.00000     0.00000     0.00010;
3.0          "PM1 "     0.00000;
3.0          "IC1 "     0.00000;
3.0                     3.51500;
3.0          "ÑIK3"     0.00000;
3.0                   195.15800;
3.0          "ÑIK4"     0.00000;
3.0                     5.01000;
3.0                     0.23000;
3.0          "C7V "     4.00000;
3.0                     0.23000;
3.0                     1.50000;
3.0          "C7H "     2.50000;
3.0                     1.50000;
```

```
   3.0          "V5  "      2.50000;
   3.0                      2.49200;
   2.0                      4.57275;
   4.000        "A9  "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      1.29000;
   2.0                      4.57275;
   4.000        "A10 "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      1.31000;
   2.0                      4.57275;
   4.000        "A11 "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      1.36000;
   2.0                      4.57275;
   4.000        "A12 "     19.91667    20.10081     0.00000;
   2.0                      4.57275;
   3.0                      3.01000;
*  5.00         "Q11 "     10.00000     5.05987     2.54000;
   3.0                      1.57000;
*  5.00         "Q12 "     10.00000     5.05987     2.54000;
   3.0                      1.50000;
*  5.00         "Q13A"      5.00000    -4.91839     2.54000;
   3.0                      1.50000;
*  5.00         "Q13 "     10.00000    -4.91839     2.54000;
   3.0                      1.50000;
*  5.00         "Q14 "     10.00000    -4.91839     2.54000;
   3.0                      2.72000;
   3.0          "ñIK5"      0.00000;
   3.0                     72.20900;
   3.0          "ñIK6"      0.00000;
   3.0                      1.38000;
   3.0          "ÞF  "      0.00000;
* -10.          "ÞF12"     -1.00000     2.00000     0.00000     0.00010;
* -10.          "ÞF34"     -3.00000     4.00000     0.00000     0.00010;
   3.0          "ÞM2 "      0.00000;
   3.0                      0.72000;
   3.0          "ñ8H "      4.00000;
   3.0                      0.90200;
   3.0          "IC2 "      0.00000;
   3.0                      1.00000;
   2.0                      0.00000;
   4.000        "A13 "     20.00000     0.00000     0.00000;
   2.0                      0.00000;
* -10.          "ÞF16"     -1.00000     6.00000     0.00000     0.00010;
* -10.          "ÞF26"     -2.00000     6.00000     0.00000     0.00010;
   3.0                      6.81000;
   3.0          "V6  "      2.50000;
   3.0          "ÞAR "     86.45800;
*  5.00         "Q15 "     10.00000    -4.26383     2.54000;
   3.0          "ñ10 "      4.62000;
*  5.00         "Q16 "     10.00000    -4.26383     2.54000;
   3.0          "Q11 "      1.54000;
*  5.00         "Q17 "     10.00000     3.55423     2.54000;
   3.0          "ñ12 "      4.66600;
*  5.00         "Q18 "     10.00000     3.55423     2.54000;
   3.0                      3.33000;
   3.0          "ÞM3 "      0.00000;
 -10.           "3F22"     -2.00000     2.00000     0.00000     0.00010;
 -10.           "3F44"     -4.00000     4.00000     0.00000      .00010;
```

```
  3.0          "K1  "     53.00000;
  3.0                      3.14100;
  3.0          "K2  "     53.00000;
  3.0                      3.43000;
  3.0          "PM4 "      0.02200;
  3.0                      3.80200;
  5.00         "Q19 "     10.00000     2.82723     2.54000;
  3.0                      4.71000;
  5.00         "Q20 "     10.00000     2.82723     2.54000;
  3.0                      1.43700;
  5.00         "Q21 "     10.00000    -3.16247     2.54000;
  3.0                      4.74000;
  5.00         "Q22 "     10.00000    -3.16247     2.54000;
  3.0                      2.18000;
  3.0          "V7  "      2.50000;
  3.0                      1.40000;
  3.0          "V8  "      2.50000;
  3.0                      6.26000;
  3.0          "K3  "     94.79600;
  3.0                    102.30300;
  3.0          "3F  "      0.00000;
 -10.          "3F12"     -1.00000     2.00000     0.00000     0.00010;
 -10.          "3F34"     -3.00000     4.00000     0.00000     0.00010;
  3.0          "PM5 "      0.00000;
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SENTINEL

400 GEV M1W

```
                                  R11       R12       R21       R22       R33       R34       R43       R44       R16       R26
*BEAM*          1.                400.00000 GEV
    0.000 FT                      0.0000    0.0000    0.0000 FT         0.000     0.000     0.000 MR
                                  0.159 CM  1.000 MR  0.159 CM          1.000 MR  0.000 CM  2.000 PC  0.000     0.000
*THETA0*        16.               19.   -0.30000E+01
*DRIFT*         3.      "0F  "    0.00000 FT
    0.000 FT                      0.0000    0.0000    0.0000 FT        -3.000     0.000     0.000 MR
                                  0.159 CM  1.000 MR  0.159 CM          1.000 MR  0.000 CM  2.000 PC  0.000     0.000
                                  1.0000    0.0000    0.0000    1.0000  1.0000    0.0000    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                16.50000 FT
   16.500 FT                      -0.0495   0.0000    16.4999 FT       -3.000     0.000     0.000 MR
                                  0.527 CM  1.000 MR  0.527 CM          1.000 MR  0.000 CM  2.000 PC  0.953     0.953
                                  1.0000    0.5029    0.0000    1.0000  1.0000    0.5029    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C2  "    8.50000 FT
   25.000 FT                      -0.0750   0.0000    24.9999 FT       -3.000     0.000     0.000 MR
                                  0.778 CM  1.000 MR  0.778 CM          1.000 MR  0.000 CM  2.000 PC  0.979     0.979
                                  1.0000    0.7620    0.0000    1.0000  1.0000    0.7620    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                1.50000 FT
   26.500 FT                      -0.0795   0.0000    26.4999 FT       -3.000     0.000     0.000 MR
                                  0.823 CM  1.000 MR  0.823 CM          1.000 MR  0.000 CM  2.000 PC  0.981     0.981
                                  1.0000    0.8077    0.0000    1.0000  1.0000    0.8077    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C3  "    8.50000 FT
   35.000 FT                      -0.1050   0.0000    34.9998 FT       -3.000     0.000     0.000 MR
                                  1.079 CM  1.000 MR  1.079 CM          1.000 MR  0.000 CM  2.000 PC  0.989     0.989
                                  1.0000    1.0668    0.0000    1.0000  1.0000    1.0668    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                1.50000 FT
   36.500 FT                      -0.1095   0.0000    36.4998 FT       -3.000     0.000     0.000 MR
                                  1.124 CM  1.000 MR  1.124 CM          1.000 MR  0.000 CM  2.000 PC  0.990     0.990
                                  1.0000    1.1125    0.0000    1.0000  1.0000    1.1125    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C4  "    8.50000 FT
   45.000 FT                      -0.1350   0.0000    44.9998 FT       -3.000     0.000     0.000 MR
                                  1.381 CM  1.000 MR  1.381 CM          1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                  1.0000    1.3716    0.0000    1.0000  1.0000    1.3716    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                0.10000 FT
   45.100 FT                      -0.1353   0.0000    45.0998 FT       -3.000     0.000     0.000 MR
                                  1.384 CM  1.000 MR  1.384 CM          1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                  1.0000    1.3746    0.0000    1.0000  1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "DIK0"    0.00000 FT
   45.100 FT                      -0.1353   0.0000    45.0998 FT       -3.000     0.000     0.000 MR
                                  1.384 CM  1.000 MR  1.384 CM          1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                  1.0000    1.3746    0.0000    1.0000  1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.                6.30000 FT
   51.400 FT                      -0.1542   0.0000    51.3998 FT       -3.000     0.000     0.000 MR
                                  1.575 CM  1.000 MR  1.575 CM          1.000 MR  0.000 CM  2.000 PC  0.995     0.995
                                  1.0000    1.5667    0.0000    1.0000  1.0000    1.5667    0.0000    1.0000    0.0000    0.0000
*QUAD*          5.      "Q1  "    10.00000 FT       -3.11122 KG       2.54000 CM   ( -115.59958 FT  )
   61.400 FT                      -0.1842   0.0000    61.3997 FT       -3.000     0.000     0.000 MR
                                  1.950 CM  1.488 MR  1.807 CM          0.527 MR  0.000 CM  2.000 PC  0.998     0.986
                                  1.0429    1.9431    0.2838    1.4876  0.9577    1.8008   -0.2759    0.5255    0.0000    0.0000
*DRIFT*         3.                1.06300 FT
   62.463 FT                      -0.1874   0.0000    62.4627 FT       -3.000     0.000     0.000 MR
                                  1.998 CM  1.488 MR  1.824 CM          0.527 MR  0.000 CM  2.000 PC  0.999     0.986
                                  1.0521    1.9913    0.2838    1.4876  0.9487    1.8178   -0.2759    0.5255    0.0000    0.0000
*QUAD*          5.      "Q2  "    10.00000 FT       -3.11122 KG       2.54000 CM   ( -115.59958 FT  )
   72.463 FT                      -0.2174   0.0000    72.4627 FT       -3.000     0.000     0.000 MR
                                  2.544 CM  2.119 MR  1.903 CM          0.084 MR  0.000 CM  2.000 PC  1.000    -0.048
                                  1.1851    2.5367    0.5946    2.1166  0.8257    1.8988   -0.5259    0.0018    0.0000    0.0000
*DRIFT*         3.                1.07200 FT
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 73.535 FT                    -0.2206     0.0000    73.5347 FT      -3.000     0.000     0.000 MR
                               2.613 CM    2.119 MR    1.903        0.084 MR    0.000 CM    2.000 PC      1.000    0.046
                               1.2045   2.6059   0.5946   2.116.     0.8085   1.8988  -0.5259   0.0018    0.0000   0.0000
*QUAD*          5.     "Q3 ."  10.00000 FT      -3.11122 KG      2.54000 CM   ( -115.59958 FT  )
 83.535 FT                    -0.2506     0.0000    83.5346 FT      -3.000     0.000     0.000 MR
                               3.380 CM    2.951 MR    1.822 CM     0.535 MR    0.000 CM    2.000 PC      1.000   -0.987
                               1.4401   3.3722   0.9620   2.9471    0.6162   1.8190  -0.7266  -0.5221    0.0000   0.0000
*DRIFT*         3.             1.32000 FT
 84.855 FT                    -0.2546     0.0000    84.8546 FT      -3.000     0.000     0.000 MR
                               3.499 CM    2.951 MR    1.800 CM     0.535 MR    0.000 CM    2.000 PC      1.000   -0.986
                               1.4788   3.4907   0.9620   2.9471    0.5870   1.7980  -0.7266  -0.5221    0.0000   0.0000
*ROTAT*         2.             1.33367 MR
 84.855 FT                    -0.2546     0.0000    84.8546 FT      -3.000     0.000     0.000 MR
                               3.499 CM    2.951 MR    1.800 CM     0.535 MR    0.000 CM    2.000 PC      1.000   -0.986
                               1.4788   3.4907   0.9620   2.9471    0.5870   1.7980  -0.7266  -0.5221    0.0000   0.0000
*BEND*          4.     "B1  "  10.25000 FT      11.39147 KG      0.00000      (  3842.767 FT  ,   2.667 MR  )
 95.105 FT                    -0.2990     0.0000    95.1045 FT      -5.667     0.000     0.000 MR
                               4.421 CM    2.952 MR    1.636 CM     0.535 MR    0.011 CM    2.000 PC      1.000   -0.983
                               1.7793   4.4115   0.9620   2.9471    0.3600   1.6348  -0.7266  -0.5221    0.0042   0.0267
*ROTAT*         2.             1.33367 MR
 95.105 FT                    -0.2990     0.0000    95.1045 FT      -5.667     0.000     0.000 MR
                               4.421 CM    2.952 MR    1.636 CM     0.535 MR    0.011 CM    2.000 PC      1.000   -0.983
                               1.7793   4.4115   0.9620   2.9471    0.3600   1.6348  -0.7267  -0.5221    0.0042   0.0267
*DRIFT*         3.             1.24000 FT
 96.345 FT                    -0.3060     0.0000    96.3445 FT      -5.667     0.000     0.000 MR
                               4.532 CM    2.952 MR    1.616 CM     0.535 MR    0.011 CM    2.000 PC      1.000   -0.983
                               1.8157   4.5228   0.9620   2.9471    0.3325   1.6151  -0.7267  -0.5221    0.0052   0.0267
*ROTAT*         2.             1.33367 MR
 96.345 FT                    -0.3060     0.0000    96.3445 FT      -5.667     0.000     0.000 MR
                               4.532 CM    2.952 MR    1.616 CM     0.535 MR    0.011 CM    2.000 PC      1.000   -0.983
                               1.8157   4.5228   0.9620   2.9472    0.3325   1.6151  -0.7267  -0.5222    0.0052   0.0267
*BEND*          4.     "B2  "  10.25000 FT      11.39147 KG      0.00000      (  3842.767 FT  ,   2.667 MR  )
106.595 FT                    -0.3778     0.0000   106.5942 FT      -8.335     0.000     0.000 MR
                               5.454 CM    2.953 MR    1.452 CM     0.535 MR    0.024 CM    2.000 PC      1.000   -0.979
                               2.1162   5.4436   0.9620   2.9470    0.1055   1.4520  -0.7267  -0.5222    0.0177   0.0533
*ROTAT*         2.             1.33367 MR
106.595 FT                    -0.3778     0.0000   106.5942 FT      -8.335     0.000     0.000 MR
                               5.454 CM    2.953 MR    1.452 CM     0.535 MR    0.024 CM    2.000 PC      1.000   -0.979
                               2.1162   5.4436   0.9620   2.9471    0.1055   1.4520  -0.7267  -0.5222    0.0177   0.0533
*DRIFT*         3.             1.32500 FT
107.920 FT                    -0.3888     0.0000   107.9192 FT      -8.335     0.000     0.000 MR
                               5.573 CM    2.953 MR    1.431 CM     0.535 MR    0.024 CM    2.000 PC      1.000   -0.978
                               2.1551   5.5626   0.9620   2.9471    0.0761   1.4309  -0.7267  -0.5222    0.0198   0.0533
*QUAD*          5.     "Q4  "  10.00000 FT       3.51124 KG      2.54000 CM   (  105.57750 FT  )
117.920 FT                    -0.4722     0.0000   117.9189 FT      -8.335     0.000     0.000 MR
                               6.193 CM    1.082 MR    1.339 CM     0.147 MR    0.024 CM    2.000 PC      0.997   -0.588
                               2.3407   6.1810   0.2464   1.0778   -0.1452   1.3386  -0.7375  -0.0884    0.0349   0.0446
*DRIFT*         3.             1.07500 FT
118.995 FT                    -0.4811     0.0000   118.9938 FT      -8.335     0.000     0.000 MR
                               6.228 CM    1.082 MR    1.336 CM     0.147 MR    0.024 CM    2.000 PC      0.997   -0.586
                               2.3488   6.2163   0.2464   1.0778   -0.1694   1.3357  -0.7375  -0.0884    0.0363   0.0446
*QUAD*          5.     "Q5  "  10.00000 FT       3.51124 KG      2.54000 CM   (  105.57750 FT  )
128.995 FT                    -0.5645     0.0000   128.9935 FT      -8.335     0.000     0.000 MR
                               6.254 CM    0.911 MR    1.375 CM     0.361 MR    0.024 CM    2.000 PC     -0.996    0.947
                               2.3105   6.2428  -0.4953  -0.9054   -0.4060   1.3731  -0.8276   0.3359    0.0480   0.0312
*DRIFT*         3.             1.34400 FT
130.339 FT                    -0.5757     0.0000   130.3374 FT      -8.335     0.000     0.000 MR
                               6.217 CM    0.911 MR    1.389 CM     0.361 MR    0.024 CM    2.000 PC     -0.996    0.948
                               2.2903   6.2057  -0.4953  -0.9054   -0.4399   1.3869  -0.8276   0.3359    0.0493   0.0312
*ROTAT*         2.             1.33367 MR
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130.339                          -0.5757     0.0000   130.3374 FT       -8.335     0.000     0.000 MR
                                  6.217 CM     0.911 MR     1.389 CM     0.361 MR     0.024 CM     2.000 PC      -0.996     0.948
                                  2.2903   6.2057  -0.4952  -0.9053      -0.4399   1.3869  -0.8276   0.3359       0.0493    0.0312
*BEND*          4.      "B3  "   10.25000 FT       11.39147 KG        0.00000      (  3842.767 FT  ,   2.667 MR  )
  140.589 FT                     -0.6748     0.0000   140.5869 FT      -11.002     0.000     0.000 MR
                                  5.934 CM     0.916 MR     1.496 CM     0.361 MR     0.040 CM     2.000 PC      -0.989     0.956
                                  2.1355   5.9228  -0.4953  -0.9054      -0.6985   1.4918  -0.8276   0.3359       0.0632    0.0579
*ROTAT*         2.               1.33367 MR
  140.589 FT                     -0.6748     0.0000   140.5869 FT      -11.002     0.000     0.000 MR
                                  5.934 CM     0.916 MR     1.496 CM     0.361 MR     0.040 CM     2.000 PC      -0.989     0.956
                                  2.1355   5.9228  -0.4953  -0.9054      -0.6985   1.4918  -0.8276   0.3359       0.0632    0.0579
*DRIFT*         3.               1.20800 FT
  141.797 FT                     -0.6881     0.0000   141.7949 FT      -11.002     0.000     0.000 MR
                                  5.901 CM     0.916 MR     1.509 CM     0.361 MR     0.040 CM     2.000 PC      -0.989     0.956
                                  2.1173   5.8895  -0.4953  -0.9054      -0.7290   1.5042  -0.8276   0.3359       0.0653    0.0579
*ROTAT*         2.               1.33367 MR
  141.797 FT                     -0.6881     0.0000   141.7949 FT      -11.002     0.000     0.000 MR
                                  5.901 CM     0.916 MR     1.509 CM     0.361 MR     0.040 CM     2.000 PC      -0.989     0.956
                                  2.1173   5.8895  -0.4952  -0.9053      -0.7290   1.5042  -0.8276   0.3359       0.0653    0.0579
*BEND*          4.      "B4  "   10.25000 FT       11.39147 KG        0.00000      (  3842.767 FT  ,   2.667 MR  )
  152.047 FT                     -0.8145     0.0000   152.0441 FT      -13.669     0.000     0.000 MR
                                  5.618 CM     0.924 MR     1.617 CM     0.361 MR     0.055 CM     2.000 PC      -0.976     0.962
                                  1.9626   5.6067  -0.4953  -0.9054      -0.9875   1.6091  -0.8276   0.3359       0.0876    0.0846
*ROTAT*         2.               1.33367 MR
  152.047 FT                     -0.8145     0.0000   152.0441 FT      -13.669     0.000     0.000 MR
                                  5.618 CM     0.924 MR     1.617 CM     0.361 MR     0.055 CM     2.000 PC      -0.976     0.962
                                  1.9626   5.6067  -0.4953  -0.9054      -0.9875   1.6091  -0.8276   0.3359       0.0876    0.0846
*DRIFT*         3.               1.22200 FT
  153.269 FT                     -0.8312     0.0000   153.2660 FT      -13.669     0.000     0.000 MR
                                  5.584 CM     0.924 MR     1.630 CM     0.361 MR     0.055 CM     2.000 PC      -0.976     0.963
                                  1.9441   5.5729  -0.4953  -0.9054      -1.0183   1.6216  -0.8276   0.3359       0.0907    0.0846
*ROTAT*         2.               1.33367 MR
  153.269 FT                     -0.8312     0.0000   153.2660 FT      -13.669     0.000     0.000 MR
                                  5.584 CM     0.924 MR     1.630 CM     0.361 MR     0.055 CM     2.000 PC      -0.976     0.963
                                  1.9441   5.5729  -0.4953  -0.9053      -1.0183   1.6216  -0.8276   0.3358       0.0907    0.0846
*BEND*          4.      "B5  "   10.25000 FT       11.39147 KG        0.00000      (  3842.767 FT  ,   2.667 MR  )
  163.519 FT                     -0.9850     0.0000   163.5148 FT      -16.337     0.000     0.000 MR
                                  5.303 CM     0.936 MR     1.738 CM     0.361 MR     0.070 CM     2.000 PC      -0.959     0.967
                                  1.7894   5.2901  -0.4953  -0.9054      -1.2769   1.7266  -0.8276   0.3358       0.1213    0.1112
*ROTAT*         2.               1.33367 MR
  163.519 FT                     -0.9850     0.0000   163.5148 FT      -16.337     0.000     0.000 MR
                                  5.303 CM     0.936 MR     1.738 CM     0.361 MR     0.070 CM     2.000 PC      -0.959     0.967
                                  1.7894   5.2901  -0.4953  -0.9054      -1.2769   1.7266  -0.8276   0.3358       0.1213    0.1112
*DRIFT*         3.               1.34000 FT
  164.859 FT                     -1.0069     0.0000   164.8546 FT      -16.337     0.000     0.000 MR
                                  5.267 CM     0.936 MR     1.753 CM     0.361 MR     0.070 CM     2.000 PC      -0.958     0.968
                                  1.7691   5.2531  -0.4953  -0.9054      -1.3107   1.7403  -0.8276   0.3358       0.1259    0.1112
*DRIFT*         3.               0.29100 FT
  165.150 FT                     -1.0116     0.0000   165.1456 FT      -16.337     0.000     0.000 MR
                                  5.259 CM     0.936 MR     1.756 CM     0.361 MR     0.070 CM     2.000 PC      -0.958     0.968
                                  1.7648   5.2451  -0.4953  -0.9054      -1.3180   1.7432  -0.8276   0.3358       0.1268    0.1112
*DRIFT*         3.      "C3H "   6.00000 FT
  171.150 FT                     -1.1096     0.0000   171.1448 FT      -16.337     0.000     0.000 MR
                                  5.095 CM     0.936 MR     1.820 CM     0.361 MR     0.070 CM     2.000 PC      -0.955     0.970
                                  1.6742   5.0795  -0.4953  -0.9054      -1.4694   1.8047  -0.8276   0.3358       0.1472    0.1112
*DRIFT*         3.               0.29200 FT
  171.442 FT                     -1.1144     0.0000   171.4368 FT      -16.337     0.000     0.000 MR
                                  5.087 CM     0.936 MR     1.823 CM     0.361 MR     0.070 CM     2.000 PC      -0.955     0.970
                                  1.6698   5.0714  -0.4953  -0.9054      -1.4767   1.8077  -0.8276   0.3358       0.1482    0.1112
*DRIFT*         3.               1.35800 FT
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172.800 FT                  -1.1366     0.0000   172,7946 FT      -16,337     0,000     0.000 MR
                             5.050 CM     0.936 MR     1,[illegible] CM     0.361 MR     0.070 CM     2.000 PC     -0,[illegible]     0,971
                             1.6493   5.0340  -0.4953  -0,[illegible]54     -1.5110   1.8216  -0.8276   0,3358     0,1[illegible]     0,1112
*ROTAT*          2.         3.88016 MR
  172.800 FT                -1.1366     0.0000   172,7946 FT      -16,337     0,000     0.000 MR
                             5.050 CM     0.935 MR     1.837 CM     0.361 MR     0.070 CM     2.000 PC     -0,955     0,971
                             1.6493   5.0340  -0.4952  -0.9051     -1.5110   1.8216  -0.8275   0.3357     0.1528     0,1112
*BEND*           4.   "B6  "  19.91667 FT      17.05637 KG      0.00000     (  2566.476 FT  ,   7.760 MR  )
  192.717 FT                -1.5392     0.0000   192.7071 FT      -24.097     0,000     0.000 MR
                             4.516 CM     0.984 MR     2,051 CM     0.361 MR     0.107 CM     2.000 PC     -0.876     0.977
                             1.3486   4.4844  -0.4953  -0.9056     -2.0133   2.0254  -0.8275   0.3357     0.2439     0.1888
*ROTAT*          2.         3.88016 MR
  192.717 FT                -1.5392     0.0000   192.7071 FT      -24.097     0,000     0.000 MR
                             4.516 CM     0.984 MR     2,051 CM     0,360 MR     0.107 CM     2,000 PC     -0.876     0.977
                             1.3486   4.4844  -0.4953  -0.9054     -2.0133   2.0254  -0.8274   0.3356     0.2439     0.1888
*DRIFT*          3.         1.33700 FT
  194.054 FT                -1.5714     0.0000   194.0437 FT      -24.097     0,000     0.000 MR
                             4.481 CM     0.984 MR     2,065 CM     0,360 MR     0.107 CM     2,000 PC     -0,874     0.977
                             1.3284   4.4475  -0.4953  -0.9054     -2.0470   2.0390  -0.8274   0.3356     0.2516     0.1888
*ROTAT*          2.         3.88016 MR
  194.054 FT                -1.5714     0.0000   194.0437 FT      -24.097     0,000     0.000 MR
                             4.481 CM     0.984 MR     2,065 CM     0.360 MR     0.107 CM     2,000 PC     -0.874     0.977
                             1.3284   4.4475  -0.4952  -0.9051     -2.0470   2.0390  -0.8273   0.3355     0.2516     0.1888
*BEND*           4.   "R7  "  19.91667 FT      17.05637 KG      0.00000     (  2566.476 FT  ,   7.760 MR  )
  213.970 FT                -2.1286     0.0000   213.9526 FT      -31.857     0,000     0.000 MR
                             3.978 CM     1.054 MR     2,279 CM     0.360 MR     0.140 CM     2,000 PC     -0.746     0.981
                             1.0278   3.8979  -0.4953  -0.9056     -2.5492   2.2427  -0.8273   0.3355     0.3897     0.2664
ROTAT*           2.         3.88016 MR
  213.970 FT                -2.1286     0.0000   213.9526 FT      -31.857     0,000     0.000 MR
                             3.978 CM     1.053 MR     2,279 CM     0.360 MR     0.140 CM     2,000 PC     -0.746     0.981
                             1.0278   3.8979  -0.4953  -0.9054     -2.5492   2.2427  -0.8272   0.3354     0.3897     0.2664
*DRIFT*          3.         1.34200 FT
  215.312 FT                -2.1713     0.0000   215.2939 FT      -31.857     0,000     0.000 MR
                             3.946 CM     1.053 MR     2,294 CM     0.360 MR     0.140 CM     2,000 PC     -0.741     0.981
                             1.0075   3.8608  -0.4953  -0.9054     -2.5831   2.2565  -0.8272   0.3354     0.4006     0.2664
*ROTAT*          2.         3.88016 MR
  215.312 FT                -2.1713     0.0000   215.2939 FT      -31.857     0,000     0.000 MR
                             3.946 CM     1.053 MR     2,294 CM     0.360 MR     0.140 CM     2,000 PC     -0.741     0.981
                             1.0075   3.8608  -0.4952  -0.9052     -2.5831   2.2565  -0.8270   0.3353     0.4006     0.2665
*BEND*           4.   "B8  "  19.91667 FT      17.05637 KG      0.00000     (  2566.476 FT  ,   7.760 MR  )
  235.229 FT                -2.8829     0.0000   235.1978 FT      -39.618     0,000     0.000 MR
                             3.514 CM     1.140 MR     2,508 CM     0.360 MR     0.168 CM     2,000 PC     -0.549     0.984
                             0.7069   3.3112  -0.4953  -0.9055     -3.0851   2.4600  -0.8270   0.3353     0.5859     0.3440
*ROTAT*          2.         3.88016 MR
  235.229 FT                -2.8829     0.0000   235.1978 FT      -39.618     0,000     0.000 MR
                             3.514 CM     1.140 MR     2,508 CM     0.360 MR     0.168 CM     2,000 PC     -0.549     0.984
                             0.7069   3.3112  -0.4953  -0.9054     -3.0851   2.4600  -0.8269   0.3352     0.5859     0.3440
*DRIFT*          3.         1.82000 FT
  237.049 FT                -2.9550     0.0000   237.0163 FT      -39.618     0,000     0.000 MR
                             3.480 CM     1.140 MR     2,528 CM     0.360 MR     0.168 CM     2,000 PC     -0.537     0.985
                             0.6794   3.2610  -0.4953  -0.9054     -3.1310   2.4786  -0.8269   0.3352     0.6050     0.3440
*QUAD*           5.   "Q6  "  5.00000 FT       3.00000 KG       2.54000 CM  (  244.02839 FT  )
  242.049 FT                -3.1531     0.0000   242.0124 FT      -39.618     0,000     0.000 MR
                             3.355 CM     1.435 MR     2,608 CM     0.703 MR     0.168 CM     2,000 PC     -0.718     0.996
                             0.5972   3.0900  -0.5815  -1.3345     -3.2897   2.5554  -1.2592   0.6742     0.6511     0.2592
*DRIFT*          3.         1.59900 FT
  243.648 FT                -3.2164     0.0000   243.6102 FT      -39.618     0,000     0.000 MR
                             3.305 CM     1.435 MR     2,643 CM     0.703 MR     0.168 CM     2,000 PC     -0.708     0.996
                             0.5688   3.0250  -0.5815  -1.3345     -3.3511   2.5882  -1.2592   0.6742     0.6637     0.2592
*DRIFT*          3.   "V1  "  2.50000 FT
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 246.148 FT                    -3.3154     0.0000   246.1082 FT      -39.618     0.000     0.000 MR
                                3.228 CM     1.435 MR     2.696 CM     0.703 MR     0.168 CM     2.000 PC      -0.691    0.996
                                0.5245   2.9233  -0.5815  -1.3345     -3.4470   2.6396  -1.2592   0.6742       0.6834   0.2592
*DRIFT*          3.            1.41900 FT
 247.567 FT                    -3.3716     0.0000   247.5261 FT      -39.618     0.000     0.000 MR
                                3.186 CM     1.435 MR     2.726 CM     0.703 MR     0.168 CM     2.000 PC      -0.681    0.997
                                0.4994   2.8656  -0.5815  -1.3345     -3.5015   2.6688  -1.2592   0.6742       0.6947   0.2592
*DRIFT*          3.            0.22900 FT
 247.796 FT                    -3.3807     0.0000   247.7549 FT      -39.618     0.000     0.000 MR
                                3.179 CM     1.435 MR     2.731 CM     0.703 MR     0.168 CM     2.000 PC      -0.679    0.997
                                0.4953   2.8563  -0.5815  -1.3345     -3.5103   2.6735  -1.2592   0.6742       0.6965   0.2592
*DRIFT*          3.    "C4V "  6.00000 FT
 253.796 FT                    -3.6183     0.0000   253.7502 FT      -39.618     0.000     0.000 MR
                                3.007 CM     1.435 MR     2.859 CM     0.703 MR     0.168 CM     2.000 PC      -0.631    0.997
                                0.3890   2.6122  -0.5815  -1.3345     -3.7405   2.7968  -1.2592   0.6742       0.7439   0.2592
*DRIFT*          3.            0.22900 FT
 254.025 FT                    -3.6274     0.0000   253.9790 FT      -39.618     0.000     0.000 MR
                                3.000 CM     1.435 MR     2.864 CM     0.703 MR     0.168 CM     2.000 PC      -0.629    0.997
                                0.3849   2.6029  -0.5815  -1.3345     -3.7493   2.8015  -1.2592   0.6742       0.7457   0.2592
*DRIFT*          3.            2.40300 FT
 256.428 FT                    -3.7226     0.0000   256.3801 FT      -39.618     0.000     0.000 MR
                                2.936 CM     1.435 MR     2.916 CM     0.703 MR     0.168 CM     2.000 PC      -0.607    0.997
                                0.3423   2.5052  -0.5815  -1.3345     -3.8416   2.8509  -1.2592   0.6742       0.7647   0.2592
*QUAD*           5.    "Q7  "  10.00000 FT        -4.70903 KG        2.54000 CM   (  -75.82406 FT  )
 266.428 FT                    -4.1186     0.0000   266.3723 FT      -39.618     0.000     0.000 MR
                                2.878 CM     1.262 MR     2.939 CM     0.554 MR     0.168 CM     2.000 PC       0.388   -0.995
                                0.1836   2.2530  -0.4713  -0.3376     -3.9719   2.8699   0.4134  -0.5505       0.8952   0.6069
*DRIFT*          3.            2.62500 FT
 269.053 FT                    -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                                2.919 CM     1.262 MR     2.894 CM     0.554 MR     0.168 CM     2.000 PC       0.418   -0.995
                                0.1459   2.2260  -0.4713  -0.3376     -3.9388   2.8259   0.4134  -0.5505       0.9438   0.6069
*DRIFT*          3.    "DIK1"  0.00000 FT
 269.053 FT                    -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                                2.919 CM     1.262 MR     2.894 CM     0.554 MR     0.168 CM     2.000 PC       0.418   -0.995
                                0.1459   2.2260  -0.4713  -0.3376     -3.9388   2.8259   0.4134  -0.5505       0.9438   0.6069
*DRIFT*          3.            94.07600 FT
 363.129 FT                    -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                                5.517 CM     1.262 MR     1.322 CM     0.554 MR     0.168 CM     2.000 PC       0.877   -0.976
                               -1.2057   1.2580  -0.4713  -0.3376     -2.7535   1.2475   0.4134  -0.5505       2.6842   0.6069
*DRIFT*          3.    "DIK2"  0.00000 FT
 363.129 FT                    -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                                5.517 CM     1.262 MR     1.322 CM     0.554 MR     0.168 CM     2.000 PC       0.877   -0.976
                               -1.2057   1.2580  -0.4713  -0.3376     -2.7535   1.2475   0.4134  -0.5505       2.6842   0.6069
*DRIFT*          3.            7.26000 FT
 370.389 FT                    -8.2363     0.0000   370.2517 FT      -39.618     0.000     0.000 MR
                                5.764 CM     1.262 MR     1.203 CM     0.554 MR     0.168 CM     2.000 PC       0.888   -0.971
                               -1.3100   1.1833  -0.4713  -0.3376     -2.6620   1.1257   0.4134  -0.5505       2.8185   0.6069
*DRIFT*          3.            0.11500 FT
 370.504 FT                    -8.2408     0.0000   370.3666 FT      -39.618     0.000     0.000 MR
                                5.768 CM     1.262 MR     1.201 CM     0.554 MR     0.168 CM     2.000 PC       0.888   -0.971
                               -1.3117   1.1821  -0.4713  -0.3376     -2.6605   1.1237   0.4134  -0.5505       2.8206   0.6069
*DRIFT*          3.    "BS1 "  3.00000 FT
 373.504 FT                    -8.3596     0.0000   373.3643 FT      -39.618     0.000     0.000 MR
                                5.870 CM     1.262 MR     1.152 CM     0.554 MR     0.168 CM     2.000 PC       0.892   -0.968
                               -1.3548   1.1512  -0.4713  -0.3376     -2.6227   1.0734   0.4134  -0.5505       2.8761   0.6069
*DRIFT*          3.            0.11500 FT
 373.619 FT                    -8.3642     0.0000   373.4792 FT      -39.618     0.000     0.000 MR
                                5.874 CM     1.262 MR     1.150 CM     0.554 MR     0.168 CM     2.000 PC       0.89[illegible]   -0.968
                               -1.3564   1.1501  -0.4713  -0.3[illegible]     -2.6213   1.0715   0.4134  -0.5505       2.8[illegible]   0.6069
*DRIFT*          3.            26.71800 FT
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400.337 FT                  -9.4224     0.0000   400.1762 FT      -39.618     0.000     0.000 MR
                             6.807 CM     1.262 MR     0.72   M     0.554 MR     0.168 CM     2.000 PC      0.91      -0.918
                            -1.7403   0.8751  -0.4713  -0.3[illegible]6     -2.2846   0.6232   0.4134  -0.5505      3.37[illegible]    0.6069
*QUAD*          5.     "Q8  "      7.00000 FT          4.54085 KG        2.54000 CM   (  115.93953 FT  )
  407.337 FT                    -9.6997     0.0000   407.1707 FT      -39.618     0.000     0.000 MR
                             6.847 CM     0.931 MR     0.636 CM     0.389 MR     0.168 CM     2.000 PC     -0.851     -0.766
                            -1.7870   0.7773   0.0354  -0.5750     -2.2656   0.5236  -0.2337  -0.3874      3.3984    -0.3658
*DRIFT*         3.                  4.22000 FT
  411.557 FT                    -9.8668     0.0000   411.3874 FT      -39.618     0.000     0.000 MR
                             6.745 CM     0.931 MR     0.598 CM     0.389 MR     0.168 CM     2.000 PC     -0.846     -0.730
                            -1.7825   0.7033   0.0354  -0.5750     -2.2956   0.4738  -0.2337  -0.3874      3.3513    -0.3658
*QUAD*          5.     "Q9  "      4.33300 FT          0.00000 KG        2.54000 CM   (    0.00000 FT  )
  415.890 FT                   -10.0384     0.0000   415.7170 FT      -39.618     0.000     0.000 MR
                             6.642 CM     0.931 MR     0.562 CM     0.389 MR     0.168 CM     2.000 PC     -0.841     -0.686
                            -1.7778   0.6274   0.0354  -0.5750     -2.3265   0.4227  -0.2337  -0.3874      3.3030    -0.3658
*DRIFT*         3.                  1.41000 FT
  417.300 FT                   -10.0943     0.0000   417.1259 FT      -39.618     0.000     0.000 MR
                             6.608 CM     0.931 MR     0.550 CM     0.389 MR     0.168 CM     2.000 PC     -0.839     -0.670
                            -1.7763   0.6027   0.0354  -0.5750     -2.3366   0.4060  -0.2337  -0.3874      3.2873    -0.3658
*QUAD*          5.     "Q10 "      4.33300 FT          0.00000 KG        2.54000 CM   (    0.00000 FT  )
  421.633 FT                   -10.2659     0.0000   421.4555 FT      -39.618     0.000     0.000 MR
                             6.505 CM     0.931 MR     0.517 CM     0.389 MR     0.168 CM     2.000 PC     -0.833     -0.613
                            -1.7716   0.5267   0.0354  -0.5750     -2.3674   0.3548  -0.2337  -0.3874      3.2389    -0.3658
*DRIFT*         3.                  6.25000 FT
  427.883 FT                   -10.5134     0.0000   427.7006 FT      -39.618     0.000     0.000 MR
                             6.358 CM     0.931 MR     0.475 CM     0.389 MR     0.168 CM     2.000 PC     -0.825     -0.511
                            -1.7648   0.4172   0.0354  -0.5750     -2.4119   0.2811  -0.2337  -0.3874      3.1693    -0.3658
*DRIFT*         3.     "V3  "      2.50000 FT
  430.383 FT                   -10.6125     0.0000   430.1986 FT      -39.618     0.000     0.000 MR
                             6.300 CM     0.931 MR     0.461 CM     0.389 MR     0.168 CM     2.000 PC     -0.821     -0.463
                            -1.7621   0.3734   0.0354  -0.5750     -2.4298   0.2515  -0.2337  -0.3874      3.1414    -0.3658
*DRIFT*         3.                 10.46900 FT
  440.852 FT                   -11.0271     0.0000   440.6594 FT      -39.618     0.000     0.000 MR
                             6.059 CM     0.931 MR     0.418 CM     0.389 MR     0.168 CM     2.000 PC     -0.805     -0.214
                            -1.7508   0.1899   0.0354  -0.5750     -2.5043   0.1279  -0.2337  -0.3874      3.0247    -0.3658
*DRIFT*         3.                  0.29200 FT
  441.144 FT                   -11.0387     0.0000   440.9512 FT      -39.618     0.000     0.000 MR
                             6.052 CM     0.931 MR     0.418 CM     0.389 MR     0.168 CM     2.000 PC     -0.804     -0.206
                            -1.7505   0.1848   0.0354  -0.5750     -2.5064   0.1245  -0.2337  -0.3874      3.0214    -0.3658
*DRIFT*         3.     "C5H "      4.00000 FT
  445.144 FT                   -11.1971     0.0000   444.9481 FT      -39.618     0.000     0.000 MR
                             5.961 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC     -0.797     -0.094
                            -1.7462   0.1147   0.0354  -0.5750     -2.5349   0.0773  -0.2337  -0.3874      2.9768    -0.3658
*DRIFT*         3.                  0.29300 FT
  445.437 FT                   -11.2087     0.0000   445.2408 FT      -39.618     0.000     0.000 MR
                             5.955 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC     -0.797     -0.085
                            -1.7459   0.1095   0.0354  -0.5750     -2.5370   0.0738  -0.2337  -0.3874      2.9735    -0.3658
*DRIFT*         3.                  0.83000 FT
  446.267 FT                   -11.2416     0.0000   446.0702 FT      -39.618     0.000     0.000 MR
                             5.936 CM     0.931 MR     0.409 CM     0.389 MR     0.168 CM     2.000 PC     -0.795     -0.061
                            -1.7450   0.0950   0.0354  -0.5750     -2.5429   0.0640  -0.2337  -0.3874      2.9643    -0.3658
*DRIFT*         3.                  0.23000 FT
  446.497 FT                   -11.2507     0.0000   446.3000 FT      -39.618     0.000     0.000 MR
                             5.931 CM     0.931 MR     0.409 CM     0.389 MR     0.168 CM     2.000 PC     -0.795     -0.055
                            -1.7447   0.0910   0.0354  -0.5750     -2.5446   0.0613  -0.2337  -0.3874      2.9617    -0.3658
*DRIFT*         3.     "C6V "      4.00000 FT
  450.497 FT                   -11.4091     0.0000   450.2969 FT      -39.618     0.000     0.000 MR
                             5.841 CM     0.931 MR     0.409 CM     0.389 MR     0.168 CM     2.000 PC     -0.788      0.061
                            -1.7404   0.0209   0.0354  -0.5750     -2.5731   0.0141  -0.2337  -0.3874      2.9171    -0.3658
*DRIFT*         3.                  0.23000 FT
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450.727 FT                    -11.4182     0.0000   450.5267 FT      -39.618     0.000     0.000 MR
                                5.836 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC     -0.787    0.068
                              -1.7402   0.0168   0.0354  -0.5750      -2.5747   0.0113  -0.2337  -0.3874      2.9145  -0.3658
*DRIFT*          3.           0.96000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC     -0.786    0.095
                              -1.7391  -0.0000   0.0354  -0.5750      -2.5815  -0.0000  -0.2337  -0.3874      2.9038  -0.3658
*DRIFT*          3.    "1F  "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC     -0.786    0.095
                              -1.7391  -0.0000   0.0354  -0.5750      -2.5815  -0.0000  -0.2337  -0.3874      2.9038  -0.3658
*DRIFT*          3.    "PM1 "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC     -0.786    0.095
                              -1.7391  -0.0000   0.0354  -0.5750      -2.5815  -0.0000  -0.2337  -0.3874      2.9038  -0.3658
*DRIFT*          3.    "LC1 "  0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                                5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC     -0.786    0.095
                              -1.7391  -0.0000   0.0354  -0.5750      -2.5815  -0.0000  -0.2337  -0.3874      2.9038  -0.3658
*DRIFT*          3.           3.51500 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                                5.736 CM     0.931 MR     0.417 CM     0.389 MR     0.168 CM     2.000 PC     -0.779    0.194
                              -1.7354  -0.0616   0.0354  -0.5750      -2.6066  -0.0415  -0.2337  -0.3874      2.8646  -0.3658
*DRIFT*          3.    "DIK3"  0.00000 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                                5.736 CM     0.931 MR     0.417 CM     0.389 MR     0.168 CM     2.000 PC     -0.779    0.194
                              -1.7354  -0.0616   0.0354  -0.5750      -2.6066  -0.0415  -0.2337  -0.3874      2.8646  -0.3658
*DRIFT*          3.           195.15800 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                                3.752 CM     0.931 MR     2.430 CM     0.389 MR     0.168 CM     2.000 PC      0.284    0.986
                              -1.5247  -3.4819   0.0354  -0.5750      -3.9969  -2.3457  -0.2337  -0.3874      0.6886  -0.3658
*DRIFT*          3.    "DIK4"  0.00000 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                                3.752 CM     0.931 MR     2.430 CM     0.389 MR     0.168 CM     2.000 PC      0.284    0.986
                              -1.5247  -3.4819   0.0354  -0.5750      -3.9969  -2.3457  -0.2337  -0.3874      0.6886  -0.3658
*DRIFT*          3.           5.01000 FT
655.370 FT                    -19.5236     0.0000   655.0091 FT      -39.618     0.000     0.000 MR
                                3.795 CM     0.931 MR     2.489 CM     0.389 MR     0.168 CM     2.000 PC      0.319    0.986
                              -1.5193  -3.5697   0.0354  -0.5750      -4.0326  -2.4049  -0.2337  -0.3874      0.6327  -0.3658
*DRIFT*          3.           0.23000 FT
655.600 FT                    -19.5327     0.0000   655.2389 FT      -39.618     0.000     0.000 MR
                                3.797 CM     0.931 MR     2.492 CM     0.389 MR     0.168 CM     2.000 PC      0.320    0.986
                              -1.5191  -3.5738   0.0354  -0.5750      -4.0342  -2.4076  -0.2337  -0.3874      0.6302  -0.3658
*DRIFT*          3.    "C7V "  4.00000 FT
659.600 FT                    -19.6911     0.0000   659.2358 FT      -39.618     0.000     0.000 MR
                                3.835 CM     0.931 MR     2.538 CM     0.389 MR     0.168 CM     2.000 PC      0.347    0.987
                              -1.5147  -3.6439   0.0354  -0.5750      -4.0627  -2.4548  -0.2337  -0.3874      0.5856  -0.3658
*DRIFT*          3.           0.23000 FT
659.830 FT                    -19.7002     0.0000   659.4656 FT      -39.618     0.000     0.000 MR
                                3.837 CM     0.931 MR     2.541 CM     0.389 MR     0.168 CM     2.000 PC      0.348    0.987
                              -1.5145  -3.6479   0.0354  -0.5750      -4.0644  -2.4575  -0.2337  -0.3874      0.5830  -0.3658
*DRIFT*          3.           1.50000 FT
661.330 FT                    -19.7597     0.0000   660.9644 FT      -39.618     0.000     0.000 MR
                                3.852 CM     0.931 MR     2.559 CM     0.389 MR     0.168 CM     2.000 PC      0.358    0.987
                              -1.5129  -3.6742   0.0354  -0.5750      -4.0751  -2.4752  -0.2337  -0.3874      0.5663  -0.3658
*DRIFT*          3.    "C7H "  2.50000 FT
663.830 FT                    -19.8587     0.0000   663.4625 FT      -39.618     0.000     0.000 MR
                                3.878 CM     0.931 MR     2.588 CM     0.389 MR     0.168 CM     2.000 PC      0.374    0.987
                              -1.5102  -3.7180   0.0354  -0.5750      -4.0929  -2.5048  -0.2337  -0.3874      0.53[illegible]4  -0.3658
*DRIFT*          3.           1.50000 FT
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665.330 FT                  -19.9181     0.0000   664.9613 FT      -39.618     0.000     0.000 MR
                             3.894 CM     0.931 MR     2.635        0.389 MR     0.168 CM     2.000 PC      0.381    0.988
                            -1.5086  -3.7443   0.0354  -0.5750      -4.1035  -2.5225  -0.2337  -0.3874      0.5217  -0.3658
*DRIFT*          3.   "V5. "  2.50000 FT
667.830 FT                  -20.0171     0.0000   667.4593 FT      -39.618     0.000     0.000 MR
                             3.922 CM     0.931 MR     2.635 CM     0.389 MR     0.168 CM     2.000 PC      0.398    0.988
                            -1.5059  -3.7881   0.0354  -0.5750      -4.1214  -2.5520  -0.2337  -0.3874      0.4938  -0.3658
*DRIFT*          3.          2.49000 FT
670.320 FT                  -20.1157     0.0000   669.9474 FT      -39.618     0.000     0.000 MR
                             3.951 CM     0.931 MR     2.664 CM     0.389 MR     0.168 CM     2.000 PC      0.413    0.988
                            -1.5032  -3.8317   0.0354  -0.5750      -4.1391  -2.5814  -0.2337  -0.3874      0.4660  -0.3658
*ROTAT*          2.          4.57275 MR
670.320 FT                  -20.1157     0.0000   669.9474 FT      -39.618     0.000     0.000 MR
                             3.951 CM     0.931 MR     2.664 CM     0.389 MR     0.168 CM     2.000 PC      0.414    0.988
                            -1.5032  -3.8317   0.0353  -0.5753      -4.1391  -2.5814  -0.2334  -0.3872      0.4660  -0.3658
*BEND*           4.   "B9  "  19.91667 FT      20.10081 KG      0.00000      (  2177.761 FT  ,   9.145 MR  )
690.237 FT                  -20.9956     0.0000   689.8445 FT      -48.763     0.000     0.000 MR
                             4.223 CM     0.795 MR     2.898 CM     0.389 MR     0.133 CM     2.000 PC      0.627    0.990
                            -1.4817  -4.1808   0.0355  -0.5747      -4.2808  -2.8164  -0.2334  -0.3872      0.2717  -0.2744
*ROTAT*          2.          4.57275 MR
690.237 FT                  -20.9956     0.0000   689.8445 FT      -48.763     0.000     0.000 MR
                             4.223 CM     0.795 MR     2.898 CM     0.389 MR     0.133 CM     2.000 PC      0.627    0.990
                            -1.4817  -4.1808   0.0354  -0.5750      -4.2808  -2.8164  -0.2332  -0.3870      0.2717  -0.2744
*DRIFT*          3.          1.29000 FT
691.527 FT                  -21.0584     0.0000   691.1330 FT      -48.763     0.000     0.000 MR
                             4.242 CM     0.795 MR     2.913 CM     0.389 MR     0.133 CM     2.000 PC      0.631    0.990
                            -1.4803  -4.2034   0.0354  -0.5750      -4.2900  -2.8317  -0.2332  -0.3870      0.2609  -0.2744
*ROTAT*          2.          4.57275 MR
691.527 FT                  -21.0584     0.0000   691.1330 FT      -48.763     0.000     0.000 MR
                             4.242 CM     0.795 MR     2.913 CM     0.389 MR     0.133 CM     2.000 PC      0.632    0.990
                            -1.4803  -4.2034   0.0353  -0.5753      -4.2900  -2.8317  -0.2329  -0.3868      0.2609  -0.2743
*BEND*           4.   "B10 "  19.91667 FT      20.10081 KG      0.00000      (  2177.761 FT  ,   9.145 MR  )
711.443 FT                  -22.1202     0.0000   711.0213 FT      -57.909     0.000     0.000 MR
                             4.565 CM     0.681 MR     3.146 CM     0.389 MR     0.094 CM     2.000 PC      0.812    0.992
                            -1.4588  -4.5524   0.0355  -0.5747      -4.4313  -3.0665  -0.2329  -0.3868      0.1221  -0.1829
*ROTAT*          2.          4.57275 MR
711.443 FT                  -22.1202     0.0000   711.0213 FT      -57.909     0.000     0.000 MR
                             4.565 CM     0.682 MR     3.146 CM     0.388 MR     0.094 CM     2.000 PC      0.812    0.991
                            -1.4588  -4.5524   0.0354  -0.5750      -4.4313  -3.0665  -0.2326  -0.3866      0.1221  -0.1829
*DRIFT*          3.          1.31000 FT
712.753 FT                  -22.1960     0.0000   712.3291 FT      -57.909     0.000     0.000 MR
                             4.587 CM     0.682 MR     3.162 CM     0.388 MR     0.094 CM     2.000 PC      0.814    0.992
                            -1.4574  -4.5754   0.0354  -0.5750      -4.4406  -3.0819  -0.2326  -0.3866      0.1148  -0.1829
*ROTAT*          2.          4.57275 MR
712.753 FT                  -22.1960     0.0000   712.3291 FT      -57.909     0.000     0.000 MR
                             4.587 CM     0.682 MR     3.162 CM     0.388 MR     0.094 CM     2.000 PC      0.814    0.992
                            -1.4574  -4.5754   0.0353  -0.5753      -4.4406  -3.0819  -0.2322  -0.3864      0.1148  -0.1829
*BEND*           4.   "B11 "  19.91667 FT      20.10081 KG      0.00000      (  2177.761 FT  ,   9.145 MR  )
732.670 FT                  -23.4396     0.0000   732.2068 FT      -67.054     0.000     0.000 MR
                             4.930 CM     0.603 MR     3.396 CM     0.388 MR     0.055 CM     2.000 PC      0.947    0.993
                            -1.4359  -4.9245   0.0355  -0.5747      -4.5816  -3.3165  -0.2322  -0.3864      0.0315  -0.0915
*ROTAT*          2.          4.57275 MR
732.670 FT                  -23.4396     0.0000   732.2068 FT      -67.054     0.000     0.000 MR
                             4.930 CM     0.603 MR     3.396 CM     0.388 MR     0.055 CM     2.000 PC      0.947    0.993
                            -1.4359  -4.9245   0.0354  -0.5750      -4.5816  -3.3165  -0.2319  -0.3861      0.0315  -0.0915
*DRIFT*          3.          1.36000 FT
734.030 FT                  -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                             4.954 CM     0.603 MR     3.411 CM     0.388 MR     0.055 CM     2.000 PC      0.948    0.993
                            -1.4344  -4.9483   0.0354  -0.5750      -4.5912  -3.3325  -0.2319  -0.3861      0.0278  -0.0915
*ROTAT*          2.          4.57275 MR
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734.030 FT                    -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                               4.954 CM     0.604 MR     3.411 CM     0.388 MR     0.055 CM     2.000 PC      0.948    0.993
                              -1.4344  -4.9483   0.0353  -0.5753      -4.5912  -3.3325  -0.2316  -0.3859      0.0278  -0.0915
*BEND*          4.     "B12 "  19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,    9.145 MR  )
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                               5.302 CM     0.575 MR     3.645 CM     0.388 MR     0.028 CM     2.000 PC      0.999    0.994
                              -1.4129  -5.2973   0.0355  -0.5746      -4.7318  -3.5667  -0.2316  -0.3859     -0.0000  -0.0000
*ROTAT*         2.              4.57275 MR
753.947 FT                    -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                               5.302 CM     0.575 MR     3.645 CM     0.387 MR     0.028 CM     2.000 PC      0.999    0.994
                              -1.4129  -5.2973   0.0354  -0.5750      -4.7318  -3.5667  -0.2313  -0.3857     -0.0000  -0.0000
*DRIFT*         3.              3.01000 FT
756.957 FT                    -25.1852     0.0000   756.4305 FT      -76.200     0.000     0.000 MR
                               5.355 CM     0.575 MR     3.681 CM     0.387 MR     0.028 CM     2.000 PC      0.999    0.994
                              -1.4097  -5.3501   0.0354  -0.5750      -4.7530  -3.6021  -0.2313  -0.3857     -0.0000  -0.0000
*QUAD*          5.     "Q11 "  10.00000 FT         5.05987 KG        2.54000 CM    (    73.78869 FT  )
766.957 FT                    -25.9465     0.0000   766.4015 FT      -76.200     0.000     0.000 MR
                               5.159 CM     1.846 MR     4.059 CM     2.126 MR     0.028 CM     2.000 PC     -1.000    1.000
                              -1.3025  -5.1546   0.6598   1.8432      -5.1587  -3.9751  -2.4609  -2.0901     -0.0000   0.0000
*DRIFT*         3.              1.50000 FT
768.457 FT                    -26.0607     0.0000   767.8972 FT      -76.200     0.000     0.000 MR
                               5.074 CM     1.846 MR     4.156 CM     2.126 MR     0.028 CM     2.000 PC     -1.000    1.000
                              -1.2723  -5.0703   0.6598   1.8432      -5.2712  -4.0707  -2.4609  -2.0901     -0.0000   0.0000
*QUAD*          5.     "Q12 "  10.00000 FT         5.05987 KG        2.54000 CM    (    73.78869 FT  )
778.457 FT                    -26.8220     0.0000   777.8681 FT      -76.200     0.000     0.000 MR
                               4.177 CM     3.976 MR     5.111 CM     4.211 MR     0.028 CM     2.000 PC     -1.000    1.000
                              -0.9886  -4.1738   1.1802   3.9712      -6.4085  -5.0082  -5.0881  -4.1324     -0.0000   0.0000
*DRIFT*         3.              1.50000 FT
779.957 FT                    -26.9361     0.0000   779.3638 FT      -76.200     0.000     0.000 MR
                               3.995 CM     3.976 MR     5.303 CM     4.211 MR     0.028 CM     2.000 PC     -1.000    1.000
                              -0.9347  -3.9922   1.1802   3.9712      -6.6411  -5.1971  -5.0881  -4.1324     -0.0000   0.0000
*QUAD*          5.     "Q13A"  5.00000 FT        -4.91839 KG        2.54000 CM    ( -147.50694 FT  )
784.957 FT                    -27.3168     0.0000   784.3493 FT      -76.200     0.000     0.000 MR
                               3.453 CM     3.154 MR     5.852 CM     2.974 MR     0.028 CM     2.000 PC     -1.000    1.000
                              -0.7696  -3.4511   0.9923   3.1504      -7.3006  -5.7360  -3.5420  -2.9199     -0.0000   0.0000
*DRIFT*         3.              1.50000 FT
786.457 FT                    -27.4310     0.0000   785.8449 FT      -76.200     0.000     0.000 MR
                               3.309 CM     3.154 MR     5.988 CM     2.974 MR     0.028 CM     2.000 PC     -1.000    1.000
                              -0.7242  -3.3070   0.9923   3.1504      -7.4625  -5.8695  -3.5420  -2.9199     -0.0000   0.0000
*QUAD*          5.     "Q13 "  10.00000 FT        -4.91839 KG        2.54000 CM    (  -72.52768 FT  )
796.457 FT                    -28.1922     0.0000   795.8159 FT      -76.200     0.000     0.000 MR
                               2.552 CM     1.873 MR     6.475 CM     0.187 MR     0.028 CM     2.000 PC     -0.999    0.991
                              -0.4643  -2.5505   0.7323   1.8692      -8.0206  -6.3484  -0.0785  -0.1868     -0.0000   0.0000
*DRIFT*         3.              1.50000 FT
797.957 FT                    -28.3064     0.0000   797.3116 FT      -76.200     0.000     0.000 MR
                               2.466 CM     1.873 MR     6.484 CM     0.187 MR     0.028 CM     2.000 PC     -0.999    0.991
                              -0.4308  -2.4650   0.7323   1.8692      -8.0242  -6.3569  -0.0785  -0.1868     -0.0000   0.0000
*QUAD*          5.     "Q14 "  10.00000 FT        -4.91839 KG        2.54000 CM    (  -72.52768 FT  )
807.957 FT                    -29.0677     0.0000   807.2825 FT      -76.200     0.000     0.000 MR
                               2.051 CM     0.887 MR     6.107 CM     2.631 MR     0.028 CM     2.000 PC     -0.996   -1.000
                              -0.2319  -2.0505   0.5874   0.8816      -7.5127  -5.9888   3.3970   2.5748     -0.0000   0.0000
*DRIFT*         3.              2.72000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                               1.978 CM     0.887 MR     5.889 CM     2.631 MR     0.028 CM     2.000 PC     -0.996   -1.000
                              -0.1832  -1.9774   0.5874   0.8816      -7.2311  -5.7754   3.3970   2.5748     -0.0000   0.0000
*DRIFT*         3.     "DIK5"   0.00000 FT
810.677 FT                    -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                               1.978 CM     0.887 MR     5.889 CM     2.631 MR     0.028 CM     2.000 PC     -0.996   -1.000
                              -0.1832  -1.9774   0.5874   0.8816      -7.2311  -5.7754   3.3970   2.5748     -0.0000   0.0000
*DRIFT*         3.              72.20900 FT
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882.886 FT                    -34.7717     0.0000   881.9941 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.11[illegible] M     2.631 MR     0.028 CM     2.000 PC     -0.1[illegible]     -0.851
                               1.1096  -0.0371   0.5874   0.8[illegible]6      0.2455  -0.1083   3.3970   2.5748     0.00[illegible]     0.0000
*DRIFT*        3.     "DIK6"   0.00000 FT
882.886 FT                    -34.7717     0.0000   881.9941 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.115 CM     2.631 MR     0.028 CM     2.000 PC     -0.101     -0.851
                               1.1096  -0.0371   0.5874   0.8816      0.2455  -0.1083   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.             1.38000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.062 CM     2.631 MR     0.028 CM     2.000 PC     0.105     0.205
                               1.1343   0.0000   0.5874   0.8816      0.3884   0.0000   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.     "2F  "   0.00000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.062 CM     2.631 MR     0.028 CM     2.000 PC     0.105     0.205
                               1.1343   0.0000   0.5874   0.8816      0.3884   0.0000   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.     "PM2 "   0.00000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.062 CM     2.631 MR     0.028 CM     2.000 PC     0.105     0.205
                               1.1343   0.0000   0.5874   0.8816      0.3884   0.0000   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.             0.72000 FT
884.986 FT                    -34.9316     0.0000   884.0880 FT      -76.200     0.000     0.000 MR
                               0.183 CM     0.887 MR     0.093 CM     2.631 MR     0.028 CM     2.000 PC     0.210     0.759
                               1.1472   0.0194   0.5874   0.8816      0.4629   0.0565   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.     "C8H "   4.00000 FT
888.986 FT                    -35.2361     0.0000   888.0764 FT      -76.200     0.000     0.000 MR
                               0.232 CM     0.887 MR     0.396 CM     2.631 MR     0.028 CM     2.000 PC     0.633     0.988
                               1.2188   0.1268   0.5874   0.8816      0.8771   0.3704   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.             0.90000 FT
889.886 FT                    -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                               0.248 CM     0.887 MR     0.467 CM     2.631 MR     0.028 CM     2.000 PC     0.690     0.992
                               1.2349   0.1510   0.5874   0.8816      0.9703   0.4411   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.     "LC2 "   0.00000 FT
889.886 FT                    -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                               0.248 CM     0.887 MR     0.467 CM     2.631 MR     0.028 CM     2.000 PC     0.690     0.992
                               1.2349   0.1510   0.5874   0.8816      0.9703   0.4411   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.             1.00000 FT
890.886 FT                    -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                               0.267 CM     0.887 MR     0.547 CM     2.631 MR     0.028 CM     2.000 PC     0.741     0.994
                               1.2529   0.1779   0.5874   0.8816      1.0738   0.5196   3.3970   2.5748     0.0000     0.0000
*ROTAT*        2.             0.00000 MR
890.886 FT                    -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                               0.267 CM     0.887 MR     0.547 CM     2.631 MR     0.028 CM     2.000 PC     0.741     0.994
                               1.2529   0.1779   0.5874   0.8816      1.0738   0.5196   3.3970   2.5748     0.0000     0.0000
*BEND*         4.     "B13 "  20.00000 FT          0.00000 KG          0.00000      (      0.000 FT  ,   0.000 MR  )
910.886 FT                    -36.9032     0.0000   909.9128 FT      -76.200     0.000     0.000 MR
                               0.760 CM     0.887 MR     2.148 CM     2.631 MR     0.028 CM     2.000 PC     0.972     1.000
                               1.6109   0.7153   0.5874   0.8816      3.1446   2.0892   3.3970   2.5748     0.0000     0.0000
*ROTAT*        2.             0.00000 MR
910.886 FT                    -36.9032     0.0000   909.9128 FT      -76.200     0.000     0.000 MR
                               0.760 CM     0.887 MR     2.148 CM     2.631 MR     0.028 CM     2.000 PC     0.972     1.000
                               1.6109   0.7153   0.5874   0.8816      3.1446   2.0892   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.             6.81000 FT
917.696 FT                    -37.4216     0.0000   916.7031 FT      -76.200     0.000     0.000 MR
                               0.940 CM     0.887 MR     2.694 CM     2.631 MR     0.028 CM     2.000 PC     0.982     1.020
                               1.7329   0.8983   0.5874   0.8816      3.8497   2.6236   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.     "V6  "   2.50000 FT
920.196 FT                    -37.6120     0.0000   919.1958 FT      -76.200     0.000     0.000 MR
                               1.006 CM     0.887 MR     2.895 CM     2.631 MR     0.028 CM     2.000 PC     0.984     1.020
                               1.7776   0.9655   0.5874   0.8816      4.1086   2.8198   3.3970   2.5748     0.0000     0.0000
*DRIFT*        3.     "PAR "  86.45800 FT
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1006.654 FT                    -44.1937     0.0000  1005.4029 FT      -76.200      0.000      0.000 MR
                                3.331 CM     0.887 MR     9.827 CM      2.631 MR     0.028 CM     2.000 PC      0.999    1.000
                                3.3255   3.2887   0.5874   0.8816      13.0605   9.6052   3.3970   2.5748      0.0000   0.0000
*QUAD*          5.     "Q15 "  10.00000 FT       -4.26383 KG       2.54000 CM   (  -83.91022 FT  )
1016.654 FT                    -44.9549     0.0000  1015.3739 FT      -76.200      0.000      0.000 MR
                                3.803 CM     2.240 MR    10.045 CM      1.217 MR     0.028 CM     2.000 PC      1.000   -1.000
                                3.7043   3.7567   1.9223   2.2195      13.3200   9.8189  -1.7110  -1.1862      0.0000   0.0000
*DRIFT*         3.     "D10 "   4.62000 FT
1021.274 FT                    -45.3066     0.0000  1019.9805 FT      -76.200      0.000      0.000 MR
                                4.118 CM     2.240 MR     9.873 CM      1.217 MR     0.028 CM     2.000 PC      1.000   -1.000
                                3.9750   4.0693   1.9223   2.2195      13.0790   9.6518  -1.7110  -1.1862      0.0000   0.0000
*QUAD*          5.     "Q16 "  10.00000 FT       -4.26383 KG       2.54000 CM   (  -83.91022 FT  )
1031.274 FT                    -46.0679     0.0000  1029.9515 FT      -76.200      0.000      0.000 MR
                                5.057 CM     3.983 MR     8.938 CM      4.859 MR     0.028 CM     2.000 PC      1.000   -1.000
                                4.8070   4.9992   3.5900   3.9415      11.8106   8.7387  -6.5304  -4.7472      0.0000   0.0000
*DRIFT*         3.     "D11 "   1.54000 FT
1032.814 FT                    -46.1851     0.0000  1031.4870 FT      -76.200      0.000      0.000 MR
                                5.244 CM     3.983 MR     8.710 CM      4.859 MR     0.028 CM     2.000 PC      1.000   -1.000
                                4.9755   5.1842   3.5900   3.9415      11.5041   8.5159  -6.5304  -4.7472      0.0000   0.0000
*QUAD*          5.     "Q17 "  10.00000 FT        3.55423 KG       2.54000 CM   (  104.32114 FT  )
1042.814 FT                    -46.9464     0.0000  1041.4580 FT      -76.200      0.000      0.000 MR
                                6.185 CM     2.141 MR     7.633 CM      2.268 MR     0.028 CM     2.000 PC      1.000   -1.000
                                5.8117   6.1156   1.8517   2.1207      10.0462   7.4635  -3.1137  -2.2137      0.0000   0.0000
*DRIFT*         3.     "D12 "   4.66600 FT
1047.480 FT                    -47.3016     0.0000  1046.1105 FT      -76.200      0.000      0.000 MR
                                6.490 CM     2.141 MR     7.310 CM      2.268 MR     0.028 CM     2.000 PC      1.000   -1.000
                                6.0750   6.4172   1.8517   2.1207       9.6033   7.1487  -3.1137  -2.2137      0.0000   0.0000
*QUAD*          5.     "Q18 "  10.00000 FT        3.55423 KG       2.54000 CM   (  104.32114 FT  )
1057.480 FT                    -48.0628     0.0000  1056.0815 FT      -76.200      0.000      0.000 MR
                                6.818 CM     0.024 MR     6.966 CM      0.023 MR     0.028 CM     2.000 PC     -0.148   -0.208
                                6.3367   6.7431  -0.1483   0.0000       9.1104   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.      3.33000 FT
1060.810 FT                    -48.3163     0.0000  1059.4018 FT      -76.200      0.000      0.000 MR
                                6.818 CM     0.024 MR     6.966 CM      0.023 MR     0.028 CM     2.000 PC     -0.147   -0.208
                                6.3217   6.7431  -0.1483   0.0000       9.0955   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.     "PM3 "   0.00000 FT
1060.810 FT                    -48.3163     0.0000  1059.4018 FT      -76.200      0.000      0.000 MR
                                6.818 CM     0.024 MR     6.966 CM      0.023 MR     0.028 CM     2.000 PC     -0.147   -0.208
                                6.3217   6.7431  -0.1483   0.0000       9.0955   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.     "K1  "  53.00000 FT
1113.810 FT                    -52.3510     0.0000  1112.2480 FT      -76.200      0.000      0.000 MR
                                6.812 CM     0.024 MR     6.958 CM      0.023 MR     0.028 CM     2.000 PC     -0.142   -0.203
                                6.0821   6.7431  -0.1483   0.0000       8.8584   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.      3.14100 FT
1116.951 FT                    -52.5901     0.0000  1115.3799 FT      -76.200      0.000      0.000 MR
                                6.812 CM     0.024 MR     6.958 CM      0.023 MR     0.028 CM     2.000 PC     -0.142   -0.202
                                6.0679   6.7431  -0.1483   0.0000       8.8444   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.     "K2  "  53.00000 FT
1169.951 FT                    -56.6248     0.0000  1168.2261 FT      -76.200      0.000      0.000 MR
                                6.806 CM     0.024 MR     6.950 CM      0.023 MR     0.028 CM     2.000 PC     -0.136   -0.197
                                5.8284   6.7431  -0.1483   0.0000       8.6073   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.      3.43000 FT
1173.381 FT                    -56.8859     0.0000  1171.6462 FT      -76.200      0.000      0.000 MR
                                6.806 CM     0.024 MR     6.950 CM      0.023 MR     0.028 CM     2.000 PC     -0.136   -0.197
                                5.8129   6.7431  -0.1483   0.0000       8.5919   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.     "PM4 "   0.00000 FT
1173.381 FT                    -56.8859     0.0000  1171.6462 FT      -76.200      0.000      0.000 MR
                                6.806 CM     0.024 MR     6.950 CM      0.023 MR     0.028 CM     2.000 PC     -0.136   -0.197
                                5.8129   6.7431  -0.1483   0.0000       8.5919   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*DRIFT*         3.      3.80000 FT
```

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1177.181 FT                    -57.1752     0.0000  1175.4352 F        -76.200     0.000     0.000 MR
                                6.806 CM     0.024 MR     6.9[illegible] CM     0.023 MR     0.028 CM     2.000 PC     -0.1     -0.197
                                5.7957   6.7431  -0.1483   0.0000       8.5749   6.8140  -0.1468  -0.0000      0.0000   -0.0000
*QUAD*          5.     "019 "  10.00000 FT        2.82723 KG        2.54000 CM   (  130.70906 FT  )
 1187.181 FT                   -57.9364     0.0000  1185.4061 FT       -76.200     0.000     0.000 MR
                                6.543 CM     1.711 MR     7.219 CM     1.785 MR     0.028 CM     2.000 PC     -1.000    1.000
                                5.5279   6.4834  -1.5973  -1.6925       8.8641   7.0798   2.0562   1.7551      0.0000   -0.0000
*DRIFT*         3.              4.71000 FT
 1191.891 FT                   -58.2950     0.0000  1190.1025 FT       -76.200     0.000     0.000 MR
                                6.297 CM     1.711 MR     7.475 CM     1.785 MR     0.028 CM     2.000 PC     -1.000    1.000
                                5.2986   6.2405  -1.5973  -1.6925       9.1592   7.3317   2.0562   1.7551      0.0000   -0.0000
*QUAD*          5.     "020 "  10.00000 FT        2.82723 KG        2.54000 CM   (  130.70906 FT  )
 1201.891 FT                   -59.0562     0.0000  1200.0735 FT       -76.200     0.000     0.000 MR
                                5.540 CM     3.226 MR     8.318 CM     3.780 MR     0.028 CM     2.000 PC     -1.000    1.000
                                4.6140   5.4909  -2.8658  -3.1937      10.1513   8.1596   4.4955   3.7120      0.0000   -0.0000
*DRIFT*         3.              1.43700 FT
 1203.328 FT                   -59.1656     0.0000  1201.5063 FT       -76.200     0.000     0.000 MR
                                5.398 CM     3.226 MR     8.483 CM     3.780 MR     0.028 CM     2.000 PC     -1.000    1.000
                                4.4885   5.3511  -2.8658  -3.1937      10.3482   8.3222   4.4955   3.7120      0.0000   -0.0000
*QUAD*          5.     "021 "  10.00000 FT       -3.16247 KG        2.54000 CM   ( -113.69962 FT  )
 1213.328 FT                   -59.9269     0.0000  1211.4773 FT       -76.200     0.000     0.000 MR
                                4.637 CM     1.809 MR     9.254 CM     1.239 MR     0.028 CM     2.000 PC     -1.000    1.000
                                3.7983   4.5971  -1.6957  -1.7891      11.2534   9.0792   1.4011   1.2193      0.0000   -0.0000
*DRIFT*         3.              4.74000 FT
 1218.068 FT                   -60.2877     0.0000  1216.2035 FT       -76.200     0.000     0.000 MR
                                4.375 CM     1.809 MR     9.433 CM     1.239 MR     0.028 CM     2.000 PC     -1.000    1.000
                                3.5533   4.3386  -1.6957  -1.7891      11.4559   9.2553   1.4011   1.2193      0.0000   -0.0000
*QUAD*          5.     "022 "  10.00000 FT       -3.16247 KG        2.54000 CM   ( -113.69962 FT  )
 1228.068 FT                   -61.0490     0.0000  1226.1745 FT       -76.200     0.000     0.000 MR
                                4.007 CM     0.627 MR     9.399 CM     1.458 MR     0.028 CM     2.000 PC     -0.998   -1.000
                                3.1841   3.9748  -0.7445  -0.6153      11.3838   9.2233  -1.8706  -1.4278      0.0000   -0.0000
*DRIFT*         3.              2.18000 FT
 1230.248 FT                   -61.2150     0.0000  1228.3482 FT       -76.200     0.000     0.000 MR
                                3.965 CM     0.627 MR     9.302 CM     1.458 MR     0.028 CM     2.000 PC     -0.998   -1.000
                                3.1346   3.9339  -0.7445  -0.6153      11.2595   9.1284  -1.8706  -1.4278      0.0000   -0.0000
*DRIFT*         3.     "V7  "   2.50000 FT
 1232.748 FT                   -61.4053     0.0000  1230.8409 FT       -76.200     0.000     0.000 MR
                                3.918 CM     0.627 MR     9.191 CM     1.458 MR     0.028 CM     2.000 PC     -0.998   -1.000
                                3.0779   3.8871  -0.7445  -0.6153      11.1169   9.0196  -1.8706  -1.4278      0.0000   -0.0000
*DRIFT*         3.              1.40000 FT
 1234.148 FT                   -61.5118     0.0000  1232.2369 FT       -76.200     0.000     0.000 MR
                                3.891 CM     0.627 MR     9.129 CM     1.458 MR     0.028 CM     2.000 PC     -0.998   -1.000
                                3.0461   3.8608  -0.7445  -0.6153      11.0371   8.9587  -1.8706  -1.4278      0.0000   -0.0000
*DRIFT*         3.     "V8  "   2.50000 FT
 1236.648 FT                   -61.7022     0.0000  1234.7296 FT       -76.200     0.000     0.000 MR
                                3.843 CM     0.627 MR     9.018 CM     1.458 MR     0.028 CM     2.000 PC     -0.998   -1.000
                                2.9894   3.8139  -0.7445  -0.6153      10.8946   8.8499  -1.8706  -1.4278      0.0000   -0.0000
*DRIFT*         3.              6.26000 FT
 1242.908 FT                   -62.1787     0.0000  1240.9715 FT       -76.200     0.000     0.000 MR
                                3.724 CM     0.627 MR     8.740 CM     1.458 MR     0.028 CM     2.000 PC     -0.998   -1.000
                                2.8473   3.6965  -0.7445  -0.6153      10.5376   8.5775  -1.8706  -1.4278      0.0000   -0.0000
*DRIFT*         3.     "K3  "  94.79600 FT
 1337.704 FT                   -69.3951     0.0000  1335.4924 FT       -76.200     0.000     0.000 MR
                                1.922 CM     0.627 MR     4.526 CM     1.458 MR     0.028 CM     2.000 PC     -0.991   -1.000
                                0.6962   1.9187  -0.7445  -0.6153       5.1326   4.4521  -1.8706  -1.4278      0.0000   -0.0000
*DRIFT*         3.             102.32300 FT
 1440.027 FT                   -77.1830     0.0000  1437.4985 FT       -76.200     0.000     0.000 MR
                                0.258 CM     0.627 MR     0.111 CM     1.458 MR     0.028 CM     2.000 PC      0.189    0.204
                               -1.6252   0.0000  -0.7445  -0.6153      -0.7004  -0.0000  -1.8706  -1.4278     -0.0000   -0.0000
DRIFT*          3.     "3F  "   0.00000 FT
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1440.007 FT                    -77.1830     0.0000  1437.4985 FT      -76.200     0.000     0.000 MR
                                0.258 CM     0.627 MR     0.111 CM     1.458 MR     0.028 CM     2.000 PC      0.189    0.204
                               -1.6252   0.0000  -0.7445  -0.6153      -0.7004  -0.0000  -1.8706  -1.4278      -0.0000  -0.0000
*DRIFT*        3.     "PM5 "   0.00000 FT
 1440.007 FT                   -77.1830     0.0000  1437.4985 FT      -76.200     0.000     0.000 MR
                                0.258 CM     0.627 MR     0.111 CM     1.458 MR     0.028 CM     2.000 PC      0.189    0.204
                               -1.6252   0.0000  -0.7445  -0.6153      -0.7004  -0.0000  -1.8706  -1.4278      -0.0000  -0.0000

*LENGTH*       1440.00664 FT
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TTTTTTTTTTTTTT      FFFFFFFFFFFFFFF      444      444          000000000
TTTTTTTTTTTT        FFFFFFFFFFFFFFF      444      444          000000          000000000        LLL
TTTTTTTTTTTT        FFFFFFFFFFFFFFF      444      444          000000          000000000        LLL
     TTT            FFF                  444      444      000         000     000         000  LLL
     TTT            FFF                  444      444      000         000     000         000  LLL
     TTT            FFF                  444      444      000         000     000         000  LLL
     TTT            FFF                  444      444      000      000000     000      000000  LLL
     TTT            FFF                  444      444      000      000000     000      000000  LLL
     TTT            FFF                  444      444      000      000000     000      000000  LLL
     TTT            FFFFFFFFFFFF         444444444444444   000   000   000     000   000   000  LLL
     TTT            FFFFFFFFFFFF         444444444444444   000   000   000     000   000   000  LLL
     TTT            FFFFFFFFFFFF         444444444444444   000   000   000     000   000   000  LLL
     TTT            FFF                           444      000000      000     000000      000  LLL
     TTT            FFF                           444      000000      000     000000      000  LLL
     TTT            FFF                           444      000000      000     000000      000  LLL
     TTT            FFF                           444      000         000     000         000  LLL
     TTT            FFF                           444      000         000     000         000  LLL
     TTT            FFF                           444      000         000     000         000  LLL
     TTT            FFF                           444          000000000           000000000        LLLLLLLLLLLLLLL
     TTT            FFF                           444          000000000           000000000        LLLLLLLLLLLLLLL
     TTT            FFF                           444          000000000           000000000        LLLLLLLLLLLLLLL

DDDDDDDDDDDD            AAAAAAAAA         TTTTTTTTTTTTTTT
DDDDDDDDDDDD            AAAAAAAAA         TTTTTTTTTTTTTTT
DDDDDDDDDDDD            AAAAAAAAA         TTTTTTTTTTTTTTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAAAAAAAAAAAAAA           TTT
DDD         DDD     AAAAAAAAAAAAAAA           TTT
DDD         DDD     AAAAAAAAAAAAAAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDD         DDD     AAA         AAA           TTT
DDDDDDDDDDDD        AAA         AAA           TTT
DDDDDDDDDDDD        AAA         AAA           TTT
DDDDDDDDDDDD        AAA         AAA           TTT

LPTSPL VERSION 6(344)  RUNNING ON LPT000
 *START* USER ECKLUND,S. [105,711] JOB  TF400W SEQ. 26126 DATE 03-MAY-77 22:22:34 MONITOR FERMILAB 602.1 *START*
REQUEST CREATED: 03-MAY-77  22:19:02
FILE: DSKC0:TF400L.DAT[105,711] CREATED: 29-APR-77 15:52:00 <155>  PRINTED: 03-MAY-77 22:25:14
QUEUE SWITCHES:  /PRINT:ARROW /FILE:FORT /COPIES:1 /SPACING:1 /LIMIT:370 /FORMS:NORMAL
FILE WILL BE RENAMED TO <055> PROTECTION
```


TM-743
2833

```
"400 GEV M1W LONG K1

  2
 15.                    8.00000   "FT  "        0.30480 ;
 15.                    7.00000   "MR  "        0.05730 ;
 13.                   19.00000;
 13.                    3.00000;
 13.                    6.00000;
 13.                   12.00000;
 -13.          "POFF"  18.00000;
  1.000000              0.15900    1.00000     0.15900     1.00000     0.00000     2.00000   400.00000;
 16.00                 19.00000   -3.00000;
  3.0          "0F  "   0.00000;
  3.0                  16.50000;
  3.0          "C2  "   8.50000;
  3.0                   1.50000;
  3.0          "C3  "   8.50000;
  3.0                   1.50000;
  3.0          "C4  "   8.50000;
  3.0                   0.10000;
  3.0          "OIK0"   0.00000;
  3.0                   6.30000;
  5.00         "Q1  "  10.00000   -3.11122     2.54000;
  3.0                   1.06300;
  5.00         "Q2  "  10.00000   -3.11122     2.54000;
  3.0                   1.07200;
  5.00         "Q3  "  10.00000   -3.11122     2.54000;
  3.0                   1.32000;
  2.0                   1.33367;
  4.000        "R1  "  10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.24000;
  2.0                   1.33367;
  4.000        "R2  "  10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.32500;
  5.00         "Q4  "  10.00000    3.51124     2.54000;
  3.0                   1.07500;
  5.00         "Q5  "  10.00000    3.51124     2.54000;
  3.0                   1.34400;
  2.0                   1.33367;
  4.000        "R3  "  10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.20800;
  2.0                   1.33367;
  4.000        "R4  "  10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.22200;
  2.0                   1.33367;
  4.000        "R5  "  10.25000   11.39147     0.00000;
  2.0                   1.33367;
  3.0                   1.34000;
  3.0                   0.29100;
  3.0          "C3H "   6.00000;
  3.0                   0.29200;
  3.0                   1.35800;
  2.0                   3.88016;
  4.000        "R6  "  19.91667   17.05637     0.00000;
```

```
2.0                     3.88016;
3.0                     1.33700;
2.0                     3.88016;
4.000        "R7  "    19.91667    17.05637     0.00000;
2.0                     3.88016;
3.0                     1.34200;
2.0                     3.88016;
4.000        "R8  "    19.91667    17.05637     0.00000;
2.0                     3.88016;
3.0                     1.82000;
5.00         "D6  "     5.00000     3.00000     2.54000;
3.0                     1.59900;
3.0          "V1  "     2.50000;
3.0                     1.41900;
3.0                     0.22900;
3.0          "C4V "     6.00000;
3.0                     0.22900;
3.0                     2.40300;
5.00         "D7  "    10.00000    -4.70903     2.54000;
3.0                     2.62500;
3.0          "DIK1"     0.00000;
3.0                    94.07600;
3.0          "DIK2"     0.00000;
3.0                     7.26000;
3.0                     0.11500;
3.0          "RSI "     3.00000;
3.0                     0.11500;
3.0                    26.71800;
5.00         "D8  "     7.00000     4.54085     2.54000;
3.0                     4.22000;
5.00         "D9  "     4.33300     0.00000     2.54000;
3.0                     1.41000;
5.00         "D10 "     4.33300     0.00000     2.54000;
3.0                     6.25000;
3.0          "V3  "     2.50000;
3.0                    10.46900;
3.0                     0.29200;
3.0          "C5H "     4.00000;
3.0                     0.29300;
3.0                     0.83000;
3.0                     0.23000;
3.0          "C6V "     4.00000;
3.0                     0.23000;
3.0                     0.96000;
3.0          "IF  "     0.00000;
-10.         "IF12"    -1.00000     2.00000     0.00000     0.00010;
-10.         "IF34"    -3.00000     4.00000     0.00000     0.00010;
3.0          "PM1 "     0.00000;
3.0          "IC1 "     0.00000;
3.0                     3.51500;
3.0          "DIK3"     0.00000;
3.0                   195.15800;
3.0          "DIK4"     0.00000;
3.0                     5.01000;
3.0                     0.23000;
3.0          "C7V "     4.00000;
3.0                     0.23000;
3.0                     1.50000;
3.0          "C7H "     2.50000;
3.0                     1.50000;
```

```
 3.0          "ñ1K  "     2.50000;
 3.0                      2.49000;
 2.0                      4.57275;
 4.000        "R9  "     19.91667    20.10081     0.00000;
 2.0                      4.57275;
 3.0                      1.29000;
 2.0                      4.57275;
 4.000        "R10 "     19.91667    20.10081     0.00000;
 2.0                      4.57275;
 3.0                      1.31000;
 2.0                      4.57275;
 4.000        "R11 "     19.91667    20.10081     0.00000;
 2.0                      4.57275;
 3.0                      1.36000;
 2.0                      4.57275;
 4.000        "R12 "     19.91667    20.10081     0.00000;
 2.0                      4.57275;
 3.0                      3.01000;
 5.00         "ñ11 "     10.00000     5.05987     2.54000;
 3.0                      1.50000;
 5.00         "ñ12 "     10.00000     5.05987     2.54000;
 3.0                      1.50000;
 5.00         "ñ13A"      5.00000    -4.91839     2.54000;
 3.0                      1.50000;
 5.00         "ñ13 "     10.00000    -4.91839     2.54000;
 3.0                      1.50000;
 5.00         "ñ14 "     10.00000    -4.91839     2.54000;
 3.0                      2.72000;
 3.0          "ñIK5"      0.00000;
 3.0                     72.20900;
 3.0          "ñIK6"      0.00000;
 3.0                      1.38000;
 3.0          "ÞF  "      0.00000;
-10.          "ÞF12"     -1.00000     2.00000     0.00000     0.00010;
-10.          "ÞF34"     -3.00000     4.00000     0.00000     0.00010;
 3.0          "ÞM2 "      0.00000;
 3.0                      0.72000;
 3.0          "ñ8H "      4.00000;
 3.0                      0.90000;
 3.0          "IC2 "      0.00000;
 3.0                      1.00000;
 2.0                      0.00000;
 4.000        "R13 "     20.00000     0.00000     0.00000;
 2.0                      0.00000;
-10.          "ÞF16"     -1.00000     6.00000     0.00000     0.00010;
-10.          "ÞF26"     -2.00000     6.00000     0.00000     0.00010;
 3.0                      6.81000;
 3.0          "V6  "      2.50000;
 3.0          "ÞAR "     36.45800;
 5.00         "ñ15 "     10.00000    -5.15429     2.54000;
 3.0          "ñ10 "      1.50000;
 5.00         "ñ16 "     10.00000    -5.15429     2.54000;
 3.0          "ñ11 "      7.82600;
 5.00         "ñ17 "     10.00000     3.77344     2.54000;
 3.0          "ñ12 "      1.50000;
 5.00         "ñ18 "     10.00000     3.77344     2.54000;
 3.0                      3.33000;
 3.0          "ÞM3 "      0.00000;
-10.          "ÞF22"     -2.00000     2.00000     0.00000     0.00010;
-10.          "ÞF44"     -4.00000     4.00000     0.00000     0.00010;
```

```
   3.0          "K1  "    103.00000;
   3.0                      3.14100;
   3.0          "K2  "     53.00000;
   3.0                      3.43000;
   3.0          "PM4 "      0.00000;
   3.0                      3.80000;
*  5.00         "n19 "     10.00000     2.82723     2.54000;
   3.0                      4.71000;
*  5.00         "n20 "     10.00000     2.82723     2.54000;
   3.0                      1.43700;
*  5.00         "n21 "     10.00000    -3.16247     2.54000;
   3.0                      4.74200;
*  5.00         "n22 "     10.00000    -3.16247     2.54000;
   3.0                      2.18000;
   3.0          "V7  "      2.50000;
   3.0                      1.40000;
   3.0          "V8  "      2.50000;
   3.0                      6.26000;
   3.0          "K3  "     94.79600;
   3.0                    102.30300;
   3.0          "3F  "      0.00000;
 -10.           "3F12"     -1.00000     2.00000     0.00000     0.00010;
 -10.           "3F34"     -3.00000     4.00000     0.00000     0.00010;
   3.0          "PM5 "      0.00000;
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SENTINEL

400 GEV M1W LONG K1

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                                  R11       R12       R21       R22       R33       R34       R43       R44       R16       R26
*BEAM*          1.              400.00000 GEV
    0.000 FT                     0.0000    0.0000    0.0000 FT   0.000     0.000     0.000 MR
                                 0.159 CM  1.000 MR  0.159 CM    1.000 MR  0.000 CM  2.000 PC  0.000     0.000
*THETA0*        16.             19.   -0.30000E+01
*DRIFT*         3.      "0F  "  0.00000 FT
    0.000 FT                     0.0000    0.0000    0.0000 FT  -3.000     0.000     0.000 MR
                                 0.159 CM  1.000 MR  0.159 CM    1.000 MR  0.000 CM  2.000 PC  0.000     0.000
                                 1.0000    0.0000    0.0000    1.0000    1.0000    0.0000    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.              16.50000 FT
    16.500 FT                   -0.0495    0.0000   16.4999 FT  -3.000     0.000     0.000 MR
                                 0.527 CM  1.000 MR  0.527 CM    1.000 MR  0.000 CM  2.000 PC  0.953     0.953
                                 1.0000    0.5029    0.0000    1.0000    1.0000    0.5029    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C2  "  8.50000 FT
    25.000 FT                   -0.0750    0.0000   24.9999 FT  -3.000     0.000     0.000 MR
                                 0.778 CM  1.000 MR  0.778 CM    1.000 MR  0.000 CM  2.000 PC  0.979     0.979
                                 1.0000    0.7620    0.0000    1.0000    1.0000    0.7620    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.              1.50000 FT
    26.500 FT                   -0.0795    0.0000   26.4999 FT  -3.000     0.000     0.000 MR
                                 0.823 CM  1.000 MR  0.823 CM    1.000 MR  0.000 CM  2.000 PC  0.981     0.981
                                 1.0000    0.8077    0.0000    1.0000    1.0000    0.8077    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C3  "  8.50000 FT
    35.000 FT                   -0.1050    0.0000   34.9998 FT  -3.000     0.000     0.000 MR
                                 1.079 CM  1.000 MR  1.079 CM    1.000 MR  0.000 CM  2.000 PC  0.989     0.989
                                 1.0000    1.0668    0.0000    1.0000    1.0000    1.0668    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.              1.50000 FT
    36.500 FT                   -0.1095    0.0000   36.4998 FT  -3.000     0.000     0.000 MR
                                 1.124 CM  1.000 MR  1.124 CM    1.000 MR  0.000 CM  2.000 PC  0.990     0.990
                                 1.0000    1.1125    0.0000    1.0000    1.0000    1.1125    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "C4  "  8.50000 FT
    45.000 FT                   -0.1350    0.0000   44.9998 FT  -3.000     0.000     0.000 MR
                                 1.381 CM  1.000 MR  1.381 CM    1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                 1.0000    1.3716    0.0000    1.0000    1.0000    1.3716    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.              0.10000 FT
    45.100 FT                   -0.1353    0.0000   45.0998 FT  -3.000     0.000     0.000 MR
                                 1.384 CM  1.000 MR  1.384 CM    1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                 1.0000    1.3746    0.0000    1.0000    1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.      "DIK0"  0.00000 FT
    45.100 FT                   -0.1353    0.0000   45.0998 FT  -3.000     0.000     0.000 MR
                                 1.384 CM  1.000 MR  1.384 CM    1.000 MR  0.000 CM  2.000 PC  0.993     0.993
                                 1.0000    1.3746    0.0000    1.0000    1.0000    1.3746    0.0000    1.0000    0.0000    0.0000
*DRIFT*         3.              6.30000 FT
    51.400 FT                   -0.1542    0.0000   51.3998 FT  -3.000     0.000     0.000 MR
                                 1.575 CM  1.000 MR  1.575 CM    1.000 MR  0.000 CM  2.000 PC  0.995     0.995
                                 1.0000    1.5667    0.0000    1.0000    1.0000    1.5667    0.0000    1.0000    0.0000    0.0000
*QUAD*          5.      "Q1  "  10.00000 FT      -3.11122 KG      2.54000 CM   ( -115.59959 FT  )
    61.400 FT                   -0.1842    0.0000   61.3997 FT  -3.000     0.000     0.000 MR
                                 1.950 CM  1.488 MR  1.807 CM    0.527 MR  0.000 CM  2.000 PC  0.998     0.986
                                 1.0429    1.9431    0.2838    1.4876    0.9577    1.8008   -0.2759    0.5255    0.0000    0.0000
*DRIFT*         3.              1.06300 FT
    62.463 FT                   -0.1874    0.0000   62.4627 FT  -3.000     0.000     0.000 MR
                                 1.998 CM  1.488 MR  1.824 CM    0.527 MR  0.000 CM  2.000 PC  0.999     0.986
                                 1.0521    1.9913    0.2838    1.4876    0.9487    1.8178   -0.2759    0.5255    0.0000    0.0000
*QUAD*          5.      "Q2  "  10.00000 FT      -3.11122 KG      2.54000 CM   ( -115.59959 FT  )
    72.463 FT                   -0.2174    0.0000   72.4627 FT  -3.000     0.000     0.000 MR
                                 2.544 CM  2.119 MR  1.903 CM    0.084 MR  0.000 CM  2.000 PC  1.000    -0.048
                                 1.1851    2.5367    0.5946    2.1166    0.8257    1.8988   -0.5259    0.0018    0.0000    0.0000
*DRIFT*         3.              1.07200 FT
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73.535
                                -0.2206     0.0000    73.5347 FT        -3.000     0.000     0.000 MR
                                 2.613 CM     2.119 MR     1.90[illegible] M     0.084 MR     0.000 CM     2.000 PC      1.00[illegible]   -0.046
                                 1.2045   2.6059   0.5946   2.1166      0.8085   1.8988  -0.5259   0.0018      0.0000    0.0000
*QUAD*          5.     "Q3  "   10.00000 FT       -3.11122 KG        2.54000 CM   ( -115.59959 FT  )
  83.535 FT                     -0.2506     0.0000    83.5346 FT        -3.000     0.000     0.000 MR
                                 3.380 CM     2.951 MR     1.822 CM     0.535 MR     0.000 CM     2.000 PC      1.000    -0.987
                                 1.4401   3.3722   0.9620   2.9471      0.6162   1.8190  -0.7266  -0.5221      0.0000    0.0000
*DRIFT*         3.               1.32000 FT
  84.855 FT                     -0.2546     0.0000    84.8546 FT        -3.000     0.000     0.000 MR
                                 3.499 CM     2.951 MR     1.800 CM     0.535 MR     0.000 CM     2.000 PC      1.000    -0.986
                                 1.4788   3.4907   0.9620   2.9471      0.5870   1.7980  -0.7266  -0.5221      0.0000    0.0000
*ROTAT*         2.               1.33367 MR
  84.855 FT                     -0.2546     0.0000    84.8546 FT        -3.000     0.000     0.000 MR
                                 3.499 CM     2.951 MR     1.800 CM     0.535 MR     0.000 CM     2.000 PC      1.000    -0.986
                                 1.4788   3.4907   0.9620   2.9471      0.5870   1.7980  -0.7266  -0.5221      0.0000    0.0000
*BEND*          4.     "B1  "   10.25000 FT       11.39147 KG        0.00000   (  3842.767 FT  ,   2.667 MR  )
  95.105 FT                     -0.2990     0.0000    95.1045 FT        -5.667     0.000     0.000 MR
                                 4.421 CM     2.952 MR     1.636 CM     0.535 MR     0.011 CM     2.000 PC      1.000    -0.983
                                 1.7793   4.4115   0.9620   2.9471      0.3600   1.6348  -0.7266  -0.5221      0.0042    0.0267
*ROTAT*         2.               1.33367 MR
  95.105 FT                     -0.2990     0.0000    95.1045 FT        -5.667     0.000     0.000 MR
                                 4.421 CM     2.952 MR     1.636 CM     0.535 MR     0.011 CM     2.000 PC      1.000    -0.983
                                 1.7793   4.4115   0.9620   2.9471      0.3600   1.6348  -0.7267  -0.5221      0.0042    0.0267
*DRIFT*         3.               1.24000 FT
  96.345 FT                     -0.3060     0.0000    96.3445 FT        -5.667     0.000     0.000 MR
                                 4.532 CM     2.952 MR     1.616 CM     0.535 MR     0.011 CM     2.000 PC      1.000    -0.983
                                 1.8157   4.5228   0.9620   2.9471      0.3325   1.6151  -0.7267  -0.5221      0.0052    0.0267
*ROTAT*         2.               1.33367 MR
  96.345 FT                     -0.3060     0.0000    96.3445 FT        -5.667     0.000     0.000 MR
                                 4.532 CM     2.952 MR     1.616 CM     0.535 MR     0.011 CM     2.000 PC      1.000    -0.983
                                 1.8157   4.5228   0.9620   2.9472      0.3325   1.6151  -0.7267  -0.5222      0.0052    0.0267
*BEND*          4.     "B2  "   10.25000 FT       11.39147 KG        0.00000   (  3842.767 FT  ,   2.667 MR  )
 106.595 FT                     -0.3778     0.0000   106.5942 FT        -8.335     0.000     0.000 MR
                                 5.454 CM     2.953 MR     1.452 CM     0.535 MR     0.024 CM     2.000 PC      1.000    -0.979
                                 2.1162   5.4436   0.9620   2.9470      0.1055   1.4520  -0.7267  -0.5222      0.0177    0.0533
*ROTAT*         2.               1.33367 MR
 106.595 FT                     -0.3778     0.0000   106.5942 FT        -8.335     0.000     0.000 MR
                                 5.454 CM     2.953 MR     1.452 CM     0.535 MR     0.024 CM     2.000 PC      1.000    -0.979
                                 2.1162   5.4436   0.9620   2.9471      0.1055   1.4520  -0.7267  -0.5222      0.0177    0.0533
*DRIFT*         3.               1.32500 FT
 107.920 FT                     -0.3888     0.0000   107.9192 FT        -8.335     0.000     0.000 MR
                                 5.573 CM     2.953 MR     1.431 CM     0.535 MR     0.024 CM     2.000 PC      1.000    -0.978
                                 2.1551   5.5626   0.9620   2.9471      0.0761   1.4309  -0.7267  -0.5222      0.0198    0.0533
*QUAD*          5.     "Q4  "   10.00000 FT        3.51124 KG        2.54000 CM   (  105.57753 FT  )
 117.920 FT                     -0.4722     0.0000   117.9189 FT        -8.335     0.000     0.000 MR
                                 6.193 CM     1.082 MR     1.339 CM     0.147 MR     0.024 CM     2.000 PC      0.997    -0.988
                                 2.3407   6.1810   0.2464   1.0778     -0.1452   1.3386  -0.7375  -0.0884      0.0349    0.0446
*DRIFT*         3.               1.07500 FT
 118.995 FT                     -0.4811     0.0000   118.9938 FT        -8.335     0.000     0.000 MR
                                 6.228 CM     1.082 MR     1.336 CM     0.147 MR     0.024 CM     2.000 PC      0.997    -0.986
                                 2.3488   6.2163   0.2464   1.0778     -0.1694   1.3357  -0.7375  -0.0884      0.0363    0.0446
*QUAD*          5.     "Q5  "   10.00000 FT        3.51124 KG        2.54000 CM   (  105.57753 FT  )
 128.995 FT                     -0.5645     0.0000   128.9935 FT        -8.335     0.000     0.000 MR
                                 6.254 CM     0.911 MR     1.375 CM     0.361 MR     0.024 CM     2.000 PC     -0.996     0.947
                                 2.3105   6.2428  -0.4953  -0.9054     -0.4060   1.3731  -0.8276   0.3359      0.0480    0.0312
*DRIFT*         3.               1.34400 FT
 130.339 FT                     -0.5757     0.0000   130.3374 FT        -8.335     0.000     0.000 MR
                                 6.217 CM     0.911 MR     1.389 CM     0.361 MR     0.024 CM     2.000 PC     -0.996     0.945
                                 2.2903   6.2057  -0.4953  -0.9054     -0.4399   1.3869  -0.8276   0.3359      0.0493    0.0312
*ROTAT*         2.               1.33367 MR
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 130.339 FT                    -0.5757     0.0000   130.3374 FT      -8.335     0.000     0.000 MR
                                6.217 CM     0.911 MR     1.389 CM     0.361 MR     0.024 CM     2.000 PC     -0.996    0.948
                                2.2903   6.2057  -0.4952  -0.9053     -0.4399   1.3869  -0.8276   0.3359      0.0493   0.0312
*BEND*          4.     "B3  "  10.25000 FT       11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
 140.589 FT                    -0.6748     0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                                5.934 CM     0.916 MR     1.496 CM     0.361 MR     0.040 CM     2.000 PC     -0.989    0.956
                                2.1355   5.9228  -0.4953  -0.9054     -0.6985   1.4918  -0.8276   0.3359      0.0632   0.0579
*ROTAT*         2.              1.33367 MR
 140.589 FT                    -0.6748     0.0000   140.5869 FT     -11.002     0.000     0.000 MR
                                5.934 CM     0.916 MR     1.496 CM     0.361 MR     0.040 CM     2.000 PC     -0.989    0.956
                                2.1355   5.9228  -0.4953  -0.9054     -0.6985   1.4918  -0.8276   0.3359      0.0632   0.0579
*DRIFT*         3.              1.20800 FT
 141.797 FT                    -0.6881     0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                                5.901 CM     0.916 MR     1.509 CM     0.361 MR     0.040 CM     2.000 PC     -0.989    0.956
                                2.1173   5.8895  -0.4953  -0.9054     -0.7290   1.5042  -0.8276   0.3359      0.0653   0.0579
*ROTAT*         2.              1.33367 MR
 141.797 FT                    -0.6881     0.0000   141.7949 FT     -11.002     0.000     0.000 MR
                                5.901 CM     0.916 MR     1.509 CM     0.361 MR     0.040 CM     2.000 PC     -0.989    0.956
                                2.1173   5.8895  -0.4952  -0.9053     -0.7290   1.5042  -0.8276   0.3359      0.0653   0.0579
*BEND*          4.     "B4  "  10.25000 FT       11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
 152.047 FT                    -0.8145     0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                                5.618 CM     0.924 MR     1.617 CM     0.361 MR     0.055 CM     2.000 PC     -0.976    0.962
                                1.9626   5.6067  -0.4953  -0.9054     -0.9875   1.6091  -0.8276   0.3359      0.0876   0.0846
*ROTAT*         2.              1.33367 MR
 152.047 FT                    -0.8145     0.0000   152.0441 FT     -13.669     0.000     0.000 MR
                                5.618 CM     0.924 MR     1.617 CM     0.361 MR     0.055 CM     2.000 PC     -0.976    0.962
                                1.9626   5.6067  -0.4953  -0.9054     -0.9875   1.6091  -0.8276   0.3359      0.0876   0.0846
*DRIFT*         3.              1.22200 FT
 153.269 FT                    -0.8312     0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                                5.584 CM     0.924 MR     1.630 CM     0.361 MR     0.055 CM     2.000 PC     -0.976    0.963
                                1.9441   5.5729  -0.4953  -0.9054     -1.0183   1.6216  -0.8276   0.3359      0.0907   0.0846
*ROTAT*         2.              1.33367 MR
 153.269 FT                    -0.8312     0.0000   153.2660 FT     -13.669     0.000     0.000 MR
                                5.584 CM     0.924 MR     1.630 CM     0.361 MR     0.055 CM     2.000 PC     -0.976    0.963
                                1.9441   5.5729  -0.4952  -0.9053     -1.0183   1.6216  -0.8276   0.3359      0.0907   0.0846
*BEND*          4.     "B5  "  10.25000 FT       11.39147 KG        0.00000     (  3842.767 FT  ,   2.667 MR  )
 163.519 FT                    -0.9850     0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                                5.303 CM     0.936 MR     1.738 CM     0.361 MR     0.070 CM     2.000 PC     -0.959    0.967
                                1.7894   5.2901  -0.4953  -0.9054     -1.2769   1.7266  -0.8276   0.3359      0.1213   0.1112
*ROTAT*         2.              1.33367 MR
 163.519 FT                    -0.9850     0.0000   163.5148 FT     -16.337     0.000     0.000 MR
                                5.303 CM     0.936 MR     1.738 CM     0.361 MR     0.070 CM     2.000 PC     -0.959    0.967
                                1.7894   5.2901  -0.4953  -0.9054     -1.2769   1.7266  -0.8276   0.3358      0.1213   0.1112
*DRIFT*         3.              1.34000 FT
 164.859 FT                    -1.0069     0.0000   164.8546 FT     -16.337     0.000     0.000 MR
                                5.267 CM     0.936 MR     1.753 CM     0.361 MR     0.070 CM     2.000 PC     -0.958    0.968
                                1.7691   5.2531  -0.4953  -0.9054     -1.3107   1.7403  -0.8276   0.3358      0.1259   0.1112
*DRIFT*         3.              0.29100 FT
 165.150 FT                    -1.0116     0.0000   165.1456 FT     -16.337     0.000     0.000 MR
                                5.259 CM     0.936 MR     1.756 CM     0.361 MR     0.070 CM     2.000 PC     -0.958    0.968
                                1.7648   5.2451  -0.4953  -0.9054     -1.3180   1.7432  -0.8276   0.3358      0.1268   0.1112
*DRIFT*         3.     "C3H "   6.00000 FT
 171.150 FT                    -1.1096     0.0000   171.1448 FT     -16.337     0.000     0.000 MR
                                5.095 CM     0.936 MR     1.820 CM     0.361 MR     0.070 CM     2.000 PC     -0.955    0.970
                                1.6742   5.0795  -0.4953  -0.9054     -1.4694   1.8047  -0.8276   0.3358      0.1472   0.1112
*DRIFT*         3.              0.29200 FT
 171.442 FT                    -1.1144     0.0000   171.4368 FT     -16.337     0.000     0.000 MR
                                5.087 CM     0.936 MR     1.823 CM     0.361 MR     0.070 CM     2.000 PC     -0.955    0.970
                                1.6698   5.0714  -0.4953  -0.9054     -1.4767   1.8077  -0.8276   0.3358      0.1482   0.1112
*DRIFT*         3.              1.35800 FT
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172.800 FT                  -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                             5.050 CM     0.936 MR     1.8[illegible] CM     0.361 MR     0.070 CM     2.000 PC     -0.9[illegible]     0.971
                             1.6493   5.0340  -0.4953  -0.9054     -1.5110   1.8216  -0.8276   0.3358      0.1[illegible]     0.1112
*ROTAT*          2.         3.88016 MR
172.800 FT                  -1.1366     0.0000   172.7946 FT      -16.337     0.000     0.000 MR
                             5.050 CM     0.935 MR     1.837 CM     0.361 MR     0.070 CM     2.000 PC     -0.955     0.971
                             1.6493   5.0340  -0.4952  -0.9051     -1.5110   1.8216  -0.8275   0.3357      0.1528     0.1112
*BEND*           4.   "B6  "  19.91667 FT      17.05637 KG      0.00000     (  2566.476 FT  ,   7.760 MR  )
192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                             4.516 CM     0.984 MR     2.051 CM     0.361 MR     0.107 CM     2.000 PC     -0.876     0.977
                             1.3486   4.4844  -0.4953  -0.9056     -2.0133   2.0254  -0.8275   0.3357      0.2439     0.1888
*ROTAT*          2.         3.88016 MR
192.717 FT                  -1.5392     0.0000   192.7071 FT      -24.097     0.000     0.000 MR
                             4.516 CM     0.984 MR     2.051 CM     0.361 MR     0.107 CM     2.000 PC     -0.876     0.977
                             1.3486   4.4844  -0.4953  -0.9054     -2.0133   2.0254  -0.8274   0.3356      0.2439     0.1888
*DRIFT*          3.         1.33700 FT
194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                             4.481 CM     0.984 MR     2.065 CM     0.361 MR     0.107 CM     2.000 PC     -0.874     0.977
                             1.3284   4.4475  -0.4953  -0.9054     -2.0470   2.0390  -0.8274   0.3356      0.2516     0.1888
*ROTAT*          2.         3.88016 MR
194.054 FT                  -1.5714     0.0000   194.0437 FT      -24.097     0.000     0.000 MR
                             4.481 CM     0.984 MR     2.065 CM     0.360 MR     0.107 CM     2.000 PC     -0.874     0.977
                             1.3284   4.4475  -0.4952  -0.9051     -2.0470   2.0390  -0.8273   0.3355      0.2516     0.1888
*BEND*           4.   "B7  "  19.91667 FT      17.05637 KG      0.00000     (  2566.476 FT  ,   7.760 MR  )
213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                             3.978 CM     1.054 MR     2.279 CM     0.360 MR     0.140 CM     2.000 PC     -0.746     0.981
                             1.0278   3.8979  -0.4953  -0.9056     -2.5492   2.2427  -0.8273   0.3355      0.3897     0.2664
*ROTAT*          2.         3.88016 MR
213.970 FT                  -2.1286     0.0000   213.9526 FT      -31.857     0.000     0.000 MR
                             3.978 CM     1.053 MR     2.279 CM     0.360 MR     0.140 CM     2.000 PC     -0.746     0.981
                             1.0278   3.8979  -0.4953  -0.9054     -2.5492   2.2427  -0.8272   0.3354      0.3897     0.2664
*DRIFT*          3.         1.34200 FT
215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                             3.946 CM     1.053 MR     2.294 CM     0.360 MR     0.140 CM     2.000 PC     -0.741     0.981
                             1.0075   3.8608  -0.4953  -0.9054     -2.5831   2.2565  -0.8272   0.3354      0.4006     0.2664
*ROTAT*          2.         3.88016 MR
215.312 FT                  -2.1713     0.0000   215.2939 FT      -31.857     0.000     0.000 MR
                             3.946 CM     1.053 MR     2.294 CM     0.360 MR     0.140 CM     2.000 PC     -0.741     0.981
                             1.0075   3.8608  -0.4952  -0.9052     -2.5831   2.2565  -0.8270   0.3353      0.4006     0.2665
*BEND*           4.   "B8  "  19.91667 FT      17.05637 KG      0.00000     (  2566.476 FT  ,   7.760 MR  )
235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                             3.514 CM     1.140 MR     2.508 CM     0.360 MR     0.168 CM     2.000 PC     -0.549     0.984
                             0.7069   3.3112  -0.4953  -0.9055     -3.0851   2.4600  -0.8270   0.3353      0.5859     0.3440
*ROTAT*          2.         3.88016 MR
235.229 FT                  -2.8829     0.0000   235.1978 FT      -39.618     0.000     0.000 MR
                             3.514 CM     1.140 MR     2.508 CM     0.360 MR     0.168 CM     2.000 PC     -0.549     0.984
                             0.7069   3.3112  -0.4953  -0.9054     -3.0851   2.4600  -0.8269   0.3352      0.5859     0.3440
*DRIFT*          3.         1.82000 FT
237.049 FT                  -2.9550     0.0000   237.0163 FT      -39.618     0.000     0.000 MR
                             3.480 CM     1.140 MR     2.528 CM     0.360 MR     0.168 CM     2.000 PC     -0.537     0.985
                             0.6794   3.2610  -0.4953  -0.9054     -3.1310   2.4786  -0.8269   0.3352      0.6050     0.3440
*QUAD*           5.   "Q6  "  5.00000 FT       3.00000 KG       2.54000 CM    (  244.02839 FT  )
242.049 FT                  -3.1531     0.0000   242.0124 FT      -39.618     0.000     0.000 MR
                             3.355 CM     1.435 MR     2.608 CM     0.703 MR     0.168 CM     2.000 PC     -0.718     0.996
                             0.5972   3.0900  -0.5815  -1.3345     -3.2897   2.5554  -1.2592   0.6742      0.6511     0.2592
*DRIFT*          3.         1.59900 FT
243.648 FT                  -3.2164     0.0000   243.6102 FT      -39.618     0.000     0.000 MR
                             3.305 CM     1.435 MR     2.643 CM     0.703 MR     0.168 CM     2.000 PC     -0.708     0.996
                             0.5688   3.0250  -0.5815  -1.3345     -3.3511   2.5883  -1.2592   0.6742      0.6637     0.2592
*DRIFT*          3.   "V1  "  2.50000 FT
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246.148 FT                  -3.3154     0.0000   246.1086 FT      -39.618     0.000     0.000 MR
                             3.228 CM     1.435 MR     2.696 CM     0.703 MR     0.168 CM     2.000 PC      -0.691    0.996
                             0.5245   2.9233  -0.5815  -1.3345     -3.4470   2.6396  -1.2592   0.6742      0.6834   0.2592
*DRIFT*          3.          1.41900 FT
247.567 FT                  -3.3716     0.0000   247.5261 FT      -39.618     0.000     0.000 MR
                             3.186 CM     1.435 MR     2.726 CM     0.703 MR     0.168 CM     2.000 PC      -0.681    0.997
                             0.4994   2.8656  -0.5815  -1.3345     -3.5015   2.6688  -1.2592   0.6742      0.6947   0.2592
*DRIFT*          3.          0.22900 FT
247.796 FT                  -3.3807     0.0000   247.7549 FT      -39.618     0.000     0.000 MR
                             3.179 CM     1.435 MR     2.731 CM     0.703 MR     0.168 CM     2.000 PC      -0.679    0.997
                             0.4953   2.8563  -0.5815  -1.3345     -3.5103   2.6735  -1.2592   0.6742      0.6965   0.2592
*DRIFT*          3.   "C4V "  6.00000 FT
253.796 FT                  -3.6183     0.0000   253.7502 FT      -39.618     0.000     0.000 MR
                             3.007 CM     1.435 MR     2.859 CM     0.703 MR     0.168 CM     2.000 PC      -0.631    0.997
                             0.3890   2.6122  -0.5815  -1.3345     -3.7405   2.7968  -1.2592   0.6742      0.7439   0.2592
*DRIFT*          3.          0.22900 FT
254.025 FT                  -3.6274     0.0000   253.9790 FT      -39.618     0.000     0.000 MR
                             3.001 CM     1.435 MR     2.864 CM     0.703 MR     0.168 CM     2.000 PC      -0.629    0.997
                             0.3849   2.6029  -0.5815  -1.3345     -3.7493   2.8015  -1.2592   0.6742      0.7457   0.2592
*DRIFT*          3.          2.40300 FT
256.428 FT                  -3.7226     0.0000   256.3801 FT      -39.618     0.000     0.000 MR
                             2.936 CM     1.435 MR     2.916 CM     0.703 MR     0.168 CM     2.000 PC      -0.607    0.997
                             0.3423   2.5052  -0.5815  -1.3345     -3.8416   2.8509  -1.2592   0.6742      0.7647   0.2592
*QUAD*           5.   "Q7  "  10.00000 FT      -4.70903 KG      2.54000 CM   (  -75.82406 FT  )
266.428 FT                  -4.1186     0.0000   266.3723 FT      -39.618     0.000     0.000 MR
                             2.878 CM     1.262 MR     2.939 CM     0.554 MR     0.168 CM     2.000 PC       0.388   -0.995
                             0.1836   2.2530  -0.4713  -0.3376     -3.9719   2.8699   0.4134  -0.5505      0.8952   0.6069
*DRIFT*          3.          2.62500 FT
269.053 FT                  -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                             2.919 CM     1.262 MR     2.894 CM     0.554 MR     0.168 CM     2.000 PC       0.418   -0.995
                             0.1459   2.2260  -0.4713  -0.3376     -3.9388   2.8259   0.4134  -0.5505      0.9438   0.6069
*DRIFT*          3.   "DIK1"  0.00000 FT
269.053 FT                  -4.2226     0.0000   268.9952 FT      -39.618     0.000     0.000 MR
                             2.919 CM     1.262 MR     2.894 CM     0.554 MR     0.168 CM     2.000 PC       0.418   -0.995
                             0.1459   2.2260  -0.4713  -0.3376     -3.9388   2.8259   0.4134  -0.5505      0.9438   0.6069
*DRIFT*          3.          94.07600 FT
363.129 FT                  -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                             5.517 CM     1.262 MR     1.322 CM     0.554 MR     0.168 CM     2.000 PC       0.877   -0.976
                            -1.2057   1.2580  -0.4713  -0.3376     -2.7535   1.2475   0.4134  -0.5505      2.6842   0.6069
*DRIFT*          3.   "DIK2"  0.00000 FT
363.129 FT                  -7.9487     0.0000   362.9974 FT      -39.618     0.000     0.000 MR
                             5.517 CM     1.262 MR     1.322 CM     0.554 MR     0.168 CM     2.000 PC       0.877   -0.976
                            -1.2057   1.2580  -0.4713  -0.3376     -2.7535   1.2475   0.4134  -0.5505      2.6842   0.6069
*DRIFT*          3.          7.26000 FT
370.389 FT                  -8.2363     0.0000   370.2517 FT      -39.618     0.000     0.000 MR
                             5.764 CM     1.262 MR     1.203 CM     0.554 MR     0.168 CM     2.000 PC       0.888   -0.971
                            -1.3100   1.1833  -0.4713  -0.3376     -2.6620   1.1257   0.4134  -0.5505      2.8185   0.6069
*DRIFT*          3.          0.11500 FT
370.504 FT                  -8.2408     0.0000   370.3666 FT      -39.618     0.000     0.000 MR
                             5.768 CM     1.262 MR     1.201 CM     0.554 MR     0.168 CM     2.000 PC       0.888   -0.971
                            -1.3117   1.1821  -0.4713  -0.3376     -2.6605   1.1237   0.4134  -0.5505      2.8206   0.6069
*DRIFT*          3.   "BS1 "  3.00000 FT
373.504 FT                  -8.3596     0.0000   373.3643 FT      -39.618     0.000     0.000 MR
                             5.870 CM     1.262 MR     1.152 CM     0.554 MR     0.168 CM     2.000 PC       0.892   -0.968
                            -1.3548   1.1512  -0.4713  -0.3376     -2.6227   1.0734   0.4134  -0.5505      2.8761   0.6069
*DRIFT*          3.          0.11500 FT
373.619 FT                  -8.3642     0.0000   373.4792 FT      -39.618     0.000     0.000 MR
                             5.874 CM     1.262 MR     1.150 CM     0.554 MR     0.168 CM     2.000 PC       0.8[illegible]   -0.968
                            -1.3564   1.1501  -0.4713  -0.[illegible]6     -2.6213   1.0715   0.4134  -0.5505      2.[illegible]   0.6069
*DRIFT*          3.          26.71800 FT
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400.337 FT                  -9.4224     0.0000   400.1762 FT      -39.618     0.000     0.000 MR
                             6.807 CM     1.262 MR     0.7[illegible] CM      0.554 MR     0.168 CM     2.000 PC      0.9[illegible]    -0.918
                            -1.7403   0.8751  -0.4713  -0.3376     -2.2846   0.6232   0.4134  -0.5505     3.3725    0.6069
*QUAD*          5.     "Q8  "   7.00000 FT        4.54085 KG      2.54000 CM   (  115.93953 FT  )
407.337 FT                  -9.6997     0.0000   407.1707 FT      -39.618     0.000     0.000 MR
                             6.847 CM     0.931 MR     0.636 CM      0.389 MR     0.168 CM     2.000 PC     -0.851    -0.766
                            -1.7870   0.7773   0.0354  -0.5750     -2.2656   0.5236  -0.2337  -0.3874     3.3984    -0.3658
*DRIFT*         3.          4.22000 FT
411.557 FT                  -9.8668     0.0000   411.3874 FT      -39.618     0.000     0.000 MR
                             6.745 CM     0.931 MR     0.598 CM      0.389 MR     0.168 CM     2.000 PC     -0.846    -0.730
                            -1.7825   0.7033   0.0354  -0.5750     -2.2956   0.4738  -0.2337  -0.3874     3.3513    -0.3658
*QUAD*          5.     "Q9  "   4.33300 FT        0.00000 KG      2.54000 CM   (    0.00000 FT  )
415.890 FT                 -10.0384     0.0000   415.7170 FT      -39.618     0.000     0.000 MR
                             6.642 CM     0.931 MR     0.562 CM      0.389 MR     0.168 CM     2.000 PC     -0.841    -0.686
                            -1.7778   0.6274   0.0354  -0.5750     -2.3265   0.4227  -0.2337  -0.3874     3.3030    -0.3658
*DRIFT*         3.          1.41000 FT
417.300 FT                 -10.0943     0.0000   417.1259 FT      -39.618     0.000     0.000 MR
                             6.608 CM     0.931 MR     0.550 CM      0.389 MR     0.168 CM     2.000 PC     -0.839    -0.670
                            -1.7763   0.6027   0.0354  -0.5750     -2.3366   0.4060  -0.2337  -0.3874     3.2873    -0.3658
*QUAD*          5.     "Q10 "   4.33300 FT        0.00000 KG      2.54000 CM   (    0.00000 FT  )
421.633 FT                 -10.2659     0.0000   421.4555 FT      -39.618     0.000     0.000 MR
                             6.505 CM     0.931 MR     0.517 CM      0.389 MR     0.168 CM     2.000 PC     -0.833    -0.613
                            -1.7716   0.5267   0.0354  -0.5750     -2.3674   0.3548  -0.2337  -0.3874     3.2389    -0.3658
*DRIFT*         3.          6.25000 FT
427.883 FT                 -10.5134     0.0000   427.7006 FT      -39.618     0.000     0.000 MR
                             6.358 CM     0.931 MR     0.475 CM      0.389 MR     0.168 CM     2.000 PC     -0.825    -0.511
                            -1.7648   0.4172   0.0354  -0.5750     -2.4119   0.2811  -0.2337  -0.3874     3.1693    -0.3658
*DRIFT*         3.     "V3  "   2.50000 FT
430.383 FT                 -10.6125     0.0000   430.1986 FT      -39.618     0.000     0.000 MR
                             6.300 CM     0.931 MR     0.461 CM      0.389 MR     0.168 CM     2.000 PC     -0.821    -0.463
                            -1.7621   0.3734   0.0354  -0.5750     -2.4298   0.2515  -0.2337  -0.3874     3.1414    -0.3658
*DRIFT*         3.          10.46900 FT
440.852 FT                 -11.0271     0.0000   440.6594 FT      -39.618     0.000     0.000 MR
                             6.059 CM     0.931 MR     0.418 CM      0.389 MR     0.168 CM     2.000 PC     -0.805    -0.214
                            -1.7508   0.1899   0.0354  -0.5750     -2.5043   0.1279  -0.2337  -0.3874     3.0247    -0.3658
*DRIFT*         3.          0.29200 FT
441.144 FT                 -11.0387     0.0000   440.9512 FT      -39.618     0.000     0.000 MR
                             6.052 CM     0.931 MR     0.418 CM      0.389 MR     0.168 CM     2.000 PC     -0.804    -0.206
                            -1.7505   0.1848   0.0354  -0.5750     -2.5064   0.1245  -0.2337  -0.3874     3.0214    -0.3658
*DRIFT*         3.     "C5H "   4.00000 FT
445.144 FT                 -11.1971     0.0000   444.9481 FT      -39.618     0.000     0.000 MR
                             5.961 CM     0.931 MR     0.410 CM      0.389 MR     0.168 CM     2.000 PC     -0.797    -0.094
                            -1.7462   0.1147   0.0354  -0.5750     -2.5349   0.0773  -0.2337  -0.3874     2.9768    -0.3658
*DRIFT*         3.          0.29300 FT
445.437 FT                 -11.2087     0.0000   445.2408 FT      -39.618     0.000     0.000 MR
                             5.955 CM     0.931 MR     0.410 CM      0.389 MR     0.168 CM     2.000 PC     -0.797    -0.085
                            -1.7459   0.1095   0.0354  -0.5750     -2.5370   0.0738  -0.2337  -0.3874     2.9735    -0.3658
*DRIFT*         3.          0.83000 FT
446.267 FT                 -11.2416     0.0000   446.0702 FT      -39.618     0.000     0.000 MR
                             5.936 CM     0.931 MR     0.409 CM      0.389 MR     0.168 CM     2.000 PC     -0.795    -0.061
                            -1.7450   0.0950   0.0354  -0.5750     -2.5429   0.0640  -0.2337  -0.3874     2.9643    -0.3658
*DRIFT*         3.          0.23000 FT
446.497 FT                 -11.2507     0.0000   446.3000 FT      -39.618     0.000     0.000 MR
                             5.931 CM     0.931 MR     0.409 CM      0.389 MR     0.168 CM     2.000 PC     -0.795    -0.055
                            -1.7447   0.0910   0.0354  -0.5750     -2.5446   0.0613  -0.2337  -0.3874     2.9617    -0.3658
*DRIFT*         3.     "C6V "   4.00000 FT
450.497 FT                 -11.4091     0.0000   450.2969 FT      -39.618     0.000     0.000 MR
                             5.841 CM     0.931 MR     0.409 CM      0.389 MR     0.168 CM     2.000 PC     -0.788     0.061
                            -1.7404   0.0209   0.0354  -0.5750     -2.5731   0.0141  -0.2337  -0.3874     2.9171    -0.3658
*DRIFT*         3.          0.23000 FT
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450.727 FT                    -11.4182     0.0000   450.5267 FT      -39.618     0.000     0.000 MR
                               5.836 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC      -0.787     0.068
                              -1.7402   0.0168   0.0354  -0.5750      -2.5747   0.0113  -0.2337  -0.3874       2.9145  -0.3658
*DRIFT*          3.           0.96000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC      -0.786     0.095
                              -1.7391   0.0000   0.0354  -0.5750      -2.5815   0.0000  -0.2337  -0.3874       2.9038  -0.3658
*DRIFT*          3.     "1F  "0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC      -0.786     0.095
                              -1.7391   0.0000   0.0354  -0.5750      -2.5815   0.0000  -0.2337  -0.3874       2.9038  -0.3658
*DRIFT*          3.     "PM1 "0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC      -0.786     0.095
                              -1.7391   0.0000   0.0354  -0.5750      -2.5815   0.0000  -0.2337  -0.3874       2.9038  -0.3658
*DRIFT*          3.     "LC1 "0.00000 FT
451.687 FT                    -11.4563     0.0000   451.4859 FT      -39.618     0.000     0.000 MR
                               5.814 CM     0.931 MR     0.410 CM     0.389 MR     0.168 CM     2.000 PC      -0.786     0.095
                              -1.7391   0.0000   0.0354  -0.5750      -2.5815   0.0000  -0.2337  -0.3874       2.9038  -0.3658
*DRIFT*          3.           3.51500 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                               5.736 CM     0.931 MR     0.417 CM     0.389 MR     0.168 CM     2.000 PC      -0.779     0.194
                              -1.7353  -0.0616   0.0354  -0.5750      -2.6066  -0.0415  -0.2337  -0.3874       2.8646  -0.3658
*DRIFT*          3.     "DIK3"0.00000 FT
455.202 FT                    -11.5955     0.0000   454.9982 FT      -39.618     0.000     0.000 MR
                               5.736 CM     0.931 MR     0.417 CM     0.389 MR     0.168 CM     2.000 PC      -0.779     0.194
                              -1.7353  -0.0616   0.0354  -0.5750      -2.6066  -0.0415  -0.2337  -0.3874       2.8646  -0.3658
*DRIFT*          3.           195.15800 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                               3.752 CM     0.931 MR     2.430 CM     0.389 MR     0.168 CM     2.000 PC       0.284     0.986
                              -1.5247  -3.4819   0.0354  -0.5750      -3.9969  -2.3457  -0.2337  -0.3874       0.6886  -0.3658
*DRIFT*          3.     "DIK4"0.00000 FT
650.360 FT                    -19.3252     0.0000   650.0030 FT      -39.618     0.000     0.000 MR
                               3.752 CM     0.931 MR     2.430 CM     0.389 MR     0.168 CM     2.000 PC       0.284     0.986
                              -1.5247  -3.4819   0.0354  -0.5750      -3.9969  -2.3457  -0.2337  -0.3874       0.6886  -0.3658
*DRIFT*          3.           5.01000 FT
655.370 FT                    -19.5236     0.0000   655.0091 FT      -39.618     0.000     0.000 MR
                               3.795 CM     0.931 MR     2.489 CM     0.389 MR     0.168 CM     2.000 PC       0.319     0.986
                              -1.5193  -3.5697   0.0354  -0.5750      -4.0326  -2.4049  -0.2337  -0.3874       0.6327  -0.3658
*DRIFT*          3.           0.23000 FT
655.600 FT                    -19.5327     0.0000   655.2389 FT      -39.618     0.000     0.000 MR
                               3.797 CM     0.931 MR     2.492 CM     0.389 MR     0.168 CM     2.000 PC       0.320     0.986
                              -1.5191  -3.5738   0.0354  -0.5750      -4.0342  -2.4076  -0.2337  -0.3874       0.6302  -0.3658
*DRIFT*          3.     "C7V "4.00000 FT
659.600 FT                    -19.6911     0.0000   659.2358 FT      -39.618     0.000     0.000 MR
                               3.835 CM     0.931 MR     2.538 CM     0.389 MR     0.168 CM     2.000 PC       0.347     0.987
                              -1.5147  -3.6439   0.0354  -0.5750      -4.0627  -2.4548  -0.2337  -0.3874       0.5856  -0.3658
*DRIFT*          3.           0.23000 FT
659.830 FT                    -19.7002     0.0000   659.4656 FT      -39.618     0.000     0.000 MR
                               3.837 CM     0.931 MR     2.541 CM     0.389 MR     0.168 CM     2.000 PC       0.348     0.987
                              -1.5145  -3.6479   0.0354  -0.5750      -4.0644  -2.4575  -0.2337  -0.3874       0.5830  -0.3658
*DRIFT*          3.           1.50000 FT
661.330 FT                    -19.7597     0.0000   660.9644 FT      -39.618     0.000     0.000 MR
                               3.852 CM     0.931 MR     2.559 CM     0.389 MR     0.168 CM     2.000 PC       0.358     0.987
                              -1.5129  -3.6742   0.0354  -0.5750      -4.0751  -2.4752  -0.2337  -0.3874       0.5663  -0.3658
*DRIFT*          3.     "C7H "2.50000 FT
663.830 FT                    -19.8587     0.0000   663.4625 FT      -39.618     0.000     0.000 MR
                               3.878 CM     0.931 MR     2.588 CM     0.389 MR     0.168 CM     2.000 PC       0.374     0.987
                              -1.5102  -3.7180   0.0354  -0.5750      -4.0929  -2.5048  -0.2337  -0.3874       0.5384  -0.3658
*DRIFT*          3            1.50000 FT
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665.330 FT                    -19.9181     0.0000   664.9613 FT      -39.618     0.000     0.000 MR
                                3.894 CM     0.931 MR     2.6[illegible] CM     0.389 MR     0.168 CM     2.000 PC        0.3[illegible]     0.988
                               -1.5086  -3.7443   0.0354  -0.5750      -4.1035  -2.5225  -0.2337  -0.3874        0.52[illegible]  -0.3658
*DRIFT*          3.     "V5  "  2.50000 FT
667.830 FT                    -20.0171     0.0000   667.4593 FT      -39.618     0.000     0.000 MR
                                3.922 CM     0.931 MR     2.635 CM     0.389 MR     0.168 CM     2.000 PC        0.398     0.988
                               -1.5059  -3.7881   0.0354  -0.5750      -4.1214  -2.5520  -0.2337  -0.3874        0.4938  -0.3658
*DRIFT*          3.            2.49000 FT
670.320 FT                    -20.1157     0.0000   669.9474 FT      -39.618     0.000     0.000 MR
                                3.951 CM     0.931 MR     2.664 CM     0.389 MR     0.168 CM     2.000 PC        0.413     0.988
                               -1.5032  -3.8317   0.0354  -0.5750      -4.1391  -2.5814  -0.2337  -0.3874        0.4660  -0.3658
*ROTAT*          2.            4.57275 MR
670.320 FT                    -20.1157     0.0000   669.9474 FT      -39.618     0.000     0.000 MR
                                3.951 CM     0.931 MR     2.664 CM     0.389 MR     0.168 CM     2.000 PC        0.414     0.988
                               -1.5032  -3.8317   0.0353  -0.5753      -4.1391  -2.5814  -0.2334  -0.3872        0.4660  -0.3658
*BEND*           4.     "B9  "  19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,   9.145 MR  )
690.237 FT                    -20.9956     0.0000   689.8445 FT      -48.763     0.000     0.000 MR
                                4.223 CM     0.795 MR     2.898 CM     0.389 MR     0.133 CM     2.000 PC        0.627     0.990
                               -1.4817  -4.1808   0.0355  -0.5747      -4.2808  -2.8164  -0.2334  -0.3872        0.2717  -0.2744
*ROTAT*          2.            4.57275 MR
690.237 FT                    -20.9956     0.0000   689.8445 FT      -48.763     0.000     0.000 MR
                                4.223 CM     0.795 MR     2.898 CM     0.389 MR     0.133 CM     2.000 PC        0.627     0.990
                               -1.4817  -4.1808   0.0354  -0.5750      -4.2808  -2.8164  -0.2332  -0.3870        0.2717  -0.2744
*DRIFT*          3.            1.29000 FT
691.527 FT                    -21.0584     0.0000   691.1330 FT      -48.763     0.000     0.000 MR
                                4.242 CM     0.795 MR     2.913 CM     0.389 MR     0.133 CM     2.000 PC        0.631     0.990
                               -1.4803  -4.2034   0.0354  -0.5750      -4.2900  -2.8317  -0.2332  -0.3870        0.2609  -0.2744
*ROTAT*          2.            4.57275 MR
691.527 FT                    -21.0584     0.0000   691.1330 FT      -48.763     0.000     0.000 MR
                                4.242 CM     0.795 MR     2.913 CM     0.389 MR     0.133 CM     2.000 PC        0.632     0.990
                               -1.4803  -4.2034   0.0353  -0.5753      -4.2900  -2.8317  -0.2329  -0.3868        0.2609  -0.2743
*BEND*           4.     "B10 "  19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,   9.145 MR  )
711.443 FT                    -22.1202     0.0000   711.0213 FT      -57.909     0.000     0.000 MR
                                4.565 CM     0.681 MR     3.146 CM     0.389 MR     0.094 CM     2.000 PC        0.812     0.992
                               -1.4588  -4.5524   0.0355  -0.5747      -4.4313  -3.0665  -0.2329  -0.3868        0.1221  -0.1829
*ROTAT*          2.            4.57275 MR
711.443 FT                    -22.1202     0.0000   711.0213 FT      -57.909     0.000     0.000 MR
                                4.565 CM     0.682 MR     3.146 CM     0.388 MR     0.094 CM     2.000 PC        0.812     0.991
                               -1.4588  -4.5524   0.0354  -0.5750      -4.4313  -3.0665  -0.2326  -0.3866        0.1221  -0.1829
*DRIFT*          3.            1.31000 FT
712.753 FT                    -22.1960     0.0000   712.3291 FT      -57.909     0.000     0.000 MR
                                4.587 CM     0.682 MR     3.162 CM     0.388 MR     0.094 CM     2.000 PC        0.814     0.992
                               -1.4574  -4.5754   0.0354  -0.5750      -4.4406  -3.0819  -0.2326  -0.3866        0.1148  -0.1829
*ROTAT*          2.            4.57275 MR
712.753 FT                    -22.1960     0.0000   712.3291 FT      -57.909     0.000     0.000 MR
                                4.587 CM     0.682 MR     3.162 CM     0.388 MR     0.094 CM     2.000 PC        0.814     0.992
                               -1.4574  -4.5754   0.0353  -0.5753      -4.4406  -3.0819  -0.2322  -0.3864        0.1148  -0.1829
*BEND*           4.     "B11 "  19.91667 FT        20.10081 KG        0.00000      (  2177.761 FT  ,   9.145 MR  )
732.670 FT                    -23.4396     0.0000   732.2068 FT      -67.054     0.000     0.000 MR
                                4.930 CM     0.603 MR     3.396 CM     0.388 MR     0.055 CM     2.000 PC        0.947     0.993
                               -1.4359  -4.9245   0.0355  -0.5747      -4.5816  -3.3165  -0.2322  -0.3864        0.0315  -0.0915
*ROTAT*          2.            4.57275 MR
732.670 FT                    -23.4396     0.0000   732.2068 FT      -67.054     0.000     0.000 MR
                                4.930 CM     0.603 MR     3.396 CM     0.388 MR     0.055 CM     2.000 PC        0.947     0.993
                               -1.4359  -4.9245   0.0354  -0.5750      -4.5816  -3.3165  -0.2319  -0.3861        0.0315  -0.0915
*DRIFT*          3.            1.36000 FT
734.030 FT                    -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                                4.954 CM     0.603 MR     3.411 CM     0.388 MR     0.055 CM     2.000 PC        0.948     0.993
                               -1.4344  -4.9483   0.0354  -0.5750      -4.5912  -3.3325  -0.2319  -0.3861        0.0278  -0.0915
*ROTAT*          2.            4.57275 MR
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734.030 FT                  -23.5308     0.0000   733.5637 FT      -67.054     0.000     0.000 MR
                             4.954 CM     0.604 MR     3.411 CM     0.388 MR     0.055 CM     2.000 PC      0.948     0.993
                            -1.4344  -4.9483   0.0353  -0.5753      -4.5912  -3.3325  -0.2316  -0.3859      0.0278   -0.0915
*BEND*        4.     "B12 "  19.91667 FT       20.10081 KG        0.00000      (  2177.761 FT  ,   9.145 MR  )
753.947 FT                  -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                             5.302 CM     0.575 MR     3.645 CM     0.388 MR     0.028 CM     2.000 PC      0.999     0.994
                            -1.4129  -5.2973   0.0355  -0.5746      -4.7318  -3.5667  -0.2316  -0.3859     -0.0000   -0.0000
*ROTAT*       2.            4.57275 MR
753.947 FT                  -24.9561     0.0000   753.4293 FT      -76.200     0.000     0.000 MR
                             5.302 CM     0.575 MR     3.645 CM     0.387 MR     0.028 CM     2.000 PC      0.999     0.994
                            -1.4129  -5.2973   0.0354  -0.5750      -4.7318  -3.5667  -0.2313  -0.3857     -0.0000   -0.0000
*DRIFT*       3.            3.01000 FT
756.957 FT                  -25.1852     0.0000   756.4305 FT      -76.200     0.000     0.000 MR
                             5.355 CM     0.575 MR     3.681 CM     0.387 MR     0.028 CM     2.000 PC      0.999     0.994
                            -1.4097  -5.3501   0.0354  -0.5750      -4.7530  -3.6021  -0.2313  -0.3857     -0.0000   -0.0000
*QUAD*        5.     "Q11 "  10.00000 FT        5.05987 KG        2.54000 CM      (   73.78869 FT  )
766.957 FT                  -25.9465     0.0000   766.4015 FT      -76.200     0.000     0.000 MR
                             5.159 CM     1.846 MR     4.059 CM     2.126 MR     0.028 CM     2.000 PC     -1.000     1.000
                            -1.3025  -5.1546   0.6598   1.8432      -5.1587  -3.9751  -2.4609  -2.0901     -0.0000    0.0000
*DRIFT*       3.            1.50000 FT
768.457 FT                  -26.0607     0.0000   767.8972 FT      -76.200     0.000     0.000 MR
                             5.074 CM     1.846 MR     4.156 CM     2.126 MR     0.028 CM     2.000 PC     -1.000     1.000
                            -1.2723  -5.0703   0.6598   1.8432      -5.2712  -4.0707  -2.4609  -2.0901     -0.0000    0.0000
*QUAD*        5.     "Q12 "  10.00000 FT        5.05987 KG        2.54000 CM      (   73.78869 FT  )
778.457 FT                  -26.8220     0.0000   777.8681 FT      -76.200     0.000     0.000 MR
                             4.177 CM     3.976 MR     5.111 CM     4.211 MR     0.028 CM     2.000 PC     -1.000     1.000
                            -0.9886  -4.1738   1.1802   3.9712      -6.4085  -5.0082  -5.0881  -4.1323     -0.0000    0.0000
*DRIFT*       3.            1.50000 FT
779.957 FT                  -26.9361     0.0000   779.3638 FT      -76.200     0.000     0.000 MR
                             3.995 CM     3.976 MR     5.303 CM     4.211 MR     0.028 CM     2.000 PC     -1.000     1.000
                            -0.9347  -3.9922   1.1802   3.9712      -6.6411  -5.1971  -5.0881  -4.1323     -0.0000    0.0000
*QUAD*        5.     "Q13A"  5.00000 FT       -4.91839 KG        2.54000 CM      ( -147.50694 FT  )
784.957 FT                  -27.3168     0.0000   784.3493 FT      -76.200     0.000     0.000 MR
                             3.453 CM     3.154 MR     5.852 CM     2.974 MR     0.028 CM     2.000 PC     -1.000     1.000
                            -0.7696  -3.4511   0.9923   3.1504      -7.3006  -5.7360  -3.5420  -2.9199     -0.0000    0.0000
*DRIFT*       3.            1.50000 FT
786.457 FT                  -27.4310     0.0000   785.8449 FT      -76.200     0.000     0.000 MR
                             3.309 CM     3.154 MR     5.988 CM     2.974 MR     0.028 CM     2.000 PC     -1.000     1.000
                            -0.7242  -3.3070   0.9923   3.1504      -7.4625  -5.8695  -3.5420  -2.9199     -0.0000    0.0000
*QUAD*        5.     "Q13 "  10.00000 FT       -4.91839 KG        2.54000 CM      (  -72.52768 FT  )
796.457 FT                  -28.1922     0.0000   795.8159 FT      -76.200     0.000     0.000 MR
                             2.552 CM     1.873 MR     6.475 CM     0.187 MR     0.028 CM     2.000 PC     -0.999     0.991
                            -0.4643  -2.5505   0.7323   1.8692      -8.0206  -6.3484  -0.0785  -0.1868     -0.0000    0.0000
*DRIFT*       3.            1.50000 FT
797.957 FT                  -28.3064     0.0000   797.3116 FT      -76.200     0.000     0.000 MR
                             2.466 CM     1.873 MR     6.484 CM     0.187 MR     0.028 CM     2.000 PC     -0.999     0.991
                            -0.4308  -2.4650   0.7323   1.8692      -8.0242  -6.3569  -0.0785  -0.1868     -0.0000    0.0000
*QUAD*        5.     "Q14 "  10.00000 FT       -4.91839 KG        2.54000 CM      (  -72.52768 FT  )
807.957 FT                  -29.0677     0.0000   807.2825 FT      -76.200     0.000     0.000 MR
                             2.051 CM     0.887 MR     6.107 CM     2.631 MR     0.028 CM     2.000 PC     -0.996    -1.000
                            -0.2319  -2.0505   0.5874   0.8816      -7.5127  -5.9888   3.3970   2.5748     -0.0000    0.0000
*DRIFT*       3.            2.72000 FT
810.677 FT                  -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                             1.978 CM     0.887 MR     5.889 CM     2.631 MR     0.028 CM     2.000 PC     -0.996    -1.000
                            -0.1832  -1.9774   0.5874   0.8816      -7.2311  -5.7753   3.3970   2.5748     -0.0000    0.0000
*DRIFT*       3.     "DIK5"  0.00000 FT
810.677 FT                  -29.2747     0.0000   809.9946 FT      -76.200     0.000     0.000 MR
                             1.978 CM     0.887 MR     5.889 CM     2.631 MR     0.028 CM     2.000 PC     -0.996    -1.000
                            -0.1832  -1.9774   0.5874   0.8816      -7.2311  -5.7753   3.3970   2.5748     -0.0000    0.0000
*DRIFT*       3.            72.20900 FT
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882.886 FT                    -34.7717     0.0000   881.9941 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.115          2.631 MR     0.028 CM     2.000 PC     -0.101    -0.851
                               1.1096  -0.0371   0.5874   0.8816         0.2455  -0.1083   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.     "DIK6"   0.00000 FT
882.886 FT                    -34.7717     0.0000   881.9941 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.115 CM       2.631 MR     0.028 CM     2.000 PC     -0.101    -0.851
                               1.1096  -0.0371   0.5874   0.8816         0.2455  -0.1083   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.             1.38000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.062 CM       2.631 MR     0.028 CM     2.000 PC      0.105     0.205
                               1.1343   0.0000   0.5874   0.8816         0.3884   0.0000   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.     "2F  "   0.00000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.062 CM       2.631 MR     0.028 CM     2.000 PC      0.105     0.205
                               1.1343   0.0000   0.5874   0.8816         0.3884   0.0000   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.     "PM2 "   0.00000 FT
884.266 FT                    -34.8768     0.0000   883.3701 FT      -76.200     0.000     0.000 MR
                               0.180 CM     0.887 MR     0.062 CM       2.631 MR     0.028 CM     2.000 PC      0.105     0.205
                               1.1343   0.0000   0.5874   0.8816         0.3884   0.0000   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.             0.72000 FT
884.986 FT                    -34.9316     0.0000   884.0880 FT      -76.200     0.000     0.000 MR
                               0.183 CM     0.887 MR     0.093 CM       2.631 MR     0.028 CM     2.000 PC      0.210     0.759
                               1.1472   0.0194   0.5874   0.8816         0.4629   0.0565   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.     "C8H "   4.00000 FT
888.986 FT                    -35.2361     0.0000   888.0764 FT      -76.200     0.000     0.000 MR
                               0.232 CM     0.887 MR     0.396 CM       2.631 MR     0.028 CM     2.000 PC      0.633     0.988
                               1.2188   0.1268   0.5874   0.8816         0.8771   0.3704   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.             0.90000 FT
889.886 FT                    -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                               0.248 CM     0.887 MR     0.467 CM       2.631 MR     0.028 CM     2.000 PC      0.690     0.992
                               1.2349   0.1510   0.5874   0.8816         0.9703   0.4411   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.     "LC2 "   0.00000 FT
889.886 FT                    -35.3046     0.0000   888.9738 FT      -76.200     0.000     0.000 MR
                               0.248 CM     0.887 MR     0.467 CM       2.631 MR     0.028 CM     2.000 PC      0.690     0.992
                               1.2349   0.1510   0.5874   0.8816         0.9703   0.4411   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.             1.00000 FT
890.886 FT                    -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                               0.267 CM     0.887 MR     0.547 CM       2.631 MR     0.028 CM     2.000 PC      0.741     0.994
                               1.2528   0.1779   0.5874   0.8816         1.0738   0.5196   3.3970   2.5748      0.0000    0.0000
*ROTAT*        2.             0.00000 MR
890.886 FT                    -35.3807     0.0000   889.9709 FT      -76.200     0.000     0.000 MR
                               0.267 CM     0.887 MR     0.547 CM       2.631 MR     0.028 CM     2.000 PC      0.741     0.994
                               1.2528   0.1779   0.5874   0.8816         1.0738   0.5196   3.3970   2.5748      0.0000    0.0000
*BEND*         4.     "B13 "  20.00000 FT          0.00000 KG        0.00000        (      0.000 FT  ,    0.000 MR  )
910.886 FT                    -36.9032     0.0000   909.9128 FT      -76.200     0.000     0.000 MR
                               0.760 CM     0.887 MR     2.148 CM       2.631 MR     0.028 CM     2.000 PC      0.972     1.000
                               1.6109   0.7153   0.5874   0.8816         3.1446   2.0892   3.3970   2.5748      0.0000    0.0000
*ROTAT*        2.             0.00000 MR
910.886 FT                    -36.9032     0.0000   909.9128 FT      -76.200     0.000     0.000 MR
                               0.760 CM     0.887 MR     2.148 CM       2.631 MR     0.028 CM     2.000 PC      0.972     1.000
                               1.6109   0.7153   0.5874   0.8816         3.1446   2.0892   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.             6.81000 FT
917.696 FT                    -37.4216     0.0000   916.7031 FT      -76.200     0.000     0.000 MR
                               0.940 CM     0.887 MR     2.694 CM       2.631 MR     0.028 CM     2.000 PC      0.982     1.000
                               1.7329   0.8983   0.5874   0.8816         3.8497   2.6236   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.     "V6  "   2.50000 FT
920.196 FT                    -37.6120     0.0000   919.1958 FT      -76.200     0.000     0.000 MR
                               1.006 CM     0.887 MR     2.895 CM       2.631 MR     0.028 CM     2.000 PC      0.984     1.000
                               1.7776   0.9655   0.5874   0.8816         4.1086   2.8198   3.3970   2.5748      0.0000    0.0000
*DRIFT*        3.     "PAR "  36.45800 FT
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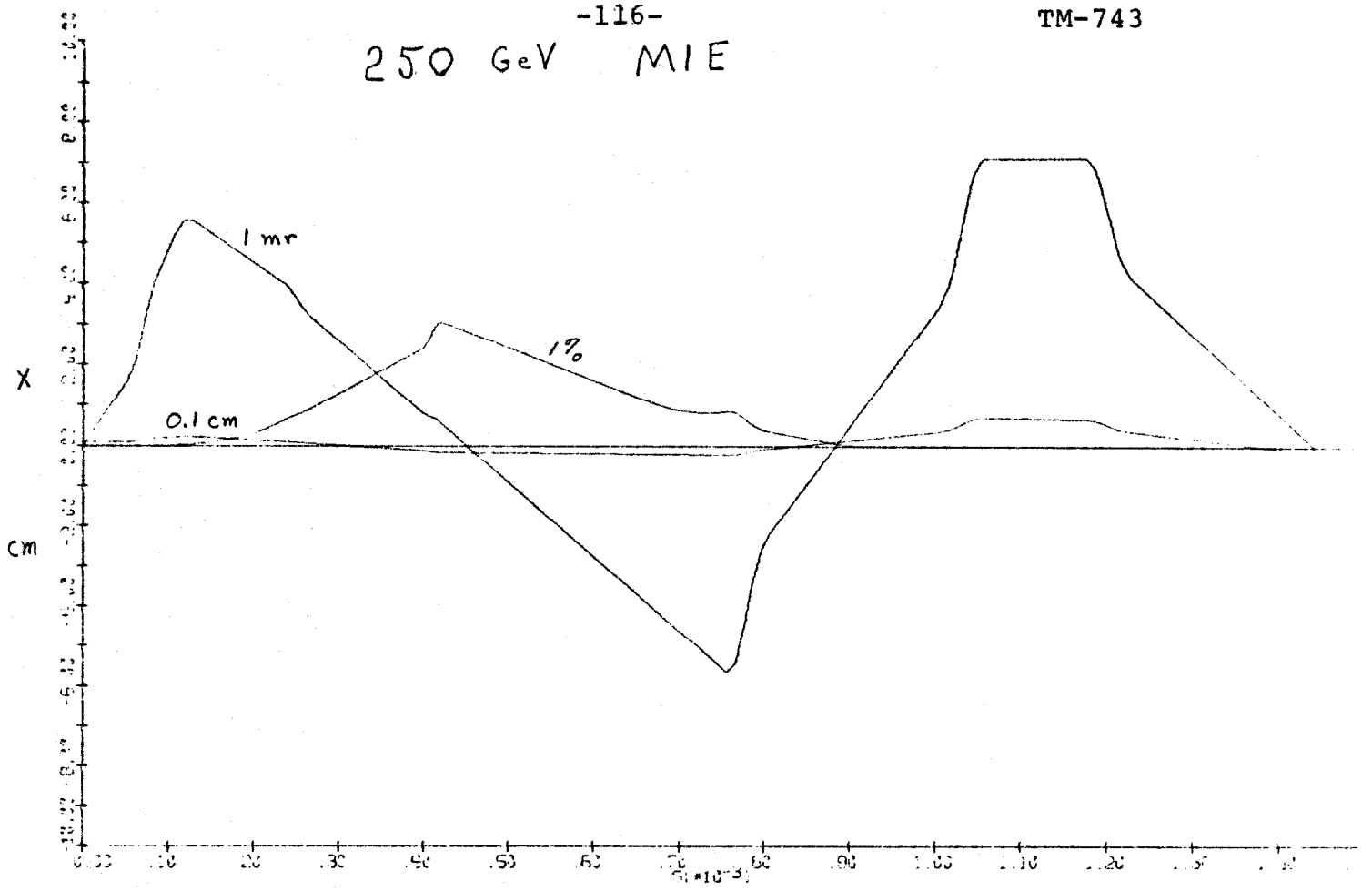
 956.654 FT                    -40.3874     0.0000   955.5480 FT      -76.200      0.000      0.000 MR
                                1.983 CM     0.887 MR     5.818 CM     2.631 MR     0.028 CM     2.000 PC      0.996    1.000
                                2.4303   1.9451   0.5874   0.8816       7.8835   5.6811   3.3970   2.5748      0.0000   0.0000
*QUAD*          5.     "Q15 "  10.00000 FT        -5.15429 KG       2.54000 CM   (  -69.13441 FT  )
 966.654 FT                    -41.1486     0.0000   965.5190 FT      -76.200      0.000      0.000 MR
                                2.401 CM     1.889 MR     6.195 CM     0.189 MR     0.028 CM     2.000 PC      0.999   -0.991
                                2.7874   2.3593   1.7827   1.8677       8.3442   6.0509  -0.4092  -0.1769      0.0000   0.0000
*DRIFT*         3.     "D10 "   1.50000 FT
 968.154 FT                    -41.2628     0.0000   967.0147 FT      -76.200      0.000      0.000 MR
                                2.487 CM     1.889 MR     6.186 CM     0.189 MR     0.028 CM     2.000 PC      0.999   -0.991
                                2.8689   2.4446   1.7827   1.8677       8.3255   6.0428  -0.4092  -0.1769      0.0000   0.0000
*QUAD*          5.     "Q16 "  10.00000 FT        -5.15429 KG       2.54000 CM   (  -69.13441 FT  )
 978.154 FT                    -42.0241     0.0000   976.9857 FT      -76.200      0.000      0.000 MR
                                3.254 CM     3.204 MR     5.699 CM     2.974 MR     0.028 CM     2.000 PC      1.000   -1.000
                                3.6302   3.2022   3.2716   3.1613       7.6224   5.5683  -4.1498  -2.9003      0.0000   0.0000
*DRIFT*         3.     "D11 "   7.82600 FT
 985.980 FT                    -42.6198     0.0000   984.7890 FT      -76.200      0.000      0.000 MR
                                4.018 CM     3.204 MR     4.989 CM     2.974 MR     0.028 CM     2.000 PC      1.000   -1.000
                                4.4106   3.9563   3.2716   3.1613       6.6325   4.8764  -4.1498  -2.9003      0.0000   0.0000
*QUAD*          5.     "Q17 "  10.00000 FT         3.77344 KG       2.54000 CM   (   98.35983 FT  )
 995.980 FT                    -43.3811     0.0000   994.7600 FT      -76.200      0.000      0.000 MR
                                4.772 CM     1.700 MR     4.327 CM     1.407 MR     0.028 CM     2.000 PC      1.000   -1.000
                                5.1645   4.7004   1.6327   1.6796       5.6918   4.2315  -2.0764  -1.3680      0.0000   0.0000
*DRIFT*         3.     "D12 "   1.50000 FT
 997.480 FT                    -43.4953     0.0000   996.2556 FT      -76.200      0.000      0.000 MR
                                4.849 CM     1.700 MR     4.263 CM     1.407 MR     0.028 CM     2.000 PC      1.000   -1.000
                                5.2392   4.7772   1.6327   1.6796       5.5968   4.1689  -2.0764  -1.3680      0.0000   0.0000
*QUAD*          5.     "Q18 "  10.00000 FT         3.77344 KG       2.54000 CM   (   98.35983 FT  )
 1007.480 FT                   -44.2565     0.0000  1006.2266 FT      -76.200      0.000      0.000 MR
                                5.110 CM     0.032 MR     4.049 CM     0.040 MR     0.028 CM     2.000 PC     -0.170   -0.206
                                5.4596   5.0354  -0.1986  -0.0000       5.2449   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.              3.33000 FT
 1010.810 FT                   -44.5100     0.0000  1009.5469 FT      -76.200      0.000      0.000 MR
                                5.109 CM     0.032 MR     4.048 CM     0.040 MR     0.028 CM     2.000 PC     -0.169   -0.205
                                5.4395   5.0354  -0.1986  -0.0000       5.2193   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.     "PM3 "   0.00000 FT
 1010.810 FT                   -44.5100     0.0000  1009.5469 FT      -76.200      0.000      0.000 MR
                                5.109 CM     0.032 MR     4.048 CM     0.040 MR     0.028 CM     2.000 PC     -0.169   -0.205
                                5.4395   5.0354  -0.1986  -0.0000       5.2193   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.     "K1  "  103.00000 FT
 1113.810 FT                   -52.3510     0.0000  1112.2480 FT      -76.200      0.000      0.000 MR
                                5.093 CM     0.032 MR     4.024 CM     0.040 MR     0.028 CM     2.000 PC     -0.150   -0.175
                                4.8160   5.0354  -0.1986  -0.0000       4.4270   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.              3.14100 FT
 1116.951 FT                   -52.5901     0.0000  1115.3799 FT      -76.200      0.000      0.000 MR
                                5.093 CM     0.032 MR     4.024 CM     0.040 MR     0.028 CM     2.000 PC     -0.150   -0.174
                                4.7970   5.0354  -0.1986  -0.0000       4.4028   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.     "K2  "  53.00000 FT
 1169.951 FT                   -56.6248     0.0000  1168.2261 FT      -76.200      0.000      0.000 MR
                                5.085 CM     0.032 MR     4.013 CM     0.040 MR     0.028 CM     2.000 PC     -0.140   -0.158
                                4.4762   5.0354  -0.1986  -0.0000       3.9951   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.              3.43000 FT
 1173.381 FT                   -56.8859     0.0000  1171.6462 FT      -76.200      0.000      0.000 MR
                                5.085 CM     0.032 MR     4.012 CM     0.040 MR     0.028 CM     2.000 PC     -0.139   -0.157
                                4.4554   5.0354  -0.1986  -0.0000       3.9687   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.     "PM4 "   0.00000 FT
 1173.381 FT                   -56.8859     0.0000  1171.6462 FT      -76.200      0.000      0.000 MR
                                5.085 CM     0.032 MR     4.012 CM     0.040 MR     0.028 CM     2.000 PC     -0.139   -0.157
                                4.4554   5.0354  -0.1986  -0.0000       3.9687   3.9622  -0.2524   0.0000      0.0000  -0.0000
*DRIFT*         3.              3.80000 FT
```

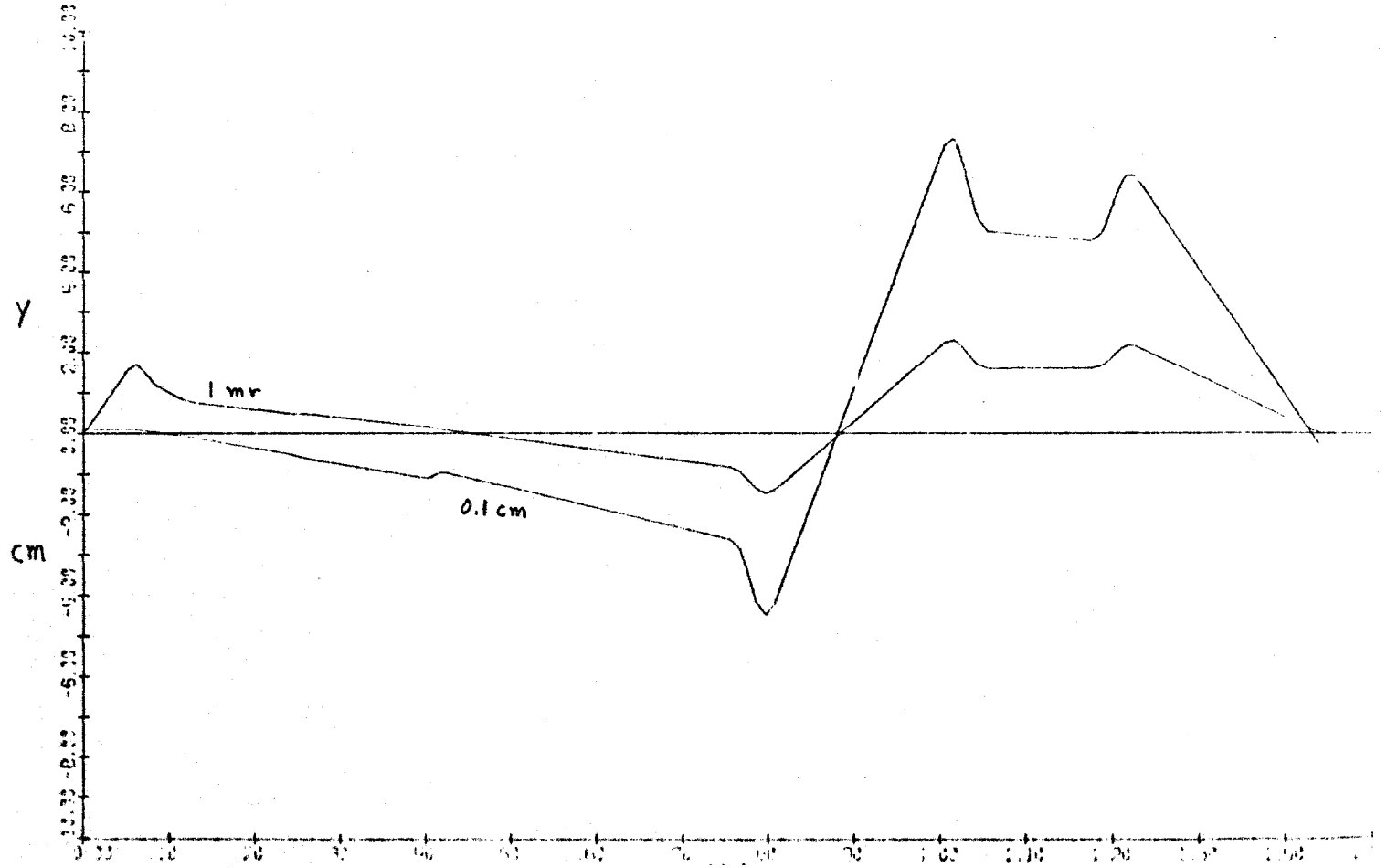
```
1177.181                    -57.1752     0.0000  1175.4352 F        -76.200     0.000     0.000 MR
                             5.065 CM     0.032 MR     4.0  CM      0.040 MR     0.028 CM     2.000 PC      -0.1     -0.156
                             4.4324   5.0354  -0.1986  -0.0000      3.9395   3.9622  -0.2524   0.0000      0.0000  -0.0000
*QUAD*          5.     "Q19 "   10.00000 FT        2.82723 KG       2.54000 CM   (  130.70906 FT  )
 1187.181 FT                   -57.9364     0.0000  1185.4061 FT     -76.200     0.000     0.000 MR
                             4.887 CM     1.281 MR     4.166 CM      1.028 MR     0.028 CM     2.000 PC      -1.000    0.999
                             4.2020   4.8416  -1.3035  -1.2639      4.0152   4.1168   0.7525   1.0206      0.0000  -0.0000
*DRIFT*         3.                   4.71000 FT
 1191.891 FT                   -58.2950     0.0000  1190.1025 FT     -76.200     0.000     0.000 MR
                             4.704 CM     1.281 MR     4.313 CM      1.028 MR     0.028 CM     2.000 PC      -1.000    0.999
                             4.0149   4.6601  -1.3035  -1.2639      4.1233   4.2633   0.7525   1.0206      0.0000  -0.0000
*QUAD*          5.     "Q20 "   10.00000 FT        2.82723 KG       2.54000 CM   (  130.70906 FT  )
 1201.891 FT                   -59.0562     0.0000  1200.0735 FT     -76.200     0.000     0.000 MR
                             4.137 CM     2.412 MR     4.799 CM      2.178 MR     0.028 CM     2.000 PC      -1.000    1.000
                             3.4681   4.1004  -2.2611  -2.3850      4.5164   4.7447   1.8439   2.1585      0.0000  -0.0000
*DRIFT*         3.                   1.43700 FT
 1203.328 FT                   -59.1656     0.0000  1201.5063 FT     -76.200     0.000     0.000 MR
                             4.032 CM     2.412 MR     4.894 CM      2.178 MR     0.028 CM     2.000 PC      -1.000    1.000
                             3.3691   3.9959  -2.2611  -2.3850      4.5972   4.8392   1.8439   2.1585      0.0000  -0.0000
*QUAD*          5.     "Q21 "   10.00000 FT       -3.16247 KG       2.54000 CM   ( -113.69962 FT  )
 1213.328 FT                   -59.9269     0.0000  1211.4773 FT     -76.200     0.000     0.000 MR
                             3.462 CM     1.354 MR     5.338 CM      0.713 MR     0.028 CM     2.000 PC      -0.999    0.999
                             2.8170   3.4329  -1.3876  -1.3360      4.9532   5.2794   0.4758   0.7090      0.0000  -0.0000
*DRIFT*         3.                   4.74000 FT
 1218.068 FT                   -60.2877     0.0000  1216.2035 FT     -76.200     0.000     0.000 MR
                             3.267 CM     1.354 MR     5.441 CM      0.713 MR     0.028 CM     2.000 PC      -0.999    0.999
                             2.6165   3.2399  -1.3876  -1.3360      5.0220   5.3818   0.4758   0.7090      0.0000  -0.0000
*QUAD*          5.     "Q22 "   10.00000 FT       -3.16247 KG       2.54000 CM   ( -113.69962 FT  )
 1228.068 FT                   -61.0490     0.0000  1226.1745 FT     -76.200     0.000     0.000 MR
                             2.991 CM     0.473 MR     5.421 CM      0.844 MR     0.028 CM     2.000 PC      -0.994   -0.999
                             2.3017   2.9682  -0.6932  -0.4595      4.9488   5.3632  -0.9525  -0.8302      0.0000  -0.0000
*DRIFT*         3.                   2.18000 FT
 1230.248 FT                   -61.2150     0.0000  1228.3482 FT     -76.200     0.000     0.000 MR
                             2.960 CM     0.473 MR     5.365 CM      0.844 MR     0.028 CM     2.000 PC      -0.994   -0.999
                             2.2556   2.9377  -0.6932  -0.4595      4.8855   5.3081  -0.9525  -0.8302      0.0000  -0.0000
*DRIFT*         3.     "V7  "    2.50000 FT
 1232.748 FT                   -61.4053     0.0000  1230.8409 FT     -76.200     0.000     0.000 MR
                             2.924 CM     0.473 MR     5.300 CM      0.844 MR     0.028 CM     2.000 PC      -0.993   -0.999
                             2.2028   2.9027  -0.6932  -0.4595      4.8129   5.2448  -0.9525  -0.8302      0.0000  -0.0000
*DRIFT*         3.                   1.40000 FT
 1234.148 FT                   -61.5118     0.0000  1232.2369 FT     -76.200     0.000     0.000 MR
                             2.904 CM     0.473 MR     5.264 CM      0.844 MR     0.028 CM     2.000 PC      -0.993   -0.999
                             2.1732   2.8831  -0.6932  -0.4595      4.7723   5.2094  -0.9525  -0.8302      0.0000  -0.0000
*DRIFT*         3.     "V8  "    2.50000 FT
 1236.648 FT                   -61.7022     0.0000  1234.7296 FT     -76.200     0.000     0.000 MR
                             2.868 CM     0.473 MR     5.200 CM      0.844 MR     0.028 CM     2.000 PC      -0.993   -0.999
                             2.1204   2.8481  -0.6932  -0.4595      4.6997   5.1461  -0.9525  -0.8302      0.0000  -0.0000
*DRIFT*         3.                   6.26000 FT
 1242.908 FT                   -62.1787     0.0000  1240.9715 FT     -76.200     0.000     0.000 MR
                             2.778 CM     0.473 MR     5.039 CM      0.844 MR     0.028 CM     2.000 PC      -0.993   -0.999
                             1.9881   2.7604  -0.6932  -0.4595      4.5179   4.9877  -0.9525  -0.8302      0.0000  -0.0000
*DRIFT*         3.     "K3  "   94.79600 FT
 1337.704 FT                   -69.3951     0.0000  1335.4924 FT     -76.200     0.000     0.000 MR
                             1.433 CM     0.473 MR     2.604 CM      0.844 MR     0.028 CM     2.000 PC      -0.972   -0.997
                            -0.0148   1.4328  -0.6932  -0.4595      1.7657   2.5888  -0.9525  -0.8302      0.0000  -0.0000
*DRIFT*         3.                 102.30300 FT
 1440.007 FT                   -77.1830     0.0000  1437.4985 FT     -76.200     0.000     0.000 MR
                             0.346 CM     0.473 MR     0.192 CM      0.844 MR     0.028 CM     2.000 PC       0.233    0.179
                            -2.1763   0.0000  -0.6932  -0.4595     -1.2045   0.0000  -0.9525  -0.8302      -0.0000  -0.0000
*DRIFT*         3.     "3F  "    0.00000 FT
```

```
1440.007 FT                    -77.1830     0.0000  1437.4985 FT      -76.200     0.000     0.000 MR
                                0.346 CM     0.473 MR     0.192 CM     0.844 MR     0.028 CM     2.000 PC       0.233    0.179
                               -2.1763   0.0000  -0.6932  -0.4595      -1.2045   0.0000  -0.9525  -0.8302      -0.0000  -0.0000
*DRIFT*          3.     "PM5 "   0.00000 FT
 1440.007 FT                   -77.1830     0.0000  1437.4985 FT      -76.200     0.000     0.000 MR
                                0.346 CM     0.473 MR     0.192 CM     0.844 MR     0.028 CM     2.000 PC       0.233    0.179
                               -2.1763   0.0000  -0.6932  -0.4595      -1.2045   0.0000  -0.9525  -0.8302      -0.0000  -0.0000

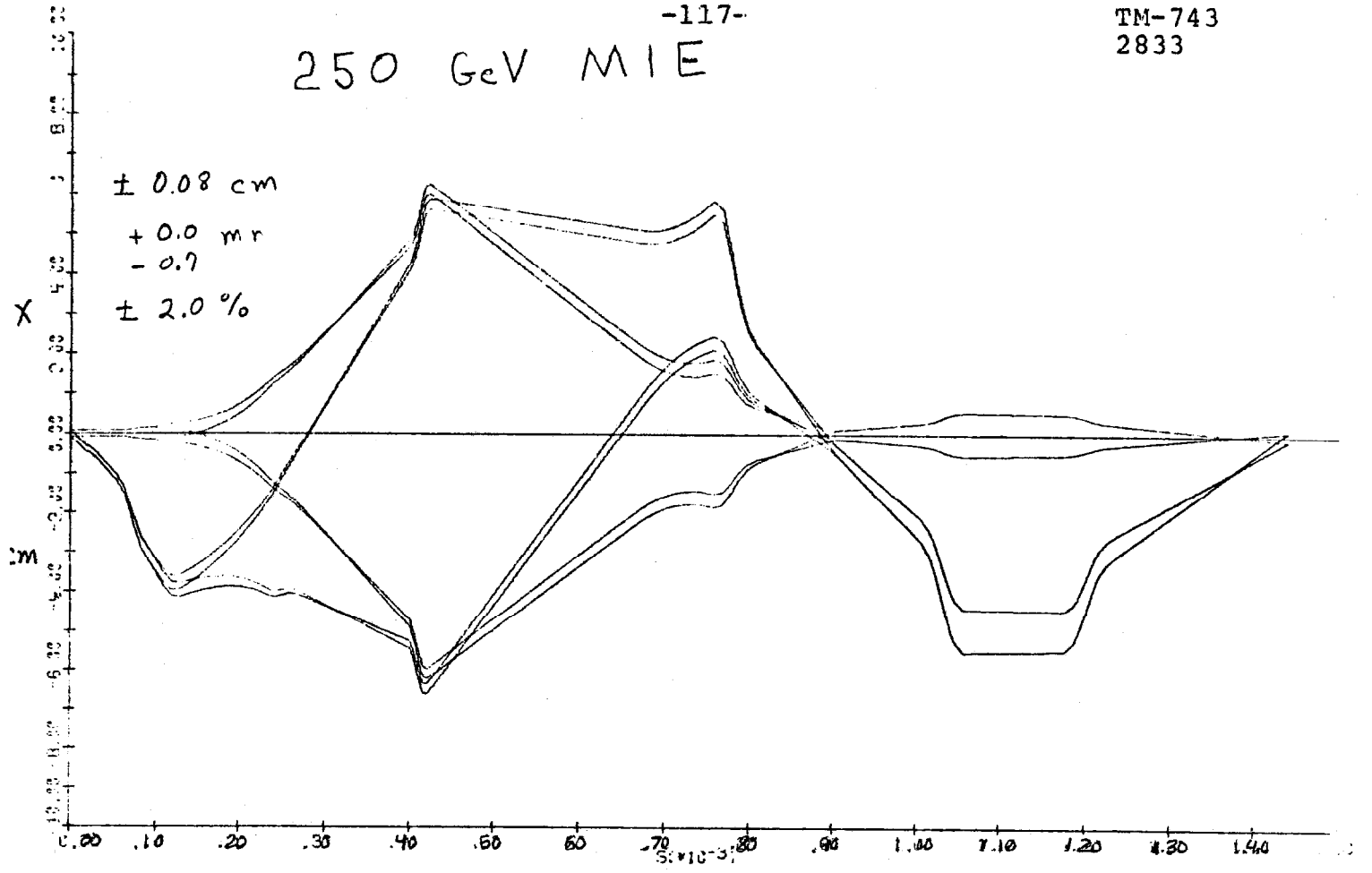
*LENGTH*       1440.00665 FT
```

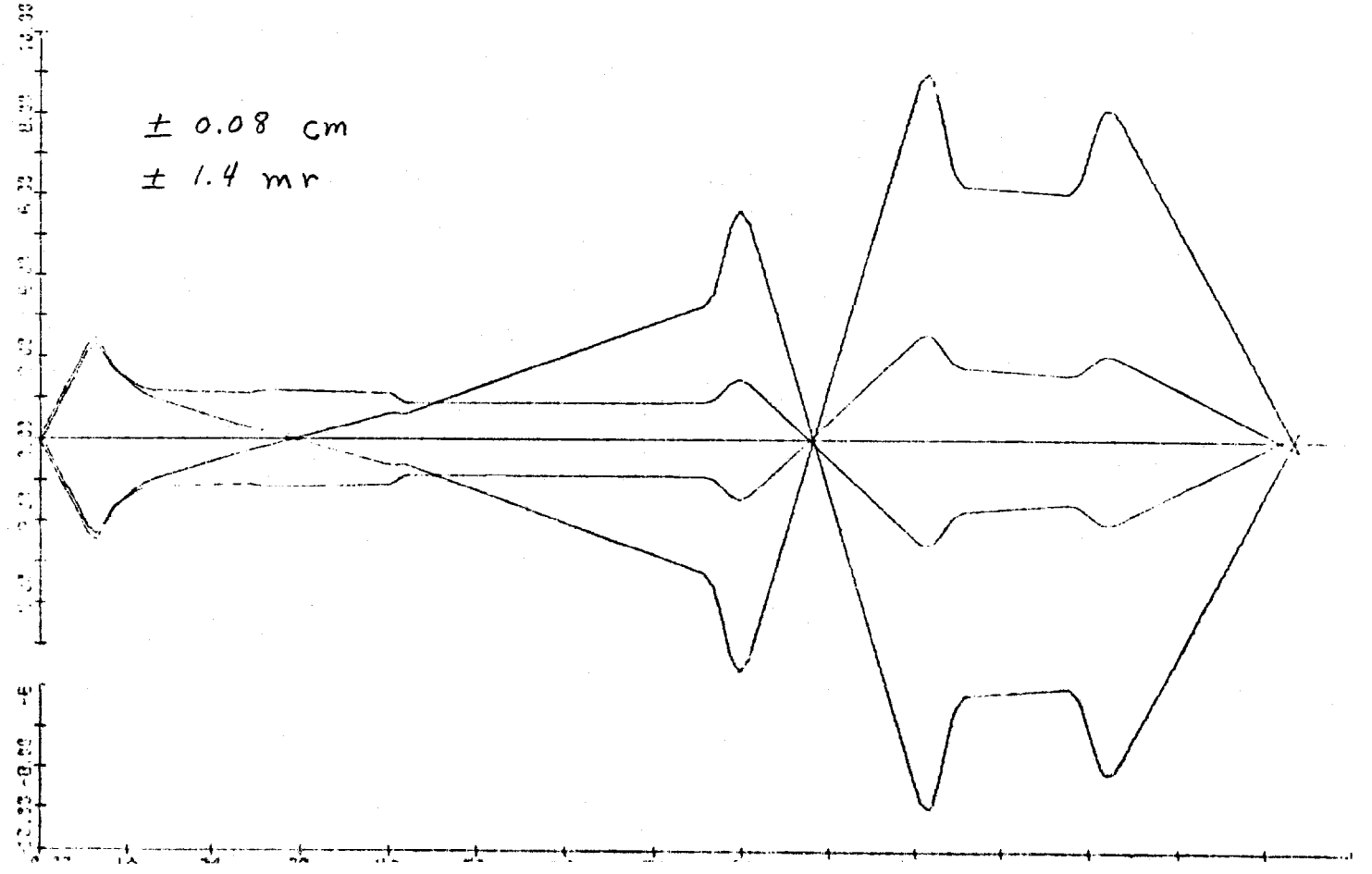
250 GeV MIE





250 GeV MIE


± 0.08 cm
+ 0.0 mr
- 0.7
± 2.0 %
X
cm
.00
.10
.20
.30
.40
.50
.60
.70
.80
.90
1.00
1.10
1.20
1.30
1.40
S(×10⁻³)


± 0.08 cm
± 1.4 mr

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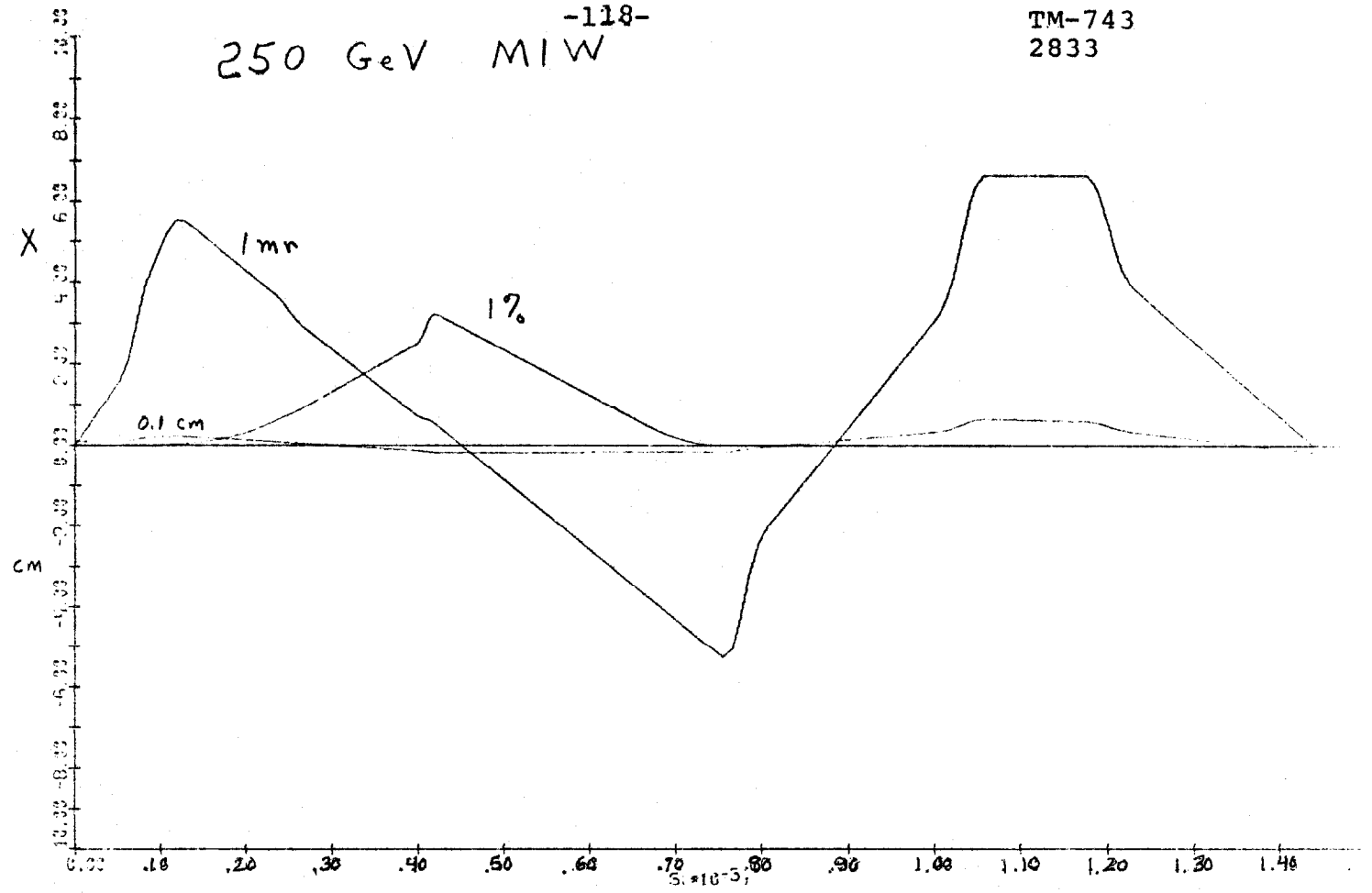
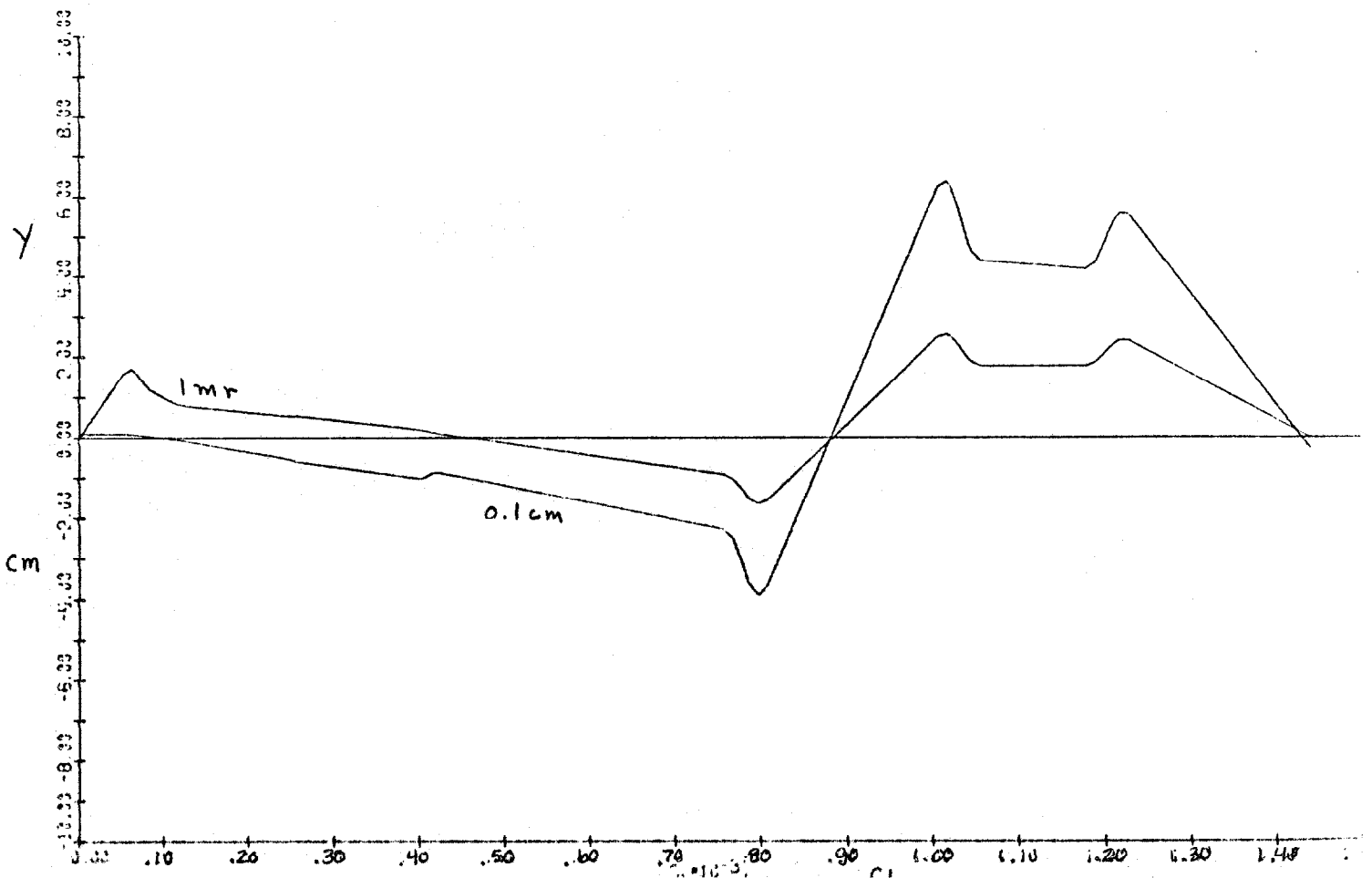
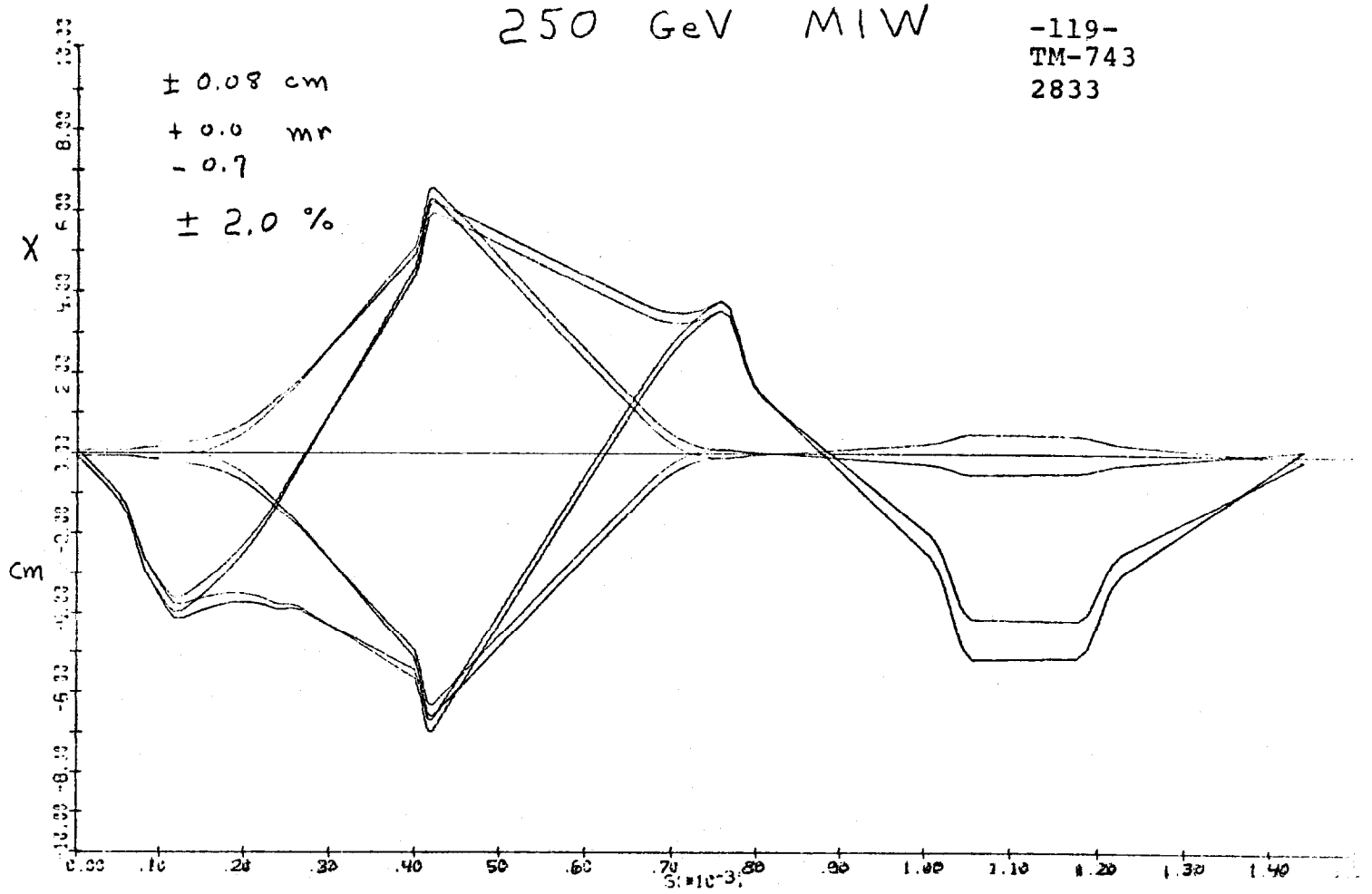
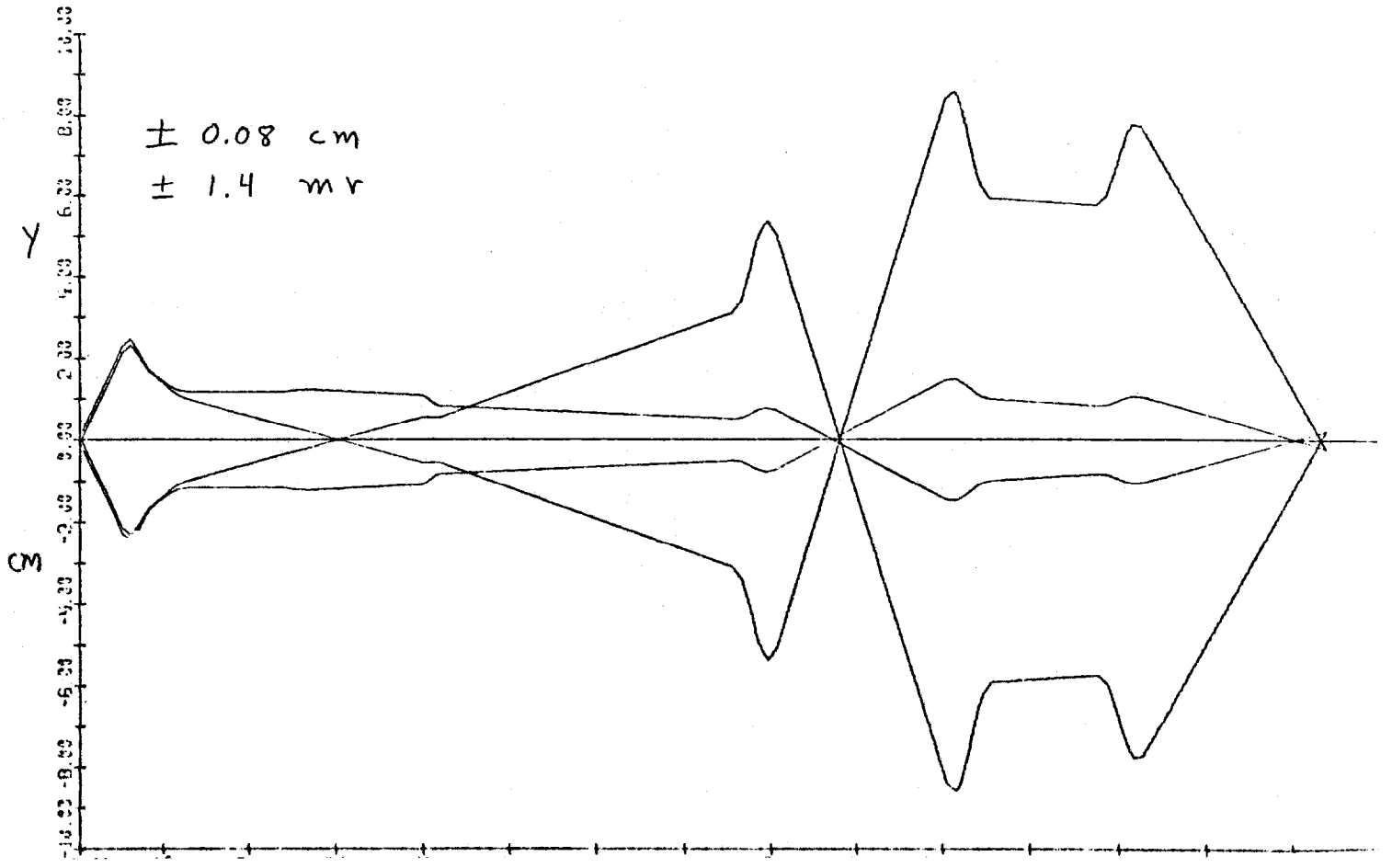
250 GeV MIW

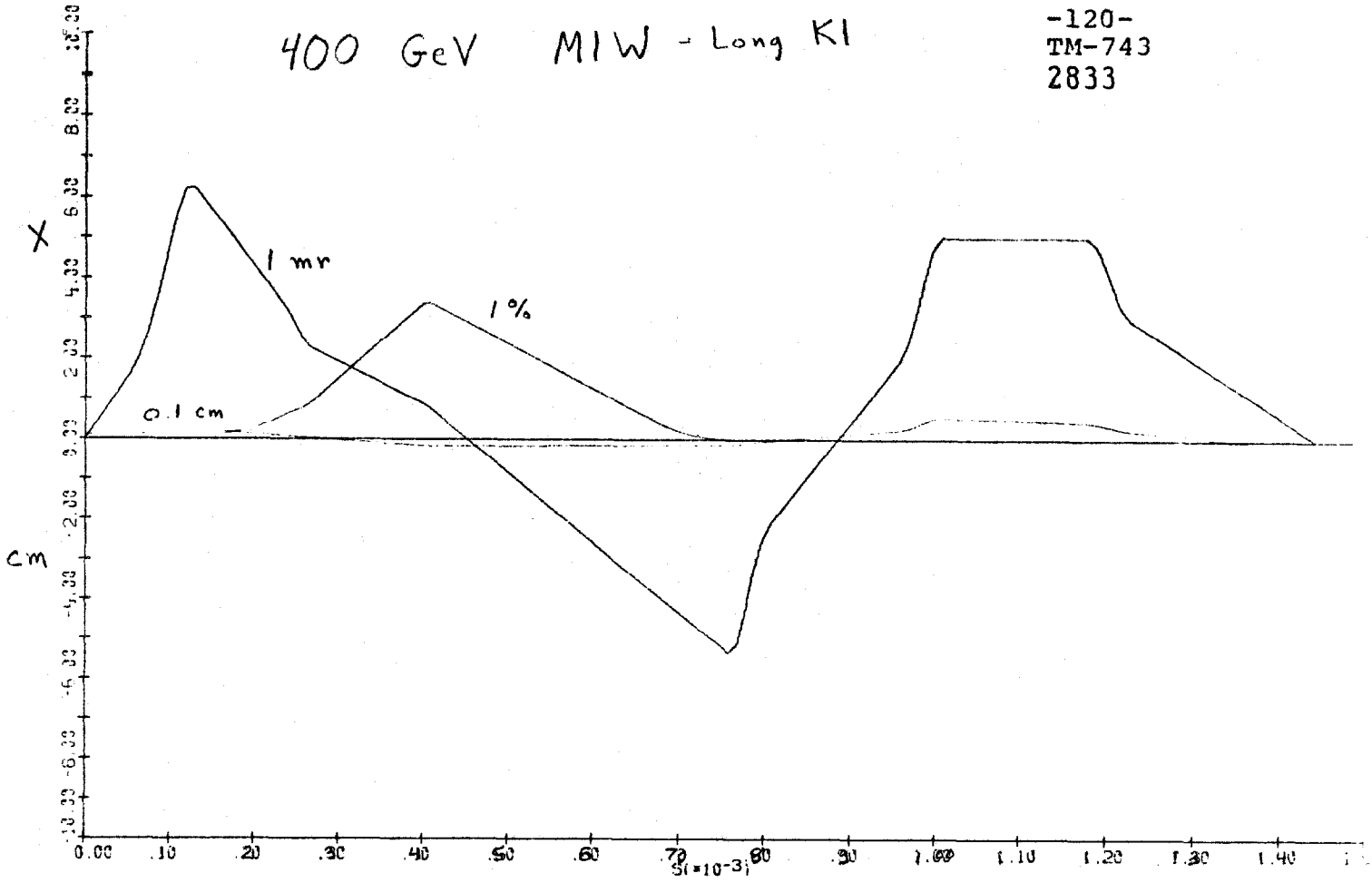


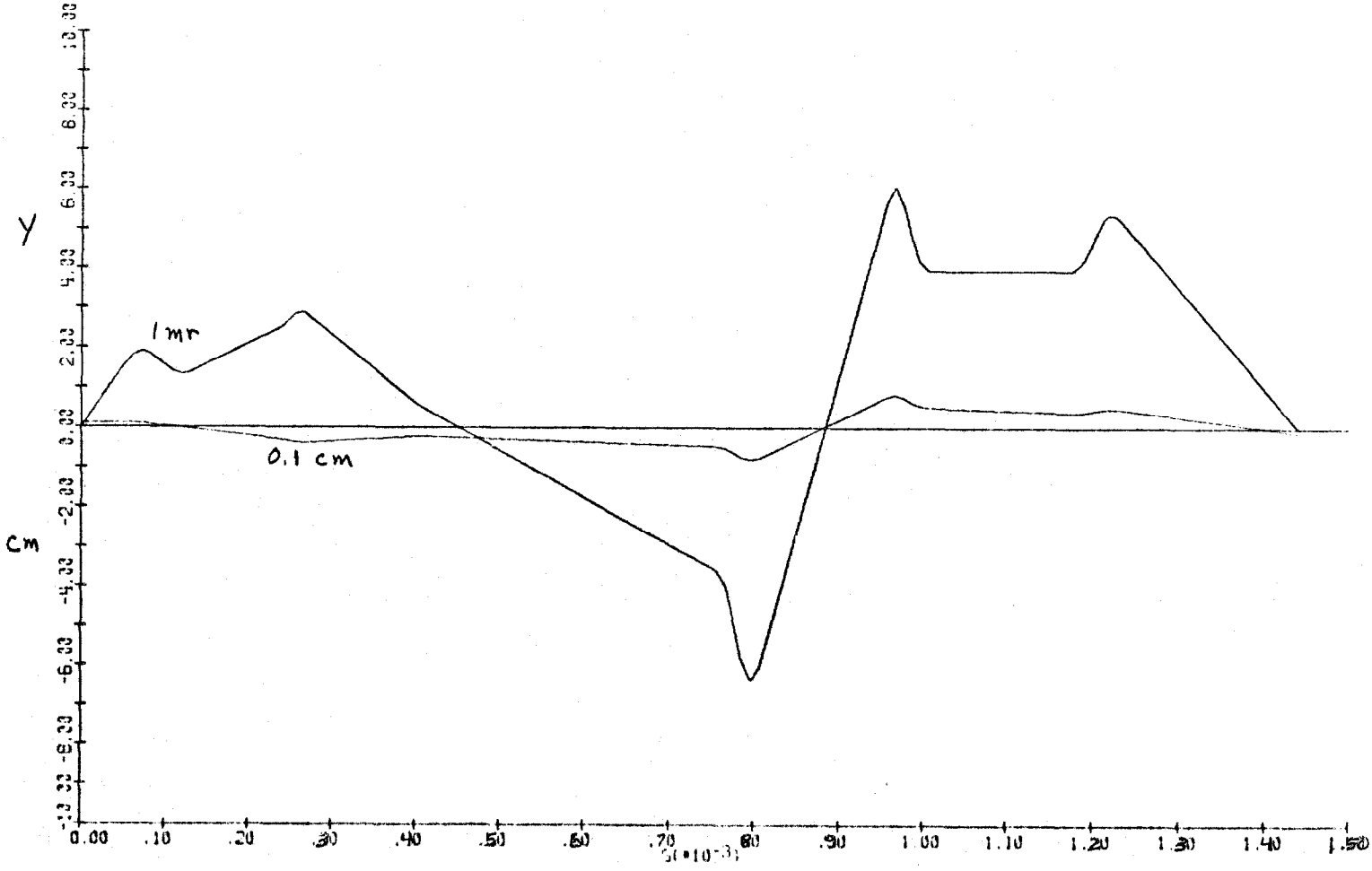


250 GeV MIW

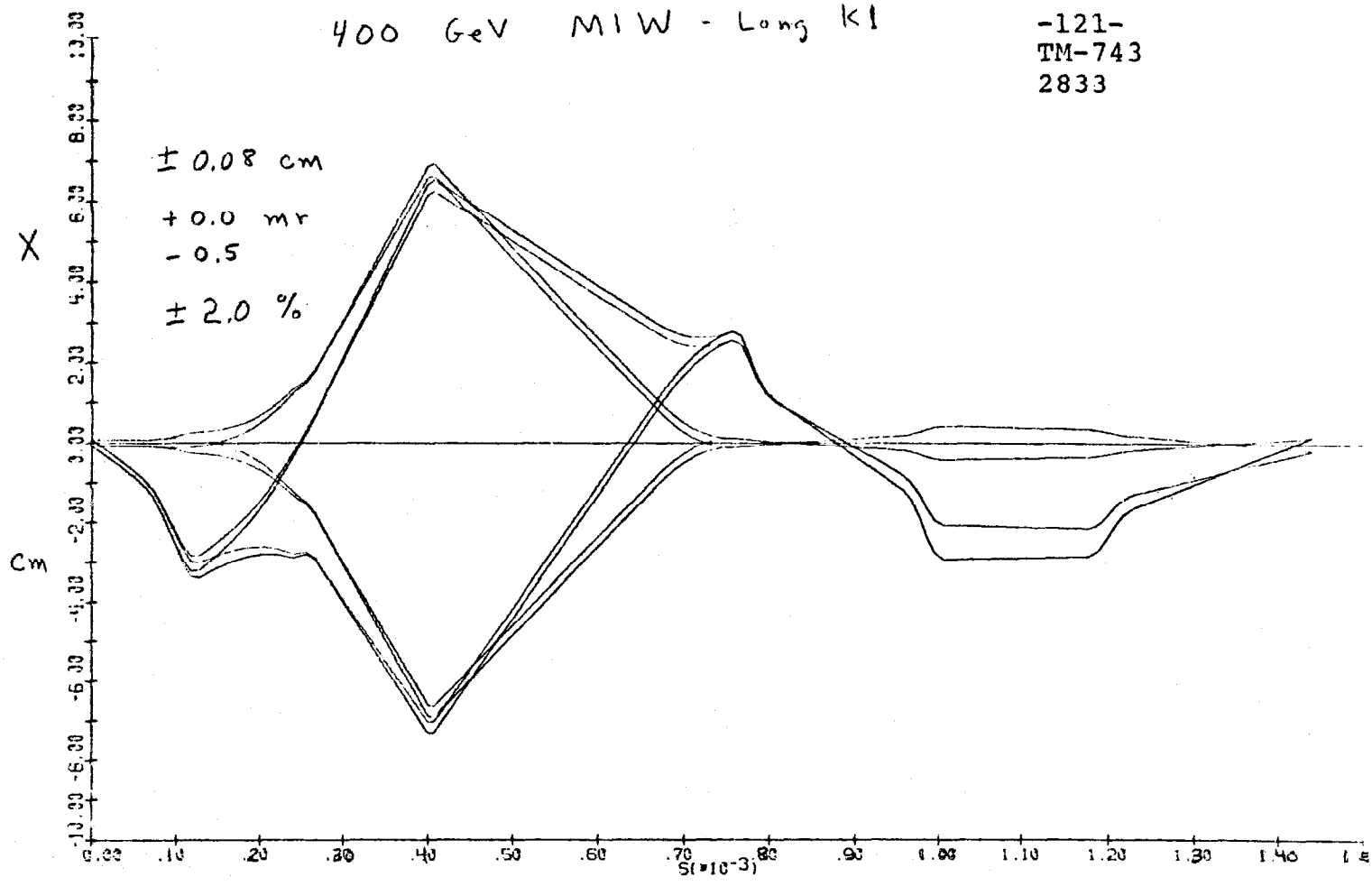


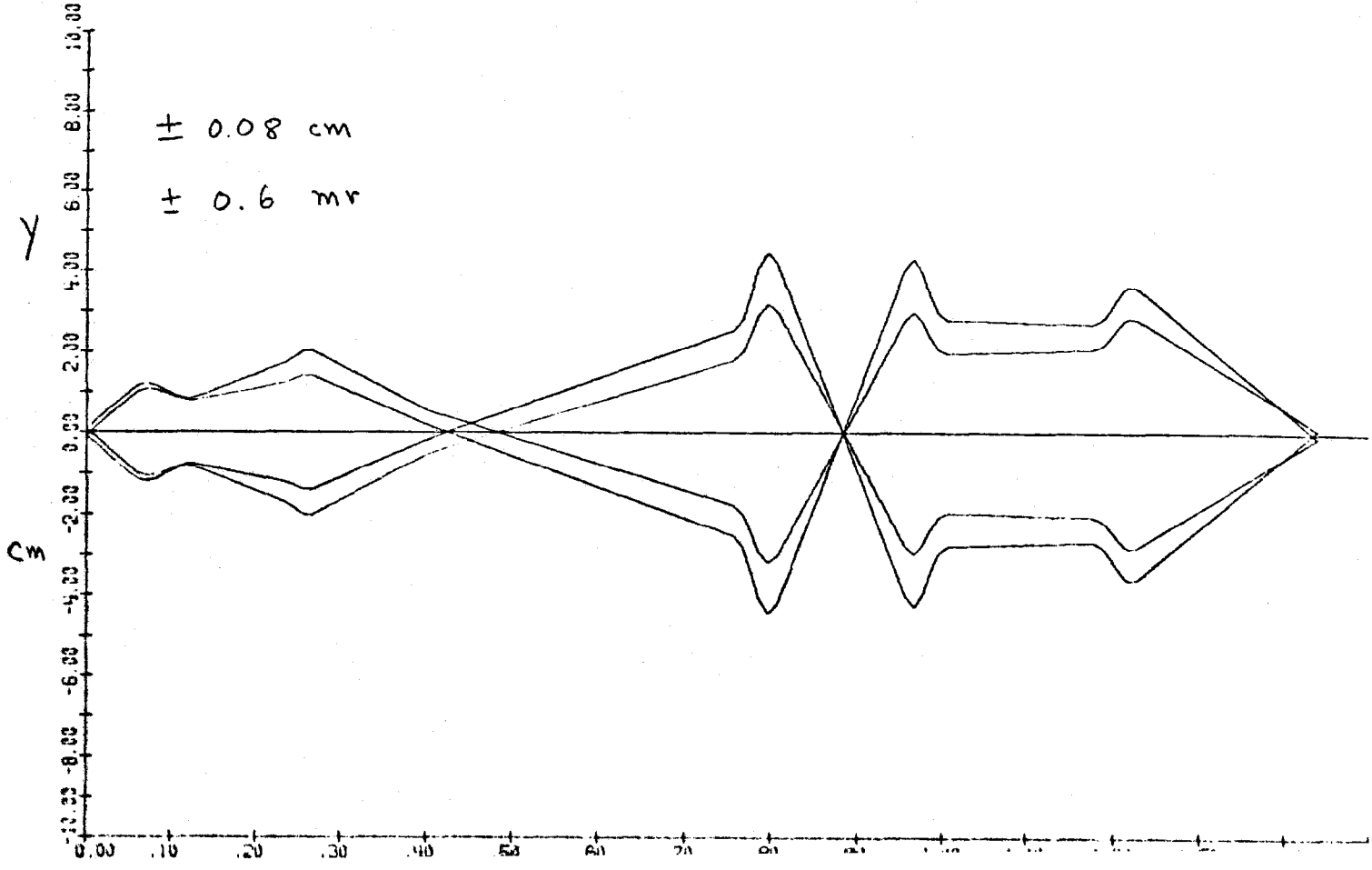



400 GeV MIW - Long KI
X
cm
1 mr
1%
0.1 cm
S(*10^-3)

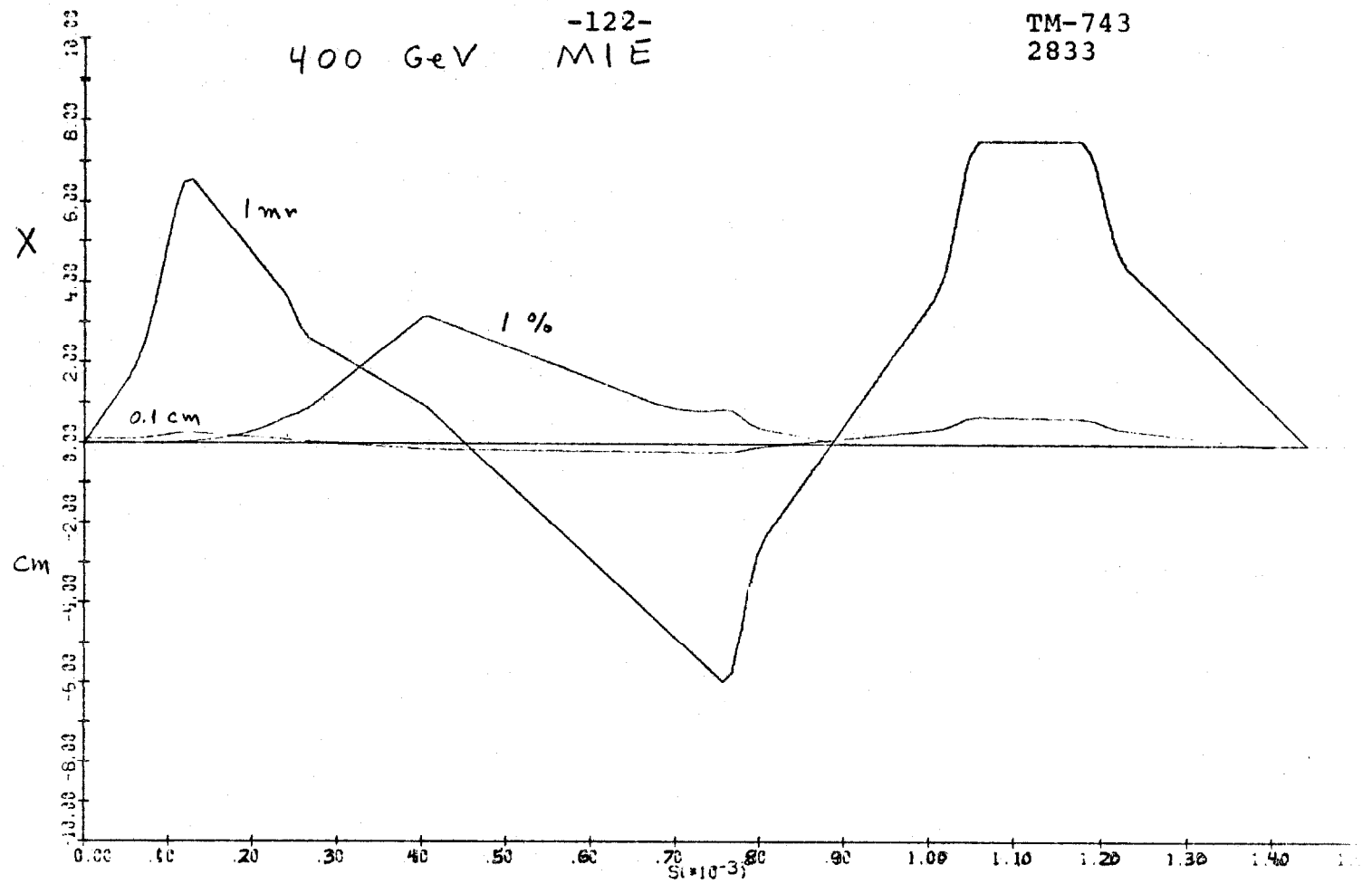

Y
cm
1mr
0.1 cm
S(*10^-3)

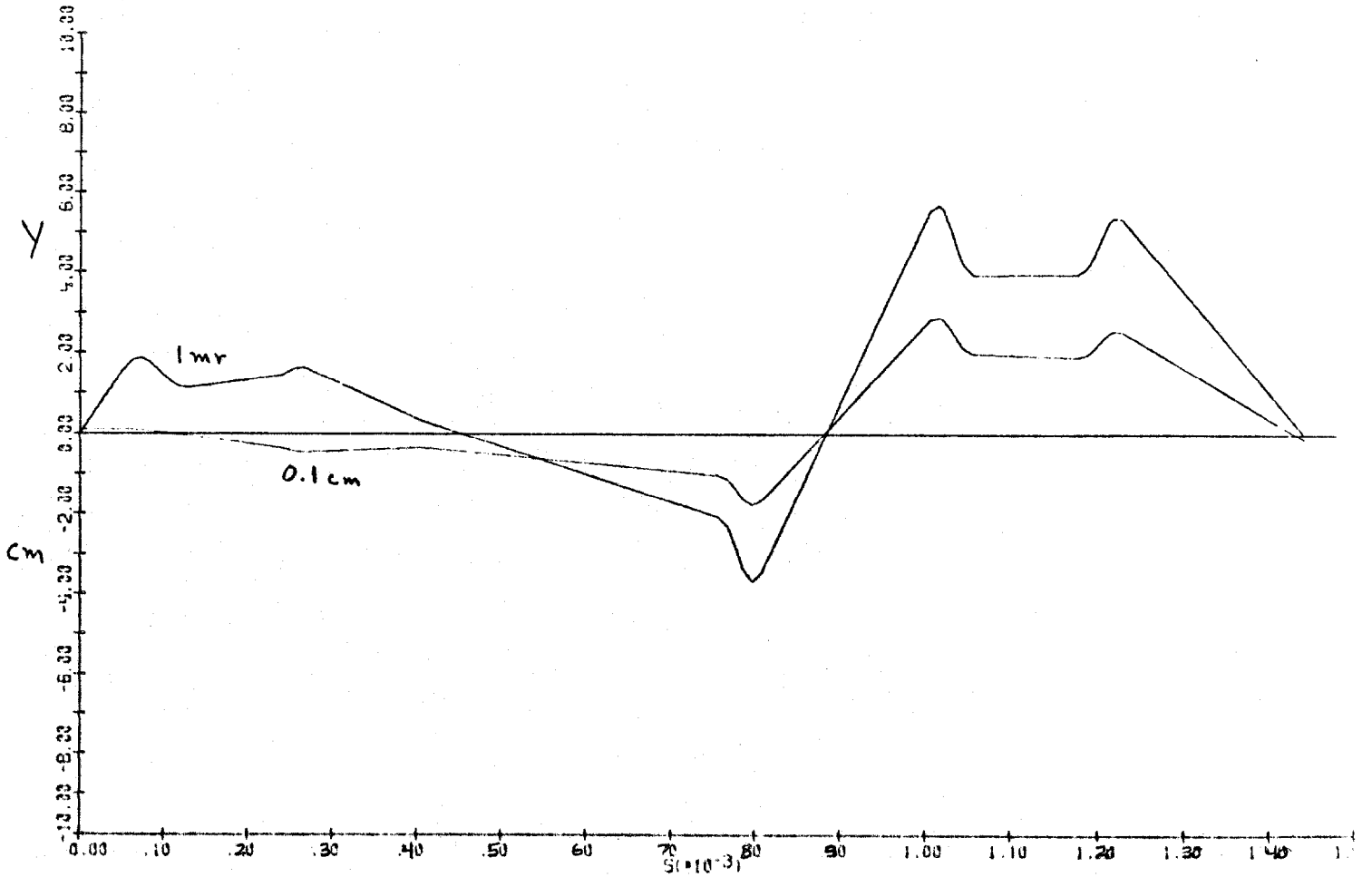
400 GeV MIW - Long K1



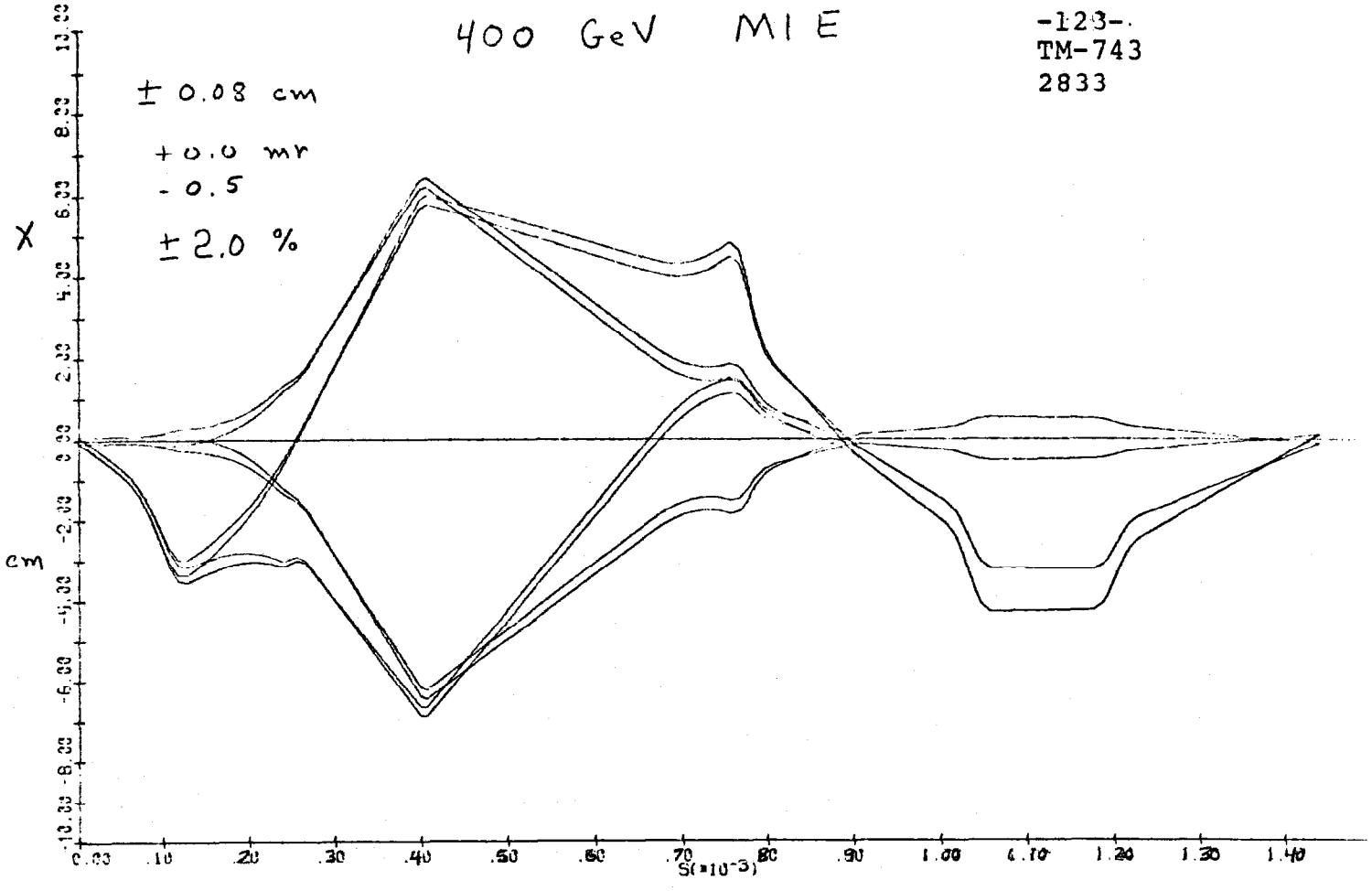


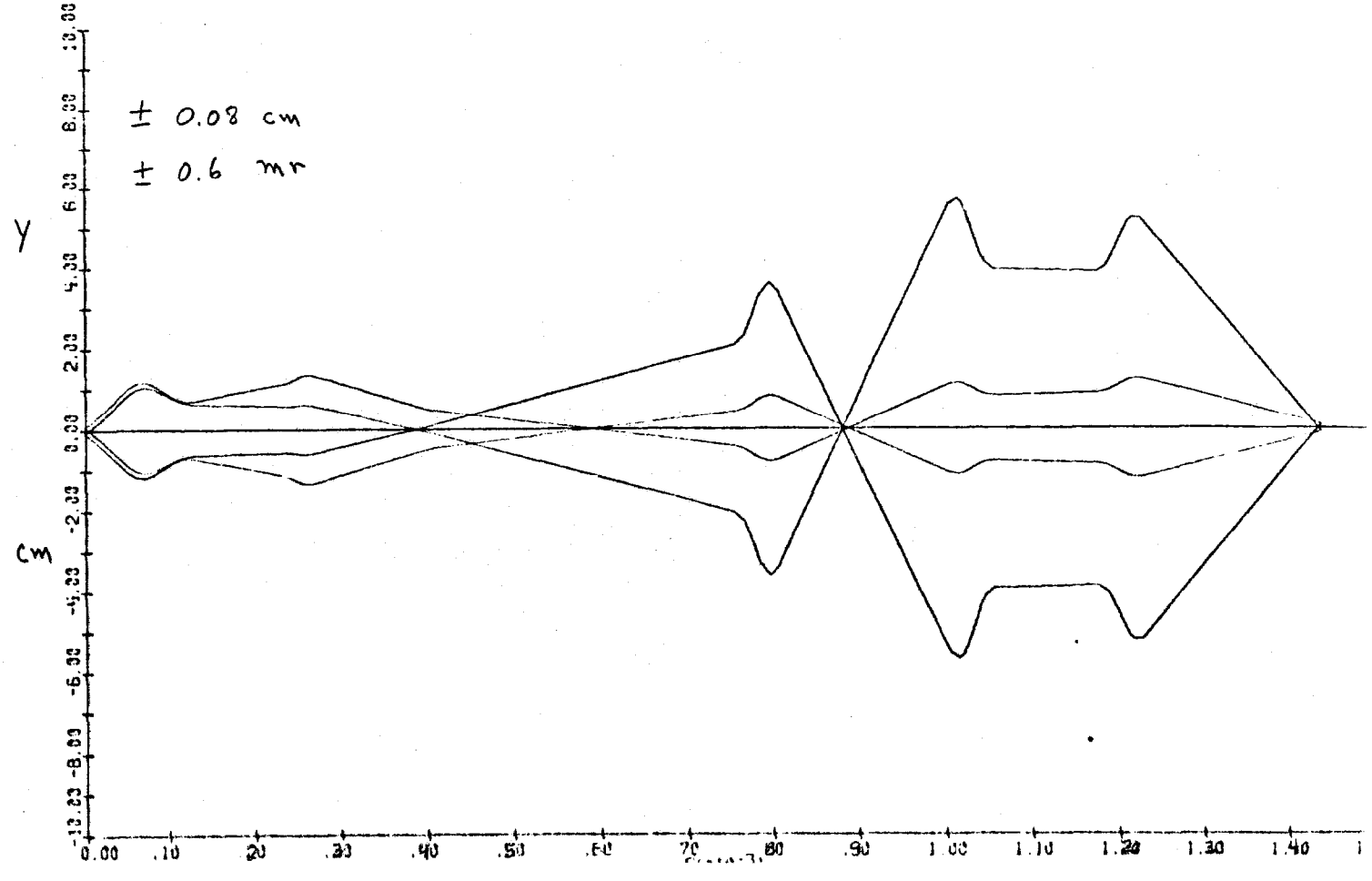
400 GeV MIE


X
Cm
1mr
1 %
0.1 cm
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
-10.00
0.00
.10
.20
.30
.40
.50
.60
.70
.80
.90
1.00
1.10
1.20
1.30
1.40
S(*10^-3)

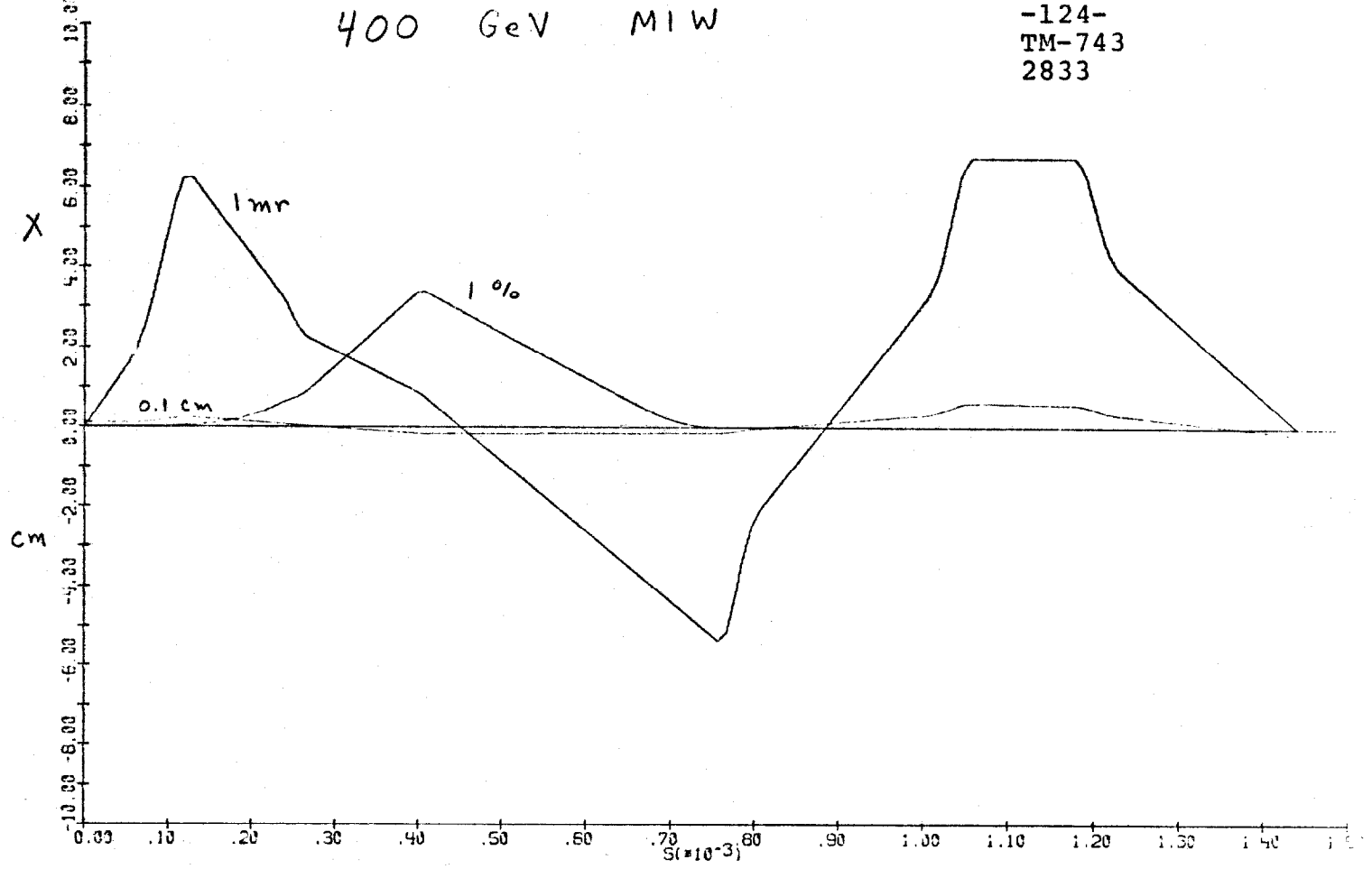

Y
Cm
1mr
0.1 cm
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
-10.00
0.00
.10
.20
.30
.40
.50
.60
.70
.80
.90
1.00
1.10
1.20
1.30
1.40
S(*10^-3)

400 GeV MI E





400 GeV MIW


X
cm
1mr
1 %
0.1 cm
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
-10.00
0.00
.10
.20
.30
.40
.50
.60
.70
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.90
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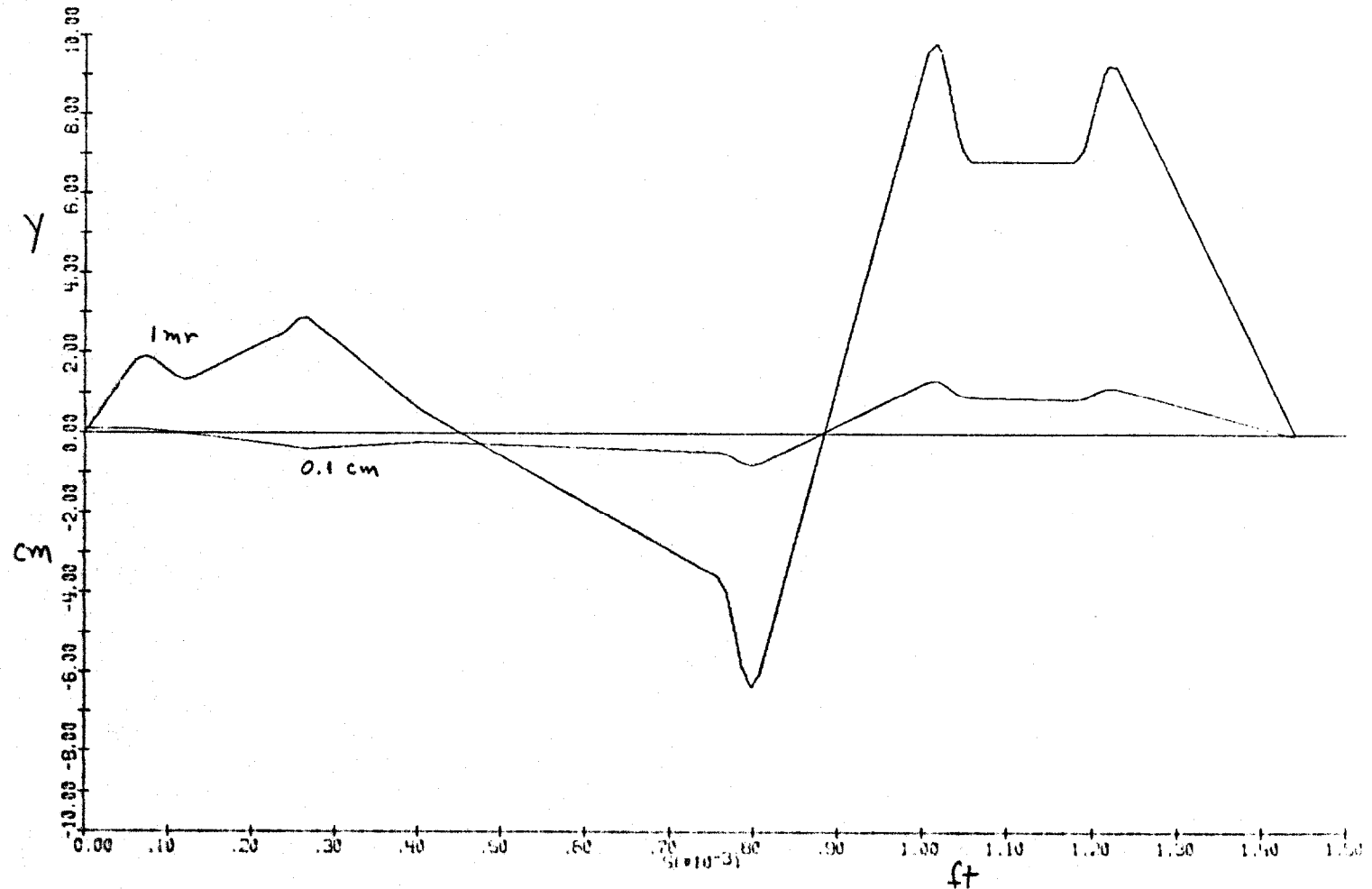
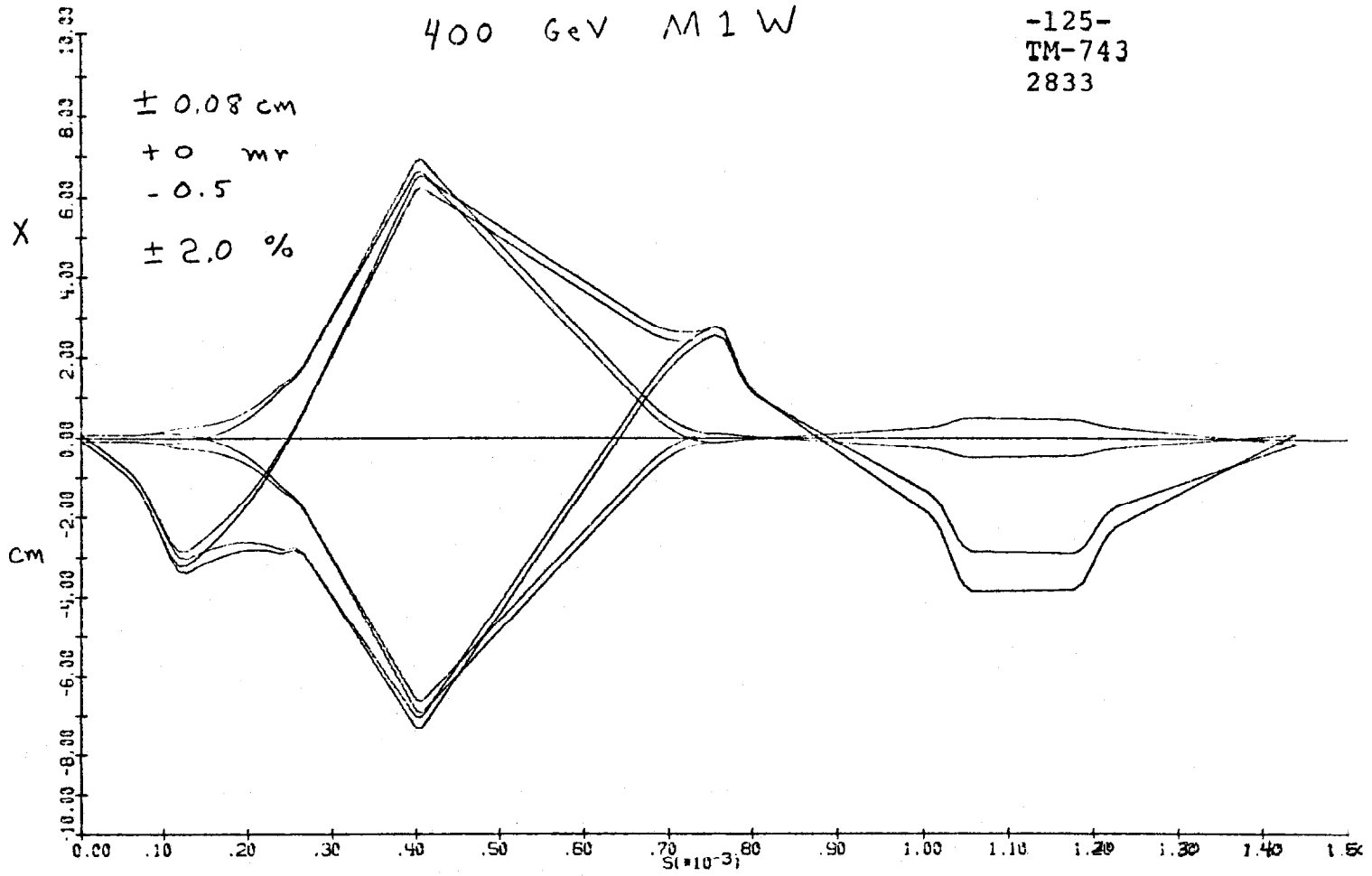
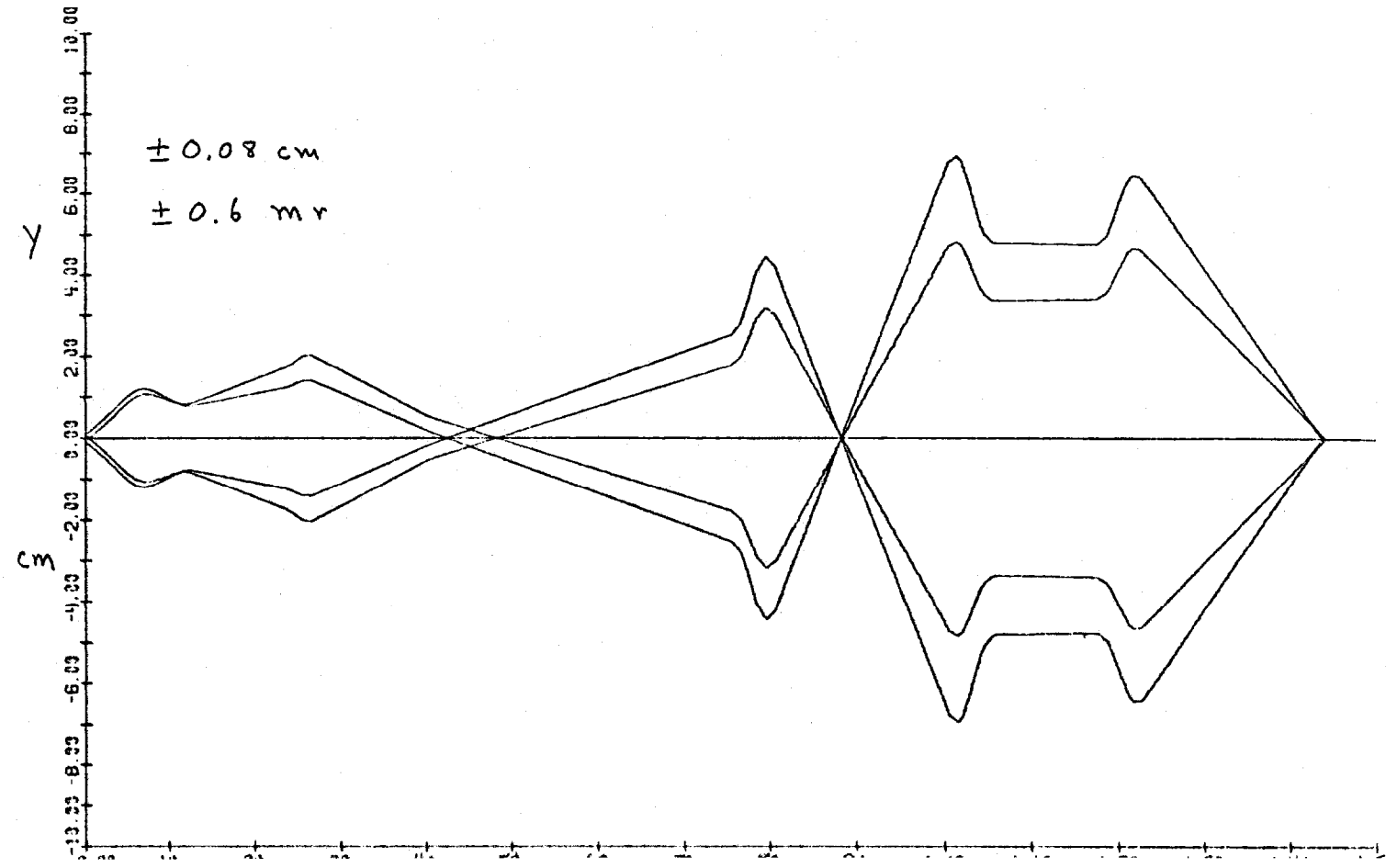
1.10
1.20
1.30
S(*10^-3)


Y
cm
1mr
0.1 cm
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
-10.00
0.00
.10
.20
.30
.40
.50
.60
.70
.80
.90
1.00
1.10
1.20
1.30
S(*10^-3)
ft

400 GeV M1W





fermi
national accelerator laboratory

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ML USERS' GUIDE

Stan Ecklund

November 14, 1977

APPENDIX A

BNL AUI
BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC. UPTON, L.I., N.Y. 11973

TM-743 (Rev A)
2833

TELEPHONE: (516) 345-3706

May 21, 1976

Dr. Lincoln Reed
Fermi National Accelerator Laboratory
P.O. Box 500
Batavia, Illinois 60510

Dear Linc,

The function of the High Resolution Gas Differential Cerenkov Counter was to identify secondary particles in the M_1 beam line in the FNAL Meson Laboratory. The M_1 beam line and the Cerenkov counter were designed to be compatible. In particular, the angular divergence of the beam in the "parallel section" dictated the maximum Cerenkov angle for adequate separation at the, then, maximum momentum of 180 GeV/c. The Cerenkov angle was chosen to be 11.5 milliradians for which a radiator length of 55 feet was required. We wanted to have two Cerenkov counters for identifying two types of particles in the "parallel section" so the length of the parallel section became 120 feet long.

Just before the Cerenkov counter design began, it became very clear that the maximum momentum of the particles in that beam will greatly exceed 200 GeV/c. The situation was further complicated by the fact that Klaus Pretzl increased the maximum angular divergence in the "parallel section" from $\pm$ 0.2 to $\pm$ 0.28 milliradians.

If the two Cerenkov counters were to be combined into one and the Cerenkov angle reduced by a factor of two, there would be insufficient light output (which varies inversely with the square of the Cerenkov angle). I, therefore, changed the Cerenkov angle to 15.66 milliradians for one counter which then gives us 7.61 milliradians when the counters are bolted together. Only the spherical mirror needed to be changed inside the counter.

Enclosed you will find a Xerox copy of a table showing the contribution to the resolution $\Delta\beta/\beta$ from the effect of dispersion in helium for MODE 1 (for separate counters where θ_c = 15.66 mr) and MODE 2 (for joined counters where θ_c = 7.61 mr). Notice that the difference between the two contributions varies as the inverse square of the Cerenkov angle. Therefore the effect of dispersion for my 7.61 mr combination is a factor of 10 smaller than for Meunier's DISC counter with its θ_c = 24.5 mr. The need for chromatic correction therefore vanishes. In any kind of a practical beam with high intensities the

main thing to worry about is the angular divergence, also shown in the table. It doesn't vary with momentum and is the main source of the width of the peaks on the pressure curve, and hence the resolution. It's clear that the θ_c = 7.61 mr is adequate for separating K mesons from π mesons even at 450 GeV/c if the angular divergence is reduced by a factor of three from what currently exists in the M_1 beam line. The Cerenkov angle need not be reduced to reduce the effect of dispersion at current Fermi Lab energies. It would need to be reduced only if the beam angular divergence is not to be reduced. Another advantage of my design over Meunier's is that I can tolerate a factor of 10 higher $\Delta\theta_H \times \Delta\sigma_V$ in the beam for the same resolution. In other words, he needs a much more parallel beam.

So as far as β resolution goes for separating K mesons from π mesons, for θ_c = 7.61 mr it is only a function of beam angular divergence. For θ_c = 15.66 mr it is a function of angular divergence up to $\approx$ 300 GeV at which point the dispersion effect enters in.

The effect of momentum spread in the beam and multiple scattering on the resolution can be ignored.

The Cerenkov counter pressure vessel and quartz photomultiplier windows were designed to operate at a maximum pressure of 300 p.s.i. I decided on that high pressure mainly in order to have a rigid structure that would not be affected by temperature and pressure changes. High pressures usually are required at low momenta where high resolution is not necessary and so one can switch to a gas such as CO_2.

There are 6 photomultiplier tubes on each of the coincidence and anti-coincidence rings. Enclosed is the optics diagram of the Cerenkov counter at the photomultiplier tube end as well as the diagram for a single counter. Adjascent pairs of the 6 coincidence photomultipliers are added with resistive mixers, amplified, and a three-fold coincidence required. The 6 anti-coincidence outputs are added with resistive mixers, amplified, and put in anti-coincidence with the three-fold coincidence.

Twelve RCA C 31000 M photomultipliers and twelve RCA 8575 photomultipliers were to be used on the two counters, the former on the coincidence channel and the latter on the anticoincidence channel. We couldn't get delivery on the C31000 M's and so the original running was all done with RCA 8575's. Enclosed are copies of pressure curves taken at 100, 150 and 200 GeV/c, all taken with RCA 8575's. The resolution was adequate and the efficiency exceeded 90%.

When I bolted the two counters together we scrounged up six C 31000 M's at Fermilab and put them on the coincidence side, with RCA 8575's on the anti-coincidence side and took the enclosed pressure curve at 280 GeV/c. The primary proton momentum was 300 GeV/c.

The counting rates are limited by the photomultiplier base design and discriminator. We could operate at 10^6/pulse. Val Fitch is running with one of my old counters at the AGS on antiprotons. The $\bar{p}$ level is at a level of

10^5 - 10^6/pulse and π^- level at 10^7 - 10^8/pulse. Under circumstances such as these the anti-coincidence channel could not be used. The background between peaks could be increased by a factor of 10. This should almost never be a problem at Fermilab because the rates π mesons are not at that level at the highest momenta where high resolutions are required. I should point out that the resolutions at 100, 150 and 200 GeV/c would now be better than shown on the pressure curves with the C 31000 M's, all twelve of which are presently in the counters.

Each counter weighs about 5000 pounds. You might notice that there is a long extension pipe on the upstream end of the Cerenkov counter just to give it a longer radiator length. In tandem use the counter weighs about twice as much. The two extension pipes are bolted together on the upstream end of the counter.

Some of the other numbers that you may wish to have are:

Focal lengths of spherical mirrors; 409.4 inches and 842.82 inches.

Inside radius of pressure vessel; 9.625 inches.

Pressure vessel wall thickness; 0.375 inches.

I should stop at this point and if you have any more questions I shall respond to them. Regards,

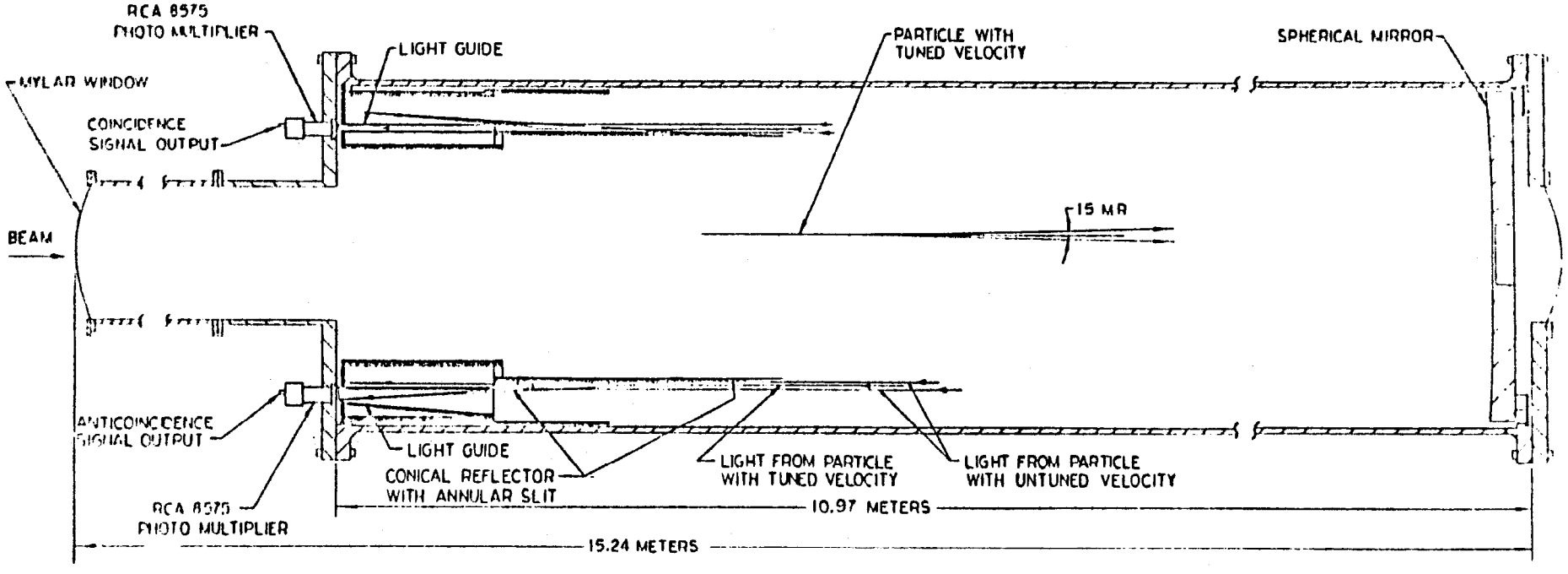
Sincerely yours,

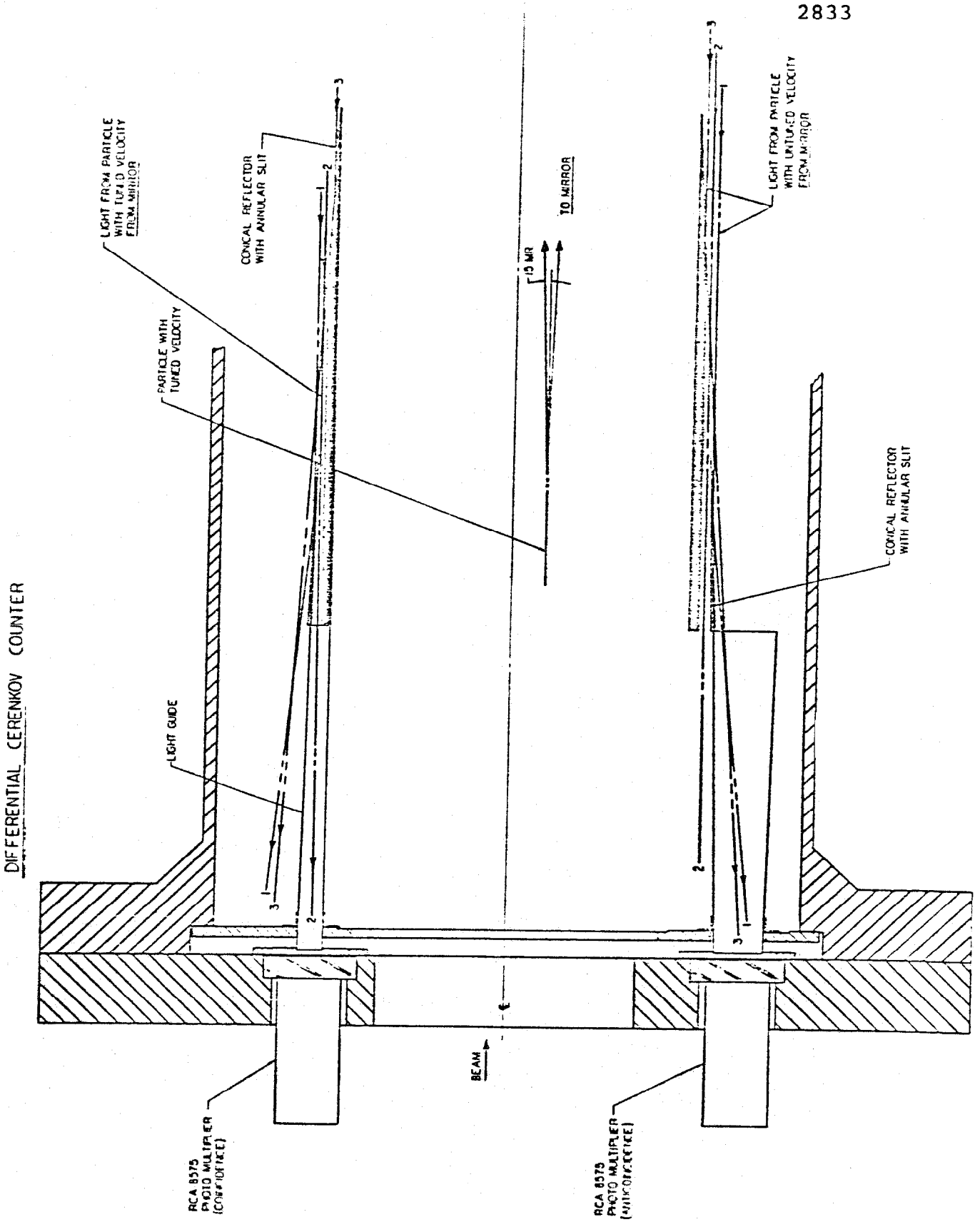
Ted

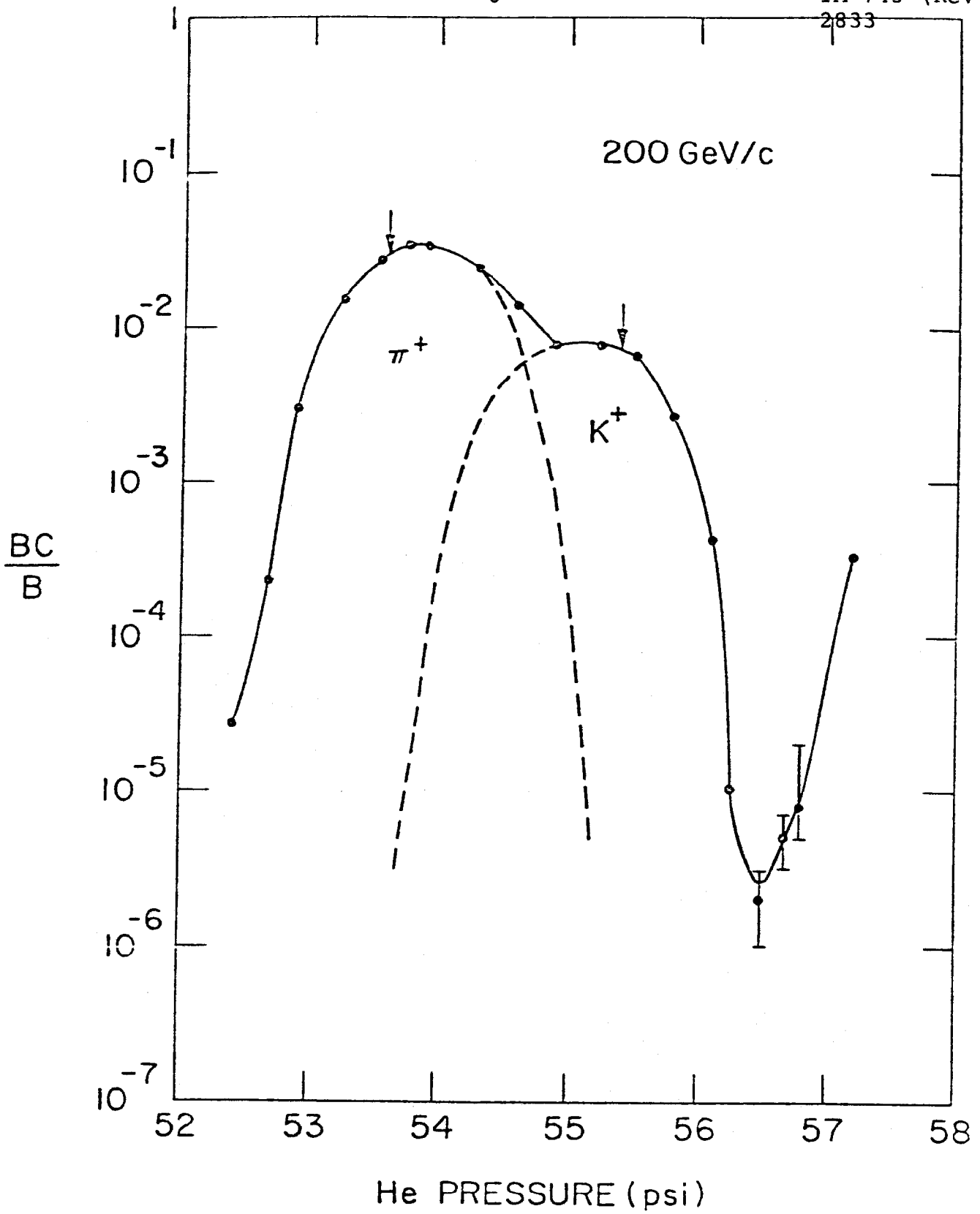
T. F. Kycia

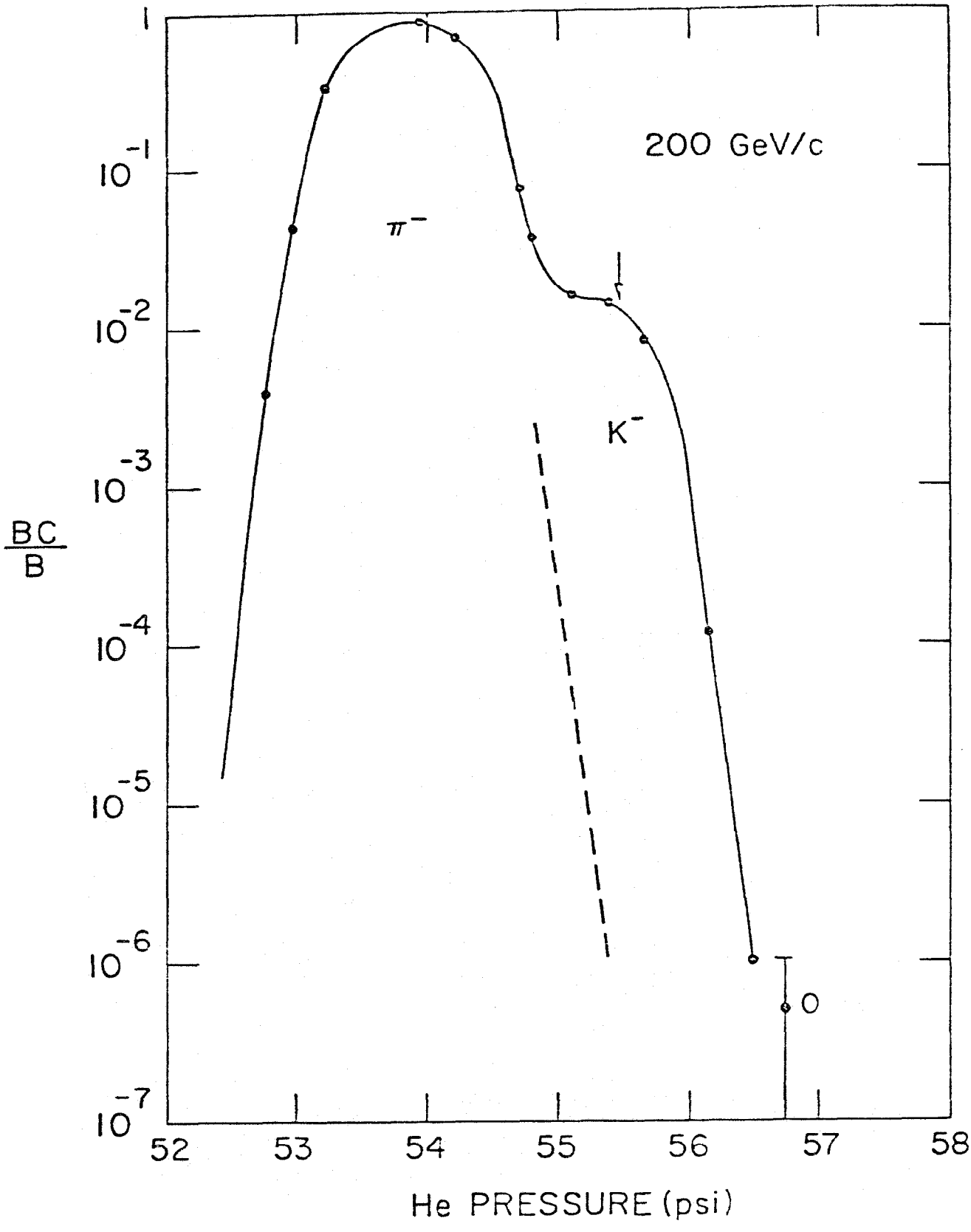
Encls.

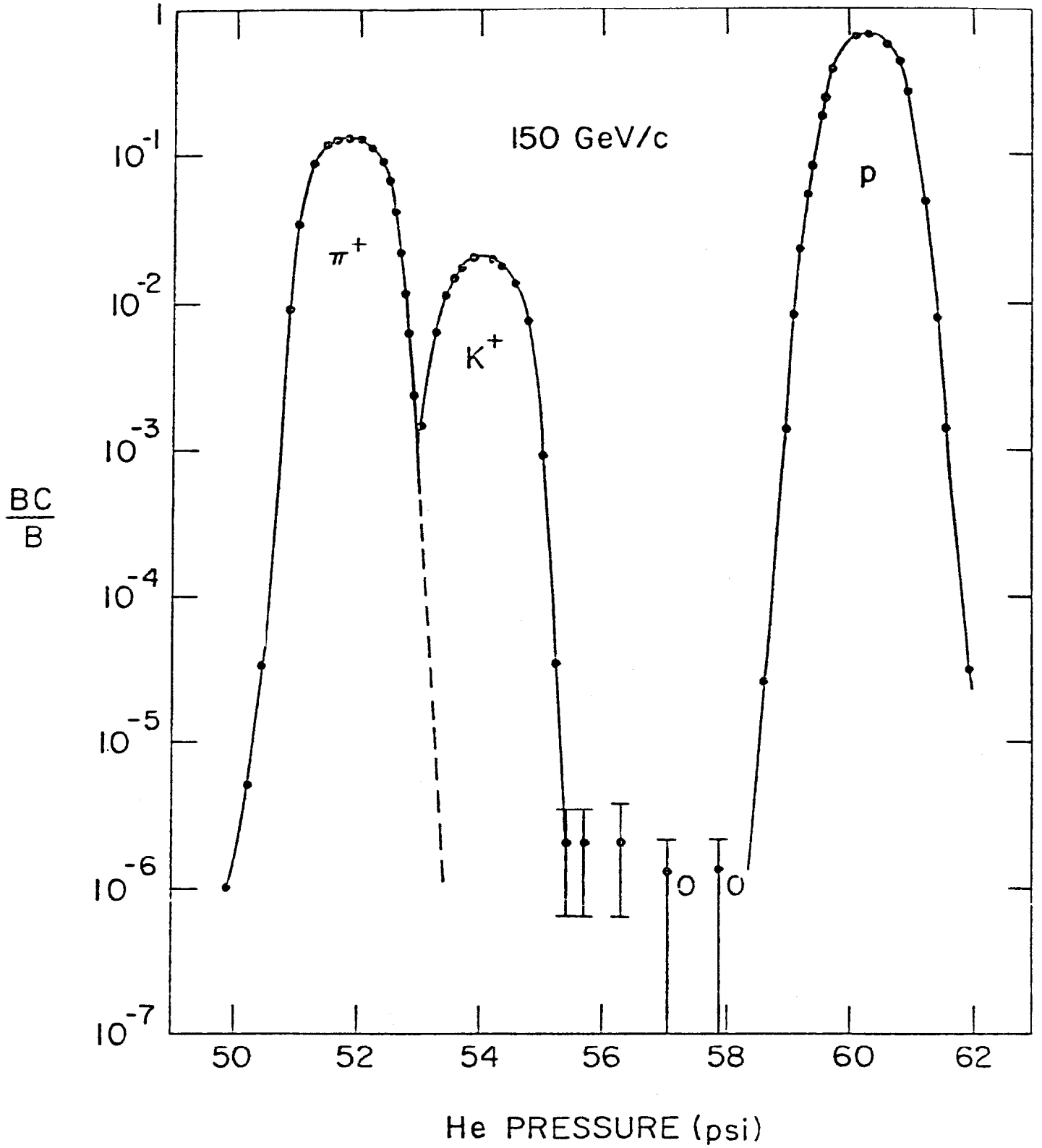
DIFFERENTIAL CERENKOV COUNTER

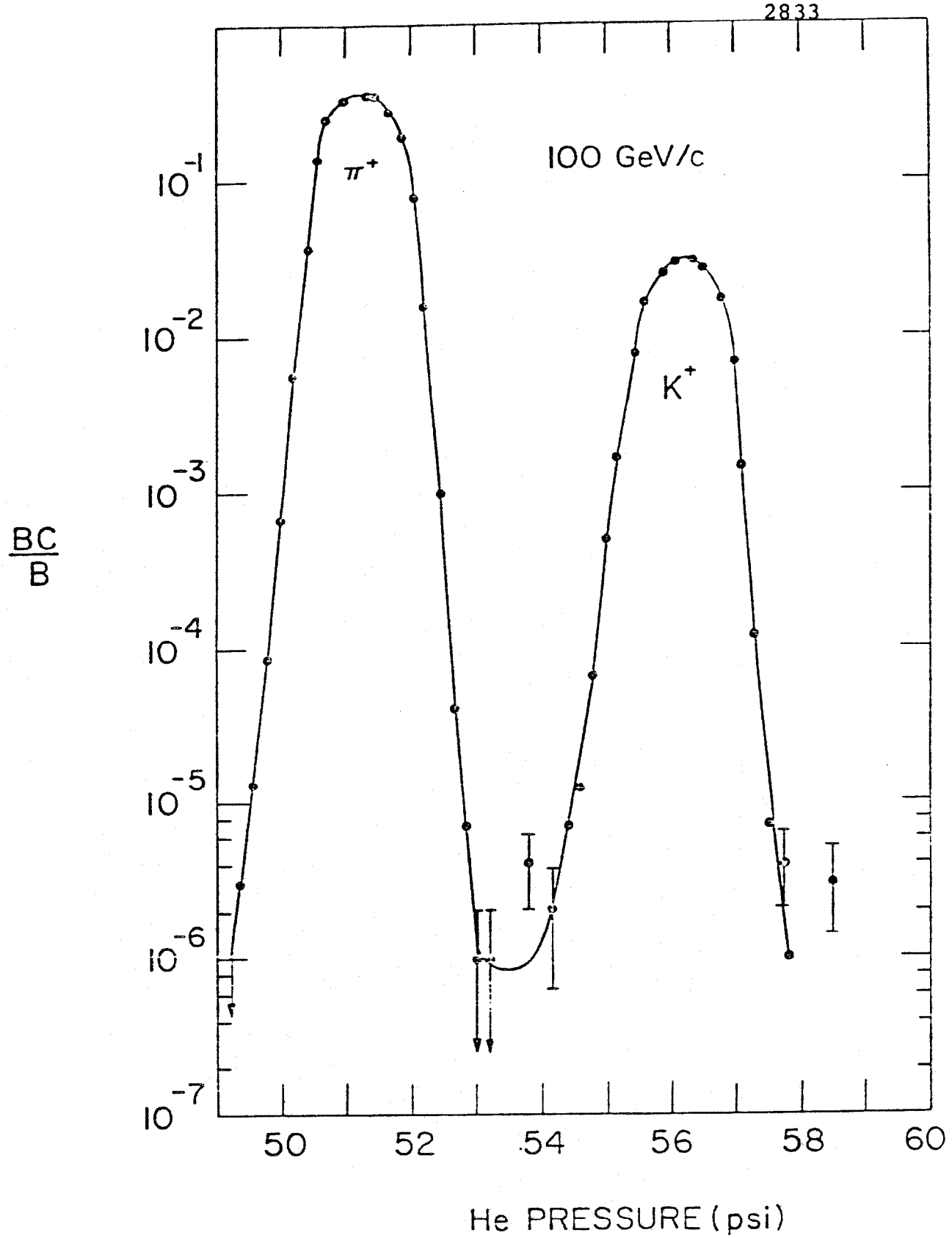


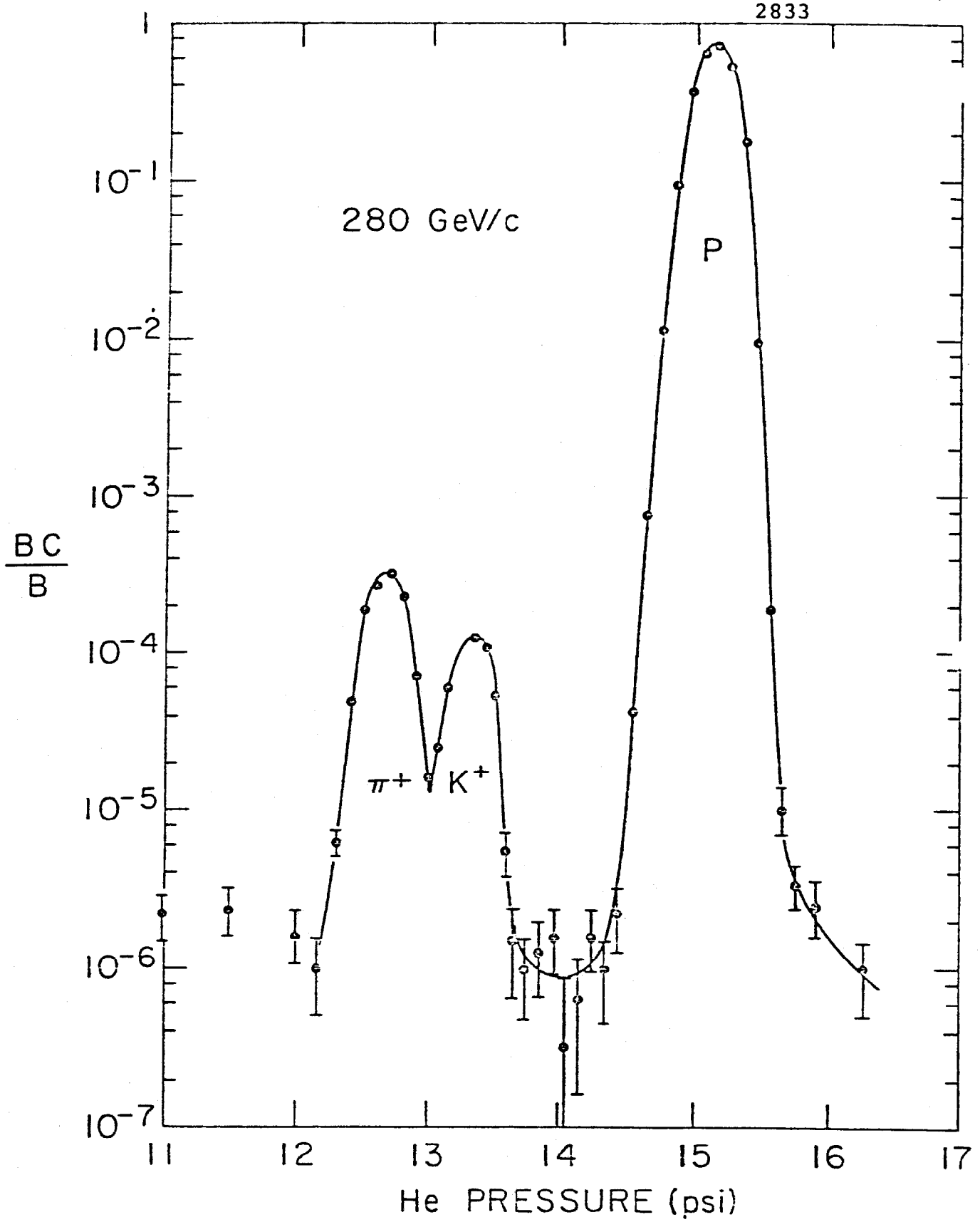

DIFFERENTIAL CERENKOV COUNTER
LIGHT FROM PARTICLE WITH TUNED VELOCITY FROM MIRROR
CONICAL REFLECTOR WITH ANNULAR SLIT
PARTICLE WITH TUNED VELOCITY
LIGHT GUIDE
TO MIRROR
15 MR
LIGHT FROM PARTICLE WITH UNTUNED VELOCITY FROM MIRROR
CONICAL REFLECTOR WITH ANNULAR SLIT
BEAM
RCA 8575 PHOTO MULTIPLER (CONFOCAL)
RCA 8575 PHOTO MULTIPLER (MIRROR FOCUS)


200 GeV/c
π^+
K^+
$\frac{BC}{B}$
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
52
53
54
55
56
57
58
He PRESSURE (psi)


200 GeV/c
π^-
K^-
$\frac{BC}{B}$
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
52
53
54
55
56
57
58
He PRESSURE (psi)


150 GeV/c
π^+
K^+
p
$\frac{BC}{B}$
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
50
52
54
56
58
60
62
He PRESSURE (psi)


100 GeV/c
π^+
K^+
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
$\frac{BC}{B}$
50
52
54
56
58
60
He PRESSURE (psi)


280 GeV/c
P
π^+
K^+
$\frac{BC}{B}$
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
11
12
13
14
15
16
17
He PRESSURE (psi)

High Resolution Gas Differential Cerenkov Counter

Chromatic Dispersion

$r = f \tan\theta$

$\Delta r = f \dfrac{\Delta\theta}{\cos^2\theta}$

$\boxed{\dfrac{d\beta}{\beta} = \tan\theta \, d\theta}$

$\cos\theta = \dfrac{1}{\beta n}$

$\sin\theta \, \Delta\theta = \dfrac{1}{\beta} \cdot \dfrac{\Delta n}{n^2} \approx \Delta n$

$\Delta\theta \approx \dfrac{\Delta n}{\sin\theta}$

For $\Delta\lambda = 2200 \times 10^{-8}$ cm, we assume $\Delta n = 0.0239 \times 10^{-5}$

Assume $n \approx 1 + 35 \times 10^{-5} p$

Chromatic Dispersion effect

Beam angular divergence ±

p_K	$\Delta\theta$ mr MODE I	$\Delta\theta$ mr MODE II	$\tan\theta_c \Delta\theta$ or $\sin\theta \Delta\theta \times 10^{-5}$ $\theta_c = 15.66$ mr MODE I	$\tan\theta_c \Delta\theta$ or $\sin\theta \Delta\theta \times 10^{-5}$ $\theta_c = 7.61$ mr MODE II	$(\beta_\pi - \beta_K) \times 10^{-5}$	$\tan\theta_c \Delta\theta \times 10^{-5}$ $\theta_c = 15.66$ mr MODE 1	$\tan\theta_c \Delta\theta \times 10^{-5}$ $\theta_c = 7.61$ mr MODE 2
20	0.19	0.28	0.29	0.21	28.06	0.313	0.152
40	0.087	0.068	0.136	0.052	7.01	"	"
60	0.068	0.057	0.107	0.043	3.12	"	"
80	0.062	0.043	0.097	0.033	1.76	"	"
100	0.059	0.037	0.092	0.028	1.12	"	"
120	0.057	0.034	0.089	0.026	0.78	"	"
140	0.056	0.032	0.088	0.024	0.57	"	"
160	0.056	0.030	0.087	0.023	0.43	"	"
180	0.055	0.029	0.086	0.022	0.34	"	"
200	0.055	0.029	0.086	0.022	0.28	"	"
250	0.054	0.028	0.085	0.021	0.18	"	"
300	0.054	0.028	0.085	0.021	0.12	"	"
350	0.054	0.026	0.0844	0.020	0.09	"	"
400	0.054	0.026	0.0842	0.020	0.06	"	"
450	0.054	0.026	0.0841	0.020	0.055	0.313	0.152

Meunier takes θ to be 0.024 radians or $\cos\theta_c = 1 - 2$

For 450 GeV/c K's, $1 - n = 28.86 \times 10^{-5}$,

∴ from chromatic dispersion

$\sin\theta \, \Delta\theta = \dfrac{28.8 \times 10^{-5}}{3.5 \times 10^{-5}} \times 0.0239 \times 10^{-5} = 0.197$

or a factor of 10 worse.