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THE APPLICATION OF GEOSTATISTICAL TECHNIQUES IN THE ANALYSIS OF JOINT DATA

by

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A research project submitted to the Faculty of Engineering, University of the Witwatersrand, Johannesburg, in partial credit for the Degree of Master of Science in Engineering in the field of Mineral Economics.

Johannesburg 1986

DECLARATION

I declare that this research project is my own, unaided work. It is being submitted for the degree of Master of Science at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

Leonard Alden Grady

12 day of November, 1986

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I wish to thank Steffen, Robertson and Kirsten for allowing me the time and resources to complete this project.

Special thanks to my wife, Joan.

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1 INTRODUCTION

To predict the behaviour of a rock mass, it is essential to understand the discontinuities (joints) in the rock mass. In the analysis of joint data it is common practice to use "*classical statistics*" to predict how joint properties will behave. The use of classical statistics does not take into account spatial structure or trend that may be inherent in the data. A statistical method of analysis which does take into account these factors is geostatistics.

Geostatistics was originally developed for use in estimating ore reserves. Ore grade distributions will generally have a structural component due to the mineralizing process as well as a random component. Joint properties usually have a structured and a random component, making geostatistics applicable to joint data.

2 OBJECTIVES

Where previously classical statistics has been used to analyse and predict the behavior of joint properties, this research has investigated the use of geostatistics in an attempt to obtain a better predictor.

The extent to which geostatistics is a better predictor will be quantified by defining the limitations and guidelines pertaining to joint data. These are listed below:

- Define to which joint sets geostatistics is applicable
- Quantify the extent of drift or trend in the data
- Quantify the number of joint measurements necessary to produce a meaningful semi-variogram
- Estimate the range for which the semi-variogram is valid
- Define any anisotropy present in the data
- Test the effect that geological formations have on the joint data
- Compare surface data with underground data

To help attain the objectives of the project, a comprehensive set of geostatistical programs called GEOPACK2 was developed. This package is capable of analyzing most types of data and will be discussed in detail later in the text.

3 SCOPE OF THE PROJECT

The joint data used for this project were collected from a single site investigation. The results, therefore, apply only to that particular area. Data from other sites should be analysed, in order to obtain more general results.

Field measurements consisting of 10 joint parameters were collected. It was not considered necessary to analyse all the parameters available in order to prove the validity of geostatistics. Two of the more important parameters were chosen and analysed namely

- orientation (dip and dip-direction)
- joint spacing

There is usually correlation between the joint parameters' dip and dip-direction. The implications of this correlation were not considered to be within the scope of this project. Programs are currently being written (Co-Kriging) which will investigate this aspect; they have not been included.

4 METHOD

If both classical and geostatistical methods of analysis are to work, it is important that the data should be properly subdivided into the various population groups. The software used for this and all of the classical analysis of the data was originally developed by Dr. O. Steffen as part of his Ph.D thesis (1978). With the aid of these programs, the approximately 3000 joint measurements were subdivided into five vertical joint sets and one bedding joint set.

The joint measurements were input into GEOPACK2 to obtain a block model for each of the joint sets/joint parameters over an area of approximately 90 000 sq. metres.

4.1 GEOLOGY OF THE AREA

In the area covered by the joint survey, three formations are recognised in Natal Group sediments; the Eshowe Formation is lowest, followed conformably by the Shongweni Formation which is in turn overlain conformably by the Inanda Formation.

The Eshowe Formation, approximately 70 metres thick, consists of purple-brown, coarse-grained to very coarse-grained cross-bedded sandstones in which loosely packed, lensoid conglomerates are developed towards the basal contact. Red-brown, finely laminated, micaceous siltstones are present as partings between the bedded sandstone units. The siltstone is usually 1 centimetre to 10 centimetres thick. Planar cross-bedding is common throughout the sandstone.

The Shongweni Formation is on average 25 metres thick. It consists of purple-brown and light grey to white medium to coarse-grained quartzitic sandstone. Narrow, lensoid, red-brown

micaceous siltstone is sometimes present on the bedding planes. Planar cross-bedding is occasionally present with sandstone being most apparent on weatherbed exposures.

The Inanda Formation consists of purple-brown, coarse to very coarse-grained, cross-bedded sandstones with lensoid, loosely packed, fine and medium pebble conglomerates occasionally present throughout. Red-brown, finely laminated micaceous siltstone is present as partings between the bedded sandstone units. This formation is exposed only in the trenches and is estimated to be at least 50 metres thick.

Figure 4.1 is a schematic representation of a cross-section through the geological formations looking north. The relative location of the adit is shown for future reference.

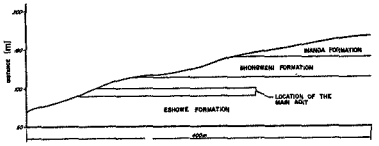


Figure 4.1 SCHEMATIC CROSS-SECTION OF GEOLOGICAL FORMATIONS

4.2 COLLECTION OF DATA

The data used in this project were collected by means of underground and surface line surveys by employees of Steffen, Robertson & Kirsten.

4.3 JOINT PARAMETERS COLLECTED

A Standard Joint Survey Data Sheet has been used by Steffen, Robertson and Kirsten, and has been found to be very useful in all forms of structural data collection. The line survey method is a method according to which the properties of discontinuities are described at the position where they cross a tape of reference line. The parameters selected to describe discontinuities and rock masses are defined below:

1 Orientation - the attitude of discontinuity in space. This is described by the dip direction (azimuth) and dip of the line of steepest declination in the plane of the discontinuity. Example: dip direction/dip (015 deg/35 deg).

2 Spacing - the perpendicular distance between adjacent discontinuities. Normally refers to the mean or modal spacing of a set of joints.

3 Persistence - the discontinuity trace length as observed in an exposure. It may give a crude measure of the real extent or the penetration length of a discontinuity. Termination in solid rock or against other discontinuities reduces persistence.

4 Roughness - the inherent surface roughness and waviness relative to the mean plane of a discontinuity. Both roughness and waviness contribute to the shear strength. Large scale waviness may also alter the dip locally.

5 Wall Strength - the equivalent compression strength of the adjacent rock walls of a discontinuity. It may be lower than intact rock block strength due to weathering or alteration of the walls. Wall strength is an important component of shear strength if rock walls are in contact.

This is determined from an analysis of the results produced by use of a Schmidt Hammer on the discontinuity surface.

6 Aperture - The perpendicular distance between adjacent rock walls of a discontinuity, in which the intervening space is air or water filled.

7 Filling - the material that separates the adjacent rock walls of a discontinuity, and which is usually weaker than the parent rock. Typical filling materials are sand, silt, clay, breccia, gouge, and mylonite. Filling also includes thin mineral coatings and healed discontinuities, e.g. quartz and calcite veins.

8 Seepage - the water flow and free moisture visible in individual discontinuities or in the rock mass as a whole.

9 Number of sets - the number of joint sets comprising the intersecting joint system. The rock mass may be further divided by individual discontinuities.

10 Block size - the rock block dimensions resulting from the mutual orientation of intersection joint sets, and resulting from the spacing of the individual sets. Individual discontinuities may further influence the size and shape of the block.

4.4 LOCATION OF SURFACE AND UNDERGROUND DATA

Thirteen line surveys, resulting in 3 087 joint measurements were collected over an area of approximately 150 sq. kilometres. The surface data consisted of 1 887 measurements and the remaining 1 200 were underground.

The surface joints are subdivided into the three geological formations as indicated in the plot of data locations in Figure 4.2. This plot also illustrates the high concentration or clustering of data.

The underground measurements are entirely within the Eshowe Formation (Lower). Figure 4.3 is a plot of locations of the underground measurements.

A complete list of the original joint measurements, as recorded in the field, is shown in Appendix 1.

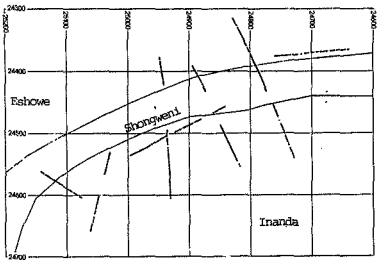


Figure 4.2 PLOT OF SURFACE MEASUREMENTS

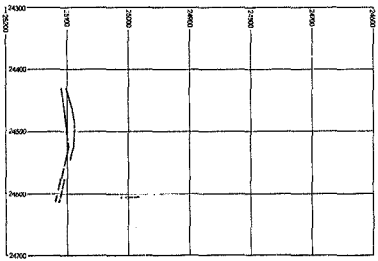


Figure 4.3 PLOT OF UNDERGROUND JOINT MEASUREMENTS

5 CLASSICAL STATISTICS IN JOINT ANALYSIS

5.1 DEFINING POPULATION GROUPS

In any rock mass there exists a finite number of "joint sets." In order to subdivide a joint system into individual joint sets, it is useful to plot a fabric diagram of the joint measurements. The fabric diagram shown in Figure 5.1 is an equal-area projection of joint poles into the upper-hemisphere bowl. As seen in this diagram, clusters of poles can be identified which pertain to specific joint sets, each set being constrained by dip and dip-direction.

To help define final dip and dip-direction limits for each joint set, a contour of pole density as a percentage can be plotted as shown in Figure 5.2.

By defining limits, as shown by the solid lines in Figure 5.2, joints falling within the constraints can be sectioned out of the data file and placed in the appropriate population group. The radius of the curved solid lines in Figure 5.1 reflect the dip constraints (a shallow dip has a small radius) while the vectors outward from the centre represent the dip-direction constraints.

As seen in the figure, not all the joints fall within a set of boundaries. These joints are part of a random set which appears to have no clustering characteristics. Only a small percentage of measurements belong to the random joint set ($\pm$ 1 %). As is common practice, the random joint set can be ignored.

A fabric diagram and pole density contour were plotted for each of the 13 line surveys taken in the field. Using these plots 5 vertical joint sets and one bedding set were identified. Final constraints for each joint set/joint survey were then estimated and are summarised in Table 5.1.

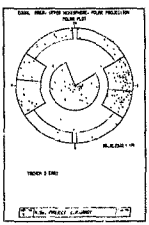


Figure 5.1 REPRESENTATIVE FABRIC DIAGRAM

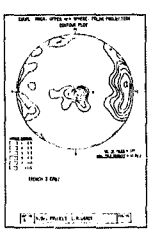


Figure 5.2 REPRESENTATIVE CONTOUR OF *POLE DENSITY*

Table 5.1 DIP/DIP-DIRECTION CONSTRAINTS

No.	Joint Set																					
	Bedding				Set A				Set B				Set C1				Set C2				Set D			
	Dip		Dip D		Dip		Dip D		Dip		Dip D		Dip		Dip D		Dip		Dip D		Dip		Dip D	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1 Main Adit South Face	0	25	2	330	65	115	148	180	70	120	0	50	60	120	94	124	70	125	124	148	70	120	50	94
2 Main Adit North Face	0	30	5	300	65	115	148	180	70	115	0	50	62	118	94	124	56	104	124	148	72	118	50	94
3 Trench 1	0	20	80	230	60	120	134	175	68	112	38	71	N/A	N/A	N/A	N/A	66	113	71	134	N/A	N/A	N/A	N/A
4 Trench 2	0	30	5	355	N/A	N/A	N/A	N/A	60	120	10	50	160	120	95	115	60	120	115	160	70	120	60	95
5 Trench 3 East	0	35	60	340	70	110	125	178	70	110	2	60	50	130	96	125	N/A	N/A	N/A	N/A	50	130	60	96
6 Trench 3 West	0	44	0	360	88	106	156	167	84	96	0	16	49	123	92	126	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7 Trench 4	0	40	60	340	50	130	126	182	40	140	2	60	40	140	60	126	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8 Trench 5	1	30	1	275	80	120	110	173	64	110	1	65	69	116	70	110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9 Trench 7 East	1	30	1	320	60	120	132	179	70	110	1	25	60	120	90	132	N/A	N/A	N/A	N/A	60	120	25	90
10 Trench 7 West	0	36	2	320	70	110	123	170	60	120	16	50	60	120	80	123	N/A	N/A	N/A	N/A	65	115	50	80
11 Trench 8 East	0	28	40	220	87	108	180	192	62	115	45	78	35	78	90	120	N/A	N/A	N/A	N/A	63	115	78	95
12 Trench 8 West	0	38	50	240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60	94	80	106	N/A	N/A	N/A	N/A	73	107	51	80
13 Adit A	0	45	10	350	70	120	120	179	70	125	1	65	70	125	65	120	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Obviously, if joints belonging to a particular set are mixed with the wrong set, error will result in future calculations, so care has to be taken.

Table 5.2 is a summary of the frequency of joints recorded in each joint set/joint survey, using the constraints defined.

Table 5.2 FREQUENCY OF JOINT MEASUREMENTS WITHIN EACH JOINT SET

		Name of joint set					
Ref No.	Joint Survey	Bedding	Set A	Set B	Set C1	Set C2	Set D
1	Main Adit South Face*	33	68	41	181	58	162
2	Main Adit North Face*	40	85	57	166	60	187
3	Trench 1	20	10	34	-	78	-
4	Trench 2	26	-	50	46	56	45
5	Trench 3 East	34	12	11	44	-	73
6	Trench 3 West	165	11	5	133	-	189
7	Trench 4	27	31	11	67	-	-
8	Trench 5	13	24	33	42	-	-
9	Trench 7 East	33	21	5	36	-	85
10	Trench 7 West	28	7	35	33	-	23
11	Trench 8 East	14	5	40	23	-	38
12	Trench 8 West	27	-	-	49	-	95
13	Adit A*	8	27	17	10	-	-
	TOTAL	468	301	339	830	252	897

*Underground Joint Survey

As can be seen in the table, the frequency of joints in sets such as C1 is substantially lower than that in, say, C2. As the quality of results from a statistical analysis depends on the frequency of occurrence, this will prove to be an important factor.

5.2 DIP AND DIP-DIRECTION DISTRIBUTIONS

Assuming that each joint set is independent of the other, such a set can be analysed as a separate population group. Having defined various population groups represented by the joint data, it is important to know the distribution of the data. Histograms were plotted for each of the populations. Figures 5.3 and 5.4 are the histograms of dip and dip-direction for joint set D. The data appear to be normally distributed for both of these properties. Histograms for the other joint sets were found to be similar.

Tables 5.3 and 5.4 summarise the basic statistics which have been calculated for dip and dip-direction respectively on each joint set. The significance statistic indicates the probability of the distribution not being normally distributed by chance, and is based on the chi-square test.

Most of the data does not pass the 5% significance test and cannot be assumed to be normal. The distributions are nevertheless closer to normal than lognormal; and, therefore, transformations were not considered.

5.3 SPACING DISTRIBUTION

Spacing is invariably log-normally or negative exponentially distributed, as shown in the plot for joint set D in Figure 5.5.

```
NORMAL HISTOGRAM FOR 5JOINTD                                    DATA FILE

CODE  FROM          TO                  10        20        30        40        50        60        70        80        90       100
                                          +---------+---------+---------+---------+---------+---------+---------+---------+---------+
A   .30000E 02   .35300E 02   *
B   .35300E 02   .35000E 02   *
C   .35000E 02   .37500E 02   **
D   .37500E 02   .40000E 02   ***
E   .40000E 02   .42500E 02   ****
F   .42500E 02   .45000E 02   ********
G   .45000E 02   .47500E 02   **************
H   .47500E 02   .70000E 02   ****
I   .70000E 02   .72500E 02   ************************
J   .72500E 02   .75000E 02   ****************
K   .75000E 02   .77500E 02   ************************************
L   .77500E 02   .80000E 02   ****************
M   .80000E 02   .82500E 02   ************************************
N   .82500E 02   .85000E 02   ************************************
O   .85000E 02   .87500E 02   ************************************************
P   .87500E 02   .90000E 02   ************************
Q   .90000E 02   .92500E 02   ************************************************************
R   .92500E 02   .95000E 02   ************************************
S   .95000E 02   .97500E 02   ************************************
T   .97500E 02   .10000E 03   ************************
U   .10000E 03   .10250E 03   ************************************
V   .10250E 03   .10500E 03   ************************
W   .10500E 03   .10750E 03   ************************
X   .10750E 03   .11000E 03   ************
Y   .11000E 03   .11250E 03   ************
Z   .11250E 03   .11500E 03   *******
1   .11500E 03   .11750E 03   ****
2   .11750E 03   .12000E 03   *
3   .12000E 03   .12250E 03   **
4   .12250E 03   .12500E 03   *
                                          +---------+---------+---------+---------+---------+---------+---------+---------+---------+

                                          FREQUENCY (*.0000 STARTS PER UNIT)
```

Figure 5.3 REPRESENTATIVE HISTOGRAM OF DIP VALUES

```
NORMAL HISTOGRAM FOR 5JOINTD                                    DATA FILE

CODE  FROM          TO                  10        20        30        40        50        60        70        80        90       100
                                          +---------+---------+---------+---------+---------+---------+---------+---------+---------+
B   .27500E 02   .30000E 02   *
C   .30000E 02   .32500E 02   **
D   .32500E 02   .35000E 02   *
E   .35000E 02   .37500E 02   **
F   .37500E 02   .40000E 02   ****
G   .40000E 02   .42500E 02   ************
H   .42500E 02   .45000E 02   ***
I   .45000E 02   .47500E 02   *****
J   .47500E 02   .50000E 02   ****
K   .50000E 02   .52500E 02   ********
L   .52500E 02   .55000E 02   ********
M   .55000E 02   .57500E 02   ****************
N   .57500E 02   .60000E 02   *******
O   .60000E 02   .62500E 02   ************************
P   .62500E 02   .65000E 02   ******* ***********
Q   .65000E 02   .67500E 02   ************************************
R   .67500E 02   .70000E 02   ************************
S   .70000E 02   .72500E 02   ************************************************
T   .72500E 02   .75000E 02   ************************
U   .75000E 02   .77500E 02   ************************************************
V   .77500E 02   .80000E 02   ************************************
W   .80000E 02   .82500E 02   ************************************************
X   .82500E 02   .85000E 02   ************************************************
Y   .85000E 02   .87500E 02   ************************************************
Z   .87500E 02   .90000E 02   ************************
1   .90000E 02   .92500E 02   ************************************
2   .92500E 02   .95000E 02   ************
3   .95000E 02   .97500E 02   ************
4   .97500E 02   .10000E 03   *
5   .10000E 03   .10250E 03   **
                                          +---------+---------+---------+---------+---------+---------+---------+---------+---------+

                                          FREQUENCY (1.00^^ STARTS PER UNIT)
```

Figure 5.4 REPRESENTATIVE HISTOGRAM OF DIP-DIRECTION VALUES

Table 5.3 SUMMARY OF STATISTICS FOR DIP

	Name of Joint Set					
Statistic	Bedding	Set A	Set B	Set C1	Set C2	Set D
Arithmetic Mean	14.3	97.1	87.6	85.4	95.4	88.2
Variance	24.8	103.8	136.7	265.5	124.0	159.4
Moment 1	14.3	97.7	88.6	86.1	95.8	88.9
Moment 2	56.5	95.4	135.4	262.7	125.0	160.4
Skewness	0.39	0.49	0.02	0.00	0.17	0.00
Kurtosis	1.21	3.96	2.71	2.88	2.52	2.75
Chi-Square	132	17	59	200	13	371
Degrees of Freedom	13	6	9	15	7	14

Table 5.4 SUMMARY OF STATISTICS FOR DIP-DIRECTION

	Name of Joint Set					
Statistic	Bedding	Set A	Set B	Set C1	Set C2	Set D
Arithmetic Mean	155.5	144.0	40.3	102.2	115.8	73.9
Variance	432.5	105.3	309.9	107.9	537.0	188.7
Moment 1	156.3	148.6	40.9	102.5	115.8	74.5
Moment 2	431.4	247.3	313.8	101.6	517.2	189.6
Skewness	0.13	0.09	0.00	0.05	0.05	0.55
Kurtosis	2.84	2.69	2.23	3.03	2.04	3.31
Chi-Square	174.0	14.8	35.3	200.0	7.3	237.0
Degress of Freedom	18	12	13	9	13	12

If the data are log-normally transformed, the resulting histogram will be as shown in Figure 5.6.

From this plot it is evident that the spacing distribution can be approximated by a log-normal distribution.

Table 5.5 is a summary of the statistics for each of the joint sets/joint surveys. As expected, the skewness is greater than that calculated for the other two joint properties.

```
      NORMAL HISTOGRAM FOR SJOINTD.OUT                    DATA FILE

CODE   FROM          TO                20        40        60        80        100       120       140       160       180       200
 ---  ----------  ----------  ----+---------+---------+---------+---------+---------+---------+---------+---------+---------+----
 B   0.00000E 00  .10000E 00  ##########a ##########################
 C   .10000E 00  .20000E 00  ##########################a#############################################
 D   .20000E 00  .30000E 00  ##############################################a
 E   .30000E 00  .40000E 00  ##########a. ##########################
 F   .40000E 00  .50000E 00  ##########aaa. ##
 G   .50000E 00  .60000E 00  ##########aaa
 H   .60000E 00  .70000E 00  ###########
 I   .70000E 00  .80000E 00  ########
 J   .80000E 00  .90000E 00  ######
 K   .90000E 00  .10000E 01  ########
 L   .10000E 01  .11000E 01  #######
 M   .11000E 01  .12000E 01  ###
 N   .12000E 01  .13000E 01  ###
 O   .13000E 01  .14000E 01  ####
 P   .14000E 01  .15000E 01  ####
 Q   .15000E 01  .16000E 01  ##
 R   .16000E 01  .17000E 01  ##
 S   .17000E 01  .18000E 01  ##
 T   .18000E 01  .19000E 01  ###
 U   .19000E 01  .20000E 01  ##
 V   .20000E 01  .21000E 01  ##
 W   .21000E 01  .22000E 01
 X   .22000E 01  .23000E 01  #
 Y   .23000E 01  .24000E 01  #
 Z   .24000E 01  .25000E 01  ###
 1   .25000E 01  .26000E 01  #
 2   .26000E 01  .27000E 01  ##
 3   .27000E 01  .28000F 01
 4   .28000E 01  .29000F 02  /
 5   .29000E 01  .30000E 01  #
                 +---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+----

                 FREQUENCY ( .5000 STARTS PER UNIT)
```

Figure 5 REPRESENTATIVE HISTOGRAM OF SPACING VALUES

```
      NORMAL HISTOGRAM FOR SJOINTD.OUT                    DATA FILE

CODE   FROM          TO                10        20        30        40        50        60        70        80        90        100
 ---  ----------  ----------  ----+---------+---------+---------+---------+---------+---------+---------+---------+---------+----
 O   -.28500E 01  -.26000E 01  **
 P   -.26000E 01  -.24000E 01  *
 Q   -.24000E 01  -.22000E 01  **
 R   -.22000E 01  -.20000E 01  *
 S   -.20000E 01  -.18000E 01  ****
 T   -.18000E 01  -.16000F 01  ************************************************
 U   -.16000E 21  -.14000E 01  ************************************************************
 V   -.14000E 01  -.12000E 01  ************************************************************************************
 W   -.12000E 01  -.10000E 01  ************************************************************************************************
 X   -.10000E 01  -.80000E 00  ************************************************************
 Y   -.80000E 00  -.60000E 00  ************************************************
 Z   -.60000E 00  -.40000E 00  ********************************
 1   -.40000E 00  -.20000E 00  ################
 2   -.20000E 00  0.00000E 00  **********
 3   0.00000E 00  .20000E 00   *****
 4   .20000E 00   .40000E 00   *
 5   .40000E 00   .60000E 00   *
 6   .60000E 00   .80000E 00   *
                  +---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+----

                  FREQUENCY (1.0000 STARTS PER UNIT)
```

Figure 5.6 REPRESENTATIVE HISTOGRAM OF LOG-TRANSFORMED SPACING VALUES

Table 5.5 SUMMARY OF STATISTICS FOR SPACING

	Name of Joint Set					
Statistic	Bedding	Set A	Set B	Set C1	Set C2	Set D
Arithmetic Mean	.333	1.24	1.21	.800	1.25	.553
Variance	.149	2.23	2.11	1.60	2.02	.350
Moment 1	.345	1.24	2.00	.801	1.25	.550
Moment 2	.141	2.11	1.89	1.52	1.96	.350
Skewness	4.59	3.78	3.19	7.61	5.54	3.42
Kurtosis	8.66	6.51	5.91	11.32	8.73	6.11

6 DEVELOPMENT OF GEOSTATISTICAL COMPUTER PROGRAMS

The program modules which have been incorporated into a package are all currently running on a 16-bit, MV/8000 Data General minicomputer. The programs are written in FORTRAN V with each module having an interactive data capture and validating program which chains to the main program. A complete listing has been given to the Department of Mining Engineering at the University of the Witwatersrand and is available for inspection.

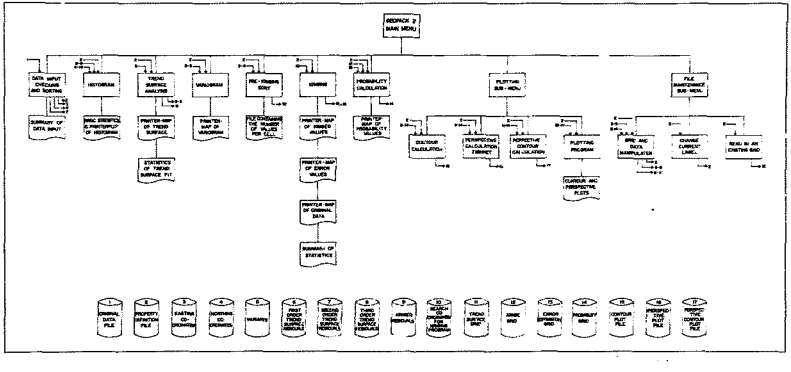
The original source coding for the Kriging and trend surface analysis programs was supplied by Dr. G. van Tonder, but the coding has since been substantially modified and enhanced. The final suite of programs has taken 11 months to develop and represents a major portion of the effort put forth for this project.

The modules incorporated in this package are as follows:

- Data entry, checking, transformations, and sorting
- Histogram
- Trend surface analysis
- Semi-variogram calculation
- Pre-Kriging sort program
- Universal Kriging
- Probability calculation
- Contouring of grids
- Perspective viewing of grids (fishnet)
- Perspective viewing of contours
- Manipulation of grids and data

Figure 6.1 shows the overall structure of the package and how the files interrelate.

Figure 6.1 FLOW DIAGRAM OF GEOPACK2



Owing to a 32-K word partition, dimensions of arrays have to be kept relatively small. Below is a summary of program limitations due to memory constraints:

- 128 x 128 maximum grid size
- Up to 2 000 data points (can be increased if required)
- Solve up to a 70 x 70 matrix including drift terms
- First, second or third order trend surface
- First or second order Universal Kriging

Other practical limitations which have been set are as follow:

- Up to 99 variants per co-ordinate
- One data clipping polygon can be specified (50 pts maximum)
- One property boundary can be specified (50 pts maximum)

6.1 MODULE 1 : DATA ENTRY, CHECKING, TRANSFORMATIONS, AND VALIDATION

This program is the first program to be run on a new data set. Its first function is to read data from a disk file in the form of x-y co-ordinates (or northings and eastings) and up to 99 variants per co-ordinate. Simple rotation and/or translation is performed to transform the co-ordinates in mathematical co-ordinates with the positive y axis pointing north. This is the form in which all subsequent programs accept the data.

If a data clipping polygon has been specified, a check is made on all of the data co-ordinates using a "point in polygon" algorithm to discard all data outside the polygon. This feature was useful in defining a data set within a geological formation. A digitiser was used to calculate the co-ordinates of each polygon.

If two data points coincide, singularity will result in matrix inversion in subsequent programs. This is checked and program termination occurs with a list of all points that coincide.

By using a "bubble sorting" technique, the transformed co-ordinates and variants are sorted in order of decreasing y values. The co-ordinates and values are then written into a disk file in a contiguous, binary format which gives quick and easy access to the data.

Output from the program consists of a printer-map of data locations within the property boundary.

6.3 MODULE 2 : HISTOGRAMS

The histogram was originally written by E. Delenikas and has been modified and incorporated in this package. Some of the output from this module has previously been presented in the text. Total output from the program can be summarised as follows:

- Minimum value of data
- Maximum value of data
- Class interval
- Frequency
- Cumulative frequency
- Cumulative frequency percent
- Arithmetic mean
- Standard deviation
- Variance
- Geometric mean
- Mid-range value
- Coefficient of variation
- First, second, third and fourth moments
- Skewness
- Kurtosis
- Printer plot of histogram
- Printer plot of log-transformed histogram (optional)
- Printer map of locations and values of the data

Histograms can be calculated for the following data sets:

- Any of the variants currently within the system
- Kriged block model (grid)
- Error variance block model (grid)
- Probability block model (grid)
- Trend surface block model (grid)
- First, second, and third order trend surface residuals
- Kriged residuals (data value minus Kriged estimate for every point)

The histogram should be the second program to be run on the data. If the data is log-normally distributed, this information will be required in subsequent programs.

6.3 MODULE 3 : ANALYSIS OF TREND SURFACE

The purpose of the trend surface analysis module is to check for the presence of drift and to model this phenomenon. As stated in David (1977), it is not an easy task to define drift and is still very much an area restricted to a few statisticians. However, an estimate of drift can be derived from a least square method of fitting a low-order polynomial to the surface of the data. Although this form of estimation does not have minimum variance as one of its attributes, it does produce a simple unbiased estimate of drift.

This module allows the choice of a first, second, or third order polynomial to be fitted through the data. It was decided that higher order polynomials usually give a statistically better fit owing to the increased degrees of freedom, but the fit seldom represents reality.

Standard output from the program includes an ANOVA table as shown in Figure 6.2. The table is useful in statistically assessing the validity of the trend surface. By looking up the F-ratio in a set of tables, the significance level can be determined.

SOURCE OF VARIATON	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARES	F-TEST
REGRESSION	55443.00	5	11088.60	2.6149
DEVIATION	1615623.00	381	4240.48	
TOTAL VARIATION	1671006.00	386		

GOODNESS OF FIT = .0332

CORRELATION COEFFICIENT = .1821

Figure 6.2 ANOVA TABLE FROM TREND SURFACE PROGRAM

```
TREND SURFACE MAP OF DEGREE  2          CONTOUR INTERVAL =    10.0000

-HH++IIIII------IIIII+++HH--G
--HH+++IIIII-----IIIII+++HHH--          D =    60.0000 TO    70.0000
--HHH+++IIIIII---IIIIII+++HH--          o =    70.0000 TO    80.0000
G--HHH++IIIIIIIIIIIII+++HH--            E =    80.0000 TO    90.0000
GG--HH+++IIIIIIIIIII+++HHH-             - =    90.0000 TO   100.0000
+GG--HH++++IIIIIIIII+++HHH-             F =   100.0000 TO   110.0000
++G---HH++++IIIIIIIII+++HH-             + =   110.0000 TO   120.0000
F+GG--HHH+++IIIIIIIII++++HH-            G =   120.0000 TO   130.0000
FF+GG--HHH++++IIIIII+++++HHH            - =   130.0000 TO   140.0000
-F++GG--HHH+++++IIII+++++HHH            H =   140.0000 TO   150.0000
--F++GG--HHHH+++++++++++++HHH           + =   150.0000 TO   160.0000
E-FF+GG--HHHH++++++++++++HHHH           I =   160.0000 TO   170.0000
EE-FF++GG---HHH++++++++++HHHH           - =   170.0000 TO   180.0000
+EE-FF++GG---HHHH+++++++HHHH-
D+EE-FF++GG---HHHHH+++HHHHH-
```

Figure 6.3 PRINTER MAP OF FIRST ORDER POLYNOMIAL

EASTING	NORTHING	DATA VALUE	ESTIMATED VALUE	DIFFERENCE
-24364.67000	24638.61000	128.00000	170.55210	-42.55229
-24364.85000	24640.28000	150.00000	170.50220	-20.50215
-24364.90000	24640.72000	138.00000	170.49376	-32.49366
-24365.31000	24644.67000	114.00000	170.34900	-56.34799
-24365.66000	24647.99000	119.00000	170.23036	-51.23031
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
-24372.48000	25125.65000	142.00000	132.37590	9.62412
-24371.32000	25127.30000	97.00000	132.29400	-35.29396
-24368.32000	25131.90000	154.00000	132.05980	21.94020
-24365.41000	25139.95000	113.00000	131.46360	-18.46358

Figure 6.4 LIST OF RESIDUALS FROM TREND SURFACE

In this example, the F-ratio corresponds to a significance level of between 2.5% and 5%. This implies that there is no conclusive evidence to indicate that the trend surface is justifiial for this example.

Also, output from the program is a printer map of trend surface values, as shown in Figure 6.3, and a calculation of residual values, as shown in Figure 6.4. These files are also of assistance in representing the appearance of the trend surface and how good a fit was achieved.

6.4 MODULE 4 : SEMI-VARIOGRAM

Semi-variograms can be calculated simultaneously in up to four directions with variable search angles. An average semi-variogram (180 degree search angle) can be calculated during the same run if required. Some of the other features of the program are listed below:

- Automatic scaling
- Logarithmic transformations (2 or 3 parameter)
- Hawkins and Cressie transformations
- Variogram of residuals (first, second, or third order)
- Maximum of 20 lag intervals
- Choice of plotting semi-variogram values at the central category or at the moment centres

Automatic scaling is a feature which is useful the first time the program is run on a data set, when the scatter of the plot is uncertain. This feature will ensure that all the points are shown on the plot. For subsequent runs the user may wish to "window in" on a certain part of the plot by selecting a scale manually.

Logarithmic transformations are necessary for any data that are log-normally distributed, such as the joint spacing data. Third parameter transformations are available.

Hawkins and Cressie transformations are a form of transformation which makes the semi-variogram more robust. Outliers will have a reduced effect on the semi-variogram if this transformation is used. As a result, it is easier to fit a model through data that are slightly erratic. The transformation works as follows:

$$2\gamma(h) = Y^4 / (0.457 + 0.494n^{-1} + 0.045n^{-2})$$

and

$$Y_t = (|Z_{t+h} - Z_t|)^{1/2}$$

where

(h) = Semi-variance
Z = original data values
n = number of data values
Y = arithmetic mean of Y_t values

If trend is known to be present, the residual semi-variogram should be calculated. In order to calculate the semi-variogram, the coefficients of the trend polynomial must be known. As the term residual implies, the trend is removed or subtracted from each data point. Normal variogram calculation is then resumed. Figure 6.5 is an example of semi-variogram printer plot.

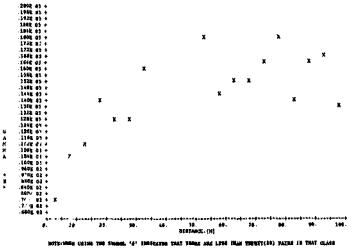


Figure 6.5 SEMI-VARIOGRAM PRINTER PLOT

6.5 MODULE 5 : PRE-KRIGING SORT PROGRAM

A pre-sort of the data is required by the Kriging program. If a point is to be estimated by Kriging, a search around this point is performed to find the nearest known data samples. The Kriging program will use these points to interpolate a value at the unknown point. Options available are listed below:

- Specification of maximum search range
- Search for the closest points (1 to 64)
- Search for the closest specified number of points within each of a specified number of sectors
- Search for every block as gridded over the property and/or
- Search at every known data point (jackknifing)

If a maximum search range is entered, the search will be confined to a circle with a radius equal to the range. This may result in a failure to find any data within the range in which case an estimate of the point cannot be made.

The first type of search is simply to find the closest specified number of points. This can be from 1 to 64 depending on how many points the user wants to use in the Kriging equations.

The second type of search (a more powerful type) is a sector search. From 1 to 64 sectors can be specified and the closest points within each sector will be found. The number of points to search for within each sector is controlled by the user. The number of sectors multiplied by the number of points per sector must be less than or equal to 64.

A search can be made for data points surrounding each grid block if a block model is to be created. Also, the search can be made for data points surrounding each known sample. The Kriging pro-

gram will estimate a value at the known data point using surrounding data, but excluding the known point, and compare the actual and estimated values (cross-validation). This can be useful in assessing the value of Kriging as an estimator.

6.6 MODULE 6 : UNIVERSAL KRIGING

This is the module which combines the output from previous programs, so that interpolation and, to some extent, extrapolation are performed to give the "BLUE" or Best Linear Unbias Estimator over the area of concern. The options available in the program are as follows:

- Up to 64 surrounding points can be used to estimate a value
- Normal or log-normal Kriging
- Kriging with or without the mean
- Zero, first or second order Universal Kriging (zero for no trend)
- Point Kriging or Block Kriging
- Choice of seven semi-variogram models

As the joint data were highly variable, it was necessary to use an unusually large amount of surrounding data when estimating a value. The programs were therefore designed to use up to 64 surrounding data points. With second order drift terms in the equation, a 70 by 70 matrix would have to be solved for each estimate.

Normal and log-normal Kriging is necessary, depending on the distribution type. As discussed in section 6.5, the appropriate semi-variogram must be entered.

Kriging with or without the mean (both normal and log-normal

data) is available to the user. Kriging without the mean is generally used on data not highly variable where some trend is present and Universal Kriging is not used. Kriging with the mean can be used on highly variable data when the number of surrounding data points accessed is limited. If Kriging with the mean is used when drift is present, some bias may be introduced.

Kriging in the presence of drift can be performed either by subdividing the property into smaller areas or by using Universal Kriging. By subdividing into smaller areas, the effects of the trend are reduced. If Universal Kriging is used, a local surface is fitted to the surrounding data, to approximate the local trend. First or second order Universal Kriging is available.

Point Kriging is useful if a regular grid of spot heights is required (as with most structural data). Block Kriging, however, calculates the average value over the block area. As a result, a much smoother grid is produced.

Seven different semi-variogram models can be input into the Kriging program. These are listed below:

- Root
- Parabolic
- Linear
- Spherical
- Exponential
- Gaussian
- de Wijsian

All of the above can be executed on untransformed or transformed data (2 or 3 parameter). At present, nested semi-variograms are not available in the program.

5.7 MODULE 7 : CALCULATION OF PROBABILITIES

This module uses the Kriged estimate and the error variance to calculate the probability of the actual value being above (or below) a user-specified cut-off value. One of the important assumptions that this program makes is that the data are normally distributed.

Let us assume, for example, that the user has chosen a cut-off value of 10.0 units and is interested in the probability of each grid block being above the cut-off. The Kriged estimate of a particular block is known to be 12.0 and the error variance is 5.0. Figure 6.6 represents the distribution for this example.

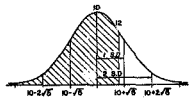


Figure 6.6 FREQUENCY DISTRIBUTION FOR CALCULATION PROBABILITIES

It is now a simple task for the computer to integrate numerically the shaded area and solve for the probability. The Gaussian Quadrature method is used for the integration.

6.8 MODULE 8 : CONTOURING

The contour map shown in Figure 6.7 was produced using the contouring module developed for this package. To produce a contour map, it is first necessary to produce a regular grid of values from any of the *gridding programs*. A *continuous* three-dimensional function is fitted through the regular grid by using bicubic spline functions. Contours are calculated by solving the *spline function* for the specified contour intervals.

Sixteen spline coefficients for each element in the grid are calculated and stored in a contiguous, random access file. Using the following equation, the coefficients can be solved for every point within the element.

$$z = \sum_{a=0} \sum_{b=0} C_{ab} x^a y^b$$

where
- x = x co-ordinate
- y = y co-ordinate
- Z = value at x-y
- C = coefficients

As the contour moves from one element to the next, appropriate coefficients are read from the disk file and solved using the above equation. Options available in this module are as follows:

- Change pen colours with each contour level
- Label contours automatically
- Plot local grid lines (rows and columns)
- Plot and label global grid lines
- Plot data locations and/or data values.

6.9 MODULE 9 : PERSPECTIVE VIEWING

The plot shown in Figure 6.8 is an example of a perspective view of a Kriged surface. The program used to generate this plot was developed by J A C Diering of Steffen, Robertson & Kirsten. Only a little effort was required to incorporate this program into the geostatistics system. The following options are available in the program:

- View the data at any angle
- View the data at any dip
- Specify the vertical exaggeration
- Specify the pen colour interval

Although a perspective view has no real technical merit, it is a good method of representing the grid that has been created.

6.10 MODULE 10 : PERSPECTIVE CONTOURS

The plot shown in Figure 6.9 is an example of a perspective contour plot using the same contours generated in section 4.7. As with the perspective viewing program, this program has no technical merit other than the fact that it gives a visual impression of the data. The following options are available in the program:

- View the data at any angle
- View the data at any dip
- Specify the vertical exaggeration

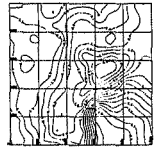


Figure 6.7 CONTOUR PLOT

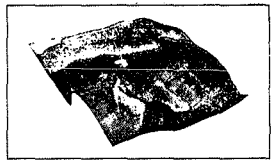


Figure 6.8 PERSPECTIVE PLOT (FISHNET)

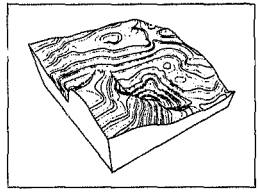


Figure 6.9 *PERSPECTIVE CONTOUR PLOT*

6.11 MODULE 11 : GRID AND DATA MANIPULATION

This module allows the user to create new labels or files by using existing data. An example is to multiply data file A by data file B and create data file C. Options available are as follows:

- Label A x Label B or Label A x Constant
- Label A / Label B or Label A / Constant
- Label B / Label A or Constant / Label A
- Label A + Label B or Label A + Constant
- Label A - Label B or Label A - Constant
- Label B - Label A or Constant - Label A
- Maximum value (A,B) or Maximum (A,Constant)
- Minimum value (A,B) or Minimum (A,Constant)

The above options make it possible to create a new label (C) which can be analysed by any of the previous programs. An example might be:

Label A = grams/tonne

Label B = channel width

Label C = Label A x Label B = cm.-grams / tonne
(accumulations)

7 THE USE OF GEOSTATISTICS ON JOINT DATA

Depending on the joint property and various other factors, the advantage gained by using geostatistics rather than a purely classical approach ranged from marginal to substantial.

7.1 CHECKING FOR THE PRESENCE OF TREND

Each of the population groups was tested for the presence of trend by fitting a low order polynomial to the data. With the aid of an ANOVA table, the decision was made as to the significance of the polynomial fit. Although some of the data passed the significance test ($S < .05$) these population sets were groups with relatively few data samples. It was felt that more data samples would be needed to define the trend clearly. Also, when a small number of data samples are used to define the trend, it is possible that bias would be introduced into the data if the trend surface was not correct.

In general, insufficient data were available to define fully or approximate any drift which might be present. Owing to a relatively small semi-variogram range ($\pm$ 40 m) the effect of drift will be small. Any trend which may exist in the data was minimal and further calculations assumed that the data were stationary.

7.2 SEMI-VARIOGRAM CALCULATION FROM SURFACE JOINT DATA

The calculation of the semi-variograms for dip and dip-direction was carried out in the same way as for most types of data. Spacing, however, was not as straightforward. As mentioned earlier, spacing is the perpendicular distance between two joint discontinuities. The co-ordinate associated with the spacing is the co-ordinate of the first joint. It was recognized that a better co-ordinate would be midway between the two joints. A

simple program was written to take this discrepancy into account. The calculation of the semi-variogram then proceeded normally. It was noted that there was a marked difference and improvement between the semi-variograms calculated with corrected and uncorrected co-ordinates.

The two features of the semi-variogram which have the most influence on a Kriged estimate are the shape and the range of the model. If a semi-variogram model was to be offset by raising the entire model, this would have little effect on the Kriged estimate. It would, however, have a marked difference on the error variance of the estimate. These facts were borne in mind during the analysis of results obtained later in this section.

7.2.1 SEMI-VARIOGRAMS WITHIN GEOLOGICAL FORMATIONS

The semi-variogram is probably the most important input parameter in the Kriging program. In order to ensure that the correct semi-variogram model was used, the joint data were further divided into geological formations and the semi-variograms for each formation calculated. The experimental semi-variograms for joint set D, shown in Figures 7.1, 7.2, and 7.3 indicate that the data behave similarly with the possible exception of dip-direction.

When sub-dividing the data into geological formations, the number of joint measurements within each group is substantially reduced and the semi-variograms become more erratic. This may explain some of the discrepancy between the semi-variograms for dip-direction. More data will be required to define whether the discrepancy in the semi-variograms is a function of the geological formation or from lack of data.

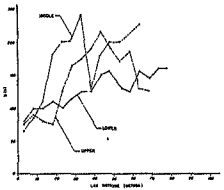


Figure 7.1 SEMI-VARIOGRAM OF DIP VALUES WITHIN EACH GEOLOGICAL FORMATION

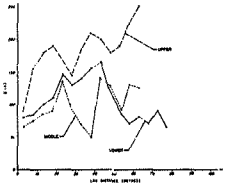


Figure 7.2 SEMI VARIOGRAM OF DIP DIRECTION VALUES WITHIN EACH GEOLOGICAL FORMATION

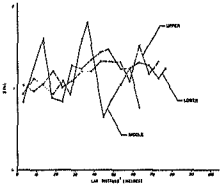


Figure 7.3 SEMI VARIOGRAM OF SPACING VALUES WITHIN EACH GEOLOGICAL FORMATION

Little difference was shown between the semi-variograms calculated within each geological formation for the other joint sets.

7.2.2 TESTING FOR ANISOTROPY

The experimental semi-variograms for joint set D were calculated in four directions to test for anisotropy. The directions chosen were 0 degrees, 45 degrees, 90 degrees and 135 degrees with a window size of 22.5 degrees. Insufficient data were present in all directions except two (0 degrees and 45 degrees) to produce a meaningful semi-variogram. Figures 7.4, 7.5, and 7.6 illustrate the results of this calculation for the three joint parameters of joint set D.

There appears to be some degree of anisotropy in the parameter dip-direction. Data in the other directions, however, would be needed to define fully the extent of the anisotropy.

Because of insufficient data, both in quantity and in the required directions, further calculations had to be performed assuming that joint set D was isotropic. As the other joint sets contain fewer joint measurements, testing for anisotropy proved fruitless.

7.3 SEMI-VARIOGRAM CALCULATION FROM UNDERGROUND JOINT DATA

The underground data collected were entirely from within the Eshowe Formation (Lower). Because of the limited area covered by the underground data, no tests for anisotropy could be performed. It is expected, however, that the underground data will have similar properties to the surface data.

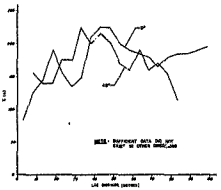


Figure 7.4 SEMI-VARIOGRAM SHOWING ANISOTROPHY IN *DIP VALUES*

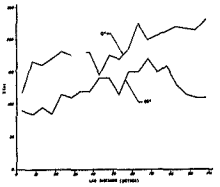


Figure 7.5 SEMI-VARIOGRAM SHOWING ANISOTROPY IN DIP-DIRECTION VALUES

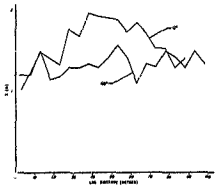


Figure 7.6 SEMI-VARIOGRAM SHOWING ANISOTROPY IN SPACING VALUES

Figures 7.7, 7.8, and 7.9 are a comparison of the surface data with the underground data for joint set D. From this comparison, it appears that the surface and underground data behave similarly in two dimensions.

Although the adit data were not used in any further calculations because a two dimensional joint model was the objective, it has produced some useful information on how underground joint properties may behave.

Similar results were obtained from the other joint sets.

7.4 FINAL SEMI-VARIOGRAM MODELS

A final semi-variogram model for each of the three joint properties was estimated, using the assumptions discussed earlier in this section. All of the relevant data was pooled together and the average semi-variogram was calculated. Models were fitted to the semi-variograms, as shown in Figures 7.10, 7.11, and 7.12.

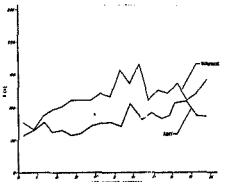


Figure 7.7 COMPARISON OF SURFACE AND UNDERGROUND DIP SEMI-VARIOGRAMS

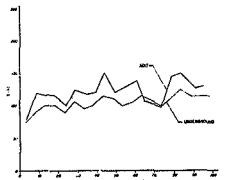


Figure 7.8 COMPARISON OF SURFACE AND UNDERGROUND DIP-DIRECTION SEMI-VARIOGRAMS

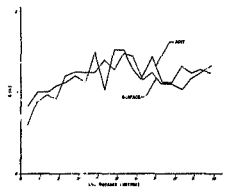


Figure 7.9 COMPARISON OF SURFACE AND UNDERGROUND SPACING SEMI-VARIOGRAMS

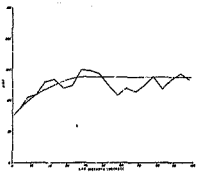


Figure 7.10 FINAL SEMI-VARIOGRAM MODEL FOR DIP VALUES

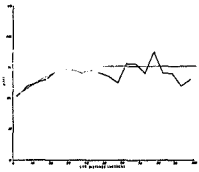


Figure 7.11 FINAL SEMI-VARIOGRAM MODEL FOR DIP-DIRECTION VALUES

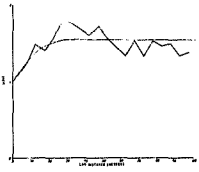


Figure 7.12 FINAL SEMI-VARIOGRAM MODEL FOR SPACING VALUES

7.5 KRIGING THE THREE JOINT PROPERTIES

7.5.1 COMPARISON OF KRIGING WITH AND WITHOUT THE MEAN

A simple comparison of the two types of Kriging (with and without the mean) was made to establish which type would be used in creating the final block model. Using the semi-variogram models derived in section 7.2 a Kriged estimate was made, using up to 64 surrounding data values, at every known data location and compared with the sampled value (cross-validation). The results of the comparison of the two methods, for the three joint properties of joint set D, are shown in Table 7.1 below:

Table 7.1 COMPARISON OF KRIGING WITH AND WITHOUT THE MEAN

			Kriging w/o mean		Kriging with mean	
	Statistic	Original Data	Kriged Estimate	Residual	Kriged Estimate	Residual
Dip	Mean	88.19	88.20	0.0004	88.97	.784
	Variance	159.36	54.20	56.26	52.89	57.83
Dip-Direction	Mean	73.88	73.86	-0.021	74.62	.743
	Variance	188.88	86.93	58.25	86.36	58.55
Spacing	Mean	.682*	.614*	-.176	.621*	-.195
	Variance	1.43§	1.24§	.106	1.41§	.113

* Estimate of the mean using Sichel's t

§ Logarithmic variance

There is little difference between the answers obtained using the two types of Kriging. Kriging without the mean produces slightly better results for the dip and dip-direction data; therefore, this is the type of Kriging which will be used to create a block model for these joint properties.

The mean value for spacing appears to be more closely modelled by using Kriging with the mean. Also, the logarithmic variance of the Kriged estimate using the mean is virtually the same as the original data. The block model for the joint parameter spacing will be created by using Kriging with the mean.

7.5.2 CREATING BLOCK MODELS

A two-dimensional block model was produced by block Kriging over the area of interest. The area (300 m x 300 m) was divided into 7 rows and 7 columns, resulting in a block size of approximately 40 x 40 metres.

Normal Kriging without the mean was performed on the dip and dip-direction data while log-normal Kriging with the mean was used on the spacing joint parameter.

Each cell or block was estimated by using up to 64 of the closest surrounding data points within the semi-variogram range. This type of search gave the best answer because, with the large number of data points brought into the Kriging equations, the local mean is closely approximated.

Referring back to section 4, Figures 4.2 and 4.3, the data are located over roughly 150 sq. km. but is distributed in localized clusters. Some of the area does not have data within the range of the semi-variogram models. There was no advantage in using Kriging, over a purely classical approach, with data accessed outside of the range of the semi-variogram, but the extrapolation was performed regardless.

Figures 7.13, 7.14, and 7.15 are contour plots of the Kriged estimates for dip, dip-direction, and spacing respectively, for joint set D.

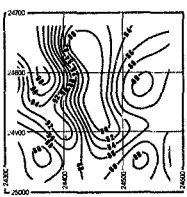


Figure 7.13 CONTOUR PLOT OF KRIGED DIP VALUES

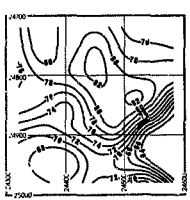


Figure 7.14 CONTOUR PLOT OF KRIGED DIP-DIRECTION VALUES

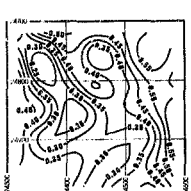


Figure 7.15 CONTOUR PLOT OF KRIGED SPACING VALUES

8 COMPARISON OF CLASSICAL AND GEOSTATISTICAL METHODS

As stated earlier, geostatistics takes into account spatial relationships which may be present in the data, making it much more dynamic than classical statistics. The correlation coefficients between the Kriged estimated value and the actual recorded value (cross-validation) was calculated for each of the three joint parameters and are shown in Table 8.1.

Table 8.1 CORRELATION COEFFICIENTS FOR JOINT SET D

JOINT PARAMETER	CORRELATION COEFFICIENT
DIP	.521
DIP-DIRECTION	.655
SPACING	.280

There is a significant correlation between the Kriged estimate and the original data sample. This is because Kriging uses local structure to its advantage. In the use of classical statistics, however, the mean value applies equally throughout the area. Obviously, this results in a correlation coefficient of 0.0.

Another feature of geostatistics is its ability to estimate the local error variance. Confidence, being a direct function of the error variance, can then be calculated.

Figures 8.1, 8.2, and 8.3 are plots of the square root of the error variance (standard deviation) for the three joint properties. As expected, the standard deviation values (shown in the figures) are much higher towards the edges of the plot, where data are scarce.

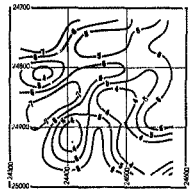


Figure 8.1 CONTOUR PLOT OF DIP STANDARD DEVIATION VALUES

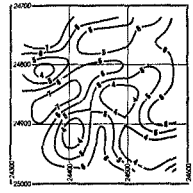


Figure 8.2 CONTOUR PLOT OF DIP-DIRECTION STANDARD DEVIATION VALUES

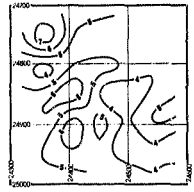


Figure 8.3 CONTOUR PLOT OF SPACING STANDARD DEVIATION VALUES

9 RESULTS

From the six joint sets evaluated, bedding showed the least structure. This is probably due to the low dip angle of the joint discontinuities. As a result of the low angle, the dip-direction became highly variable and random in structure. The dip property showed slightly more structure but this was over a short range. A good structure was present in the spacing property.

Joint set D, which contained the most data, showed the most structure relative to the other joint sets. The range of influence for joint set D was $\pm$ 40 metres. The joint sets which have structure had a range of influence from $\pm$ 30 to $\pm$ 60 metres.

No significant drift was detected in any of the joint data. In few of the population groups it appeared as if some trend might exist, but sufficient data were not available to define the extent.

The joint data in general behaved isotropically. If, from the semi-variogram program, anisotropic behaviour seemed to be present, it was supported by only a few data pairs. With the high "noise effect" inherent in the data, it was decided that more data would be required to define anisotropy clearly.

A test was carried out to quantify the effect that geological rock types have on a semi-variogram model, as it was thought initially that the geological rock boundaries might subdivide the data into sub-population groups. The results indicate that the geological formation has a negligible effect on the properties of the three joint parameters.

The underground adit data were not used in calculating the joint models, but were useful in comparing underground data with surface data. Variograms for the underground data were very similar to those

produced using surface data. This suggests that the data could be pooled if a three-dimensional model is required.

Variograms were generally of poor quality when the number of data samples was less than 300. Other sites will have different characteristics but this number can be used until more data becomes available.

To summarise the results obtained, the following general statements can be made:

- Bedding data showed the least structure
- The range of influence of the vertical joint sets is $\pm$ 40 metres
- No significant drift was detected
- No significant anisotropy was detected
- There is nothing to indicate the geological formations affect joint properties
- There is nothing to indicate that the surface and underground data are different.

10 FUTURE RESEARCH

To support and expand on the results obtained in this project, areas of further research will be suggested below. The suggestions are beyond the scope of work initially set out in section 3.

Because the data were mapped from a single site, all results pertain only to this area. To prove whether these results can be repeated, it is necessary to analyse other rock masses using the approach described in this project.

Other properties which have been measured in the field may be equally suitable for analysis by geostatistical methods. Given the data listed in Appendix 1, and the programs to analyse and evaluate the data, this can be done with the minimum of effort.

The inter-correlation between data, specifically dip and dip-direction, was recognised but not considered in this project. The possible effects of the correlation can be analysed and, if necessary, Co-Kriging programs can be written to accommodate it. It should be noted, however, that dip and dip-direction are usually measured at the same co-ordinate positions so the benefit of Co-Kriging would be small.

11 CONCLUSIONS

Based on the results shown in section 10, it is evident that geostatistics can be a positive approach to predicting joint properties in a rock mass. The advantage gained by using geostatistics was minimal in some types of joint data, but the majority of data analysed proved to have spatial structure and geostatistics was thus directly applicable.

Geostatistics should be used to augment classical statistics in an attempt to obtain better answers and a higher degree of confidence.

Because it has been shown that geostatistics can be a benefit in the analysis of joint data, the next logical advance is to begin using it during the data collection phase. The use of geostatistics has been used successfully for many years to help optimize the location of drillholes based on the error variances calculated. The same approach can be used to determine the locations of line surveys to give the desired confidence in the model.

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APPENDIX 1 - ORIGINAL JOINT DATA

The data printed overleaf is:

RECORD 1 : Joint Number

RECORD 2 : Easting

RECORD 3 : Northing

RECORD 4 : Elevation

RECORD 5 : Dip Angle

RECORD 6 : Dip-Direction

RECORD 7 : Dip Length

RECORD 8 : Strike Length

RECORD 9 : Gouge Width

RECORD 10 : Rufness

RECORD 11 : Waviness

RECORD 12 : Spacing

The data file names printed are a function of the reference number shown in Table 5.1 and the joint set. An example would be:

SJOINT6.1.BEDDING

Meaning reference number 1, joint set bedding.

FILE JOINTG...BEDDING
RECORD FORMAT: D-S

1.026	440.19	-107.58	80.08	4.	141.	.05-2	6.00-2	2	3	0.00	0.00
1.049	447.58	-106.98	79.16	7.	158.	.19-2	6.00-2	3	2	0.00	.70
1.057	450.08	-106.67	78.86	17.	146.	.03-2	99.99-2	1	3	0.00	.23
1.069	456.75	-105.85	78.08	9.	167.	.03-2	1.36-0	2	1	0.00	.58
1.074	457.68	-105.74	77.92	21.	40.	.15-1	.10-1	1	3	7.59	.13
1.089	461.80	-105.24	77.41	10.	114.	.03-2	99.99-2	3	3	0.00	.39
1.117	470.15	-104.21	76.38	2.	29.	.11-2	99.99-1	1	3	0.00	.78
1.136	476.05	-103.47	75.65	10.	113.	.07-2	99.99-2	3	2	0.00	.55
1.182	485.36	-102.35	74.50	8	14.	0.00-2	.08-2	2	2	0.00	.87
1.183	491.32	-102.23	74.38	4.	86.	.08-2	.08-2	1	3	0.00	.09
1.203	493.99	-101.29	73.43	2.	63.	.06-2	.04-2	2	3	0.00	.72
1.217	499.04	-100.68	72.81	7.	209.	.08-2	.08-2	2	2	5.91	.47
1.222	502.40	-100.26	72.40	10.	294.	.14-2	19.99-2	1	3	12.95	.31
1.243	513.14	-98.95	71.07	2.	171.	.03-2	6.00-2	2	2	8.17	1.01
1.256	518.98	-98.23	70.45	11.	127.	.13-2	.08-2	2	2	0.00	.45
1.266	524.12	-97.60	69.71	10.	125.	99.99-2	.13-2	1	2	4.21	.59
2.008	528.13	-98.27	69.18	4.	294.	.06-2	.10-2	2	2	0.00	0.00
2.027	532.92	-99.46	68.52	10.	243.	.10-2	.06-2	1	3	0.00	.14
2.031	534.46	-99.84	68.30	12.	254.	.11-2	.17-2	1	2	0.00	.05
2.061	542.10	-101.74	67.25	10.	135.	.05-2	.08-2	1	2	0.00	.23
2.105	554.27	-104.75	65.58	9.	135.	.05-2	.14-2	1	3	21.80	.36
2.109	559.91	-106.15	64.80	4.	57.	.12-2	.20-2	1	3	0.00	.17
2.123	563.07	-106.94	64.37	18.	325.	.61-0	.11-2	1	3	6.01	.09
2.142	367.70	-108.08	63.73	21.	110.	6.00-2	6.00-2	1	3	2.79	.14
2.147	570.61	-108.81	63.33	25.	140.	7.00-2	6.00-2	2	2	2.94	.08
2.169	576.81	-110.35	62.47	23.	133.	.10-2	.10-2	1	2	0.00	.19
2.171	578.05	-110.65	62.30	22.	139.	.44-2	.29-2	1	3	0.00	.04
2.217	588.91	-113.35	60.81	20.	180.	.17-2	.50-2	2	3	0.00	.32
2.233	591.44	-113.97	60.46	20.	205.	6.00-2	6.00-2	2	2	3.18	.08
3.003	603.27	-116.90	58.83	19.	196.	9.11-2	9.28-2	2	3	0.00	0.00
3.012	604.57	-117.22	58.64	20.	10.	9.07-2	6.21-2	3	3	0.00	.05
3.024	605.94	-117.55	58.44	15.	219.	.12-2	.29-2	1	3	0.00	.05
3.054	611.36	-118.87	57.67	16.	272.	.09-2	.27-0	1	3	0.00	.19

FILE JOINTG.I.A
RECORD FORMAT: D-S

1.009	433.99	-108.64	80.94	111.	165.	.67-1	.30-2	2	4	0.00	0.00
1.015	436.51	-108.33	80.66	112.	153.	.25-0	.18-2	1	3	0.00	.33
1.021	438.37	-108.10	80.79	110.	149.	.60-0	.23-2	1	3	0.00	.31
1.022	438.77	-108.06	80.77	97.	175.	1.90-0	1.12-1	1	4	0.00	.07
1.031	441.41	-107.73	80.35	103.	159.	.78-0	.51-2	1	5	0.00	.31
1.037	443.86	-107.43	79.82	112.	163.	.66-1	.50-2	1	3	5.44	.26
1.040	444.50	-107.35	79.55	103.	159.	.66-1	.76-2	1	3	2.86	.04
1.052	449.10	-106.79	78.98	98.	164.	.10-0	.23-1	1	3	0.00	.59
1.065	454.03	-106.19	78.48	97.	177.	.14-0	.17-2	1	3	0.00	.66
1.073	457.31	-105.78	77.96	95.	167.	.05-0	.06-0	1	3	0.00	.39
1.129	474.77	-103.65	75.81	103.	149.	.14-0	.21-1	1	3	0.00	2.23
1.177	484.45	-102.46	74.66	97.	163.	.11-1	.18-1	1	3	0.00	1.24
1.206	494.79	-101.19	73.34	101.	153.	.30-0	.06-2	1	3	0.00	1.30
1.210	496.22	-101.02	73.16	110.	159.	.20-0	.06-1	1	3	0.00	.19
1.213	497.45	-100.87	73.01	90.	165.	.28-0	.28-2	1	3	0.00	.16
1.215	497.78	-100.83	72.97	95.	158.	0.00-1	.16-2	1	3	14.93	.04
1.245	514.01	-98.84	70.96	86.	179.	.03-0	.26-1	1	3	0.00	2.06
1.253	517.20	-98.45	70.57	114.	157.	.15-0	.07-2	1	3	9.46	.41

1.263	523.49	-97.68	69.79	81.	148.	.18-0	.12-2	1	3	0.00	.80
2.047	539.05	-100.98	67.67	109.	165.	.24-0	.04-2	1	3	0.00	0.00
2.074	546.75	-102.89	66.61	104.	148.	.27-0	.01-2	1	3	0.00	3.64
2.106	555.48	-105.05	65.41	109.	150.	.39-0	.05-2	1	3	4.76	4.12
2.108	558.93	-105.91	65.04	144.	178.	.17-0	.05-2	1	3	6.71	1.66
2.112	560.98	-106.42	64.85	107.	166.	.58-0	.10-2	1	3	4.76	.95
2.121	562.85	-106.88	64.39	106.	171.	.09-0	.11-1	1	3	0.00	.88
2.133	565.52	-107.54	64.13	111.	175.	.30-0	.07-2	1	3	0.00	1.28
2.146	570.31	-108.73	63.57	105.	159.	.38-0	.19-2	1	3	0.00	2.28
2.153	573.19	-109.45	63.12	78.	179.	1.06-0	.11-2	1	3	4.76	1.35
2.155	573.39	-109.50	63.10	99.	166.	6.00-2	6.00-2	1	4	0.00	.10
2.156	573.77	-109.59	63.06	105.	165.	.98-0	.55-2	1	4	0.00	.18
2.158	574.13	-109.68	62.84	99.	169.	1.17-0	.35-2	1	3	2.86	.13
2.162	575.95	-110.13	62.59	113.	156.	.50-0	.17-1	1	3	5.19	.86
2.167	576.68	-110.31	62.49	107.	148.	.20-0	.02-2	1	3	0.00	.34
2.170	576.89	-110.37	62.46	106.	167.	6.45-2	6.45-2	1	3	0.00	.11
2.184	580.38	-111.23	61.98	115.	155.	.63-1	.09-2	1	4	5.71	1.64
2.188	581.34	-111.47	61.8[illegible]	107.	148.	6.57-2	6.54-2	1	3	0.00	.46
2.189	581.69	-111.55	61.80	10.	164.	.39-0	.07-2	1	3	0.00	.16
2.191	582.53	-111.76	61.69	1.3.	160.	.83-0	.04-2	1	3	0.00	.60
2.192	582.57	-111.77	61.68	111.	164.	.38-2	.13-2	1	3	4.57	.02
2.195	583.94	-112.11	61.49	100.	158.	.19-0	.13-2	1	2	0.00	.65
2.196	584.12	-112.16	61.47	111.	165.	.73-0	.13-2	1	4	5.71	.09
2.197	584.18	-112.17	61.46	105.	166.	.26-1	.0[illegible]	2	4	4.97	.02
2.207	586.60	-112.78	61.13	103.	161.	.30-0	.20-	1	3	0.00	1.15
2.208	586.69	-112.80	61.11	103.	173.	.31-0	.05-2	1	4	0.00	.04
2.210	587.25	-112.93	61.04	102.	152.	.33-0	.06-2	1	3	0.00	.26
2.213	587.67	-113.04	60.98	110.	160.	.39-0	.01-2	1	3	7.59	.20
2.221	589.60	-113.52	60.71	103.	154.	.37-0	.11-2	1	4	0.00	.91
2.223	589.79	-113.56	60.69	100.	148.	.19-0	.03-2	1	3	0.00	.08
2.224	589.86	-113.58	60.68	100.	151.	.40-0	.03-2	1	3	0.00	.04
2.225	589.98	-113.60	60.66	106.	160.	.41-0	.09-2	1	3	11.31	.04
2.228	590.50	-113.74	60.59	105.	148.	.43-0	.09-2	1	3	0.00	.26
2.241	592.85	-114.32	60.27	102.	150.	.37-0	.18-2	1	4	0.00	1.11
2.242	592.98	-114.36	60.25	113.	155.	.62-0	.08-2	1	3	0.00	.07
2.245	593.45	-114.47	60.28	106.	161.	.62-0	.29-1	1	4	3.69	.24
3.002	603.07	-116.85	58.85	105.	151.	.26-0	.02-2	1	3	0.00	0.00
3.004	603.44	-116.94	58.80	105.	164.	.55-0	.06-2	1	3	5.71	.17
3.005	603.56	-116.97	58.78	107.	160.	.98-0	.28-2	1	4	5.71	.06
3.009	603.71	-117.01	58.76	105.	163.	.42-0	.16-1	1	3	0.00	.07
3.014	604.91	-117.30	58.59	95.	153.	.39-0	.07-1	1	3	7.59	.56
3.016	605.02	-117.33	58.74	105.	171.	.41-0	.29-1	1	3	0.00	.09
3.019	605.24	-117.38	58.73	107.	160.	.41-0	.11-2	1	3	0.00	.10
3.020	605.42	-117.42	58.52	108.	163.	.47-0	.03-2	1	3	3.18	.04
3.021	605.68	-117.49	58.48	106.	164.	.39-0	.10-2	1	4	4.76	.13
3.023	605.83	-117.52	58.46	101.	153.	.46-0	.02-2	1	3	0.00	.06
3.026	606.62	-117.72	58.35	103.	168.	.26-1	.03-2	1	3	0.00	.38
3.027	606.80	-117.76	58.32	103.	163.	.20-0	.04-2	1	3	0.00	.08
3.031	607.75	-117.99	58.48	110.	154.	.76-0	.34-2	1	3	0.00	.51
3.032	608.44	-118.16	58.09	99.	153.	6.73-2	5.11-2	1	3	6.01	.26

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1.006	433.11	-108.75	80.95	84.	50.	.96-0	.10-2	1	3	4.76	0.00
1.011	434.82	-108.54	80.79	97.	50.	.30-0	.07-2	1	3	0.00	.87
1.016	436.83	-108.29	80.49	87.	23.	.13-0	.12-2	1	3	0.00	1.01
1.017	437.05	-108.27	80.46	84.	31.	.25-0	.05-2	1	3	0.00	.10
1.024	439.68	-107.94	80.14	101.	28.	1.04-0	.13-2	1	3	0.00	1.33

1.035	443.08	-107.03	79.93	93.	7.	.46-0	.16-2 1 3	0.00	1.24
1.041	443.78	-107.20	29.39	113.	17.	.34-0	.06-1 1 4	0.00	1.32
1.066	454.44	-106.14	76.37	83.	3.	.18-0	.38-2 1 3	0.00	4.37
1.077	459.00	-105.58	77.75	89.	1.	.33-0	.15-1 1 3	4.24	2.29
1.078	460.08	-105.45	77.62	76.	24.	.33-1	.37-2 1 3	0.00	.54
1.094	464.15	-104.95	77.17	83.	20.	.26-0	.07-1 1 3	0.00	2.06
1.120	472.52	-103.92	76.09	85.	37.	.31-0	.09-1 1 3	0.00	4.22
1.122	473.04	-103.86	78.04	77.	4.	.09-1	.08-2 1 3	0.00	.26
1.124	473.20	-103.84	76.00	73.	36.	.14-0	.33-1 1 3	0.00	.08
1.163	481.45	-102.83	75.04	88.	42.	.31-0	11-2 1 3	21.04	4.17
1.164	481.58	-102.81	74.97	88.	44.	.26-0	.03-2 1 3	0.00	.06
1.165	481.65	-102.80	74.96	87.	47.	.37-0	.05-2 1 3	0.00	.04
1.166	481.80	-102.79	74.94	85.	36.	.31-0	.27-2 1 3	0.00	.07
1.181	485.45	-102.34	74.49	99.	7.	.44-0	.11-2 1 3	0.00	1.84
1.184	486.55	-102.17	74.32	94.	45.	.22-0	.03-2 1 3	0.00	.70
1.216	498.84	-100.70	72.84	110.	39.	.24-0	.09-2 1 3	0.00	6.05
1.231	508.27	-99.54	71.77	89.	17.	.19-0	.14-2 1 2	0.00	4.77
1.232	508.49	-99.52	71.64	71.	38.	.06-1	.09-0 1 3	0.00	.09
1.235	510.02	-99.33	71.46	85.	43.	.20-0	.15-1 1 3	5.44	.78
1.237	511.36	-99.17	71.29	94.	36.	.22-0	.02-2 1 3	0.00	.67
1.238	511.60	-99.14	71.26	88.	36.	.13-0	.05-2 1 2	0.00	.12
1.246	514.27	-98.81	70.93	93.	35.	.24-0	.17-2 1 2	0.00	1.35
1.248	516.04	-98.59	70.71	95.	43.	.36-0	.05-2 1 3	0.00	.89
1.249	516.28	-98.56	70.68	97.	38.	.26-0	.17-2 1 3	0.00	.12
1.250	517.07	-98.47	70.59	86.	17.	.05-2	.14-2 1 3	0.00	.39
1.251	517.26	-98.44	70.56	96.	33.	.13-1	.08-2 1 3	0.00	.10
1.255	518.63	-98.28	70.39	83.	7.	.25-0	.26-2 1 3	0.00	.68
2.069	545.68	-102.62	66.76	97.	47.	.22-0	.08-2 1 3	0.00	0.00
2.090	550.04	-103.70	66.21	97.	32.	.22-1	.16-2 1 3	0.00	.76
2.091	550.36	-103.78	66.12	105.	31.	.45-0	.03-2 1 3	4.57	.05
2.131	564.72	-107.35	64.26	112.	27.	.35-0	.03-2 1 3	5.44	2.47
2.144	568.64	-108.32	63.60	74.	43.	6.00-2	6.00-2 1 3	0.00	.65
2.161	575.70	-110.07	62.68	81.	26.	.45-0	.36-1 1 2	0.00	1.22
2.238	592.10	-114.14	60.64	70.	45.	.62-0	.22-0 1 3	2.66	2.84
2.239	592.34	-114.20	60.34	76.	50.	.45-0	.07-2 1 3	0.00	.01
3.017	605.12	-117.35	58.69	78.	24.	.33-1	.16-1 1 3	0.00	0.00

FILE JOINT6.1.C1
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1.013	435.44	-108.46	80.66	91.	111.	.3[illegible]0	.03-2 1 3	0.00	1.74
1.018	437.22	-108.24	80.44	97.	107.	.25-0	.09-2 1 3	0.00	1.50
1.019	437.49	-108.21	80.41	97.	112.	.25-0	.05-2 1 3	0.00	.23
1.023	440.04	-107.90	80.10	77.	108.	.18-0	.07-2 1 3	0.00	2.15
1.028	440.82	-107.80	80.10	104.	123.	.75-0	.09-2 1 3	0.00	.68
1.030	441.05	-107.78	79.97	98.	111.	.25-0	.05-2 1 3	0.00	.17
1.046	447.20	-107.02	79.38	98.	116.	.16-0	.09-2 1 4	0.00	5.23
1.050	448.06	-106.92	79.11	77.	108.	1.74-0	.12-2 1 3	2.29	.68
1.058	450.51	-106.62	78.80	106.	119.	.24-0	.12-2 1 3	0.00	2.06
1.059	450.92	-106.57	78.75	102.	118.	.25-0	.03-2 1 3	0.00	.35
1.060	451.09	-106.55	78.73	97.	104.	.25-0	03-2 1 3	0.00	.14
1.061	451.21	-106.53	.78	95.	105.	.25	-2 1 3	0.00	.10
1.062	451.51	-106.50	78.68	95.	105.		2 1 3	0.00	.25
1.064	452.29	-106.40	78.58	101	113.		-2 1 3	0.00	.66
1.067	455.31	-106.03	78.21	85.	94.	.	3-2 1 3	0.00	2.55
1.071	457.13	-105.81	77.99	91.	110.	.5[illegible]	04-2 1 3	16.59	1.54
1.075	457.81	-105.72	77.90	89.	103.	.80-0	.05-2 1 3	0.00	.57
1.084	460.98	-105.33	77.51	94.	106.	.44-0	.06-2 1 3	0.00	2.67
1.087	461.53	-105.27	77.44	97.	95.	.23-0	.07-2 1 3	0.00	.47

1.088	461.65	-105.25	77.43	101.	102.	.20-0	.01-0	1	3	0.00	.10
1.091	463.22	-105.06	77.23	108.	107.	.34-0	.07-2	1	3	11.31	1.32
1.092	463.44	-105.03	77.21	101.	103.	.28-0	.05-2	1	3	0.00	.19
1.093	463.62	-105.01	77.18	103.	94.	.25-0	.05-2	1	3	0.00	.15
1.095	464.67	-104.88	77.05	104.	103.	.20-0	.03-2	1	3	0.00	.88
1.098	466.22	-104.69	76.86	88.	106.	.16-0	.02-2	1	3	0.00	1.31
1.099	466.43	-104.67	76.84	89.	106.	.25-0	.01-2	1	3	0.00	.18
1.103	467.52	-104.53	76.70	107.	95.	.49-0	.10-2	1	3	2.86	.92
1.113	468.25	-104.44	76.61	88.	113.	.50-0	.02-2	1	3	0.00	.62
1.119	472.29	-103.93	76.11	107.	95.	.22-0	.02-2	1	3	0.00	3.41
1.125	473.83	-103.76	75.92	73.	122.	.48-0	.07-2	2	3	0.00	1.30
1.132	473.47	-103.56	75.72	96.	96.	.30-0	.12-2	1	4	0.00	1.38
1.139	476.15	-103.48	75.64	80.	98.	.62-0	.03-2	1	4	0.00	.58
1.142	476.74	-103.41	75.56	90.	112.	.36-0	.10-2	1	3	3.95	.50
1.143	476.79	-103.40	75.56	73.	118.	.70-0	.03-2	1	3	0.00	.04
1.144	477.05	-103.37	75.53	74.	99.	.97-0	.03-2	1	3	0.00	.22
1.151	479.38	-103.08	75.24	74.	105.	.65-0	.03-2	1	3	0.00	1.96
1.153	480.02	-103.00	75.16	95.	104.	.35-0	.05-1	1	2	0.00	.54
1.159	480.82	-102.91	75.06	89.	103.	.70-0	.06-1	1	3	0.00	.68
1.160	480.89	-102.90	75.05	89.	96.	1.01-0	.15-2	1	3	0.00	.06
1.161	481.10	-102.87	75.03	95.	107.	1.03-0	.04-2	1	2	0.00	.18
1.167	481.99	-102.76	74.92	87.	110.	.56-0	.08-2	1	2	0.00	.75
1.173	483.40	-102.59	74.74	60.	99.	.64-0	.05-2	1	2	14.25	1.19
1.175	484.16	-102.50	74.65	85.	112.	.21-0	.04-2	1	3	0.00	.64
1.176	484.26	-102.48	74.64	100.	113.	.57-0	.04-2	1	3	0.00	.08
1.188	488.80	-101.93	74.07	107.	94.	.57-0	.10-2	1	3	10.30	3.83
1.190	489.54	-101.84	73.98	97.	114.	.60-0	.05-2	1	3	0.00	.62
1.192	490.32	-101.74	73.89	107.	110.	.27-0	.20-1	1	3	0.00	.66
1.194	490.53	-101.72	73 86	117.	112.	.25-0	.12-1	1	3	0.00	.18
1.195	490.87	-101.67	73.82	90.	113.	.30-0	.04-2	1	3	0.00	.28
1.196	490.98	-101.66	73.81	87.	122.	.29-0	.08-2	1	3	0.00	.09
1.197	491.32	-101.62	73.76	70.	114.	.28-0	.03-2	1	3	0.00	.28
1.198	492.29	-101.50	73.64	99.	107.	.42-0	.02-2	1	3	0.00	.82
1.200	492.60	-101.46	73.61	73.	118.	.34-0	.03-2	1	3	0.00	.26
1.201	492.69	-101.45	73.59	89.	110.	.22-0	.01-2	1	3	0.00	.07
1.202	493.14	-101.40	73.54	89.	95.	.28-0	.03-2	1	3	0.00	.38
1.207	495.07	-101.16	73.30	78.	115.	.40-1	.13-2	1	3	5.19	1.63
1.211	496.70	-100.96	73.10	90.	110.	.24-0	.02-2	1	3	15.95	1.37
1.218	499.46	-100.62	72.76	93.	120.	.26-0	.01-2	1	3	0.00	2.33
1.220	500.52	-100.49	72.63	90.	123.	.08-0	.02-1	1	3	0.00	.89
1.224	503.70	-100.10	72.24	102.	95.	.34-0	.03-2	1	3	0.00	2.68
1.225	504.33	-100.03	72.16	92.	101.	.30-0	.01-2	1	3	0.00	.53
1.247	514.37	-98.80	70.92	105.	116.	.27-0	.11-1	1	3	0.00	8.46
1.237	520.83	-98.01	70.12	74.	115.	.00-0	.04-2	1	3	0.00	5.44
1.260	522.54	-97.80	69.91	79.	115.	1-1	.08-2	1	3	0.00	1.44
1.265	523.91	-97.63	69.74	85.	111.	.28-0	.02-2	1	3	0.00	1.15
2.019	531.16	-99.02	68.76	73.	104.	.32-0	.08-2	1	3	9.46	0.00
2.026	532.60	-99.98	68.56	74.	113.	.88-0	.09-2	3	4	0.00	1.38
2.033	535.09	-100.00	68.22	60.	111.	.38-0	.02 ?	1	3	3.27	2.38
2.034	533.23	-100.03	68.20	97.	121.	.22-0	.14-1	1	3	0.00	.13
2.036	535.54	-100.11	68.16	107.	105.	.78-0	.04-2	1	3	3.27	.30
2.037	535.67	-100.14	68.14	108.	108.	99.99-2	.09-2	1	2	8.28	.12
2.043	537.29	-100.54	67.91	100.	120.	.38-0	.05-2	1	2	7.59	1.55
2.048	539.37	-101.06	67.63	79.	96.	.22-0	.03-2	1	3	7.59	1.99
2.049	539.52	-101.10	67.61	110.	102.	.39-0	.02-2	1	3	0.00	.14
2.060	541.92	-101.69	67.28	83.	112.	0.00-2	.04-2	2	3	14.04	2.29
2.065	543.15	-102.00	67.11	86.	99.	.18-0	.05-2	1	3	0.00	1.18
2.066	543.20	-102.01	67.10	92.	95.	.33-0	.02-2	1	3	4.76	.05
2.070	545.97	-102.69	66.72	107.	113.	.24-0	.05-2	1	3	0.00	2.65
2.071	546.18	-102.75	66.69	107.	105.	.24-0	.01-2	1	3	0.00	.20

2.072	546.46	-102.82	66.65	110.	104.	.24-0	.02-2	1	3	0.00	.27
2.073	546.50	-102.83	66.65	115.	118.	.23-0	.01-2	1	3	0.00	.04
2.076	547.81	-103.15	66.47	107.	106.	.17-0	.02-2	1	3	0.00	1.25
2.077	547.89	-103.17	66.45	110.	111.	.30-0	.01-2	1	3	4.09	.07
2.078	548.19	-103.25	66.41	104.	113.	.28-0	.02-2	1	3	0.00	.29
2.080	548.40	-103.30	66.38	104.	119.	.27-0	.01-2	1	3	0.00	.20
2.081	548.45	-103.31	66.38	102.	113.	.25-0	.02-2	1	3	0.00	.05
2.082	548.49	-103.32	66.37	106.	116.	.25-0	.03-2	1	3	0.00	.04
2.083	548.64	-103.36	66.35	109.	101.	.26-0	.02-2	1	3	0.00	.14
2.084	548.77	-103.39	66.33	95.	103.	.20-0	.05-2	1	3	0.00	.12
2.085	549.03	-103.45	66.30	98.	111.	.25-0	.03-2	1	3	7.59	.25
2.086	549.18	-103.49	66.28	94.	105.	.34-0	.01-2	1	3	0.00	.14
2.087	549.84	-103.66	66.19	105.	118.	.38-0	.07-2	1	3	6.52	.63
2.088	549.92	-103.67	66.18	99.	122.	.9-0	0.00-2	1	3	0.00	.07
2.094	550.83	-103.90	66.05	97.	106.	.33-0	.02-2	1	3	0.00	.87
2.095	550.87	-103.91	66.04	110.	100.	.27-0	.05-2	1	3	0.00	.04
2.098	551.19	-103.99	66.00	117.	117.	.25-0	.01-2	1	3	0.00	.31
2.099	551.24	-104.00	65.99	109.	107.	.27-0	.04-2	1	3	0.00	.05
2.101	551.50	-104.07	65.96	95.	104.	.20-0	.03-1	1	3	0.00	.25
2.110	560.30	-106 25	64.75	91.	98.	.70-0	.04-2	1	3	0.00	8.41
2.111	560.72	-10 .35	64.69	107.	104.	.45-0	.01-2	1	3	0.00	.40
2.113	561.01	-106.43	64.64	91.	96.	.59-0	.12-2	1	3	0.00	.30
2.114	561.35	-106.56	64.57	103.	96.	.35-0	.03-2	1	3	0.00	.49
2.115	561.83	-106.63	64.54	93.	111.	.14-0	.03-2	1	3	0.00	.27
2.116	561.99	-106.67	64.51	99.	98.	.63-0	.04-2	1	3	4.57	.15
2.119	562.39	-106.82	64.43	91.	110.	.4[illegible]-0	.03-2	1	3	0.00	.57
2.120	562.73	-106.85	64.41	105.	107	.[illegible]	.08-2	1	2	0.00	.13
2.124	563.16	-106.96	64.35	94.	[illegible]	.[illegible]0	.06-2	1	3	3.47	.41
2.125	563.32	-107.00	64.33	110.	101.	.44-0	14-2	1	3	6.46	.16
2.126	563.66	-107.08	64.28	94.	100.	.35-0	.03-2	1	3	0.00	.31
2.127	563.75	-107.11	64.27	112.	102	6.00-2	6.00-2	1	2	7.77	.09
2.128	563.98	-107.16	64.24	106.	102.	.30-0	.01-2	1	3	5.44	.22
2.129	564.08	-107.19	64.23	108.	115.	.49-0	.07-2	1	3	0.00	.10
2.130	564.41	-107.27	64.18	103.	98.	.55-0	.01-2	1	3	5.44	.31
2.132	564.75	-107.37	64.13	105.	95.	.32-0	.02-1	1	3	0.00	.32
2.133	565.11	-107 [illegible]	64.08	101.	101.	6.00-2	6.00-2	1	3	0.00	.34
2.134	565.40	-107.	64.04	106.	115.	.30-0	.03-2	1	3	0.00	.28
2.136	565.97	-107.[illegible]	63.97	105.	110.	.38-0	.01-2	1	3	0.00	.55
2.137	566.11	-107.69	63.95	98.	105.	.35-0	.02-2	1	3	6.71	.13
2.138	566.40	-107.76	63.91	97.	105.	.67-0	.01-2	1	3	6.91	.28
2.139	566.61	-107.82	63.88	110.	105.	.40-0	.01-2	1	3	0.00	.20
2.140	566.66	-107.83	63.87	100.	96.	.48-0	.02-2	1	3	12.53	.05
2.141	567.49	-108.03	63.76	110.	106.	6.00-[illegible]	6.00-2	1	3	0.00	.79
2.143	568.24	-108.22	63.65	100.	102.	.28-[illegible]	.05-2	1	3	5.71	.72
2.145	571.45	-109.02	63.21	118.	100.	.52-[illegible]	.01-2	1	3	6.34	3.07
2.150	571.88	-109.12	63.15	65.	97.	.27-[illegible]	.02-2	1	3	11.31	.41
2.154	573.30	-109.47	62.96	100.	111.	.29-[illegible]	.05-2	1	2	0.00	1.36
2.157	573 94	-109.63	62.87	98.	102.	.2[illegible]	.06-1	1	3	0.00	.61
2.159	574.88	-109.87	62.74	114.	122.	.1[illegible]	02-2	1	3	0.00	.90
2.164	576.08	-110.16	62.57	110.	113.	.[illegible]	07-2	1	2	0.00	1.14
2.166	576.56	-110.28	62.51	113.	111.	.2[illegible]	.02-2	1	3	0.00	.46
2.173	578.42	-110.74	62.25	107.	107.	.[illegible]	.07-2	1	3	0.00	1.78
2.175	578.84	-110.85	62.19	98.	104.	.[illegible]	.04-2	1	3	6.34	.40
2.177	579.14	-110.92	62.15	90.	107.	.[illegible]	.04-2	1	3	10.30	.29
2.179	579.32	-110.97	62.13	101.	112.	.[illegible]	.03-2	1	3	0.00	.18
2.180	579.34	-110.97	62.12	97.	117.	.4[illegible]	.01-2	1	3	0.00	.02
2.182	579.65	-111.05	62.08	105.	97.	.43-0	.11-2	1	3	10.08	.30
2.183	579.79	-111.09	62.06	114.	114.	.76-0	.04-2	1	3	5.71	.14
2.185	580.53	-111.27	61.96	114.	118.	.77-0	.11-2	1	3	11.31	.71
2.186	580.68	-111.31	61.94	105.	100.	.30-0	.02-2	1	3	0.00	.14

2.187	580.86	-111.35	61.92	115.	123.	.79-0	.06-2	1	3	3.58	.17
2.193	582.86	-111.85	61.64	102.	110.	.63-0	.01-2	1	3	4.24	1.91
2.199	584.39	-112.23	61.43	93.	105.	.33-0	.03-2	1	3	4.76	1.46
2.200	584.58	-112.27	61.40	105.	122.	.37-0	.01-2	1	3	0.00	.18
2.202	585.14	-112.41	61.33	103.	109.	.42-0	.01-2	1	3	0.00	.54
2.203	585.23	-112.43	61.31	90.	97.	.30-0	.02-2	1	3	0.00	.08
2.211	587.37	-112.96	61.02	106.	116.	.29-0	.0 -2	1	3	0.00	2.05
2.212	587.36	-113.01	60.99	112.	114.	.25-0	.03-2	1	3	0.00	.18
2.214	587.74	-113.06	60.97	100.	108.	.25-0	.07-2	1	3	0.00	.18
2.215	588.14	-113.15	60.91	107.	110.	.52-1	.04-2	1	3	3.18	.38
2.216	588.68	-113.29	60.84	105.	121.	.42-0	.12-2	1	3	0.00	.52
2.218	589.04	-113 38	60.79	113.	124.	.38-0	.19-2	1	4	5.44	.34
2.219	589.19	-113.42	60.77	105.	113.	1.05-1	.05-2	1	3	5.19	.14
2.220	589.33	-113.45	60.75	106.	115.	.36-0	.07-2	1	3	6.52	.13
2.222	589.74	-113.55	60.69	105.	115.	.40-0	.02-2	1	3	0.00	.39
2.229	590.62	-113.77	60.57	91.	107.	.43-0	.05-2	1	3	0.00	.84
2.230	590.96	-113.86	60.53	105.	119.	.43-0	.06-2	1	3	0.00	.33
2.235	591.74	-114.05	60.66	70.	96.	.62-0	.05-2	1	3	0.00	.81
2.240	592.51	-114.24	60.31	103.	115.	.50-0	.12-1	1	3	3.69	.67
2.243	593.24	-114.42	60.21	104.	113.	.62-0	.04-2	1	2	3.01	.70
2.244	593.36	-114.45	60.20	99.	110.	.64-0	.03-2	1	3	12.53	.12
3.001	602.79	-116.79	58.89	109.	110.	.72-0	.04-2	1	3	0.00	0.00
3.006	603.62	-116.99	58.77	105.	110.	.87-0	.04-2	1	3	1.91	.79
3.007	603.63	-116.99	58.77	110.	103.	.49-0	.04-2	1	3	4.24	.03
3.008	603.68	-117.00	58.77	109.	116.	.22-0	.03-2	1	3	0.00	.03
3.010	604.01	-117.08	58.72	104.	122.	.34-0	.09-2	1	3	0.00	.31
3.013	604.70	-117.25	58.62	107.	118.	.44-0	.05-2	1	3	0.00	.66
3.015	604.91	-117.30	58.59	103.	113.	.41-0	.02-1	1	3	0.00	.20
3.018	605.16	-117.36	58.55	105.	114.	.44-0	.01-2	1	3	0.00	.24
3.025	606.49	-117.68	58.36	100.	100.	.66-0	.10-2	1	3	6.01	1.27
3.028	606.86	-117.77	58.31	96.	100.	.38-0	.08-2	1	3	0.00	.35
3.033	608.51	-118.17	58.08	92.	119.	.85-0	.21-2	1	3	3.01	1.57
3.034	609.01	-118.30	58.01	105.	95.	.55-0	.17-2	1	3	0.00	.48
3.035	609.32	-118.37	57.96	100.	117.	.48-0	.07-2	1	2	6.01	.29
3.040	610.25	-118.60	57.83	106.	96.	.47-0	.03-2	1	3	4.40	.89
3.043	610.78	-118.73	57.75	99.	94.	1.04-0	.12-2	1	3	4.76	.50
3.044	610.81	-118.73	57.75	97.	96.	.27-0	.02-2	1	3	0.00	.03
3.048	610.95	-118.77	57.73	100.	96.	.73-0	.09-2	1	3	5.44	.14
3.053	611.34	118.86	57.67	106.	100.	.20-0	.10-2	1	3	0.00	.37
3.056	611.48	-118.90	57.65	108.	96.	.19-0	.03-2	1	3	0.00	.14
3.062	612.31	-119.10	57.53	107.	94.	4.50-1	.05-1	2	2	10.30	.79

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1.004	432.80	-108.79	80.99	104.	135.	1.23-0	.09-2	1	4	0.00	0.00
1.008	433.52	-108.70	80.90	106.	142.	.67-0	.09-2	1	3	10.89	.41
1.010	434.18	-108.62	80.97	75.	129.	.54-2	.09-2	1	3	7.59	.41
1.032	441.95	-107.67	80.27	109.	127.	1.72-0	.41-2	1	4	5.44	4.52
1.034	442.59	-107.59	79.88	114.	141.	.52-1	.24-2	1	4	0.00	.31
1.036	443.42	-107.49	79.91	109.	135.	.71-1	.11-2	1	3	0.00	.50
1.039	444.36	-107.37	79.56	108.	137.	.19-1	.09-2	1	3	0.00	.50
1.042	445.84	-107.19	79.43	114.	134.	.22-2	.07-2	1	3	0.00	.86
1.043	446.65	-107.09	79.45	113.	137.	.87-0	.18-2	1	4	7.77	.49
1.044	446.90	-107.06	79.44	110.	133.	.36-0	.08-2	1	2	0.00	.15
1.045	447.08	-107.04	79.46	103.	133.	.12-2	.08-2	1	3	0.00	.11
1.047	447.34	-107.01	79.35	102.	130.	.30-0	.11-2	1	3	0.00	.14
1.048	447.49	-106.99	79.30	100.	136.	.32-0	.14-2	1	3	0.00	.08
1.051	448.71	-106.84	79.07	102.	127.	.11-1	.07-2	1	3	0.00	.69

1.055	449.40	-106.75	78.94	112.	130.	0.00-0	0.00-0 0 0	0.00	0.00
1.056	449.64	-106.72	78.91	114.	0.	0.00-0	0.00-0 0 0	0.00	0.00
1.096	465.39	-104.79	76.97	107.	136.	0.00-0	0.00-0 0 0	0.00	0.00
1.097	468.93	-10[illegible] 75	76.90	92.	126.	.28-0	.01-2 1 3	0.00	.31
1.193	490.49	-10[illegible].72	73.37	85.	126.	.21-0	.12-1 1 3	0.00	14.14
1.205	494.54	-101.23	73.37	86.	127.	12.00-0	.04-1 1 3	7.13	2.34
1.209	495.11	-101.56	73.30	93.	146.	.15-0	.08-0 1 3	0.00	.33
1.233	509.38	-99.41	71.53	109.	129.	.28-0	.02-2 1 2	0.00	8.22
1.262	523.39	-97.69	69.80	85.	142.	.19-1	.04-2 1 3	0.00	8.07
2.039	536.62	-100.38	68.08	93.	138.	.33-0	.31-1 1 3	7.13	0.00
2.068	545.54	-102.59	66.78	97.	142.	.42-0	.04-2 1 3	0.00	7.44
2.075	547.10	-102.97	66.56	104.	143.	.36-0	.07-2 1 3	0.00	1.30
2.079	548.36	-103.29	66.39	108.	132.	.26-0	.02-2 1 3	0.00	1.06
2.089	549.97	-103.69	66.17	100.	134.	.47-0	.04-2 1 3	4.76	1.35
2.092	550.44	-103.80	66.10	102.	137.	.33-0	.03-2 1 3	0.00	.39
2.093	550.77	-103.89	65.[illegible]6	106.	135.	.32-0	.07-2 1 3	9.09	.28
2.096	551.09	-103.97	66.01	115.	134.	.31-0	.01-2 1 3	6.01	.27
2.097	551.13	-103.98	66.01	116.	127	.31-0	.01-2 1 3	0.00	.03
2.100	551.43	-104.05	65.97	95.	143.	.13-0	.03-1 1 3	0.00	.25
2.104	553.79	-104.64	65.64	124.	132.	.16-1	.04-2 1 3	8.53	1.98
2.107	553.30	-105.75	65.02	112.	145.	.21-0	.03-2 1 3	0.00	3.76
2.117	562.03	-106.68	64.51	105.	140.	.61-0	.05-2 1 3	0.00	3.12
2.118	562.26	-106.74	64.48	96.	137.	.32-0	.03-2 1 3	9.46	.19
2.148	571.42	-109.01	63.22	107.	144.	.23-0	.06-2 1 3	0.00	7.66
2.163	576.00	-110.15	62.58	115.	143.	.53-0	.06-2 1 3	4.40	3.83
2.165	576.28	-110.21	62.55	118.	146.	.24-0	.05-2 1 3	0.00	.23
2.172	578.15	-110.48	62.29	111.	129.	.40-0	.02-2 1 3	0.00	1.57
2.174	578.76	-110.83	62.21	96.	125.	.75-0	.10-2 1 3	9.62	.51
2.176	578.95	-110.88	62.18	97.	131.	2.37-1	.06-2 1 3	4.97	.16
2.178	579.28	-110.96	62.13	94.	131.	.65-0	.03-2 1 3	0.00	.27
2.181	579.42	-110.99	62.11	95.	127	.40-0	.04-2 1 3	0.00	.11
2.190	582.09	-111.65	61.75	112.	127.	.57-0	.21-2 1 3	5.19	2.23
2.198	584.35	-112.22	61.43	118.	133.	6.41-2	6.54-2 1 3	0.00	1.89
2.201	585.01	-112.38	61.35	110.	125.	.27-0	.04-2 1 3	0.00	.55
2.204	585.38	-112.47	61.29	100.	132.	.50-0	.12-1 1 3	6.84	.31
2.226	589.98	-113.61	60.66	85.	139.	.24-0	.03-1 1 3	8 13	3.85
2.227	590.23	-113.67	60.63	106.	142.	.26-0	.06-2 1 3	0.00	.21
2.231	591.08	-113.88	60.51	102.	145.	.28-0	.06-2 1 3	11.31	.71
2.232	591.23	-113.92	60.49	100.	131.	.42-0	.16-2 1 3	7.59	.13
2.237	591.97	-114.11	60.62	106.	138.	.62-0	.08-2 1 3	0.00	.66
3.011	604.22	-117.13	58.69	106.	136.	.23-1	.07-2 1 3	0.00	0.00
3.022	605.76	-117.51	58.47	106.	145.	.47-0	.03-2 1 3	5.71	1.28
3.055	611.38	-118.87	57.67	111.	146.	.41-0	.20-2 1 3	0.00	4.67
3.061	612.20	-119.07	57.55	106.	142.	.16-0	.05-1 1 3	0.00	.68

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1.001	431.73	-108.92	81.12	82.	56.	.71-1	.17-2 1 3	0.00	0.00
1.002	431.99	-108.88	81.09	88.	63.	.80-0	.08-2 1 3	0.00	.25
1.003	432.36	-108.84	81.04	85.	76.	1.00-0	.13-2 1 3	0.00	.35
1.005	433.03	-108.76	80.96	82.	53.	.27-0	.11-2 1 3	0.00	.64
1.012	435.13	-108.50	80.70	77.	63.	1.00-0	.03-2 1 2	5.71	2.00
1.014	430.73	-109.04	81.25	94.	63.	.38-0	.03-2 2 3	0.00	4.19
1.020	437.57	-108.20	80.[illegible]0	83.	64.	.81-0	.06-2 1 2	2.83	6.51
1.023	439.05	-108.02	80.22	80.	88.	.76-0	.06-2 1 3	0.00	1.41
1.027	440.45	-107.85	80.04	83.	57.	.75-0	.12-2 1 3	0.00	1.33
1.029	440.86	-107.80	79.99	91.	75.	.34-0	.05-2 [illegible] 3	0.00	.39
1.033	442.51	-107.60	79.79	85.	72.	.24-1	.09-1 1 3	0.00	1.57

1.038	444.27	-107.38	79.57	86.	75.	.22-1	.08-1	1	3	0.00	1.68
1.053	449.28	-108.77	78.96	94.	67.	.07-0	.02-2	1	3	0.00	4.74
1.054	449.29	-108.77	78.75	90.	64.	.06-0	.05-2	1	3	0.00	.04
1.063	451.79	-106.46	78.64	97.	93.	.39-0	.04-2	2	3	0.00	2.38
1.070	456.77	-105.85	78.03	83.	84.	1.00-0	.05-2	1	3	0.00	4.74
1.076	458.85	-105.60	77.77	87.	76.	.38-0	.14-1	1	4	0.00	1.98
1.079	460.24	-105.43	77.60	102.	73.	.42-0	.10-0	1	4	0.00	1.32
1.080	460.41	-105.40	77.58	104.	86.	.52-0	.03-2	1	3	14.04	.16
1.081	460.42	-105.40	77.58	91.	85.	.96-0	.02-2	1	3	10.08	.01
1.082	460.57	-105.59	77.56	103.	86.	.47-0	.09-2	1	3	0.00	.14
1.083	460.82	-105.36	77.53	109.	83.	.47-0	.07-2	1	3	0.00	.24
1.085	461.16	-105.31	77.49	104.	91.	.36-0	.02-2	1	3	6.52	.33
1.086	461.24	-105.30	77.48	90.	79.	1.30-1	.06-2	1	3	12.26	.08
1.100	467.04	-104.59	76.76	83.	78.	.53-0	.04-2	1	3	0.00	5.52
1.101	467.21	-104.57	76.74	75.	66.	.70-0	.04-2	1	3	2.79	.16
1.102	467.34	-104.56	76.72	78.	56.	1.01-0	.12-2	1	3	0.00	.12
1.104	467.68	-104.51	76.68	75.	75.	.69-0	.02-2	1	3	0.00	.33
1.105	468.10	-104.46	76.83	71.	91.	.22-0	.05-2	1	3	0.00	.40
1.107	468.48	-104.42	76.58	71.	88.	.49-0	.09-2	1	3	0.00	.36
1.109	468.65	-104.40	76.56	70.	84.	.50-0	.05-2	1	3	0.00	.16
1.110	468.88	-104.37	76.53	71.	66.	.45-0	.05-2	1	3	5.86	.22
1.111	468.97	-104.36	76.52	70.	62.	1.26-0	.03-2	1	3	2.79	.09
1.112	469.07	-104.34	76.51	78.	82.	1.06-0	.02-2	1	3	0.00	.10
1.114	469.30	-104.32	76.48	75.	82.	.49-0	.04-2	1	3	0.00	.22
1.118	471.75	-104.02	76.18	105.	82.	.22-0	.24-2	1	3	3.00	2.33
1.121	472.99	-103.86	76.03	105.	89.	.11-0	.03-2	1	3	0.00	1.18
1.126	474.17	-103.72	75.90	80.	64.	.50-0	.04-2	1	3	3.47	1.12
1.127	474.39	-103.69	75.85	87.	84.	.55-0	.05-2	1	3	0.00	.21
1.128	474.65	-103.66	75.82	83.	62.	.53-0	.09-2	1	2	0.00	.25
1.130	474.85	-103.64	75.80	78.	66.	.53-0	.13-2	1	3	0.00	.19
1.131	475.15	-103.60	75.76	96.	84.	.30-0	.06-2	1	3	0.00	.29
1.133	475.56	-103.55	75.71	84.	69.	.32-0	.17-1	1	3	0.00	.39
1.134	475.61	-103.54	75.70	96.	84.	.25-0	.04-2	1	3	0.00	.05
1.135	475.64	-103.54	75.70	93.	86.	.51-0	.04-2	1	3	7.85	.03
1.136	475.69	-103.53	75.69	107.	84.	.28-0	.05-2	1	4	0.00	.05
1.137	475.71	-103.53	75.69	109.	81.	.27-0	.08-2	1	3	0.00	.02
1.141	476.50	-103.44	75.59	94.	70.	.61-0	.09-2	1	3	12.53	.75
1.149	477.47	-103.32	75.49	104.	68.	.53-0	.14-2	1	3	0.00	.92
1.146	477.72	-103.29	75.44	80.	58.	.48-0	.04-2	1	3	0.00	.24
1.147	478.00	-103.25	75.41	90.	55	1.64-0	.09-2	1	3	0.00	.27
1.148	478.34	-103.21	75.37	89.	60.	.62-0	.20-2	1	3	0.00	.32
1.149	478.59	-103.18	75.34	83.	65.	.29-0	.04-2	1	2	0.00	.24
1.150	479.03	-103.12	75.28	106.	72.	.59-0	.04-2	1	2	0.00	.42
1.152	479.54	-103.06	75.22	101.	76.	1.37-0	.05-2	1	3	14.42	.49
1.153	479.71	-103.04	75.20	102.	63.	1.58-0	.06-2	1	3	12.37	.16
1.154	479.95	-103.01	75.17	77.	60.	.93-0	.09-2	1	2	0.00	.23
1.157	480.39	-102.96	75.11	96.	72.	.49-0	.02-2	1	3	0.00	.42
1.158	480.75	-102.91	75.07	90.	73.	.42-0	.03-2	1	2	0.00	.35
1.162	481.20	-102.86	75.01	71.	72.	.20-0	.03-2	1	3	0.00	.43
1.168	482.24	-102.73	74.89	107.	80.	.24-0	.06-1	1	3	0.00	.99
1.174	483.84	-102.54	74.69	98.	81.	.34-0	.05-2	1	3	0.00	1.52
1.178	484.97	-102.40	74.55	110.	78.	.25-0	.09-2	1	3	0.00	1.08
1.179	485.06	-102.39	74.54	107.	72.	.20-0	.08-2	1	3	0.00	.09
1.185	486.97	-102.15	74.30	93.	86.	.61-0	.03-2	1	3	0.00	1.82
1.186	487.29	-102.11	74.26	104.	64.	.63-0	.13-2	1	3	7.35	.30
1.187	488.20	-102.90	74.15	86.	60.	1.14-0	.34-2	1	3	0.00	.87
1.189	489.16	-101.88	74.03	105.	65.	.55-0	.14-2	1	2	5.71	.91
1.191	489.69	-101.82	73.97	103.	79.	.62-0	.10-2	1	2	0.00	.50
1.199	492.46	-101.48	73.62	96.	93.	.26-0	.02-2	1	3	0.00	2.64
1.212	497.42	-100.87	73.01	89.	70.	.21-0	.11-2	1	3	0.00	4.73

1.221	501.92	-100.32	72.46	97.	53.	.79-0	.25-2	1	4	9.09	.29
1.223	503.19	-100.17	72.30	97.	74.	.78-0	.14-2	1	3	0.00	1.21
1.226	504.74	-99.98	72.11	81.	83.	.49-0	.06-2	1	2	0.00	1.48
1.227	506.12	-99.81	71.94	90.	52.	.55-0	.32-2	1	3	0.00	1.31
1.230	507.69	-99.62	71.74	98.	93.	.73-0	.04-2	1	3	0.00	1.49
1.234	509.52	-99.39	71.52	92.	73.	.31-0	.06-2	1	3	0.00	1.75
1.236	510.74	-99.24	71.37	113.	89.	.23-0	.02-2	1	4	0.00	1.16
1.239	512 11	-99.07	71.20	84.	68.	.07-0	.03-2	1	2	0.00	1.31
1.241	512.26	-99.06	71.18	84.	76.	.08-0	.03-2	1	3	0.00	.14
1.244	513.42	-98.91	71.04	90.	92.	.16-0	.02-2	1	3	0.00	1.11
1.258	521.87	-97.88	69.99	84.	61.	.99-1	.25-2	1	3	7.35	8.05
1.259	522.28	-97.83	69.94	75.	52.	.18-0	.11-1	1	3	0.00	.39
1.261	523.24	-97.71	69.82	87.	80.	.28-1	.06-2	1	2	0.00	.92
1.264	523.82	-97.64	69.75	81.	76.	.27-0	.03-2	1	3	12.53	.55
2.001	525.48	-97.61	69.54	96.	82.	.27-0	.05-2	1	3	0.00	0.00
2.002	525.79	-97.69	69.50	90.	90.	.13-0	.01-2	1	3	0.00	.26
2.003	525.89	-97.71	69.48	85.	92.	.11-0	.01-2	1	3	0.00	.08
2.004	526.35	-97.83	69.42	95.	86.	.30-0	.05-2	1	3	4.57	.38
2.005	527.04	-98.00	69.32	83.	84.	.78-0	.21-2	1	3	13.50	.58
2.006	527.44	-98.10	69.27	98.	92.	.31-0	.04-2	1	3	0.00	.34
2.007	528.07	-98.25	69.18	96.	88.	.25-0	.10-2	1	3	4.40	.53
2.009	528.21	-98.29	69.16	94.	84.	.49-0	.12-2	1	2	5.71	.12
2.010	528.77	-98.43	69.09	93.	79.	.42-0	.07-2	1	3	4.76	.47
2.011	529.27	-98.55	69.02	92.	78.	.27-0	.01-2	1	3	5.44	.42
2.012	529.29	-98.56	69.01	87.	80.	.59-0	.05-2	1	3	2.79	.01
2.013	529.31	-98.56	69.01	92.	70.	.18-0	.06-2	1	3	0.00	.02
2.014	529.45	-98.60	68.99	95.	76.	.58-0	.08-2	1	2	7.96	.12
2.015	529.74	-98.67	68.95	85.	88.	.70-0	.11-2	1	3	0.00	.24
2.016	530.22	-98.79	68.89	82.	82.	.39-0	.04-2	1	3	0.00	.40
2.017	530.50	-98.86	68.85	94.	77.	.32-0	.13-2	1	2	6.84	.23
2.018	531.03	-98.99	68.78	96.	86.	.71-0	.06-2	1	4	11.89	.44
2.020	531.39	-99.08	68.73	95.	73.	.73-0	.15-2	1	3	4.57	.30
2.021	531.74	-99.17	68.68	96.	87.	.61-0	.04-2	1	3	7.77	.29
2.022	531.93	-99.21	68.65	75.	91.	.86-0	.06-2	1	3	0.00	.16
2.023	532.19	-99.28	68.62	87.	74.	.47-0	.09-2	1	3	3.37	.22
2.024	532.34	-99.31	68.60	90.	66.	.83-0	.23-2	1	3	0.00	.13
2.025	532.56	-99.37	68.57	94.	81.	.66-0	.05-2	1	3	8.75	.18
2.028	533.01	-99.48	68.50	78.	89.	.88-0	.12-2	1	3	6.12	.38
2.030	534.37	-99.82	68.32	91.	51.	1.53-0	.50-2	1	4	11.69	1.14
2.032	534.90	-99.95	68.24	75.	51.	.70-0	.27-2	1	3	8.28	.44
2.035	535.31	-100.05	68.19	84.	57.	.36-0	.23-2	1	3	6.91	.34
2.038	536.00	-100.22	68.09	83.	67.	.63-0	.40-2	1	3	4.57	.58
2.040	536.95	-100.46	67.96	101.	78.	.35-0	.04-2	1	3	4.09	.79
2.041	537.03	-100.48	67.95	84.	78.	.35-0	.02-2	1	3	0.00	.07
2.042	537.23	-100.53	67.92	97.	77.	.36-0	.08-1	1	3	0.00	.17
2.044	537.29	-100.54	67.91	97.	84.	.38-0	.05-1	1	2	8.75	.05
2.045	537.68	-100.64	67.86	96.	86.	.35-0	.03-2	1	3	4.40	.33
2.046	538.81	-100.92	67.71	96.	84.	.34-0	.04-2	1	2	0.00	.95
2.050	539.81	-101.17	67.57	103.	93.	.68-0	.09-2	1	3	0.00	.84
2.051	540.16	-101.25	67.52	101.	90.	.26-0	.08-2	1	3	0.00	.29
2.052	540.25	-101.28	67.51	116.	91.	.41-0	.08-2	1	3	0.00	.07
2.053	540.35	-101.30	67.49	107.	85.	.42-0	.06-2	1	3	8.13	.08
2.054	540.39	-101.31	67.49	101.	81.	.43-0	.20-2	1	3	4.57	.03
2.055	540.87	-101.43	67.42	95.	90.	.46-0	.04-2	1	3	3.27	.40
2.056	541.22	-101.52	67.37	103.	93.	.46-0	.06-2	1	3	0.00	.29
2.057	541.45	-101.57	67.34	78.	53.	.17-1	.02-2	1	3	0.00	.19
2.058	541.55	-101.60	67.33	98.	86.	.22-0	.06-2	1	3	0.00	.08
2.059	541.69	-101.63	67.31	93.	73.	.51-0	.13-2	1	3	11.31	.12
2.062	542.49	-101.83	67.20	95.	88.	.60-0	.10-2	1	3	0.00	.67
2.063	542.62	-101.86	67.18	103.	84.	.64-0	.19-2	1	3	0.00	.11

2.064	543.06	-101.97	67.12	95.	89.	.48-0	.18-2	1	3	0.00	.37
2.067	544.70	-102.38	66.89	92.	93.	.32-0	.09-2	1	3	0.00	1.37
2.102	551.62	-104.10	65.94	95.	86.	.35-0	.03-2	1	3	0.00	5.79
2.122	562.97	-106.91	64.38	108.	93.	.34-0	.07-2	1	3	0.00	9.50
2.145	569.66	-108.57	63.46	106.	90.	.59-0	.02-2	1	3	8.13	5.60
2.194	582.91	-111.86	61.63	103.	86.	.28-0	.04-2	1	3	0.00	11.09
2.205	586.00	-112.62	61.21	86.	84.	.31-0	.05-2	1	3	0.00	2.59
2.206	586.30	-112.70	61.17	85.	75.	.33-0	.22-0	1	3	0.00	.25
2.209	586.86	-112.84	61.09	80.	68.	.26-1	.05-1	1	3	0.00	.47
2.234	591.70	-114.04	60.42	81.	82.	.38-0	.13-1	1	3	0.00	4.05
2.236	591.84	-114.07	60.58	74.	65.	.15-0	.07-1	1	3	0.00	.15
3.029	607.24	-117.87	58.26	105.	93.	.91-0	.15-2	1	3	0.00	0.00
3.030	607.63	-117.96	58.20	98.	85.	.78-0	.28-1	1	3	2.66	.33
3.036	609.50	-118.41	57.94	95.	76.	.45-0	.03-2	1	2	0.00	1.57
3.037	609.79	-118.49	57.89	95.	78.	.39-0	.08-2	1	3	0.00	.24
3.038	609.99	-118.53	57.87	94.	74.	.45-0	.11-2	1	3	0.00	.17
3.039	610.18	-118.58	57.84	90.	78.	.47-0	.05-2	1	3	0.00	.16
3.041	610.48	-118.65	57.80	99.	87.	.50-0	.09-2	1	3	6.34	.25
3.042	610.61	-118.69	57.78	92.	73.	.41-0	.05-2	1	3	8.13	.11
3.043	610.87	-118.75	57.74	100.	85.	.34-0	.06-2	1	3	0.00	.22
3.046	610.89	-118.75	57.73	101.	82.	.30-0	.07-2	1	3	0.00	.02
3.047	610.92	-118.76	57.73	100.	93.	.70-0	.10-2	1	3	0.00	.02
3.049	610.97	-118.77	57.72	95.	89.	.42-0	.06-2	1	3	0.00	.04
3.050	611.01	-188.78	57.72	96.	88.	.33-0	.02-2	1	3	4.57	.03
3.051	611.20	-188.83	57.69	100.	87.	.57-0	.05-2	1	3	5.19	.16
3.052	611.22	-188.83	57.69	97.	83.	.11-0	.04-1	1	3	0.00	.02
3.057	611.63	-188.93	57.63	114.	55.	.35-0	.06-2	1	3	0.00	.34
3.058	612.06	-119.04	57.57	96.	79.	.62-0	.06-2	1	3	5.08	.36
3.059	612.14	-199.06	57.56	87.	83.	6.69-2	6.09-2	1	3	0.00	.07
3.060	612.18	-119.07	57.55	96.	87.	.63-0	.07-2	1	3	2.73	.03
3.063	612.43	-119.13	57.52	110.	92.	.62-0	.12-1	1	3	10.30	.21

FILE JG.NT6.2.BEDDING
RECORD FORMAT: D-S

1.007	431.63	-100.98	81.25	10.	155.	.12-2	.50-0	1	3	0.00	0.00
1.011	432.56	-100.73	81.48	7.	104.	6.00-2	.12-2	3	2	14.04	.28
1.034	438.72	-99.08	80.30	3.	50.	.15-2	2.55-0	3	2	0.00	.78
1.040	440.55	-98.59	80.06	13.	250.	2.83-0	.08-2	3	2	0.00	.13
1.044	441.18	-98.42	79.64	10.	284.	.29-0	.12-1	1	3	0.00	.37
1.049	442.57	-98.04	79.49	16.	193.	.14-2	5.00-0	2	2	0.00	.07
2.002	444.97	-97.39	79.06	10.	123.	.06-2	.30-0	1	3	0.00	0.00
2.008	446.68	-96.91	78.84	11.	127.	.09-2	99.99-2	3	2	0.00	.12
2.026	450.10	-95.94	78.40	3.	116.	99.99-1	.08-2	1	2	0.00	.24
2.036	454.95	-94.56	77.77	10.	135.	6.00-2	9.99-1	1	2	0.00	.35
3.011	466.00	-91.69	76.68	10.	5.	.03-2	3.50-0	2	2	0.00	0.00
3.019	468.41	-91.32	76.20	9.	28.	.13 2	12.00-0	2	2	0.00	.26
3.046	476.02	-90.14	75.23	9.	99.	.19-2	99.99-2	1	2	0.00	.30
4.004	484.57	-88.88	74.25	5.	138.	.08-2	99.99-2	1	3	0.00	0.00
4.033	489.04	-88.71	73.93	3.	147.	.06-2	99.99-2	1	3	0.00	.19
4.045	491.70	-88.62	73.34	7.	160.	.15-1	99.99-2	1	2	0.00	.27
4.046	492.79	-88.58	73.21	16.	101.	.58-0	.09-2	1	3	4.40	0.00
4.054	497.31	-88.41	72.64	11.	168.	.14-2	.62-1	1	2	0.00	.05
4.059	500.05	-88.31	72.29	16.	128.	.04-2	99.99-2	1	2	0.00	.04
5.003	504.19	-88.27	71.78	5.	162.	.10-2	9.99-2	1	3	0.00	0.00
5.010	510.68	-88.72	71.05	7.	126.	.05-2	9.99-2	1	2	0.00	.17
5.024	519.52	-89.32	70.05	5.	170.	.02-2	99.99-1	1	2	0.00	.23
5.032	521.66	-89.47	69.81	8.	156.	.20-2	10.99-2	1	2	0.00	.06
6.009	524.99	-90.01	69.41	7.	167.	.11-2	99.99-2	1	2	0.00	0.00

6.017	527.40	-90.65	65.05	10.	249.	1.60-0	.04-2	1	2	0.00	0.00
6.031	531.17	-91.72	68.88	12.	40.	.04-2	4.00-0	1	2	0.00	0.00
6.037	533.35	-92.32	68.79	10.	112.	.04-2	5.50-2	1	3	0.00	.12
6.045	536.10	-95.08	67.93	7.	210.	.04-2	99.99-1	1	2	0.00	.16
6.047	536.41	-93.17	67.88	10.	135.	1.40-0	.01-2	1	3	0.00	.01
6.048	536.60	-93.22	67.86	10.	245.	.03-2	8.00-0	1	3	0.00	.01
6.064	540.73	-94.37	67.31	6.	68.	.04-2	9.00-0	1	2	0.00	.23
9.013	580.22	-105.10	62.36	26.	135.	.03-2	11.00-1	1	3	0.00	0.00
9.019	581.31	-105.35	62.17	26.	127.	.03-2	12.00-1	1	2	0.00	0.00
9.026	583.36	-105.82	61.82	22.	125.	.10-2	5.00-0	1	4	0.00	.01
9.044	586.10	-106.46	61.35	24.	173.	.06-2	3.00-0	1	4	0.00	.02
10.013	596.54	-108.89	59.60	20.	90.	.03-2	99.99-1	1	2	0.00	0.00
10.045	601.28	-110.05	58.89	14.	181.	.05-2	10.00-0	1	2	0.00	.15
10.066	604.14	-110.76	58.46	29.	208.	.08-2	30.00-2	1	2	0.00	.09
11.032	612.29	-112.94	57.33	10.	135.	.07-2	99.99-2	1	2	0.00	0.00
11.054	613.22	-113.22	57.21	11.	135.	.02-2	4.00-0	1	2	0.00	.06

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2.013	447.81	-96.59	78.69	89.	175.	.21-0	.11-0	1	3	0.00	0.00
3.016	467.55	-91.45	76.50	88.	163.	.53-2	.31-2	1	3	0.00	0.00
3.017	467.83	-91.40	76.17	89.	163.	.30-0	.02-2	1	3	0.00	.04
3.071	481.09	-89.36	74.65	100.	169.	.30-2	.16-2	3	3	0.00	1.32
4.016	486.19	-88.82	74.04	100.	161.	.40-1	.30-1	1	2	0.00	0.00
5.019	516.98	-89.15	70.34	110.	162.	.54-0		1	3	8.13	0.00
6.005	524.08	-89.75	69.53	95.	154.	.13-0			3	0.00	0.00
6.011	525.94	-90.27	69.28	89.	170.	.18-0				0.00	.93
6.020	528.52	-90.98	68.94	100.	173.	.14-2			2	0.00	1.29
6.025	529.08	-91.14	69.26	100.	178.	1.08-2			4	12.99	.37
6.059	539.92	-94.14	67.42	92.	180.	.13-0	.17-2	1	3	0.00	5.33
6.060	540.27	-94.24	67.37	100.	175.	.13-0	.02-2	1	3	0.00	.18
9.003	577.93	-104.57	62.75	112.	170.	.24-0	.10-1	1	3	0.00	0.00
9.004	578.09	-104.61	62.72	92.	175.	.23-0	.02-2	1	3	0.00	.07
9.005	578.25	-104.64	62.69	103.	160.	2.45-1	.04-2	1	3	0.00	.06
9.009	579.21	-104.87	62.53	112.	165.	2.10-0	.38-2	1	5	0.00	.44
9.010	579.62	-104.96	62.46	107.	158.	.40-0	.07-2	1	3	0.00	.18
9.012	579.92	-105.03	62.41	101.	154.	.90-0	.08-2	1	5	0.00	.14
9 014	580.35	-105.13	62.33	109.	170.	.33-0	.22-2	1	5	0.00	.19
9.015	580.54	-105.17	62.30	105	162.	1.60-1	.03-2	1	5	7.13	.08
9.017	580.86	-105.25	62.25	109.	163.	.40-0	.06-2	2	3	0.00	.15
9.025	583.08	-105.76	61.87	113.	173.	.30-1	.20-2	1	4	0.00	.99
9.030	584.25	-106.03	61.66	100.	134.	.22-0	.16-2	1	5	0.00	.52
9.031	584.57	-106.10	61.61	105.	157.	1.46-0	.17-2	2	4	5.71	.14
9.032	584.65	-106.12	61.60	92.	157.	.25-0	.04-2	1	3	0.00	.04
9.036	585.11	-106.23	61.52	108.	162.	.28-0	.03-2	1	4	0.00	.21
9.037	585.18	-106.24	61.51	100.	162.	.69-0	.03-2	1	4	0.00	.03
9.041	585.67	-106.36	61.42	106.	167.	.18-0	.07-1	1	4	0.00	.23
9.043	585.98	-106.43	61.37	107.	159.	.17-0	.04-2	1	3	0.00	.14
9.046	586.14	-106.47	61.34	99.	159.	.60-0	.10-2	1	3	0.00	.07
9.047	586.20	-106.48	61.33	92.	159.	.29-0	.01-2	1	3	0.00	.02
9.051	586.60	-106.57	61.26	98.	176.	.46-0	.08-2	1	4	0.00	.18
9.055	587.28	-106.73	61.15	105.	162.	3.00-1	.14-2	1	3	0.00	.31
9.059	587.79	-106.84	61.06	110.	165.	3.00-1	.50-2	1	5	0.00	.22
9.061	588.27	-106.96	60.98	101.	162.	5.50-1	.38-2	1	5	5.71	.22
9.062	588.55	-107.02	60.93	104.	162.	1.17-0	.42-2	2	5	0.00	.12
9.071	590.18	-107.40	60.65	108.	158.	.45-0	.15-2	1	3	0.00	.73
9.072	590.44	-107.46	60.60	100.	158.	.30-0	.02-1	1	3	0.00	.12
9.073	590.52	-107.48	60.59	102.	156.	.47-0	.06-1	1	3	0.00	.04

9.074	590.64	-107.50	60.57	109.	165.	.50-0	.04-2	1	4	0.00	.05
9.077	590.97	-107.58	60.51	108.	159.	3.50-1	.13-2	1	3	0.00	.15
9.079	591.37	-107.67	60.44	114.	157.	.36-1	.34-1	1	3	0.00	.18
10.001	594.51	-108.41	59.89	107.	165.	2.51-0	.38-2	1	3	0.00	0.00
10.004	595.29	-108.59	59.79	104.	160.	.35-0	.14-2	1	3	0.00	.34
10.006	595.40	-108.61	59.77	108.	153.	.24-0	.08-2	1	3	0.00	.04
10.008	595.73	-108.70	59.72	107.	165.	1.30-1	.10-2	1	3	0.00	.16
10.015	596.82	-108.96	59.56	108.	153.	.43-0	.26-1	1	4	18.43	.50
10.017	597.06	-109.02	59.76	108.	153.	.34-1	.25-1	1	4	0.00	.16
10.025	598.31	-109.25	59.38	110.	172.	.55-0	.14-2	1	4	0.00	.39
10.032	599.44	-109.60	59.17	107.	168.	.82-0	.07-2	1	4	0.00	.67
10.033	599.43	-109.65	59.14	100.	168.	.68-0	.02-2	1	3	9.09	.09
10.034	599.86	-109.71	59.10	103.	150.	.43-0	.08-2	1	4	2.66	.11
10.038	600.44	-109.85	59.02	100.	156.	.70-0	.10-2	1	5	2.54	.27
10.044	601.04	-109.99	58.93	106.	157.	.4-0	.20-2	1	5	0.00	.27
10.055	602.72	-110.41	58.68	93.	152.	.2-0	.07-2	1	4	0.00	.79
10.057	603.18	-110.52	58.61	97.	157.	.48-0	.30-2	1	4	0.00	.21
10.058	603.36	-110.56	58.58	97.	163.	.40-1	.05-2	1	4	0.00	.08
10.060	603.34	-110.61	58.55	103.	152.	.25-0	.10-2	1	4	0.00	.09
10.068	604.61	-110.87	58.39	102.	161.	.25-0	.18-1	1	3	0.00	.50
10.070	604.71	-110.89	58.38	103.	149.	.28-0	.15-2	1	3	0.00	.04
10.071	604.75	-110.90	58.37	69.	160.	.27-1	.13-1	1	4	0.00	.02
10.073	604.90	-110.94	58.35	109.	176.	.57-0	.36-2	1	3	0.00	.07
11.002	609.35	-112.04	57.69	103.	168.	.31-0	.06-2	1	3	0.00	0.00
11.007	609.65	-112.13	57.65	109.	166.	.50-0	.46-2	1	5	0.00	.16
11.010	609.87	-112.20	57.62	100.	162.	.72-0	.13-2	1	4	0.00	.12
11.011	609.96	-112.23	57.61	106.	157.	.71-0	.28-2	1	3	0.00	.05
11.012	610.06	-112.26	57.60	100.	157.	.24-0	.03-2	1	3	0.00	.05
11.013	610.19	-112.30	57.58	110.	162.	.38-0	.08-2	1	4	0.00	.07
11.014	610.24	-112.31	57.58	112.	166.	.36-0	.14-2	1	3	0.00	.02
11.017	610.43	-112.37	57.56	106.	158.	2.00-0	.41-1	1	5	0.00	.10
11.019	610.67	-112.44	57.53	100.	161.	.69-1	.20-2	1	4	4.40	.12
11.020	610.86	-112.50	57.50	100.	165.	.53-0	.22-2	1	5	7.59	.10
11.025	611.62	-112.73	57.41	105.	157.	1.10-0	.31-2	1	4	3.12	.40
11.027	611.85	-112.80	57.38	100.	161.	.56-0	.10-2	1	3	0.00	.12
11.028	611.91	-112.82	57.37	103.	158.	.80-0	.16-2	1	4	0.00	.03
11.029	612.11	-112.89	57.35	95.	150.	1.75-1	.34-2	1	3	1.53	.11
11.030	612.17	-112.90	57.34	92.	155.	.13-0	.01-2	1	3	0.00	.02
11.035	612.42	-112.98	57.31	90.	156.	.26-0	.03-2	1	4	0.00	.14
11.036	612.44	-112.99	57.31	91.	162.	.80-0	.17-2	1	3	0.00	.01
11.057	613.30	-113.25	57.20	92.	169.	.72-1	.20-2	1	4	0.00	.45
11.058	613.33	-113.26	57.20	92.	170.	.83-0	.01-2	1	4	0.00	.02
11.059	613.37	-113.27	57.65	95.	158.	.48-1	.11-1	1	4	0.00	.12
11.066	613.75	-113.39	57.15	94.	154.	.66-0	.12-1	1	4	0.00	.11
11.069	613.87	-113.42	57.13	95.	151.	.71-0	.32-2	1	4	0.00	.06
11.075	614.06	-113.48	57.11	97.	153.	.65-0	.23-1	1	4	0.00	.10

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1.001	430.67	-101.24	81.28	101.	17.	.24-1	.20-1	1	4	0.00	0.00
1.003	430.88	-101.19	81.25	107.	31.	.45-0	.10-1	1	4	0.00	.13
1.004	431.33	-101.06	81.18	80.	37.	1.45-0	.22-2	1	5	5.71	.29
1.006	431.80	-100.94	81.10	87.	33.	1.30-0	.20-1	1	4	7.59	.29
1.009	431.94	-100.90	81.08	95.	46.	.32-0	.06-2	1	3	0.00	.09
1.013	432.70	-100.70	80.96	90.	13.	.35-1	.13-1	1	4	0.00	.47
1.020	435.61	-99.91	80.51	84.	7.	1.05-0	.23-1	1	5	0.00	1.84
1.024	436.10	-99.78	80.43	111.	23.	.48-1	.38-1	1	4	6.52	.31
1.038	440.35	-98.64	79.77	79.	16.	.25-0	.06-1	1	3	0.00	2.67

1.039	440.51	-98.60	80.08	85.	23.	1.10-0	.25-2	1	3	0.00	.16
1.045	441.26	-98.40	79.63	94.	37.	.28-0	.08-1	1	3	0.00	.41
1.047	441.82	-98.25	77.54	91.	18.	.70-0	.13-2	1	3	0.00	.35
1.051	443.23	-97.86	79.49	97.	28.	.23-0	.06-1	1	3	0.00	.93
1.052	443.43	-97.81	79.42	92.	34.	.21-0	.10-1	1	3	0.00	.12
2.004	445.64	-97.20	79.20	97.	43.	.14-0	.08-1	1	3	0.00	0.00
2.010	447.24	-96.75	78.77	86.	27.	.25-0	.12-1	1	2	0.00	.99
2.017	448.34	-96.38	78.70	83.	5.	.50-0	.33-1	1	3	0.00	.86
2.019	448.73	-96.32	78.57	91.	25.	.45-0	.20-2	1	3	0.00	.11
2.043	458.32	-93.61	77.54	88.	7.	.65-0	.45-1	1	4	0.00	6.23
3.008	465.54	-91.76	76.43	77.	47.	4.00-0	.04-2	1	3	0.00	0.00
3.039	473.93	-90.46	75.47	85.	44.	1.35-0	.15-1	1	3	0.00	1.49
3.047	476.02	-90.14	75.23	100.	49.	.15-0	.08-2	2	3	0.00	1.11
3.048	475.54	-90.22	75.29	97.	48.	.37-0	.07-2	1	3	15.12	.26
3.049	476.66	-90.04	75.16	92.	48.	1.01-0	.03-2	1	3	0.00	.60
4.051	495.51	-88.48	72.87	103.	50.	.15-0	.09-1	1	4	0.00	0.00
4.052	496.44	-88.44	72.75	92.	50.	.18-0	.04-1	1	4	0.00	.40
4.055	497.95	-88.39	72.56	95.	18.	.44-2	.48-2	1	3	0.00	.64
4.057	499.49	-88.33	72.36	101.	8.	.38-0	.23-2	1	3	0.00	.66
4.061	500.86	-88.28	72.19	92.	13.	.49-1	.35-2	1	4	0.00	.58
4.064	501.87	-88.24	72.06	93.	32.	.25-0	.10-1	1	3	9.09	.44
5.001	503.79	-88.24	71.83	98.	45.	.35-0	.05-2	1	3	0.00	0.00
5.002	504.03	-88.26	71.80	92.	45.	.53-0	.05-2	1	3	0.00	.08
5.004	504.37	-88.28	71.76	106.	35.	.20-0	.03-2	1	4	0.00	.12
5.005	504.98	-88.32	71.69	92.	35.	.12-0	0.00-2	1	4	0.00	.21
5.006	505.16	-88.34	71.67	100.	35.	.21-0	0.00-2	1	4	0.00	.05
5.008	507.94	-88.53	71.36	86.	20.	.62-1	.05-2	1	3	0.00	.93
5.009	508.14	-88.54	71.34	114.	35.	.67-0	.07-2	1	4	10.08	.07
5.025	519.74	-89.34	70.03	85.	45.	.27-0	.06-2	1	3	19.98	3.89
5.026	520.15	-89.37	69.98	86.	45.	.15-0	.11-1	1	3	0.00	.14
5.027	520.05	-89.36	69.99	88.	45.	.13-2	.04-1	1	3	0.00	.03
5.028	520.25	-89.37	69.97	89.	39.	.14-0	.03-1	1	3	0.00	.07
5.029	520.44	-89.38	69.93	101.	34.	.09-0	.02-2	1	3	0.00	.07
5.034	521.85	-89.48	69.79	99.	33.	.21-0	.06-2	1	3	0.00	.47
6.004	524.08	-89.75	69.53	95.	34.	.14-0	.05-1	1	4	0.00	0.00
6.012	526.34	-90.38	69.23	71.	25.	.26-0	.42-2	1	3	10.78	.33
6.027	529.82	-91.34	69.13	100.	1.	.34-1	.20-1	1	3	0.00	.57
6.036	533.35	-92.32	68.29	93.	49.	1.10-0	.06-2	1	3	0.00	.45
6.039	533.99	-92.50	68.21	96.	37.	.90-0	.10-2	1	3	0.00	.09
6.042	535.48	-92.91	68.01	93.	48.	1.20-0	.03-2	1	3	3.81	.22
9.021	582.10	-105.53	62.03	78.	30.	.55-1	.70-2	1	4	0.00	0.00
9.024	582.70	-105.67	62.06	78.	20.	.30-1	.12-2	1	3	0.00	.13
9.028	583.96	-105.96	61.71	89.	15.	.45-1	.12-2	1	4	0.00	.20
9.042	585.75	-106.37	61.41	89.	49.	.16-0	.07-1	1	4	0.00	.33
9.065	588.91	-107.10	61.04	83.	18	.29-1	.24-2	1	4	0.00	.60
10.007	595.59	-108.66	59.74	83.	48.	.13-1	.08-1	1	4	0.00	0.00
10.037	600.42	-109.84	59.09	75.	25.	.18-1	.08-2	1	4	0.00	.84
11.001	609.27	-112.02	57.70	76.	8.	.33-0	17-2	1	4	0.00	0.00

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1.002	430.67	-101.24	81.28	94.	121.	.37-0	.20-2	1	3	2.86	0.00
1.008	431.80	-100.94	81.10	102.	116.	1.70-0	.15-2	1	4	12.41	.90
1.012	432.59	-100.72	80.98	100.	115.	.75-0	.08-2	1	3	6.52	.63
1.014	432.81	-100.67	80.94	110.	113.	.75-0	.13-2	1	5	0.00	.18
1.016	434.08	-100.32	80.75	108.	107.	.90-0	.25-2	1	3	6.52	1.01
1.017	434.64	-100.17	80.66	92.	124.	.70-0	.12-2	1	3	6.17	.44
1.019	435.34	-99.99	80.55	89.	108.	.75-0	.05-2	1	3	0.00	.56

1.021	435.61	-99.91	80.51	98.	104.	1.10-0	.07-2 1 3	0.00	.21
1.022	435.61	-99.91	80.51	72.	112.	.55-0	.03-2 1 3	0.00	0.00
1.023	435.77	-99.87	80.48	107.	109.	.65-0	.06-1 1 3	0.00	.13
1.025	436.10	-99.78	80.43	99.	116.	.50-0	.16-2 1 3	4.97	.26
1.027	436.44	-99.69	80.38	113.	110.	1.20-0	.06-2 1 3	0.00	.27
1.028	436.55	-99.66	80.36	115.	110.	1.20-0	.14-2 1 3	2.73	.09
1.029	436.72	-99.61	80.33	104.	114.	1.15-0	.09-2 1 3	0.00	.13
1.030	437.25	-99.47	80.25	103.	119.	.62-0	.18-1 2 2	0.00	.42
1.031	437.50	-99.40	80.21	99.	105.	.70-0	.20-2 2 3	2.86	.20
1.032	437.68	-99.36	80.18	95.	113.	1.75-0	.07-2 2 3	2.29	.15
1.033	438.20	-99.22	80.10	92.	112.	.25-0	.10-1 1 3	5.71	.41
1.036	439.03	-98.99	79.97	100.	107.	.96-0	.01-2 1 3	1.91	.66
1.037	439.38	-98.90	79.92	118.	111.	.50-1	.13-1 1 3	9.46	.28
1.041	440.66	-98.55	80.12	109.	116.	.50-0	.20-1 1 4	0.00	1.11
1.046	441.55	-98.32	79.58	95.	94.	1.20-0	.05-2 1 3	10.57	.61
1.048	442.39	-98.09	79.45	78.	104.	.28-0	.17-1 1 3	0.00	.67
1.050	443.10	-97.90	79.34	96.	120.	.25-0	.19-2 1 2	0.00	.56
1.053	443.58	-97.77	79.27	96.	119.	.23-0	.02-2 1 3	0.00	.38
1.054	444.16	-97.61	79.17	102.	103.	3.50-0	.10-2 1 2	4.97	.46
2.001	444.65	-97.48	79.10	96.	99.	.35-0	.09-2 1 3	0.00	0.00
2.003	445.02	-97.38	79.05	100.	109.	1.47-0	.11-2 1 2	5.71	.30
2.006	446.22	-97.04	78.90	103.	120.	.19-0	.08-2 1 3	0.00	.96
2.016	448.15	-96.49	78.65	93.	96.	.36-0	.15-2 1 3	5.44	1.54
2.020	448.77	-96.31	78.57	93.	107.	.65-0	.22-2 1 3	0.00	.49
2.028	451.30	-95.60	78.24	83.	95.	1.50-1	.08-2 1 3	2.05	2.02
2.031	452.53	-95.30	78.11	98.	98.	.36-0	.12-2 1 3	0.00	.84
2.037	455.55	-94.39	77.69	93.	97.	.60-0	.11-2 1 3	5.08	2.55
2.038	456.04	-94.25	77.63	97.	97.	.11-0	.09-1 1 3	0.00	.39
2.039	456.37	-94.16	77.59	75.	98.	.51-0	.11-2 1 3	0.00	.26
2.040	457.47	-93.85	77.45	97.	102.	.42-0	.07-2 1 3	0.00	.88
2.041	457.71	-93.78	77.42	91.	102.	.70-0	.01-2 1 3	0.00	.19
2.042	458.12	-93.66	77.36	96.	110.	1.93-1	.08-2 1 3	4.57	.32
2.046	460.26	-93.06	77.09	86.	107.	.32-0	.25-2 1 3	0.00	1.71
2.048	460.82	-92.90	77.02	93.	107.	.26-0	.10-1 1 3	0.00	.45
2.049	461.44	-92.72	76.94	98.	110.	.61-0	.05-2 1 3	5.44	.49
2.050	462.03	-92.56	76.86	90.	114.	.35-0	.28-1 1 3	0.00	.47
3.009	465.78	-91.72	76.40	85.	103.	1.20-1	.22-2 1 2	4.16	0.00
3.012	466.45	-91.62	76.33	95.	112.	.37-0	.30-2 1 3	3.09	.57
3.013	466.62	-91.59	76.31	94.	97.	.88-0	.04-2 1 3	2.60	.14
3.033	472.45	-90.69	75.64	116.	108.	.53-0	.14-1 1 3	0.00	4.90
3.040	475.01	-90.30	75.35	114.	114.	.51-0	.15-2 1 3	0.00	2.14
3.041	475.30	-90.25	75.31	118.	114.	.45-0	.10-2 1 2	4.24	.24
3.042	475.36	-90.24	75.31	92.	114.	.47-0	.02-2 1 3	0.00	.05
3.043	475.47	-90.23	75.29	78.	103.	1.21-0	.09-2 2 4	1.85	.09
3.044	475.61	-90.21	75.28	89.	103.	.46-0	.03-2 1 3	0.00	.12
3.045	475.74	-90.19	75.26	88.	103.	.35-0	.02-2 1 3	0.00	.11
3.050	477.26	-89.95	75.09	74.	113.	.42-0	.27-2 2 3	0.00	1.28
3.051	477.98	-89.84	75.01	88.	113.	.26-0	.02-2 2 3	0.00	.61
3.052	478.25	-89.80	74.98	88.	113.	.70-0	.03-2 1 3	0.00	.23
3.056	479.53	-89.60	74.83	94.	96.	.84-0	.15-2 1 3	4.09	1.07
3.057	479.61	-89.59	74.82	96.	94.	.30-0	.10-2 1 3	0.00	.07
3.058	479.72	-89.57	74.81	103.	104.	.30-0	.03-2 2 3	0.00	.09
3.059	479.75	-89.57	74.80	110.	120.	.30-0	.03-2 2 4	0.00	.03
3.060	479.80	-89.56	74.80	92.	120.	.40-0	.02-2 3 4	0.00	.04
3.061	479.86	-89.55	74.79	114.	112.	.40-0	.08-2 3 4	0.00	.05
3.062	479.97	-89.53	74.78	107.	105.	.33-0	.05-2 2 3	0.00	.09
3.081	482.78	-89.10	74.46	90.	110.	.48-0	.10-2 1 3	0.00	2.36
4.007	484.93	-88.86	74.20	72.	100.	.50-0	.05-2 1 3	0.00	0.00
4.008	485.01	-88.86	74.19	70.	94.	.49-0	.03-2 1 3	0.00	.07
4.009	485.19	-88.86	74.17	74.	112.	1.06-0	.08-2 2 2	0.00	.16

4.014	485.71	-88.84	74.10	78.	104.	.52-0	.03-2 1 3	0.00	.45
4.017	486.37	-88.81	74.02	85.	97.	6.00-2	6.00-2 1 3	0.00	.58
4.018	486.50	-88.81	74.00	79.	97.	.50-0	.10-2 1 3	9.46	.11
4.020	486.74	-88.80	73.97	88.	101.	.55-0	.04-2 1 3	11.31	.21
4.021	486.98	-88.79	73.94	93.	107.	1.55-1	.04-2 1 3	0.00	.21
4.022	487.11	-88.78	73.93	97.	102.	.53-0	.06-2 1 3	0.00	.11
4.023	487.34	-88.78	73.90	83.	107.	.45-0	.05-2 1 3	12.53	.20
4.024	487.40	-88.77	73.89	110.	107.	.57-0	.03-2 1 3	0.00	.05
4.025	487.63	-88.77	73.86	92.	98.	.80-0	.03-2 1 3	0.00	.20
4.026	487.92	-88.75	73.82	88.	103.	.45-0	.08-2 1 3	5.71	.25
4.031	488.77	-88.72	73.72	77.	98.	.50-0	.07-2 1 4	0.00	.75
4.032	488.88	-88.72	73.70	88.	98.	.50-0	.07-2 1 4	0.00	.10
4.034	489.06	-88.71	73.68	94.	100.	.27-0	.05-2 1 3	4.24	.16
4.039	490.48	-88.66	73.50	68.	107.	.46-0	.08-2 2 4	0.00	1.24
4.040	490.63	-88.65	73.48	88.	107.	.45-0	.02-2 1 3	3.27	.13
4.041	490.76	-88.63	73.47	82.	95.	.40-0	.09-2 1 3	8.53	.12
4.042	491.14	-88.64	73.42	89.	123.	.50-0	.07-2 1 3	7.59	.33
4.047	493.26	-88.56	73.15	86.	114.	.56-0	.08-2 1 4	6.71	1.85
4.049	494.20	-88.52	73.03	74.	113.	.10-0	.06-1 1 3	0.00	.82
4.056	498.94	-88.35	72.43	97.	114.	.23-0	.13-1 1 4	0.00	4.15
4.058	499.49	-88.33	72.36	89.	124.	.08-1	.12-2 1 3	0.00	.48
4.060	500.32	-88.30	72.26	84.	114.	.12-0	.03-2 1 3	0.00	.73
5.007	507.23	-88.48	71.44	87.	118.	.80-0	.10-2 1 4	0.00	0.60
5.011	511.71	-88.79	70.93	110.	104.	.72-1	.11-2 1 3	2.66	4.08
5.023	519.13	-89.30	70.10	73.	118.	1.81-1	.07-2 2 3	10.05	6.77
5.030	520.75	-89.41	69.92	80.	95.	.20-0	.03-2 1 3	0.00	1.48
5.031	520.82	-89.41	69.91	74.	96.	7.60-1	.04-2 1 4	6.01	.06
5.033	521.66	-89.4.	69.81	79.	102.	1.62-1	.16-2 2 4	6.71	.77
6.002	523.85	-89.69	69.55	78.	113.	.42-0	.07-1 2 3	0.00	0.00
6.003	523.90	-89.71	69.55	88.	121.	.27-0	.01-2 1 3	0.00	.05
6.023	529.43	-91.24	68.82	74.	117.	1.47-1	.07-2 2 3	5.86	5.38
6.034	523.68	-89.64	69.58	70.	94.	2.50-0	.04-2 2 3	0.00	5.60
6.035	533.14	-92.26	68.32	72.	98.	2.50-1	.03-2 2 3	0.00	9.20
6.040	534.06	-92.52	68.20	66.	118.	6.00-1	.16-2 2 3	0.00	.90
6.041	534.14	-92.54	68.19	88.	118.	.90-0	0.00-2 3 4	0.00	.08
6.049	536.97	-93.32	67.81	70.	103.	1.25-0	.09-2 2 3	0.00	2.75
6.050	537.34	-93.43	67.76	116.	102.	6.00-2	.04-2 2 3	0.00	.36
6.051	537.67	-93.52	67.72	92.	102.	.57-0	.02-2 1 3	0.00	.32
6.062	540.45	-94.29	67.35	107.	115.	.10-0	.04-2 1 2	0.00	2.70
7.005	543.77	-95.17	66.91	116.	98.	.52-0	.04-2 1 3	6.71	0.00
7.009	544.13	-95.25	66.86	104.	97.	.68-0	.04-2 2 3	10.62	.34
7.017	544.97	-95.44	66.76	118.	114.	6.00-2	.15-2 2 4	6.84	.81
9.002	577.75	-104.53	62.78	107.	105.	.68-0	.04-2 1 4	4.40	0.00
9.006	578.61	-104.73	62.63	108.	117.	1.20-0	.05-2 1 3	0.00	.82
9.007	578.99	-104.81	62.57	100.	117.	1.05-0	.04-2 1 4	0.00	.36
9.008	579.13	-104.85	62.54	100.	117.	.24-0	.02-2 1 5	0.00	.13
9.011	579.81	-105.00	62.43	111.	116.	1.10-0	.07-2 1 4	0.00	.64
9.023	582.63	-105.66	61.94	108.	104.	.65-0	.08-1 1 3	0.00	2.68
9.027	583.59	-105.88	61.78	110.	120.	.35-0	.05-2 1 3	0.00	.91
9.033	584.67	-106.13	61.59	109.	102.	.53-0	.04-2 1 3	0.0.	.2
9.034	584.86	-106.17	61.56	101.	108.	.48-0	.04-2 1 3	0.00	.18
9.035	585.06	-106.21	61.53	92.	108.	.35-0	.01-2 1 3	0.00	.19
9.040	585.31	-106.27	61.48	103.	105.	.20-0	.08-2 1 4	0.00	.24
9.048	586.35	-106.51	61.30	100.	119.	2.13-0	.02-2 1 3	0.00	.99
9.049	586.39	-106.52	61.30	92.	119.	.38-0	.02-2 1 3	0.00	.04
9.050	586.46	-106.54	61.29	92.	119.	.32-0	.02-2 1 3	0.00	.07
9.060	588.27	-106.96	60.98	100.	103.	.87-0	.06-2 1 3	0.00	1.72
9.069	589.56	-107.25	60.75	108.	115.	.50-0	.25-1 1 4	0.00	1.22
9.070	589.76	-107.30	60.72	100.	115.	.40-0	.01-2 1 3	0.00	.19
9.078	591.09	-107.61	60.49	102.	93.	.20-0	.10-0 1 3	0.00	1.26

9.080	591.45	-107.[illegible]	60.43	100.	107.	1.25-0	.10-2	1	3	0.00	.34
10.005	595.40	-108.[illegible]	59.77	109.	114.	.23-0	.05-1	1	4	0.00	0.00
10.011	596.21	-108.81	59.65	100.	113.	.97-0	.04-2	1	3	0.00	.78
10.018	597.26	-109.07	[illegible]	110	96.	1.44-1	.04-2	1	3	0.00	1.01
10.019	597.41	-109.11	59.47	104.	103.	.45-0	.02-2	1	3	0.00	.15
10.023	597.76	-109.19	[illegible]42	109.	105.	.50-0	.02-2	1	3	0.00	.33
10.026	598.21	-109.30	59.35	102.	118.	.15-0	.03-1	1	3	0.00	.43
10.027	598.99	-109.32	59.34	106.	110.	1.90-0	.05-2	1	5	4.90	.08
10.028	598.73	-109.43	59.27	100.	110.	.59-0	.02-2	1	4	0.00	.42
10.030	598.96	-109.49	59.24	100.	105.	.55-0	.02-2	1	4	0.00	.22
10.039	600.58	-109.88	59.00	97.	104.	.25-0	.06-2	1	3	0.00	1.55
10.042	600.92	-109.97	58.95	109.	100.	3.25-0	.03-2	1	3	0.00	.35
10.043	601.00	-109.99	58.93	101.	100.	.24-0	0.00-2	1	3	0.00	.07
10.049	601.61	-110.14	58.84	97.	102.	.35-0	.06-2	1	3	11.31	.58
10.054	602.61	-110.38	58.69	108.	100.	.57-0	.05-2	1	4	4.01	.96
10.056	603.09	-110.50	58.62	105.	116.	.67-0	.24-2	1	4	0.00	.46
10.059	603.53	-110.60	58.55	102.	94.	.46-0	.26-2	1	5	9.09	.42
10.062	603.77	-110 66	58.52	108.	106.	.45-0	.06-2	1	5	0.00	.23
10.064	604.01	-110.72	58.48	104.	119.	.66-0	.11-2	1	3	0.00	.23
10.067	604.22	-110.77	58.45	103.	102.	.77-0	.05-2	1	3	0.00	.20
10.069	604.70	-110.89	58.38	100.	107.	.81-0	.10-2	1	3	0.00	.46
11.003	609.43	-112.07	57.68	97.	105.	.62-0	.05-2	1	3	0.00	0.00
11.004	609.48	-112.08	57.67	100.	94.	.31-0	.03-2	1	3	0.00	.05
11.005	609.56	-112.10	57.66	92.	94.	.34-0	.02-2	1	3	4.97	.08
11.021	611.11	-112.58	57.47	102.	100.	.61-0	.06-2	1	4	0.00	1.53
11.037	612.48	-113.00	57.30	103.	107.	1.85-1	.05-2	1	3	0.00	1.35
11.038	612.52	-113.01	57.30	104.	103.	.46-0	.07-2	1	3	4.97	.04
11.039	612.65	-113.05	57.28	102.	112.	1.38-0	.03-2	1	3	0.00	.13
11.041	612.73	-113.08	57.27	100.	124.	.16-0	.06-2	1	3	0.00	.08
11.047	612 89	-113.12	57.25	116.	116.	.30-0	.02-2	1	3	0.00	.15
11.049	612.99	-113.15	57.24	102.	102.	.65-0	.02-2	1	3	0.00	.20
11.050	613.04	-113.17	57.24	109.	96.	1.55-0	.01-2	1	3	0.00	.05
11.052	613.14	-113.20	57.22	100.	120.	.50-0	.01-2	1	3	0.00	.10
11.055	613.22	-113.22	57.21	104.	102.	.83-0	.02-2	1	3	0.00	.08
11.056	613.27	-113.23	57.21	92.	102.	.38-0	.02-1	1	3	0.00	.01
11.061	613.48	-113.30	57.18	90.	94.	.52-0	.06-2	1	3	10.54	.24
11.064	613.67	-113.36	57.16	101.	124.	1.74-0	.12-2	1	4	0.00	.19
11.068	613.83	-113.41	57.14	96.	101.	.20-1	.24-2	1	3	0.00	.16
11.073	614.05	-113.48	57.11	108.	94.	.80-0	.15-2	1	4	0.00	.22

FILE JOINT6.2.CZ
RECORD FORMAT: D-S

1.005	431.41	-101.04	81.16	103.	130.	.22-0	.08-1	1	3	0.00	0.00
1.010	431.94	-100.90	81.08	98.	125.	1.00-0	.12-2	1	3	0.00	.26
1.018	435.22	-100.02	80.57	86.	134.	.50-0	.10-1	1	4	0.00	1.57
2.009	446.87	-96.85	78.81	90.	143.	.45-0	.25-2	1	3	0.00	0.00
2.044	458.91	-93.44	77.26	103.	126.	.30-0	.06-2	1	3	0.00	5.68
2.045	459.34	-93.32	77.56	100.	130.	.67-2	.20-2	1	3	0.00	.25
4.048	493.70	-88.54	73.09	116.	147.	.47-0	.20-2	1	4	0.00	0.00
4.050	494.54	-88.51	72.99	76.	132.	.16-0	.10-2	1	3	0.00	.56
4.053	497.25	-88.41	72.64	103.	134.	.20-1	.22-1	1	4	0.00	1.74
4.063	501.53	-88.25	72.10	124.	134.	.38-0	.10-1	1	4	0.00	3.77
4.065	501.87	-88.24	72.06	93.	132.	.30-0	.13-1	1	4	0.00	.22
4.067	502.15	-88.23	72.03	80.	143.	.23-1	.04-2	1	3	0.00	.18
5.012	512.14	-88.82	70.89	112.	133.	.14-0	.12-2	1	3	0.00	0.00
5.022	518.42	-89.25	70.18	79.	138.	.27-0	.03-1	1	3	0.00	4.55
6.057	539.77	-94.10	67.44	82.	134.	.50-0	.05-2	1	3	0.00	0.00
9.001	577.69	-104.51	62.79	107.	135.	1.65-0	.08-2	1	3	0.00	0.00

9.016	580.61	-105.19	62.29	113.	137.	.33-0	.09-2	2	3	0.00	2.44
9.018	581.19	-105.32	62.19	111.	126.	.25-0	.06-2	2	2	0.00	.48
9.020	581.48	-105.39	62.14	110.	142.	1.05-0	.11-1	1	4	0.00	.24
9.022	582.10	-105.53	62.03	107.	135.	.58-0	.07-2	1	4	0.00	.51
9.029	584.08	-105.99	61.69	102.	135.	.21-0	.05-1	1	4	0.00	1.65
9.039	585.28	-106.27	61.49	111.	127.	1.06-0	.08-2	1	3	0.00	1.00
9.045	586.10	-106.46	61.35	124.	146.	.42-0	.05-2	1	3	0.00	.68
9.052	586.75	-106.60	61.24	100.	136.	.57-0	.04-2	1	3	0.00	.53
9.053	587.79	-106.61	61.23	96.	145.	.53-0	.02-2	1	3	0.00	.03
9.054	586.92	-106.65	61.21	105.	130.	.40-0	.05-2	1	3	0.00	.12
9.056	587.46	-106.77	61.11	113.	143.	.92-0	.06-2	1	4	0.00	.45
9.057	587.60	-106.80	61.09	108.	135.	.38-0	.03-2	1	3	0.00	.12
9.058	587.65	-106.81	61.08	112.	132.	.63-0	.08-2	1	4	11.31	.04
9.063	588.78	-107.07	60.89	106.	129.	1.00-0	.11-2	1	4	5.19	.94
9.064	588.89	-107.10	60.87	103.	143.	.30-0	.03-2	1	3	18.43	.09
9.066	589.02	-107.13	60.85	101.	147.	.30-0	.16-2	1	5	0.00	.11
9.067	589.19	-107.17	60.82	104.	145.	.35-0	.05-2	1	4	0.00	.14
9.075	590.80	-107.54	60.54	113.	137.	.65-0	.08-2	1	3	2.49	1.34
10.009	596.05	-108.77	59.67	110.	138.	.54-0	.04-2	1	3	0.00	0.00
10.010	596.11	-108.79	59.66	114.	133.	.17-0	.03-2	1	3	0.00	.05
10.012	596.31	-108.84	59.63	112.	146.	1.06-0	.09-2	1	3	7.59	.17
10.014	596.65	-108.92	59.58	102.	136.	.24-0	.07-1	1	4	0.00	.29
10.016	596.98	-109.00	59.53	110.	127.	.35-0	.02-2	1	3	7.13	.28
10.020	597.56	-109.14	59.45	110.	137.	1.04-0	.11-2	1	4	4.24	.49
10.021	597.58	-109.15	59.44	110.	131.	1.04-0	.08-2	1	4	0.00	.02
10.022	597.66	-109.17	59.43	103.	145.	1.97-1	.11-2	1	3	0.00	.07
10.024	597.92	-109.23	59.39	104.	147.	.52-0	.14-2	1	3	0.00	.22
10.029	598.78	-109.44	59.27	103.	141.	.28-0	.03-2	1	5	0.00	.73
10.031	599.20	-109.55	59.20	110.	126.	1.10-0	.03-2	1	5	0.00	.36
10.035	599.90	-109.72	59.10	98.	145.	.24-0	.07-1	1	3	0.00	.59
10.036	600.06	-109.75	59.07	110.	125.	.50-0	.03-2	1	3	2.29	.13
10.041	600.77	-109.93	58.97	100.	145.	.40-0	.06-2	1	5	0.00	.61
10.046	601.30	-110.06	58.89	97.	140.	.55-0	.18-2	1	5	0.00	.45
10.047	601.38	-110.08	58.88	98.	137.	.48-0	.08-1	1	5	0.00	.07
10.049	601.56	-110.12	58.85	100.	134.	.14-0	.05-2	1	4	0.00	.15
10.050	601.84	-110.19	58.81	108.	129.	.41-0	.09-2	1	3	8.33	.24
10.052	602.01	-110.23	58.78	100.	144.	.67-0	.38-2	1	5	0.00	.14
10.053	602.28	-110.30	58.74	94.	146.	.31-0	.05-2	1	4	3.69	.23
10.063	603.88	-110.69	58.50	107.	147.	.53-0	.28-2	1	5	0.00	1.35
11.006	609.59	-112.11	57.66	106.	132.	.42-0	.05-2	1	3	5.71	0.00
11.024	611.40	-112.67	57.44	102.	137.	.67-0	.08-2	1	4	1.71	1.62
11.034	612.34	-112.95	57.32	98.	147.	.50-0	.11-2	1	3	4.76	.83
11.044	612.78	-113.09	57.27	117.	132.	.40-0	.09-2	1	3	0.00	.40
11.045	612.83	-113.11	57.26	100.	132.	.67-0	.02-2	1	3	0.00	.05

FILE JOINT6.2.D
RECORD FORMAT: D-S

1.015	433.44	-100.50	80.85	116.	62.	.55-0	.05-2	1	4	16.22	0.00
1.026	436.31	-99.72	80.40	92.	82.	.34-0	.06-1	1	3	0.00	2.86
1.035	438.83	-99.05	80.01	99.	84.	1.85-0	.08-2	1	3	0.00	2.51
1.042	440.67	-98.55	80.02	92.	57.	.25-0	.12-2	1	3	0.00	1.88
1.043	440.88	-98.50	79.69	84.	73.	.18-0	.15-1	1	3	0.00	.16
2.005	445.85	-97.14	78.94	96.	93.	.15-0	.08-2	1	3	0.00	0.00
2.007	446.31	-97.01	78.88	97.	90.	.15-0	.03-2	1	2	0.00	.46
2.011	447.43	-96.69	78.74	95.	9 .	.45-0	.05-2	1	3	0.00	1.13
2.012	447.76	-96.60	78.70	89.	84.	.45-0	.03+2	1	3	4.76	.33
2.014	447.87	-96.57	78.68	106.	87.	.21-0	.06-2	1	3	0.00	.11
2.015	448.06	-96.52	78.66	80.	79.	.80-0	.14-2	1	3	7.59	.19

2.018	448.56	-96.37	78.60	92.	89.	.47-0	.20-1	1	3	4.57	.51
2.021	448.92	-96.27	78.55	92.	85.	.42-0	.03-2	1	3	0.00	.36
2.022	449.35	-96.15	78.49	95.	90.	.40-0	.05-2	1	3	0.00	.43
2.023	449.73	-96.04	78.44	92.	90.	.42-0	.06-1	1	3	0.00	.38
2.024	449.88	-96.00	3	89.	87.	.42-0	.05-2	1	3	0.00	.15
2.025	450.09	-95.94	78.[illegible]	101.	93.	.46-0	.05-1	1	2	0.00	.21
2.027	451.17	-95.63	78.26	67.	88.	.43-0	.10-2	1	3	5.71	1.09
2.029	451.82	-95.45	78.16	90.	77.	.48-0	.16-2	1	5	11.31	.65
2.030	452.28	-95.32	78.12	107.	88.	.30-0	.04-2	1	3	0.00	.46
2.032	453.03	-95.11	78.02	92.	93.	.68-0	.05-2	1	3	5.19	.75
2.033	453.45	-94.99	77.97	91.	93.	6.00-2	6.00-2	1	3	0.00	.42
2.034	454.42	-94.71	77.84	95.	59.	.10-0	.05-1	1	3	0.00	.98
2.035	454.87	-94.59	77.78	113.	86.	.30-0	.06-2	1	3	7.59	.45
2.051	462.25	-92.49	76.83	80.	76.	1.12-0	.11-2	1	3	3.27	7.42
2.052	462.90	-92.31	76.75	76.	77.	2.52-0	.40-2	1	4	0.00	.65
2.053	462.93	-92.30	76.74	95.	55.	1.53-0	.04-2	1	3	0.00	.03
2.054	462.97	-92.29	76.74	83.	59.	.25-0	.03-1	1	3	0.00	.04
3.002	465.06	-91.83	76.48	77.	60.	1.40-1	.50-2	1	3	5.19	0.00
3.003	465.11	-91.83	76.48	91.	53.	2.40-1	.10-2	1	3	12.87	.05
3.004	465.13	-91.82	76.48	88.	53.	.28-0	.0f-2	2	3	15.95	.62
3.005	465.23	-91.81	76.46	90.	55.	.83-0	.06-2	1	3	10.08	.09
3.006	465.33	-91.79	76.45	83.	62.	.90-0	.07-2	1	3	4.57	.10
3.007	465.41	-91.78	76.44	87.	56.	.45-0	.05-2	1	3	4.57	.08
3.010	466.00	-91.69	76.38	85.	55.	.70-0	.20-2	1	3	0.00	.57
3.014	466.91	-91.55	76.27	83.	67.	1.45-1	.04-2	1	3	12.31	.88
3.015	467.12	-91.52	76.25	80.	72.	.85-0	.06-2	1	3	0.00	.20
3.018	468.10	-91.36	76.14	96.	83.	1.37-1	.15-2	1	3	3.27	.95
3.020	468.50	-91.30	76.09	92.	83.	.73-0	.06-2	1	4	0.00	.39
3.021	468.98	-91.23	76.04	90.	72.	.55-0	.04-2	1	2	0.00	.46
3.022	469.16	-91.20	76.01	93.	70.	1.15-0	.03-2	1	3	3.81	.17
3.023	469.35	-91.17	75.99	95.	73.	.75-0	.05-2	1	3	0.00	.18
3.024	469.46	-91.15	75.98	97.	79.	.80-0	.03-2	1	4	0.00	.11
3.025	470.04	-91.07	75.92	96.	82.	1.48-0	.05-2	1	3	7.85	.56
3.026	470.34	-91.02	75.88	95.	82.	.67-0	.03-2	1	3	0.00	.29
3.027	470.63	-90.97	75.85	92.	82.	1.06-0	.02-2	1	3	4.70	.28
3.028	471.18	-90.89	75.78	87.	84.	.75-0	.03-2	1	3	0.00	.53
3.029	471.25	-90.88	75.78	95.	84.	1.02-0	.05-2	1	3	13.24	.07
3.030	471.68	-90.81	75.73	92.	59.	.87-0	.03-2	1	2	3 63	.42
3.031	471.97	-90.77	75.69	96.	71.	.85-0	.04-2	1	5	11.31	.28
3.032	472.31	-90.71	75.65	94.	73.	.75-0	.07-2	1	3	0.00	.33
3.034	472.56	-90.68	75.63	96.	74.	.68-0	.09-2	1	5	12.53	.24
3.035	473.16	-90.58	75.56	92.	74.	.24-0	.03-1	1	3	0.00	.58
3.036	473.38	-90.55	75.53	92.	65.	1.04-0	.11-2	1	3	3.81	.21
3.037	473.62	-90.51	75.50	91.	65.	.41-0	.02-2	1	3	0.00	.23
3 053	478.33	-89.79	74.97	86.	65.	.90-0	.07-2	2	3	4.76	4.56
3.054	478.55	-89.75	74.94	88.	65.	.84-0	.02-2	1	3	0.00	.21
3.055	478.70	-89.73	74.92	88.	65.	.22-0	.02-2	1	3	0.00	.14
3.063	480.12	-89.51	74.76	102.	78.	.38-0	.05-2	2	3	0.00	1.38
3.064	480.31	-89.48	74.74	97.	54.	.35-0	.07-2	1	3	0.00	.18
3.065	480.35	-89.47	74.73	92.	54.	.33-0	.02-2	1	3	0.00	.04
3.066	480.44	-89.46	74.72	92.	54.	.45-0	.01-2	1	3	0.00	.09
3.067	480.52	-89.45	74.72	92.	54.	.37-0	.02-2	2	3	12.87	.08
3.068	480.90	-89.39	74.67	91.	54.	.42-0	.02-2	1	3	0.00	.37
3.069	480.99	-89.37	74.66	96.	66.	.45-0	.06-2	1	3	5.71	.09
3.070	481.01	-89.37	74.66	92.	66.	.40-0	.01-2	2	3	0.00	.02
3.072	481.14	-89.35	74.64	73.	92.	6.00-0	6.00-2	1	3	0.00	.13
3.073	481.28	-89.33	74.63	88.	92.	6.00-0	6.00-2	1	3	0.00	.14
3.074	481.29	-89.33	74.63	88.	92.	6.00-0	6.00-2	1	3	0.00	.01
3.075	481.36	-89.32	74.62	88.	92.	6.00-0	6.00-2	1	3	0.00	.07
3.076	481.55	-89.29	74.60	88.	92.	6.00-0	6.00-2	1	3	0.00	.18

3.077	481.70	-89.27	74.58	106.	88.	1.40-0	.13-1	1	3	9.09	.14	
3.078	481.72	-89.23	74.55	100.	72.	.45-0	.10-2	1	3	0.00	.21	
3.079	482.32	-89.17	74.51	105.	72.	.95-2	.05-2	2	3	5.71	.39	
3.080	482.60	-89.13	74.48	95.	82.	.45-0	.06-2	1	3	7.59	.27	
3.082	482.86	-89.09	74.45	97.	90.	.40-0	.12-2	1	3	8.43	.25	
3.084	483.09	-89.05	74.42	88.	53.	.20-0	.03-2	1	3	0.00	.22	
3.085	483.24	-89.03	74.40	97.	63.	.45-0	.09-2	1	3	0.00	.14	
3.086	483.43	-89.00	74.38	103.	74.	.82-0	.03-2	2	3	0.00	.18	
4.001	484.15	-88.89	74.30	92.	74.	.55-0	.03-2	1	3	0.00	0.00	
4.002	484.33	-88.89	74.28	92.	74.	.35-0	.07-2	1	3	0.00	.17	
4.003	484.56	-88.88	74.25	99.	78.	.35-0	.05-2	1	3	6.34	.21	
4.005	484.39	-88.88	74.24	77.	92.	.50-0	.11-2	2	3	0.00	.03	
4.010	485.34	-88.85	74.15	91.	56.	.30-0	.04-2	1	3	0.00	.70	
4.011	485.36	-88.85	74.15	97.	80.	.42-0	.03-2	1	3	0.00	.02	
4.012	485.55	-88.84	74.12	80.	69.	.34-0	.03-2	2	3	9.46	.18	
4.013	485.66	-88.84	74.11	90.	72.	.51-0	.05-1	1	3	0.00	.10	
4.015	486.07	-88.82	74.06	103.	92.	.52-0	.03-2	1	3	17.74	.38	
4.027	488.20	-88.74	73.79	98.	92.	.53-0	.05-2	1	3	0.00	1.98	
4.028	488.29	-88.74	73.78	90.	90.	.45-0	.04-2	1	3	7.59	.08	
4.029	488.54	-88.73	73.75	97.	90.	.30-0	.05-1	1	3	0.00	.23	
4.030	488.63	-88.73	73.73	97.	67.	.52-0	.05-2	1	3	4.40	.08	
4.035	489.30	-88.70	73.65	95.	73.	.51-0	.04-2	1	3	0.00	.63	
4.036	489.67	-88.69	73.60	92.	73.	.52-0	.09-2	1	3	17.10	.34	
4.037	489.92	-88.68	73.57	92.	73.	.68-0	.02-2	1	3	0.00	.23	
4.038	490.25	-88.67	73.53	116.	71.	.50-0	.04-2	1	3	0.00	.31	
4.043	491.25	-88.63	73.40	113.	65.	.55-0	.04-2	1	3	0.00	.93	
4.044	491.81	-88.61	73.33	81.	86.	.52-0	.10-2	1	3	15.26	.52	
4.062	501.41	-88.26	72.12	106.	63.	.18-0	.06-1	1	4	0.00	8.94	
4.066	501.97	-88.24	72.05	101.	55.	.38-0	.07-2	1	3	0.00	.52	
5.013	513.53	-88.91	70.73	93.	84.	.63-0	.03-2	1	3	0.00	0.00	
5.014	513.79	-88.93	70.70	96.	55.	.21-0	.11-1	1	2	0.00	.23	
5.015	514.72	-88.99	70.60	77.	72.	.45-0	.04-2	1	3	0.00	.84	
5.016	515.04	-89.01	70.56	80.	72.	1.18-1	.03-2	1	3	0.00	.29	
5.017	515.98	-89.08	70.45	113.	52.	1.25-1	.06-2	1	2	0.00	.84	
5.018	516.78	-89.13	70.36	91.	62.	1.09-0	.07-2	1	3	3.15	.72	
5.020	517.27	-89.17	70.31	75.	69.	.37-0	.04-1	1	3	7.13	.44	
5.021	517.61	-89.19	70.27	94.	83.	.77-0	.07-2	1	3	5.08	.31	
6.001	523.69	-89.65	69.38	89.	78.	.12-0	.07-1	1	3	15.95	0.00	
6.006	524.25	-89.80	69.51	94.	63.	.16-0	.17-1	1	3	0.00	.67	
6.007	524.53	-89.88	69.47	86.	80.	.17-0	.06-1	1	3	0.00	.23	
6.008	524.66	-89.91	69.45	88.	80.	.13-0	.01-2	1	3	0.00	.11	
6.010	525.22	-90.07	69.38	87.	61.	.15-1	.49-2	1	3	0.00	.47	
6.014	526.57	-90.44	69.20	85.	64.	.23-0	.03-2	1	3	11.31	1.13	
6.015	526.90	-90.54	69.15	73.	82.	.27-0	.12-1	1	4	0.00	.27	
6.016	527.07	-90.58	69.13	95.	67.	.17-0	.12-2	1	3	0.00	.14	
6.018	527.59	-90.73	69.06	87.	83.	.28-0	.08-2	1	3	0.00	.43	
6.019	528.22	-90.90	68.98	88.	85.	.96-0	.01-2	1	2	59.04	.53	
6.021	528.87	-91.08	68.89	99.	82.	6.00-2	.13-2	1	2	11.31	.54	
6.022	529.24	-91.18	68.84	95.	77.	2.60-1	.06-2	1	2	7.31	.31	
6.024	529.56	-91.27	68.80	89.	70.	.13-0	.06-1	1	3	0.00	.27	
6.026	529.74	-91.32	68.77	94.	80.	.93-1	.13-1	1	4	0.00	.15	
6.028	530.14	-91.43	68.72	91.	78.	.45-0	.12-2	1	3	4.57	.33	
6.029	530.34	-91.49	68.69	80.	69.	1.36-1	.45-2	1	3	0.00	.16	
6.030	530.89	-91.64	68.62	88.	69.	2.00-1	.03-2	1	3	7.85	.46	
6.032	531.80	-91.89	68.50	81.	72.	1.85-1	.13-2	1	2	0.00	.76	
6.033	532.20	-92.00	68.45	96.	74.	1.82-1	.03-2	1	3	0.00	.33	
6.038	533.76	-92.43	68.24	90.	66.	.04-0	.03-2	1	3	7.59	1.30	
6.043	536.01	-93.06	67.94	92.	73.	.12-0	.03-2	1	3	0.00	1.87	
6.044	536.10	-93.08	67.93	83.	67.	.12-0	.02-2	1	3	0.00	.08	
6.046	536.32	-93.14	67.90	88.	67.	.15-0	.01-2	1	3	0.00	.18	

6.052	537.79	-93.55	67.70	89.	57.	.63-1	1.03-2	1	3	0.00	1.22
6.053	538.55	-93.76	67.60	88.	57.	1.15-0	.02-2	2	4	0.00	.63
6.054	538.62	-93.78	67.59	94.	64.	.28-0	.17-2	1	4	0.00	.06
6.055	538.72	-93.81	67.58	110.	65.	.50-0	.04-2	1	3	0.00	.08
6.056	539.09	-93.91	67.53	92.	84.	.20-0	.07-2	1	4	0.00	.31
6.058	539.92	-94.14	67.42	92.	85.	.13-0	.04-2	1	3	0.00	.69
6.061	540.36	-94.26	67.36	98.	77.	.12-0	.08-1	1	3	0.00	.37
6.063	540.66	-94.35	67.32	84.	78.	.23-0	.05-2	1	3	0.00	.25
6.065	541.04	-94.45	67.27	88.	78.	.28-0	.02-2	1	3	0.00	.32
6.066	541.26	-94.51	67.24	99.	86.	.55-0	.04-2	1	3	0.00	.18
6.067	541.53	-94.59	67.20	108.	80.	.38-0	.04-1	1	3	0.00	.22
6.068	541.72	-94.64	67.18	102.	84.	.35-2	.04-2	1	3	0.00	.16
6.069	541.96	-94.70	67.14	100.	84.	.68-0	.01-2	1	3	0.00	.20
7.002	543.37	-93.08	66.96	97.	80.	.50-0	.02-2	1	3	0.00	0.00
7.003	543.56	-95.12	66.93	92.	80.	.27-0	.02-2	1	3	0.00	.16
7.007	544.02	-95.23	66.88	115.	89.	.84-0	.06-2	1	2	15.17	.39
7.008	544.09	-95.24	66.87	92.	89.	.95-0	.01-2	1	3	9.46	.06
7.010	544.26	-95.28	66.85	114.	85.	1.07-0	.05-2	1	1	11.31	.14
7.011	544.39	-95.31	66.83	104.	77.	1.42-1	.15-2	1	5	0.00	.11
7.012	544.47	-95.33	66.82	102.	83.	.26-0	.03-2	1	3	0.00	.07
7.013	544.55	-95.35	66.81	100.	83.	.76-0	.02-2	1	3	0.00	.07
7.014	544.66	-95.37	66.79	104.	82.	.42-0	.07-2	1	3	0.00	.09
7.015	544.76	-95.39	66.78	96.	93.	.30-0	.05-2	1	3	18.43	.09
9.038	585.22	-106.25	61.50	108.	90.	.66-0	.08-1	1	3	0.00	0.00
9.068	589.39	-107.22	60.78	110.	85.	.75-0	.03-2	1	3	0.00	3.51
9.076	590.97	-107.58	60.51	85.	63.	.53-0	.23-1	1	5	0.00	1.33
10.002	594.98	-108.51	59.83	92.	82.	.50-0	.20-1	1	3	0.00	0.00
10.003	595.17	-108.56	59.81	93.	90.	.47-0	.03-2	1	3	0.00	.16
10.040	600.62	-109.89	58.99	95.	93.	.47-0	.02-2	1	3	0.00	4.59
10.051	601.92	-110.21	58.80	103.	83.	.55-0	.04-2	1	3	4.16	1.09
10.061	603.63	-110.63	58.54	110.	90.	.55-0	.03-2	1	4	0.00	1.44
10.065	604.16	-110.76	58.46	80.	64.	.33-0	.12-1	1	4	0.00	.45
10.072	604.83	-110.92	58.36	99.	87.	1.44-0	.10-2	1	5	2.90	.56
11.009	609.84	-112.19	57.63	105.	63.	.28-0	.08-1	1	4	0.00	0.00
11.015	610.30	-112.33	57.57	93.	70.	.13-0	.05-1	1	3	0.00	.38
11.016	610.43	-112.37	57.56	97.	65.	.42-0	.07-2	1	3	0.00	.11
11.018	610.67	-112.44	57.53	106.	83.	2.50-1	.46-2	1	5	9.09	.20
11.022	611.23	-112.62	57.46	97.	93.	1.80-0	.12-2	1	4	10.62	.46
11.023	611.30	-112.64	57.45	95.	90.	.95-0	.05-2	1	4	3.18	.06
11.026	611.82	-112.80	57.39	84.	63.	.41-1	.27-1	1	4	0.00	.43
11.031	612.23	-112.92	57.33	91.	75.	6.00-2	.07-2	2	3	5.64	.34
11.033	612.34	-112.95	57.32	82.	69.	1.50-1	.10-2	2	4	0.00	.09
11.040	612.70	-113.07	57.28	103.	91.	.57-0	.05-2	1	3	0.00	.30
11.043	612.78	-113.09	57.27	74.	70.	.20-1	.07-2	1	4	0.00	.07
11.046	612.85	-113.11	57.26	107.	66.	.15-1	.03-1	1	3	0.00	.06
11.048	612.93	-113.14	57.25	103.	84.	3.00-1	.04-2	1	3	0.00	.06
11.053	613.16	-113.21	57.22	97.	92.	6.00-2	0.00-1	1	3	0.00	.19
11.060	613.40	-113.28	57.19	86.	82.	.08-1	.03-1	1	3	0.00	.20
11.062	613.56	-113.33	57.17	93.	68.	.82-0	.13-2	1	3	0.00	.13
11.063	613.67	-113.36	57.16	107.	87.	.70-0	.09-2	1	3	0.00	.09
11.065	613.75	-113.39	57.15	105.	92.	.58-0	.14-2	1	3	0.00	.06
11.067	613.82	-113.41	57 14	104.	87.	.55-0	.40-2	1	3	0.00	.06
11.070	613.99	-113.46	57.12	100.	79.	2.00-1	.15-2	1	4	0.00	.14
11.071	614.00	-113.46	57.12	100.	93.	.40-0	.08-2	1	3	0.00	.01
11.072	614.02	-113.47	57.12	105.	88.	.58-0	.05-2	1	3	0.00	.02
11.074	614.06	-113.48	57.11	85.	83.	.14-0	.03-1	1	3	0.00	.03

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6.052	537.79	-93.55	67.70	89.	57.	.63-1	1.03-2	1	3	0.00	1.22
6.053	538.55	-93.76	67.60	88.	57.	1.15-0	.02-2	2	4	0.00	.63
6.054	538.62	-93.78	67.59	94.	64.	.28-0	.17-2	1	4	0.00	.06
6.055	538.72	-93.81	67.5a	110.	65.	.50-0	.04-2	1	3	0.00	.08
6.056	539.09	-93.91	67.53	92.	84.	.20-0	.07-2	1	4	0.00	.31
6.058	539.92	-94.14	67.42	92.	85.	.13-0	.04-2	1	3	0.00	.69
6.061	540.36	-94.26	67.36	98.	77.	.12-0	.08-1	1	3	0.00	.37
6.063	540.66	-94.35	67.32	84.	78.	.23-0	.05-2	1	3	0.00	.25
6.065	541.04	-94.45	67.27	88.	78.	.28-0	.02-2	1	3	0.00	.32
6.066	541.26	-94.51	67.24	99.	86.	.55-0	.04-2	1	3	0.00	.18
6.067	541.53	-94.59	67.20	108.	80.	.38-0	.04-1	1	3	0.00	.22
6.068	541.72	-94.64	67.18	102.	84.	.35-2	.04-2	1	3	0.00	.16
6.069	541.96	-94.70	67.14	100.	84.	.68-0	.01-2	1	3	0.00	.20
7.002	543.37	-93.08	66.96	97.	80.	.50-0	.02-2	1	3	0.00	0.00
7.003	543.56	-95.12	66.93	92.	80.	.27-0	.02-2	1	3	0.00	.16
7.007	544.02	-95.23	66.88	115.	89.	.84-0	.06-2	1	2	15.17	.39
7.008	544.09	-95.24	66.57	92.	89.	.95-0	.01-2	1	3	9.46	.06
7.010	544.26	-95.28	66.85	114.	85.	1.07-0	.05-2	1	1	11.31	.14
7.011	544.39	-95.31	66.83	104.	77.	1.42-1	.15-2	1	5	0.00	.11
7.012	544.47	-95.33	66.82	102.	83.	.26-0	.03-2	1	3	0.00	.07
7.013	544.55	-95.35	66.81	100.	83.	.76-0	.02-2	1	3	0.00	.07
7.014	544.66	-95.37	66.79	104.	82.	.42-0	.07-2	1	3	0.00	.09
7.015	544.76	-95.39	66.78	96.	93.	.30-0	.05-2	1	3	18.43	.09
9.038	585.22	-106.25	61.50	108.	90.	.66-0	.08-1	1	3	0.00	0.00
9.068	589.39	-107.22	60.78	110.	85.	.75-0	.03-2	1	3	0.00	3.51
9.076	590.97	-107.58	60.51	85.	63.	.53-0	.23-1	1	5	0.00	1.33
10.002	594.98	-108.51	59.83	92.	82.	.50-0	.20-1	1	3	0.00	0.00
10.003	595.17	-108.56	59.81	93.	90.	.47-0	.03-2	1	3	0.00	.16
10.040	600.62	-109.89	58.99	95.	93.	.47-0	.02-2	1	3	0.00	4.59
10.051	601.92	-110.21	58.80	103.	83.	.55-0	.04-2	1	3	4.16	1.09
10.061	603.63	-110.63	58.54	110.	90.	.55-0	.03-2	1	4	0.00	1.44
10.065	604.16	-110.76	58.46	80.	64.	.33-0	.12-1	1	4	0.00	.45
10.072	604.83	-110.92	58.36	99.	87.	1.44-0	.10-2	1	5	2.90	.56
11.009	609.84	-112.19	57.63	105.	63.	.28-0	.08-1	1	4	0.00	0.00
11.015	610.30	-112.33	57.57	93.	70.	.13-0	.05-1	1	3	0.00	.38
11.016	610.43	-112.37	57.56	97.	65.	.42-0	.07-2	1	3	0.00	.11
11.018	610.67	-112.44	57.53	106.	83.	2.50-1	.46-2	1	5	9.09	.20
11.022	611.23	-112.62	57.46	97.	93.	1.03-0	.12-2	1	4	10.62	.46
11.023	611.30	-112.6.	57.45	95.	90.	.95-0	.05-2	1	4	3.18	.06
11.026	611.82	-112.80	57.39	84.	63.	.61-1	.27-1	1	4	0.00	.43
11.031	612.23	-112.92	57.33	91.	75.	6.00-2	.07-2	2	3	5.64	.34
11.033	612.34	-112.95	57.32	82.	69.	1.50-1	.10-2	2	4	0.00	.09
11.040	612.70	-113.07	57.28	103.	91.	.57-0	.05-2	1	3	0.00	.90
11.043	612.78	-113.09	57.27	74.	70.	.20-1	.07-2	1	4	0.00	.07
11.046	612.85	-113.11	57.26	107.	66.	.15-1	.03-1	1	3	0.00	.06
11.048	612.93	-113.14	57.25	103	84.	3.00-1	.04-2	1	3	0.00	.06
11.053	613.16	-113.21	57.22	97.	92.	6.00-2	0.00-1	1	3	0.00	.19
11.060	613.40	-113.28	57.19	86.	82.	.08-1	.03-1	1	3	0.00	.20
11.062	613.56	-113.33	57.17	93.	68.	.82-0	.13-2	1	3	0.00	.13
11.063	613.67	-113.36	57.16	107.	87.	.70-0	.09-2	1	3	0.00	.09
11.065	613.75	-113.39	57.15	105.	92.	.58-0	.14-2	1	3	0.00	.06
11.067	613.82	-113.41	57.14	104.	87.	.55-0	.40-2	1	3	0.00	.06
11.070	613.99	-113.46	57.12	100.	79.	2.00-1	.15-2	1	4	0.00	.14
11.071	614.00	-113.46	57.12	100.	93.	.40-0	.08-2	1	3	0.00	.01
11.072	614.02	-113.47	57.12	105.	88.	.58-0	.05-2	1	3	0.00	.02
11.074	614.06	-113.48	57.11	85.	83.	.14-0	.03-1	1	3	0.00	.03

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1.022	652.25	-60.53	140.21	20.	184.	1.40-2	3.00-2	1	4	0.00	0.00
1.032	644.00	-58.67	139.91	5.	131.	.75-2	1.00-2	1	3	0.00	1.19
1.040	638.53	-57.43	139.71	5.	106.	4.00-2	3.00-2	1	3	0.00	.79
2.005	628.51	-55.11	139.37	13.	94.	.70-2	1.10-2	1	3	0.00	0.00
2.012	626.10	-54.49	139.33	7.	90.	.45-2	.50-2	1	3	0.00	.31
2.021	620.18	-52.96	139.20	7.	116.	1.50-2	1.00-2	1	4	0.00	.80
2.023	618.25	-52.46	139.16	8.	168.	.32-2	.32-2	1	3	0.00	.26
2.029	616.23	-51.94	139.12	5.	215.	.27 2	.40-2	1	3	0.00	.27
2.034	613.14	-51.15	139.06	9.	136.	1.20-2	2.00-2	1	3	0.00	.41
2.038	611.60	-50.75	139.03	10.	125.	1.40-2	2.00-2	1	3	0.00	.21
2.042	609.09	-50.10	138.98	4.	202.	2.00-2	3.00-2	1	3	0.00	.34
2.048	605.72	-49.23	138.91	6.	109.	.43-2	.60-2	1	3	0.00	.45
3.002	565.99	-38.98	138.09	5.	176.	2.50-2	2.50-2	1	3	0.00	0.00
3.011	561.78	-37 84	137.97	9.	94.	1.25-2	1.75-2	1	5	0.00	.61
3.014	560.62	-37.52	137.94	12.	105.	1.10-2	2.50-2	1	5	0.00	.17
3.024	556.55	-36.41	137.82	10.	180.	.90-2	.90-2	1	4	0.00	.59
3.034	550.73	-34.83	137.66	6.	170.	1.70-2	.70-2	1	3	0.00	.83
3.043	543.15	-32.76	137.44	10.	114.	6.00-2	2.50-2	1	3	0.00	1.10
4.005	535.23	-30.58	136.93	10.	220.	.75-2	.55-2	1	4	0.00	0.00
4.009	531.10	-29.42	136.45	11.	135.	.80-2	1.10-2	1	4	0.00	.96

FILE JOINT6.3.A
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1.014	653.63	-60.85	140.26	108.	162.	.26-2	1.77-1	1	4	0.00	0.00
1.019	651.04	-60.26	140.16	100.	168.	.07-2	3.52-1	1	4	0.00	1.62
1.024	650.30	-60.09	140.14	105.	174.	.09-2	.83-0	1	4	0.00	.46
1.035	642.98	-58.44	139.87	90.	164.	.06-2	1.05-1	1	4	0.00	4.55
2.004	528.51	-55.11	139.37	75.	151.	.10-2	1.40-0	1	3	0.00	0.00
2.011	626.10	-54.49	139.33	85.	142.	.07-1	.65-1	1	3	0.00	1.55
2.027	616.47	-52.00	139.13	95.	139.	.08-2	1.00-1	1	3	0.00	6.23
2.046	607.07	-49.58	138.94	84.	159.	.04-2	.45-0	1	3	0.00	6.07
3.016	559 89	-37.32	137.92	85.	174.	.05-2	.30-1	1	3	0.00	0.00
3.018	559.01	-37.08	137.89	91.	164.	.13-2	.53-1	1	3	0.00	.58

FILE JOINT6.3.B
RECORD FORMAT: D-S

1.003	657.48	-61.72	140.39	86.	48.	.03-2	1.60-1	1	4	0.00	0.00
1.004	657.08	-61.63	140.38	73.	45.	.07-2	1.57-1	1	4	0.00	.27
1.006	656.51	-61.50	140.36	77.	60.	.03-2	1.21-0	1	4	0.00	.39
1.007	656.04	-61.40	140.34	80.	49.	.05-2	.85-0	1	4	0.00	.32
1.008	655.99	-61.38	140.34	86.	56.	.04-2	.52-0	1	3	0.00	.03
1.010	654.14	-60.97	140.27	86.	55.	.06-2	.54-2	1	3	0.00	1.26
1.011	654.09	-60.95	140.27	96.	48.	.01-2	1.41-0	1	3	0.00	.03
1.012	653.91	-60.91	140.27	74.	68.	.05-2	.56-0	1	4	0.00	.12
1.013	653.52	-60.89	140.26	89.	59.	.10-2	.96-0	1	4	0.00	.06
1.030	647.70	-59.51	140.04	97.	49.	.10-2	.33-2	1	4	0.00	4.15
1.031	647.15	-59.38	140.02	74.	56.	.08-2	.95-1	1	3	0.00	.37
1.036	642.52	-58.33	139.86	90.	47.	.09-2	3.06-2	1	4	0.00	3.13
1.038	639.23	-57.58	139.74	89.	47.	.01-2	3.00-1	1	4	0.00	2.22
2.009	626.44	-54.58	139.33	89.	65.	.20-2	.70-0	1	4	0.00	0.00
2.010	626.10	-54.49	139.33	94.	59.	.10-2	.50-0	1	3	0.00	.22
2.013	626.05	-54.48	139.32	96.	56.	.03-2	1.40-0	1	4	0.00	.04
2.014	625.62	-54.36	139.32	104.	42.	.10-1	1.20-1	1	3	0.00	.28
2.017	625.04	-54.22	139.30	81.	63.	.18-2	1.82-2	1	3	0.00	.39
2.022	618.35	-52.49	139.17	102.	45.	.11-1	.17-2	1	4	0.00	4.39

2.024	618.06	-52.41	139.16	101.	61.	.07-2	1.10-2	1 3	0.00	.19
2.031	614.15	-51.41	139.08	90.	56.	.08-1	.55-2	1 3	0.00	2.57
2.033	613.72	-51.30	139.07	80.	49.	.05-2	1.80-2	1 3	0.00	.28
2.037	611.94	-50.84	139.04	73.	64.	.09-2	1.30-0	1 3	0.00	1.17
2.047	605.82	-49.26	138.91	82.	38.	.13-2	2.10-0	1 3	0.00	4.02
3.001	566.13	-39.02	138.10	89.	55.	.06-2	3.00-2	1 3	0.00	0.00
3.006	563.52	-38.31	138.02	104.	53.	.06-2	1.10-1	1 3	0.00	1.70
3.008	563.34	-38.26	138.02	97.	47.	.37-1	1.40-0	1 3	0.00	.12
3.015	560.55	-37.50	137.94	92.	45.	.15-2	.60-0	1 3	0.00	1.81
3.021	557.52	-36.68	137.83	106.	68.	.11-2	.50-1	1 3	0.00	1.97
3.040	545.39	-33.37	137.50	106.	38.	.10-1	3.50-2	1 3	0.00	7.57
3.042	544.18	-33.04	137.47	102.	40.	.05-2	7.50-1	1 3	0.00	.78
3.047	539.90	-31.88	137.35	91.	45.	.23-1	1.30-1	1 3	0.00	2.78
3.048	538.88	-31.60	137.32	78.	42.	.23-2	2.00-2	1 3	0.00	.66
4.008	532.05	-29.68	136.56	84.	50.	.10-2	.90-2	1 4	0.00	0.00

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1.001	657.62	-61.75	140.40	89.	74.	6.00-2	.57-0	1 3	0.00	0.00
1.002	657.55	-61.74	140.40	106.	73.	.04-2	.51-0	3 3	0.00	.07
1.005	657.07	-61.63	140.38	88.	94.	.06-2	.54-0	1 4	0.00	.49
1.009	654.94	-61.15	140.30	80.	89.	.05-2	.35-2	1 4	0.00	2.16
1.015	652.62	-60.62	140.22	95.	102.	.02-2	.50-0	1 4	0.00	2.35
1.017	651.99	-60.48	140.20	93.	82.	.28-2	.72-1	1 4	0.00	.64
1.018	651.41	-60.35	140.18	91.	99.	6.00-2	.57-0	1 4	0.00	.59
1.020	650.95	-60.24	140.16	90.	100.	.06-2	1.09-1	1 4	0.00	.47
1.023	650.48	-60.14	140.14	80.	78.	.05-2	1.30-1	1 3	0.00	.47
1.025	650.02	-60.03	140.13	82.	99.	.07-2	.04-1	1 4	0.00	.47
1.028	648.96	-59.79	140.09	86.	92.	.16-2	.24-1	1 3	0.00	1.07
1.029	648.63	-59.72	140.08	80.	106.	.11-2	.22-0	1 4	0.00	.33
1.032	643.60	-58.53	139.89	104.	101.	.05-2	.94-0	1 4	0.00	5.29
1.034	643.27	-58.50	139.88	110.	88.	.04-2	.30-1	1 4	0.00	.13
1.037	640.29	-57.83	139.78	83.	106.	.06-2	1.16-1	1 4	0.00	3.01
1.039	639.09	-57.55	139.73	86.	119.	.80-0	.02-2	1 4	0.00	1.22
1.041	636.12	-56.88	139.63	106.	73.	.03-2	2.00-2	1 4	0.00	3.00
1.042	635.47	-56.73	139.60	86.	78.	.03-1	1.00-2	1 3	0.00	.66
1.043	634.93	-56.61	139.58	99.	111.	.03-2	1.30-2	1 3	0.00	.55
2.001	629.62	-55.40	139.40	100.	129.	.03-2	.45-0	1 3	0.00	0.00
2.002	629.43	-55.35	139.39	103.	113.	.07-2	1.00-0	1 4	0.00	.19
2.003	629.12	-55.27	139.39	77.	89.	.03-2	1.60-1	1 4	0.00	.31
2.006	627.50	-54.85	139.35	100.	128.	.14-1	.40-0	1 3	0.00	1.65
2.007	626.73	-54.65	139.34	98.	72.	.06-2	.90-1	1 4	0.00	.78
2.008	626.63	-54.63	139.34	104.	121.	.05-2	.42-1	1 4	0.00	.10
2.015	623.57	-54.35	139.31	74.	86.	.03-2	.50-1	1 3	0.00	1.08
2.016	625.09	-54.23	139.30	90.	126.	.03-2	.35-1	1 3	0.00	.49
2.018	621.72	-53.36	139.24	89.	134.	.02-2	.90-2	1 3	0.00	3.42
2.020	620.82	-53.13	139.22	82.	75.	.10-2	.40-2	1 3	0.00	.91
2.025	617.57	-52.29	139.15	72.	77.	.10-2	.20-2	1 3	0.00	3.30
2.026	616.80	-52.09	139.14	84.	88.	.06-2	.75-1	1 3	0.00	.78
2.028	616.37	-51.98	139.13	99.	72.	.08-1	.40-1	1 3	0.00	.44
2.030	615.74	-51.82	139.11	103.	101.	.06-2	.50-2	1 3	0.00	.64
2.032	613.88	-51.34	139.08	102.	82.	.13-1	.50-2	1 3	0.00	1.89
2.035	612.66	-51.02	139.05	114.	88.	.27-1	1.90-2	1 4	0.00	1 24
2.036	612.29	-50.93	139.04	97.	83.	.11-2	1.40-1	1 3	0.00	.38
2.039	611.21	-50.65	139.02	89.	96.	.10-2	1.70-1	1 3	0.00	1.10
2.040	611.07	-50.61	139.02	95.	88.	.10-2	2.00-2	1 3	0.00	.14
2.041	609.67	-50.25	138.99	114.	84.	.08-1	.60-0	1 3	0.00	1.42
2.043	608.81	-50.03	138.97	97.	99.	.05-2	2.50-2	1 3	0.00	.87

2.044	608.25	-49.89	138.96	96.	100.	.03-2	1.60-1	1	3	0.00	.54
2.045	607.89	-49.79	138.95	101.	83.	.13-2	.50-2	1	3	0.00	.40
2.049	604.57	-48.94	138.89	96.	122.	.10-2	1.50-1	1	3	0.00	3.37
2.050	603.99	-48.79	138.87	102.	79.	.10-2	1.15-1	1	3	0.00	.59
2.051	602.93	-48.51	138.85	90.	134.	.04-1	.45-0	1	3	0.00	1.08
2.052	602.06	-48.29	138.83	102.	107.	.05-2	.56-0	1	4	0.00	.88
2.053	601.67	-48.19	138.83	90.	75.	.04-2	1.04-0	1	3	0.00	.39
3.003	563.80	-38.93	138.09	100.	108.	.08-2	1.40-1	1	3	0.00	0.00
3.004	564.50	-38.58	138.05	99.	111.	.04-2	1.95-1	1	3	0.00	1.33
3.007	563.34	-38.26	138.02	110.	105.	.30-2	1.09-1	1	3	0.00	1.18
3.009	563.06	-38.18	138.01	102.	107.	.05-2	1.20-2	1	3	0.00	.29
3.010	561.78	-37.84	137.97	104.	117.	.35-2	1.40-2	1	3	6.71	1.30
3.012	561.57	-37.78	137.97	101.	121.	.05-2	1.35-2	1	3	0.00	.21
3.013	560.62	-37.52	137.94	102.	124.	.18-2	1.15-1	1	3	0.00	.97
3.017	559.71	-37.27	137.91	93.	105.	.08-2	.55-1	1	3	0.00	.93
3.019	559.01	-37.08	137.89	88.	111.	.10-2	.80-2	1	3	0.00	.71
3.020	558.50	-36.94	137.88	85.	112.	.06-2	.24-2	1	3	0.00	.52
3.023	556.25	-36.33	137.81	79.	114.	.19-2	.88-1	1	3	0.00	2.30
3.025	555.11	-36.02	137.78	84.	117.	.15-2	.70-1	1	3	0.00	1.16
3.026	554.97	-35.98	137.78	78.	110.	.12-2	1.10-1	1	3	0.00	.14
3.027	553.92	-35.70	137.75	85.	117.	.12-2	1.35-0	1	3	0.00	1.07
3.030	552.83	-35.40	137.72	74.	125.	.20-2	.83-1	1	3	0.00	1.11
3.032	551.06	-34.92	137.67	113.	107.	.20-2	1.20-1	1	3	0.00	1.81
3.033	551.01	-34.90	137.66	103.	103.	.22-1	.95-0	1	3	0.00	.05
3.035	550.41	-34.74	137.65	100.	108.	.70-2	1.10-1	1	3	0.00	.61
3.036	549.99	-34.62	137.63	106.	119.	.17-1	1.25-0	1	3	0.00	.43
3.037	549.48	-34.48	137.62	104.	88.	.32-1	1.90-1	1	3	0.00	.52
3.038	546.78	-33.75	137.54	106.	102.	.03-2	2.00-2	1	3	0.00	2.75
3.039	546.41	-33.65	137.53	100.	100.	.01-2	.61-0	1	3	0.00	.38
3.041	544.64	-33.17	137.48	96.	119.	.03-2	.80-1	1	3	0.00	1.81
3.044	542.23	-32.51	137.41	100.	94.	.08-2	1.35-1	1	3	0.00	2.46
3.045	541.30	-32.25	137.39	98.	115.	.07-2	.75-0	1	3	0.00	.95
3.046	540.18	-31.95	137.35	91.	91.	.07-2	1.95-1	1	3	0.00	1.14
4.001	538.27	-31.43	137.28	107.	91.	.07-2	.60-1	1	3	0.00	0.00
4.002	537.89	-31.32	137.23	95.	106.	.25-1	1.10-2	1	3	0.00	.40
4.004	533.61	-30.68	136.97	91.	134.	.06-2	1.10-1	1	3	0.00	2.37
4.006	534.09	-30.25	136.79	95.	73.	.14-1	2.20-1	1	3	0.00	1.58
4.007	532.71	-29.87	136.63	114.	90.	.18-1	2.00-2	1	3	0.00	1.43

FILE JOINT6.4.BEDDING
RECORD FORMAT' D-S

2.019	480.90	-4887.23	147.23	26.	311.	.41-0	.64-1	1	4	0.00	0.00
2.076	490.39	-4908.09	146.31	6.	79.	1.26-2	1.58-2	2	4	4.57	4.51
2.077	490.61	-4908.14	146.30	10.	77.	.79-2	.50-1	2	4	0.00	0.00
2.078	490.65	-4908.23	146.30	4.	72.	1.71-2	2.83-2	2	4	7.70	.02
2.079	490.67	-4908.27	146.30	15.	190.	1.71-2	1.30-1	2	3	0.00	.01
2.080	490.71	-4908.36	146.29	10.	62.	.87-2	1.87-2	2	3	0.00	.01
2.081	490.75	-4908.45	146.29	7.	205.	.72-2	1.41-2	2	4	6.01	.02
2.082	490.88	-4908.72	146.28	19.	212.	.41-2	.99-1	2	3	0.00	.06
2.084	491.09	-4909.17	146.26	24.	242.	.75-2	1.10-1	2	3	9.09	.10
2.086	491.76	-4910.62	146.19	6.	145.	2.24-2	1.34-2	2	3	5.91	.31
2.105	496.62	-4921.10	145.73	7.	266.	1.46-1	3.20-2	2	4	0.00	2.27
4.011	526.57	-4975.81	142.69	18.	96.	.25-2	.30-2	2	3	8.13	0.00
4.012	526.77	-4976.26	142.66	15.	121.	.42-1	.73-1	1	3	8.13	.09
4.014	527.90	-4978.82	142.52	21.	136.	.31-1	.31-1	2	4	4.76	.53
4.017	528.73	-4980.69	142.42	4.	155.	.42-0	.34-1	2	3	6.71	.39
4.030	531.43	-4986.82	142.08	10.	82.	.70-1	1.18-1	2	3	6.01	1.26
4.032	531.56	-4987.13	142.07	3.	338.	.31-1	.38-1	2	3	0.00	.07

4.037	533.20	-4990.84	141.86	8.	86.	1.95-2	8.20-2	2	3	4.40	.76
4.048	535.45	-4995.94	141.59	6.	143.	4.20-2	2.67-2	2	3	4.29	1.06
1.014	461.66	-4849.39	147.69	10.	140.	.08-2	1.38-2	2	4	5.44	0.00
1.033	465.33	-4856.49	147.65	9.	220.	1.45-1	.69-1	2	3	6.40	1.80
1.037	467.17	-4860.04	147.63	13.	246.	1.13-1	1.23-1	2	3	10.78	.90
3.002	504.13	-4937.21	145.01	4.	207.	.87-0	1.37-0	2	4	3.81	0.00
3.022	509.85	-4946.64	144.43	8.	165.	3.35-2	2.38-2	2	3	0.00	1.88
3.029	511.95	-4950.11	144.22	2.	13.	1 30-2	1 45-2	2	3	4.97	.70
3.037	514.08	-4953.62	144.01	15.	122.	.80-1	1.79-1	2	3	0.00	.71

FILE JOINT6.4.B
RECORD FORMAT: D-S

2.010	479.05	-4883.25	147.41	80.	57.	.08-1	1.05-0	2	3	0.00	0.00
2.014	480.02	-4885.33	147.31	86.	49.	.07-1	.61-1	2	3	0.00	1.13
2.015	480.16	-4885.65	147.30	70.	45.	.09-1	.60-1	2	3	0.00	.18
2.021	481.09	-4887.63	147.21	76.	48.	.12-1	1.15-1	2	3	0.00	1.08
2.024	481.55	-4888.63	147 17	82.	43.	.01-1	.36-0	1	3	0.00	.55
2.030	482.32	-4890.30	147.09	94.	48.	.07-1	3.12-0	2	4	0.00	.91
2.037	485.01	-4896.08	146.84	75.	15.	.05-1	.42-0	2	3	0.00	3.15
2.039	485.18	-4896.44	146.82	85.	38.	.15-0	.70-1	2	3	0.00	.20
2.041	485.55	-4897.25	146.79	106.	60	.15-1	1.25-0	2	3	7.59	.45
2.045	486.42	-4899.11	146.70	90.	23.	.05-1	.90-0	2	3	0.00	1.01
2.049	487.43	-4901.30	146.61	103.	20.	.16-0	.62-0	2	3	0.00	1.19
2.050	487.99	-4902.50	146.55	90.	37.	.39-1	1.00-1	2	4	0.00	.66
2.051	488.13	-4902.81	146.54	82.	42.	.14-1	.90-1	2	3	0.00	.17
2.053	488.61	-4903.85	146.49	79.	50.	.16-1	.58-1	2	3	0.00	.57
2.056	489.05	-4904.78	146.45	99.	47.	.08-1	.68-1	2	3	0.00	.50
2.059	489.24	-4905.18	146.43	90.	36.	.08-1	1.08-0	2	3	0.00	.22
2.060	489.33	-4905.38	146.43	85.	46.	.03-1	1.29-0	1	3	0.00	.11
2.061	489.47	-4905.70	146.41	79.	49.	.03-1	1.07-0	1	3	0.00	.18
2.062	489.65	-4906.07	146.39	78.	41.	.04-1	.87-0	1	3	0.00	.20
2.064	489.95	-4906.72	146.37	87.	43.	.11-1	.31-1	1	3	0.00	.36
2.070	490.27	-4907.41	146.34	74	54.	.01-1	.24-0	2	3	0.00	.37
2.090	493.90	-4915.23	145.99	100.	25.	.08-1	.70-0	2	3	0.00	4.27
2.091	494.11	-4915.68	145.97	73.	54.	.15-0	3.26-0	2	3	0.00	.25
4.003	524.81	-4971.83	142.90	106.	33.	.10-1	.40-0	2	3	0.00	0.00
4.004	525.15	-4972.59	142.86	108.	25.	.20-1	.37-1	3	3	0.00	.42
4.006	525.58	-4973.57	142.81	101.	44.	.41-1	.97-0	2	4	5.71	.55
4.015	528.01	-4979.08	142.51	105.	34.	.18-1	.52-1	3	3	0.00	3.09
4.016	528.23	-4979.57	142.48	105.	49.	.04-1	1.36-1	3	3	0.00	.27
4.019	529.23	-4981.84	142.36	88.	39.	.01-1	.39-0	2	3	0.00	1.28
4.029	531.14	-4986.17	142.12	80.	52.	.39-1	1.19-1	2	3	0.00	2.43
4.038	533.70	-4991.97	141.80	93.	16.	.01-2	.51-0	3	3	0 00	3.25
4.043	534.66	-4994.14	141.68	85.	13.	.01-1	.23-0	3	3	0.00	1.21
4.045	535.11	-4995.16	141.63	87.	28.	.01-1	.24-0	3	3	0.00	.57
4.047	535.41	-4995.85	141.59	69.	13.	.01-1	.19-0	2	3	0.00	.39
1.002	457.92	-4842.16	147.73	79.	13.	.05-1	.54-0	2	3	0.00	0.00
1.009	460.52	-4847.19	147.70	87.	20.	.01-1	.85-1	2	3	0.00	2.55
1.020	462.77	-4851.54	147.67	87.	41.	.14-0	.07-0	4	3	0.00	2.20
1.029	464.28	-4834.45	147.66	83.	58.	.05-1	.89-0	2	3	0.00	1.47
1.035	466.77	-4859.28	147.63	87.	14.	.29-1	1.01-0	2	3	0.00	2.45
3.009	506.34	-4940.84	144.79	83.	12.	.11-0	.37-1	2	3	0.00	0.00
3.011	507.02	-4941.97	144.72	88.	35.	.02-1	.28-1	2	3	0.00	.53
3.012	507.26	-4942.37	144.70	90.	55.	.03-1	.25-0	3	3	0.00	.19
3.017	507.76	-4943.19	144.65	116.	29.	.04-1	1.23-1	2	3	0.00	.39
3.026	511.21	-4948.88	144.30	95.	46.	.04-1	.34-0	3	3	0.00	2.68
3.036	514.07	-4953.60	144.01	113.	32.	.06-1	.80-0	2	3	0.00	2.22
3.039	515.47	-4955.91	143.87	93.	48.	.03-1	1.10-0	2	3	0.00	1.09

3 041	517.06	-4958.53	143.71	117.	24.	.07-1	.74-0 3 3	0.00	1.23
3.042	518.52	-4960.94	143.56	92.	21.	.02-1	.37-0 2 3	0.00	1.14
3.044	518.84	-4961.47	143.53	68.	23.	.09-1	1.07-0 2 3	0.00	.25
3.046	520.44	-4964.11	143.37	79.	18.	.01-1	.38-0 2 3	0.00	1.24

FILE JOINT6.4.C1
RECORD FORMAT: D S

2.011	479.56	-4884.33	147.36	79.	102.	.09-1	1.56-1 2 3	0.00	0.00
2.035	484.74	-4895.49	146.86	96.	108.	.08-1	1.16-1 2 3	0.00	7.49
2.036	484.94	-4895.93	146.84	103.	99.	.04-1	.93-1 2 3	0.00	.29
2.038	485.09	-4896.25	146.83	105.	106.	.06-1	.43-0 2 3	0.00	.22
2.040	485.35	-4896.81	146.80	86.	104.	.09-1	.82-1 2 3	0.00	.37
2.042	485.70	-4897.57	146.77	76.	104.	.09-1	1.07-0 2 4	0.00	.51
2.043	485.84	-4897.87	146.76	89.	108.	.02-1	.77-0 2 3	0.00	.20
2.044	486.39	-4899.06	146.71	115.	105.	.06-1	1.00-0 2 3	0.00	.80
2.046	486.59	-4899.49	146.69	77.	105.	.05-1	1.28-0 2 3	0.00	.29
2.052	488.45	-4903.48	146.51	92.	115.	.18-1	.66-1 2 3	17.10	2.69
2.058	489.12	-4904.93	146.45	78.	101.	.33-0	1.25-0 2 3	0.00	.97
2.063	489.76	-4906.31	146.38	77.	99.	.10-1	1.03-1 2 3	0.00	.92
2.065	489.93	-4906.68	146.37	67.	102.	.13-1	.54-0 2 3	0.00	.25
2.071	490.33	-4907.54	146.33	73.	109.	.08-1	1.41-2 2 3	0.00	.58
2.072	490.38	-4907.64	146.33	72.	97.	.01-1	.44-0 2 3	0.00	.07
2.073	490.46	-4907.81	146.32	80.	99.	.02-1	.55-0 2 3	0.00	.12
2.075	490.56	-4908.04	146.31	80.	107.	.04-1	.39-1 2 3	0.00	.15
2.083	490.96	-4908.91	146.27	60.	113.	.02-1	.68-1 2 3	0.00	.58
2.085	491.27	-4909.57	146.24	69.	101.	.11-1	1.05-1 2 4	0.00	.45
2.092	494.30	-4916.08	145.95	90.	103.	.03-1	1.23-0 2 3	0.00	4.38
2.096	495.43	-4918.53	145.84	74.	110.	.03-1	.44-0 3 3	0.00	1.64
2.102	496.65	-4921.15	145.73	75.	108.	.03-1	2.79-1 2 3	0.00	1.77
2.103	496.84	-4921.56	145.71	102.	105.	.02-1	.72-0 2 3	0.00	.27
2.106	496.99	-4921.89	145.69	94.	107.	.04-1	1.12-0 2 3	0.00	.22
2.109	497.73	-4923.48	145.62	87.	107.	.03-1	.82-0 2 3	0.00	1.07
4.001	524.20	-4970.44	142.98	98.	112.	.17-1	.48-2 2 3	0.00	0.00
4.005	525.25	-4972.81	142.85	105.	109.	.07-2	.30-1 3 3	0.00	1.54
4.008	525.99	-4974.49	142.76	102.	107.	.39-0	1.97-0 4 3	0.00	1.09
4.018	528.84	-4980.96	142.41	102.	107.	.32-0	2.10-1 2 3	0.00	4.19
4.021	529.66	-4982.82	142.30	92.	108.	.04-1	.61-0 2 3	0.00	1.20
4.023	529.98	-4983.53	142.26	110.	110.	.12-1	.70-0 2 3	0.00	.47
4.027	530.48	-4984.67	142.20	93.	105.	.34-0	1.37-0 3 3	0.00	.74
1.003	458.18	-4842.66	147.73	67.	109.	.06-1	.65-1 2 3	0.00	0.00
1.010	460.56	-4847.26	147.70	76.	96.	.01-1	.30-1 2 3	0.00	3.36
1.011	461.30	-4848.70	147.69	87.	104.	.06-1	.40-0 2 3	0.00	1.05
1.017	462.55	-4851.12	147.68	77.	104.	.04-1	.44-0 2 3	0.00	1.77
1.018	462.59	-4851.19	147.68	70.	105.	.05-1	.78-0 2 3	0.00	.05
1.019	462.68	-4851.36	147.68	68.	103.	.06-1	.65-1 2 2	0.00	.13
1.030	464.44	-4854.76	147.66	98.	100.	.11-1	1.09-0 5 3	0.00	2.49
1.032	465.52	-4856.85	147.64	68.	108.	.06-1	.77-1 5 3	0.00	1.52
1.034	466.11	-4858.00	147.64	106.	114.	.51-0	1.20-0 3 3	0.00	.84
3.028	511.70	-4949.69	144.25	102.	103.	.15-1	2.80-1 3 3	0.00	0.00
3.030	512.29	-4950.66	144.19	106.	105.	.06-1	2.16-1 3 3	0.00	.78
3.032	512.75	-4951.42	144.14	107.	106.	.09-1	3.40-2 4 3	0.00	.61
3.033	513.06	-4951.93	144.11	105.	100.	.08-1	2.37-0 2 3	0.00	.41
3.043	518.75	-4961.32	143.54	97.	104.	.06-1	.27-0 2 3	0.00	7.51

FILE JOINT6.4.C2
RECORD FORMAT: D-S

2.001	478.11	-4881.22	147.50	116.	139.	.09-1	.33-1	1 4	0.00	0.00
2.004	478.36	-4881.75	147.47	110.	135.	.17-1	.69-1	2 4	8.13	.53
2.006	478.47	-4881.99	147.46	114.	121.	.23-1	.99-1	2 4	0.00	.24
2.007	478.58	-4882.22	147.45	103.	146.	.05-2	1.55-0	2 3	0.00	.23
2.008	478.94	-4883.02	147.42	100.	138.	.06-1	.40-0	2 3	0.00	.80
2.009	479.04	-4883.23	147.41	96.	141.	.05-1	.42-0	2 3	0.00	.21
2.017	480.60	-4886.58	147.26	102.	132.	.01-2	.52-0	2 3	0.00	3.37
2.020	480.99	-4887.42	147.22	110.	137.	.32-1	1.17-1	2 3	5.71	.84
2.022	481.29	-4888.07	147.19	105.	133.	.04-1	1.00-0	2 3	0.00	.65
2.023	481.38	-4888.26	147.18	110.	137.	.05-1	1.90-0	3 3	0.00	.19
2.025	481.56	-4888.66	147.17	95.	135.	.03-1	.52-1	2 3	0.00	.40
2.026	481.72	-4888.99	147.15	99.	129.	.04-1	2.23-1	2 3	0.00	.34
2.027	481.83	-4889.24	147.14	100.	135.	.06-1	.76-1	2 3	0.00	.25
2.028	482.11	-4889.83	147.11	96.	135.	.15-1	2.84-1	2 3	0.00	.59
2.029	482.30	-4890.24	147.10	96.	132.	.13-1	2.61-1	2 3	0.00	.41
2.031	482.89	-4891.51	147.04	93.	145.	.15-1	2.15-1	3 3	7.59	1.27
2.049	487.92	-4902.35	146.56	88.	134.	.38-1	.33-1	3 4	0.00	10.88
2.054	488.92	-4904.51	146.46	115.	145.	.03-1	1.44-1	2 3	0.00	2.17
2.057	489.06	-4904.80	146.45	110.	138.	.09-0	.68-0	2 3	0.00	.29
2.066	489.98	-4906.79	146.36	106.	154.	.05-1	.93-1	2 3	0.00	2.00
2.067	490.07	-4906.99	146.35	110.	145.	.03-1	.59-0	1 3	0.00	.20
2.068	490.16	-4907.17	146.35	105.	152.	.07-1	.66-1	2 3	0.00	.19
2.069	490.23	-4907.33	146.34	99.	153.	.01-1	.60-1	2 3	0.00	.16
2.074	490.51	-4907.93	146.31	89.	132.	.01-1	.76-1	2 3	0.00	.60
2.088	493.42	-4914.19	146.04	73.	147.	.05-1	.91-1	2 3	0.00	6.29
2.089	493.52	-4914.41	146.03	93.	154.	.15-1	1.60-2	2 4	19.98	.22
2.104	496.80	-4921.48	145.71	90.	146.	.02-1	.60-0	2 3	0.00	7.09
2.107	497.33	-4922.62	145.66	90.	139.	.03-1	.68-0	2 3	0.00	1.15
2.108	497.55	-4923.08	145.64	106.	125.	.03-1	.40-0	3 3	0.00	.47
4.009	526.20	-4974.96	142.73	89.	137.	.02-1	.91-0	2 3	0.00	0.00
4.010	526.49	-4975.63	142.70	77.	137.	.04-1	1.43-0	2 3	0.00	.66
4.013	526.78	-4976.28	142.66	84.	128.	.15-1	1.15-0	4 3	0.00	.64
4.020	529.54	-4982.53	142.32	97.	117.	.05-1	1.15-0	2 3	0.00	6.16
4.022	529.71	-4982.92	142.30	86.	120.	.05-1	1.07-0	2 3	0.00	.38
4.024	530.10	-4983.80	142.25	105.	126.	.04-1	.67-0	3 3	0.00	.87
4.025	530.12	-4983.86	142.25	107.	141.	.06-1	.68-0	2 3	0.00	.06
4.026	530.32	-4984.32	142.22	111.	120.	.09-1	.47-0	2 3	0.00	.45
4.028	530.81	-4985.43	142.16	114.	146.	.29-1	2.11-2	4 3	0.00	1.10
4.031	531.45	-4986.88	142.08	101.	122.	.10-1	2.18-0	3 3	0.00	1.43
4.034	532.29	-4988.78	141.98	65.	120.	.01-1	.93-0	2 3	0.00	1.87
4.046	535.29	-4995.57	141.61	101.	140.	.03-1	.18-0	2 4	0.00	6.70
1.021	462.87	-4851.73	147.67	73.	160.	.05-1	.32-0	4 3	0.00	0.00
1.027	463.84	-4853.61	147.66	84.	127.	.04-1	.48-0	3 3	0.00	1.97
1.028	464.02	-4853.96	147.66	78.	119.	.05-1	.60-0	3 3	0.00	.36
1.031	465.02	-4855.90	147.65	68.	116.	.01-1	.66-0	1 3	0.00	2.03
3.014	507.45	-4942.68	144.68	84.	127.	.02-1	.53-0	2 3	0.00	0.00
3.015	507.51	-4942.78	144.67	94.	153.	.07-0	.60-0	2 3	0.00	.11
3.018	507.80	-4943.26	144.64	86.	143.	.03-1	.21-0	2 3	0.00	.52
3.019	508.00	-4943.58	144.62	100.	157.	.20-0	1.63-1	2 5	0.00	.35
3.021	508.69	-4944.72	144.55	82.	155.	.11-1	.42-0	3 3	8.13	1.24
3.024	510.48	-4947.68	144.37	89.	126.	.08-0	.60-1	2 3	0.00	3.23
3.025	511.18	-4948.83	144.30	94.	135.	.03-1	.81-0	3 3	0.00	1.26
3.027	511.40	-4949.20	144.28	94.	121.	.02-1	1.16-0	3 3	0.00	.40
3.038	515.03	-4955.19	143.91	113.	132.	.21-0	1.63-0	3 3	0.00	6.54
3.040	516.00	-4956.78	143.81	100.	159.	.05-1	.65-0	2 3	0.00	1.74
3.049	522.58	-4967.65	143.15	86.	132.	.01-1	1.13-0	2 3	0.00	11.86

FILE JOINT6.4.D
RECORD FORMAT: D-S

2.002	478.17	-4881.35	147.49	85.	69.	.10-1	.27-1 2 3	0.00	0.00
2.005	478.89	-4882.89	147.42	80.	63.	.29-1	2.40-1 3 3	0.00	.34
2.012	479.67	-4884.57	147.35	77.	81.	.02-1	.52-0 2 3	0.00	.37
2.013	479.93	-4885.13	147.32	86.	91.	.11-1	.93-0 3 3	0.00	.12
2.016	480.46	-4886.28	147.27	64.	79.	.09-1	.85-0 2 3	0.00	.25
2.018	480.73	-4886.87	147.25	70.	61.	.15-1	1.16-0 2 3	0.00	.13
2.033	484.25	-4894.45	146.91	92.	75.	.20-0	2.14-1 2 4	0.00	1.65
2.047	487.24	-4900.88	146.62	75.	95.	.34-0	2.88-1 2 4	0.00	1.40
2.093	494.58	-4916.69	145.92	90.	66.	.04-1	1.48-0 2 3	0.00	3.44
2.097	495.62	-4918.93	145.83	81.	62.	.08-1	.32-1 2 3	0.00	.49
2.098	495.93	-4919.60	145.80	80.	91.	.01-1	1.36-0 2 3	0.00	.15
2.099	496.39	-4920.60	145.75	91.	78.	.01-1	.49-0 2 3	0.00	.21
2.100	496.41	-4920.65	145.75	89.	85.	.03-1	.88-0 2 3	0.00	.01
2.101	496.50	-4920.83	145.74	85.	82.	.02-1	.45-0 2 3	0.00	.04
4.035	532.44	-4989.12	141.96	89.	83.	.01-1	1.60-0 2 3	0.00	0.00
4.039	533.78	-4992.16	141.79	79.	77.	.06-0	.62-1 2 3	0.00	.58
4.040	534.10	-4992.87	141.75	88.	85.	.03-1	1.47-1 2 3	0.00	.14
4.041	534.39	-4993.53	141.72	91.	84.	.07-1	.98-0 3 3	0.00	.13
4.042	534.60	-4994.02	141.69	92.	83.	.05-1	1.38-0 3 3	0.00	.09
4.044	534.84	-4994.55	141.66	87.	84.	.02-1	2.09-0 3 3	0.00	.11
1.001	457.46	-4841.27	147.73	67.	90.	.08-1	.54-0 4 3	0.00	0.00
1.005	458.68	-4843.64	147.72	72.	70.	.15-1	1.09-1 2 3	0.00	.65
1.006	459.27	-4844.77	147.71	81.	78.	.05-1	1.46-1 2 3	0.00	.32
1.007	459.98	-4846.15	147.71	71.	94.	.33-1	.33-1 2 3	0.00	.38
1.008	460.44	-4847.04	147.70	73.	95.	.02-1	.60-1 2 3	0.00	.24
1.012	461.52	-4849.13	147.69	76.	76.	.03-1	.36-0 2 3	0.00	.58
1.013	461.85	-4849.75	147.68	85.	87.	.12-0	.75-1 3 3	0.00	.18
1.015	462.15	-4850.35	147.68	68.	86.	.03-1	.84-0 2 3	0.00	.16
1.016	462.26	-4850.54	147.68	74.	78.	.02-1	.62-0 2 3	0.00	.05
1.026	463.43	-4852.81	147.67	66.	79.	.12-1	1.28-0 3 3	0.00	.63
1.038	467.31	-4860.31	147.62	70.	87.	.05-1	.71-0 2 3	0.00	2.08
1.039	467.65	-4860.98	147.62	72.	91.	.06-1	.58-1 2 3	0.00	.18
3.003	504.52	-4937.84	144.97	86.	76.	.06-1	.76-0 2 3	0.00	0.00
3.004	504.72	-4938.18	144.95	84.	75.	.03-1	.71-0 2 3	0.00	.11
3.007	505.01	-4938.64	144.92	94.	83.	.18-0	.40-1 2 3	0.00	.17
3.008	505.39	-4939.28	144.89	100.	68.	.04-1	1.32-0 2 4	0.00	.22
3.010	50[illegible].57	-4941.23	144.77	96.	88.	.02-1	.49-0 2 3	0.00	.67
3.013	507.36	-4942.54	144.69	89.	93.	.03-1	.18-0 3 3	0.00	.45
3.016	507.57	-4942.87	144.67	89.	76.	.06-0	.26-0 2 3	0.00	.12
3.020	508.40	-4944.25	144.58	84.	82.	.20-0	1.39-0 4 3	0.00	.47
3.023	510.11	-4947.06	144.41	89.	80.	.01-1	1.60-0 3 3	0.00	.98
3.047	521.21	-4965.38	143.29	75.	80.	.01-1	2.60-1 2 3	0.00	6.35
3.048	522.47	-4967.46	143.16	95.	85.	.02-1	2.45-0 2 3	0.00	.72
3.050	523.04	-4968.40	143.10	103.	91.	.05-2	3.05-1 4 3	0.00	.32
3.051	523.46	-4969.10	143.06	87.	89.	.05-2	2.03-2 5 3	0.00	.24

FILE JOINT6.5.BEDDING
RECORD FORMAT: D-S

1.020	4458.98	-4760.89	153.72	8.	280.	1.72-2	2.22-2 3 4	42.27	0.00
1.034	4463.62	-4759.06	154.45	6.	105.	2.57-2	2.80-2 2 4	2.64	.30
1.041	4465.44	-4758.34	154.74	7.	101.	.51-2	.77-2 2 4	3.58	.11
1.059	4469.63	-4756.69	155.40	4.	296.	2.02-2	2.60-2 2 4	3.27	.27
1.064	4471.53	-4755.94	155.70	31.	94.	.24-2	.80-0 2 3	0.00	.12
1.079	4473.18	-4755.30	155.96	4.	119.	.40-2	.44-2 2 4	4.76	.10
1.083	4485.20	-4750.57	157.86	6.	185.	.51-2	.38-2 1 4	0.00	.76
1.089	4487.93	-4749.49	158.29	10.	84.	.55-2	1.16-2 2 4	0.00	.18
1.091	4489.93	-4748.70	158.60	34.	262.	.46-2	1.20-2 3 4	0.00	.13

1.092	4490.20	-4748.60	158.65	32.	260.	.10-2	.65-2	2	3	0.00	.01
1.094	4491.07	-4748.25	158.78	24.	216.	.13-2	.20-2	2	3	0.00	.06
1.095	4492.48	-4747.70	159.01	14.	265.	.16-2	.50-2	2	3	0.00	.08
1.097	4492.57	-4747.66	159.02	20.	249.	.13-1	.52-2	2	3	0.00	.01
1.100	4492.84	-4747.55	159.06	16.	289.	.40-1	2.00-2	2	4	0.00	.02
1.102	4493.12	-4747.45	159.11	29.	278.	.25-2	1.60-2	3	3	0.00	.01
1.104	4493.37	-4747.35	159.15	28.	320.	.07-1	.20-0	3	3	0.00	.02
1.107	4494.94	-4746.73	159.39	9.	223.	.60-2	.70-2	3	3	0.00	.11
1.109	4495.49	-4746.51	159.48	10.	247.	.44-2	.40-2	2	3	0.00	.03
1.112	4496.85	-4745.98	159.70	9.	198.	.60-2	.70-2	3	3	0.00	.08
1.128	4505.95	-4742.40	161.13	8.	106.	1.20-2	1.50-2	2	3	0.00	.58
1.131	4506.25	-4742.28	161.18,	22.	162.	.20-1	.52-1	1	3	0.00	.02
1.132	4506.44	-4742.21	161.21	24.	155.	.20-1	.60-1	1	3	0.00	.01
1.136	4507.86	-4741.64	161.43	9.	118.	1.95-2	2.30-2	2	3	0.00	.10
1.140	4509.83	-4740.87	161.74	9.	136.	.50-2	.95-2	1	3	0.00	.12
1.141	4511.24	-4740.32	161.97	9.	102.	1.80-2	2.10-2	2	3	0.00	.08
1.144	4512.45	-4739.84	162.16	25.	214.	.30-1	.70 1	2	3	0.00	.08
1.147	4514.83	-4738.90	162.53	9.	137.	.40-2	.60-2	1	3	0.00	.16
1.149	4517.79	-4737.74	163.00	7.	125.	5.00-2	6.00-2	1	3	0.00	.18
1.152	4524.90	-4734.94	164.12	11.	146.	.25-1	.30-1	2	3	0.00	.45
1.160	4528.01	-4733.71	164.61	24.	139.	.40-2	.90-2	2	3	0.00	.20
1.164	4529.33	-4733.19	164.82	23.	84.	.05-1	.40-1	1	3	0.00	.08
1.170	4533.29	-4731.64	165.44	16.	145.	.13-2	1.20-2	1	3	0.00	.25
1.173	4534.91	-4731.00	165.70	7.	131.	.90-1	.55-1	1	3	0.00	.10
1.175	4536.73	-4730.28	165.99	10.	94.	4.00-2	6.50-2	1	3	0.00	.11

FILE JOINT6.5.1
RECORD FORMAT: D-S

1.051	4468.00	-4757.33	155.14	95.	176.	.08-1	1.77-0	2	4	0.00	0.00
1.072	4473.18	-4755.30	155.96	104.	170.	.02-1	.44-0	1	3	0.00	.82
1.084	4485.88	-4750.30	157.97	85.	162.	.02-1	1.11-0	3	3	0.00	1.99
1.088	4488.47	-4749.28	158.37	105.	165.	.06-2	.49-1	2	3	0.00	.40
1.093	4490.52	-4748.47	158.70	95.	158.	.12-2	.20-1	3	4	0.00	.32
1.108	4493.21	-4746.62	159.44	98.	176.	.03-1	.30-1	3	3	0.00	.73
1.117	4498.99	-4745.14	160.03	103.	144.	.08-1	.23-2	2	3	0.00	.80
1.125	4504.87	-4742.83	160.96	98.	158.	.07-2	.30-2	1	3	0.00	.92
1.138	4509.23	-4741.10	161.65	87.	134.	.20-1	1.70-1	2	3	0.00	.68
1.139	4527.35	-4733.98	164.51	101.	159.	.15-1	.30-0	2	3	0.00	2.85
1.163	4529.21	-4733.25	164.80	94.	137.	.20-2	.60-1	1	3	0.00	.30
1.166	4529.63	-4733.08	164.87	109.	126.	.30-2	.40-0	2	3	0.00	.06

FILE JOINT6.5.B
RECORD FORMAT: D-S

1.001	4454.31	-4752.53	153.06	91.	16.	.01-1	1.35 0	1	3	0.00	0.00
1.035	4463.78	-4759.00	154.48	90.	41.	.02-1	.55-0	2	3	0.00	7.77
1.055	4468.65	-4757.08	155.25	84.	33.	.01-1	.66-0	2	3	0.00	4.23
1.056	4468.88	-4756.99	155.28	81.	47.	.01-1	1.42-0	2	3	0.00	.20
1.081	4478.72	-4753.12	156.83	104.	20.	.05-2	1.01-0	5	4	0.00	8.53
1.110	4493.59	-4746.47	159.50	89.	38.	.20-1	.40-1	3	3	0.00	14.63
1.118	4499.04	-4745.12	160.04	76.	52.	.08-1	.90-1	2	3	0.00	2.98
1.122	4501.34	-4744.21	160.40	72.	6.	.05-1	.70-2	2	3	0.00	2.00
1.126	4503.63	-4742.52	161.08	87.	3.	.25-1	1.31-1	2	3	0.00	3.72
1.129	4506.04	-4742.36	161.15	78.	39.	.25-1	1.50-2	2	3	0.00	.36
1.133	4506.93	-4742.01	161.29	80.	59.	.07-1	.70-1	2	4	0.00	.77

FILE JOINT6.5.C1
RECORD FORMAT: D-S

1.002	4455.01	-4762.45	153 09	80.	97.	.10-1	2.58-2	2 3	0.00	0.00
1.004	4455.13	-4762.40	157 11	83.	97.	.08-1	1.72-0	2 3	0.00	.12
1.005	4455.33	-4762.32	153 5	82.	97.	.14-1	1.60-1	2 3	0.00	.16
1.010	4456.07	-4762.03	153.26	95.	115.	.01-1	.63-0	2 3	0.00	.59
1.012	4457.17	-4761.60	153.44	75.	113.	.09-1	.34-1	3 3	0.00	.89
1.015	4457.86	-4761.32	153.55	100.	101.	.2a-1	.96-1	3 3	0.00	.55
1.016	4457.96	-4761.29	153.56	82.	101.	.08-1	.99-0	3 3	0.00	.08
1.017	4458.32	-4761.14	153.62	80.	115.	.06-1	.72-0	4 3	0.00	.29
1.023	4460.67	-4760.22	153.99	59.	98.	.06-1	1.20-0	2 3	0.00	1.89
1.024	4460.72	-4760.20	154.00	50.	108.	.19-0	.59-1	2 3	0.00	.04
1.025	4460.88	-4760.14	154.02	56.	105.	.17-0	.53-1	2 3	0.00	.13
1.026	4460.97	-4760.10	154.04	60.	105.	.14-0	.39-1	3 3	0.00	.07
1.027	4461.09	-4760.05	154.05	63.	103.	.12-0	.34-1	4 3	0.00	.09
1.028	4461.24	-4760.00	154.08	74.	110.	.08-2	.99-0	2 3	0.00	.13
1.030	4461.58	-4759.86	154.13	68.	106.	.07-2	1.23-0	5 3	0.00	.27
1.031	4462.07	-4759.67	154.21	78.	97.	.04-2	2.10 0	2 3	0.00	.39
1.032	4462.54	-4759.48	154.28	74.	108.	.10-2	.91-0	1 3	0.00	.38
1.033	4463.05	-4759.28	154.36	93.	108.	.02-1	1.80-0	3 3	0.00	.41
1.038	4464.44	-4758.74	154.58	84.	98.	.02-1	.59-0	3 3	0.00	1.12
1.050	4467.27	-4757.62	155.03	87.	109.	.08-1	1.42-0	3 3	0.00	2.28
1.054	4468.62	-4757.09	155.24	89.	116.	.03-1	.79-0	2 4	0.00	1.09
1.057	4470.25	-4756.45	155.50	65.	111.	.10-1	.71-0	2 3	0.00	1.31
1.060	4471.07	-4756.13	155.63	72.	111.	.11-0	.77-0	1 3	0.00	.66
1.066	4471.93	-4755.79	155.76	77.	107.	.16-2	2.21-0	2 3	0.00	.69
1.080	4452.60	-4763.39	152.72	80.	103.	.04-2	.30-0	2 3	0.00	15.55
1.082	4479.33	-4752.87	156.93	76.	110.	.04-2	.81-1	5 3	0.00	21.50
1.087	4488.24	-4749.37	158.34	87.	100.	.03-2	.55-0	3 3	0.00	7.18
1.098	4492.65	-4747.64	159.03	79.	115.	.03-1	.50-2	2 3	0.00	3.55
1.113	4497.01	-4745.91	159.72	86.	106.	.10-1	.75-1	2 3	0.00	3.50
1.115	4497.90	-4745.57	159.86	109.	121.	.10-1	2.60-2	3 3	0.00	.72
1.116	4498.59	-4745.30	159.97	115.	101.	.07-1	.80-2	2 3	0.00	.56
1.121	4500.28	-4744.63	160.24	103.	117.	.05-1	.75-2	2 3	0.00	1.36
1.127	4505.82	-4742.45	161.11	87.	111.	.25-1	.60-1	2 3	0.00	4.46
1.130	4506.11	-4742.33	161.16	64.	115.	.25-1	.65-1	2 3	0.00	.23
1.137	4508.97	-4741.21	161.61	72.	105.	.30-1	1.30-2	2 3	0.00	2.30
1.142	4511.76	-4740.11	162.05	76.	122.	.15-1	1.70-1	2 3	0.00	2.25
1.145	4512.74	-4739.73	162.20	67.	107.	.09-1	.40-0	2 3	0.00	.79
1.148	4513.09	-4738.80	162.57	70.	108.	.10-2	1.20-1	2 3	0.00	1.89
1.151	4524.67	-4735.03	164.09	62.	122.	.05-2	.70-2	2 3	0.00	7.71
1.154	4525.71	-4734.62	164.25	74.	118.	.30-2	1.10-0	2 3	0.00	.84
1.155	4525.86	-4734.56	164.27	73.	98.	.30-2	2.20-1	2 3	0.00	.12
1.157	4526.27	-4734.40	164.34	77.	106.	.15-2	1.08-0	2 3	0.00	.33
1.158	4526.38	-4734.35	164.36	76.	107.	.15-2	1.40-0	2 3	0.00	.09
1.162	4529.02	-4733.32	164.77	116.	97.	.40-2	1.50-2	2 3	0.00	2.13

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1.003	4455.06	-4762.42	153.10	82.	92.	.07-1	2.24-2	2 3	0.00	0.00
1.006	4455.43	-4762.28	153.16	84.	88.	.04-1	1.71-0	2 3	0.00	.39
1.007	4455.51	-4762.25	153.17	78.	85.	.06-1	1.78-1	2 3	0.00	.08
1.008	4455.54	-4762.24	153.18	79.	88.	.04-1	1.48-1	2 3	0.00	.03
1.009	4455.78	-4762.14	153.22	85.	77.	.02-1	1.11-2	2 3	0.00	.25
1.011	4456.59	-4761.82	153.34	70.	95.	.01-1	.62+1	2 3	0.00	.85
1.013	4457.17	-4761.60	153.44	74.	87.	.04-1	1.58-2	3 3	0.00	.61
1.014	4457.43	-4761.50	153.48	67.	78.	.03-1	.46-1	4 3	0.00	.27

1.018	4458.59	-4761.03	153.66	85.	96.	.06-1	1.02-1	4	3	0.00	1.22
1.019	4458.73	-4760.98	153.68	79.	95.	.21-1	.34-0	5	3	0.00	.14
1.021	4459.25	-4760.78	153.76	71.	91.	.07-1	2.10-2	5	3	0.00	.55
1.022	4459.80	-4760.56	153.85	70.	93.	.06-1	.74-1	5	3	0.00	.58
1.029	4461.58	-4759.86	154.13	67.	66.	.07-2	.27-0	4	3	0.00	1.87
1.036	4464.06	-4758.89	154.52	89.	61.	.01-1	.28-0	2	3	0.00	2.60
1.037	4464.34	-4758.78	154.57	103.	79.	.01-1	1.16-1	3	3	0.00	.30
1.039	4465.01	-4758.51	154.67	89.	82.	.22-0	2.02-1	2	3	0.00	.70
1.040	4465.09	-4758.48	154.69	77.	83.	.18-1	2.03-2	2	3	0.00	.09
1.042	4465.84	-4758.18	154.80	77.	81.	.04-1	.71-1	2	3	0.00	.79
1.043	4465.98	-4758.13	154.83	77.	69.	.04-1	1.03-1	2	3	0.00	.15
1.044	4466.09	-4758.09	154.84	82.	69.	.02-1	.49-1	2	3	0.00	.12
1.045	4466.15	-4758.06	154.85	75.	70	.02-1	1.39-0	2	3	0.00	.06
1.046	4466.31	-4758.00	154.88	82.	65.	.04-1	.65-1	2	3	0.00	.17
1.047	4466.67	-4757.86	154.93	75.	87.	.04-1	.77-0	2	3	0.00	.38
1.048	4466.88	-4757.78	154.97	75.	90.	.01-1	.32-0	2	3	0.00	.22
1.049	4467.16	-4757.66	155.01	74.	81.	.09-1	.36-0	2	3	0.00	.29
1.052	4468.00	-4757.33	155.14	83.	79.	.11-1	.36-1	3	3	0.00	.88
1.053	4468.15	-4757.28	155.17	80.	76.	.03-1	.36-0	3	3	0.00	.16
1.058	4470.43	-4756.38	155.53	75.	75.	.06-1	1.76-0	3	3	0.00	2.40
1.061	4471.20	-4756.08	155.65	72.	79.	.11-1	1.60-1	2	3	0.00	.81
1.063	4471.36	-4756.01	155.67	67.	73.	.14-2	.82-1	1	3	0.00	.17
1.065	4471.68	-4755.86	155.72	76.	78.	.08-2	1.67-1	2	3	0.00	.34
1.067	4472.20	-4755.6	155.81	72.	81.	.18-1	1.89-0	2	3	0.00	.55
1.068	4472.29	-4755.65	155.82	112.	68.	.08-1	.32-1	1	3	0.00	.09
1.069	4472.64	-4755.51	155.88	78.	84.	.19-2	2.44-0	2	3	0.00	.37
1.070	4472.93	-4755.39	155.92	74.	81.	.04-1	1.36-0	2	3	0.00	.31
1.071	4473.02	-4755.36	155.94	80.	76.	.18-1	1.71-1	2	3	0.00	.09
1.073	4473.46	-4755.18	156.01	83.	77.	.04-1	1.90-1	2	3	0.00	.46
1.074	4473.53	-4755.16	156.02	83.	68.	.03-1	.42-0	3	3	0.00	.07
1.075	4473.68	-4755.10	156.04	90.	82.	.01-1	.59-0	2	3	0.00	.16
1.076	4473.75	-4755.07	156.05	76.	87.	.05-2	1.56-1	2	3	0.00	.07
1.077	4473.95	-4754.99	156.08	84.	75.	.02-2	1.81-1	2	3	0.00	.21
1.078	4474.01	-4754.97	156.09	76.	62.	.01-2	.47-0	2	3	0.00	.06
1.085	4487.86	-4749.51	158.28	84.	79.	.08-2	.60-1	3	3	0.00	14.55
1.086	4488.09	-4749.42	158.31	83.	67.	.15-1	.33-1	3	3	0.00	.24
1.090	4488.68	-4749.19	158.41	95.	73.	.06-2	.49-1	5	3	0.00	.62
1.096	4492.52	-4747.68	159.01	67.	80.	.03-1	.50-2	2	3	0.00	4.03
1.099	4492.68	-4747.62	159.04	58.	79.	.03-1	.30-2	3	3	0.00	.17
1.101	4493.07	-4747.47	159.10	72	85.	.04-1	1.60-2	3	3	0.00	.41
1.103	4493.30	-4747.38	159.14	76.	83.	.10-1	1.60-1	4	3	0.00	.24
1.105	4493.39	-4747.34	159.15	77.	83.	.05-1	.35-0	3	3	0.00	.09
1.106	4493.77	-4747.19	159.21	69.	80.	.15-1	1.70-2	4	3	0.00	.40
1.111	4496.78	-4746.01	159.68	99.	6.	.06-1	.90-1	3	3	0.00	3.16
1.114	4497.35	-4745.78	159.78	111.	67.	.10-1	.70-0	2	3	0.00	.60
1.119	4499.19	-4745.06	160.07	93.	69.	.08-1	.95-1	2	4	0.00	1.93
1.120	4499.72	-4744.85	160.15	64.	78.	.08-1	.55-1	3	3	0.00	.56
1.123	4504.56	-4742.94	160.91	59.	72.	.10-1	.80-1	3	3	0.00	5.08
1.124	4504.72	-4742.88	160.94	80.	67.	.07-2	.50-2	3	3	0.00	.17
1.134	4507.08	-4741.95	161.31	93.	70.	.09-1	.80-1	2	3	0.00	2.68
1.135	4507.19	-4741.91	161.33	102.	80.	.10-1	.50-1	1	3	0.00	.12
1.139	4509.64	-4740.94	161.71	108.	71.	.10-1	.30-1	1	3	0.00	2.57
1.143	4512.35	-4739.88	162.14	59.	84.	.10-1	.50-1	3	3	0.00	2.85
1.146	4514.27	-4739.12	162.45	103.	86.	.16-2	.05-1	1	3	0.00	2.02
1.150	4519.67	-4737.00	163.30	67.	86.	.05-1	.60-1	1	3	0.00	5.67
1.161	4528.35	-4733.58	164.67	124.	93.	.07-1	.25-2	2	3	0.00	9.12
1.165	4529.50	-4733.13	164.85	64.	74.	.30-2	1.50-2	1	3	0.00	1.21
1.167	4532.23	-4732.05	165.28	88.	84.	.06-2	1.50-2	1	3	0.00	2.86
1.168	4532.97	-4731.76	165.40	117.	64.	.15-1	.80-0	2	3	0.00	.78
1.169	4533.23	-4731.66	165.44	101.	62.	.15-0	.75-0	1	3	0.00	.27

1.171	4533.32	-4731.62	165.45	79.	61.	.15-0	.40-0	2	3	0.00	.09	
1.172	4534.59	-4731.13	165.65	91.	73.	.30-1	1.80-1	2	3	0.00	1.33	
1.176	4537.54	-4729.96	166.12	75.	68.	.30-0	2.70-2	1	3	0.00	3.10	
1.178	4538.91	-4729.42	166.33	52.	70.	.30-0	2.20-0	2	3	0.00	1.43	
1.179	4539.37	-4729.25	166.40	113.	62.	.25-0	2.50-2	2	3	0.00	.48	

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1.001	431.82	-773.53	148.86	6.	217.	.25-1	1.55-2	1	4	4.57	-9.99
1.003	431.53	-773.65	148.72	6.	123.	1.00-2	3.00-2	1	4	5.44	.08
1.005	431.24	-773.76	148.57	10.	196.	.94-1	.23-0	1	3	0.00	.10
1.009	430.86	-773.92	148.38	4.	145.	.65-1	.46-1	1	3	0.00	.12
1.012	430.61	-774.02	148.25	10.	118.	.15-1	.19-1	1	3	0.00	.08
1.014	430.49	-774.07	148.19	11.	127.	.16-0	.77-1	1	3	0.00	.04
1.016	430.11	-774.22	148.00	6.	156.	.36-1	1.02-1	2	4	5.71	.12
1.019	429.67	-774.40	147.78	19.	256.	1.09-1	1.63-2	1	4	0.00	.14
1.021	429.53	-774.45	147.71	16.	264.	.74-1	1.54-2	2	4	0.00	.05
1.023	429.34	-774.53	147.61	15.	260.	.21-2	1.36-2	2	4	0.00	.06
1.025	429.03	-774.66	147.46	11.	204.	.69-2	.61-1	1	3	8.13	.09
1.035	428.15	-775.01	147.02	24.	249.	.46-1	.74-2	2	3	0.00	.28
1.040	427.82	-775.14	146.85	16.	236.	.51-1	.36-2	2	3	9.09	.11
1.048	426.51	-775.68	146.18	7.	286.	.16-1	.22-0	2	3	0.00	.42
1.050	425.49	-776.09	145.67	10.	184.	2.64-2	1.92-2	2	3	2.34	.32
1.061	424.07	-776.66	144.96	36.	156.	1.61-2	1.82-2	2	4	9.46	.43
1.063	423.49	-776.90	144.66	12.	189.	2.41-2	.71-1	3	3	0.00	.19
1.067	422.74	-777.20	144.29	19.	224.	.55-0	2.95-2	2	5	0.00	.23
1.070	422.15	-777.43	143.99	37.	257.	1.05-0	2.01-1	2	4	7.13	.19
1.077	421.36	-777.75	143.59	12.	164.	.91-1	.65-2	2	3	8.13	.25
1.080	420.57	-778.07	143.19	37.	108.	.06-2	.50-0	3	3	0.00	.25
1.081	420.36	-778.16	143.09	35.	63.	.23-2	.99-1	2	3	0.00	.06
1.083	420.03	-778.29	142.92	42.	128.	.09-2	1.06-2	2	4	0.00	.11
1.085	419.81	-778.38	142.81	29.	128.	.09-2	1.25-1	2	3	0.00	.07
1.087	419.46	-778.52	142.63	36.	94.	.60-2	1.70-2	2	3	0.00	.11
1.094	418.70	-778.83	142.25	38.	255.	1.20-1	.38-1	2	4	5.71	.24
1.097	418.11	-779.07	141.95	33.	246.	.47-0	.62-0	2	4	7.59	.19
1.104	417.45	-779.34	141.62	26.	279.	.36-1	.35-0	2	4	0.00	.10
1.110	416.95	-779.54	141.37	18.	266.	.17-0	.26-0	2	3	0.00	.16
1.114	416.47	-779.73	141.13	7.	252.	.19-0	.54-0	3	3	0.00	.15
1.120	416.12	-779.87	140.95	22.	231.	.18-0	.51-0	3	4	0.00	.11
1.124	415.82	-779.99	140.80	4.	223.	.74-1	.35-1	2	3	0.00	.09
1.127	415.38	-780.17	140.58	20.	234.	.21-1	.23-0	2	3	0.00	.14
1.129	415.20	-780.25	140.48	19.	239.	.17-1	.19-1	2	3	0.00	.06
1.132	414.88	-780.37	140.32	0.	0.	.01-0	.01-0	2	3	0.00	.10
1.138	414.50	-780.53	140.13	8.	54.	.05-0	.32-0	2	3	0.00	.12
1.142	414.12	-780.68	139.94	20.	204.	.17-1	.19-0	2	3	0.00	.12
1.147	413.53	-780.92	139.64	12.	150.	.41-2	.24-1	2	3	0.00	.19
1.149	413.28	-781.02	139.52	3.	264.	.28-1	.35-1	3	3	0.00	.07
1.154	412.76	-781.23	139.25	11.	269.	.22-0	.24-0	2	3	0.00	.17
1.160	411.98	-781.54	138.86	40.	119.	.08-2	1.77-1	2	3	0.00	.25
1.164	411.40	-781.78	138.57	24.	278.	.17-1	.38-2	2	3	0.00	.18
1.166	411.10	-781.90	138.42	24.	274.	.30-2	.31-2	2	3	6.01	.09
1.167	411.09	-781.90	138.41	39.	256.	.05-2	.08-1	2	4	0.00	.01
1.169	410.76	-782.04	138.25	22.	261.	.20-1	.18-1	2	3	0.00	.10
1.171	410.57	-782.11	138.15	18.	253.	.24-2	.37-1	2	4	6.71	.07
1.174	410.28	-782.23	138.01	34.	267.	.16-2	.51-2	2	3	0.00	.08
1.189	408.23	-783.06	136.97	26.	84.	.20-0	.47-0	2	4	0.00	.65
1.192	408.00	-783.15	136.86	16.	119.	.07-2	.68-0	2	3	0.00	.07
1.194	407.76	-783.25	136.73	31.	94.	.12-1	.86-1	3	4	0.00	.08

1.197	407.15	-783.49	136.43	27.	146.	.44-0	.49-0 2 4	0.00	.19
1.199	406.90	-783.60	136.31	24.	167.	.29-0	.16-0 2 3	0.00	.07
2.003	406.61	-783.74	136.20	21.	182.	.20-1	.12-2 2 3	0.00	-9.99
2.005	406.44	-783.81	136.14	26.	163.	.13-2	.20-2 2 3	0.00	.03
2.008	406.00	-784.02	135.98	12.	194.	.26-1	.13-1 2 3	0.00	.07
2.010	405.88	-784.08	135.94	16.	110.	.03-2	.06-2 2 3	0.00	.01
2.013	405.63	-784.20	135.85	6.	143.	.23-0	.27-0 2 4	0.00	.04
2.019	405.02	-784.49	135.63	20.	202.	.09-2	.10-1 2 3	0.00	.10
2.023	402.62	-785.62	134.77	6.	205.	.10-2	.49-2 2 3	0.00	.37
2.027	402.14	-785.85	134.59	4.	76.	.43-2	.78-2 2 3	0.00	.08
2.032	401.10	-786.34	134.22	6.	219.	.27-1	.61-0 2 3	0.00	.16
2.034	400.60	-786.58	134.04	9.	166.	.36-1	.59-0 3 3	0.00	.08
2.037	400.15	-786.79	133.88	13.	207.	.35-2	.31-2 2 4	0.00	.07
2.040	399.75	-786.98	133.74	8.	294.	.16-2	.27-2 2 3	0.00	.06
2.042	399.26	-787.21	133.56	36.	100.	.13-2	.34-0 1 4	0.00	.08
2.043	399.14	-787.27	133.51	41.	98.	.06-2	.07-1 2 4	0.00	.02
2.053	395.98	-788.77	132.38	6.	13.	.10-0	.11-0 2 4	0.00	.49
2.055	395.71	-788.90	132.28	34.	84.	.10-2	.76-1 2 4	0.00	.04
2.056	395.68	-788.91	132.27	26.	275.	.13-0	.14-0 2 2	0.00	.01
2.058	395.25	-789.11	132.12	41.	86	.04-2	.12-1 2 3	0.00	.06
2.059	395.19	-789.14	132.10	31.	90.	.04-2	.53-2 1 4	0.00	.01
2.063	394.34	-789.54	131.79	9.	258.	.23-0	.19-0 2 4	0.00	.14
2.073	392.53	-790.40	131.14	27.	243.	.21-1	.44-1 2 3	0.00	.28
2.076	392.26	-790.53	131.04	29.	142.	.31-0	.43-1 2 3	0.00	.04
2.086	390.51	-791.36	130.42	25.	201.	.12-2	.17-2 2 4	0.00	.26
2.087	389.70	-791.74	130.13	14.	271.	.19-2	.24-2 2 3	0.00	.13
2.088	389.19	-791.98	129.94	11.	105.	.42-2	.66-1 2 4	7.59	.09
2.091	388.89	-792.13	129.83	26.	108.	.09-2	.22-2 2 3	0.00	.05
2.092	388.73	-792.20	129.78	31.	116.	.04-2	.22-2 2 4	0.00	.02
2.094	388.39	-792.36	129.65	10.	106.	.35-2	.46-2 2 3	0.00	.06
2.096	387.54	-792.77	129.35	13.	110.	.21-2	.29-2 3 3	0.00	.12
2.098	387.37	-792.84	129.29	21.	105.	.13-2	.64-2 2 4	0.00	.03
2.100	387.07	-792.99	129.18	25.	109.	.16-2	.18-2 2 4	0.00	.05
2.101	386.80	-793.11	129.09	9.	109.	.33-2	.34-2 2 5	7.59	.04
2.104	386.39	-793.31	128.94	19.	119.	.21-2	.30-2 2 4	0.00	.06
2.106	385.94	-793.52	128.77	25.	238.	.13-2	.87-1 2 4	0.00	.08
2.108	385.80	-793.59	128.72	7.	207.	.16-2	.11-2 2 3	0.00	.02
2.109	385.63	-793.67	128.66	16.	226.	.26-1	.26-2 2 4	9.09	.03
2.113	385.02	-793.95	128.45	10.	279.	.06-2	.09-2 3 4	0.00	.09
2.114	384.87	-794.03	128.39	5.	134.	.13-2	.27-2 2 3	0.00	.03
2.117	384.50	-794.20	128.26	5.	121.	.40-2	1.10-2 2 4	7.13	.06
2.120	383.84	-794.52	128.02	9.	87.	.37-1	1.02-2 2 3	0.00	.10
2.122	383.59	-794.63	127.93	10.	50.	.37-1	.75-0 2 3	8.13	.04
2.124	383.26	-794.79	127.81	18.	193.	.34-1	.14-1 2 3	0.00	.05
2.127	382.99	-794.92	127.72	15.	196.	.07-0	.04-0 1 3	0.00	.03
2.130	382.73	-795.04	127.62	9.	86.	.55-2	1.00-1 2 4	9.46	.05
2.131	382.40	-795.19	127.51	41.	253.	.08-1	1.10-1 2 3	0.00	.05
3.001	382.36	-793.22	127.48	15.	11.	.14-1	1.12-1 2 3	0.00	-9.99
3.002	382.13	-795.31	127.36	29.	257.	.32-1	.59-2 2 3	0.00	.08
3.006	381.73	-795.48	127.14	4.	317.	.12-1	.11-2 2 3	0.00	.14
3.008	381.20	-795.71	126.85	6.	139.	.13-2	.51-1 2 4	0.00	.18
3.014	380.16	-796.15	126.30	9.	116.	.43-1	.50-0 2 3	0.00	.35
3.018	379.50	-796.51	125.83	9.	338.	.40-2	1.36-2 2 3	4.76	.30
3.021	378.44	-796.87	125.37	11.	163.	.53-2	.54-2 3 3	0.00	.29
3	7.36	-797.33	124.79	13.	137.	.20-2	.24-2 2 3	0.00	.37
3.	76.97	-797.49	124.58	10.	149.	.65-2	.37-2 3 3	0.00	.13
3.033	376.81	-797.56	124.49	24.	72.	.11-2	.15-0 2 3	0.00	.06
3.041	375.83	-797.98	123.96	22.	174.	.47-2	.33-2 2 4	0.00	.33
3.043	375.46	-798.13	123.77	13.	132.	.02-2	.51-2 3 3	4.57	.12
3.046	374.93	-798.36	123.48	15.	87.	.60-1	.59-1 2 3	0.00	.18

3.051	374.32	-798.62	123.15	6.	129.	.47-1	.48-1	3	3	0.00	.31
3.054	373.94	-798.78	122.95	9.	109.	.55-1	.83-1	2	3	5.44	.13
3.057	373.50	-798.96	122.71	18.	123.	.29-1	.23-2	2	3	0.00	.16
3.063	373.01	-799.17	122.45	24.	169.	.34-2	.14-2	2	3	0.00	.16
3.067	372.82	-799.25	122.34	16.	176.	.16-2	.21-2	2	4	0.00	.07
4.003	387.75	-801.67	120.40	9.	135.	.20-2	.30-2	1	3	0.00	-9.99
4.005	366.05	-802.49	119.80	7.	113.	.30-2	.40-2	2	3	0.00	.25
4.006	365.54	-802.74	119.62	9.	113.	.70-2	.50-2	2	3	0.00	.07
4.008	365.11	-802.95	119.47	30.	160.	.60-2	.50-2	1	3	0.00	.06
4.010	363.02	-803.96	118.74	11.	128.	1.00-2	.65-2	1	3	0.00	.30
4.013	362.73	-804.11	118.63	11.	316.	.60-1	.40-2	2	3	0.00	.05
4.014	362.53	-804.21	118.57	14.	94.	.14-2	.12-2	1	3	0.00	.02
4.015	362.45	-804.25	118.54	16.	137.	.13-2	.11-2	2	3	0.00	.01
4.018	359.15	-805.85	117.37	16.	111.	.60-2	2.10-2	2	3	0.00	.49
4.021	358.70	-806.07	117.22	22.	170.	.50-2	.08-2	1	3	0.00	.06
4.024	358.51	-806.16	117.15	16.	113.	.30-2	.70-2	2	3	0.00	.03
4.027	358.21	-806.31	117.04	25.	219.	.20-1	.50-2	1	3	0.00	.05
4.030	357.87	-806.47	116.92	14.	198.	.50-2	.80-2	2	3	0.00	.05
4.033	357.66	-806.57	116.85	9.	160.	.70-2	.70-2	2	3	0.00	.03
4.039	356.97	-806.91	116.61	9.	142.	1.40-2	.50-2	2	3	0.00	.10
4.045	356.34	-807.22	116.38	16.	204.	1.30-1	1.00-2	2	3	0.00	.10
4.051	255.45	-807.65	116.07	15.	206.	1.00-2	.40-2	2	3	0.00	.13
4.054	355.05	-807.85	115.93	10.	190.	1.35-2	.35-2	1	3	0.00	.05
4.058	354.77	-807.98	115.83	15.	229.	.60-2	.20-2	1	3	0.00	.04
4.066	352.77	-808.96	115.12	8.	132.	1.65-2	1.30	[illegible]	3	0.00	.29
4.071	350.35	-810.03	114.34	9.	141.	1.50-2	2.0	[illegible]	3	0.00	.32
4.072	350.47	-810.07	114.31	32.	212.	.12-1	.4	[illegible]	3	0.00	.01
4.074	349.62	-810.49	114.01	9.	219.	1.00-2	1.20-2	2	3	0.00	.12
4.077	348.94	-810.82	113.77	13.	126.	.80-2	1.40-2	2	3	0.00	.10
4.079	348.51	-811.03	113.62	16.	49.	.40-2	.90-2	2	3	0.00	.06
4.081	348.04	-811.26	113.46	10.	169.	.70-2	.20-2	1	3	0.00	.06
4.083	347.40	-811.57	113.23	13.	138.	1.90-2	.50-2	1	3	0.00	.10
5.002	345.62	-812.45	112.63	10.	1.	.30-2	.30-0	1	3	0.00	-9.99
5.004	344.72	-812.92	112.38	7.	160.	1.20-1	.50-0	1	3	0.00	.06
5.006	343.87	-813.37	112.15	10.	215.	.40-0	2.20-2	1	3	0.00	.04
5.008	343.45	-813.59	112.04	10.	241.	.30-0	.70-1	1	3	0.00	.02
5.009	342.52	-814.09	111.78	20.	114.	1.10-1	2.30-2	1	3	0.00	.05
5.012	340.74	-815.03	111.30	14.	210.	.27-1	1.00-1	1	3	0.00	.09
5.013	340.07	-815.39	111.11	10.	130.	.40-1	2.70-2	1	3	0.00	.04
5.014	338.04	-816.46	110.56	13.	138.	.45-1	1.80-2	1	3	0.00	.11
5.018	337.27	-816.87	110.35	9.	120.	.90-1	3.00-2	3	3	0.00	.04
5.021	336.34	-817.36	110.10	10.	144.	.30-1	1.20-2	1	3	0.00	.05
5.026	332.37	-819.47	109.01	24.	22.	.10-1	.10-1	1	3	0.00	.22
5.030	330.67	-820.36	108.53	10.	243.	.48-1	3.00-2	1	3	0.00	.09
5.034	323.19	-824.33	106.51	25.	83.	.20-1	2.00-2	3	3	0.00	.40
5.035	322.97	-824.44	106.45	13.	113.	1.00-1	2.40-2	1	3	0.00	.01
5.037	322.21	-824.84	106.24	10.	120.	.70-1	2.70-2	2	3	0.00	.04
5.041	321.23	-825.35	105.98	13.	104.	.20-0	1.50-1	2	3	0.00	.05
5.043	320.60	-825.69	105.81	10.	114.	.30-1	2.80-1	1	3	0.00	.03
6.002	320.31	-825.84	105.75	10.	105.	.35-1	1.20-1	1	3	0.00	-9.99
6.004	320.00	-826.00	105.68	3.	298.	.20-1	1.20-2	2	3	0.00	0.00
6.005	319.26	-826.37	105.54	10.	197.	.40-1	.70-1	1	3	0.00	.01
6.010	316.69	-827.65	105.02	13.	160.	.40-1	1.10-2	1	3	0.00	0.00
6.012	316.95	-827.52	105.07	18.	217.	.50-0	1.20-1	1	3	0.00	0.00
6.019	315.56	-828.22	104.80	9.	134.	2.10-2	.30-1	1	3	0.00	.01

FILE JOINT6.6.A
RECORD FORMAT: D-S

1.145	413.96	-780.74	139.86	94.	162.	.10-1	.97-0 2 4	0.00	-9.99
1.179	409.52	-782.54	137.62	101.	169.	.06-2	.08-2 3 4	0.00	.26
1.193	407.89	-783.20	136.80	106.	138.	.16-2	.39-1 2 3	0.00	.09
2.035	400.43	-786.66	133.98	95.	162.	.21-1	.24-0 3 4	0.00	-9.99
2.044	399.00	-787.34	133.46	102.	149.	.07-2	.50-0 3 3	0.00	.18
2.062	394.38	-789.52	131.81	99.	170.	.14-2	.33-1 4 3	0.00	.57
4.016	362.22	-804.36	118.45	96.	149.	.18-1	.65-2 2 3	0.00	-9.99
4.057	354.81	-807.96	115.84	99.	160.	.09-0	.14-0 2 3	0.00	1.02
4.062	353.35	-808.67	115.33	100.	135.	.28-0	.30-0 2 3	0.00	.20
5.011	340.83	-814.98	111.32	95.	134.	.20-1	.25-2 1 3	0.00	-9.99
5.036	322.30	-824.80	106.27	106.	147.	.35-1	1.50-0 2 3	0.00	3.34

FILE JOINT6.6.B
RECORD FORMAT: D-S

1.032	428.55	-774.85	147.21	94.	9.	.05-2	.20-0 2 3	0.00	-9.99
2.050	397.53	-788.03	132.94	87.	12.	.02-2	.15-0 3 3	0.00	-9.99
2.066	393.89	-789.76	131.63	89.	4.	.05-2	.25-0 3 3	0.00	2.29
2.118	384.34	-794.28	128.20	93.	23.	.45-1	.47-1 2 3	8.53	5.98
4.064	353.06	-808.81	115.23	86.	4.	.28-0	.25-0 2 3	0.00	-9.99

FILE JOINT6.6.C1
RECORD FORMAT: D-S

1.002	431.65	-773.60	148.78	76.	105.	.15-1	2.50-2 2 4	0.00	-9.99
1.004	431.32	-773.73	148.61	85.	104.	.25-1	2.70-2 2 3	0.00	.31
1.006	431.24	-773.76	148.57	85.	112.	.11-1	.91-0 2 3	0.00	.08
1.007	431.14	-773.80	148.52	82.	108.	.10-1	1.00-1 2 3	0.00	.09
1.008	430.99	-773.87	148.44	93.	106.	.07-0	.87-0 2 3	0.00	.14
1.010	430.79	-773.98	148.30	92.	112.	.20-0	2.92-0 2 3	0.00	.27
1.011	430.61	-774.02	148.25	85.	99.	.15-0	1.60-1 2 3	0.00	.08
1.013	430.33	-774.05	148.21	84.	103.	.12-0	3.30-2 2 3	0.00	.08
1.015	430.28	-774.15	148.09	81.	104.	.57-1	3.07-2 2 3	0.00	.23
1.017	429.84	-774.33	147.86	74.	102.	.52-1	1.90-2 2 3	0.00	.42
1.018	429.76	-774.36	147.82	79.	94.	.23-1	1.58-1 2 3	0.00	.08
1.020	429.62	-774.42	147.75	84.	104.	.39-1	2.22-2 3 3	0.00	.13
1.022	429.49	-774.47	147.69	84.	102.	.24-2	2.20-2 3 4	0.00	.12
1.024	429.24	-774.57	147.56	73.	105.	.10-2	2.35-2 4 3	0.00	.24
1.026	428.92	-774.70	147.40	82.	106.	.32-2	1.35-1 2 3	0.00	.30
1.027	428.90	-774.71	147.39	74.	105.	.11-2	1.38-1 2 3	0.00	.02
1.028	428.82	-774.74	147.35	73.	106.	.10-2	1.84-1 2 3	0.00	.08
1.030	428.70	-774.79	147.29	76.	105.	.09-2	2.12-1 2 3	0.00	.11
1.031	428.62	-774.82	147.25	78.	103.	.08-2	2.09-2 2 3	0.00	.08
1.033	428.40	-774.91	147.14	71.	109.	.08-2	2.30-2 2 3	0.00	.21
1.034	428.22	-774.98	147.05	72.	107.	.04-2	2.29-1 2 4	0.00	.17
1.036	428.13	-775.02	147.00	70.	110.	.02-2	.88-0 2 4	0.00	.09
1.038	428.00	-775.07	146.94	81.	106.	.30-2	2.50-1 3 3	0.00	.12
1.039	427.95	-775.09	146.91	76.	109.	.30-2	1.60-1 3 3	0.00	.05
1.041	427.66	-775.21	146.77	81.	118.	.26-1	2.91-2 3 3	0.00	.27
1.043	427.48	-775.28	146.67	79.	118.	.15-2	1.22-1 3 3	0.00	.17
1.044	427.31	-775.35	146.59	79.	114.	.23-2	1.06-0 3 3	0.00	.16
1.045	427.22	-775.39	146.54	78.	114.	.06-2	.71-0 4 3	0.00	.08
1.046	427.03	-775.46	146.45	86.	114.	.10-2	.82-0 3 4	0.00	.18
1.047	426.60	-775.64	146.23	73.	97.	.06-2	.49-0 3 3	0.00	.40
1.049	426.41	-775.71	146.14	83.	113.	.19-2	.75-0 2 3	0.00	.18
1.052	424.99	-776.29	145.42	80.	110.	.27-2	2.30-2 3 3	0.00	1.33
1.054	424.48	-776.49	145.16	75.	110.	.07-2	.34-0 2 3	0.00	.48
1.055	424.43	-776.52	145.14	85.	93.	.06-2	1.02-0 3 4	0.00	.04

1.057	424.31	-776.57	145.07	89.	93.	.04-2	.64-0	2	3	0.00	.12
1.059	424.16	-776.62	145.00	88.	96.	.03-2	.65-0	2	3	0.00	.14
1.060	424.11	-776.64	144.98	80.	96.	.07-2	.33-0	3	3	0.00	.05
1.062	423.85	-776.75	144.85	85.	98.	.23-2	1.36-2	2	3	0.00	.24
1.064	423.22	-777.00	144.53	89.	100.	.21-2	2.28-2	1	4	0.00	.59
1.065	423.01	-777.09	144.42	71.	100.	.17-2	2.17-2	5	4	0.00	.20
1.066	422.81	-777.17	144.32	78.	104.	.10-2	1.72-1	1	3	0.00	.19
1.068	422.53	-777.28	144.18	83.	102.	.16-1	.69-0	3	3	0.00	.26
1.069	422.42	-777.33	144.13	80.	100.	.14-2	1.61-1	3	3	0.00	.10
1.071	422.06	-777.47	143.94	70.	115.	.11-2	2.45-2	3	3	0.00	.34
1.075	421.52	-777.69	143.67	60.	109.	.09-2	.52-0	2	3	0.00	.51
1.076	431.42	-777.73	143.62	67.	116.	.18-2	.41-0	3	3	0.00	.09
1.078	421.35	-777.76	143.58	99.	114.	.05-2	.39-0	5	3	0.00	.07
1.079	420.77	-777.99	143.29	72.	111.	.14-2	2.30-2	2	3	0.00	.55
1.084	419.92	-778.34	142.87	119.	102.	.08-2	1.59-1	3	5	0.00	.79
1.086	419.67	-778.44	142.74	115.	107.	.22-2	.69-1	3	3	0.00	.24
1.088	419.32	-778.58	142.56	116.	101.	.15-2	.19-0	2	3	0.00	.33
1.091	419.12	-778.66	142.46	65.	106.	.15-1	.19-2	1	4	0.00	.19
1.092	418.99	-778.71	142.40	60.	108.	.16-2	.28-2	3	4	18.43	.12
1.096	418.36	-778.97	142.08	56.	98.	.09-2	1.08-2	3	4	0.00	.59
1.098	417.92	-779.14	141.86	62.	101.	.06-2	.36-0	2	4	0.00	.41
1.099	417.85	-779.17	141.82	64.	102.	.02-2	.11-0	1	3	0.00	.07
1.101	417.69	-779.24	141.74	60.	98.	.07-2	.32-0	3	4	0.00	.15
1.103	417.56	-779.29	141.68	78.	96.	.03-2	.41-0	2	3	0.00	.12
1.106	417.24	-779.42	141.51	75.	101.	.04-2	.48-0	3	3	0.00	.30
1.107	417.15	-779.46	141.47	74.	93.	.03-2	.38-0	2	4	0.00	.08
1.111	416.86	-779.57	141.32	72.	102.	.05-1	.24-0	3	4	0.00	.28
1.112	416.78	-779.64	141.28	80.	111.	.11-2	.24-0	2	3	0.00	.07
1.115	416.46	-779.73	141.12	79.	99.	.02-2	.30-0	1	3	0.00	.30
1.116	416.37	-779.77	141.08	63.	114.	.04-2	.31-0	3	4	0.00	.08
1.117	416.28	-779.81	141.03	90.	108.	.09-2	.87-0	3	4	0.00	.08
1.118	416.23	-779.83	141.00	76.	93.	.07-2	.52-0	3	3	0.00	.05
1.119	416.15	-779.86	140.97	68.	102.	.04-1	.26-0	1	3	0.00	.07
1.121	416.03	-779.91	140.90	63.	109.	.07-2	.23-1	2	3	0.00	.12
1.122	416.01	-779.92	140.90	66.	112.	.07-2	.27-2	1	4	0.00	.01
1.130	415.15	-780.27	140.46	78.	105.	.09-2	.27-1	2	3	0.00	.81
1.143	414.06	-780.71	139.91	85.	100.	.04-2	.28-0	3	3	0.00	1.02
1.150	413.20	-781.05	139.48	88.	99.	.11-2	1.11-0	3	3	0.00	.81
1.151	413.15	-781.07	139.46	99.	117.	.04-2	.97-1	3	3	0.00	.05
1.154	413.02	-781.12	139.39	88.	125.	.06-2	1.14-0	2	3	0.00	.12
1.153	412.52	-781.20	139.29	84.	106.	.04-2	1.04-0	2	4	0.00	.19
1.156	412.59	-781.30	139.17	69.	105.	.05-2	.87-1	3	3	0.00	.22
1.157	412.53	-781.32	139.14	71.	103.	.08-2	.81-1	2	3	0.00	.06
1.158	412.45	-781.35	139.10	78.	93.	.16-2	.78-1	1	5	8.75	.08
1.161	411.74	-781.64	138 74	50.	115.	.02-2	.82-1	3	3	0.00	.67
1.163	411.50	-781.74	138.62	56.	104.	.05-2	.50-0	3	3	0.00	.22
1.165	411.28	-781.83	138.51	54.	124.	.05-2	.30-1	1	3	0.00	.21
1.168	410.95	-781.96	138.34	53.	108.	.01-2	.60-2	2	3	0.00	.31
1.170	410.66	-782.05	138.20	70.	104.	.04-2	.13-2	2	4	0.00	.27
1.173	410.40	-782.18	138.07	73.	94.	.02-2	.65-0	2	4	0.00	.25
1.175	410.21	-752.26	137.97	76.	123.	.03-2	.90-0	2	3	0.00	.18
1.176	410.00	-782.35	137.86	70.	95.	.03-2	1.52-2	2	3	0.00	.20
1.177	409.71	-752.46	137.72	63.	103.	.01-2	.46-1	2	3	0.00	.27
1.178	407.50	-782.51	137.65	65.	112.	.01-2	.15-0	1	3	0.00	.12
1.183	408.65	-782.89	137.18	93.	99.	.07-2	.79-1	2	3	0.00	.87
1.185	408.51	-782.75	137.12	99.	105.	.04-2	.26-0	2	3	0.00	.13
1.186	405.47	-782.96	137.09	100.	102.	.03-2	.19-0	2	3	0.00	.04
1.187	408.45	-782.97	137.08	101.	101.	.07-2	.29+0	1	3	0.00	.02
1.190	405.15	-783.09	136.94	91.	103.	.06-2	.81-1	2	3	0.00	.28
1.191	408.08	-783.12	136.90	101.	107.	.11-2	.77-0	2	3	0.00	.07

2.002	406.64	-783.72	136.21	104.	112.	.03-2	.54-1	2	3	0.00	-9.99
2.004	406.53	-783.77	136.17	94.	106.	.07-2	.53-1	2	3	0.00	.10
2.006	406.34	-783.86	136.10	92.	105.	.10-2	.62-1	3	4	0.00	.17
2.007	406.07	-733.99	136.01	90.	94.	.06-2	1.33-2	1	3	0.00	.23
2.011	405.86	-784.09	135.93	95.	106.	.05-2	1.35-2	3	3	0.00	.18
2.014	405.53	-784.25	135.81	93.	104.	.19-2	1.41-2	3	3	0.00	.29
2.017	405.42	-784.30	135.77	84.	119.	.30-2	.25-0	2	3	0.00	.10
2.017	405.10	-784.45	135.66	84.	95.	.02-2	.32-1	2	3	0.00	.28
2.018	405.08	-784.46	135.65	85.	113.	.02-2	.58-1	1	3	0.00	.02
2.021	403.87	-785.03	135.22	122.	100.	.79-2	.79-0	3	4	0.00	1.05
2.024	402.43	-785.71	134.70	94.	115.	.29-2	.23-1	2	3	0.00	1.25
2.026	402.27	-785.79	134.64	103.	101.	.01-2	1.45-1	2	3	0.00	.14
2.029	401.56	-786.13	134.38	94.	109.	.03-2	.68-0	2	3	0.00	.62
2.045	398.86	-757.40	133.42	80.	116.	.04-2	.20-0	3	3	0.00	2.34
2.046	398.30	-787.67	133.21	77.	125.	.06-2	.62-1	1	3	0.00	.49
2.049	397.60	-788.00	132.96	55.	121.	.06-2	.93-1	3	3	0.00	.61
2.057	395.55	-788.97	132.23	62.	93.	.03-2	.37-1	3	3	0.00	1.78
2.060	394.57	-789.43	131.88	58.	104.	.06-2	.17-0	1	4	0.00	.85
2.067	393.78	-759.81	131.59	81.	100.	.13-2	.79-0	3	3	0.00	.69
2.068	393.58	-789.91	131.52	85.	106.	.09-2	1.22-1	4	3	0.00	.17
2.069	393.35	-790.00	131.45	67.	104.	.21-2	1.68-2	3	4	0.00	.17
2.099	387.22	-792.92	129.23	109.	99.	.15-2	.74-0	2	3	0.00	5.34
2.102	386.67	-793.17	129.04	105.	107.	.19-2	.71-0	3	3	0.00	.48
2.121	383.71	-794.57	127.98	110.	79.	.06-2	1.20-2	4	3	0.00	2.57
3.007	381.47	-795.59	127.00	85.	95.	.04-2	.77-0	3	3	0.00	-9.99
3.053	373.71	-798.87	122.82	66.	108.	.04-2	.71-1	2	4	0.00	7.34
4.012	362.85	-804.05	118.68	88.	109.	.20-0	.60-1	2	3	0.00	-9.99
4.040	356.93	-806.93	116.59	114.	116.	.08-1	.30-0	2	3	0.00	5.10
4.044	356.40	-807.19	116.40	109.	104.	.10-1	1.00-0	2	3	0.00	.46
4.061	353.40	-808.65	115.33	102.	104.	.28-0	.60-0	1	3	0.00	2.58
4.063	353.15	-808.77	115.26	98.	117.	.28-0	.50-0	2	3	0.00	.22
5.015	337.95	-816.51	110.54	105.	110.	.10-0	.70-1	2	3	0.00	-9.99
5.024	334.48	-818.35	109.59	88.	103.	.05-1	.35-0	1	3	0.00	2.84
5.028	330.84	-820.27	108.60	96.	110.	.14-1	.20-1	1	3	0.00	2.99
5.031	327.29	-822.15	107.63	75.	93.	.10-1	3.20-2	1	3	0.00	2.91
5.032	326.76	-822.44	107.48	84.	93.	.10-1	3.20-2	3	3	0.00	.43
5.033	325.51	-823.10	107.14	78.	121.	.10-1	.20-2	3	3	0.00	1.02
6.011	317.13	-827.43	105.11	110.	100.	.20-1	1.80-2	2	3	0.00	-9.99
6.015	315.45	-828.27	104.77	86.	95.	.15-1	2.15-2	2	3	0.00	1.35

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RECORD FORMAT: D-S

1.042	427.60	-775.23	146.74	67.	82.	.17-1	.54-1	2	3	0.00	-9.99
1.056	424.40	-776.53	145.13	86.	8	.02-2	.19-0	2	3	0.00	3.77
1.058	424.23	-776.60	145.04	84.	90.	.05-2	.83-0	3	4	0.00	.20
1.072	421.99	-777.50	143.91	64.	82.	.10-2	1.09-1	2	3	0.00	2.64
1.073	421.88	-777.55	143.85	62.	76.	.06-2	1.07-1	3	3	0.00	.13
1.074	421.57	-777.67	143.70	69.	70.	.06-0	.32-2	2	3	0.00	.36
1.082	420.33	-778.17	143.07	110.	70.	.35-0	.91-1	2	4	8.13	1.46
1.090	419.17	-778.64	142.49	122.	85.	.32-2	.32-1	4	4	0.00	1.37
1.102	417.59	-779.28	141.69	61.	80.	.10-2	.42-0	2	4	0.00	1.86
1.105	417.33	-779.38	141.56	77.	59.	.11-1	.40-0	1	3	0.00	.30
1.109	417.01	-779.51	141.40	82.	78.	.01-1	.27-0	1	3	0.00	.38
1.113	416.56	-779.69	141.17	82.	76.	.13-2	.42-0	1	3	0.00	.53
1.123	415.94	-779.95	140.86	85.	92.	.02-2	.90-1	1	3	0.00	.73
1.125	415.70	-780.04	140.74	75.	84.	.17-1	1.31-1	3	4	0.00	.28
1.126	415.60	-780.08	140.69	79.	86.	.02-2	.78-1	3	4	0.00	.12
1.128	415.26	-780.22	140.51	83.	64.	.10-2	.39-0	2	3	0.00	.40

1.134	414.76	-780.42	140.76	77.	75.	.07-2	.16-0	3	4	0.00	.59
1.135	414.68	-780.45	140.22	76.	86.	.13-2	.31-0	2	4	0.00	.09
1.136	414.59	-780.49	140.18	90.	86.	.09-2	.18-0	2	3	0.00	.11
1.137	414.52	-780.52	140.14	56.	86.	.02-2	.30-0	2	3	0.00	.08
1.139	414.45	-780.55	140.11	113.	52.	.03-2	.31-0	3	4	0.00	.08
1.140	414.40	-780.57	140.08	81.	84.	.02-2	.26-0	2	4	0.00	.06
1.141	414.20	-780.65	139.98	74.	54.	.11-2	.24-0	3	3	0.00	.24
1.148	413.47	-780.94	139.61	73.	50.	.06-2	.36-0	2	3	0.00	.86
1.155	412.65	-781.27	139.20	98.	91.	.07-2	.13-0	2	4	0.00	.97
1.162	411.51	-781.74	138.62	91.	96.	.03-2	.72-1	4	3	0.00	1.35
1.180	408.99	-782.75	137.36	116.	95.	.07-2	.14-2	3	4	0.00	2.96
1.181	408.81	-782.82	137.27	102.	83.	.04-2	.49-0	2	4	0.00	.21
1.182	408.71	-782.86	137.22	104.	92.	.05-2	.27-0	2	3	0.00	.12
1.184	408.64	-782.89	137.18	94.	96.	.14-2	.19-0	2	3	0.00	.08
1.188	408.29	-783.04	137.00	103.	84.	.03-2	1.26-2	3	3	0.00	.42
1.195	407.59	-783.32	136.65	96.	72.	.19-2	.64-0	2	4	0.00	.82
1.196	407.27	-783.45	136.49	94.	59.	.04-2	.38-0	3	4	0.00	.38
1.198	407.03	-783.54	136.37	104.	81.	.01-2	.41-0	3	4	0.00	.28
2.001	406.86	-783.61	136.29	84.	61.	.04-2	.53-0	2	3	0.00	-9.99
2.009	405.93	-784.06	135.96	91.	93.	.06-2	1.01-1	2	4	0.00	1.08
2.016	405.16	-784.42	135.68	86.	81.	.01-2	.10-0	1	3	0.00	.89
2.022	403.04	-785.42	134.92	116.	70.	.06-2	.36-0	1	4	0.00	2.45
2.028	01.86	-785.99	134.49	102.	59.	.01-2	.52-0	2	3	0.00	1.37
2.030	401.53	-786.14	134.38	93.	56.	.05-2	.71-0	2	3	0.00	.38
2.031	401.25	-786.27	134.27	91.	79.	.04-2	.13-1	3	3	0.00	.33
2.033	400.90	-786.44	134.15	107.	96.	.35-2	2.05-2	3	3	0.00	.40
2.038	400.07	-786.83	133.85	71.	73.	.18-2	.18-0	3	4	0.00	.96
2.041	399.71	-787.00	133.72	91.	64.	.18-2	.65-1	4	4	0.00	.42
2.047	398.13	-787.75	133.15	103.	88.	.09-2	.27-0	2	4	0.00	1.83
2.051	396.64	-788.45	132.62	101.	66.	.03-2	.72-2	1	3	0.00	1.72
2.052	396.01	-788.76	132.39	75.	73.	.05-2	.53-1	1	3	0.00	.73
2.054	395.92	-788.79	132.36	76.	36.	.05-2	.40-0	4	4	0.00	.10
2.061	394.42	-789.50	131.82	56.	83.	.11-2	.38-1	2	4	0.00	1.74
2.064	394.26	-789.58	131.76	103.	88.	.18-2	.63-1	2	3	0.00	.19
2.065	394.00	-789.70	131.67	87.	84.	.03-2	.75-1	3	3	0.00	.30
2.070	393.02	-790.17	131.32	73.	89.	.04-2	.38-1	3	3	0.00	1.14
2.071	392.85	-790.25	131.26	70.	91.	.07-2	.08-1	3	3	0.00	.20
2.072	392.61	-790.36	131.17	71.	91.	.04-2	.49-0	3	3	0.00	.28
2.074	392.46	-790.43	131.12	68.	80.	.09-2	.77-1	3	3	0.00	.17
2.075	392.40	-790.46	131.09	74.	92.	.06-2	1.07-2	2	3	0.00	.07
2.077	391.84	-790.73	130.89	62.	83.	.02-2	.52-0	2	3	0.00	.65
2.078	391.62	-790.83	130.82	64.	88.	.08-2	.68-1	2	3	0.00	.25
2.079	391.08	-791.09	130.62	75.	77.	.03-2	.63-1	2	3	0.00	.63
2.080	390.89	-791.18	130.55	79.	83.	.03-2	1.28-2	2	3	0.00	.22
2.081	390.77	-791.24	130.51	72.	70.	.03-2	.33-0	2	3	0.00	.14
2.082	390.72	-791.26	130.49	66.	76.	.02-2	.72-1	2	3	0.00	.06
2.084	390.62	-791.31	130.46	60.	85.	.02-2	.69-0	2	3	0.00	.11
2.085	390.53	-791.35	130.42	76.	74.	.02-2	.50-1	3	3	0.00	.11
2.089	388.96	-792.09	129.86	93.	94.	.01-2	.20-0	1	3	0.00	1.81
2.093	388.56	-792.28	129.72	116.	66.	.09-1	.30-1	3	4	0.00	.46
2.095	387.67	-792.70	129.40	102.	85.	.15-2	1.61-2	3	3	0.00	1.03
2.097	387.46	-792.80	129.32	103.	88.	.07-2	1.67-2	2	4	0.00	.24
2.105	386.14	-793.43	128.85	111.	86.	.18-2	1.20-2	2	4	0.00	1.53
2.107	385.88	-793.55	128.75	107.	82.	.04-0	.18-1	2	3	0.00	.30
2.110	385.47	-793.74	128.61	90.	80.	.05-2	.87-1	2	3	0.00	.47
2.112	385.04	-793.95	128.45	107.	67.	.26-1	.57-0	2	4	0.00	.50
2.115	384.76	-794.08	128.35	108.	81.	.03-2	.16-0	2	3	0.00	.32
2.116	384.71	-794.10	128.33	86.	83.	.02-1	.25+0	2	3	0.00	.06
2.119	384.13	-794.38	128.12	102.	83.	.39-2	1.30-1	3	3	0.00	.67
2.123	383.35	-794.75	127.85	99.	78.	.08-2	1.00-1	2	3	0.00	.90

2.125	383.22	-794.81	127.80	105.	87.	.05-1	.65-1	2	4	0.00	.15
2.126	383.04	-794.89	127.73	105.	96.	.09-2	.23-0	2	4	0.00	.21
2.128	382.97	-794.93	127.71	75.	84.	.09-1	.37-0	2	4	0.00	.08
2.129	382.92	-794.95	127.69	98.	84.	.05-1	.13-2	2	3	0.00	.06
3.004	381.94	-795.39	127.25	118.	68.	.12-2	.34-0	2	3	0.00	-9.99
3.009	380.92	-795.82	126.70	80.	88.	.09-2	.82-1	2	3	0.00	1.22
3.010	380.66	-795.93	126.57	96.	78.	.26-2	1.45-2	3	4	0.00	.31
3.011	380.57	-795.97	126.52	110.	96.	.02-2	.42-0	3	3	0.00	.11
3.013	380.31	-796.08	126.37	108.	54.	.06-2	1.00-2	2	3	0.00	.31
3.016	379.46	-796.44	125.92	97.	84.	.09-1	.33-2	2	3	0.00	1.01
3.019	378.86	-796.70	125.60	98.	74.	.05-2	.86-0	2	3	0.00	.72
3.020	378.65	-796.79	125.48	93.	78.	.11-1	1.18-2	4	3	0.00	.25
3.022	378.38	-796.90	125.34	76.	91.	.01-2	.50-0	2	3	0.00	.32
3.023	378.34	-796.91	125.32	75.	83.	.01-2	.41-0	2	3	0.00	.05
3.024	377.95	-797.08	125.11	85.	73.	.06-2	1.65-1	4	3	0.00	.47
3.025	377.50	-797.27	124.86	95.	87.	.13-1	.54-0	2	3	0.00	.54
3.026	377.41	-797.31	124.81	114.	84.	.09-2	1.70-1	3	3	0.00	.11
3.028	377.14	-797.42	124.67	96.	90.	.01-2	.65-1	2	3	0.00	.32
3.029	377.07	-797.45	124.63	93.	93.	.02-2	.71-0	2	3	0.00	.08
3.030	377.00	-797.48	124.60	101.	83.	.01-2	1.16-0	2	3	0.00	.08
3.032	376.87	-797.54	124.52	100.	89.	.16-2	1.35-1	2	4	0.00	.16
3.034	376.74	-797.59	124.46	113.	95.	.11-1	.53-0	2	3	0.00	.15
3.035	376.52	-797.68	124.34	104.	75.	1.34-2	1.01-0	3	4	0.00	.26
3.036	376.41	-797.73	124.28	104.	79.	.05-2	1.76-2	3	3	0.00	.13
3.037	376.29	-797.78	124.21	96.	78.	.02-2	.04-0	2	4	0.00	.14
3.038	376.20	-797.82	124.17	90.	85.	.07-2	.26-0	2	3	0.00	.11
3.039	376.19	-797.83	124.16	100.	79.	.04-2	.12-1	2	3	0.00	.02
3.040	375.92	-797.94	124.01	100.	77.	.14-2	.04-0	1	3	0.00	.32
3.042	375.79	-797.99	123.94	99.	79.	.05-2	.47-1	3	3	0 00	.15
3.044	375.35	-798.18	123.71	95.	88.	.25-2	1.56-2	2	4	0.00	.52
3.045	375.08	-798.30	123.56	107.	84.	.02-2	1.09-2	3	3	0.00	.33
3.047	374.75	-798.43	123.38	107.	83.	.17-2	1.64-2	3	4	0.00	.39
3.048	374.64	-798.48	123.33	101.	77.	.19-2	.71-0	1	4	0.00	.13
3.049	374.55	-798.52	123.28	102.	78.	.25-1	.46-1	2	3	0.00	.11
3.050	374.40	-798.58	123.19	101.	82.	.02-2	.36-1	3	3	0.00	.18
3.052	374.22	-798.66	123.10	111.	84.	.03-2	.67-0	4	3	0.00	.21
3.053	374.09	-798.71	123.03	92.	85.	.01-2	.86-1	2	3	0.00	.15
3.056	373.61	-798.91	122.77	108.	86.	.10-2	1.61-2	3	4	0.00	.57
3.059	373.42	-799.00	122.67	104.	73.	.03-2	.87-0	2	3	0.00	.23
3.060	373.37	-799.02	122.64	105.	77.	.02-2	1.11-1	2	3	0.00	.06
3.061	373.10	-799.13	122.49	113.	91.	.09-2	.97-0	2	3	0.00	.32
3.062	373.05	-799.15	122.47	113.	91.	.01-2	.40-0	2	3	0.00	.06
3.065	372.86	-799.23	122.37	122.	96.	.04-2	1.26-2	2	3	0.00	.23
3.066	372.84	-799.24	122.35	104.	62.	.02-1	.21-0	2	3	0.00	.03
4.001	371.89	-799.65	121.87	100.	88.	.15-2	1.50-2	1	3	0.00	-9.99
4.002	371.79	-799.70	121.83	98.	85.	.15-2	1.40-2	2	3	0.00	.12
4.006	367.07	-802.00	120.16	113.	79.	.17-2	.61-2	2	3	0.00	5.47
4.007	365.37	-802.82	119.57	91.	66.	.18-0	.60-1	2	3	0.00	1.96
4.009	363.24	-803.86	118.81	93.	62.	.20-0	.70-0	1	3	0.00	2.47
4.011	362.91	-804.02	118.70	87.	59.	.20-0	.70-1	2	3	0.00	.38
4.019	359.03	-805.91	117.33	108.	91.	.15-0	2.00-2	2	3	0.00	4.50
4.020	358.89	-805.98	117.28	94.	83.	.15-0	1.80-2	2	3	0.00	.16
4.022	358.62	-806.11	117.19	104.	93.	.30-0	1.20-1	2	3	0.00	.31
4.023	358.57	-806.13	117.17	91.	79.	.06-2	.95-1	2	3	0.00	.06
4.025	358.44	-806.19	117.13	91.	59.	.15-0	.65-0	2	3	0.00	.15
4.026	358.33	-806.25	117.08	98.	86.	.15-0	.51-0	2	3	0.00	.13
4.028	358.15	-806.34	117.02	91.	71.	.16-0	0.00-2	2	3	0.00	.21
4.029	357.92	-806.45	116.94	78.	62.	.10-0	.60-0	2	3	0.00	.27
4.031	357.82	-806.50	116.91	105.	87.	.10-0	1.40-2	2	3	0.00	.11
4.032	357.75	-806.53	116.88	111.	81.	.10-0	1.40-2	2	3	0.00	.08

4.034	357.58	-806.62	116.82	104.	93.	.74-0	1.20-1	2	3	0.00	.20
4.036	357.35	-806.73	116.74	89.	86.	.24-0	.20-0	1	3	0.00	.27
4.038	357.06	-806.87	116.64	95.	61.	.20-1	.80-2	3	3	0.00	.34
4.041	356.78	-807.00	116.54	96.	84.	.08-1	.45-0	2	3	0.00	.32
4.042	356.73	-807.03	116.52	96.	89.	.08-1	.80-1	2	3	0.00	.06
4.043	356.60	-807.09	116.47	106.	91.	.40-1	1.70-2	2	3	0.00	.15
4.046	356.11	-807.33	116.30	86.	67.	.08-0	.30-2	1	3	0.00	.57
4.047	356.08	-807.35	116.29	101.	91.	.18-0	.65-2	2	3	0.00	.04
4.049	355.78	-807.49	116.19	95.	95.	.18-0	1.20-1	1	3	0.00	.34
4.050	355.53	-807.61	116.10	104.	93.	.20-0	2.20-2	1	3	0.00	.29
4.052	355.35	-807.70	116.03	107.	95.	.17-0	1.75-1	1	3	0.00	.21
4.053	355.08	-807.83	115.94	86.	55.	.18-0	.60-2	2	3	0.00	.31
4.055	354.98	-807.88	115.90	86.	64.	.18-0	.50-1	2	3	0.00	.12
4.056	354.90	-807.92	115.88	104.	92.	.18-0	1.30-1	2	3	0.00	.09
4.059	354.73	-808.00	115.82	94.	82.	.12-1	.80-1	2	3	0.00	.20
4.060	354.61	-808.06	115.97	108.	54.	.08-1	.80-1	2	3	0.00	.14
4.065	352.85	-808.91	115.15	98.	80.	.28-0	.70-0	2	3	0.00	2.04
4.067	352.38	-809.14	114.99	99.	85.	.30-0	1.50-2	2	3	0.00	.54
4.068	351.40	-809.62	114.90	94.	68.	.12-0	1.10-2	2	3	0.00	1.06
4.069	350.75	-809.94	114.44	98.	79.	.12-0	.70-0	1	3	0.00	.82
4.070	350.67	-809.98	114.39	96.	69.	.12-0	1.50-2	2	3	0.00	.10
4.073	349.92	-810.34	114.12	87.	67.	.12-0	1.90-2	1	3	0.00	.87
4.075	349.44	-810.58	113.95	91.	69.	.25-0	2.20-2	2	3	0.00	.56
4.076	349.05	-810.77	113.81	95.	80.	.25-0	1.50-1	2	3	0.00	.45
4.078	348.60	-810.98	113.66	87.	64.	.14-1	.70-1	2	3	0.00	.52
4.082	347.91	-811.32	113.41	95.	55.	.20-1	1.20-2	2	3	0.00	.80
4.084	346.85	-811.84	113.04	92.	88.	.20-2	.70-2	2	3	0.00	1.23
4.085	346.76	-811.88	113.01	96.	79.	.25-2	1.85-2	2	3	0.00	.10
5.001	345.68	-812.42	112.64	75.	64.	.04-1	1.00-2	1	3	0.00	-9.99
5.005	344.09	-813.26	112.21	84.	65.	.30-1	2.20-2	1	3	0.00	1.82
5.007	343.59	-813.52	112.07	70.	72.	.30-0	2.20-2	1	3	0.00	.57
5.010	341.93	-814.40	111.62	84.	70.	.30-1	2.34-2	3	3	0.00	1.91
5.017	337.75	-816.62	110.48	75.	74.	.30-1	3.00-2	2	3	0.00	4.80
5.019	336.94	-817.05	110.26	99.	64.	.20-1	1.00-1	3	3	0.00	.93
5.020	336.64	-817.18	110.19	104.	63.	.20-1	.40-1	2	3	0.00	.30
5.023	334.74	-818.21	109.66	90.	72.	.06-1	1.20-1	3	3	0.00	2.23
5.025	334.40	-818.39	109.57	70.	74.	.10-1	1.00-1	3	3	0.00	.39
5.038	321.96	-824.98	106.17	84.	84.	.20-1	2.70-2	1	3	0.00	14.29
5.039	321.59	-825.18	106.07	94.	74.	.25-1	2.70-2	2	3	0.00	.43
5.040	321.35	-825.30	106.01	84.	90.	.20-1	2.40-2	3	3	0.00	.27
5.042	320.69	-825.65	105.83	106.	91.	.15-1	.50-1	3	3	0.00	.76
6.001	320.48	-825.76	105.78	84.	72.	.10-1	1.00-1	3	3	0.00	-9.99
6.003	320.17	-825.91	105.72	102.	84.	.12-0	.50-1	2	3	0.00	.34
6.006	319.18	-826.41	105.52	100.	50.	.10-1	.30-1	2	3	0.00	1.11
6.007	318.77	-826.61	105.44	90.	68.	.15-1	.40-1	3	3	0.00	.46
6.008	318.45	-826.77	105.37	80.	85.	.10-0	1.00-1	3	3	0.00	.36
6.009	316.87	-827.56	105.06	80.	84.	.20-1	1.50-2	2	3	0.00	1.76
6.013	316.67	-827.66	105.02	83.	90.	.20-0	2.10-2	1	3	0.00	.72
6.014	316.69	-827.65	105.02	84.	88.	.10-1	2.10-2	1	3	0.00	.02
6.016	315.35	-828.32	104.75	97.	90.	.10-1	1.10-1	1	3	0.00	1.50
6.017	315.97	-828.01	104.88	102.	84.	.14-1	1.10-2	3	3	0.00	.69
6.018	315.91	-828.04	104.87	88.	84.	.15-1	2.20-2	3	3	0.00	.07
6.020	315.47	-828.26	104.78	92.	66.	.15-1	1.00-1	1	3	0.00	.49

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1.002	375.93	-758.97	129.11	27.	108.	.08-2	.72-2	2	3	0.00	-9.99
1.003	375.85	-757.77	129.24	27.	93.	.30-2	.22-2	2	3	0.00	.25

4.034	357.58	-806.62	116.82	104.	93.	.74-0	1.20-1	2	3	0.00	.20
4.036	357.35	-806.73	116.74	89.	86.	.24-0	.20-0	1	3	0.00	.27
4.038	357.06	-806.87	116.64	95.	61.	.20-1	.80-2	3	3	0.00	.34
4.041	356.78	-807.00	116.54	96.	84.	.08-1	.45-0	2	3	0.00	.32
4.042	356.73	-807.03	116.52	96.	89.	.08-1	.80-1	2	3	0.00	.06
4.043	356.60	-807.09	116.47	106.	91.	.40-1	1.70-2	2	3	0.00	.15
4.046	356.11	-807.33	116.30	86.	67.	.08-0	.30-2	1	3	0.00	.57
4.047	356.08	-807.35	116.29	101.	91.	.18-0	.65-2	2	3	0.00	.04
4.049	355.78	-807.49	116.19	95.	95.	.18-0	1.20-1	1	3	0.00	.34
4.050	355.53	-807.61	116.10	104.	93.	.20-0	2.20-2	1	3	0.00	.29
4.052	355.35	-807.70	116.03	107.	95.	.17-0	1.75-1	1	3	0.00	.21
4.053	355.08	-807.83	115.94	86.	55.	.18-0	.60-2	2	3	0.00	.31
4.055	354.98	-807.88	115.90	86.	64.	.18-0	.50-1	2	3	0.00	.12
4.056	354.90	-807.92	115.88	104.	92.	.18-0	1.30-1	2	3	0.00	.09
4.059	354.73	-808.00	115.82	94.	82.	.12-1	.80-1	2	3	0.00	.20
4.060	354.61	-808.06	115.97	108.	54.	.08-1	.80-1	2	3	0.00	.14
4.065	352.85	-808.91	115.15	98.	80.	.28-0	.70-0	2	3	0.00	2.04
4.067	352.38	-809.14	114.99	99.	85.	.30-0	1.50-2	2	3	0.00	.54
4.068	351.40	-809.62	114.90	94.	68.	.12-0	1.10-2	2	3	0.00	1.06
4.069	350.75	-809.94	114.44	98.	79.	.12-0	.70-0	1	3	0.00	.82
4.070	350.67	-809.98	114.39	96.	69.	.12-0	1.50-2	2	3	0.00	.10
4.073	349.92	-810.34	114.12	87.	67.	.12-0	1.90-2	1	3	0.00	.87
4.075	349.44	-810.58	113.95	91.	69.	.25-0	2.20-2	2	3	0.00	.56
4.076	349.05	-810.77	113.81	95.	80.	.25-0	1.50-1	2	3	0.00	.45
4.078	348.60	-810.98	113.66	87.	64.	.14-1	.70-1	2	3	0.00	.52
4.082	347.91	-811.32	113.41	95.	55.	.20-1	1.20-2	2	3	0.00	.80
4.084	346.85	-811.84	113.04	92.	88.	.20-2	.70-2	2	3	0.00	1.23
4.085	346.76	-811.88	113.01	96.	79.	.25-2	1.85-2	2	3	0.00	.10
5.001	345.68	-812.42	112.64	75.	64.	.04-1	1.00-2	1	3	0.00	-9.99
5.005	344.09	-813.26	112.21	84.	65.	.30-1	2.20-2	1	3	0.00	1.82
5.007	343.59	-813.52	112.07	70.	72.	.30-0	2.20-2	1	3	0.00	.57
5.010	341.93	-814.40	111.62	84.	70.	.30-1	2.34-2	3	3	0.00	1.91
5.017	337.75	-816.62	110.48	75.	74.	.30-1	3.00-2	2	3	0.00	4.80
5.019	336.94	-817.05	110.26	99.	64.	.20-1	1.00-1	3	3	0.00	.93
5.020	336.68	-817.18	110.19	104.	63.	.20-1	.40-1	2	3	0.00	.30
5.023	334.74	-818.21	109.66	90.	72.	.06-1	1.20-1	3	3	0.00	2.23
5.025	334.40	-818.39	109.57	70.	74.	.10-1	1.00-1	3	3	0.00	.39
5.038	321.96	-824.98	106.17	84.	84.	.20-1	2.70-2	1	3	0.00	14.29
5.039	321.59	-825.18	106.07	94.	74.	.25-1	2.70-2	2	3	0.00	.43
5.040	321.35	-825.30	106.01	84.	90.	.20-1	2.40-2	3	3	0.00	.27
5.042	320.69	-825.65	105.83	106.	91.	.15-1	.50-1	3	3	0.00	.76
6.001	320.48	-825.76	105.78	84.	72.	.10-1	1.00-1	3	3	0.00	-9.99
6.003	320.17	-825.91	105.72	102.	84.	.12-0	.50-1	2	3	0.00	.34
6.006	319.18	-826.41	105.52	100.	50.	.10-1	.30-1	2	3	0.00	1.11
6.007	318.77	-826.61	105.44	90.	68.	.15-1	.40-1	3	3	0.00	.46
6.008	318.45	-826.77	105.37	80.	85.	.10-0	1.00-1	3	3	0.00	.36
6.009	316 87	-827.56	105.06	80.	84.	.20-1	1.50-2	2	3	0.00	1.76
6.013	316.67	-827.66	105.02	83.	90.	.20-0	2.10-2	1	3	0.00	.22
6.014	316.69	-827.65	105.02	84.	88.	.10-1	2.10-2	1	3	0.00	.02
6.016	315.35	-828.32	104.75	97.	90.	.10-1	1.10-1	1	3	0.00	1.50
6.017	315.97	-828.01	104.88	102.	84.	.14-1	1.10-2	3	3	0.00	.69
6.018	315.91	-828.04	104.87	88.	84.	.15-1	2.20-2	3	3	0.00	.07
6.020	315.47	-828.26	104.78	92.	66.	.15-1	1.00-1	1	3	0.00	.49

FILE JOINT6.7.BEDDING
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1.002	375.93	-758.97	129.11	27.	108.	.08-2	.72-2	2	3	0.00	-9.99
1.003	375.85	-757.77	129.24	27.	93.	.30-2	.22-2	2	3	0.00	.25

1.005	375.82	-757.27	129.29	13.	113.	.10-2	.54-2 2 3	0.00	.11
1.014	375.46	-752.06	129.83	10.	113.	1.28-2	8.30-2 3 4	5.44	1.13
1.017	375.25	-749.08	130.13	18.	87.	.36-2	1.60-2 2 3	0.00	.65
1.020	375.11	-747.03	130.35	25.	94.	.20-2	4.70-0 2 3	0.00	.44
1.021	375.00	-745.41	130.51	20.	99.	.06-2	.14-2 1 3	0.00	.26
1.023	374.85	-743.19	130.74	18.	89.	.21-2	2.00-1 2 3	0.00	.48
1.032	374.35	-736.03	131.48	27.	99.	.43-2	1.70-2 2 4	0.00	1.55
1.035	374.24	-734.45	131.65	28.	113.	.10-2	.32-2 2 3	0.00	.34
2.005	373.68	-728.52	132.17	15.	196.	.34-1	.25-1 2 3	0.00	-9.99
2.016	373.13	-724.55	132.43	22.	111.	.22-2	.70-2 2 3	0.00	.97
2.018	373.04	-723.76	132.49	20.	112.	.15-2	.85-2 2 3	0.00	.18
2.020	372.10	-716.70	132.96	13.	93.	.72-2	7.00-2 2 4	0.00	1.72
2.027	371.11	-709.29	133.45	3.	77.	1.27-2	3.42-2 2 4	0.00	1.81
3.004	369.90	-699.35	134.22	30.	187.	.80-1	.30-2 2 3	0.00	-9.99
3.007	369.85	-698.62	134.31	30.	180.	.07-2	.29-2 2 3	0.00	.14
3.014	369.20	-688.55	135.61	23.	175.	.56-2	.31-1 2 3	0.00	1.94
3.015	369.03	-685.91	135.95	15.	297.	.23-2	.26-1 2 4	0.00	.51
3.017	368.85	-683.12	136.31	4.	143.	.84-2	.80-2 3 4	6.71	.54
4.012	367.21	-662.32	139.06	9.	175.	1.95-2	1.84-2 2 4	5.86	-9.99
4.020	366.12	-651.74	140.52	10.	175.	1.25-2	1.30-2 2 4	0.00	1.90
4.024	365.74	-648.07	141.03	7.	119.	1.53-2	1.67-2 2 3	11.31	.66
4.029	365.39	-644.75	141.49	15.	114.	.81-2	1.05-2 2 3	0.00	.59
5.001	364.90	-640.80	142.03	22.	138.	.86-2	.55-2 2 3	4.86	-9.99
5.008	364.93	-640.28	142.08	12.	150.	.47-2	.86-2 2 4	0.00	.11
5.017	364.75	-638.69	142.26	9.	120.	.75-2	1.08-2 2 4	3.37	.32

FILE JOINT6.7.A
RECORD FORMAT: D-S

1.004	375.84	-757.61	129.25	113.	140.	.05-1	.34-1 2 3	0.00	-9.99
1.007	375.78	-756.77	129.34	103.	147.	.08-1	.31-1 2 3	0.00	.82
1.008	375.76	-756.46	129.37	82.	160.	.04-2	.19-1 2 3	0.00	.30
1.009	375.76	-756.39	129.38	90.	152.	.07-2	.21-1 2 3	0.00	.07
1.010	375.73	-756.04	129.41	100.	137.	.04-2	.28-1 2 3	0.00	.34
1.013	375.61	-754.25	129.60	92.	145.	.09-2	.81-0 2 3	0.00	1.74
1.016	375.50	-752.62	129.77	56.	162.	.02-2	.38-0 2 3	0.00	1.59
2.004	373.70	-728.71	132.16	116.	152.	.07-2	.26-0 2 4	0.00	-9.99
2.007	373.64	-728.29	132.19	105.	157.	.04-2	.31-0 2 3	0.00	.40
2.012	373.37	-726.22	132.32	109.	146.	.04-2	.35-0 1 3	0.00	1.98
2.030	370.58	-705.28	133.72	94.	157.	.05-2	.45-1 2 3	0.00	20.11
3.005	369.87	-698.96	134.27	86.	167.	.11-1	.33-2 2 3	8.75	-9.99
3.009	369.70	-696.25	134.62	104.	156.	.04-2	.26-1 2 3	0.00	2.66
3.023	368.33	-675.09	137.35	102.	163.	.02-2	.28-0 2 3	0.00	20.79
3.024	368.28	-674.25	137.46	72.	170.	.04-2	.26-0 2 3	0.00	.83
4.002	367.86	-668.57	138.20	100.	173.	.06-2	.41-0 3	0.00	-9.99
4.003	367.59	-666.03	138.55	96.	157.	.07-1	.65-1 2 3	0.00	2.50
4.003	367.47	-664.80	138.72	105.	156.	.04-1	.22-0 2 4	0.00	1.21
4.006	367.41	-664.28	138.79	100.	130.	.04-1	.23-0 3 3	0.00	.51
4.007	367.37	-664.08	138.82	97.	141.	.01-1	1.15-0 3 3	0.00	.20
4.009	367.30	-663.21	138.94	107.	155.	.04-2	.20-0 3 3	0.00	.06
4.010	367.23	-662.99	138.97	110.	139.	.06-2	.25-0 2 3	0.00	.22
4.011	367.24	-662.60	139.03	105.	153.	.05-2	.25-0 2 3	0.00	.39
4.018	366.45	-654.92	140.08	118.	178.	.07-2	.53-0 3 3	0.00	7.56
4.022	365.95	-650.16	140.74	120.	130.	.05-2	.35-0 3 3	0.00	4.69
4.027	365.30	-645.82	141.34	91.	180.	.04-1	.46-0 3 3	0.00	4.28
5.002	364.98	-640.77	142.03	102.	175.	.02-2	.43-0 2 3	0.00	-9.99
5.003	364.96	-640.58	142.05	105.	170.	.07-2	.52-0 2 3	0.00	.19
5.006	364.94	-640.44	142.07	99.	154.	.05-2	.56-0 2 4	0.00	.14
5.007	364.93	-640.37	142.08	92.	168.	.05-1	.22-1 2 3	0.00	.07

5.015	364.83	-639.39	142.18	109.	154.	.12-1	.29-1	2	3	0.00	.95

FILE JOINT6.7.B
RECORD FORMAT: D-S

1.006	375.78	-756.77	129.34	56.	40.	.08-1	.11-1	3	3	0.00	-9.99
2.023	371.21	-720.06	133.40	93.	17.	.02-1	.39-0	1	3	0.00	-9.99
3.010	369.41	-691.80	135.19	117.	42.	.07-2	.58-1	2	3	0.00	-9.99
3.025	368.26	- .00	137.49	75.	27.	.01-2	.29-0	2	3	0.00	14.26
4.015	366.55	-6. 89	139.95	68.	26.	.04-2	.20-0	2	3	0.00	-9.99
4.023	365.87	-649 36	140.85	45.	57.	.04-1	.75-0	2	3	0.00	5.14
4.028	365.4.	-645.00	141.45	64.	11.	.04-1	.48-0	3	3	0.00	3.43
5.004	364.94	-640.45	142.07	84.	11.	.02-2	.26-0	2	3	0.00	-9.99
5.010	364.90	-640.06	142.11	101.	19.	.04-2	.79-0	3	3	0.00	.30
5.011	364.87	-639	142.14	72.	26.	.09-2	1.00-1	3	4	0.00	.19
5.014	364.84	-639.	142.17	100.	46.	.15-1	.40-0	2	3	0.00	.25

FILE JOINT6.7.CI
RECORD FORMAT: D-S

1.001	375.98	-759.57	129.10	93.	86.	.05-2	.76-0	3	3	0.00	-9.99
1.011	375.75	-755.99	129.42	85.	90.	.09-2	.82-0	2	3	0.00	.26
1.012	375.66	-755.01	129.52	98.	92.	.09-2	.47-1	3	3	0.00	.07
1.018	375.52	-752.91	129.74	76.	73.	.03-2	1.11-0	3	3	0.00	.13
1.018	375.20	-748.39	130.21	87.	83.	.15-2	.7	3	3	0.00	.31
1.019	375.15	-747.64	130.28	97.	99.	.17-2	1.03-0	3	3	0.00	.05
1.022	374.83	-742.94	130.77	84.	81.	.02-2	.96-0	2	3	0.00	.31
1.024	374.77	-742.04	130 .5	111.	102.	.05-2	.54-0	3	3	0.00	.06
1.025	374.73	-741.44	130.92	65.	70.	.07-2	.34-0	2	3	0.00	.04
1.026	374.71	-741.17	130.95	115.	109.	.05-2	.64-0	2	3	0.00	.02
1.027	374.69	-740.87	130.98	60.	81.	.10-2	.67-1	2	3	0.00	.02
1.028	374.56	-738.97	131.18	103.	100.	.01-1	.82-0	2	3	0.00	.12
1.029	374.52	-733.52	131.2.	108.	107.	.03-1	.84-0	2	3	0.00	.04
1.030	374.41	-736.85	131.40	83.	93.	.03-1	.98-0	3	3	0.00	.11
1.031	374.37	-736.33	131.4.	87.	80.	.17-2	.72-2	2	3	0.00	.04
1.033	374.27	-734.82	131.61	76.	65.	.03-2	.69-0	1	3	0.00	.09
1.034	374.27	-734.82	131.61	92.	103.	.01-2	.94-0	1	3	0.00	0.00
2.001	373.97	-730.70	132.02	120.	112.	.07-1	.67-0	2	3	0.00	-9.99
2.002	373.89	-730.12	132.06	107.	103.	.03-2	.26-1	2	3	0.00	.08
2.003	373.77	-729.19	132.13	73.	78.	.03-2	2.20-0	2	3	0.00	.12
2.006	373.65	-728.30	132.18	82.	76.	.04-2	1.18-0	2	3	0.00	.13
2.008	373.62	-728.08	132.20	88.	107.	.03-2	1.25-0	2	3	0.00	.03
2.009	373.56	-727.63	132.23	102.	107.	.04-2	2.90-0	2	3	0.00	.06
2.010	373.52	-727.36	132.25	106.	118.	.03-2	1.00-0	2	3	0.00	.04
2.011	373.43	-726.65	132.29	104.	86.	.02-2	.48 0	1	3	0.00	.10
2.013	373.27	-723.48	132.37	95.	72.	.02-2	.90-0	2	3	0.00	.17
2.014	373.26	-725.40	132.38	102.	116.	.02-2	.68-0	2	3	0.00	.01
2.015	373.21	-725.04	132.40	126.	116.	.01-2	.36-0	2	3	0.00	.05
2.017	373.09	-724.15	132.46	106.	100.	.02-2	1.05-0	2	3	0.00	.13
2.019	372.93	-722.97	132.34	100.	91.	.06-2	3.80-1	4	3	0.00	.17
2.023	373.35	-711.10	133.33	96.	113.	.27-1	.70-1	2	3	0.00	1.66
2.022	371.35	-710.97	133.34	106.	115.	.10-0	.45-1	1	3	0.00	.02
2.023	371.29	-710.61	133.36	104.	103.	.12-1	1.38-1	2	3	0.00	.04
2.024	371.22	-710.08	133.40	96.	99.	.16-1	1.44-1	2	3	0.00	.07
2.026	371.12	-709.39	133.45	90.	99.	.02-2	2.95-1	2	3	0.00	.10
2.028	370.86	-707.44	133.38	85.	105.	.02-2	.47-0	2	3	0.00	.27
2.029	370.58	-706.28	133.72	86.	91.	.03-2	.74-1	2	3	0.00	.30
3.001	389.96	-700.37	134.09	86.	114.	.08-1	1.78-0	2	3	0.00	-9.99

3.002	369.94	-699.96	134.14	77.	115.	.10-2	.63-0	3	3	0.00	.02
3.006	369.86	-698.81	134.29	87.	89.	.14-2	2.13-1	3	3	0.00	.06
3.008	369.70	-696.35	134.61	109.	96.	.07-2	.24-1	4	3	0.00	.13
3.011	369.39	-691.48	135.23	107.	88.	.07-2	.74-1	2	3	0.00	.25
3.012	369.32	-690.43	135.37	102.	98.	.06-2	.60-0	2	3	0.00	.06
3.013	369.23	-688.96	135.56	98.	92.	.27-2	4.70-0	3	3	10.30	.07
3.016	369.03	-685.81	135.96	90.	89.	.10-2	2.25-0	4	3	0.00	.16
3.018	368.76	-681.67	136.80	95.	86.	.18-2	4.90-1	5	3	0.00	.21
3.019	368.68	-680.43	136.66	121.	82.	.71-2	1.60-0	4	4	0.00	.06
3.020	368.59	-679.02	136.84	91.	85.	.07-2	1.14-0	5	3	0.00	.07
3.021	368.48	-677.29	137.06	124.	82.	.10-2	1.27-0	5	3	0.00	.09
3.022	368.37	-675.66	137.27	110.	91.	.15-1	3.40-0	4	3	0.00	.09
4.001	367.93	-669.24	138.11	108.	92.	.09-2	3.80-0	4	3	0.00	-9.99
4.001	367.50	-665.13	138.68	98.	88.	.05-2	3.00-0	4	3	0.00	.54
4.008	367.32	-663.36	138.92	88.	90.	.05-2	1.99-0	3	3	0.00	.15
4.013	366.86	-658.89	139.34	90.	81.	.06-1	.91-1	2	3	0.00	.37
4.014	366.75	-657.88	139.68	50.	106.	.04-1	.71-1	2	3	0.00	.09
4.016	366.55	-655.89	169.93	128.	98.	.11-2	.65-0	2	3	0.00	.16
4.017	366.48	-655.24	140.04	120.	115.	.13-2	.89-0	3	3	0.00	.06
4.019	366.43	-654.73	140.11	80.	94.	.08-2	.66-0	3	3	0.00	.04
4.021	366.11	-651.66	140.53	107.	90.	.04-2	3.42-0	3	3	0.00	.26
4.025	365.55	-646.55	141.27	111.	95.	.16-1	.67-0	2	3	0.00	.44
4.026	365.56	-646.33	141.27	77.	66.	.03-2	.71-0	3	3	0.00	0.00
4.030	365.55	-644.36	141.54	136.	124.	.12-1	.47-1	2	3	0.00	.17
5.005	364.94	-640.45	142.07	104.	94.	.07-2	.59-0	2	3	0.00	-9.99
5.009	364.92	-640.22	142.09	80.	105.	.01-1	.47-0	2	4	0.00	.02
5.012	364.93	-637.64	142.16	102.	89.	.07-2	3.77-0	2	3	0.00	.06
5.013	364.85	-639.59	147.16	99.	95.	.15-2	1.93-0	3	3	0.00	0.00
5.016	364.77	-638.55	142.24	60.	85.	0.00-1	.29-1	2	3	0.00	.07

FILE JOINTS.B.BEDDING
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1.005	602.81	-5078.12	132.59	23.	200.	.55-1	1.04-2	2	4	0.00	0.00
1.005	601.72	-5079.52	132.41	20.	200.	.80-1	.54-2	2	4	0.00	.05
1.092	594.19	-5091.69	180.86	26.	231.	.77-2	.60-2	3	3	0.00	.46
1.082	592.15	-3094.89	150.46	11.	120.	1.49-2	4.30-1	4	3	2.86	.11
1.059	583.55	-5111.58	128.33	11.	150.	.92-1	1.30-1	2	3	5.86	.63
1.068	579.48	-5113.27	128.12	6.	160.	.80-0	1.45-1	2	4	0.00	.06
1.078	576.23	-5119.97	127.27	20.	195.	1.36-1	1.76-1	3	4	0.00	.25
1.081	575.03	-3121.86	127.03	10.	31.	1.00-1	1.88-2	2	4	2.86	.07
1.084	574.09	-5123.34	126.84	3.	4.	.41-1	.60-2	4	3	0.00	.06
1.087	572.57	-5123.73	126.34	16.	142.	.74-1	.70-1	3	3	0.00	.09
1.092	571.40	-5127.58	126.30	19.	97.	.43-1	.39-1	3	3	0.00	.07
1.100	568.60	-3131.98	123.74	7.	154.	1.60-1	2.40-1	2	4	8.45	.17
1.110	563.49	-5140.03	124.72	9.	113.	.65-1	2.44-2	2	3	6 46	.30

FILE JOINTS.B.A
RECORD FORMAT: D-S

1.027	592.04	-5095.07	130.43	84.	171.	.08-1	.21-0	2	3	0.00	0.00
1.031	591.11	-5096.55	130.25	101.	150.	.29-1	2.98-2	2	3	0.00	.56
1.032	590.70	-5097.18	130.16	99.	152.	.04-1	1.98-1	2	3	0.00	.23
1.053	590.22	-5097.84	130.08	92.	163.	.03-1	1.99-1	2	3	0.00	.25
1.037	590.11	-5098.11	130.05	104.	155.	.04-1	1.14-1	2	3	0.00	10
1.039	589.90	-5078.44	130.00	90.	159.	.04-1	.83+1	2	3	0.00	.12
1.044	586.07	-5104.47	129.24	99.	144.	.02-1	.84-2	2	3	0.00	2.26
1.046	584.36	-5106.86	128.94	94.	148.	.04-1	1.11-1	2	3	0.00	.90

1.047	584.41	-5107.10	128.91	101.	151.	.02-1	.60-0	3	3	0.00	.09
1.049	584.22	-5107.58	128.87	97.	140.	.04-1	1.15-0	2	3	0.00	.10
1.051	583.52	-5108.50	128.73	94.	146.	.02-1	.63-1	2	3	0.00	.43
1.053	582.54	-5110.03	128.53	100.	154.	.01-1	.95-1	2	3	0.00	.57
1.054	582.34	-5110.35	128.49	101.	154.	.02-1	.37-1	2	3	0.00	.12
1.055	582.29	-5110.42	128.48	86.	132.	.02-1	.60-1	2	3	0.00	.03
1.056	581.97	-5110.93	128.42	85.	150.	.19-0	.76-0	2	3	10.30	.19
1.058	581.61	-5111.50	128.35	92.	152.	.22-0	.84-1	2	3	0.00	.21
1.067	579.99	-5114.05	128.02	101.	111.	.02-1	.39-0	2	3	0.00	.95
1.073	577.92	-5118.25	127.49	104.	133.	.02-1	.26-0	3	3	0.00	1.57
1.075	576.95	-5119.83	127.41	105.	133.	.12-1	.22-0	2	3	0.00	.23
1.086	573.41	-512	126.71	98.	128.	.08-1	.57-1	2	3	0.00	2.09
1.095	570.54	-5128.	126.13	99.	127.	.13-1	.71-0	2	3	0.00	1.70
1.096	570.33	-5129.26	126.09	99.	117.	.14-1	1.90-1	2	3	0.00	.12
1.107	566.51	-5135.26	125.33	98.	132.	.18-0	.52-1	3	3	0.00	2.24
1.109	564.89	-5137.82	125.00	102.	129.	.17-1	.34-1	3	3	0.00	.96

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1.001	603.76	-5076.62	132.78	97.	30.	.13-1	.84-1	5	3	0.00	0.00
1.002	603.59	-5076.89	132.74	105.	41.	.08-1	1.00-0	3	3	0.00	.32
1.003	603.28	-5077.38	132.68	101.	55.	.10-1	1.30-0	4	3	0.00	.58
1.007	602.19	-5079.10	132.46	97.	45.	.04-1	.25-1	3	4	0.00	2.03
1.009	598.92	-5084.25	131.81	107.	65.	.02-1	.72-1	3	3	0.00	6.09
1.010	598.82	-5084.39	131.79	85.	37.	.08-1	.45-0	4	3	0.00	.17
1.011	598.58	-5084.78	131.74	98.	23.	.06-1	.58-1	3	3	0.00	.46
1.012	598.51	-5084.89	131.73	91.	30.	.07-1	.72-0	3	3	0.00	.13
1.013	598.41	-5085.05	131.71	78.	36.	.07-1	.55-0	2	3	0.00	.19
1.014	598.23	-5085.29	131.67	100.	35.	.04-1	.48-1	3	3	0.00	.29
1.015	598.05	-5085.61	131.63	86.	30.	.05-1	2.17-2	5	3	0.00	.38
1.016	597.59	-5086.33	131.54	85.	7.	.19-1	2.41-2	5	3	0.00	.85
1.017	597.01	-5087.25	131.43	100.	9.	.32-0	2.21-1	5	3	7.13	1.09
1.018	596.57	-5087.94	131.34	106.	32.	.04-1	.33-0	3	3	0.00	.82
1.019	596.47	-5088.10	131.32	88.	25.	.02-1	.50-1	3	3	0.00	.19
1.020	596.42	-5088.19	131.31	84.	31.	.06-1	1.37-1	4	3	0.00	.10
1.021	595.88	-5089.03	131.20	71.	34.	.33-0	1.17-1	3	3	0.00	1.00
1.023	593.17	-5093.30	130.66	87.	36.	.22 1	1.14-1	5	3	0.00	5.05
1.043	587.45	-5102.30	129.51	90.	35.	.04-1	.40-0	2	3	0.00	10.65
1.062	580.90	-5112.61	128.20	89.	10.	.08-1	.17-0	3	3	0.00	12.20
1.070	578.89	-5115.78	127.80	106.	10.	.13-1	.54-0	4	3	7.59	3.75
1.076	576.71	-5119.21	127.37	82.	18.	.08-1	.87-0	4	4	0.00	4.06
1.079	575.55	-5121.04	127.13	90.	55.	.04-1	.55-0	2	3	0.00	2.17
1.080	575.31	-5121.42	127.09	96.	17.	.03-1	1.10-0	3	3	0.00	.45
1.083	574.29	-5123.02	126.88	100.	15.	.19-0	.49-1	4	3	0.00	1.90
1.087	572.39	-5125.06	126.62	77.	55.	.32-0	.27-0	2	4	10.30	2.41
1.088	572.64	-5125.61	126.55	69.	29.	.13-0	.19-0	3	3	0.00	.65
1.090	572.39	-5126.01	126.50	94.	20.	.30-1	.69-0	4	3	0.00	.47
1.091	571.80	-5126.94	126.38	91.	20.	.05-1	.35-0	2	3	0.00	1.10
1.098	569.26	-5130.95	125.88	81.	48.	.03-1	.12-0	3	3	0.00	4.74
1.101	568.19	-5132.62	125.66	92.	7.	.12-1	.65-0	2	3	0.00	1.98
1.102	567.72	-5133.37	125.57	86.	16.	.07-1	.78-0	4	3	0.00	.88
1.113	562.07	-5142.96	124.44	83.	12.	.08-1	.61-0	3	3	0.00	10.52

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1.004	603.03	-5077.78	132.63	72.	86.	.07-1	1.00-0	2	3	0.00	0.00

1.024	592.89	-5093.73	130.60	90.	81.	.01-1	.77-0	1	3	0.00	10	34	
1.025	592.86	-5093.78	130.60	95.	89.	.01-1	.58-1	1	3	0.00		.03	
1.026	592.21	-5094.80	130.47	106.	106.	.04-1	1.42-1	2	3	0.00		.56	
1.029	591.76	-5095.51	130.38	104.	92.	.02-1	4.60-2	2	3	0.00		.46	
1.030	591.35	-5096.17	130.29	105.	102.	.01-1	4.19-1	2	3	0.00		.42	
1.033	590.59	-5097.35	130.14	102.	105.	.05-1	5.06-0	2	3	0.00		.77	
1.034	590.49	-5097.51	130.12	106.	102.	.04-1	1.58-0	2	3	0.00		.10	
1.036	590.24	-5097.90	130.07	85.	97.	.04-1	3.17-1	2	3	0.00		.23	
1.038	590.08	-5098.17	130.04	97.	105.	.01-1	1.28-1	2	3	0.00		.16	
1.040	589.74	-5098.70	129.97	102.	100.	.17-1	3.67-1	2	3	0.00		.35	
1.041	588.40	-5100.81	129.70	102.	104.	.01-1	1.07-1	2	3	0.00		1.37	
1.042	587.45	-5102.30	129.52	100.	104.	.16-0	3.14-1	2	3	0.00		.97	
1.045	585.97	-5104.64	129.22	87.	99.	.03-1	.53-1	2	3	0.00		1.51	
1.048	584.30	-5107.26	128.88	111.	97.	.09-1	1.73-0	2	3	0.00		1.70	
1.050	583.88	-5107.92	128.80	86.	96.	.06-1	.22-1	2	3	0.00		.43	
1.052	583.48	-5108.55	128.72	90.	100.	.02-1	1.25-0	2	3	0.00		.41	
1.057	581.88	-5111. 7	128.40	95.	101.	22-0	1.06-1	2	3	10.30		1.63	
1.060	581.51	-5111.65	128.33	100.	107.	.23-0	1.40-1	2	3	0.00		.38	
1.061	581.11	-5112.28	128.25	102.	99.	.02-1	1.20-0	2	3	0.00		.41	
1.063	580.73	-5112.89	128.17	95.	96.	.04-1	1.05-0	2	3	0.00		.39	
1.064	580.56	-5113.16	128.14	97.	101.	.02-1	1.42-0	2	3	0.00		.17	
1.065	580.39	-5113 41	128.10	103.	106.	.05-1	2.22-0	2	3	0.00		.17	
1.066	580.17	-5113.76	128.06	104.	98.	.09-1	1.88-0	2	3	0.00		.22	
1.069	579.18	-5115.33	127.86	99.	96.	.09-1	1.04-0	3	3	0.00		1.01	
1.071	578.77	-5115.98	127.78	71.	102.	.12-1	.70-1	4	3	0.00		.42	
1.074	577.10	-5118.60	127.44	107.	104.	.02-1	.86-0	3	3	0.00		1.70	
1.077	576.55	-5119.46	127.33	92.	104.	.08-1	.84-1	3	3	0.00		.56	
1.082	574.50	-5122.69	126.92	90.	95.	.09-1	.50-0	2	3	0.00		2.09	
1.085	573.51	-5124.26	126.73	95.	99.	.32-1	3.28-0	2	4	0.00		1.01	
1.093	571.16	-5127.96	126.26	102.	93.	.32-0	.78-0	2	3	0.00		2.40	
1.094	570.72	-5128.64	126.17	94.	100.	.10-1	.72-0	2	3	0.00		.45	
1.097	570.02	-5129.75	126.03	83.	95.	.08-1	.31-2	2	3	0.00		.71	
1.099	569.26	-5130.95	125.88	90.	100.	.06-1	.57-0	3	4	0.00		.77	
1.103	567.72	-5133.37	125.57	92.	96.	.03-1	.48-1	3	3	0.00		1.57	
1.104	567.51	-5133.70	125.53	96.	95.	.07-1	1.40-0	4	3	0.00		.21	
1.105	567 19	-5134.19	125.46	92.	97.	.20-0	2.23-1	3	3	0.00		.33	
1.106	566.88	5134.69	125.40	90.	97.	.22-0	2.03-1	3	3	0.00		.32	
1.108	566.49	-5. 31	125.32	87.	94.	.16-0	.27-1	4	3	0.00		.40	
1.111	562.91	-5140.94	124.61	93.	89.	.04-1	.95-0	2	3	0.00		3.65	
1.112	562.65	-5141.35	124.55	96.	95.	.05-1	1.90-1	2	3	0.00		.27	
1.114	561.77	-5142.74	124.38	85.	81.	.01-1	.48-1	2	3	0.00		.90	

FILE JOINT 6.9.BEDDING
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1.004	495.30	-936.54	142.09	9.	171.	2.50-2	3.00-2	1	3	0.00	0.00
1.019	498.00	-936.39	142.35	5.	172.	1.40-2	1.20-2	1	3	0.00	.45
1.025	499.84	-936.28	142.53	8.	159.	2.54-2	1.50-1	1	3	0.00	.31
1.032	502.32	-936.14	142.78	10.	107.	3.00-2	1.75-2	1	3	0.00	.43
1.039	504.74	-936.00	143.01	11.	109.	.20-2	.40-2	1	3	0.00	.40
1.043	507.85	-935.82	143.31	10.	161.	.30-2	.30-2	1	3	0.00	.92
1.055	514.38	-935.45	143.95	14.	99.	2.60-2	1.60-2	2	3	0.00	1.11
1.058	518.54	-935.21	144.35	4.	199.	1.20-2	1.20-2	1	3	0.00	.70
1.061	523.68	-934.90	144.88	18.	158.	.40-1	2.20-1	1	3	0.00	.92
1.068	530.01	-934.55	145.47	6.	117.	1.20-2	1.80-2	1	3	0.00	1.02
1.070	532.68	-934.40	145.73	10.	120.	3.00-1	3.00-2	2	3	0.00	.45
1.076	540.39	-933.96	146.48	5.	11.	.85-1	2.10-2	1	3	0.00	1.30
1.081	545.83	-933.65	147.01	11.	125.	3.20-2	4.00-2	2	3	0.00	.92
1.090	550.48	-933.38	147.46	9.	146.	4.20-2	4.00-2	3	3	0.00	.76

1.094	553.74	-933.19	147.78	10.	75.	5.00-2	3.20-2	2	3	0.00	.55
1.099	558.69	-932.91	148.26	9.	117.	2.00-1	3.00-2	2	3	0.00	.83
1.101	559.87	-932.84	148.38	9.	114.	.40-2	.60-2	2	3	0.00	.20
.107	561.46	-932.75	148.53	8.	118.	1.30-2	1.10-2	2	3	0.00	.26
1.110	562.64	-932.68	148.65	4.	128.	2.00-2	2.10-2	2	3	0.00	.20
1.115	564.37	-932.59	148.82	6.	140.	.70-2	.20-2	2	3	0.00	.30
1.122	566.90	-932.44	149.06	3.	303.	1.20-2	4.50-2	2	3	0.00	.42
1.129	571.00	-932.21	149.46	6.	111.	2.50-2	2.80-2	2	3	0.00	.69
1.132	575.04	-932.97	149.86	9.	123.	2.50-2	3.00-2	2	3	9.09	.69
1.138	578.66	-931.77	150.21	20.	212.	2.50-0	3.20-2	1	3	0.00	.61
1.143	579.75	-931.70	150.31	10.	215.	3.30-1	1.30-1	2	3	0.00	.18
1.148	581.83	-931.59	150.52	10.	138.	1.70-1	2.00-2	1	3	0.00	.36
1.160	587.57	-931.26	151.08	7.	109.	4.00-2	2.80-1	3	3	0.00	.97
1.163	588.95	-931.18	151.21	5.	156.	1.30-1	2.00-1	1	3	0.00	.23
1.165	590.43	-931.09	151.35	11.	113.	.70-1	.30-2	1	3	0.00	.24
1.166	591.13	-931.05	151.42	14.	20.	1.30-2	2.30-1	1	3	0.00	.12
1.170	592.91	-930.95	151.60	20.	204.	1.10-1	1.00-1	1	3	0.00	.31
2.005	595.26	-930.94	151.78	10.	121.	1.95-2	2.00-2	2	3	0.00	0.00
2.008	598.51	-930.93	152.02	15.	99.	.40-1	2.00-0	1	3	0.00	.52

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1.002	494.90	-936.57	142.05	71.	133.	.30-1	1.35-1	1	3	0.00	0.00
1.006	493.47	-936.53	142.11	109.	140.	.30-1	.85-0	1	3	0.00	.21
1.006	495.94	-936.51	142.15	85.	150.	.30-1	.30-0	2	3	0.00	.18
1.013	496.56	-936.47	142.21	99.	149.	.30-1	.55-0	2	3	0.00	.23
1.020	498.08	-936.38	142.26	93.	157.	.13-1	.30-1	2	3	0.00	.57
1.024	496.52	-936.36	142.41	95.	149.	.18-1	1.10-2	2	3	0.00	.17
1.026	499.94	-936.28	142.54	91.	146.	.20-1	.60-1	2	3	0.00	.53
1.031	501.72	-936.18	142.72	85.	143.	.20-1	.40-0	2	3	0.00	.67
1.041	504.86	-936.00	143.02	86.	161.	.10-1	.50-1	1	3	0.00	1.18
1.077	541.36	-933.90	146.58	96.	143.	.10-0	3.50-2	1	3	0.00	13.70
1.092	552.13	-933.29	147.63	116.	136.	.55-1	2.00-2	2	3	0.00	4.04
1.097	556.97	-933.01	148.10	112.	144.	.30-1	3.00-1	2	3	0.00	1.81
1.100	559.42	-932.87	148.34	109.	138.	.20-1	1.10-1	2	3	0.00	.92
1.109	562.27	-932.71	148.61	110.	135.	.50-0	1.90-1	2	3	0.00	1.07
1.127	570.26	-932.25	149.39	111.	133.	.21-0	.60-0	2	3	0.00	3.00
1.134	576.82	-931.87	150.03	100.	167.	.25-0	.50-0	2	3	0.00	2.46
1.156	584.85	-931.41	150.81	100.	138.	.20-1	1.00-0	2	3	0.00	3.01
1.169	592.88	-930.95	151.59	102.	144.	.20-1	1.15-0	2	3	0.00	3.01
2.002	593.27	-930.94	151.63	100.	177.	.07-0	.50-1	2	3	0.00	0.00
2.004	594.87	-930.94	151.75	102.	138.	.40-1	1.20-0	2	3	0.00	.67
2.007	596.46	-930.93	151.87	95.	141.	.23-0	1.90-1	2	3	0.00	.66

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1.036	503.65	-936.07	142.91	95.	13.	.15-1	.60-0	1	3	0.00	0.00
1.066	529.51	-934.58	145.42	82.	16.	.20-1	.50-1	2	3	0.00	7.59
1.145	580.70	-931.65	150.41	84.	16.	.40-1	2.50-1	2	3	0.00	15.02
1.154	584.67	-931.42	150.79	86.	14.	.23-1	.30-0	2	3	0.00	1.17
2.013	601.82	-930.91	152.28	76.	7.	.55-1	3.00-0	2	3	0.00	0.00

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1.016	497.10	-936.44	142.27	86.	125.	.30-1	1.50-1	2	3	0.00	0.00
1.027	500.12	-936.27	142.56	98.	117.	.20-1	.40-1	2	3	0.00	2.74
1.030	501.34	-936.20	142.68	88.	98.	.25-1	.75-0	1	3	0.00	1.11
1.045	508.31	-935.80	143.36	61.	97.	.10-1	.40-1	3	3	0.00	6.32
1.048	510.11	-935.70	143.53	93.	114.	.30-2	.80-1	1	3	0.00	1.63
1.049	511.27	-935.63	143.65	102.	102.	.25-1	2.40-2	2	3	0.00	1.05
1.050	512.03	-935.59	143.72	104.	95.	.25-1	.20-2	2	3	0.00	.69
1.054	513.96	-935.47	143.91	110.	111.	.20-1	.42-1	2	3	0.00	1.75
1.056	517.02	-935.30	144.21	86.	117.	.50-1	3.10-2	2	3	0.00	2.78
1.057	518.01	-935.24	144.30	96.	114.	.20-1	.30-1	2	3	0.00	.90
1.060	523.68	-934.92	144.86	102.	113.	.50-1	2.00-1	3	3	0.00	5.15
1.062	526.84	-934.74	145.16	105	132.	.35-1	1.20-1	2	3	0.00	2.86
1.063	527.61	-934.69	145.24	98.	127.	.30-1	2.50-1	3	3	0.00	.70
1.064	527.93	-934.67	145.27	88.	116.	.10-1	.35-0	2	3	0.00	.29
1.065	528.23	-934.66	145.30	110.	117.	.25-1	3.00-2	2	3	0.00	.27
1.067	529.71	-934.57	145.44	95.	113.	.20-1	1.30-1	3	3	0.00	1.34
1.071	533.86	-934.33	145.85	105.	115.	.15-1	2.00-1	2	3	0.00	3.77
1.072	534.31	-934.31	145.89	88.	123.	.20-1	2.50-2	2	3	0.00	.41
1.073	535.19	-934.26	145.98	90.	120.	.10-1	1.50-1	2	3	0.00	.80
1.075	535.69	-934.23	146.03	96.	117.	.20-1	3.30-2	3	3	0.00	.45
1.079	543.26	-933.80	146.76	110.	124.	.20-1	1.50-1	2	3	0.00	6.87
1.089	547.99	-933.52	147.22	115.	122.	.55-1	2.50-2	2	3	0.00	4.29
1.091	551.22	-933.34	147.54	116.	115.	.50-1	3.20-2	2	3	0.00	2.93
1.102	559.99	-932.84	148.39	99.	97.	.15-0	.80-2	2	3	0.00	7.96
1.103	560.33	-932.82	148.42	96.	106.	.15-0	.75-1	2	3	0.00	.31
1.104	560.96	-932.82	148.43	93.	102	.15-0	.50-0	2	3	0.00	.03
1.105	561.03	-932.78	148.49	114.	99.	.53-0	1.00-1	2	3	0.00	.61
1.106	561.41	-932.76	148.53	104.	127.	.28-0	1.10-1	2	3	0.00	.35
1.108	561.79	-932.73	148.57	89.	99.	.20-1	.75-1	2	3	0.00	.34
1.114	564.30	-932.59	148.81	98.	129.	.20-0	.70-1	2	3	0.00	2.28
1.116	564.77	-932.56	148.86	92.	121.	.40-0	1.30-1	2	3	0.00	.43
1.119	565.38	-932.53	148.92	118.	94.	.25-0	.60-0	2	3	0.00	.56
1.125	569.55	-932.29	149.32	98.	95.	.20-0	.90-0	1	3	0.00	3.78
1.130	573.08	-932.09	149.66	116.	98.	.26-0	1.10-1	2	3	0.00	3.20
1.158	586.58	-931.31	150.98	93.	102.	.03-1	1.10-0	3	3	0.00	12.25
2.009	599.04	-930.92	152.06	105.	127.	.25-1	1.50-2	2	3	0.00	0.00

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1.001	494.73	-936.58	142.04	86.	54.	.30-1	.95-1	2	3	0.00	0.00
1.003	494.96	-936.56	142.06	91.	65.	.32-1	1.80-1	2	3	0.00	.20
1.005	495.46	-936.53	142.11	81.	60.	.30-2	.40-0	2	3	0.00	.44
1.007	495.68	-936.52	142.13	91.	68.	.30-1	.40-1	2	3	0.00	.19
1.009	496.03	-936.50	142.16	94.	41.	.30-1	1.90-1	2	3	0.00	.30
1.010	496.15	-936.50	142.17	87.	49.	.30-1	.80-1	2	3	0.00	.10
1.011	496.39	-936.48	142.20	91.	64.	.30-1	.40-0	2	3	0.00	.21
1.012	496 32	-936.47	142.21	88.	59.	.30-1	.40-0	2	3	0.00	.11
1.014	496.95	-936.45	142.25	74.	53.	.30-1	.38-0	2	3	0.00	.37
1.015	497.04	-936.44	142.26	79.	46.	.30-1	.40-0	2	3	0.00	.08
1.017	497.47	-936.42	142.30	74.	41.	.30-1	.15-1	2	3	0.00	.37
1.018	497.77	-936.40	142.33	89.	54.	.12-1	.70-1	1	3	0.00	.26
1.021	498.12	-936.38	142.37	84.	60.	.14-1	.25-1	2	4	0.00	.31
1.022	498.34	-936.37	142.39	93.	55.	.07-1	.35-1	2	3	0.00	.19
1.023	498.47	-936.36	142.40	89.	56.	.08-1	.40-2	2	3	0.00	.11
1.028	500.47	-936.25	142.60	84.	55.	.20-1	.15-0	2	3	0.00	1.74
1.029	500.53	-936.24	142.60	95.	61.	.25-1	1.80-1	2	3	0.00	.05
1.033	502.86	-936.11	142.83	91.	66.	.15-1	.30-0	1	3	0.00	2.03
1.034	503.04	-936.10	142.85	86.	70.	.15-1	.20-0	2	3	0.00	.16

1.035	503.12	-936.10	142.85	86.	72.	.15-1	1.50-1	2	3	0.00	.07
1.037	503.87	-936.05	142.93	80.	82.	.15-1	.09-1	1	3	0.00	.66
1.038	504.60	-936.01	143.00	101.	80.	.20-1	.20-2	1	3	0.00	.63
1.040	504.84	-936.00	143.02	91.	85.	.05-0	.30-2	1	3	0.00	.21
1.042	507.66	-935.84	143.30	86.	55.	.20-1	.35-2	2	3	0.00	2.45
1.044	508.05	-935.81	143.33	105.	70.	.16-0	.32-2	1	3	0.00	.34
1.046	508.35	-935.80	143.36	83.	41.	.26-2	.80-2	2	3	0.00	.26
1.047	509.54	-935.73	143.48	91.	89.	.25-2	.60-1	2	3	0.00	1.04
1.052	513.44	-935.50	143.86	84.	64.	.20-1	.40-1	1	3	0.00	3.39
1.053	513.74	-935.49	143.89	89.	66.	.40-1	2.40-0	2	3	0.00	.26
1.069	531.29	-934.48	145.60	110.	42.	.20-1	3.00-1	3	3	0.00	15.26
1.074	537.92	-934.10	146.24	75.	55.	.10-1	1.50-2	3	3	0.00	5.76
1.078	542.02	-933.87	146.64	110.	55.	.10-1	.70-1	2	3	0.00	3.56
1.080	543.56	-933.78	146.79	70.	37.	.10-1	.30-0	2	3	0.00	1.34
1.082	546.19	-933.63	147.05	71.	66.	.10-1	.40-1	2	3	0.00	2.29
1.083	546.47	-933.61	147.07	89.	61.	.12-1	1.80-1	1	3	0.00	.24
1.084	546.50	-933.61	147.08	99.	77.	.12-2	.30-1	1	3	0 00	.03
1.085	547.17	-933.57	147.14	92.	86.	.06-1	.30-1	2	3	0.00	.58
1.086	547.61	-933.55	147.19	67.	57.	.20-1	1.15-1	2	3	0.00	.38
1.093	553.44	-933.21	147.75	110.	51.	.50-1	1.20-0	2	3	0.00	5.07
1.095	534.47	-933.15	147.85	101.	85.	.40-2	2.00-0	2	3	0.0	.90
1.096	556.58	-933.03	148.06	93.	28.	.30-1	2.80-0	2	3	0.	.84
1.098	558.22	-932.94	148.22	102.	86.	.30-1	2.10-1	2	3	0.0	.42
1.111	562.94	-932.67	148.68	108.	71.	.50-0	.60-0	2	3	0.00	4.40
1.112	563.46	-932.64	148.73	86.	87.	.51-0	1.00-1	2	3	0.00	.45
1.113	564.25	-932.59	148.80	80.	42.	.20-0	.65-0	2	3	0.00	.69
1.117	564.97	-932.55	148.88	83.	56.	.20-0	.40-0	2	3	0.00	.63
1.118	565.12	-932.54	148.89	80.	83.	.25-0	.90-0	2	3	0.00	.13
1.120	566.24	-932.48	149.00	63.	77.	.25-0	1.05-0	2	3	0.00	.97
1.121	566.45	-932.47	149.02	86.	32.	.25-0	.90-0	2	3	0.00	.18
1.123	567.67	-932.40	149.14	64.	32.	.15-0	.30-1	2	3	0.00	1.06
1.124	568.07	-932.37	149.18	79.	55.	.12-1	.20-1	2	3	0.00	.35
1.126	569.90	-932.27	149.36	96.	68.	.05-0	.30-1	2	3	0.00	1.59
1.128	570.86	-932.21	149.45	78.	40.	.16-0	1.20-0	2	3	0.00	.84
1.131	574.38	-932.01	149.79	73.	50.	.26-0	.90-0	2	3	0.00	3.06
1.133	576.29	-931.90	149.98	87.	48.	.20-0	.60-0	2	3	0.00	1.66
1.135	576.98	-931.86	150.05	92.	46.	.30-0	.50-0	2	3	0.00	.60
1.136	578.27	-931.79	150.17	73.	50.	.40-1	1.40-1	3	3	0.00	1.12
1.137	578.37	-931.78	150.18	70.	47.	.40-1	1.50-1	3	3	0.00	.09
1.139	578.76	-931.76	150.22	68.	35.	.45-1	3.00-1	2	3	0.00	.34
1.140	578.86	-931.76	150.23	70.	34.	.30-1	3.00-1	2	3	0.00	.08
1.141	579.01	-931.75	150.24	94.	46.	.50-1	3.80-0	2	3	0.00	.13
1.142	579.16	-931.74	150.26	92.	45.	.50-1	3.80-2	3	3	0.00	.13
1.144	580.25	-931.68	150.36	90.	45.	.50-1	.50-1	2	3	0.00	.95
1.145	581.45	931.61	150.48	80.	39.	.40-1	2.00-2	1	3	0.00	1.04
1.147	581.63	-931.60	150.50	83.	40.	.40-1	2.00-2	1	3	0.00	.16
1.149	582.13	-931.57	150.55	70.	43.	.60-1	3.60-2	3	3	0.00	.44
1.150	582.65	-931.54	150.60	83.	38.	.40-1	1.0	2	3	0.00	.45
1.151	583.09	-931.51	150.64	77.	40.	.45-1	1.00-0	2	3	0.00	.36
1.152	584.15	-931.45	150.74	82.	42.	.40-1	3.00-1	2	3	0.00	.92
1.153	584.48	-931.43	150.78	66.	53.	.30-1	1.00-0	2	3	0.00	.29
1.155	584.80	-931.42	150.81	86.	44.	.20-1	.60-0	2	3	0.00	.27
1.157	585.36	-931.38	150.86	80.	50.	.40-1	4.00-2	2	3	0.00	.49
1.159	587.27	-931.27	151.05	80.	89.	.10-1	2.10-1	3	3	0.00	1.66
1.161	588.01	-931.23	151.12	81.	54.	.30-1	2.50-1	3	3	0.00	.64
1.162	588.55	-931.20	151.17	70.	64.	.20-1	3.00-2	1	3	0.00	.47
1.164	590.14	-931.11	151.33	101.	38.	.30-1	2.15-1	1	3	0.00	1.38
1.167	591.27	-931.04	151.44	86.	40.	.35-1	4.10-2	2	3	0.00	.99
1.168	592.11	-931.00	151.52	72.	42.	.20-1	.75-1	2	3	0.00	.73
2.001	593.10	-930.94	151.61	77.	48.	.15-0	.25-1	2	3	0.00	0.00

2.003	593.95	-930.94	151.68	82.	39.	.12-0	1.00-1	1	3	0.00	.71
2.006	595.98	-930.93	151.83	86.	42.	.15-0	.40-2	2	3	0.00	1.70
2.010	599.11	-930.92	152.07	83.	43.	.25-1	.40-2	2	3	0.00	2.62
2.011	599.57	-930.92	152.10	70.	48.	.70-1	3.50-2	3	3	0.00	.38
2.012	600.55	-930.92	152.18	87.	75.	.10-0	.70-0	1	3	0.00	.82
2.014	604.66	-930.90	152.49	82.	60.	.10-1	2.01-1	3	3	0.00	3.44

FILE JOINT6.10.BEDDING
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1.001	421.42	-942.16	119.67	9.	116.	1.40-2	1.50-2	2	3	0.00	0.00
1.004	420.63	-942.27	119.46	8.	148.	.90-1	.20-1	1	3	0.00	.25
1.007	419.49	-942.43	119.15	4.	136.	.70-2	.65-2	1	3	0.00	.36
1.008	419.20	-942.47	119.07	14.	117.	.20-2	1.40-2	2	3	0.00	.09
1.009	418.84	-942.52	118.98	9.	168.	1.75-2	.35-2	2	3	0.00	.11
1.011	418.18	-942.62	118.80	7.	184.	.80-2	.70-2	1	3	0.00	.21
1.021	416.12	-942.91	118.24	9.	189.	2.70-2	1.40-2	2	3	0.00	.66
1.023	415.77	-942.96	118.15	9.	136.	.23-2	.70-2	2	3	0.00	.11
1.025	414.25	-943.19	117.71	16.	219.	1.50-2	2.00-2	2	3	0.00	.51
1.028	411	[illegible] 52	117.28	21.	120.	1.20-2	.50-2	2	3	0.00	.55
1.035	4[illegible]	[illegible]0	116.63	10.	284.	.30-2	2.20-2	2	3	0.00	.73
1.038	4[illegible]	[illegible]4	116.68	8.	172.	.90-1	.30-2	2	3	0.00	.03
1.039	40[illegible]	[illegible]89	116.51	4.	10.	.70-2	.70-2	2	3	0.00	[illegible]
1.042	408.47	[illegible].99	116.28	18.	180.	1.50-2	.40-2	3	3	0.00	
1.044	408.03	-944.06	116.24	9.	195.	1.10-2	.90-2	2	3	0.00	.
1.053	406.83	-944.22	115.75	4.	196.	.30-2	.30-2	1	3	0.00	.56
1.062	403.61	-944.68	114.99	9.	31.	2.20-2	4.50-2	1	3	0.00	.92
1.075	400.84	-945.07	114.32	12.	139.	.80-2	.50-0	1	3	0.00	.80
1.081	399.63	-945.25	113.80	16.	199.	1.20-2	1.30-2	1	3	0.00	.56
1.083	399.37	-945.28	113.73	9.	159.	.35-2	.20-2	1	3	0.00	.08
1.087	398.55	-945.40	113.88	9.	145.	1.70-2	.30-2	1	3	0.00	.10
1.091	395.17	-945.88	112.59	10.	104.	.20-0	.30-2	1	3	0.00	1.43
1.096	394.12	-946.03	112.3[illegible]	26.	206.	.45-1	2.50-2	1	3	0.00	.33
1.097	393.07	-946.18	112.03	4.	53.	1.00-1	1.80-1	3	3	0.00	.33
1.099	392.10	-946.31	111.77	5.	74.	1.50-1	1.70-2	1	3	0.00	.31
1.104	389.57	-946.67	111.08	7.	116.	.30-1	.30-2	2	3	0.00	.81
1.115	386.59	-947.09	110.28	22.	151.	.20-1	.20-1	2	3	0.00	.94
1.119	386.33	-947.13	110.21	25.	155.	1.00-1	.30-1	2	3	0.00	.08

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1.006	419.70	-942.40	119.21	88.	140.	.25-0	.40-1	1	3	0.00	0.00
1.046	407.68	-944.10	116.17	105.	127.	.25-1	1.20-2	2	3	0.00	5.67
1.068	402.19	-944.88	114.49	94.	139.	.80-1	.30-1	1	3	0.00	2.64
1.084	398.83	-945.36	113.58	97.	159.	.18-0	.20-1	1	3	0.00	1.59
1.102	390.35	-946.56	111.29	100.	145.	.50-0	3.00-1	2	3	0.00	4.02
1.108	388.52	-946.82	110.80	90.	126.	.10-1	.60-0	2	3	0.00	.87
1.128	379.33	-948.12	108.32	105.	155.	.30-1	1.00-0	2	3	0.00	4.36

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1.043	408.29	-944.02	116.23	85.	32.	.14-0	.45-1	2	3	0.00	0.00
1.045	407.83	-944.08	116.18	76.	39.	.20-0	2.00-0	1	3	0.00	.30
1.047	407.58	-944.12	116.14	74.	34.	.20-0	.50-1	1	3	0.00	.17
1.048	407.45	-944.14	116.10	77.	28.	.20-0	.50-1	1	3	0.00	.09

1.049	407.33	-944.15	116.09	86.	27.	.20-0	.80-1	1	3	0.00	.07
1.050	407.52	-944.16	116.15	85.	32.	.16-0	.56-1	1	3	0.00	0.00
1.051	407.11	-944.19	116.05	86.	29.	.17-1	1.70-1	1	3	0.00	.16
1.052	407.04	-944.20	116.03	87.	35.	.21-1	1.70-2	1	3	0.00	.05
1.054	406.60	-944.26	116.11	88.	37.	.20-1	2.22-2	1	3	0.00	.26
1.055	406.32	-944.30	116.10	86.	27.	.20-1	2.20-2	1	3	0.00	.18
1.056	405.87	-944.36	115.88	89.	39.	.20-1	1.50-1	1	3	0.00	.34
1.057	404.07	-944.62	115.11	95.	30.	.20-1	1.20-1	1	3	0.00	1.36
1.065	403.11	-944.75	114.74	96.	34.	.20-1	2.00-1	1	3	0.00	.71
1.067	402.61	-944.82	114.60	94.	40.	.80-1	.60-1	1	3	0.00	.36
1.070	401.84	-944.93	114.39	91.	31.	.20-1	.80-0	1	3	0.00	.55
1.071	401.53	-944.98	114.31	104.	33.	.40-1	2.00-1	1	3	0.00	.22
1.074	401.07	-945.04	114.18	115.	41.	.27-0	.30-1	2	3	0.00	.32
1.080	399.77	-945.23	113.83	91.	29.	.20-0	.95-0	1	3	0.00	.93
1.082	399.50	-945.26	113.76	95.	29.	.20-0	1.50-2	1	3	0.00	.18
1.085	398.83	-945.36	113.58	95.	28.	.18-0	.72-2	2	3	0.00	.48
1.086	398.71	-945.38	113.55	91.	31.	.35-1	.25-2	2	3	0.00	.09
1.088	398.34	-945.43	113.70	80.	34.	.20-1	3.19-1	2	3	0.00	.20
1.089	398.06	-945.47	113.37	86.	26.	.20-1	1.20-2	2	3	0.00	.27
1.090	397.94	-945.49	113.34	96.	32.	.20-1	.80-2	2	3	0.00	.09
1.095	394.38	-945.99	112.38	84.	30.	.20-0	2.10-2	2	3	0.00	2.53
1.098	392.76	-946.22	111.94	85.	35.	.25-0	1.00-1	2	3	0.00	1.15
1.100	391.58	-946.39	111.63	83.	32.	.50-0	1.50-1	1	3	0.00	.84
1.101	391.23	-946.44	111.53	86.	38.	.50-0	2.50-2	2	3	0.00	.25
1.103	389.74	-946.65	111.13	85.	37.	.50-0	3.70-2	1	3	0.00	1.06
1.111	387.73	-946.93	110.59	92.	25.	.20-1	1.20-1	3	3	0.00	1.42
1.113	387.29	-947.00	110.47	88.	30.	.10-1	1.00-0	2	3	0.00	.32
1.114	387.12	-947.02	110.42	86.	32.	.10-1	1.00-0	2	3	0.00	.12
1.116	386.52	-947.10	110.26	100.	37.	.20-1	1.00-1	2	3	0.00	.42
1.120	386.09	-947.17	110.14	86.	34.	.40-2	3.00-1	3	3	0.00	.31
1.125	384.23	-947.43	109.64	67.	39.	.10-1	.50-0	3	3	0.00	1.32

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1.002	420.94	-942.22	119.54	82.	102.	.40-0	.80-2	2	3	0.00	0.00
1.003	420.65	-942.27	119.46	74.	102.	.30-1	.50-0	2	5	0.00	.29
1.012	417.81	-942.67	118.70	74.	84.	.10-1	1.00-1	1	3	0.00	2.81
1.014	417.58	-942.70	118.64	67.	91.	.29-0	1.52-1	1	3	0.00	.23
1.015	417.54	-942.71	118.63	78.	98.	.29-0	.50-1	1	3	0.00	.04
1.016	417.51	-942.71	118.62	71.	103.	.29-0	1.90-2	1	3	0.00	.03
1.017	417.35	-942.73	118.57	84.	93.	.30-0	2.00-2	2	3	0.00	.16
1.018	417.05	-942.78	118.49	84.	90.	.23-1	2.40-2	2	3	0.00	.30
1.027	413.24	-943.32	117.47	85.	86.	.55-0	1.20-2	2	3	0.00	3.77
1.033	410.44	-943.71	116.99	113.	102.	.10-1	.90-0	2	3	0.00	2.70
1.040	407.90	-944.07	116.03	118.	108.	.26-1	1.30-1	2	3	0.00	2.58
1.058	403.93	-944.64	115.10	66.	92.	.20-1	.90-0	1	3	0.00	3.89
1.060	403.84	-944.65	113.06	107.	93.	.20-1	1.40-1	1	3	0.00	.09
1.061	403.66	-944.67	115.00	75.	96.	.20-1	1.20-0	1	3	0.00	.18
1.063	403.54	-944.69	114.97	74.	105.	.20-1	.80-0	2	3	0.00	.12
1.064	403.43	-944.71	114.92	71.	100.	.20-1	.80-1	2	3	0.00	.11
1.066	402.65	-944.82	114.61	108.	116.	.20-1	1.50-2	1	3	0.00	.80
1.073	401.28	-945.01	114.24	74.	83.	.30-1	1.50-1	2	3	0.00	1.36
1.076	400.75	-945.09	114.25	84.	94.	.20-0	1.20-0	1	3	0.00	.48
1.078	400.54	-945.12	114.17	80.	90.	.16-1	.90-1	2	3	0.00	.21
1.079	400.26	-945.16	114.09	79	81.	.20-1	.75-1	1	3	0.00	.28
1.103	389.04	-946.75	110.94	78.	86.	.40-0	3.00-2	2	3	0.00	11.13
1.106	385.91	-946.77	110.91	80.	88.	.40-0	3.00-2	2	3	0.00	.13
1.110	387.90	-946.91	110.63	75.	118.	.10-1	1.20-1	2	3	0.00	1.00

1.112	387.47	-946.97	110.52	106.	123.	.20-1	.50-0	2	3	0.00	.42
1.117	386.51	-947.11	110.26	86.	101.	.30-1	.60-0	2	3	0.00	.95
1.118	386.43	-947.12	110.24	87.	114.	.30-1	1.00-1	3	3	0.00	.08
1.121	386.07	-947.17	110.14	80.	108.	.20-1	1.00-1	2	3	0.00	.36
1.122	385.85	-947.20	110.08	90.	109.	.10-1	.70-1	2	3	0.00	.22
1.123	383.63	-947.23	110.02	72.	115.	.10-1	.35-1	2	3	0.00	.22
1.124	384.40	-947.40	109.69	83.	103.	.30-1	1.50-1	3	3	0.00	1.22
1.126	384.21	-947.43	109.64	72.	94.	.10-1	.40-0	2	3	0.00	.19
1.127	380.60	-947.94	108.66	118.	107.	.10-1	.30-0	2	3	0.00	3.57

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1.005	420.54	-942.28	119.44	89.	59.	.30-1	.20-1	2	3	0.00	0.00
1.010	418.64	-942.55	118.92	91.	77.	.29-0	1.00-1	2	3	0.00	1.91
1.012	417.87	-942.66	118.72	96.	70.	.25-0	.90-2	2	3	0.00	.77
1.020	416.64	-942.83	118.38	84.	69.	.30-0	1.30-1	2	3	0.00	1.23
1.022	415.86	-942.95	118.17	74.	74.	.50-1	1.45-1	2	3	0.00	.79
1.024	415.31	-943.02	118.02	83.	54.	.20-1	.80-1	1	3	0.00	.55
1.029	411.14	-943.61	117.12	93.	70.	.30-1	1.10-2	2	3	0.00	4.13
1.030	411.08	-943.62	117.08	110.	70.	.30-1	1.10-2	2	3	0.00	.07
1.031	410.93	-943.64	117.00	98.	69.	.30-1	1.10-2	2	3	0.00	.16
1.032	410.81	-943.66	117.09	104.	65.	.10-1	.40-2	2	3	0.00	.10
1.037	409.62	-943.83	116.56	101.	66.	.25-0	95-1	2	3	0.00	1.24
1.041	408.62	-943.97	116.22	91.	56.	.13-1	.40-2	1	3	0.00	1.02
1.069	401.96	-944.92	114.42	94.	80.	.12-0	.30-1	2	3	0.00	6.67
1.072	401.49	-944.98	114.30	84.	52.	.40-1	.30-0	1	3	0.00	.47
1.092	394.84	-945.92	112.51	92.	65.	.40-1	.50-1	1	3	0.00	6.66
1.093	394.78	-945.93	112.49	94.	68.	.46-1	.55-1	2	3	0.00	.06
1.094	394.60	-945.96	112.44	76.	63.	.30-0	.45-1	2	3	0.00	.18
1.107	388.69	-946.80	110.85	78.	65.	.10-1	2.50-2	2	3	0.00	5.92
1.109	388.36	-946.84	110.76	78.	61.	.10-1	1.00-0	2	3	0.00	.33
1.129	378.51	-948.24	108.10	74.	64.	.10-1	.40-0	2	3	0.00	9.87
1.130	378.39	-948.26	108.07	78.	64.	.10-1	.20-1	2	3	0.00	.12
1.132	377.78	-948.34	107.90	70.	60.	.30-1	2.30-2	2	3	0.00	.61
1.133	377.55	-948.38	107.84	77.	60.	.25-1	2.00-2	2	3	0.00	.23

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1.002	550.80	-818.71	156.59	9.	113.	4.00-2	9.00-1	1	5	12.15	0.00
1.012	342.03	-822.86	155.47	9.	113.	8.00-1	4.00-2	2	3	11.31	2.06
1.027	536.16	-825.67	154.71	15.	42.	.30-1	1.50-2	2	3	0.00	1.39
1.037	531.93	-827.67	154.18	5.	118.	.60-1	3.20-2	2	3	0.00	.98
1.039	530.45	-828.38	153.98	13.	94.	3.00-1	3.50-2	2	3	0.00	.36
1.041	529.23	-828.96	153.83	19.	217.	.40-1	2.00-1	1	3	0.00	.28
1.047	525.89	-830.54	153.40	5.	215.	.50-1	4.00-2	2	3	0.00	.79
1.050	524.23	-831.33	153.19	9.	70.	9.10-1	4.00-2	1	3	0.00	.39
1.055	522.39	-832.21	152.93	5.	95.	2.50-1	1.00-1	1	3	0.00	.44
1.064	517.39	-834.59	152.31	10.	60.	3.00-1	3.00-2	1	3	0.00	1.18
1.075	514.23	-836.09	151.91	6.	162.	3.59-2	4.00-2	3	4	0.00	.74
1.094	508.49	-838.81	151.17	10.	105.	2.00-2	3.70-2	2	3	0.00	1.36
1.107	503.27	-841.29	150.50	6.	150.	1.25-2	1.28-2	2	3	0.00	1.23
1.111	500.11	-842.79	150.10	7.	131.	.76-2	.49-2	2	3	0.00	.74

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1.053	522.91	-831.96	153.02	85.	5.	.50-0	1.00-1	2	3	0.00	0.00
1.057	521.86	-832.46	152.88	78.	3.	.20-1	3.20-2	2	6	0.00	.62
1.092	507.96	-839.06	151.11	85.	0.	.05-1	.95-0	2	3	0.00	5.19
1.102	504.82	-840.56	150.70	74.	2.	.19-1	.31-1	2	3	0.00	1.86
1.106	503.62	-841.13	150.55	84.	7.	.18-1	.60-1	2	3	0.00	.71

FILE JOINT6.11.B
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1.001	553.83	-817.27	156.98	105	60.	.15-0	1.00-0	1	3	0.00	0.00
1.007	543.48	-822.19	155.65	67.	60.	.08-1	3.00-2	2	3	0.00	11.43
1.010	542.78	-822.52	155.56	105.	55.	.03-0	.50-0	2		0.00	.77
1.011	542.37	-822.72	155.51	90.	55.	.03-1	1.20-0	1		0.00	.45
1.015	539.25	-824.20	155.11	70.	65.	.03-1	1.00-0	2	3	0.00	3.44
1.017	538.44	-824.58	155.01	97.	53.	.40-0	4.00-2	2	3	0.00	.89
1.023	537.03	-825.25	154.83	90.	60.	0.00-0	1.50-0	2	3	0.00	1.56
1.024	536.77	-825.38	154.79	90.	50.	.25-0	1.35-0	2	3	0.00	.29
1.025	536.51	-825.50	154.76	78.	76.	.20-0	1.50-1	2	3	0.00	.28
1.026	536.24	-825.63	154.73	110.	63.	.10-0	.50-1	2	3	0.00	.30
1.028	535.83	-825.82	154.67	80.	55.	.04-1	11.20-2	1	3	0.00	.45
1.029	535.54	-825.96	154.64	70.	54.	.35-0	1.00-1	1	3	0.00	.32
1.030	535.3	-826.04	154.61	70.	73.	.20-0	1.20-2	1	3	0.00	.19
1.032	534.49	-826.46	154.50	85.	61.	.35-1	1.00-1	2	3	0.00	.97
1.042	529.05	-829.04	153.80	65.	54.	.10-1	.50-2	2	3	0.00	6.00
1.043	528.53	-829.29	153.74	78.	74.	.50-1	4.00-2	2	3	0.00	.57
1.044	527.25	-829.90	153.57	65.	78.	.20-1	4.20-2	2	3	0.00	1.41
1.046	526.20	-830.40	153.44	74.	70.	.60-0	4.00-2	2	3	0.00	1.16
1.048	525.46	-830.75	153.34	85.	60.	.20-1	4.20-2	2	3	0.00	.82
1.059	520.21	-833.24	152.67	80.	70.	.30-1	2.50-2	2	3	0.00	5.79
1.060	519.67	-833.50	152.60	70.	60.	.25-1	1.00-1	1	3	0.00	.60
1.061	519.40	-833.63	152.57	97.	47.	.15-1	1.00-2	1	3	0.00	.30
1.069	516.46	-835.03	152.19	99.	45.	.07-1	.48-0	2	3	0.00	3.25
1.093	507.78	-839.15	151.08	85.	70.	.04-1	.73-0	3	3	0.00	9.58
1.099	505.72	-840.13	150.82	102.	50.	.09-1	.85-0	2	3	0.00	2.27
1.108	502.57	-841.63	150.42	73.	78.	.10-1	.42-0	3	4	0.00	3.48
1.109	501.42	-842.17	150.27	107.	45.	.08-1	1.20-1	2	3	0.00	1.27
1.116	498.22	-843.69	149.86	84.	66.	.11-1	.32-1	2	4	0.00	3.53
1.117	497.64	-843.97	149.79	93.	52.	.02-1	1.34-1	2	3	0.00	.64
1.120	495.59	-844.94	149.52	90.	45.	.21-1	1.51-2	3	3	0.00	2.26
1.123	494.55	-845.44	149.39	83.	50.	.16-1	.51-1	2	3	0.00	1.15
1.123	493.95	-845.72	149.31	83.	70.	.08-1	.47-2	2	3	0.00	.66
1.136	491.82	-846.73	149.04	31.	60.	.05-1	.57-2	4	3	0.00	2.35
1.137	491.33	-846.97	148.98	93.	47.	.11-1	2.41-2	3	3	0.00	.54
1.138	491.09	-847.08	148.95	85.	64.	.33-1	1.33-1	2	3	0.00	.26
1.140	489.54	-847 92	148.75	73.	69.	.01-1	1.16-1	2	3	0.00	1.71
1.141	489.49	-847 84	148.74	73.	69.	.01-1	1.09-2	2	3	0.00	.05
1.142	489.75	-847.72	148.78	73.	69.	.01-1	.61-0	2	3	0.00	.29
1.143	489.23	-847.96	148.71	75.	74.	.01-1	.77-1	3	3	0.00	.57
1.144	489.09	-848.03	148.69	75.	66.	.01-1	1.56-0	3	3	0.00	.16

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1.035	533.00	-827.17	154.31	30.	114.	.10-1	.30-1	2	3	0.00	0.00
1.036	532.38	-827.46	154.23	75.	113.	.25-0	2.00-1	2	3	0.00	.48
1.052	523.35	-831.75	153.08	70.	115.	.10-1	1.00-1	2	3	0.00	6.98
1.065	517.08	-834.73	152.27	55.	101.	.05-1	3.00-2	1	3	0.00	4.85

1.066	516.71	-834.91	152.23	35.	105.	.07-1	2.70-1	2	3	0.00	.28
1.067	516.54	-834.99	152.20	43.	104.	.06-1	.63-0	2	3	0.00	.14
1.068	516.48	-835.01	152.20	37.	101.	.05-1	.79-0	2	3	0.00	.04
1.070	516.20	-835.15	152.16	66.	113.	3.03-1	3.50-0	2	3	0.00	.22
1.072	515.89	-835.30	152.12	4.	103.	.04-1	1.58-0	2	3	0.00	.24
1.073	515.79	-835.34	152.11	63.	104.	.02-1	1.10-0	1	3	0.00	.08
1.074	515.36	-835.55	152.05	50.	104.	.11-1	1.87-0	2	3	0.00	.33
1.076	514.64	-835.89	151.96	73.	111.	.05-1	1.10-0	2	3	0.00	.56
1.077	514.43	-835.99	151.93	64.	97.	.03-0	2.25-1	3	3	0.00	.16
1.078	514.21	-836.09	151.91	72.	100.	.05-1	1.79-0	2	3	0.00	.17
1.079	513.16	-836.59	151.77	75.	109.	.09-1	2.94-1	2	3	0.00	.82
1.080	512.98	-836.68	151.75	66.	102.	.02-1	.44-0	2	3	0.00	.14
1.082	512.04	-837.13	151.63	55.	103.	.12-1	.80-0	2	3	0.00	.73
1.085	510.80	-837.71	151.47	72.	110.	.01-1	.75-0	2	3	0.00	.96
1.091	508.60	-838.76	151.19	70.	110.	.06-1	.46-1	1	3	0.00	1.70
1.101	504.93	-840.50	150.72	62.	107.	.08-2	.80-2	2	3	0.00	2.84
1.103	504.10	-840.90	150.61	74.	98.	.46-1	1.89-1	2	3	0.00	.64
1.104	503.85	-841.02	150.58	69.	103.	.57-1	2.23-1	3	3	0.00	.19
1.105	503.66	-841.11	150.56	70.	109.	.50-1	3.00-2	2	3	0.00	.14

FILE JOINT6,11.D
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1.004	544.49	-821.71	155.78	105.	90.	.02-0	1.50-1	2	3	0.00	0.60
1.005	544.29	-821.80	155.76	65.	90.	.03-0	3.00-2	1	3	0.00	.20
1.006	544.01	-821.93	155.72	70.	90.	.05-0	3.00-2	1	3	0.00	.29
1.013	541.07	-823.33	155.34	97.	70.	.06-1	2.50-1	2	3	0.00	3.03
1.019	537.60	-824.98	154.90	102.	75.	.10-0	2.00-1	1	3	0.00	3.57
1.021	537.38	-825.08	154.87	95.	77.	.15-0	1.30-1	1	3	0.00	.23
1.022	537.23	-825.15	154.85	95.	77.	.15-0	.50-0	1	3	0.00	.15
1.031	534.84	-826.29	154.55	94.	65.	.35-0	1.00-1	2	3	0.00	2.46
1.033	533.35	-827.00	154.35	100.	84.	.02-1	2.20-1	2	3	0.00	1.53
1.049	525.02	-830.96	153.29	110.	80.	.30-0	2.00-1	2	3	0.00	8.57
1.051	523.61	-831.63	153.11	104.	68.	.35-1	4.20-2	1	3	0.00	1.45
1.054	522.87	-831.98	153.01	110.	100.	.55-0	2.50-1	1	3	0.00	.76
1.056	522.16	-832.32	152.92	100.	70.	.20-1	3.00-1	1	3	0.00	.73
1.062	518.83	-833.90	152.50	94.	75.	.20-0	3.00-2	1	3	0.00	3.42
1.063	518.35	-834.13	152.44	80.	85.	0.00-0	3.00-2	1	3	0.00	.49
1.083	511.62	-837.32	151.57	108.	65.	.04-1	.56-0	3	3	0.00	6.92
1.086	510.55	-837.84	151.44	92.	90.	.01-1	1.60-0	2	3	0.00	1.10
1.088	509.45	-838.36	151.30	105.	70.	.06-1	75-0	3	3	0.00	1.13
1.090	508.77	-838.68	151.21	105.	80.	.03-1	.80-0	2	3	0.00	.70
1.095	507.23	-839.41	151.01	100.	72.	.04-1	.82-0	2	3	0.00	1.58
1.096	507.11	-839.47	151.00	87.	79.	.25-1	1.50-0	2	3	0.00	.12
1.097	506.34	-839.84	150.90	89.	85.	.01-1	2.40-0	3	3	0.00	.79
1.098	506.16	-839.92	150.88	100.	85.	.07-1	3.00-0	3	3	0.00	.18
1.110	501.14	-842.31	150.23	86.	94.	.21-1	1.51-0	2	4	0.00	5.17
1.112	499.73	-842.97	150.05	96.	84.	.11-1	1.05-1	3	4	0.00	1.45
1.113	500.04	-842.83	150.09	90.	74.	.12-1	1.43-1	3	3	0.00	.32
1.122	495.22	-845.12	149.47	91.	102.	.01-1	.55-1	2	3	0.00	4.96
1.126	493.81	-845.79	149.29	102.	68.	.02-1	.60-1	3	3	0.00	1.45
1.127	493.62	-845.88	149.27	100.	88.	.10-1	.87-1	3	3	0.00	.19
1.128	493.43	-845.97	149.25	105.	65.	.03-1	.77-1	3	3	0.00	.19
1.129	493.21	-846.07	149.22	74.	82.	.03-1	1.22-1	3	3	0.00	.23
1.130	492.82	-846.26	149.17	94.	85.	.03-1	.80-2	3	3	0.00	.40
1.131	492.59	-846.37	149.14	89.	86.	.18-1	4.14-2	3	3	0.00	.24
1.132	491.96	-846.67	149.06	90.	96.	.14-1	2.56-1	3	3	0.00	.65
1.145	488.53	-848.29	148.62	83.	81.	.04-1	1.46-0	3	3	0.00	3.53
1.146	488.29	-848.41	148.59	77.	80.	.01-1	.88-0	1	3	0.00	.25

1.150	487.01	-849.02	148.42	88.	94.	.01-1	1.22-2	3	3	0.00	1.32
1.152	486.69	-849.17	148.38	83.	91.	.01-1	1.51-2	2	3	0.00	.33

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5.019	428.68	-873.97	131.56	10.	129.	.10-1	.80-2	2	3	0.00	0.00
5.020	429.55	-874.04	131.50	26.	124.	.06-2	.07-2	2	3	0.00	.06
5.028	427.48	-875.21	130.65	21.	186.	1.57-2	1.35-2	3	3	5.73	.93
5.036	125.17	-876.28	129.79	10.	135.	.77-2	1.40-2	3	3	0.00	.86
5.039	424.90	-876.60	129 55	20.	235.	.85-1	.90-2	3	3	0.00	.25
5.044	424.16	-877.00	129.25	8.	60.	.12-1	.70-1	3	3	0.00	.32
5.044	424.96	-877.11	129.16	9.	70.	.05-1	.60-2	5		0.00	.09
5.050	421.71	-878.35	128.22	25.	155.	.80-1	.15-1	2	3	0.00	.98
5.055	421.22	-878.62	128.01	20.	175.	1.00-2	.32-1	2	3	0.00	.22
5.062	120.24	-879.15	127.60	6.	135.	.32-2	.21-2	2	3	0.00	.43
5.077	419 10	-879.78	127.32	15.	143.	.64-2	.62-2	3	3	0.00	.50
5.082	417.71	-880.55	126.54	14.	192.	1.32-2	.15-2	2	3	0.00	.60
5.085	417.38	-880.72	126.41	14.	163.	1.50-2	.14-2	2	3	0.00	.14
5.089	416.65	-881.13	126.10	9.	170.	1.70-2	.32-2	3	3	0.00	.32
5.097	414.85	-882.12	125.35	17.	120.	.92-2	.14-2	2	3	0.00	.78
5.098	414.65	-882.23	125.26	16.	124.	.75-2	.20-2	2	3	0.00	.09
5.101	413.79	-882.70	124.90	9.	100.	1.60-2	.94-2	3	3	0.00	.38
5.103	413.14	-883.06	124.63	9.	89.	1.53-2	1.51-2	2	3	0.00	.28
5.10?	411.59	-883.91	123.98	18.	225.	.39-2	.52-2	2	3	0.00	.68
5.111	411.10	-884.18	123.77	5.	135.	1.20-1	.75-1	3	3	38.66	.22
5.118	410.12	-884.72	123.36	5.	135.	.40-1	1.00-1	2	3	0.00	.43
5.127	408.08	-885.84	122.51	22	205.	1.30-2	.80-1	2	3	0.00	.89
5.131	406.77	-886.56	121.96	10.	104.	4.00-1	2.30-2	3	3	0.00	.57
5.145	403.67	-888.26	120.66	10.	115.	2.50-2	1.10-1	2	3	0.00	1.35
5.150	402.36	-888.98	120.11	25.	170.	3.00-2	2.00-1	1	3	0.00	.57
5.182	396.81	-892.03	117.79	22.	208.	4.00-2	4.50-2	2	3	0.00	2.42
5.191	393.79	-893.69	116.52	15.	160.	3.00-2	1.60-1	2	3	0.00	1.32
5.197	392.57	-894.36	116.01	10.	142.	1.50-1	1.30-1	2	3	0.00	.53

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5.003	431.22	-873.12	132.20	48.	78.	.11-1	1.27-2	2	3	0.00	0.00
5.006	430.91	-873.29	132.07	64.	95.	.03-1	.90-1	2	3	0.00	.32
5.008	430.74	-873.39	132.00	65.	90.	.05-1	.35-2	2	3	0.00	.18
5.009	430.72	-873.40	131.99	70.	90.	.05-1	.44-2	2	3	0.00	.02
5.010	430.70	-873.41	131.98	60.	94.	.05-1	.59-2	2	3	0.00	.02
5.011	430.67	-873.43	131.97	63.	95.	.05-1	.31-2	2	3	0.00	.03
5.012	430.63	-873.45	131.95	72.	90.	.01-1	.22-2	2	3	0.00	.04
5.013	430.49	-873.52	131.90	70.	86.	.03-1	.34-1	2	3	0.00	.14
5.015	430.32	-873.61	131.83	73.	92.	.04-1	.85-1	2	3	0.00	.18
5.016	430.18	-873.69	131.77	68.	85.	.05-1	1.39-2	2	3	0.00	.15
5.017	429.95	-873.82	131.67	70.	85.	.10-1	1.24-2	2	3	0.00	.24
5.018	429.85	-873.87	131.63	72.	94.	.07-1	.57-1	2	3	0.00	.10
5.021	429.20	-874.23	131.36	77.	88.	.04-1	.91-2	2	3	0.00	.68
5.032	426.32	-875.82	130.15	85.	90.	.20-1	.57-1	2	3	0.00	3.01
5.065	419.99	-879.29	127.50	80.	83.	.06-1	.52-2	2	3	0.00	6.62
5.077	418.19	-880.28	126.75	86.	81.	.09-1	1.39-1	2	3	0.00	.88
5.086	417.14	-880.86	126.30	91.	96.	.15-1	1.50-2	2	3	0.00	1.10
5.087	416.81	-881.04	126.16	81.	97.	.15-1	2.5?-2	2	3	0.00	.35
5.088	416.76	-881.07	126.14	86.	103.	.15-1	2.57-2	2	3	0.00	.05
5.091	416.37	-881.28	125.98	76.	85.	.40-1	1.40-1	3	3	0.00	.41

5.092	416.08	-881.44	125.86	87.	92.	.40-2	1.62-2	2	3	0.00	.30
5.093	416.01	-881.48	125.83	91.	113.	.40-1	.74-0	2	3	0.00	.07
5.094	415.47	-881.78	125.60	88.	92.	.35-1	1.72-2	2	3	0.00	.56
5.095	415.07	-882.00	125.44	82.	91.	.20-1	.99-1	2	3	0.00	.42
5.100	414.34	-882.40	125.13	88.	82.	.33-1	1.01-0	2	3	0.00	.76
5.106	412.05	-883.66	124.17	83.	84.	.30-1	3.30-2	2	3	0.00	2.39
5.124	409.16	-885.25	122.96	85.	85.	.12-1	1.41-1	4	3	0.00	3.02
3.125	408.61	-885.55	122.73	85.	100.	.38-1	2.10-1	3	3	0.00	.57
5.126	408.20	-885.77	122.56	80.	96.	.22-1	1.10-2	2	3	0.00	.43
5.130	407.59	-886.11	122.30	90.	100.	.35-1	2.00-2	2	3	0.00	.64
5.137	405.77	-887.11	121.54	90.	93.	.19-1	2.00-1	2	3	0.00	1.90
5.148	403.04	-888.61	120.40	85.	87.	.05-1	1.50-1	1	3	0.00	2.85
5.149	402.89	-888.69	120.34	85.	87.	.07-1	.50-0	2	3	0.00	.16
5.151	402.63	-888.83	120.23	76.	95.	.16-1	3.00-2	2	3	0.00	.27
5.152	402.49	-888.91	120.17	70.	90.	.16-1	3.00-2	2	3	0.00	.15
5.153	402.21	-889.07	120.05	71.	95.	.16-1	3.00-2	2	3	0.00	.29
5.154	402.12	-889.11	120.01	73.	95.	.16-1	3.00-2	2	3	0.00	.10
5.155	401.91	-889.23	119.93	75.	95.	.15-1	3.00-2	2	3	0.00	.22
5.156	401.82	-889.28	119.88	75.	95.	.18-1	2.15-1	2	3	0.00	.10
5.157	401.75	-889.32	119.86	70.	96.	.18-1	2.15-1	2	3	0.00	.07
5.158	401.67	-889.36	119.82	74.	92.	.18-1	2.15-1	2	3	0.00	.09
5.159	401.63	-889.38	119.81	75.	94.	.18-1	2.15-1	2	3	0.00	.04
5.160	401.50	-889.46	119.75	75.	93.	.18-1	2.15-1	2	3	0.00	.14
5.161	401.43	-889.49	119.72	75.	93.	.18-1	2.15-1	2	3	0.00	.07
5.168	399.44	-890.59	118.89	85.	82.	.05-1	1.50-1	1	3	0.00	2.08
5.171	398.57	-891.07	118.52	85.	88.	.18-1	2.00-2	2	3	0.00	.91
5.172	398.43	-891.14	118.47	82.	88.	.18-1	3.00-2	1	3	0.00	.14
5.189	394.77	-893.15	116.93	83.	95.	.20-1	3.00-2	5	3	0.00	3.83
5.190	394.36	-893.38	116.76	83.	105.	.19-1	1.30-1	5	3	0.00	.43

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5.002	431.55	-872.94	132.34	83.	75.	.07-1	.49-1	2	3	0.00	0.00
5.022	428.92	-874.39	131.24	90.	61.	.03-1	1.40-2	3	3	0.00	3.12
5.023	428.68	-874.52	131.14	87.	70.	.04-1	.56-1	2	3	0.00	.28
5.024	428.47	-874.63	131.05	85.	75.	.17-1	.84-1	2	3	0.00	.25
5.025	428.31	-874.72	130.98	88.	71.	.06-1	.60-2	3	3	0.00	.19
5.026	427.88	-874.96	130.80	87	68.	.36-1	1.22-2	3	4	0.00	.51
5.027	427.69	-875.06	130.72	91.	86.	.24-1	.40-2	2	4	0.00	.22
5.029	427.36	-875.24	130.59	87.	73.	.30-1	.30-2	3	3	0.00	.39
5.030	427.17	-875.35	130.51	82.	73.	.33-1	1.53-2	3	3	0.00	.23
5.031	427.06	-875.41	130.46	85.	71.	.15-1	.52-1	4	3	0.00	.13
5.033	426.19	-875.88	130.10	83.	79.	.06-1	.18-2	3	3	0.00	1.03
5.034	425.93	-876.03	129.99	90.	65.	.34-1	1.90-2	3	4	0.00	.31
5.035	425.83	-876.08	129.95	88.	75.	.02-1	.80-1	3	3	0.00	.12
5.037	425.28	-876.39	129.71	90.	65.	.17-1	1.70-2	4	3	0.00	.66
5.038	424.98	-876.55	129.59	89.	79	.08-1	1.70-2	3	3	0.00	.35
5.040	424.77	-876.66	129.50	80.	75.	.05-1	.70-1	4	3	0.00	.25
5.041	424.65	-876.73	129.45	91.	87.	.04-1	1.40-2	4	3	0.00	.14
5.042	424.45	-876.84	129.36	92.	70.	.25-1	1.00-1	4	3	0.00	.24
5.043	424.23	-876.97	129.27	90.	75.	.27-1	.77-1	3	3	0.00	.26
5.045	424.08	-877.05	129.21	94.	75.	.11-1	.70-1	5	3	0.00	.18
5.049	421.87	-878.26	128.28	80.	63.	.08-1	1.00-2	2	3	0.00	2.62
5.052	421.50	-878.46	128.13	8	60.	.13-1	1.10-2	3	3	0.00	.44
5.053	421.41	-878.51	128.09	80.	80.	.04-1	1.10-2	2	3	0.00	.11
5.056	421.14	-878.66	127.98	77.	77.	.13-1	.80-1	2	3	0.00	.32
5.057	421.07	-878.70	127.95	79.	70.	.16-1	1.30-2	2	3	0.00	.08
5.058	420.99	-878.74	127.92	85.	75.	.05-1	.50-1	2	3	0.00	.09

5.059	420.99	-878.80	127.88	82.	66.	.04-1	1.00-1	2 3	0.00	.13
5.060	420.88	-878.82	127.86	90.	80.	.04-1	.30-1	2 3	0.00	.06
5.061	420.76	-878.57	127.82	80.	74.	.04-1	.20-1	2 3	0.00	.11
5.063	420.18	-879.19	127.58	90.	75.	.06-1	.68-1	3 3	0.00	.69
5.064	420.03	-879.27	127.51	92.	68.	.05-1	.24-1	2 3	0.00	.18
5.066	419.90	-879.54	127.46	94.	76.	.12-1	.86-1	3 3	0.00	.15
5.067	419.86	-879.37	127.44	92.	80.	.13-1	.67-1	2 3	7.59	.05
5.068	419.79	-879.41	127.41	88.	78.	.03-1	.78-2	2 3	0.00	.08
5.069	419.59	-879.51	127.33	86.	74.	.07-1	1.23-1	2 3	0.00	.23
5.070	419.52	-879.53	127.30	87.	72.	.01-1	1.15-2	2 3	0.00	.08
5.071	419.34	-879.65	127.23	86.	77.	.12-1	.70-2	2 4	0.00	.21
5.074	418.46	-880.13	126.86	86.	78.	.06-1	.69-1	2 3	0.00	1.04
5.075	418.35	-880.20	126.81	85.	75.	.13-1	1.72-2	2 3	0.00	.14
5.076	418.55	-880.20	126.80	91.	73.	.03-1	.72-2	2 3	0.00	.02
5.078	418.16	-880.30	126.73	91.	85.	.08-1	1.05-1	2 3	0.00	.20
5.079	418.10	-880.35	126.70	99.	75.	.04-1	1.60-1	2 3	0.00	.07
5.080	417.92	-880.43	126.63	92.	78.	.06-1	1.50-1	2 3	0.00	.21
5.081	417.80	-880.50	126.58	86.	78.	.13-1	.96-2	2 3	0.00	.14
5.083	417.66	-880.5[illegible]	[illegible]	88.	73.	.07-1	2.20-2	2 3	0.00	.16
5.084	417.49	-880.67	[illegible]	94.	78.	.15-1	1.00-1	2 3	0.00	.20
5.096	414.90	-887.09	125.37	94.	79.	.07-2	.81-1	2 3	0.00	3.07
5.099	414.39	-882.37	125.15	94.	79.	.13-1	[illegible]	2 3	0.00	.61
5.102	413.47	-882.87	124.77	90.	70.	.25-0	[illegible]	2 3	0.00	1.09
5.104	412.62	-883.35	124.41	79.	78.	.40-0	3.90-2	2 3	0.00	1 02
5.105	412.09	-883.64	124.19	85.	64.	.30-1	1.47-0	2 3	0.00	.63
5.107	411.84	-883.77	124.08	73.	74.	.45-1	2.20-1	2 3	0.00	.29
5.109	411.44	-883.99	123.92	80.	70.	.45-1	2.16-2	2 3	0.00	.47
5.110	411.24	-884.10	123.83	86.	62.	.25-1	3.00-2	3 3	0.00	.24
5.113	410.57	-884.47	123.55	92.	79.	.14-1	.20-1	2 3	0.00	.80
5.114	410.30	-884.51	123.52	94.	80.	.14-1	.10-1	2 3	0.00	.08
5.115	410.45	-884.54	123.50	95.	81.	.14-1	.40-1	2 3	0.00	.06
5.116	410.40	-884.57	123.48	92.	85.	.12-1	1.85-2	1 3	0.00	.06
5.117	410.28	-884.63	123.43	95.	80.	.12-1	.60-1	2 3	0.00	.14
5.119	410.02	-884.77	123.32	95.	67.	.09-1	1.40-1	2 3	0.00	.31
5.121	409.87	-884.85	123.26	87.	77.	.03-1	.50-1	2 3	0.00	.18
5.122	409.69	-884.96	123.18	82.	57.	.06-1	.40-2	2 3	0.00	.22
5.123	409.53	-885.04	123.12	93.	80.	.24-1	1.60-2	2 3	0.00	.19
5.132	406.49	-886.71	121.84	81.	80.	.03-1	.30-1	2 3	0.00	3.61
5.133	406.32	-886.80	121.77	90.	70.	.16-1	1.00-1	1 3	0.00	.20
5.134	406.20	-886.87	121.72	80.	70.	.16-1	.25-1	2 3	0.00	.14
5.135	406.15	-886.90	121.70	90.	70.	.10-1	.85-0	2 3	0.00	.06
5.138	405.73	-887.13	121.52	102.	85.	.10-1	.50-1	2 3	0.00	.50
5.140	404.81	-887.63	121 14	90.	60.	.05-1	2.50-1	2 3	0.00	1.09
5.141	404.40	-887.86	120.97	85.	75.	.25-1	1.50-1	2 3	0.00	.49
5.142	404.15	-888.00	120.86	85.	70.	.17-1	2.00-1	2 3	0.00	.30
5.143	[illegible].91	-888.13	120.76	80.	77.	.34-1	2.50-2	2 3	0.00	.28
5.144	[illegible].75	-888.22	120.70	95.	65.	.01-1	1.00-0	1 3	0.00	.19
5.146	403.39	-888.41	120.54	95.	65.	.05-1	1.50-1	1 3	0.00	.43
5.147	403.26	-888.49	120.49	95.	65.	.05-1	3.00-2	2 3	0.00	.16
5.165	400.28	-890.12	119.24	92.	55.	.03-1	.80-0	1 3	0.00	3.54
5.166	399.86	-890.36	119.06	90.	64.	.04-1	.50-0	2 3	0.00	.50
5.167	399.68	-890.45	118.99	95.	65.	.09-1	1.00-0	1 3	0.00	.21
5.169	399.18	-890.73	118.78	85.	80.	.80-1	1.60-1	1 3	0.00	.60
5.170	399.03	-890.81	118.72	85.	80.	.10-1	1.50-0	1 3	0.00	.18
5.173	398.25	-891.24	118.39	80.	70.	.24-1	3.00-2	2 3	0.00	.93
5.174	398.22	-891.25	118.38	80.	70.	.26-1	3.00-2	2 3	0.00	.03
5.175	398.18	-891.28	118.36	80.	70.	.28-1	3.00-2	2 3	0.00	.05
5.176	397.84	-891.47	118.22	98.	70.	.26-1	3.00-2	2 3	0.00	.40
5.178	397.55	-891.63	118.10	100.	75.	.23-1	3.05-2	1 3	0.00	.34
5.179	397.44	-891.69	118.05	83.	58.	.22-1	2.00-1	2 3	0.00	.13

5.180	397.71	-891.54	118.16	75.	67.	.16-1	1.20-0 2 3	0.00	.32
5.181	396.91	-891.98	117.83	98.	73.	.09-1	1.00-0 2 3	0.00	.95
5.184	396.39	-892.26	117.61	90.	75.	.18-1	3.05-2 2 3	0.00	.62
5.186	395.83	-892.57	117.38	95.	70.	.20-1	.70-0 2 3	0.00	.67
5.187	395.51	-892.75	117.24	98.	63.	.13-1	1.10-0 3 3	0.00	.38
5.192	393.55	-893.83	116.42	105.	75.	.02-1	.65-0 2 3	0.00	2.33
5.194	393.42	-893.89	116.37	105.	75.	.03-1	.50-0 3 3	0.00	.15
5.198	392.48	-894.41	115.98	107.	83.	.02-1	.65-0 2 3	0.00	1.12
5.201	391.99	-894.68	115.77	105.	73.	.17-1	2.00-1 2 3	0.00	.58

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2.003	605.94	-5011.15	63.11	5.	104.	.16-2	.20-2 1 3	0.00	-9.99
2.028	605.52	-4998.54	63.15	40.	86.	.12-1	.20-1 1 3	0.00	4.79
2.036	605.44	-4996.55	63.16	35.	223.	.30-1	.08-2 1 3	0.00	.91
2.037	605.41	-4995.16	63.16	13.	226.	.08-2	.07-1 1 3	0.00	.38
2.057	605.08	-4985.39	63.20	14.	58.	.10-2	.20-2 1 3	0.00	3.70
2.061	605.06	-4984.39	63.20	25	85.	.07-2	.60-0 1 3	0.00	.30
2.063	605.03	-4983.69	63.20	7.	69.	.43-1	.14-2 1 3	0.00	.35
2.065	605.01	-4983.09	63.20	22.	95.	.30-2	.03-2 1 3	0.00	.23

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2.001	605.97	-5011.90	63.11	105.	137.	.40-1	.10-1 1 3	0.00	-9.99
2.004	605.87	-5008.81	63.12	99.	175.	.11-1	.17-1 1 3	0.00	2.62
2.005	605.86	-5008.61	63.12	106.	172.	.16-1	.06-2 1 3	0.00	.17
2.006	605.84	-5007.97	63.12	106.	150.	.26-1	.03-2 1 3	0.00	.54
2.007	605.82	-5007.47	63.12	100.	150.	.20-0	.08-2 1 3	0.00	.43
2.009	605.82	-5007.31	63.12	98.	146.	.15-1	.07-1 1 3	0.00	.13
2.013	605.73	-5004.62	63.13	106.	158.	.41-1	.15-1 1 3	0.00	2.29
2.014	605.69	-5003.67	63.14	90	175.	.69-0	.03-2 1 3	0.00	.81
2.016	605.67	-5002.91	63.14	104.	160.	.35-0	.03-2 1 3	0.00	.64
2.017	605.66	-5002.61	63.14	101.	158.	.35-0	.10-2 1 3	0.00	.25
2.018	605.65	-5002.26	63.14	98.	267.	.33-0	.02-2 1 3	0.00	.30
2.019	605.64	-5002.13	63.14	105.	157.	.37-0	.01-2 1 3	0.00	.11
2.020	605.63	-5001.85	63.14	107.	161.	.38-0	.10-2 1 3	0.00	.24
2 021	605.63	-5001.63	63.14	104.	159.	.18-0	.08-1 1 3	0.00	.18
2.022	605.62	-5001.43	63.14	104.	151.	.21-1	.03-1 1 3	0.00	.17
2.023	605.60	-5000.98	63.15	101.	164.	.15-0	.07-1 1 3	0.00	.39
2.026	605.57	-4999.84	63.15	104.	163.	5.28-0	.12-1 1 3	0.00	.96
2.031	605.51	-4998.24	63.15	102.	139.	.61-0	.10-2 1 3	0.00	1.36
2.034	605.46	-4996.55	63.16	99.	145.	.60-0	.07-1 1 3	0.00	1.44
2.038	605.39	-4994.55	63.17	102.	139.	1 10-0	.10-1 1 3	0.00	1.70
2.040	605.36	-4993.51	63.17	110.	148.	.60-0	.06-1 1 3	0.00	.88
2.042	605.31	-4992.11	63.17	102.	150.	.48-0	.03-1 1 3	0.00	1.19
2.044	605.27	-4991.07	63.18	105.	158.	.38-0	.07-2 1 3	0.00	.89
2.045	605.26	-4990.62	63.18	97.	164.	.30-0	.11-1 1 3	0.00	.38
2.052	605.18	-4988.13	63.19	100.	132.	.23-1	.04-1 1 3	0.00	2.11
2.055	605.13	-4986.79	63.19	99.	149.	.31-1	.04-2 1 3	0.00	1.14
2.056	605.11	-4986.21	63.19	85.	168.	.62-1	.18-1 1 4	0.00	.50

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2.002	605.95	-5011.32	63.11	80.	54.	.20-1	.06-2 1 3	0.00	-9.99

2.008	605.82	-5007.40	63.12	75.	42.	.20-0	.07-1	1 1	0.00	.06
2.010	605.81	-5007.24	63.12	98.	50.	.22-1	.03-2	1 3	0.00	.12
2.011	605.83	-5007.12	63.12	75.	6.	.32-0	.02-3	1 3	0.00	.10
2.012	605.75	-5005.20	63.13	90.	25.	.72-0	.03-2	1 3	0.00	1.50
2.024	605.60	-5000.89	63.15	85.	47.	1.21-1	.20-1	2 3	9.46	3.37
2.025	605.57	-5000.02	63.13	92.	35.	.60-0	.11-2	2 3	0.00	.68
2.030	605.52	-4998.34	63.15	105.	61.	.27-1	.60-2	1 3	0.00	1.32
2.033	603.48	-4997.15	63.16	120.	56.	.75-0	.10-1	1 3	0.00	.93
2.035	605.45	-4996.27	63.16	97.	36.	.70-0	.04-2	1 3	0.00	.69
2.039	605.37	-4993.86	63.17	90.	35.	.44-0	.26-2	1 3	0.00	1.88
2.046	605.23	-4989.77	63.18	90.	5.	.91-0	.07-2	1 3	0.00	3.20
2.048	605.21	-4989.27	63.18	126.	60.	.56-1	1.02-2	1 3	5.71	.39
2.050	605.19	-4988.58	63.19	116.	45.	.52-1	.34-2	1 3	0.00	.54
2.053	603.17	-4987.93	63.19	93.	14.	.55-0	.06-2	1 3	0.00	.51
2.058	605.07	-4985.09	63.20	102.	37.	.18-1	.07-2	1 3	0.00	2.22
2.059	605.07	-4984.94	63.20	98.	30.	.07-1	.15-2	1 3	0.00	.12

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2.015	605.69	-5003.51	63.14	105.	110.	.25-1	.05-2	1 3	0.00	-9.99
2.027	605.56	-4999.64	63.15	110.	86.	.33-1	.67-1	1 4	0.00	.29
2.041	605.35	-4993.26	63.17	79.	80.	.55-0	.03-2	1 3	0.00	.47
2.047	603.22	-4989.47	63.18	77.	70.	.39-1	.29-1	1 3	0.00	.28
2.049	605.20	-4988.84	63.19	106.	107.	.53-1	.09-1	1 3	0.00	.05
2.051	605.18	-4988.23	63.19	120.	67.	.34-1	.40-1	1 3	0.00	.04
2.054	605.14	-4986.93	63.19	95.	69.	.46-0	.53-1	1 4	0.00	.09
2.060	605.07	-4984.81	63.20	101.	100.	.28-0	.13-1	1 3	0.00	.16
2.062	605.05	-4984.49	63.20	120.	98.	.40-0	.30-1	1 3	0.00	.03
2.064	605.02	-4983.29	63.20	102.	79.	.12-0	.42-2	1 3	0.00	.08



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