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Multi-scale processing of dipmeter data: field example for 3D description of gravity-driven deformations in the Eocene foreland basin of Ainsa, Spain

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Abstract

This paper presents a new method for dipmeter data processing, that identify significant tilts based on a multi-scale approach. We tested this method on a field example, along three sections in the Eocene Sobrarbe delta, Ainsa foreland basin, northern Spain. The sedimentary and tectonic structures, especially the three main syn-sedimentary sliding surfaces (S1 to S3) observed on the field, were successfully identified from processed dipmeter data.

The tilt axis are mainly trending N-S in sandstones, associated to westward transport of sediments. The sliding surfaces S1 and S3 correspond to E-W-trending tilt axis, tentatively correlated either to the flexural subsidence of the basin, or to anticline growth during sedimentation south of the studied area. Combination of these sedimentary and tectonic directions results in a NE-SW trending submarine slope, that locally controls the gravity-driven deformations, especially on S2 the sliding surfaces. Finally, NNW-SSE-trending tilts above the uppermost S3 sliding surface are interpreted as the result of infilling on the side of the scar produced by sliding.

Keywords : dipmeter, tilt, processing, gravity-driven deformations, foreland basin

Introduction

Among downhole logging tools, dipmeters represent a class of tools designed to measure the orientation, i.e. both dip and dip direction (azimuth), of the planes intersected by a borehole. While borehole are one-dimensional, dipmeter data allow to describe 3-D geometry of sedimentary units, and bring crucial informations on all processes involving changes of orientation in sediment bedding, such as deposition in flows (e.g. Luthi and Banavar, 1988 ; Höcker et al., 1990 ; Donselaar and Schmidt, 2005), deformations during and after sedimentation (e.g. Hesthammer and Fossen, 1998), differential subsidence. It is noteworthy that these changes of orientation occur at various space and time scales, and that their effects are merged in a single record.

However, the word dipmeter refers only to dip measurements, and little has been done to fully use these three-dimensional measurements. The classical tadpole graphical display of dip and azimuth as a function of depth (Serra, 1989) underlines the dip variations, but azimuth variations are uneasy to read. Interpretations often used mainly dip variations (Gilreath, 1987 ; Serra, 1989). Similarly, processing methods either used only dip measurements (Hurley, 1994), or are restricted to a given scale (point to point analysis : Berg, 1998 ; folded structures : Bengtson, 1981).

In this article, we present a new method to process bedding attitudes in order to identify at various scales the successive changes of orientations in a sedimentary section. While designed to process dipmeter logging data, we tested this method on a field example, in the Eocene foreland basin of Ainsa (Spain). This test allows a direct comparison between interpretations from dipmeter analysis and outcrop exposures.

Processing dipmeter data

The processing methodology described herein is a formalized version of the empirical process used by Basile (2000) on logging data. Annexes 1 to 4 present the successive stages of this processing for the three Sections analysed in this paper.

The dipmeter data set consists in a series of measurements of depth, azimuth and dip of stratigraphic bedding surfaces (Annex 1). Processing is based on a comparison of changes of bedding attitude at various scales (Figure 1).

A given scale (e.g. 1 m) defines a window size (1 m in this example). For this given scale the data set is cut in successive windows, positioned symmetrically by reference to the center of the depth interval (e.g. eleven windows from 10 to 21 m for a 10.25 - 20.75 m interval). The upper and lower limit of each window define its position. In each window, we compute a best plane, i.e. an average of the bedding plane orientations contained in this window. A change of attitude (tilt) is then calculated between two successive and adjacent windows (Figure 1, Annex 2). Tilt is defined by a rotation axis, a rotation angle, and a tilt way (Annex 2) ; it is located by the position of the limit between the two consecutive windows. As in most cases sedimentary beds are close to the horizontal, the rotation axis are also close to the horizontal, and are defined only by their trends. The tilt way is defined by the azimuth of the lower plane when both upper and lower planes are rotated to bring the upper one horizontal.

Investigation scales vary from the smallest depth-interval between two data (often at centimeter scale), up to the size of the depth interval for the whole data set (few tens to hundred meters). We used a fixed ratio of $10^{0.1}$ between consecutive scales, investigating ten scales between 10 centimeters and 1 meter, between 1 meter and 10 meter, etc.

This first stage of processing results in matrixes of rotation axis trend, rotation angle, and tilt way as a function of depth and window size (Figure 1, Annex 2). Assuming that some changes of orientation represent significative events, and that others represent random noise, the significative events may be identified by constant parameters (axis trend, angle, way) for various and successive window sizes. On the contrary, axis trend and tilt way of noise may vary with window size, and the tilt angle generated by random noise may decrease when stacked in larger depth-windows. The significative events are tracked from the larger to the smaller window sizes, searching similar rotations characterized by significant rotation angles (by default more than 3°), similar axis trend ± 20°) and similar tilt way in the same depth intervals. We retain only as significative events the rotations that can be tracked in at least three successive window sizes (Annex 3). It happens that for a given scale, two successive tilts (i.e. three successive windows) have similar axis trend and tilt way ; in this case we define the tilt in these three windows by the average trend and by the sum of tilt angles. Among all the rotations tracking a single event for various window sizes, we retain arbitrary the higher rotation angle (Annex 4).

The field example presented in this article has been used to perform several tests for this process :

- Efficiency : does this method correctly identify and measure the sedimentary or structural structures observed on the field ?
- Reproducibility : does this method give similar results when performed in similar sections ?
- Predictive ability : is this method able to identify a structure not observed directly in the logged section, but in its vicinity.

Geological background

The studied sections are located in the Ainsa basin, which represents with Tremp and Jaca basins the Eocene foreland basin south of the Pyrenean belt (Puigdefabregas et al., 1991 ; Figure 2). Lithospheric flexure induced an increasing subsidence towards NorthEast to North-NorthEast. During basin formation and infilling, the development of a thrust ramp (Sierra de Montsec) induced an East-West trending drainage, and the development of the important Sobrarbe delta feeding the Ainsa marine basin from the South East (Figure 2, Dreyer et al., 1999). The propagation of the lateral thrust ramps induced intra-basinal North-South-trending growth anticlines, from East to West, and from the oldest to the youngest : Mediano, Arcusa, Boltana anticlines (Figure 2). These anticlines locally imposed a north-northwestward progradation of the delta. Finally, the Ainsa basin has been unconformably covered by Middle to Upper Eocene continental sediments of Jaca basin (Figure 2).

The studied sections belong to the proximal part of the Sobrarbe delta, at the top of Las Gorgas composite sequence (Dreyer et al., 1999) : the shallower facies are nummulitic limestones, either in situ or resedimented in submarine dunes or sand channels in the delta shoreface ; deeper facies are siltstones and mudstones from the prodelta. In the studied area, the delta front has been affected by large-scale collapses. Dreyer et al. (1999) interpret these collapses as a result of tilting on the flank of a North-South-trending Arcusa growth fold, although they notice that tilting seems to occur towards North-NorthWest. It is noteworthy that the Boltana anticline was not well-developped at the time of deposition of the studied sections, but appeared more recently as a growth fold. Callot et al. (Submitted) identified three sliding surfaces (S1 to S3) in the studied area (Figure 3). S1 and S3 truncate the underlying sediments, with marked angular unconformities (Figures 4 and 5). S1 and S2 are associated to numerous normal faults and clastic dykes that indicate northwestward slides (Callot et al., submitted ; Figure 6). From the orientation of S3 and its vanishing towards north (Figures 3 and 5), a northward slide is postulated for this surface (Callot et al., submitted).

Measurements

We systematically measured available and accessible attitudes of beds along three sections on the right bank of Rio Ena, between barrancos Mazana and Solano (Figure 3 to 5). The measurements were projected horizontally on a vertical log. Elevations are given by reference to the first measure of the section. The error on the difference of depth between two consecutive measures is estimated to 20%, i.e. ± 2 cm for 10 cm, or ± 40 cm for 2 m. As we measured all observed bed surfaces, measurements are closer in sandstones where individual strata are centimeter- to decimeter-thick, than in mudstones where clear beddings are sparse, and often separated by several meters.

We repeated some measurements ten times to estimate instrumental errors on azimuths and dips. The average standard deviations are 2.5° on azimuth measurements (between 1.25° and 3.34°), and 3.7° on dip measurements (between 2.13° and 5.09°). These errors are clearly smaller than the observed variations of azimuths (more than 30°) and dips (more than 40°).

Section I (Figure 7) is a 74 m-high E-W section located just North of barranco Solano (Figure 3). The two other Sections are located 400 m North of Section I (Figure 3), and define two perpendicular sections across a same hill, N-S and E-W for Sections II and III, respectively (Figures 8 and 9). These two sections are close one to another, and several strata (A to D in Figures 8 and 9) can be correlated between it. Strata E correspond to the same measurements at the top of the hill. The upper parts of Sections II and III are lateral equivalents of the first ten meters above the S3 unconformity located at 47.5 m in Section I.

In these three sections or in their vicinity, we observed several structures associated to changes of bed attitude (Figures 7 to 9): sedimentary structures are mainly cross-bedding in sandstones ; syn-sedimentary or syn-diagenetic normal faults currently occur in mudstones. Some of these structures appears in three dimensions as small-scale sliding scars. In Sections II and III, sedimentary dikes were also observed at the base of A sandstones, following S2 sliding surface (Figure 6). Finally, the large-scale changes of attitude are often associated to pinching-out beds, some of them clearly associated to the main unconformities S1 and S3 identified in the area (Callot et al., submitted) (Figures 4 and 5).

Results

Artifacts

The rigthen parts of Figures 7 to 9 display the significative tilts computed from the variations of bed attitude in Sections I to III, respectively (Annexes 3 and 4). We refer to these rotations by the Section number followed by the tilt number (e.g. I-7). In the three cases, the characteristic scales of identified rotations are of course constrained by the distance between consecutive measurements : in mudstones where bedding are sparse, characteristic scales vary from 1 to 10 meter, while they can be as small as 10 cm in sandstones. With this restriction, the dipmetry logs appear as a succession of tilts at various scales. However, some of these tilts are clearly related one to another. We exemplify these cases in Section I (Figure 7), but they were observed similarly in the two other sections :

- In some cases like I-69 and I-152 (elevation 7 m), or I-193 and I-229 (elevation 24 m), two similar rotations have been identified at different scales but for the same elevations. These double identifications are due to the lack of similar tilt axis for a given window size, inducing an interruption of tilt tracking (Figure 1). However, they correspond to a single tilt event whose location is best indicated by the smallest window size.
- An other peculiar feature occurs when the tilt axis progressively rotates when the window size decreases, such as for I-7, I-13 and I-48 (elevation 24 to 30 m). This indicates a progressive change of preferred orientation with scale : smallest scales (< 1 m) correspond to N-S trending rotation, while large scales correspond to E-W trending rotation.
- Finally, many successive tilts indicate similar rotation axis and angle, but opposite tilt ways (e.g. I-15 and I-124, elevation 2 to 5 m ; I-27 and I-3, elevation 12 to 15 m ; I-10 and I-6, elevation 38 to 46 m). These pairs indicate that two sub-parallel beds enclose oblique beds, as cross-bedding between horizontal beddings (Figure 10A). More generally, it is important to remember that the tilt way does not indicate absolute but relative tilt, by

reference to the upper layer. For instance, depending on the dip of this upper layer at the time of sedimentation, a similar tilt way towards East can be interpreted either as a dune dipping East below an horizontal surface, or as an horizontal surface below a dipping West prograding clinoform (Figure 10B).

Section I : various scales

When taking apart the variations associated to these artifacts, the tilts of Section I can be sorted as follow (Figure 7) :

At scales larger than 25 m, two perpendicular tilts are observed. Both tilt ways indicate eastward dips in the lower part of the section, consistent with the decrease of dip with elevation in the section. However, tilt trends differ between the lower part of the section (I-1, trending N30°) and the upper one (I-2, trending N140°). I-2 rotation indicates a progressive tilt from 46 to 76 m.

At 10-meters scale, we observe three successive tilts : in the lowest interval (below 25 m), two tilts (I-9 and I-3) with similar trend (N160°) but opposite ways ; in the 20-35 m-interval, southward tilt I-7 is E-W-trending ; finally in the upper part of the Section (above 35 m), N140°-trending tilts occur with alternative tilt ways (I-10, I-6, I-2).

At smaller scales, the variability of the intervals between consecutive measurements precludes a description of consecutive tilts. However, we observe only few preferred tilt orientations : in the lowest part of the Section, two consecutive and opposite tilts (I-15 et I-124) trend NE-SW at few meters to few decimeters scales. Elsewhere, N-S trending opposite tilts prevail at the smallest scales, including less than 10 cm-scales. Most of these rotations are first (from bottom to top) eastward tilts, then westward (e.g. I-34, I-152 and I-69 followed upward by I-43, I-9 and I-27). Finally, E-W trending tilt axis appear in the 25 to 48 m interval (e.g. I-63 at 41 m or I-22 at 47 m).

Section I : identifications of structures

At all scales, several identified tilts perfectly fit the structures observed on the field :

In the sandstones, the observed cross-bedding (23, 24, 48 m in Section I) are dune-like structures (Figure 11), with oblique beds dipping East between paleo-horizontal surfaces. These structures fit the identified N-S trending tilts at the same elevations (I-143, I-193 and I-229, I-223, I-204, I-212). Tilts with similar trends are also identified in other sandstone beds where cross-bedding was not directly observed (I-152, I-69, I-43, I-9 in the 7-10 m interval ; I-245 and I-157 in the 25-27 m interval).

At a larger scale, nummulitic limestones are systematically associated to NNW-SSE trending rotations with an ENE tilt way (I-3 at 14 m, I-2 in the uppermost part of Section I).

Finally, pinching out and unconformities are well-identified : S1 and S3 sliding surfaces are similarly identified by E-W-trending tilts (I-49 and I-109, and I-22, respectively), with the underlying beds truncated by a north-dipping unconformity. The same E-W-trending tilt (I-63 at 41 m) is observed associated to pinching out at a smaller scale between the two surfaces. However, small-scale and large-scale pinching out overlying S1 and S3 are mainly characterized by similar NW-SE-trending tilts : tilt I-10 fits the 38-40 m pinching out associated to S1 unconformity, with similar NW-SE trend and tilt way as for rotations I-3 (10-20 m) and I-2 (46-74 m), which represents the large-scale wedge overlying S3 unconformity (Figure 4). I-9 (10 m) and I-6 (45 m) share the same NW-SE axis but with an opposite tilt way.

On the contrary relationships between identified tilts and small-scale paleo-scars are not obvious : the trends of rotation axis do not clearly fit the orientation of sliding surfaces (Figure 7) : I-34 at 6 m trends N25° while the sliding surfaces strike N125° to N-S ; I-72 at 18 m trends N145° while the sliding surfaces strike N-S and N75°. At 24 m, the sliding surfaces strike N-S, parallel to many N-S trending rotations that can also be attributed to cross-bedding. At 37 m, I-101 trends N-S as sliding surfaces observed laterally.

Sections II and III

In lower parts of Sections II and III (Figures 8 and 9), the large scales (> 7 m) indicate tilts trending NE-SW (II-8 and II-12) and N-S (III-11, III-1 and III-12), respectively. Similar NW-SE-trending tilts occur in the upper parts of both sections (II-13, II-15, II-3 ; III-13, III-8, III-5).

As in Section I, numerous structures observed on the field are directly identified by significative tilts. In the sandstones, tilts in the observed cross-beding are still trending N-S (III-72 and III-141, III-41 and III-90 in the 11-15 m interval) or NNW-SSE (E strata in Sections II and III). Several tilts fit the location and orientation of the observed small-scale paleo-scars (III-67, III-44 and III-13, III-8 at 22, 26 and 37 m, respectively) or normal faults (III-53 at 1 m), while others (II-15 and II-29, II-24 at 30 and 34 m) are oblique or perpendicular to the orientation of paleo-scars. The sedimentary dykes striking N40° (Figure 6) that underly S2 surface are also well-recorded in both sections (II-44 ; III-26, III-71 and III-88). Finally, the unconformities located at 9 and 11 m (S3) in Section II correspond to E-W-trending tilts (II-45, II-22 and II-37, II-27 and II-38).

As the same data set has been used in the uppermost part of Sections II and III, it represents a good test of the reproducibility of the processing method. Because the position of the investigated windows differs in the two sections, the tracked tilts are not exactly identical. However, both Sections display a similar succession of tilts, for the same strata, with similar trends, angles and tilt ways. Tilt II-119 is the only exception, as it is not observed in Section III, where the change of position of the investigated windows makes the rotation angle too small to be retained.

Interpretation

Dipmetry processing in the three investigated sections shows that this method is able to detect the sedimentary (cross-bedding, unconformity) or tectonic structures (sliding structure, scar, normal fault) observed on the field at various scales. Obviously, this identification provides informations on the geometry of the structures, and allows to discriminate by their orientations structures that can appear comparable on the field. Furthermore, it appears that even when no peculiar structures were observed, the bed attitudes do not vary randomly, but their tilts have preferred orientations that can be ascribed to specific processes identified on other parts of the section. Finally, there are some evidences of reproducibility : in the studied sections we observe similar evolution for two close sections (II and III), especially where the lateral continuity is clear (between strata D and E), but also in the upper part of Section I. Because of shift in the position of investigated windows, there are only slight changes in the results for strata E between Sections II and III.

Of course, dipmetry processing can not be used alone, as it does not provide by itself a geological interpretation of the changes of orientation. But the fact that these changes of orientation are specific to some scales makes the comparison with other data easier. On the field, this method can be time-consuming (for systematic measurements along a section), and lacking precision (because of compass measurements). On the contrary, in drilled borehole, as dipmeter tools provide fast and precise measurements, and moreover allow a systematic survey of bedding attitudes in thicker sedimentary sections, the processing method used herein may be an useful tool to integrate and interpret structural measurements with the other logging records.

For the specific study of the gravity-driven structures in the Sobrarbe delta, the dipmetry results can be interpreted quite simply as a combined effect of sedimentary inputs and large scale tectonic deformations. In the three studied sections as in adjacent places, all evidences, either direct (dunes, cross-bedding, flute-casts) or from dipmetry analysis (N-S-trending tilts in sandstones), indicate a westward transport of detritic particles in this part of the delta. There are only small-scale evidences of N-S-trending gravity-driven sliding, that were probably controlled by sedimentary overloading. These sediments deposited north of the northern termination of the N-S-trending Arcusa anticline, and west of northern termination of Mediano anticline (Dreyer et al., 1999 ; Figure 12). While detrital displacement was controlled southward by the N-S-trending Mediano and Arcusa anticlines, the westward transport in the studied area probably indicates a change of orientation of the transport network where the Arcusa anticline disappears (Figure 12). An alternative hypothesis can be an independant detrital network coming from the uplifted westernmost part of Tremp basin (Figure 5 in Dreyer et al., 1999), crossing the northern termination of Mediano anticline, and converging with the main delta north of Arcusa anticline (Figure 12).

The large scale tectonic deformations are best indicated by E-W-trending tilt axis, associated to S1 and S3 unconformities in Sections I and II. These tilts can be interpreted either as resulting from the regional northward tilt of the flexural basin, or more probably as the southward uplift of the growing Arcusa anticline (Figure 12). In both cases, the recorded tilts in the studied sections are by several orders larger than the large-scale tilt : these mechanisms can only trigger gravity-driven instabilities, inducing locally steep slopes.

A combination of this northward regional tilt with a westward sedimentary transport may generate a NE-SW striking slope at the edge of the delta. This NE-SW direction is mainly recorded by large scale tilts in the lower parts of Sections I and II, but also by extensional structures (normal faults, some small-scale scars, sedimentary dykes), especially associated to sliding surface S2 in Sections II and III (Figure 12).

Finally, it has been observed a significative, while not systematic, difference between tilt axis trend and scar strikes. As proposed by Callot et al. (submitted), this difference may be due to the curvature of slump scar. The arcuate fault may range from perpendicular to the sliding displacement (in the center) to parallel to it (on the edges). A good example is given by the structures observed at 30 m in Section II (Figure 8), where normal faults accommodates a WNW-ESE extension, but where the overlying sliding scars observed just above strike E-W, and probably represent the edge of an arcuate structure. In this case as at larger scale in the upper part of the three Sections, the associated NNW-SSE-trending tilt axis can represent the structures associated to the edge of NNW-SSE elongated sliding surfaces S1 and S3 (Figure 12). Furthermore, the large-scale NNW-SSE-trending tilt associated with nummulitic limestones in Section I, and it ENE tilt way can be interpreted as the record of the southwestward progradation of the overlying mudstones, infilling from the side the depressions formed by previous glidings.

Conclusions

While needing a careful interpretation, the proposed processing method appeared to be successful on this field test in identifying the structures, quantifying the associated tilts and characteristic scales. Easier applications of this processing method can be expected from dipmetry logging in boreholes, even if the geological interpretation will need in every case an integration of all available data. For gravity-driven slides, this method can be helpful, as tilt trends can be expected to be close to the perpendicular of the slide directions, while fault strikes can not easily be related to displacements in arcuate structures.

In the studied area, the variations of orientation of the sedimentary beds can be interpreted as resulting from a sedimentary input from east to west, regional tilts towards North triggering the main gravitational instabilities, and a NE-SW local submarine slope.

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Figure captions

Figure 1 : Successive steps of dipmetry processing : data set, computing tilts as a function of scale, identifying significative tilts. Stereographic projections : Wulff nets, lower hemisphere. See text for details. Tilts and tracked tilts are shown as in Figures 7 to 9.

Figure 2 : Simplified geological map of the central part of the spanish Eocene foreland basin (modified from Fernández Bellon, 2004). The box locates Figure 3.

Figure 3 : Location of studied Sections I to III (Figures 4, 5, 7 to 9) and main sliding structures (S1 to S3, according to Callot et al., submitted). S1 and S3 in grey where hiden. Elevation in meters.

Figure 4 : Section I outcrop, located Figure 3. Measurements follow the dashed line ; the lowest part of the section is not visible on this picture. The main sliding surfaces S1 and S3 are underlined, together with stratigraphic markers α and β (Figure 7). View to the south east.

Figure 5 : Sections II and III outcrop, located Figure 3. Measurements follow the dashed line. The main sliding surfaces S2 and S3 are underlined, together with some stratigraphic markers (A, C to E, Figures 8 and 9). Notice the changes of thickness between D and E. View to the north, Boltana anticline in the background.

Figure 6 : Sedimentary dykes in the mudstones below sandstones A and sliding surface S2 (located in Sections II and III, Figures 8 and 9). Stereographic projection (Wulff net, lower hemisphere) of the dykes measured in the same stratigraphic layer. Notebook (17.5 x 11.5 cm) for scale. Location Figure 5.

Figure 7 : Sedimentary and dipmeter (dip direction and dip) logs for Section I. Strata α and β and sliding surfaces S1 and S3 are located on Figure 4 ; S1 and S3 are also mapped on Figure 3. The lateral equivalent of the upper part of Sections II (above S3) and III (above layer C) is located above S3 surface. On the rigthen part, tilt tracking (grey lines) as a function of investigated window size, and identified significative tilts from processing of dipmeter data

(cf. text and Figure 1). Tilts are referenced by a number attributed during tracking. They are referenced in the text by the Section number and the tilt number (e.g. I-7) ; circled numbers exemplify the structures drawn in Figure 12. Stereographic projections : Wulff nets, lower hemisphere.

Figure 8 : Section II. A to E are common stratigraphic markers in Sections II and III. Strata A and C to E and sliding surfaces S2 and S3 are located on Figure 5 ; S2 and S3 are also mapped on Figure 3. Same caption as for Figure 7.

Figure 9 : Section III. A to E are common stratigraphic markers in Sections II and III. Strata A and C to E and sliding surface S2 are located on Figure 5 ; S2 and S3 are also mapped on Figure 3. Same caption as for Figure 7.

Figure 10. 10A : A single sedimentary structure may be identified by two tilts with opposite tilt ways. Tilt symbol as in Figure 7 to 9. 10B : Various interpretations of the same tilt : the tilt way does not give indications on sedimentary surfaces intersection ; the same tilt way can correspond either to downlap or toplap, but also to curved surfaces.

Figure 11 : Submarine dune built by an accumulation of Nummulites (white dots). Lateral equivalent of sandstones, elevation 48 m, Section I (Figure 7). Compass for scale (9 x 10 cm). Location Figure 4.

Figure 12 : Schematic 3-D view of the main types of structures observed and deduced from dipmeter logs. Numbers refer to examples of tilts associated to each type of structure.

Annexes

Annex 1 : Dipmetry measures (dip direction, dip, elevation) for Sections I to III.

Annex 2 : Computed tilts for Sections I to III.

Annex 3 : Significant tilts (displayed as paths in Figures 7 to 9) for Sections I to III.

Annex 4 : Retained tilts (displayed in Figures 7 to 9) for Sections I to III.

Figure 1

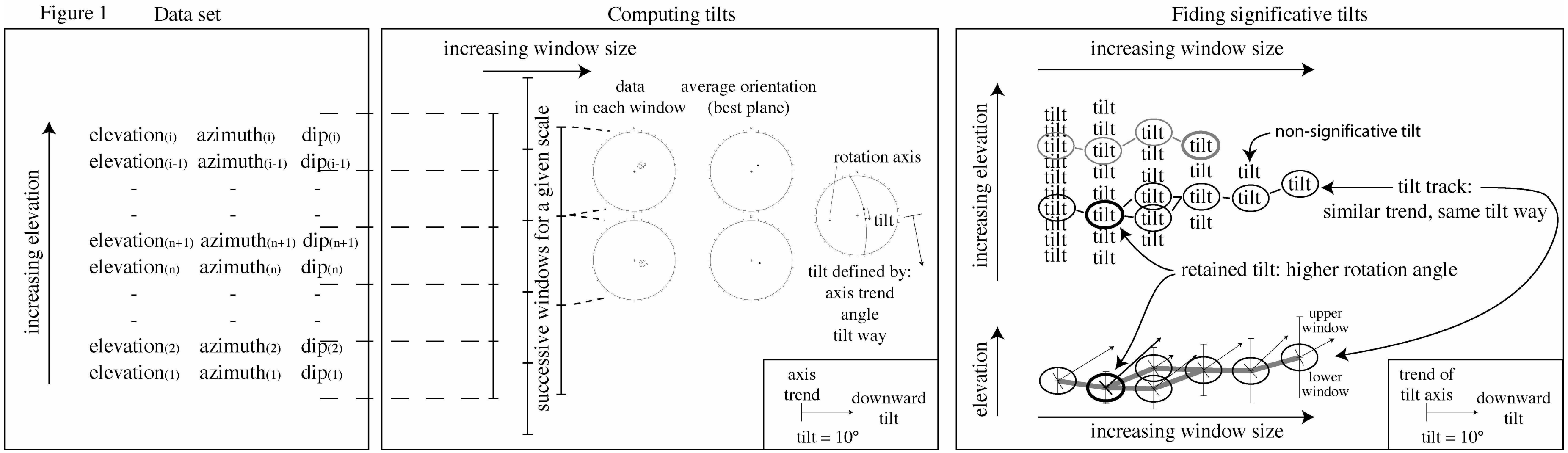

Data set
increasing elevation
elevation(i) azimuth(i) dip(i)
elevation(i-1) azimuth(i-1) dip(i-1)
elevation(n+1) azimuth(n+1) dip(n+1)
elevation(n) azimuth(n) dip(n)
elevation(2) azimuth(2) dip(2)
elevation(1) azimuth(1) dip(1)
Computing tilts
increasing window size
successive windows for a given scale
data
in each window
average orientation
(best plane)
rotation axis
tilt
tilt defined by:
axis trend
angle
tilt way
axis
trend
downward
tilt
tilt = 10°
Fiding significative tilts
increasing window size
increasing elevation
tilt
non-significative tilt
tilt track:
similar trend, same tilt way
retained tilt: higher rotation angle
elevation
upper
window
lower
window
increasing window size
trend of
tilt axis
downward
tilt
tilt = 10°

Figure 2

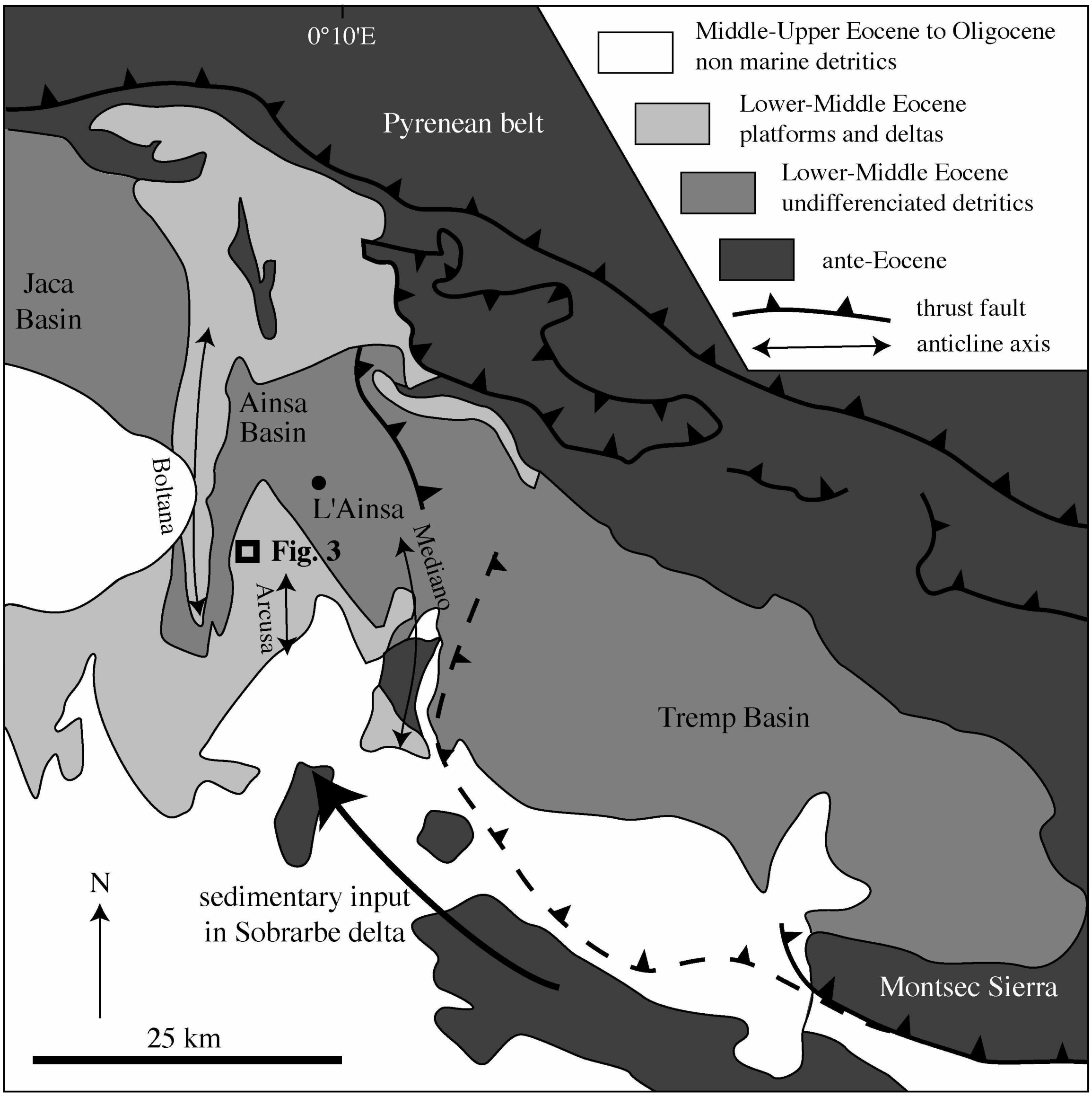

0°10'E
Middle-Upper Eocene to Oligocene non marine detritics
Lower-Middle Eocene platforms and deltas
Lower-Middle Eocene undifferenciated detritics
ante-Eocene
thrust fault
anticline axis
Pyrenean belt
Jaca Basin
Ainsa Basin
Boltana
L'Ainsa
Fig. 3
Arcusa
Mediano
Tremp Basin
Montsec Sierra
sedimentary input in Sobrarbe delta
N
25 km

Figure 3

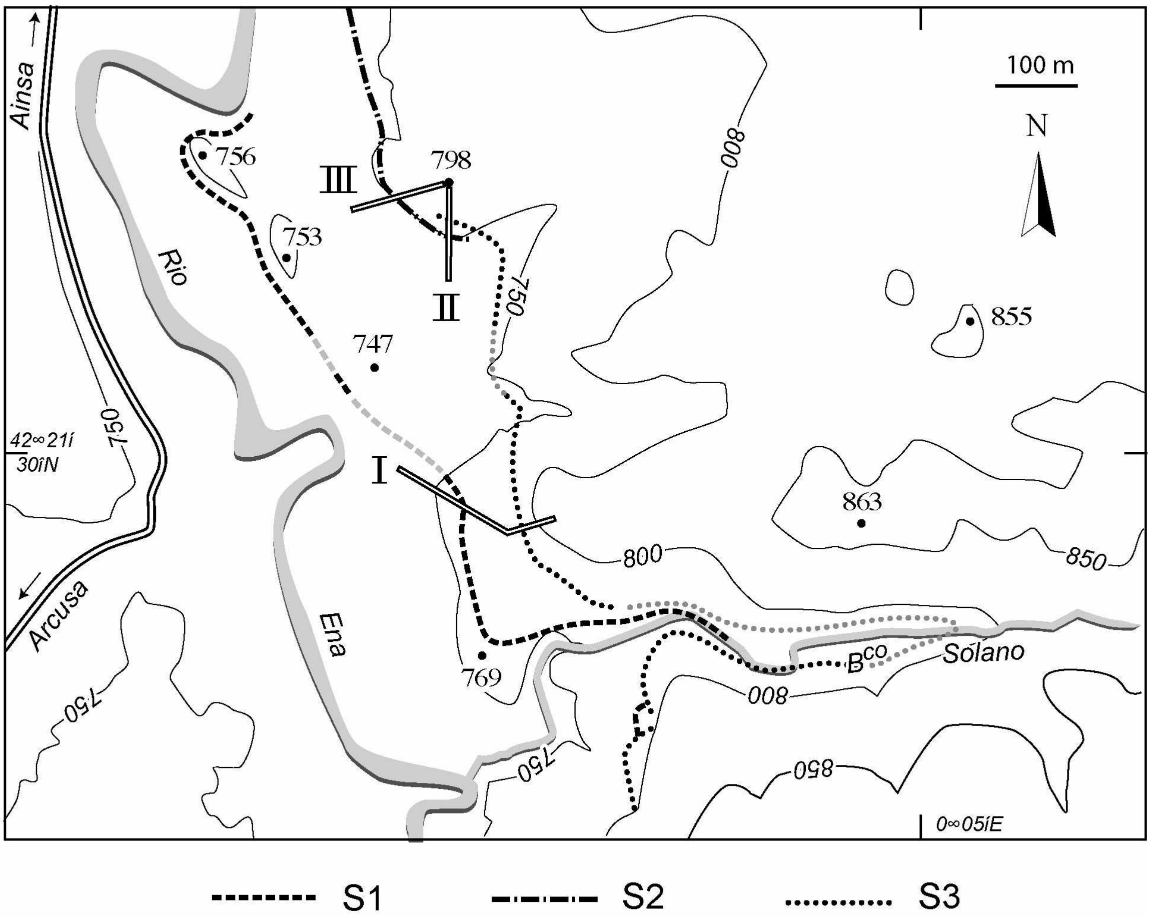

Ainsa
Arcusa
Rio
Ena
756
753
747
798
III
II
I
750
800
850
855
863
769
Bco Solano
100 m
N
42∞21í
30îN
0∞05íE
S1
S2
S3

Figure 4

Figure 5


Boltana anticline
E
D
Section III
C
A
S2
A
Section II
Figure 6
S3

Figure 6

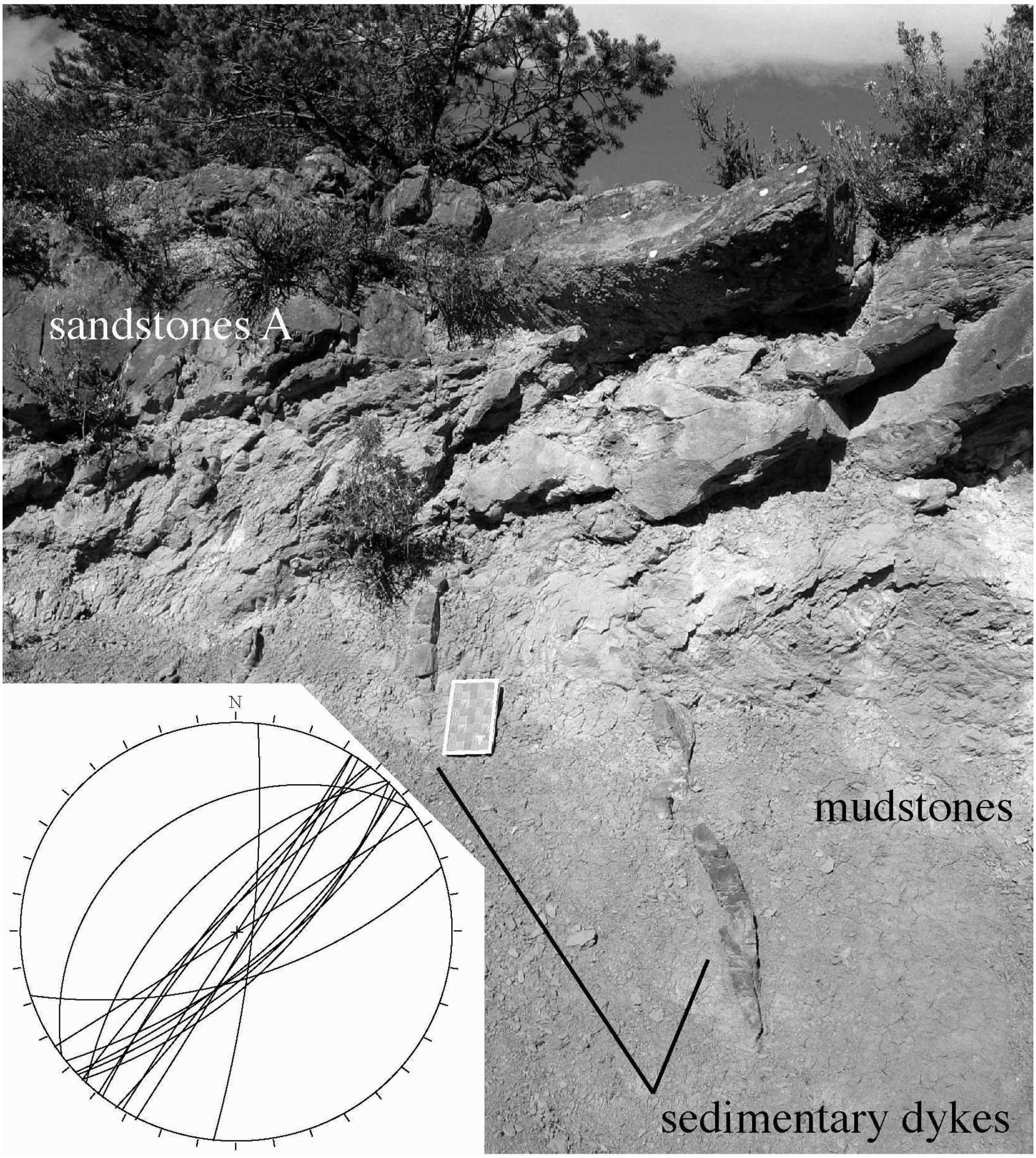


Figure 7

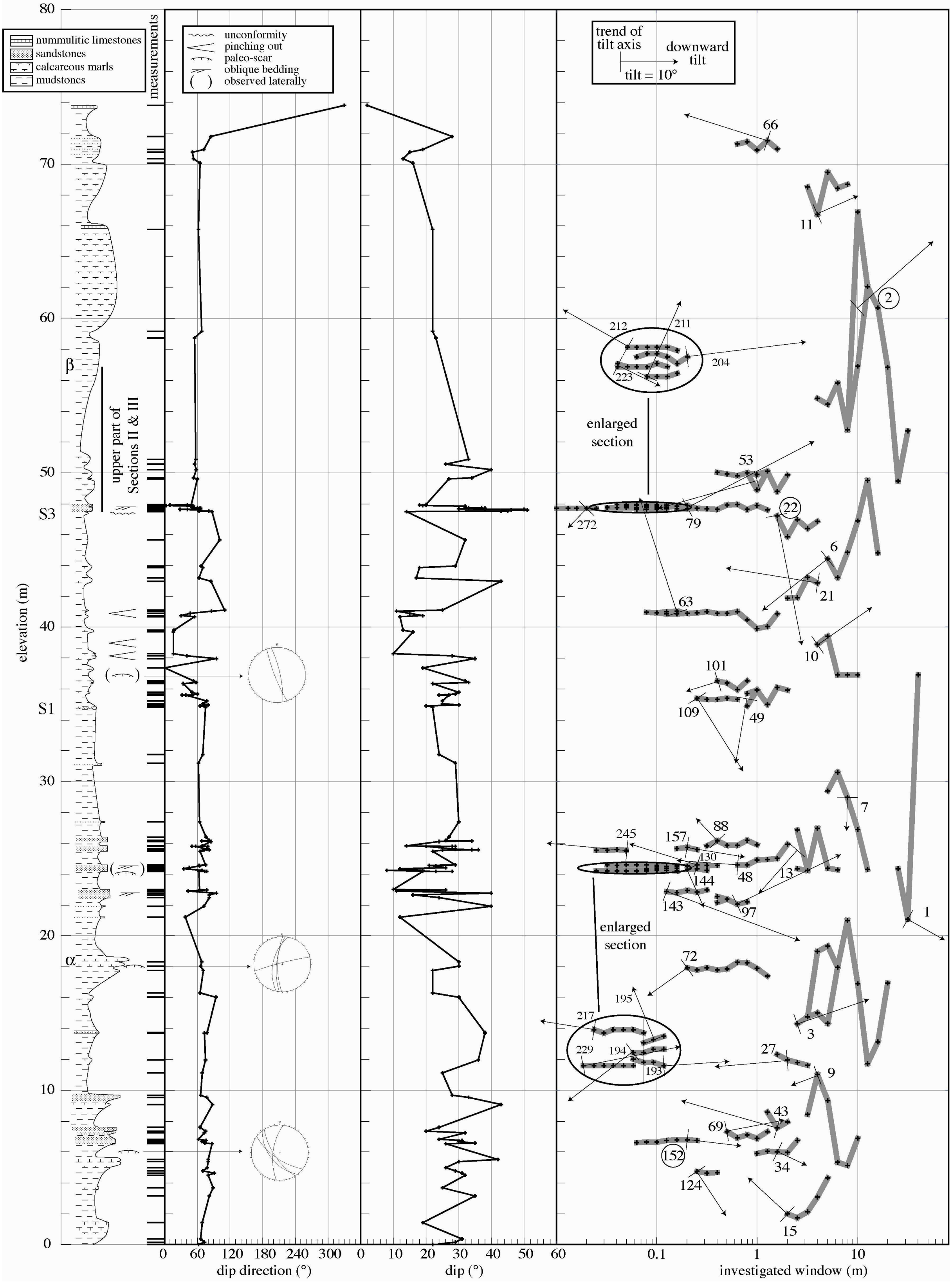

nummulitic limestones
sandstones
calcareous marls
mudstones
measurements
unconformity
pinching out
paleo-scar
oblique bedding
( ) observed laterally
trend of tilt axis
downward tilt
tilt = 10°
elevation (m)
80
70
60
50
40
30
20
10
0
S3
S1
β
α
upper part of Sections II & III
enlarged section
enlarged section
0 60 120 180 240 300
dip direction (°)
0 10 20 30 40 50 60
dip (°)
0.1
1
10
investigated window (m)
66
11
2
212
211
204
223
53
272
79
22
6
21
63
10
101
109
49
7
245
157
88
130
144
48
13
143
97
1
72
195
217
229
194
193
3
27
9
43
69
152
34
124
15

Figure 8

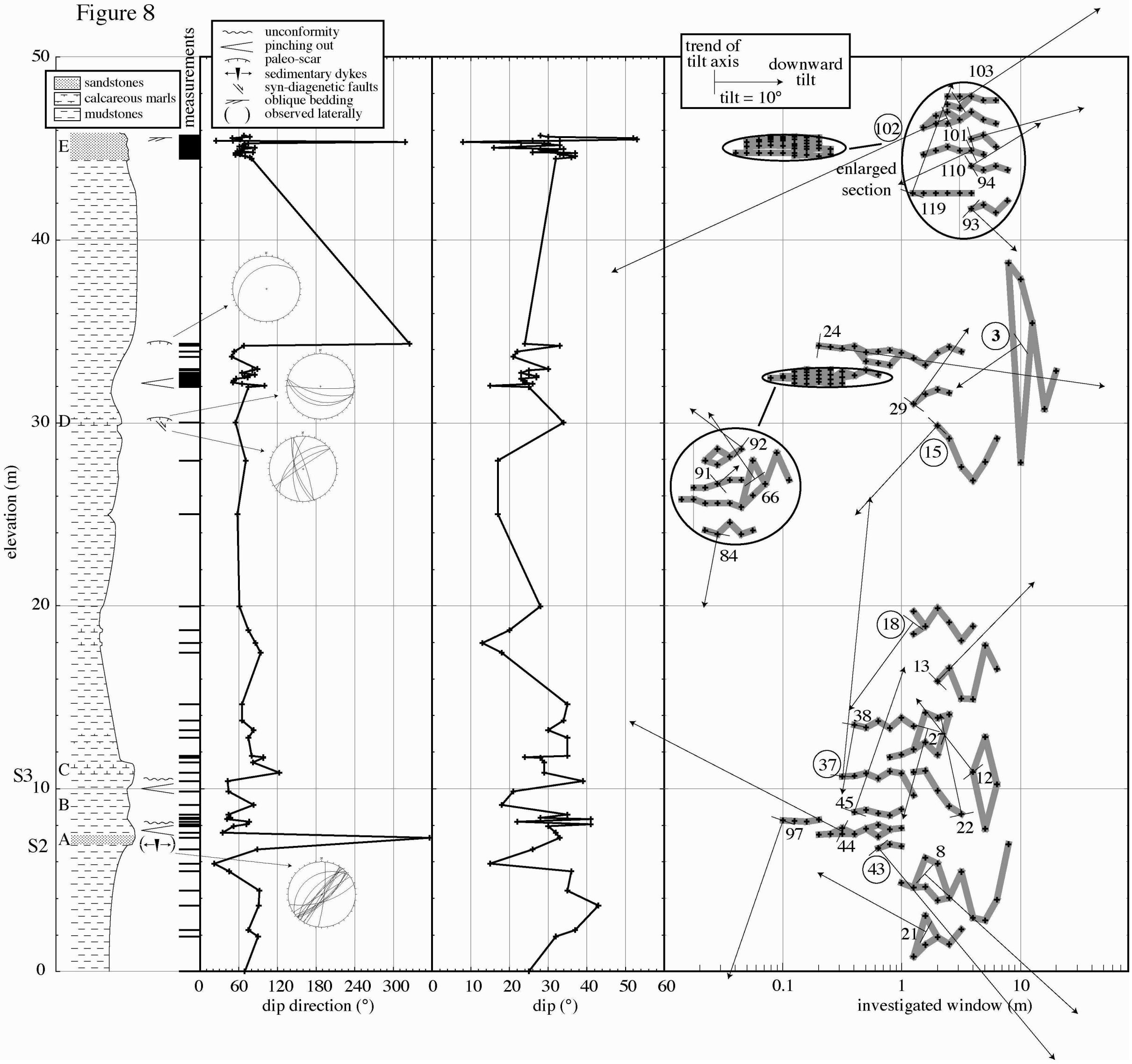

sandstones
calcareous marls
mudstones
measurements
unconformity
pinching out
paleo-scar
sedimentary dykes
syn-diagenetic faults
oblique bedding
( ) observed laterally
trend of tilt axis
downward tilt
tilt = 10°
elevation (m)
0
10
20
30
40
50
E
D
C
B
A
S3
S2
0
60
120
180
240
300
dip direction (°)
0
10
20
30
40
50
60
dip (°)
0.1
1
10
investigated window (m)
enlarged section
102
103
101
110
94
119
93
24
3
29
15
92
91
66
84
18
13
38
27
37
12
45
22
97
44
43
8
21

Figure 9

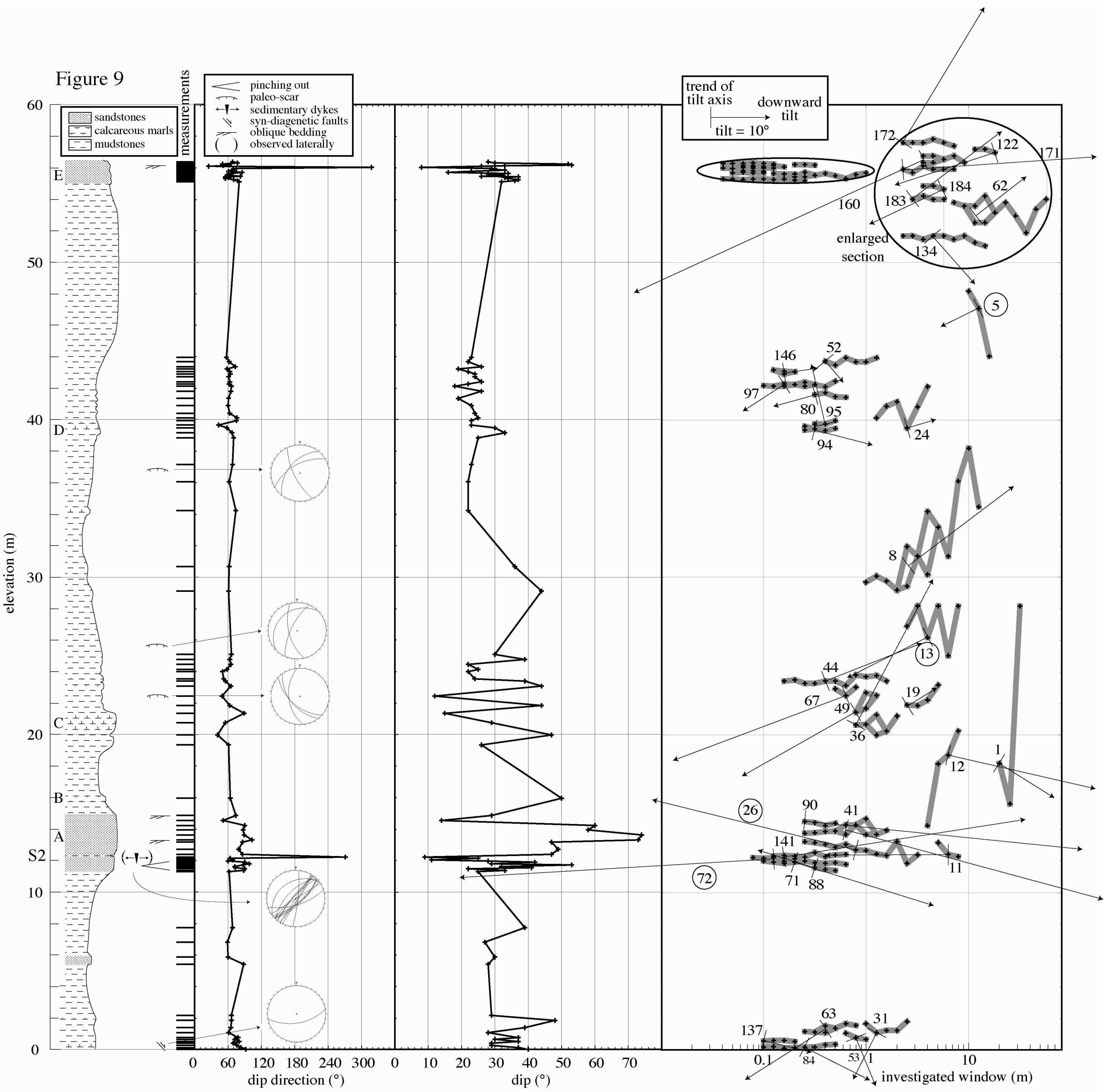


Figure 10

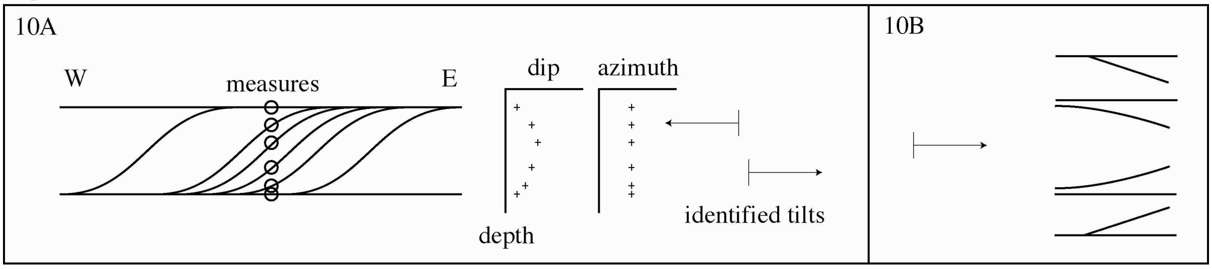


Figure 11

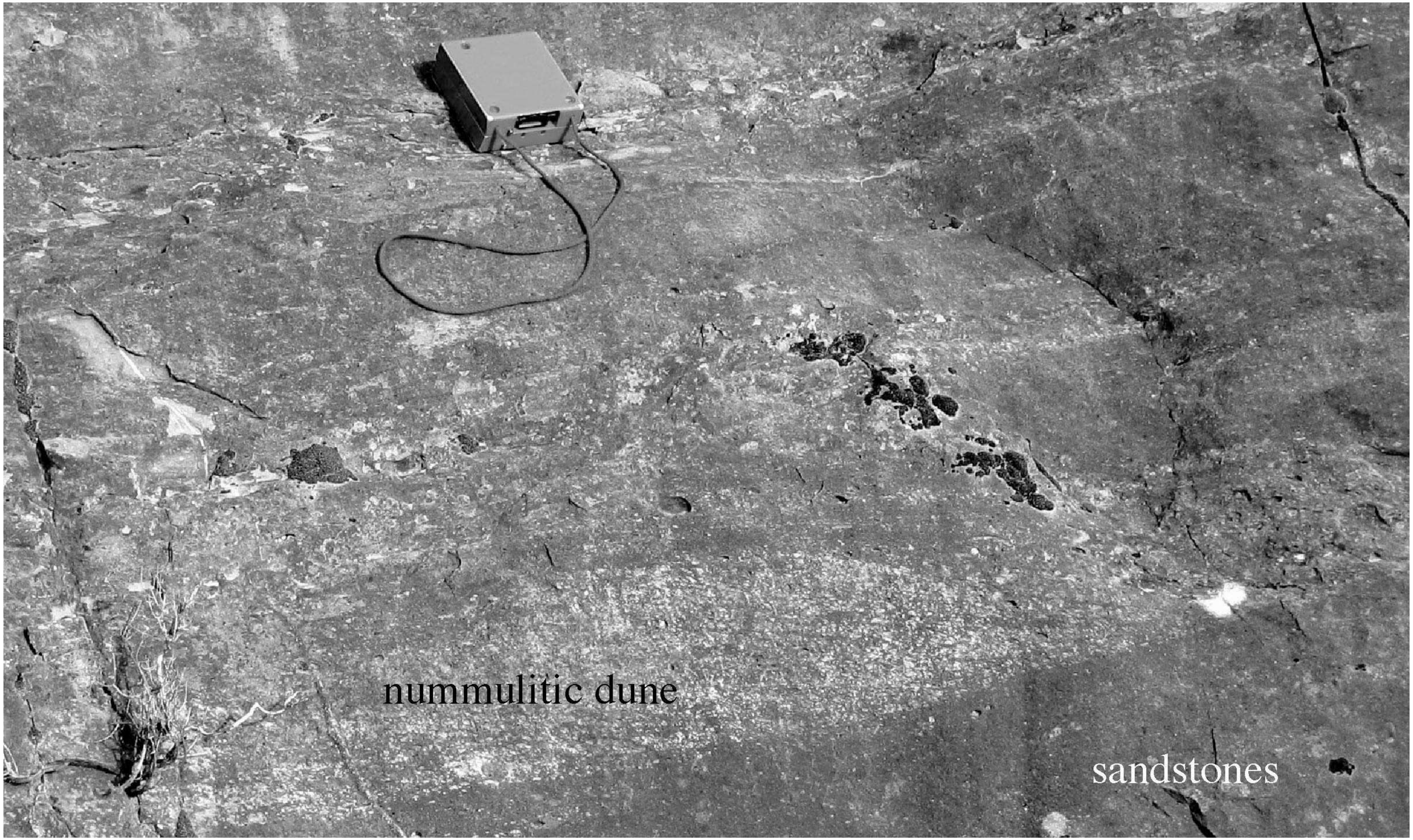
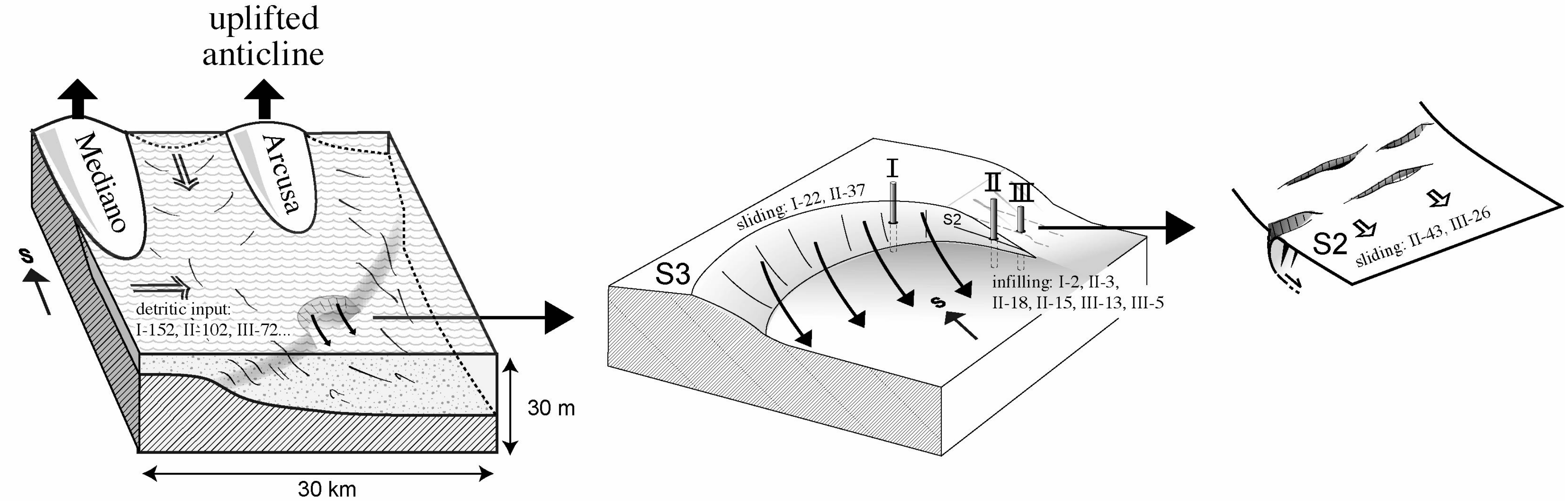


Figure 12


uplifted anticline
Mediano
Arcusa
s
detritic input:
I-152, II-102, III-72...
30 m
30 km
S3
sliding: I-22, II-37
I
II
III
S2
s
infilling: I-2, II-3,
II-18, II-15, III-13, III-5
S2
sliding: II-43, III-26

Annex 1

Section I

dip direction	dip	elevation
62	22	0
73	29	0.1433725
66	31	0.35843125
69	19	1.433725
82	35	3.154195
89	25	3.670336
80	32	4.5018965
91	31	4.645269
70	29	4.7886415
78	26	4.989363
80	30	5.3621315
80	42	5.505504
87	26	6.537786
74	35	6.595135
68	30	6.6811585
76	31	6.75284475
62	24	6.81019375
73	32	7.24031125
75	20	7.35500925
65	24	7.58440525
88	43	9.07547925
77	33	9.53427125
66	28	9.67764375
69	25	11.11136875
75	36	11.97160375
73	38	13.69207375
78	38	13.74942275
94	30	16.04338275
65	22	16.33012775
71	22	17.76385275
66	30	18.05059775
68	30	18.33734275
38	12	21.20479275
72	40	21.92165525
82	24	22.49514525
82	16	22.66719225
95	40	22.75321575
43	11	22.89658825
77	26	22.98261175
64	10	23.0256235
63	19	24.1726035
77	28	24.1898082
74	23	24.1955431
68	8	24.23855485
69	19	24.26722935
35	12	24.35325285
45	26	24.41060185
64	23	24.52529985
63	21	24.58264885
75	29	24.61132335
65	22	25.47155835
70	25	25.55758185
73	36	25.58625635
82	34	25.59772615
77	29	25.61493085
57	20	25.78697785
50	28	25.79271275
79	29	25.81565235
69	14	25.8299896
85	24	26.1167346
68	34	26.151144
82	26	26.1740836
76	27	26.4034796
64	30	27.39274985
62	29	31.20645835
70	24	31.77994835
75	22	34.81944535
65	20	34.90546885
80	30	34.96281785
70	25	35.04884135
77	25	35.22088835
39	27	35.59365685
32	24	35.6022592
50	24	35.61086155
60	29	35.66247565
50	30	35.77717365
34	22	36.35066365
58	33	36.40801265
53	32	36.52271065
0	19	37.38294565
95	35	37.95643565
41	28	38.1428199
16	10	38.30052965
16	16	39.6969778
17	13	39.79733855
55	12	40.7005853
30	19	40.7579343
47	15	40.9013068
86	11	41.03034205
110	25	41.11636555
85	43	42.98020805
63	17	43.20960405
70	18	43.86911755
67	29	43.95514105
101	32	45.67561105
87	14	47.51077905
81	45	47.53945355
63	43	47.5480559
66	46	47.58533275

63	51	47.59680255
28	50	47.62547705
42	38	47.6398143
64	30	47.67135625
66	38	47.6971633
65	33	47.71150055
64	37	47.7201029
60	37	47.73444015
55	33	47.74017505
50	32	47.7774519
53	32	47.8348009
3	19	47.8921499
42	18	47.9036197
10	20	47.92369185
49	20	47.9667036
60	27	49.61548735
53	34	49.6871736
58	40	50.2033146
55	26	50.56174585
57	33	50.8915026
55	23	58.7483156
68	22	59.1784331
62	22	65.7735681
65	16	70.0747431
53	13	70.3614881
51	15	70.7916056
72	19	70.9349781
85	28	71.7952131
330	2	73.8024281

Section II

dip direction	dip	elevation
69	25	0
90	32	1.91
75	37	2.26
91	43	3.62
92	35	4.44
45	36	5.47
22	15	5.89
89	26	6.69
356	33	7.32
35	32	7.6
52	30	7.95
72	41	8.07
76	22	8.19
42	41	8.34
47	28	8.42
44	35	8.58
83	18	9.11
44	21	9.85
43	39	10.41
123	29	10.89
82	29	11.44
98	28	11.68
98	24	11.73
80	35	11.78
75	35	12.79
83	30	13.19
65	34	13.72
65	35	14.63
94	18	17.43
86	13	17.95
75	20	18.68
61	28	19.98
58	17	25
71	17	27.95
55	34	30.04
75	25	31.97
100	15	32.05
65	26	32.13
51	24	32.21
52	24	32.33
56	23	32.41
74	27	32.49
69	27	32.57
85	25	32.65
65	23	32.73
81	25	32.88
89	30	32.96
49	21	33.62
53	22	33.92
68	33	34.22
325	24	34.32
80	32	44.46
77	36	44.53
70	37	44.59
55	34	44.65
62	33	44.71
55	37	44.77
82	26	44.8
58	32	44.87
65	28	44.93
66	34	44.99
85	16	45.05
61	23	45.11
68	33	45.18
69	29	45.24
75	30	45.3
318	8	45.36
25	26	45.42
51	33	45.45
62	53	45.52

50	52	45.58
77	30	45.64
68	28	45.7

Section III

dip direction	dip	elevation
92	40	0
83	37	0.13
76	29	0.26
69	29	0.39
80	37	0.52
72	30	0.65
78	37	0.77
61	28	1.08
65	39	1.39
66	48	1.86
66	29	2.17
88	28	5.42
60	30	5.89
59	27	6.81
68	39	7.74
62	25	11.31
88	33	11.39
90	22	11.47
73	41	11.56
72	32	11.64
87	53	11.73
98	29	11.81
90	42	11.89
60	28	11.98
68	11	12.06
64	25	12.15
271	9	12.23
86	47	12.39
79	49	12.7
86	47	13.16
103	73	13.32
89	74	13.63
87	58	13.94
90	60	14.25
51	14	14.56
74	29	14.87
64	50	15.95
61	26	19.36
41	47	19.98
55	29	20.75
89	15	21.37
63	44	21.84
49	12	22.46
65	44	23.08
55	39	23.39
52	24	23.54
50	22	24
58	25	24.16
65	22	24.47
63	39	24.78
66	30	25.09
61	44	29.12
62	36	30.66
74	22	34.23
62	22	36.08
68	23	37.17
70	25	38.87
67	33	39.18
58	30	39.49
43	23	39.65
75	23	39.96
76	25	40.11
63	24	40.42
60	23	40.89
61	19	41.35
65	26	41.81
66	18	42.12
62	22	42.28
63	26	42.43
61	24	42.74
64	24	42.9
63	22	43.05
58	19	43.21
73	26	43.36
62	22	43.67
57	23	43.98
80	32	55.13
77	36	55.2
70	37	55.26
55	34	55.32
62	33	55.38
55	37	55.44
82	26	55.47
58	32	55.54
65	28	55.6
66	34	55.66
85	16	55.72
61	23	55.78
68	33	55.85
69	29	55.91
75	30	55.97
318	8	56.03
25	26	56.09
51	33	56.12
62	53	56.19
50	52	56.25

77	30	56.31
68	28	56.37

Annex 2

Section I

		first window				second window								
window size	depth between two consecutive windows	number of measures	average orientation			number of measures	average orientation			tilt angle	tilt axis			tilt way
0.008	24.18	1	153	NE	19	1	167	E	28	10.53	9.9	N	11.7	281
0.008	24.18	1	167	E	28	1	164	E	23	5.16	178.6	N	6.1	90
0.008	25.81	1	169	E	29	1	159	E	14	15.39	177	N	4.4	88
0.008	35.61	1	122	NE	24	1	140	NE	24	7.3	41	NE	23.7	310
0.008	47.54	1	171	E	45	1	153	NE	43	12.63	59.6	NE	42.9	155
0.008	47.58	1	156	NE	46	1	153	NE	51	5.48	137.9	SE	17.8	221
0.008	47.62	1	118	NE	50	1	132	NE	38	15.39	94.5	E	25.5	354
0.008	47.73	1	154	NE	37	1	150	NE	37	2.41	62	NE	37	152
0.008	47.74	1	150	NE	37	1	145	NE	33	4.92	178	N	19.5	94
0.008	47.89	1	93	N	19	1	132	NE	18	12.2	27.2	NE	17.4	296
0.01	24.18	1	153	NE	19	1	167	E	28	10.53	9.9	N	11.7	281
0.01	24.19	1	167	E	28	1	164	E	23	5.16	178.6	N	6.1	90
0.01	25.59	1	163	E	36	1	172	E	34	5.53	102.8	E	32.2	8
0.01	25.79	1	147	NE	20	1	140	NE	28	8.48	125.4	SE	7.6	214
0.01	25.82	1	169	E	29	1	159	E	14	15.39	177	N	4.4	88
0.01	35.6	1	129	NE	27	1	122	NE	24	4.25	167.7	N	17.7	81
0.01	35.61	1	122	NE	24	1	140	NE	24	7.3	41	NE	23.7	310
0.01	47.53	1	171	E	45	1	153	NE	43	12.63	59.6	NE	42.9	155
0.01	47.58	1	156	NE	46	1	153	NE	51	5.48	137.9	SE	17.8	221
0.01	47.62	1	118	NE	50	1	132	NE	38	15.39	94.5	E	25.5	354
0.01	47.71	1	155	NE	33	1	154	NE	37	4.04	147.8	SE	4.7	236
0.01	47.72	1	154	NE	37	1	150	NE	37	2.41	62	NE	37	152
0.01	47.73	1	150	NE	37	1	145	NE	33	4.92	178	N	19.5	94
0.01	47.89	1	93	N	19	1	132	NE	18	12.2	27.2	NE	17.4	296
0.013	24.17	1	153	NE	19	1	167	E	28	10.53	9.9	N	11.7	281
0.013	24.18	1	167	E	28	1	164	E	23	5.16	178.6	N	6.1	90
0.013	25.58	1	163	E	36	1	172	E	34	5.53	102.8	E	32.2	8
0.013	25.78	1	147	NE	20	1	140	NE	28	8.48	125.4	SE	7.6	214
0.013	26.16	1	158	E	34	1	172	E	26	10.58	127.6	SE	18.8	33
0.013	35.6	2	125.7	NE	25.5	1	140	NE	24	6.15	57.8	NE	23.8	326
0.013	47.54	1	171	E	45	1	153	NE	43	12.63	59.6	NE	42.9	155
0.013	47.59	1	156	NE	46	1	153	NE	51	5.48	137.9	SE	17.8	221
0.013	47.62	1	118	NE	50	1	132	NE	38	15.39	94.5	E	25.5	354
0.013	47.7	1	156	NE	38	1	155	NE	33	5.03	160.9	N	3.8	72
0.013	47.71	1	155	NE	33	1	154	NE	37	4.04	147.8	SE	4.7	236
0.013	47.73	1	154	NE	37	1	150	NE	37	2.41	62	NE	37	152
0.013	47.74	1	150	NE	37	1	145	NE	33	4.92	178	N	19.5	94
0.016	24.18	1	153	NE	19	2	165.6	E	25.5	8.03	13.8	N	12.7	285
0.016	25.59	1	163	E	36	1	172	E	34	5.53	102.8	E	32.2	8
0.016	25.6	1	172	E	34	1	167	E	29	5.64	13.6	N	13.9	107
0.016	25.79	2	142.9	NE	24	1	169	E	29	12.54	40.5	NE	23.5	312
0.016	25.81	1	169	E	29	1	159	E	14	15.39	177	N	4.4	88
0.016	26.16	1	158	E	34	1	172	E	26	10.58	127.6	SE	18.8	33
0.016	35.61	2	125.7	NE	25.5	1	140	NE	24	6.15	57.8	NE	23.8	326
0.016	47.52	1	177	E	14	1	171	E	45	31.1	169	S	2	259
0.016	47.54	1	171	E	45	1	153	NE	43	12.63	59.6	NE	42.9	155
0.016	47.59	1	156	NE	46	1	153	NE	51	5.48	137.9	SE	17.8	221
0.016	47.68	1	154	NE	30	1	156	NE	38	8.08	161.6	N	4.4	253
0.016	47.7	1	156	NE	38	1	155	NE	33	5.03	160.9	N	3.8	72
0.016	47.71	1	155	NE	33	1	154	NE	37	4.04	147.8	SE	4.7	236
0.016	47.73	1	154	NE	37	2	147.6	NE	35	4.26	27.1	NE	31.1	123
0.016	47.9	2	112	N	17.5	1	100	N	20	4.57	50.3	NE	15.5	139
0.02	24.18	1	153	NE	19	2	165.6	E	25.5	8.03	13.8	N	12.7	285
0.02	24.59	1	153	NE	21	1	165	E	29	9.44	9.1	N	12.7	281
0.02	25.59	2	167.4	E	34.9	1	167	E	29	5.92	168.9	N	1	79
0.02	25.79	2	142.9	NE	24	1	169	E	29	12.54	40.5	NE	23.5	312
0.02	25.81	1	169	E	29	1	159	E	14	15.39	177	N	4.4	88
0.02	26.15	1	158	E	34	1	172	E	26	10.58	127.6	SE	18.8	33
0.02	35.61	2	125.7	NE	25.5	1	140	NE	24	6.15	57.8	NE	23.8	326
0.02	47.52	1	177	E	14	1	171	E	45	31.1	169	S	2	259
0.02	47.54	1	171	E	45	1	153	NE	43	12.63	59.6	NE	42.9	155
0.02	47.68	1	154	NE	30	1	156	NE	38	8.08	161.6	N	4.4	253
0.02	47.7	1	156	NE	38	1	155	NE	33	5.03	160.9	N	3.8	72
0.02	47.72	1	155	NE	33	2	152	NE	37	4.34	134	SE	13.1	220
0.02	47.74	2	152	NE	37	1	145	NE	33	5.65	8.1	N	23.9	104
0.02	47.76	1	145	NE	33	1	140	NE	32	2.87	28.7	NE	30.2	122
0.02	47.9	1	93	N	19	1	132	NE	18	12.2	27.2	NE	17.4	296
0.02	47.92	1	132	NE	18	1	100	N	20	10.48	37.2	NE	17.9	127
0.025	23	1	167	E	26	1	154	NE	10	16.4	174.2	N	3.5	85
0.025	24.18	2	161.3	E	23.3	1	164	E	23	1.13	92.1	E	22	358
0.025	24.21	1	164	E	23	1	158	E	8	15.07	167	N	1.3	77
0.025	25.56	1	160	E	25	1	163	E	36	11.1	168.3	N	3.9	259
0.025	25.59	1	163	E	36	2	169.7	E	31.5	5.84	132	SE	20.5	36
0.025	25.79	1	147	NE	20	2	154.7	NE	27.7	8.32	171.3	N	8.5	263
0.025	25.82	2	154.7	NE	27.7	1	159	E	14	13.8	150.9	SE	2	60
0.025	26.17	1	158	E	34	1	172	E	26	10.58	127.6	SE	18.8	33
0.025	47.52	1	177	E	14	2	162.2	E	43.6	30.28	157	SE	4.9	247
0.025	47.69	2	155.1	NE	34	1	155	NE	33	1	157.8	N	1.8	68
0.025	47.72	1	155	NE	33	3	149.8	NE	35.6	3.92	109.7	E	24.8	194
0.025	47.89	1	93	N	19	1	132	NE	18	12.2	27.2	NE	17.4	296
0.025	47.92	1	132	NE	18	1	100	N	20	10.48	37.2	NE	17.9	127
0.025	47.94	1	100	N	20	1	139	NE	20	13.11	29.5	NE	18.9	298
0.032	13.71	1	163	E	38	1	168	E	38	3.08	75.5	E	38	345
0.032	23.01	1	167	E	26	1	154	NE	10	16.4	174.2	N	3.5	85
0.032	24.18	1	153	NE	19	2	165.6	E	25.5	8.03	13.8	N	12.7	285
0.032	24.21	2	165.6	E	25.5	1	158	E	8	17.59	168.8	N	1.5	79
0.032	24.24	1	158	E	8	1	159	E	19	11	159.7	N	0.2	250
0.032	24.59	1	153	NE	21	1	165	E	29	9.44	9.1	N	12.7	281
0.032	25.57	1	160	E	25	2	167.4	E	34.9	10.56	1.7	N	9.8	274
0.032	25.6	2	167.4	E	34.9	1	167	E	29	5.92	168.9	N	1	79
0.032	25.79	1	147	NE	20	3	155.6	NE	23.1	4.45	14.6	N	15	287
0.032	26.14	1	175	E	24	1	158	E	34	12.87	130.4	SE	17.4	218
0.032	26.17	1	158	E	34	1	172	E	26	10.58	127.6	SE	18.8	33
0.032	34.93	1	155	NE	20	1	170	E	30	11.77	12.6	N	12.5	284
0.032	35.59	1	129	NE	27	2	131	NE	23.7	3.37	116.6	SE	6.2	25
0.032	47.51	1	177	E	14	2	162.2	E	43.6	30.28	157	SE	4.9	247
0.032	47.61	2	154.4	NE	48.5	2	124.2	NE	43.8	22.14	32.4	NE	43.8	132
0.032	47.64	2	124.2	NE	43.8	1	154	NE	30	22.25	92.2	E	27	353
0.032	47.67	1	154	NE	30	1	156	NE	38	8.08	161.6	N	4.4	253
0.032	47.7	1	156	NE	38	3	152.9	NE	35.6	2.98	6.5	N	21.6	102
0.032	47.74	3	152.9	NE	35.6	1	145	NE	33	5.19	23.4	NE	28.9	119
0.032	47.77	1	145	NE	33	1	140	NE	32	2.87	28.7	NE	30.2	122
0.032	47.8	1	140	NE	32	1	143	NE	32	1.59	51.5	NE	32	321
0.032	47.89	1	93	N	19	2	115.2	NE	18.3	7.08	19.8	N	18.2	289
0.04	6.79	1	166	E	31	1	152	NE	24	9.49	18.5	N	17.9	113
0.04	13.72	1	163	E	38	1	168	E	38	3.08	75.5	E	38	345
0.04	22.99	1	167	E	26	1	154	NE	10	16.4	174.2	N	3.5	85
0.04	24.19	2	161.3	E	23.3	1	164	E	23	1.13	92.1	E	22	358
0.04	24.23	1	164	E	23	2	158.7	E	13.5	9.63	170.8	N	2.9	81
0.04	24.38	1	125	NE	12	1	135	NE	26	14.32	142.6	NW	3.7	233
0.04	24.54	1	154	NE	23	1	153	NE	21	2.03	163.4	N	3.9	74
0.04	24.58	1	153	NE	21	1	165	E	29	9.44	9.1	N	12.7	281
0.04	25.58	1	160	E	25	3	167.3	E	32.9	8.68	4.9	N	11.1	277
0.04	25.82	3	152.6	NE	25.1	1	159	E	14	11.28	145.5	SE	3.3	55

0.04	26.14	1	175	E	24	2	164.1	E	29.8	7.59	132.5	SE	16.7	220
0.04	34.93	1	155	NE	20	1	170	E	30	11.77	12.6	N	12.5	284
0.04	36.37	1	124	NE	22	1	148	NE	33	15.42	178.4	N	18.2	270
0.04	47.51	1	177	E	14	2	162.2	E	43.6	30.28	157	SE	4.9	247
0.04	47.55	2	162.2	E	43.6	2	154.4	NE	48.5	7.37	119.7	SE	32.8	201
0.04	47.59	2	154.4	NE	48.5	2	124.2	NE	43.8	22.14	32.4	NE	43.8	132
0.04	47.63	2	124.2	NE	43.8	1	154	NE	30	22.25	92.2	E	27	353
0.04	47.67	1	154	NE	30	2	155.5	NE	35.5	5.56	162	N	4.6	253
0.04	47.71	2	155.5	NE	35.5	3	149.8	NE	35.6	3.32	65.1	NE	35.5	155
0.04	47.75	3	149.8	NE	35.6	1	140	NE	32	6.54	16.5	N	27.5	112
0.04	47.79	1	140	NE	32	1	143	NE	32	1.59	51.5	NE	32	321
0.04	47.91	2	112	N	17.5	1	100	N	20	4.57	50.3	NE	15.5	139
0.04	47.95	1	100	N	20	1	139	NE	20	13.11	29.5	NE	18.9	298
0.05	6.56	1	177	E	26	1	164	E	35	11.11	138	SE	17.1	225
0.05	6.71	1	158	E	30	1	166	E	31	4.18	56.1	NE	29.5	328
0.05	13.73	1	163	E	38	1	168	E	38	3.08	75.5	E	38	345
0.05	23	1	167	E	26	1	154	NE	10	16.4	174.2	N	3.5	85
0.05	24.2	3	162.2	E	23.2	1	158	E	8	15.26	164.2	N	0.9	74
0.05	24.25	1	158	E	8	1	159	E	19	11	159.7	N	0.2	250
0.05	24.3	1	159	E	19	1	125	NE	12	11.19	14.3	N	11.2	106
0.05	24.55	1	154	NE	23	1	153	NE	21	2.03	163.4	N	3.9	74
0.05	24.6	1	153	NE	21	1	165	E	29	9.44	9.1	N	12.7	281
0.05	25.5	1	155	NE	22	1	160	E	25	3.6	8.9	N	12.7	281
0.05	25.55	1	160	E	25	2	167.4	E	34.9	10.56	1.7	N	9.8	274
0.05	25.6	2	167.4	E	34.9	1	167	E	29	5.92	168.9	N	1	79
0.05	25.8	2	142.9	NE	24	2	165.7	E	21.4	9.07	81.4	E	21.3	350
0.05	26.15	2	165.1	E	28.7	1	172	E	26	4.17	122.9	SE	20.2	29
0.05	34.93	1	155	NE	20	1	170	E	30	11.77	12.6	N	12.5	284
0.05	35.63	3	130.3	NE	24.8	1	150	NE	29	9.8	22.7	NE	23.8	294
0.05	36.38	1	124	NE	22	1	148	NE	33	15.42	178.4	N	18.2	270
0.05	40.74	1	145	NE	12	1	120	NE	19	9.53	89.4	E	10	179
0.05	47.56	3	164.3	E	34	2	154.4	NE	48.5	15.83	140.5	SE	15.2	226
0.05	47.61	2	154.4	NE	48.5	2	124.2	NE	43.8	22.14	32.4	NE	43.8	132
0.05	47.66	2	124.2	NE	43.8	2	155.1	NE	34	21.47	81.9	E	32.8	343
0.05	47.71	2	155.1	NE	34	4	151.1	NE	34.9	2.48	89.6	E	31.5	175
0.05	47.76	4	151.1	NE	34.9	1	140	NE	32	6.76	25.6	NE	29.6	121
0.05	47.81	1	140	NE	32	1	143	NE	32	1.59	51.5	NE	32	321
0.05	47.86	1	143	NE	32	2	112	N	17.5	19.03	167.6	N	14.6	81
0.05	47.91	2	112	N	17.5	1	100	N	20	4.57	50.3	NE	15.5	139
0.05	47.96	1	100	N	20	1	139	NE	20	13.11	29.5	NE	18.9	298
0.063	6.56	1	177	E	26	1	164	E	35	11.11	138	SE	17.1	225
0.063	6.62	1	164	E	35	1	158	E	30	5.94	9.6	N	16.8	104
0.063	6.81	1	166	E	31	1	152	NE	24	9.49	18.5	N	17.9	113
0.063	22.71	1	172	E	16	1	5	S	40	24.63	11.6	N	5.5	282
0.063	24.22	3	162.2	E	23.2	2	158.7	E	13.5	9.78	166.6	N	1.9	77
0.063	24.54	1	154	NE	23	1	153	NE	21	2.03	163.4	N	3.9	74
0.063	24.6	1	153	NE	21	1	165	E	29	9.44	9.1	N	12.7	281
0.063	25.8	2	142.9	NE	24	2	165.7	E	21.4	9.07	81.4	E	21.3	350
0.063	26.12	1	175	E	24	2	164.1	E	29.8	7.59	132.5	SE	16.7	220
0.063	34.95	1	155	NE	20	1	170	E	30	11.77	12.6	N	12.5	284
0.063	35.01	1	170	E	30	1	160	E	25	6.79	24.4	NE	18.1	118
0.063	35.64	3	130.3	NE	24.8	1	150	NE	29	9.8	22.7	NE	23.8	294
0.063	39.74	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.063	41.07	1	176	E	11	1	20	S	25	15.57	35.3	NE	7	306
0.063	43.91	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.063	47.57	3	164.3	E	34	4	140.2	NE	45.1	18.75	104.9	E	30.1	190
0.063	47.63	4	140.2	NE	45.1	2	155.1	NE	34	14.54	114.1	SE	23.9	15
0.063	47.69	2	155.1	NE	34	4	151.1	NE	34.9	2.48	89.6	E	31.5	175
0.063	47.76	4	151.1	NE	34.9	1	140	NE	32	6.76	25.6	NE	29.6	121
0.063	47.82	1	140	NE	32	1	143	NE	32	1.59	51.5	NE	32	321
0.063	47.88	1	143	NE	32	3	107.6	N	18.3	19.84	171.2	N	16.5	85
0.063	47.95	3	107.6	N	18.3	1	139	NE	20	10.32	23.4	NE	18.2	293
0.063	49.65	1	150	NE	27	1	143	NE	34	7.84	122.8	SE	13.1	210
0.079	4.58	1	170	E	32	1	1	S	31	5.83	97	E	30.9	5
0.079	6.56	1	177	E	26	1	164	E	35	11.11	138	SE	17.1	225
0.079	6.64	1	164	E	35	1	158	E	30	5.94	9.6	N	16.8	104
0.079	6.72	1	158	E	30	1	166	E	31	4.18	56.1	NE	29.5	328
0.079	6.8	1	166	E	31	1	152	NE	24	9.49	18.5	N	17.9	113
0.079	7.28	1	163	E	32	1	165	E	20	12.03	160.2	S	1.7	70
0.079	13.71	1	163	E	38	1	168	E	38	3.08	75.5	E	38	345
0.079	22.69	1	172	E	16	1	5	S	40	24.63	11.6	N	5.5	282
0.079	22.92	1	133	NE	11	1	167	E	26	17.89	5.4	N	8.8	276
0.079	23	1	167	E	26	1	154	NE	10	16.4	174.2	N	3.5	85
0.079	24.2	3	162.2	E	23.2	2	158.7	E	13.5	9.78	166.6	N	1.9	77
0.079	24.28	2	158.7	E	13.5	1	125	NE	12	7.48	40.5	NE	11.9	131
0.079	24.35	1	125	NE	12	1	135	NE	26	14.32	142.6	NW	3.7	233
0.079	24.59	2	153.5	NE	22	1	165	E	29	8.54	11.9	N	14.1	284
0.079	25.55	1	155	NE	22	4	165.8	E	30.9	10.1	6.3	N	11.8	278
0.079	25.78	1	147	NE	20	3	155.6	NE	23.1	4.45	14.6	N	15	287
0.079	34.84	1	165	E	22	1	155	NE	20	4.1	39.2	NE	18.1	131
0.079	34.92	1	155	NE	20	1	170	E	30	11.77	12.6	N	12.5	284
0.079	35	1	170	E	30	1	160	E	25	6.79	24.4	NE	18.1	118
0.079	35.63	3	130.3	NE	24.8	1	150	NE	29	9.8	22.7	NE	23.8	294
0.079	35.71	1	150	NE	29	1	140	NE	30	5.02	68.1	E	28.8	157
0.079	39.76	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.079	40.72	1	145	NE	12	1	120	NE	19	9.53	89.4	E	10	179
0.079	40.96	1	137	NE	15	1	176	E	11	9.4	90.7	E	11	360
0.079	41.04	1	176	E	11	1	20	S	25	15.57	35.3	NE	7	306
0.079	43.9	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.079	47.55	3	164.3	E	34	3	142.6	NE	47.7	19.54	114.8	SE	27.2	200
0.079	47.63	3	142.6	NE	47.7	3	147	NE	34.8	13.18	135.2	SE	8.1	42
0.079	47.71	3	147	NE	34.8	5	149	NE	34.3	1.27	88.1	E	30.8	352
0.079	47.79	5	149	NE	34.3	1	143	NE	32	3.98	16.3	N	26.6	111
0.079	47.87	1	143	NE	32	3	107.6	N	18.3	19.84	171.2	N	16.5	85
0.079	47.95	3	107.6	N	18.3	1	139	NE	20	10.32	23.4	NE	18.2	293
0.079	49.61	1	150	NE	27	1	143	NE	34	7.84	122.8	SE	13.1	210
0.1	0.06	1	152	NE	22	1	163	E	29	8.42	9.1	N	13.7	281
0.1	4.56	1	170	E	32	1	1	S	31	5.83	97	E	30.9	5
0.1	5.46	1	170	E	30	1	170	E	42	12	170	N	0	260
0.1	6.56	1	177	E	26	1	164	E	35	11.11	138	SE	17.1	225
0.1	6.66	1	164	E	35	2	162.1	E	30.4	4.68	174	N	6.9	86
0.1	6.76	2	162.1	E	30.4	1	152	NE	24	7.89	9.6	N	15.2	103
0.1	7.26	1	163	E	32	1	165	E	20	12.03	160.2	S	1.7	70
0.1	22.96	1	133	NE	11	2	163.3	E	17.9	10.03	15.6	N	9.8	286
0.1	24.26	4	161.7	E	19.5	2	145.9	NE	14.9	6.51	18.4	N	11.9	110
0.1	24.36	2	145.9	NE	14.9	1	135	NE	26	11.7	122.5	SE	6	212
0.1	24.46	1	135	NE	26	1	154	NE	23	8.39	77	E	22.5	344
0.1	24.56	1	154	NE	23	2	159.9	E	24.9	3.04	26.3	NE	18.6	298
0.1	25.56	2	157.7	E	23.5	3	167.3	E	32.9	10.47	5.6	N	11.5	278
0.1	26.16	2	165.1	E	28.7	1	172	E	26	4.17	122.9	SE	20.2	29
0.1	34.86	1	165	E	22	1	155	NE	20	4.1	39.2	NE	18.1	131
0.1	34.96	1	155	NE	20	2	165.4	E	27.4	8.49	7.7	N	11.1	279
0.1	35.66	3	130.3	NE	24.8	1	150	NE	29	9.8	22.7	NE	23.8	294
0.1	35.76	1	150	NE	29	1	140	NE	30	5.02	68.1	E	28.8	157
0.1	36.36	1	124	NE	22	1	148	NE	33	15.42	178.4	N	18.2	270
0.1	36.46	1	148	NE	33	1	143	NE	32	2.87	31.7	NE	30.2	125
0.1	39.75	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.1	40.95	1	137	NE	15	1	176	E	11	9.4	90.7	E	11	360
0.1	41.05	1	176	E	11	1	20	S	25	15.57	35.3	NE	7	306

0.1	47.55	3	164.3	E	34	4	140.2	NE	45.1	18.75	104.9	E	30.1	190
0.1	47.65	4	140.2	NE	45.1	6	152.4	NE	34.6	13.03	116.5	SE	22	18
0.1	47.75	6	152.4	NE	34.6	2	141.5	NE	32	6.51	29.3	NE	30	124
0.1	47.85	2	141.5	NE	32	3	107.6	N	18.3	19.41	169.2	N	16.2	83
0.1	47.95	3	107.6	N	18.3	1	139	NE	20	10.32	23.4	NE	18.2	293
0.1	49.65	1	150	NE	27	1	143	NE	34	7.84	122.8	SE	13.1	210
0.1	70.85	1	141	NE	15	1	162	E	19	7.27	27.6	NE	13.8	298
0.126	0.08	1	152	NE	22	1	163	E	29	8.42	9.1	N	13.7	281
0.126	4.61	1	170	E	32	1	1	S	31	5.83	97	E	30.9	5
0.126	4.74	1	1	S	31	1	160	E	29	10.64	68.2	E	29	161
0.126	4.87	1	160	E	29	1	168	E	26	4.75	116.4	SE	20.9	23
0.126	6.63	2	169.6	E	30.3	2	162.1	E	30.4	3.83	77.5	E	30.3	168
0.126	6.75	2	162.1	E	30.4	1	152	NE	24	7.89	9.6	N	15.2	103
0.126	7.26	1	163	E	32	1	165	E	20	12.03	160.2	S	1.7	70
0.126	9.65	1	167	E	33	1	156	NE	28	7.48	25.5	NE	22	121
0.126	22.74	1	172	E	16	1	5	S	40	24.63	11.6	N	5.5	282
0.126	22.87	1	5	S	40	2	156.9	NE	17.9	25.45	20.3	N	12.5	115
0.126	22.99	2	156.9	NE	17.9	1	154	NE	10	7.89	160.3	N	1.1	71
0.126	24.25	4	161.7	E	19.5	2	145.9	NE	14.9	6.51	18.4	N	11.9	110
0.126	24.38	2	145.9	NE	14.9	1	135	NE	26	11.7	122.5	SE	6	212
0.126	24.5	1	135	NE	26	3	158	E	24.2	9.87	67.7	E	24.2	336
0.126	25.51	1	155	NE	22	4	165.8	E	30.9	10.1	6.3	N	11.8	278
0.126	26.14	1	175	E	24	2	164.1	E	29.8	7.59	132.5	SE	16.7	220
0.126	34.83	1	165	E	22	1	155	NE	20	4.1	39.2	NE	18.1	131
0.126	34.95	1	155	NE	20	2	165.4	E	27.4	8.49	7.7	N	11.1	279
0.126	35.71	4	135.7	NE	25.6	1	140	NE	30	4.83	159.8	N	11	252
0.126	36.46	2	138.3	NE	27	1	143	NE	32	5.51	162.8	N	12	255
0.126	38.23	1	131	NE	28	1	106	N	10	19.37	142.3	NW	6	54
0.126	39.74	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.126	40.74	1	145	NE	12	1	120	NE	19	9.53	89.4	E	10	179
0.126	40.87	1	120	NE	19	1	137	NE	15	6.34	78.4	E	12.9	347
0.126	41	1	137	NE	15	2	12.6	E	17.7	15.27	65.5	NE	14.3	335
0.126	43.89	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.126	47.54	3	164.3	E	34	4	140.2	NE	45.1	18.75	104.9	E	30.1	190
0.126	47.67	4	140.2	NE	45.1	7	150.7	NE	34.2	12.8	120.1	SE	19.1	23
0.126	47.79	7	150.7	NE	34.2	4	120.1	NE	20.8	19.09	179.5	N	18.1	94
0.126	47.92	4	120.1	NE	20.8	1	139	NE	20	6.61	46.5	NE	20	316
0.126	70.83	1	141	NE	15	1	162	E	19	7.27	27.6	NE	13.8	298
0.158	0.14	1	152	NE	22	1	163	E	29	8.42	9.1	N	13.7	281
0.158	0.29	1	163	E	29	1	156	NE	31	4.03	102.9	E	25.7	190
0.158	4.57	1	170	E	32	1	1	S	31	5.83	97	E	30.9	5
0.158	4.73	1	1	S	31	1	160	E	29	10.64	68.2	E	29	161
0.158	4.89	1	160	E	29	1	168	E	26	4.75	116.4	SE	20.9	23
0.158	5.37	1	170	E	30	1	170	E	42	12	170	N	0	260
0.158	6.63	2	169.6	E	30.3	2	162.1	E	30.4	3.83	77.5	E	30.3	168
0.158	6.79	2	162.1	E	30.4	1	152	NE	24	7.89	9.6	N	15.2	103
0.158	7.27	1	163	E	32	1	165	E	20	12.03	160.2	S	1.7	70
0.158	7.43	1	165	E	20	1	155	NE	24	5.47	118.9	SE	14.7	207
0.158	9.64	1	167	E	33	1	156	NE	28	7.48	25.5	NE	22	121
0.158	18.2	1	156	NE	30	1	158	E	30	1	67	NE	30	337
0.158	22.64	1	172	E	24	2	1.1	E	27.9	5.55	39.4	NE	18.1	312
0.158	22.8	2	1.1	E	27.9	1	133	NE	11	21.98	21	N	10.2	113
0.158	22.96	1	133	NE	11	2	163.3	E	17.9	10.03	15.6	N	9.8	286
0.158	24.23	3	162.2	E	23.2	3	148.4	NE	12.5	11.43	176.1	N	5.9	87
0.158	24.38	3	148.4	NE	12.5	2	143.9	NE	24.2	11.75	139.6	SE	2	229
0.158	24.54	2	143.9	NE	24.2	2	159.9	E	24.9	6.64	55.5	NE	24.2	325
0.158	25.49	1	155	NE	22	4	165.8	E	30.9	10.1	6.3	N	11.8	278
0.158	25.65	4	165.8	E	30.9	3	152.6	NE	25.1	8.47	22.5	N	19.7	117
0.158	25.81	3	152.6	NE	25.1	1	159	E	14	11.28	145.5	SE	3.3	55
0.158	25.97	1	159	E	14	1	175	E	24	11.19	13.5	N	8	284
0.158	26.13	1	175	E	24	2	164.1	E	29.8	7.59	132.5	SE	16.7	220
0.158	26.29	2	164.1	E	29.8	1	166	E	27	2.95	149.7	SE	8.1	57
0.158	34.84	1	165	E	22	2	163.9	E	24.8	2.85	156.5	SE	3.4	246
0.158	35	2	163.9	E	24.8	1	160	E	25	1.66	78.9	E	24.7	169
0.158	35.16	1	160	E	25	1	167	E	25	2.96	73.5	E	25	343
0.158	35.64	3	130.3	NE	24.8	2	144.9	NE	29.4	8.07	10.1	N	21.8	282
0.158	36.43	2	138.3	NE	27	1	143	NE	32	5.51	162.8	N	12	255
0.158	38.01	1	5	S	35	1	131	NE	28	28.17	53	NE	27.5	149
0.158	38.17	1	131	NE	28	1	106	N	10	19.37	142.3	NW	6	54
0.158	39.76	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.158	40.71	1	145	NE	12	1	120	NE	19	9.53	89.4	E	10	179
0.158	40.87	1	120	NE	19	1	137	NE	15	6.34	78.4	E	12.9	347
0.158	41.03	1	137	NE	15	2	12.6	E	17.7	15.27	65.5	NE	14.3	335
0.158	43.09	1	175	E	43	1	153	NE	17	27.84	5	N	9.2	99
0.158	43.88	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.158	47.52	1	177	E	14	7	148.3	NE	42.1	30.41	138.4	SE	8.8	228
0.158	47.68	7	148.3	NE	42.1	7	149.3	NE	34.4	7.67	145.2	SE	2.8	54
0.158	47.84	7	149.3	NE	34.4	4	115.9	NE	18.2	21.42	173	N	15.4	87
0.158	70.82	1	141	NE	15	1	162	E	19	7.27	27.6	NE	13.8	298
0.2	0.19	2	158.2	E	25.4	1	156	NE	31	5.7	147.8	SE	4.9	237
0.2	4.58	1	170	E	32	2	170.8	E	29.6	2.45	161.9	S	5	71
0.2	4.78	2	170.8	E	29.6	1	168	E	26	3.82	7.4	N	9.2	100
0.2	5.38	1	170	E	30	1	170	E	42	12	170	N	0	260
0.2	6.58	1	177	E	26	3	162.8	E	32	9.08	124.3	SE	21.2	212
0.2	6.78	3	162.8	E	32	1	152	NE	24	9.39	6.8	N	14.3	100
0.2	9.57	1	167	E	33	1	156	NE	28	7.48	25.5	NE	22	121
0.2	16.15	1	4	S	30	1	155	NE	22	14.81	45.2	NE	20.8	139
0.2	17.95	1	161	E	22	1	156	NE	30	8.29	144.6	SE	6.5	233
0.2	18.15	1	156	NE	30	1	158	E	30	1	67	NE	30	337
0.2	22.54	1	172	E	24	1	172	E	16	8	172	S	0	82
0.2	22.74	1	172	E	16	2	173.8	E	23.9	7.94	177.1	N	1.5	267
0.2	22.94	2	173.8	E	23.9	2	163.3	E	17.9	7.05	18.9	N	10.7	111
0.2	24.33	5	161.2	E	19.4	3	140.2	NE	20	7.07	66	NE	19.3	156
0.2	24.53	3	140.2	NE	20	2	159.9	E	24.9	8.92	25.2	NE	18.3	297
0.2	25.53	1	155	NE	22	4	165.8	E	30.9	10.1	6.3	N	11.8	278
0.2	25.73	4	165.8	E	30.9	4	153.6	NE	22.3	10.16	9.3	N	13.4	103
0.2	25.93	4	153.6	NE	22.3	1	175	E	24	8.52	62	NE	22.3	332
0.2	26.13	1	175	E	24	2	164.1	E	29.8	7.59	132.5	SE	16.7	220
0.2	26.33	2	164.1	E	29.8	1	166	E	27	2.95	149.7	SE	8.1	57
0.2	34.91	2	160.2	E	20.9	2	165.4	E	27.4	6.82	179.5	N	7.2	271
0.2	35.11	2	165.4	E	27.4	1	167	E	25	2.51	151.7	SE	7	60
0.2	35.71	4	135.7	NE	25.6	1	140	NE	30	4.83	159.8	N	11	252
0.2	36.51	2	138.3	NE	27	1	143	NE	32	5.51	162.8	N	12	255
0.2	38.1	1	5	S	35	2	124.3	NE	18.7	30.01	33.9	NE	18.7	129
0.2	39.7	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.2	40.9	2	129.7	NE	15.2	2	153.4	NE	12.3	6.26	78.9	E	11.9	348
0.2	41.1	2	153.4	NE	12.3	1	20	S	25	18.67	46.6	NE	11.8	317
0.2	43.09	1	175	E	43	1	153	NE	17	27.84	5	N	9.2	99
0.2	43.89	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.2	47.68	8	149.6	NE	38.6	7	149.3	NE	34.4	4.22	151.8	NW	1.7	62
0.2	47.88	7	149.3	NE	34.4	4	115.9	NE	18.2	21.42	173	N	15.4	87
0.2	49.67	1	150	NE	27	1	143	NE	34	7.84	122.8	SE	13.1	210
0.2	70.23	1	155	NE	16	1	143	NE	13	4.23	13.2	N	10.1	104
0.2	70.82	1	141	NE	15	1	162	E	19	7.27	27.6	NE	13.8	298
0.251	0.23	2	158.2	E	25.4	1	156	NE	31	5.7	147.8	SE	4.9	237
0.251	4.5	1	170	E	32	1	1	S	31	5.83	97	E	30.9	5
0.251	4.75	1	1	S	31	2	163.8	E	27.4	9.08	56.7	NE	26.4	150
0.251	6.76	4	165.8	E	30.3	1	152	NE	24	8.91	20.6	N	18.5	115
0.251	7.01	1	152	NE	24	1	163	E	32	9.49	7.3	N	14.4	280

0.251	7.26	1	163	E	32	1	165	E	20	12.03	160.2	S	1.7	70
0.251	7.52	1	165	E	20	1	155	NE	24	5.47	118.9	SE	14.7	207
0.251	17.81	1	161	E	22	1	156	NE	30	8.29	144.6	SE	6.5	233
0.251	22.59	1	172	E	24	2	1.1	E	27.9	5.55	39.4	NE	18.1	312
0.251	22.84	2	1.1	E	27.9	3	156.1	NE	15.2	15.4	23.1	NE	11.2	116
0.251	24.35	5	161.2	E	19.4	4	143.5	NE	20.2	6	70.4	E	19.4	160
0.251	24.6	4	143.5	NE	20.2	1	165	E	29	12.44	17.3	N	16.5	289
0.251	25.6	4	163.4	E	29.1	5	156.9	NE	23.6	6.25	5.1	N	11.6	98
0.251	26.36	3	167.3	E	27.8	1	166	E	27	0.99	21.7	N	16.5	114
0.251	34.9	1	165	E	22	3	162.6	E	24.9	3.02	146.8	SE	7.2	236
0.251	35.15	3	162.6	E	24.9	1	167	E	25	1.86	70.3	E	24.8	342
0.251	35.4	1	167	E	25	3	130.3	NE	24.8	15.25	57.9	NE	23.8	150
0.251	35.65	3	130.3	NE	24.8	2	144.9	NE	29.4	8.07	10.1	N	21.8	282
0.251	36.4	2	138.3	NE	27	1	143	NE	32	5.51	162.8	N	12	255
0.251	38.16	2	160.9	E	28.7	1	106	N	10	24.22	178.9	N	9.6	91
0.251	40.92	3	132.1	NE	15.1	2	12.6	E	17.7	16.49	64.2	NE	14	333
0.251	43.18	1	175	E	43	1	153	NE	17	27.84	5	N	9.2	99
0.251	43.94	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.251	47.71	9	150.4	NE	38.5	9	139.8	NE	27.8	12.19	169.7	N	14.7	84
0.251	47.96	9	139.8	NE	27.8	1	139	NE	20	7.81	141.5	NW	0.9	52
0.251	50.72	1	145	NE	26	1	147	NE	33	7.07	153	NW	3.9	244
0.251	70.31	1	155	NE	16	1	143	NE	13	4.23	13.2	N	10.1	104
0.251	70.56	1	143	NE	13	1	141	NE	15	2.06	128.8	SE	3.2	218
0.251	70.82	1	141	NE	15	1	162	E	19	7.27	27.6	NE	13.8	298
0.316	0.22	2	158.2	E	25.4	1	156	NE	31	5.7	147.8	SE	4.9	237
0.316	3.38	1	172	E	35	1	179	E	25	10.58	158.5	S	9.3	66
0.316	4.65	2	175.4	E	31.4	1	160	E	29	8.09	58.3	NE	28.5	152
0.316	4.97	1	160	E	29	1	168	E	26	4.75	116.4	SE	20.9	23
0.316	5.28	1	168	E	26	2	170	E	36	10.05	174.1	N	3	265
0.316	6.55	1	177	E	26	4	160.6	E	29.9	8.6	108.5	E	24.4	196
0.316	7.5	2	163.8	E	26	1	155	NE	24	4.21	38.8	NE	21.8	132
0.316	17.93	1	161	E	22	1	156	NE	30	8.29	144.6	SE	6.5	233
0.316	18.25	1	156	NE	30	1	158	E	30	1	67	NE	30	337
0.316	22.67	2	172	E	20	3	171.3	E	24.6	4.63	168.6	S	1.2	258
0.316	22.99	3	171.3	E	24.6	1	154	NE	10	15.35	1.5	N	4.7	93
0.316	24.26	4	161.7	E	19.5	4	144.7	NE	19.6	5.66	64.3	NE	19.3	155
0.316	24.57	4	144.7	NE	19.6	2	159.9	E	24.9	7.79	17.5	N	15.8	289
0.316	25.52	1	155	NE	22	8	160.7	E	26.5	5.08	3.1	N	10.8	275
0.316	25.84	8	160.7	E	26.5	2	165.1	E	28.7	3.04	22.5	NE	18.4	295
0.316	26.15	2	165.1	E	28.7	2	168.9	E	26.5	2.87	132.5	SE	16.5	38
0.316	35.01	3	164.2	E	23.9	2	163.5	E	25	1.13	149.5	SE	6.4	239
0.316	35.32	2	163.5	E	25	3	130.3	NE	24.8	13.82	56.3	NE	24	148
0.316	35.64	3	130.3	NE	24.8	2	144.9	NE	29.4	8.07	10.1	N	21.8	282
0.316	38.17	2	160.9	E	28.7	1	106	N	10	24.22	178.9	N	9.6	91
0.316	39.75	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.316	41.02	3	132.1	NE	15.1	2	12.6	E	17.7	16.49	64.2	NE	14	333
0.316	43.86	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.316	47.66	7	149.1	NE	40	12	142.8	NE	28.1	12.46	159.7	N	8.8	73
0.316	50.5	1	148	NE	40	1	145	NE	26	14.09	152.1	NW	3.5	63
0.316	50.82	1	145	NE	26	1	147	NE	33	7.07	153	NW	3.9	244
0.316	59.04	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
0.316	70.11	1	155	NE	16	1	143	NE	13	4.23	13.2	N	10.1	104
0.398	0.28	2	158.2	E	25.4	1	156	NE	31	5.7	147.8	SE	4.9	237
0.398	3.46	1	172	E	35	1	179	E	25	10.58	158.5	S	9.3	66
0.398	4.66	2	175.4	E	31.4	2	163.8	E	27.4	6.92	41.3	NE	23.7	135
0.398	5.06	2	163.8	E	27.4	1	170	E	30	3.92	32.6	NE	21.3	305
0.398	5.45	1	170	E	30	1	170	E	42	12	170	N	0	260
0.398	6.65	2	169.6	E	30.3	3	159.2	E	28.2	5.52	49	NE	26.7	143
0.398	7.05	3	159.2	E	28.2	2	163.8	E	26	3.06	121.5	SE	18.2	28
0.398	7.45	2	163.8	E	26	1	155	NE	24	4.21	38.8	NE	21.8	132
0.398	9.44	1	178	E	43	2	161.9	E	30.4	15.77	21.8	N	20.6	119
0.398	16.2	1	4	S	30	1	155	NE	22	14.81	45.2	NE	20.8	139
0.398	17.8	1	161	E	22	1	156	NE	30	8.29	144.6	SE	6.5	233
0.398	18.19	1	156	NE	30	1	158	E	30	1	67	NE	30	337
0.398	22.18	1	162	E	40	1	172	E	24	16.81	151.1	SE	9	58
0.398	22.57	1	172	E	24	3	173.1	E	21	3.06	165.1	S	3	75
0.398	22.97	3	173.1	E	21	2	163.3	E	17.9	4.46	33.5	NE	13.9	125
0.398	24.56	8	153.2	NE	19.3	2	159.9	E	24.9	6.11	179.3	N	8.8	271
0.398	25.76	5	164.1	E	29.1	6	158.1	E	24.3	5.44	8.1	N	12.7	101
0.398	26.16	6	158.1	E	24.3	2	168.9	E	26.5	5.09	46.8	NE	22.9	318
0.398	34.91	2	160.2	E	20.9	3	165.9	E	26.6	6.12	3.4	N	8.6	275
0.398	35.31	3	165.9	E	26.6	4	135.7	NE	25.6	13.2	56.1	NE	25.2	148
0.398	35.71	4	135.7	NE	25.6	1	140	NE	30	4.83	159.8	N	11	252
0.398	36.11	1	140	NE	30	2	138.3	NE	27	3.11	152.9	NW	7.3	64
0.398	36.51	2	138.3	NE	27	1	143	NE	32	5.51	162.8	N	12	255
0.398	37.7	1	90	N	19	1	5	S	35	40.69	30.2	NE	16.6	299
0.398	38.1	1	5	S	35	2	124.3	NE	18.7	30.01	33.9	NE	18.7	129
0.398	39.69	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.398	40.89	2	129.7	NE	15.2	3	176.6	E	15.2	11.96	62.9	NE	14	332
0.398	47.65	7	149.1	NE	40	12	142.8	NE	28.1	12.46	159.7	N	8.8	73
0.398	49.64	1	150	NE	27	1	143	NE	34	7.84	122.8	SE	13.1	210
0.398	50.04	1	143	NE	34	1	148	NE	40	6.71	167.4	N	15.6	262
0.398	50.44	1	148	NE	40	1	145	NE	26	14.09	152.1	NW	3.5	63
0.398	50.84	1	145	NE	26	1	147	NE	33	7.07	153	NW	3.9	244
0.398	58.8	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
0.398	70.35	1	155	NE	16	1	143	NE	13	4.23	13.2	N	10.1	104
0.398	70.74	1	143	NE	13	2	152.7	NE	16.7	4.48	0.8	N	8	272
0.501	0.32	2	158.2	E	25.4	1	156	NE	31	5.7	147.8	SE	4.9	237
0.501	3.33	1	172	E	35	1	179	E	25	10.58	158.5	S	9.3	66
0.501	4.83	3	170.5	E	30.4	1	168	E	26	4.55	2.8	N	7.1	94
0.501	5.33	1	168	E	26	2	170	E	36	10.05	174.1	N	3	265
0.501	6.83	5	163.5	E	29	1	163	E	32	3.04	159	S	2.5	248
0.501	7.33	1	163	E	32	2	159.6	E	21.9	10.19	169.2	N	3.8	80
0.501	9.34	1	178	E	43	2	161.9	E	30.4	15.77	21.8	N	20.6	119
0.501	17.86	1	161	E	22	2	157	NE	30	8.18	147.8	SE	5.3	237
0.501	22.37	1	162	E	40	3	178.2	E	26.4	16.12	141	SE	16.7	45
0.501	22.87	3	178.2	E	26.4	3	156.1	NE	15.2	13.54	20.8	N	10.8	113
0.501	24.38	6	157.3	NE	17.8	4	152	NE	24.3	6.8	139.5	SE	5.6	228
0.501	25.88	9	160.1	E	26	3	167.3	E	27.8	3.71	42.2	NE	23.3	314
0.501	26.38	3	167.3	E	27.8	1	166	E	27	0.99	21.7	N	16.5	114
0.501	31.39	1	152	NE	29	1	160	E	24	6.13	123.3	SE	14.9	30
0.501	34.9	2	160.2	E	20.9	3	165.9	E	26.6	6.12	3.4	N	8.6	275
0.501	35.4	3	165.9	E	26.6	5	136.7	NE	26.5	12.94	60.7	NE	25.8	152
0.501	35.9	5	136.7	NE	26.5	2	138.3	NE	27	0.88	7.3	N	21	283
0.501	36.4	2	138.3	NE	27	1	143	NE	32	5.51	162.8	N	12	255
0.501	36.91	1	143	NE	32	1	90	N	19	25.09	176.4	N	19	91
0.501	40.91	3	132.1	NE	15.1	2	12.6	E	17.7	16.49	64.2	NE	14	333
0.501	43.42	2	168.4	E	29.6	1	160	E	18	12.08	179.4	N	6.2	91
0.501	43.92	1	160	E	18	1	157	NE	29	11.06	152.8	SE	2.3	242
0.501	47.93	18	145.9	NE	33	1	139	NE	20	13.33	154.4	NW	5.5	66
0.501	49.94	2	146.1	NE	30.5	1	148	NE	40	9.61	152.3	NW	3.6	243
0.501	50.44	1	148	NE	40	2	146.1	NE	29.5	10.56	151.9	NW	3.3	63
0.501	58.96	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
0.501	70.48	2	149.6	NE	14.4	2	152.7	NE	16.7	2.46	170.3	N	5.2	261
0.631	5.04	4	170	E	29.3	2	170	E	36	6.71	170.1	N	0.1	260
0.631	6.93	5	163.5	E	29	2	163.8	E	26	2.98	161.5	S	1.1	71
0.631	7.57	2	163.8	E	26	1	155	NE	24	4.21	38.8	NE	21.8	132
0.631	9.46	1	178	E	43	2	161.9	E	30.4	15.77	21.8	N	20.6	119
0.631	11.35	1	159	E	25	1	165	E	36	11.4	175.5	N	7.5	267

0.631	18.29	2	158.1	E	26	1	158	E	30	4.02	157.2	SE	0.4	247
0.631	21.45	1	128	NE	12	1	162	E	40	30.67	172.2	N	8.4	263
0.631	22.08	1	162	E	40	2	172	E	20	20.55	154.5	SE	6.2	62
0.631	22.71	2	172	E	20	4	168.9	E	20.6	1.24	111.4	E	17.6	200
0.631	24.6	9	153.2	NE	19.5	1	165	E	29	10.63	4.2	N	10.4	276
0.631	25.23	1	165	E	29	9	160.1	E	26	3.76	16.2	N	16	110
0.631	25.86	9	160.1	E	26	4	167	E	27.6	3.48	43.8	NE	23.6	316
0.631	31.54	1	152	NE	29	1	160	E	24	6.13	123.3	SE	14.9	30
0.631	35.33	5	163.9	E	24.3	5	136.7	NE	26.5	11.78	71.7	E	24.3	162
0.631	35.96	5	136.7	NE	26.5	3	140.1	NE	28.7	2.7	170.3	N	15.4	264
0.631	37.85	1	90	N	19	3	152.5	NE	21.1	20.57	25.8	NE	17.2	295
0.631	39.74	1	106	N	16	1	107	N	13	3.01	101.9	E	1.2	12
0.631	40.38	1	107	N	13	3	132.1	NE	15.1	6.39	10.5	N	12.9	280
0.631	41.01	3	132.1	NE	15.1	2	12.6	E	17.7	16.49	64.2	NE	14	333
0.631	43.53	2	168.4	E	29.6	2	158.2	E	23.5	7.63	17.3	N	15.3	111
0.631	47.95	18	145.9	NE	33	1	139	NE	20	13.33	154.4	NW	5.5	66
0.631	49.84	2	146.1	NE	30.5	1	148	NE	40	9.61	152.3	NW	3.6	243
0.631	50.47	1	148	NE	40	2	146.1	NE	29.5	10.56	151.9	NW	3.3	63
0.631	70.66	2	149.6	NE	14.4	2	152.7	NE	16.7	2.46	170.3	N	5.2	261
0.631	71.29	2	152.7	NE	16.7	1	175	E	28	13.92	19.2	N	12.3	290
0.794	0.76	3	157.4	NE	27.3	1	159	E	19	8.29	154.1	SE	1.7	64
0.794	3.94	2	175	E	30	2	175.4	E	31.4	1.45	3.1	N	4.7	273
0.794	4.73	2	175.4	E	31.4	4	167.3	E	31.6	4.27	85.4	E	31.4	175
0.794	7.12	5	163.5	E	29	3	161	E	25.3	3.88	177.7	N	7.8	90
0.794	9.5	1	178	E	43	2	161.9	E	30.4	15.77	21.8	N	20.6	119
0.794	11.88	1	159	E	25	1	165	E	36	11.4	175.5	N	7.5	267
0.794	18.24	2	158.1	E	26	1	158	E	30	4.02	157.2	SE	0.4	247
0.794	21.42	1	128	NE	12	1	162	E	40	30.67	172.2	N	8.4	263
0.794	22.21	1	162	E	40	5	171.5	E	22.7	17.97	152.9	SE	7.6	60
0.794	23	5	171.5	E	22.7	1	154	NE	10	13.45	3.5	N	5	94
0.794	23.8	1	154	NE	10	9	153.2	NE	19.5	9.5	152.4	SE	0.3	242
0.794	24.59	9	153.2	NE	19.5	1	165	E	29	10.63	4.2	N	10.4	276
0.794	25.39	1	165	E	29	12	162	E	26.4	2.93	8.9	N	12.6	102
0.794	26.18	12	162	E	26.4	1	166	E	27	1.88	53.8	NE	25.3	325
0.794	26.98	1	166	E	27	1	154	NE	30	6.45	100.7	E	24.8	188
0.794	31.74	1	152	NE	29	1	160	E	24	6.13	123.3	SE	14.9	30
0.794	34.92	2	160.2	E	20.9	7	148.9	NE	25.3	6.18	111.2	E	16.1	200
0.794	35.71	7	148.9	NE	25.3	3	138.9	NE	28	5.27	88.3	E	22.4	175
0.794	36.51	3	138.9	NE	28	1	143	NE	32	4.48	165	N	13.2	258
0.794	37.3	1	143	NE	32	2	154.3	NE	19.8	13.13	128.6	SE	8.9	36
0.794	38.1	2	154.3	NE	19.8	2	124.3	NE	18.7	9.81	42.7	NE	18.5	134
0.794	40.48	2	106.4	N	14.5	5	157.7	E	14	12.23	44.2	NE	12.9	313
0.794	43.66	2	168.4	E	29.6	2	158.2	E	23.5	7.63	17.3	N	15.3	111
0.794	47.63	6	152	NE	40.7	13	141.8	NE	28.8	13.19	169.2	N	14.2	84
0.794	50.01	2	146.1	NE	30.5	2	146.8	NE	33	2.56	153	NW	4	245
0.794	50.81	2	146.8	NE	33	1	147	NE	33	0.12	51.9	NE	32.9	327
0.794	58.75	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
0.794	70.66	2	149.6	NE	14.4	2	152.7	NE	16.7	2.46	170.3	N	5.2	261
0.794	71.46	2	152.7	NE	16.7	1	175	E	28	13.92	19.2	N	12.3	290
1	0.91	3	157.4	NE	27.3	1	159	E	19	8.29	154.1	SE	1.7	64
1	3.91	2	175	E	30	3	170.5	E	30.4	2.27	95.5	E	29.5	183
1	4.91	3	170.5	E	30.4	3	169.5	E	32.6	2.31	157.9	S	7.3	247
1	5.91	3	169.5	E	32.6	5	163.5	E	29	4.75	22.1	N	19	117
1	6.91	5	163.5	E	29	3	161	E	25.3	3.88	177.7	N	7.8	90
1	11.91	1	159	E	25	1	165	E	36	11.4	175.5	N	7.5	267
1	12.91	1	165	E	36	2	165.5	E	38	2	172.2	N	5.2	264
1	16.91	2	171.6	E	25.3	1	161	E	22	5.37	36.3	NE	18.4	129
1	17.91	1	161	E	22	2	157	NE	30	8.18	147.8	SE	5.3	237
1	21.91	1	128	NE	12	5	169.6	E	25.5	18.2	13.6	N	11	284
1	22.91	5	169.6	E	25.5	2	163.3	E	17.9	7.89	2.6	N	6.1	94
1	23.91	2	163.3	E	17.9	10	154.8	NE	20.4	3.74	112.5	E	14.1	201
1	24.91	10	154.8	NE	20.4	9	160.1	E	26	5.95	176.4	N	7.8	268
1	25.91	9	160.1	E	26	4	167	E	27.6	3.48	43.8	NE	23.6	316
1	26.91	4	167	E	27.6	1	154	NE	30	6.7	94.2	E	26.5	182
1	34.91	2	160.2	E	20.9	8	147.6	NE	25.8	6.98	110.6	E	16.2	199
1	35.91	8	147.6	NE	25.8	3	140.1	NE	28.7	4.49	96.6	E	20.6	184
1	36.9	3	140.1	NE	28.7	1	90	N	19	21.59	179	N	19	93
1	37.9	1	90	N	19	3	152.5	NE	21.1	20.57	25.8	NE	17.2	295
1	38.9	3	152.5	NE	21.1	2	106.4	N	14.5	15.03	14.4	N	14.5	107
1	39.9	2	106.4	N	14.5	3	132.1	NE	15.1	6.53	24.1	NE	14.4	294
1	40.9	3	132.1	NE	15.1	2	12.6	E	17.7	16.49	64.2	NE	14	333
1	43.9	3	166.2	E	25.4	1	157	NE	29	5.53	115.4	SE	20.2	203
1	44.9	1	157	NE	29	1	11	S	32	17.31	72.9	E	28.9	342
1	47.9	17	147.3	NE	34.1	2	119.5	NE	18.9	19.22	170.6	N	14.9	85
1	48.9	2	119.5	NE	18.9	2	146.1	NE	30.5	15.76	174.8	N	15.8	266
1	49.9	2	146.1	NE	30.5	3	146.9	NE	33	2.57	153.7	NW	4.4	246
1	58.9	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
1	70.9	3	146.7	NE	14.6	2	169.7	E	23.4	11.39	17.5	N	11.4	288
1.259	1.03	3	157.4	NE	27.3	1	159	E	19	8.29	154.1	SE	1.7	64
1.259	2.28	1	159	E	19	1	172	E	35	16.97	4	N	8.3	275
1.259	3.54	1	172	E	35	4	172.4	E	29	6.01	170.5	S	1	80
1.259	4.8	4	172.4	E	29	3	169.5	E	32.6	3.93	151.4	SE	11.2	239
1.259	6.06	3	169.5	E	32.6	6	163.4	E	29.5	4.42	26.8	NE	21.2	122
1.259	7.32	6	163.4	E	29.5	2	159.6	E	21.9	7.74	172.8	N	5.3	84
1.259	8.58	2	159.6	E	21.9	3	168.4	E	34.3	13.04	0.6	N	8.2	272
1.259	14.87	2	165.5	E	38	1	4	S	30	12.98	127.3	SE	25.8	31
1.259	16.13	1	4	S	30	1	155	NE	22	14.81	45.2	NE	20.8	139
1.259	17.39	1	155	NE	22	3	158.1	E	27.3	5.48	169	N	5.6	260
1.259	22.43	2	153.9	NE	25.3	6	169.9	E	20.4	7.87	112.1	E	17.5	19
1.259	23.69	6	169.9	E	20.4	10	154.8	NE	20.4	5.25	72.6	E	20.2	163
1.259	24.95	10	154.8	NE	20.4	12	162	E	26.4	6.64	2.1	N	9.7	274
1.259	26.2	12	162	E	26.4	2	159.7	E	28.4	2.23	135.1	SE	12.7	223
1.259	31.24	1	152	NE	29	1	160	E	24	6.13	123.3	SE	14.9	30
1.259	35.02	3	164.2	E	23.9	7	144	NE	25.6	8.6	76.3	E	23.9	166
1.259	36.28	7	144	NE	25.6	4	131.5	NE	25	5.34	41.4	NE	25	132
1.259	37.53	4	131.5	NE	25	3	152.5	NE	21.1	9.02	79	E	20.3	346
1.259	38.79	3	152.5	NE	21.1	2	106.4	N	14.5	15.03	14.4	N	14.5	107
1.259	40.05	2	106.4	N	14.5	5	157.7	E	14	12.23	44.2	NE	12.9	313
1.259	43.83	2	168.4	E	29.6	2	158.2	E	23.5	7.63	17.3	N	15.3	111
1.259	45.09	2	158.2	E	23.5	1	11	S	32	17.2	53.2	NE	22.8	324
1.259	46.35	1	11	S	32	5	159.4	E	40.1	20.05	113	SE	31.4	201
1.259	47.61	5	159.4	E	40.1	14	139.3	NE	30	15.25	12.9	N	25	110
1.259	48.86	14	139.3	NE	30	2	146.1	NE	30.5	3.45	44.8	NE	30	314
1.259	50.12	2	146.1	NE	30.5	3	146.9	NE	33	2.57	153.7	NW	4.4	246
1.259	58.94	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
1.259	70.27	1	155	NE	16	3	150	NE	15.4	1.47	39.5	NE	14.5	129
1.259	71.53	3	150	NE	15.4	1	175	E	28	15.35	17.6	N	11.5	288
1.259	72.78	1	175	E	28	1	60	NW	2	28.9	178.3	N	1.8	89
1.585	1.24	3	157.4	NE	27.3	1	159	E	19	8.29	154.1	SE	1.7	64
1.585	2.83	1	159	E	19	2	175	E	30	12.71	16.1	N	11.7	288
1.585	4.41	2	175	E	30	6	170	E	31.5	2.98	117.6	SE	25.9	203
1.585	6	6	170	E	31.5	8	162.6	E	27.6	5.33	25.2	NE	19.4	120
1.585	7.58	8	162.6	E	27.6	1	178	E	43	17.69	15.9	N	16	289
1.585	9.17	1	178	E	43	2	161.9	E	30.4	15.77	21.8	N	20.6	119
1.585	10.75	2	161.9	E	30.4	2	162.5	E	30.5	0.31	54.4	NE	29.2	324
1.585	12.34	2	162.5	E	30.5	2	165.5	E	38	7.69	174.6	N	7	266
1.585	17.09	2	171.6	E	25.3	3	158.1	E	27.3	6.32	95.5	E	24.6	184
1.585	21.85	1	128	NE	12	7	168.2	E	23.2	15.91	15.4	N	11.1	286
1.585	23.43	7	168.2	E	23.2	10	154.8	NE	20.4	5.66	40.5	NE	18.7	133

1.585	25.02	10	154.8	NE	20.4	13	162.3	E	26.5	6.73	3	N	10	274
1.585	26.6	13	162.3	E	26.5	1	154	NE	30	5.3	113.7	SE	20.5	200
1.585	31.36	1	152	NE	29	1	160	E	24	6.13	123.3	SE	14.9	30
1.585	36.11	10	149.8	NE	24.8	4	131.5	NE	25	7.67	52.7	NE	24.6	143
1.585	37.7	4	131.5	NE	25	3	152.5	NE	21.1	9.02	79	E	20.3	346
1.585	39.28	3	152.5	NE	21.1	4	118.3	NE	14.5	12.1	12.8	N	14	105
1.585	40.87	4	118.3	NE	14.5	3	176.6	E	15.2	14.37	55	NE	13	324
1.585	42.45	3	176.6	E	15.2	4	163.6	E	26.3	11.93	148.7	SE	7.2	238
1.585	47.21	1	11	S	32	19	145.6	NE	32.3	23.69	79	E	30.1	172
1.585	48.79	19	145.6	NE	32.3	3	146.9	NE	33.6	1.54	168.8	N	14	265
1.585	50.38	3	146.9	NE	33.6	2	146.1	NE	29.5	4.16	151.1	NW	2.8	62
1.585	70.98	4	151.3	NE	15.6	1	175	E	28	15	17.1	N	11.3	288
1.585	72.57	1	175	E	28	1	60	NW	2	28.9	178.3	N	1.8	89
1.995	1.99	4	157.7	E	25.2	2	175	E	30	9.26	42.7	NE	23.1	315
1.995	3.98	2	175	E	30	6	170	E	31.5	2.98	117.6	SE	25.9	203
1.995	5.98	6	170	E	31.5	8	162.6	E	27.6	5.33	25.2	NE	19.4	120
1.995	7.97	8	162.6	E	27.6	3	168.4	E	34.3	7.34	6.1	N	11.8	279
1.995	9.97	3	168.4	E	34.3	1	159	E	25	10.38	7.2	N	12.4	101
1.995	11.96	1	159	E	25	3	165.3	E	37.3	12.73	175.1	N	7.4	267
1.995	17.95	3	168.3	E	24.1	2	157	NE	30	7.81	124.7	SE	17.1	212
1.995	19.95	2	157	NE	30	2	153.9	NE	25.3	4.94	170.6	N	7.7	83
1.995	21.94	2	153.9	NE	25.3	6	169.9	E	20.4	7.87	112.1	E	17.5	19
1.995	23.94	6	169.9	E	20.4	19	157.6	E	23	5.25	105.6	E	18.5	194
1.995	25.93	19	157.6	E	23	5	164.2	E	28	5.69	8.4	N	12.3	280
1.995	35.91	10	149.8	NE	24.8	4	131.5	NE	25	7.67	52.7	NE	24.6	143
1.995	37.9	4	131.5	NE	25	5	136.7	NE	17	8.18	121.7	SE	4.6	31
1.995	39.9	5	136.7	NE	17	5	157.7	E	14	6.32	86.2	E	13.3	355
1.995	41.89	5	157.7	E	14	3	166.2	E	25.4	11.72	175.4	N	4.4	266
1.995	43.89	3	166.2	E	25.4	2	174.8	E	29.4	5.6	31.8	NE	18.7	305
1.995	45.88	2	174.8	E	29.4	15	149.5	NE	36.6	15.39	103.5	E	28.1	191
1.995	47.88	15	149.5	NE	36.6	6	129.5	NE	21.6	17.7	169.5	N	14.3	84
1.995	49.87	6	129.5	NE	21.6	3	146.9	NE	33	13.84	170.3	N	14.5	263
1.995	71.82	5	158.4	E	17.7	1	60	NW	2	18.11	164.4	N	1.9	75
2.512	1.74	4	157.7	E	25.2	2	175	E	30	9.26	42.7	NE	23.1	315
2.512	4.25	2	175	E	30	10	168.3	E	31	3.52	101.7	E	28.9	188
2.512	6.76	10	168.3	E	31	5	164.2	E	28.1	3.54	18.1	N	16.6	111
2.512	9.27	5	164.2	E	28.1	3	161	E	28.6	1.56	91.3	E	27.1	181
2.512	11.79	3	161	E	28.6	3	165.3	E	37.3	9.04	175.9	N	7.9	268
2.512	14.3	3	165.3	E	37.3	2	171.6	E	25.3	12.44	155.3	SE	7.6	63
2.512	16.81	2	171.6	E	25.3	3	158.1	E	27.3	6.32	95.5	E	24.6	184
2.512	19.32	3	158.1	E	27.3	1	128	NE	12	17.9	175.8	N	9	88
2.512	21.83	1	128	NE	12	12	165.4	E	21.5	13.92	15.3	N	11.1	286
2.512	24.35	12	165.4	E	21.5	18	159.2	E	25	4.31	129.5	SE	13	218
2.512	26.86	18	159.2	E	25	1	154	NE	30	5.51	133.5	SE	11.4	221
2.512	29.37	1	154	NE	30	2	155.6	NE	26.4	3.64	143.9	SE	5.8	53
2.512	36.9	13	147.3	NE	25.6	4	137.9	NE	18.5	7.92	167.4	N	9.4	79
2.512	39.42	4	137.9	NE	18.5	7	142.8	NE	13	5.6	127	SE	3.6	37
2.512	41.93	7	142.8	NE	13	4	163.6	E	26.3	14.79	0.2	N	8	271
2.512	44.44	4	163.6	E	26.3	1	11	S	32	14.36	61.7	NE	25.8	333
2.512	46.95	1	11	S	32	19	145.6	NE	32.3	23.69	79	E	30.1	172
2.512	49.46	19	145.6	NE	32.3	5	146.6	NE	32	0.6	89	E	27.8	355
2.512	72.07	5	158.4	E	17.7	1	60	NW	2	18.11	164.4	N	1.9	75
3.162	2.12	4	157.7	E	25.2	6	171.7	E	29.5	7.69	37.8	NE	22.2	310
3.162	5.28	6	171.7	E	29.5	10	164.4	E	29.2	3.56	72.8	E	29.2	164
3.162	8.44	10	164.4	E	29.2	4	166.4	E	31.9	2.87	3.8	N	10.5	276
3.162	11.61	4	166.4	E	31.9	3	165.3	E	37.3	5.46	160.5	S	3.7	249
3.162	14.77	3	165.3	E	37.3	3	168.3	E	24.1	13.3	161.1	S	3.2	70
3.162	17.93	3	168.3	E	24.1	2	157	NE	30	7.81	124.7	SE	17.1	212
3.162	21.09	2	157	NE	30	12	164.2	E	20.7	9.78	143.8	SE	7.5	52
3.162	24.26	12	164.2	E	20.7	20	158.8	E	25	4.74	137.3	SE	9.7	226
3.162	33.74	2	155.6	NE	26.4	13	147.3	NE	25.6	3.76	47.2	NE	25.3	139
3.162	36.91	13	147.3	NE	25.6	6	128	NE	16.5	11.29	173.5	N	12	86
3.162	40.07	6	128	NE	16.5	7	162.2	E	18.1	10.14	46.5	NE	16.4	316
3.162	43.23	7	162.2	E	18.1	3	171.1	E	25.4	8.05	9.4	N	8.5	281
3.162	46.39	3	171.1	E	25.4	19	145.6	NE	32.3	13.95	100.2	E	24.2	189
3.162	49.55	19	145.6	NE	32.3	5	146.6	NE	32	0.6	89	E	27.8	355
3.162	59.04	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
3.162	68.53	1	152	NE	22	4	151.3	NE	15.6	6.43	153.6	NW	0.7	64
3.162	71.69	4	151.3	NE	15.6	2	171	E	13.6	5.32	93.1	E	13.3	3
3.981	3.07	4	157.7	E	25.2	13	168.4	E	30.2	7.05	24.3	NE	18.9	297
3.981	7.05	13	168.4	E	30.2	6	165.1	E	29.7	1.71	56.2	NE	28.3	150
3.981	11.03	6	165.1	E	29.7	4	164.2	E	34.2	4.58	159.3	S	3.3	249
3.981	15.01	4	164.2	E	34.2	5	163.2	E	26.4	7.9	166.7	N	1.8	77
3.981	18.99	5	163.2	E	26.4	6	166	E	22.6	3.91	148.6	SE	7.1	57
3.981	22.97	6	166	E	22.6	25	159.8	E	23.3	2.54	90.1	E	22	179
3.981	26.95	25	159.8	E	23.3	1	154	NE	30	7.15	137.7	SE	9.2	226
3.981	30.93	1	154	NE	30	4	157.7	E	23.7	6.55	142.6	SE	6.5	51
3.981	34.91	4	157.7	E	23.7	15	144.1	NE	24.5	5.62	70.7	E	23.6	160
3.981	38.9	15	144.1	NE	24.5	7	142.8	NE	13	11.5	145.4	NW	0.6	56
3.981	42.88	7	142.8	NE	13	5	170	E	27	16.44	9.2	N	9.5	280
3.981	46.86	5	170	E	27	23	145.8	NE	32.2	12.91	93.8	E	26.3	183
3.981	50.84	23	145.8	NE	32.2	1	147	NE	33	1.08	0.2	N	19.6	275
3.981	54.82	1	147	NE	33	1	145	NE	23	10.04	150.8	NW	2.4	61
3.981	58.8	1	145	NE	23	1	158	E	22	5.06	73.7	E	21.9	342
3.981	62.78	1	158	E	22	1	152	NE	22	2.25	65	NE	22	155
3.981	66.76	1	152	NE	22	2	149.6	NE	14.4	7.61	156.2	NW	1.7	66
3.981	70.74	2	149.6	NE	14.4	4	160.7	E	15.1	2.89	52	NE	14.3	321
5.012	4.33	6	164	E	26.5	15	167.1	E	30.1	3.81	5.2	N	10.2	278
5.012	9.34	15	167.1	E	30.1	6	163.5	E	32.9	3.44	136	SE	16.6	222
5.012	14.35	6	163.5	E	32.9	5	163.2	E	26.4	6.59	164.3	N	0.6	75
5.012	19.36	5	163.2	E	26.4	14	162.2	E	19.7	6.63	165.9	N	1.3	76
5.012	24.38	14	162.2	E	19.7	18	159.7	E	26.1	6.45	152.9	SE	3.3	242
5.012	29.39	18	159.7	E	26.1	2	155.6	NE	26.4	1.81	79.5	E	25.8	167
5.012	34.4	2	155.6	NE	26.4	17	145.8	NE	24	4.84	28.3	NE	21.6	121
5.012	39.41	17	145.8	NE	24	11	153.7	NE	17.4	7.15	128.1	SE	7.7	37
5.012	44.42	11	153.7	NE	17.4	20	147.7	NE	31.9	14.65	141.6	SE	3.8	231
5.012	49.43	20	147.7	NE	31.9	5	146.6	NE	32	0.58	67.9	E	31.5	157
5.012	54.45	5	146.6	NE	32	2	151.4	NE	22.4	9.84	137.5	SE	5.6	46
5.012	69.48	1	152	NE	22	6	157	NE	14.8	7.39	142.7	SE	3.7	52
6.31	5.36	10	166.6	E	27.6	14	165	E	30	2.46	150.2	SE	8.4	238
6.31	11.67	14	165	E	30	6	166.6	E	30.7	1.11	26.7	NE	21	305
6.31	17.98	6	166.6	E	30.7	15	162.6	E	21.8	9.07	174.7	N	4.8	86
6.31	24.29	15	162.6	E	21.8	19	158.8	E	25.3	3.75	139	SE	9.1	227
6.31	30.6	19	158.8	E	25.3	15	148.4	NE	25.7	4.49	69.3	E	25.3	159
6.31	36.91	15	148.4	NE	25.7	13	147.4	NE	16.7	9.03	150.1	NW	0.8	60
6.31	43.21	13	147.4	NE	16.7	22	148.4	NE	31	14.37	149.4	NW	0.6	239
6.31	49.52	22	148.4	NE	31	5	146.6	NE	32	1.35	105.9	E	22.1	194
6.31	55.83	5	146.6	NE	32	2	151.4	NE	22.4	9.84	137.5	SE	5.6	46
6.31	62.14	2	151.4	NE	22.4	1	152	NE	22	0.44	120.6	SE	11.9	32
6.31	68.45	1	152	NE	22	6	157	NE	14.8	7.39	142.7	SE	3.7	52
7.943	5.13	10	166.6	E	27.6	15	165	E	30.4	2.86	152.4	SE	7.3	240
7.943	13.08	15	165	E	30.4	7	164	E	29.7	0.85	16.1	N	16.8	110
7.943	21.02	7	164	E	29.7	32	160.6	E	23.4	6.47	174.5	N	5.9	86
7.943	28.96	32	160.6	E	23.4	15	148.4	NE	25.7	5.55	91.1	E	22.1	179
7.943	36.91	15	148.4	NE	25.7	15	149.5	NE	17.6	8.11	146.4	SE	1	56
7.943	44.85	15	149.5	NE	17.6	25	147.4	NE	31.9	14.33	145.3	SE	1.3	235
7.943	52.79	25	147.4	NE	31.9	2	151.4	NE	22.4	9.69	139.8	SE	4.7	48
7.943	60.73	2	151.4	NE	22.4	1	152	NE	22	0.44	120.6	SE	11.9	32
7.943	68.68	1	152	NE	22	6	157	NE	14.8	7.39	142.7	SE	3.7	52

10	6.91	17	166.2	E	29	12	165.7	E	30.5	1.51	157.9	S	4.5	247
10	16.91	12	165.7	E	30.5	34	160.6	E	23.5	7.28	179.6	N	8.1	92
10	26.91	34	160.6	E	23.5	16	148.9	NE	26	5.47	93	E	22	182
10	36.91	16	148.9	NE	26	16	153.7	NE	18.1	8.05	139.1	SE	4.7	48
10	46.9	16	153.7	NE	18.1	24	145.8	NE	32.2	14.45	137.4	SE	5.2	227
10	56.9	24	145.8	NE	32.2	3	151.6	NE	22.2	10.28	135.4	SE	6.5	44
10	66.9	3	151.6	NE	22.2	6	157	NE	14.8	7.66	141.9	SE	3.9	51
12.589	11.73	24	165.6	E	29	21	164	E	24.4	4.61	172.8	N	4	84
12.589	24.32	21	164	E	24.4	34	154.2	NE	25.4	4.23	83.3	E	24.1	173
12.589	36.91	34	154.2	NE	25.4	35	148.3	NE	25.7	2.57	68.7	E	25.3	158
12.589	49.49	35	148.3	NE	25.7	7	147.6	NE	29.2	3.54	143.6	SE	2.3	233
12.589	62.08	7	147.6	NE	29.2	7	156	NE	15.8	13.72	139.2	SE	4.7	48
15.849	13.13	25	165.6	E	29.3	39	161.4	E	24.5	5.1	3.3	N	9.7	95
15.849	28.98	39	161.4	E	24.5	30	149	NE	21.8	5.59	33.7	NE	19.8	127
15.849	44.83	30	149	NE	21.8	27	147.6	NE	31.1	9.39	145.1	SE	1.5	235
15.849	60.68	27	147.6	NE	31.1	7	156	NE	15.8	15.63	140.4	SE	4.4	49
19.953	16.95	29	165.9	E	29.6	50	156.6	NE	24.2	6.81	16.5	N	16.1	110
19.953	36.91	50	156.6	NE	24.2	40	148	NE	26.5	4.33	97.1	E	21.2	185
19.953	56.86	40	148	NE	26.5	9	154.7	NE	17.3	9.54	137.3	SE	5.3	46
25.119	24.35	45	165	E	26.9	69	151.3	NE	25.5	6.16	53.6	NE	25.3	146
25.119	49.46	69	151.3	NE	25.5	14	150.7	NE	22.5	2.99	155.5	NW	2	66
31.623	21.09	32	165.2	E	29.4	87	152.5	NE	25.1	7.19	29.4	NE	21.4	123
31.623	52.72	87	152.5	NE	25.1	9	154.7	NE	17.3	7.8	148.2	SE	2	58
39.811	36.91	79	160.5	E	26.1	49	148.9	NE	24.7	5.14	47.3	NE	24.3	140

Section II

window size	depth between two consecutive windows	first window number of measures	average orientation			second window number of measures	average orientation			tilt angle	tilt axis			tilt way
0.02	45.43	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.025	44.78	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.025	45.44	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.032	11.76	1	8	S	24	1	170	E	35	14.02	143.6	SE	17.3	231
0.032	44.96	1	155	NE	28	1	156	NE	34	6.02	159.7	N	2.5	250
0.032	45.43	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.04	11.77	1	8	S	24	1	170	E	35	14.02	143.6	SE	17.3	231
0.04	44.49	1	170	E	32	1	167	E	36	4.34	149.3	SE	12.5	236
0.04	44.61	1	160	E	37	1	145	NE	34	9.19	39.7	NE	33	135
0.04	44.73	1	152	NE	33	1	145	NE	37	5.66	109	E	23.9	194
0.04	44.77	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.04	44.89	1	148	NE	32	1	155	NE	28	5.31	114.3	SE	19.1	20
0.04	45.09	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.04	45.21	1	158	E	33	1	159	E	29	4.03	152.2	SE	3.8	61
0.04	45.33	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.04	45.45	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.04	45.49	1	141	NE	33	1	152	NE	53	21.3	162.2	N	13.2	256
0.04	45.61	1	140	NE	52	1	167	E	30	27.84	121.1	SE	22.5	21
0.05	11.7	1	8	S	28	1	8	S	24	4	8	S	0	98
0.05	11.75	1	8	S	24	1	170	E	35	14.02	143.6	SE	17.3	231
0.05	32	1	165	E	25	1	10	S	15	12.95	138.1	SE	11.9	46
0.05	32.45	1	146	NE	23	1	164	E	27	8.55	35.1	NE	21.6	307
0.05	32.6	1	159	E	27	1	175	E	25	7.27	94.5	E	24.7	2
0.05	44.48	1	170	E	32	1	167	E	36	4.34	149.3	SE	12.5	236
0.05	44.63	1	160	E	37	1	145	NE	34	9.19	39.7	NE	33	135
0.05	44.68	1	145	NE	34	1	152	NE	33	3.99	75.7	E	32.2	342
0.05	44.73	1	152	NE	33	1	145	NE	37	5.66	109	E	23.9	194
0.05	44.78	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.05	44.83	1	172	E	26	1	148	NE	32	12.98	100.1	E	24.9	188
0.05	44.88	1	148	NE	32	1	155	NE	28	5.31	114.3	SE	19.1	20
0.05	45.03	1	156	NE	34	1	175	E	16	19.5	143	SE	8.6	50
0.05	45.08	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.05	45.13	1	151	NE	23	1	158	E	33	10.51	170.8	N	8.2	262
0.05	45.28	1	159	E	29	1	165	E	30	3.12	50.8	NE	27.8	323
0.05	45.33	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.05	45.38	1	48	NW	8	1	115	NE	26	23.95	131.6	NW	8	222
0.05	45.43	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.05	45.48	1	141	NE	33	1	152	NE	53	21.3	162.2	N	13.2	256
0.05	45.53	1	152	NE	53	1	140	NE	52	9.57	46.2	NE	51.9	142
0.05	45.68	1	167	E	30	1	158	E	28	4.79	44.9	NE	26.1	138
0.063	8.37	1	132	NE	41	1	137	NE	28	13.3	124.2	SE	6.7	32
0.063	11.72	1	8	S	28	2	177.5	E	29.2	5.18	107.9	E	27.6	197
0.063	32.1	1	10	S	15	1	155	NE	26	16.03	125.2	SE	13.6	214
0.063	32.16	1	155	NE	26	1	141	NE	24	6.23	37.6	NE	23.4	130
0.063	32.35	1	142	NE	24	1	146	NE	23	1.88	88.3	E	19.7	356
0.063	32.54	1	164	E	27	1	159	E	27	2.27	71.5	E	27	162
0.063	32.6	1	159	E	27	1	175	E	25	7.27	94.5	E	24.7	2
0.063	32.92	1	171	E	25	1	179	E	30	6.21	28.3	NE	15.8	301
0.063	44.59	2	163.5	E	36.4	1	145	NE	34	10.89	48.6	NE	33.8	143
0.063	44.65	1	145	NE	34	1	152	NE	33	3.99	75.7	E	32.2	342
0.063	44.72	1	152	NE	33	1	145	NE	37	5.66	109	E	23.9	194
0.063	44.78	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.063	44.84	1	172	E	26	1	148	NE	32	12.98	100.1	E	24.9	188
0.063	44.91	1	148	NE	32	1	155	NE	28	5.31	114.3	SE	19.1	20
0.063	44.97	1	155	NE	28	1	156	NE	34	6.02	159.7	N	2.5	250
0.063	45.03	1	156	NE	34	1	175	E	16	19.5	143	SE	8.6	50
0.063	45.1	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.063	45.16	1	151	NE	23	1	158	E	33	10.51	170.8	N	8.2	262
0.063	45.22	1	158	E	33	1	159	E	29	4.03	152.2	SE	3.8	61
0.063	45.29	1	159	E	29	1	165	E	30	3.12	50.8	NE	27.8	323
0.063	45.35	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.063	45.41	1	48	NW	8	2	129.4	NE	28.9	28.7	144.1	NW	8	234
0.063	45.47	2	129.4	NE	28.9	1	152	NE	53	27.98	166.5	N	18.4	260
0.063	45.54	1	152	NE	53	1	140	NE	52	9.57	46.2	NE	51.9	142
0.063	45.6	1	140	NE	52	1	167	E	30	27.84	121.1	SE	22.5	21
0.063	45.66	1	167	E	30	1	158	E	28	4.79	44.9	NE	26.1	138
0.079	8	1	142	NE	30	1	162	E	41	15.88	13.1	N	24.2	287
0.079	8.4	1	132	NE	41	1	137	NE	28	13.3	124.2	SE	6.7	32
0.079	11.73	2	8	E	26	1	170	E	35	12.74	137.5	SE	20.6	225
0.079	31.99	1	165	E	25	1	10	S	15	12.95	138.1	SE	11.9	46
0.079	32.07	1	10	S	15	1	155	NE	26	16.03	125.2	SE	13.6	214
0.079	32.15	1	155	NE	26	1	141	NE	24	6.23	37.6	NE	23.4	130
0.079	32.39	1	142	NE	24	1	146	NE	23	1.88	88.3	E	19.7	356
0.079	32.47	1	146	NE	23	1	164	E	27	8.55	35.1	NE	21.6	307
0.079	32.55	1	164	E	27	1	159	E	27	2.27	71.5	E	27	162
0.079	32.63	1	159	E	27	1	175	E	25	7.27	94.5	E	24.7	2
0.079	32.7	1	175	E	25	1	155	NE	23	8.34	60.1	NE	22.9	152
0.079	32.94	1	171	E	25	1	179	E	30	6.21	28.3	NE	15.8	301
0.079	34.29	1	158	E	33	1	55	NW	24	44.25	8.1	N	18	103
0.079	44.46	1	170	E	32	1	167	E	36	4.34	149.3	SE	12.5	236
0.079	44.54	1	167	E	36	1	160	E	37	4.28	90.1	E	35.3	178
0.079	44.62	1	160	E	37	1	145	NE	34	9.19	39.7	NE	33	135
0.079	44.7	1	145	NE	34	2	148.3	NE	34.9	2.11	25.2	NE	30.3	301
0.079	44.78	2	148.3	NE	34.9	1	172	E	26	14.83	110.5	E	23.2	15
0.079	44.86	1	172	E	26	2	151.3	NE	30	10.43	96.1	E	25.3	185
0.079	44.94	2	151.3	NE	30	1	156	NE	34	4.75	1.3	N	16.1	275
0.079	45.02	1	156	NE	34	1	175	E	16	19.5	143	SE	8.6	50
0.079	45.1	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.079	45.18	1	151	NE	23	2	158.5	E	31	8.67	175.5	N	10	267
0.079	45.26	2	158.5	E	31	1	165	E	30	3.46	91	E	29	358

0.079	45.33	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.079	45.41	1	48	NW	8	2	129.4	NE	28.9	28.7	144.1	NW	8	234
0.079	45.49	2	129.4	NE	28.9	1	152	NE	53	27.98	166.5	N	18.4	260
0.079	45.57	1	152	NE	53	2	150.4	NE	40.2	12.8	154.8	NW	3.7	67
0.079	45.65	2	150.4	NE	40.2	1	158	E	28	12.94	138.1	SE	10.3	44
0.1	8.16	1	162	E	41	1	166	E	22	19.11	158.5	S	3	67
0.1	8.26	1	166	E	22	1	132	NE	41	25.38	109.1	E	18.7	197
0.1	8.36	1	132	NE	41	1	137	NE	28	13.3	124.2	SE	6.7	32
0.1	11.76	2	8	E	26	1	170	E	35	12.74	137.5	SE	20.6	225
0.1	32.05	2	174.4	E	19.6	1	155	NE	26	9.82	117.1	SE	16.7	206
0.1	32.15	1	155	NE	26	1	141	NE	24	6.23	37.6	NE	23.4	130
0.1	32.25	1	141	NE	24	1	142	NE	24	0.41	51.5	NE	24	321
0.1	32.35	1	142	NE	24	1	146	NE	23	1.88	88.3	E	19.7	356
0.1	32.45	1	146	NE	23	1	164	E	27	8.55	35.1	NE	21.6	307
0.1	32.55	1	164	E	27	2	166.7	E	25.8	1.71	123.8	SE	18.2	30
0.1	32.65	2	166.7	E	25.8	1	155	NE	23	5.57	38.7	NE	20.8	131
0.1	32.95	1	171	E	25	1	179	E	30	6.21	28.3	NE	15.8	301
0.1	34.25	1	158	E	33	1	55	NW	24	44.25	8.1	N	18	103
0.1	44.55	2	168.4	E	34	2	152.8	NE	35.3	8.96	80.4	E	34	170
0.1	44.65	2	152.8	NE	35.3	1	152	NE	33	2.31	161.4	N	6.1	74
0.1	44.75	1	152	NE	33	2	156.3	NE	30.8	3.17	112.5	SE	22.4	18
0.1	44.85	2	156.3	NE	30.8	2	151.3	NE	30	2.69	42.7	NE	28.6	137
0.1	44.95	2	151.3	NE	30	2	162.2	E	24.7	7.23	116.1	SE	18.4	23
0.1	45.05	2	162.2	E	24.7	1	151	NE	23	4.86	44.1	NE	22.1	137
0.1	45.15	1	151	NE	23	2	158.5	E	31	8.67	175.5	N	10	267
0.1	45.25	2	158.5	E	31	1	165	E	30	3.46	91	E	29	358
0.1	45.35	1	165	E	30	3	121.5	NE	20.1	20.29	23.9	NE	19.9	118
0.1	45.45	3	121.5	NE	20.1	1	152	NE	53	36.71	162.4	N	13.5	254
0.1	45.55	1	152	NE	53	2	150.4	NE	40.2	12.8	154.8	NW	3.7	67
0.1	45.65	2	150.4	NE	40.2	1	158	E	28	12.94	138.1	SE	10.3	44
0.126	8	1	142	NE	30	1	162	E	41	15.88	13.1	N	24.2	287
0.126	8.13	1	162	E	41	1	166	E	22	19.11	158.5	S	3	67
0.126	8.25	1	166	E	22	1	132	NE	41	25.38	109.1	E	18.7	197
0.126	8.38	1	132	NE	41	1	137	NE	28	13.3	124.2	SE	6.7	32
0.126	8.5	1	137	NE	28	1	134	NE	35	7.17	124.7	SE	6.5	213
0.126	11.78	2	8	E	26	1	170	E	35	12.74	137.5	SE	20.6	225
0.126	32.05	1	165	E	25	2	167.9	E	19.7	5.42	155.7	SE	4.3	65
0.126	32.17	2	167.9	E	19.7	1	141	NE	24	10.77	89	E	19.3	178
0.126	32.3	1	141	NE	24	2	144	NE	23.5	1.3	77.7	E	21.7	345
0.126	32.42	2	144	NE	23.5	1	164	E	27	9.19	39.8	NE	22.8	311
0.126	32.55	1	164	E	27	2	166.7	E	25.8	1.71	123.8	SE	18.2	30
0.126	32.67	2	166.7	E	25.8	1	155	NE	23	5.57	38.7	NE	20.8	131
0.126	32.8	1	155	NE	23	1	171	E	25	6.79	54.5	NE	22.7	325
0.126	32.93	1	171	E	25	1	179	E	30	6.21	28.3	NE	15.8	301
0.126	34.31	1	158	E	33	1	55	NW	24	44.25	8.1	N	18	103
0.126	44.51	1	170	E	32	2	163.5	E	36.4	5.77	132.3	SE	20.9	218
0.126	44.63	2	163.5	E	36.4	2	148.5	NE	33.5	9.08	43	NE	32.5	139
0.126	44.76	2	148.5	NE	33.5	3	153.4	NE	31.2	3.5	106.4	E	23.9	12
0.126	44.89	3	153.4	NE	31.2	2	155.5	NE	31	1.11	74.5	E	30.7	345
0.126	45.01	2	155.5	NE	31	2	160.9	E	19.1	12.09	148.3	SE	4.3	57
0.126	45.14	2	160.9	E	19.1	2	158.5	E	31	11.92	155.2	SE	2	245
0.126	45.26	2	158.5	E	31	2	149.2	NE	13.7	17.56	164.8	N	3.8	76
0.126	45.39	2	149.2	NE	13.7	2	129.4	NE	28.9	16.54	115	SE	7.8	204
0.126	45.52	2	129.4	NE	28.9	3	150.9	NE	44.7	20.25	173.8	N	21.1	268
0.126	45.64	3	150.9	NE	44.7	1	158	E	28	17.24	142.9	SE	7.9	50
0.158	8.04	1	142	NE	30	2	163.5	E	31.5	11.02	53.9	NE	30	324
0.158	8.19	2	163.5	E	31.5	1	132	NE	41	20.63	89.3	E	30.5	177
0.158	8.35	1	132	NE	41	1	137	NE	28	13.3	124.2	SE	6.7	32
0.158	8.51	1	137	NE	28	1	134	NE	35	7.17	124.7	SE	6.5	213
0.158	11.52	1	172	E	29	1	8	S	28	7.68	98.4	E	28	6
0.158	11.68	1	8	S	28	2	177.5	E	29.2	5.18	107.9	E	27.6	197
0.158	32.13	2	174.4	E	19.6	2	148.3	NE	24.8	11.08	100.7	E	18.9	190
0.158	32.29	2	148.3	NE	24.8	2	144	NE	23.5	2.22	16.1	N	18.9	110
0.158	32.44	2	144	NE	23.5	2	161.5	E	27	8.22	35.6	NE	22.4	307
0.158	32.6	2	161.5	E	27	2	165.4	E	23.7	3.7	138.9	SE	11.1	46
0.158	32.76	2	165.4	E	23.7	1	171	E	25	2.66	46	NE	20.9	319
0.158	32.92	1	171	E	25	1	179	E	30	6.21	28.3	NE	15.8	301
0.158	44.49	1	170	E	32	2	163.5	E	36.4	5.77	132.3	SE	20.9	218
0.158	44.65	2	163.5	E	36.4	4	152.2	NE	32.1	7.69	28.3	NE	27.5	125
0.158	44.81	4	152.2	NE	32.1	2	151.3	NE	30	2.2	162	N	6.1	74
0.158	44.96	2	151.3	NE	30	3	158.6	E	24.1	6.76	128.2	SE	12.7	35
0.158	45.12	3	158.6	E	24.1	2	158.5	E	31	6.95	158.1	S	0.2	248
0.158	45.28	2	158.5	E	31	3	132.1	NE	17.3	17.13	1.7	N	13.3	95
0.158	45.44	3	132.1	NE	17.3	3	145.3	NE	45.9	29.24	150.9	NW	5.7	242
0.158	45.6	3	145.3	NE	45.9	2	162.6	E	28.9	19.82	127.2	SE	17.8	30
0.2	2.1	1	180	E	32	1	165	E	37	9.83	117.8	SE	28.9	204
0.2	7.49	1	86	N	33	1	125	NE	32	20.69	18.6	N	30.9	285
0.2	8.09	2	153.4	NE	35.1	1	166	E	22	14.35	137.4	SE	11	44
0.2	8.29	1	166	E	22	2	134.1	NE	34.5	19.21	102.2	E	19.9	191
0.2	8.49	2	134.1	NE	34.5	1	134	NE	35	0.53	129.7	SE	3	218
0.2	11.48	1	172	E	29	1	8	S	28	7.68	98.4	E	28	6
0.2	11.68	1	8	S	28	2	177.5	E	29.2	5.18	107.9	E	27.6	197
0.2	32.03	1	165	E	25	3	157.7	E	20.7	5.18	12.6	N	12.2	105
0.2	32.23	3	157.7	E	20.7	2	144	NE	23.5	5.85	91.2	E	19.1	180
0.2	32.43	2	144	NE	23.5	2	161.5	E	27	8.22	35.6	NE	22.4	307
0.2	32.63	2	161.5	E	27	2	165.4	E	23.7	3.7	138.9	SE	11.1	46
0.2	32.83	2	165.4	E	23.7	2	175.3	E	27.4	5.7	36.2	NE	18.8	309
0.2	34.03	1	143	NE	22	1	158	E	33	12.92	180	N	13.7	272
0.2	34.23	1	158	E	33	1	55	NW	24	44.25	8.1	N	18	103
0.2	44.6	3	165.5	E	34.9	4	152.2	NE	32.1	7.86	44.2	NE	30.8	139
0.2	44.8	4	152.2	NE	32.1	3	153	NE	31.3	0.92	128.7	SE	14	35
0.2	45	3	153	NE	31.3	3	159.5	E	23.7	8.12	136.6	SE	9.7	44
0.2	45.2	3	159.5	E	23.7	3	154.7	NE	19.4	4.71	177.7	N	7.8	90
0.2	45.4	3	154.7	NE	19.4	4	139.9	NE	40.4	22.2	129.9	SE	8.4	219
0.2	45.6	4	139.9	NE	40.4	2	162.6	E	28.9	17.17	107.9	E	24.3	11
0.251	7.53	1	86	N	33	1	125	NE	32	20.69	18.6	N	30.9	285
0.251	7.78	1	125	NE	32	1	142	NE	30	8.95	58.3	NE	29.8	325
0.251	8.03	1	142	NE	30	2	163.5	E	31.5	11.02	53.9	NE	30	324
0.251	8.29	2	163.5	E	31.5	2	134.1	NE	34.5	16.13	71.1	E	31.5	161
0.251	8.54	2	134.1	NE	34.5	1	134	NE	35	0.53	129.7	SE	3	218
0.251	11.55	1	172	E	29	3	0.9	E	28.7	4.31	91	E	28.7	360
0.251	32.15	3	166.7	E	21.5	2	141.5	NE	24	9.98	79.5	E	21.5	169
0.251	32.4	2	141.5	NE	24	4	161.3	E	25.2	8.29	52.7	NE	24	322
0.251	32.65	4	161.3	E	25.2	2	163.3	E	23.8	1.6	133.3	SE	12.4	42
0.251	32.9	2	163.3	E	23.8	1	179	E	30	9.38	36.9	NE	19.5	309
0.251	34.16	1	143	NE	22	2	116.8	NE	19	9.56	20.7	N	18.9	113
0.251	44.71	4	160.5	E	34.4	5	153.4	NE	30.9	5.18	19.7	N	23.4	115
0.251	44.96	5	153.4	NE	30.9	4	158.4	E	26.3	5.14	131.1	SE	12.8	38
0.251	45.21	4	158.4	E	26.3	5	142	NE	22.8	7.64	30.9	NE	21.4	124
0.251	45.46	5	142	NE	22.8	4	152.4	NE	40.3	18.26	162.2	N	8.3	254
0.316	2.14	1	180	E	32	1	165	E	37	9.83	117.8	SE	28.9	204
0.316	5.62	1	135	NE	36	1	112	N	15	22.86	147.3	NW	8.8	60
0.316	7.52	1	86	N	33	1	125	NE	32	20.69	18.6	N	30.9	285
0.316	7.83	1	125	NE	32	2	153.4	NE	35.1	15.85	36.1	NE	32	306
0.316	8.15	2	153.4	NE	35.1	3	141.9	NE	29.6	8.25	11	N	23.2	107
0.316	8.47	3	141.9	NE	29.6	1	134	NE	35	6.86	104.7	E	18.9	190
0.316	10.68	1	133	NE	39	1	33	S	29	42.89	95.6	E	26.2	358
0.316	11.63	1	172	E	29	3	0.9	E	28.7	4.31	91	E	28.7	360
0.316	12.89	1	165	E	35	1	173	E	30	6.58	133	SE	20.4	38

0.316	17.64	1	4	S	18	1	176	E	13	5.43	22.5	N	5.9	113
0.316	32.18	3	166.7	E	21.5	4	148.7	NE	24.2	7.48	90.3	E	20.9	179
0.316	32.5	4	148.7	NE	24.2	3	163.1	E	24.8	5.99	60	NE	24.2	330
0.316	32.82	3	163.1	E	24.8	2	175.3	E	27.4	6.01	50.3	NE	23	323
0.316	33.76	1	139	NE	21	1	143	NE	22	1.77	14.8	N	17.6	287
0.316	34.08	1	143	NE	22	2	116.8	NE	19	9.56	20.7	N	18.9	113
0.316	44.52	1	170	E	32	6	156.2	NE	33.4	7.56	86	E	31.9	175
0.316	44.83	6	156.2	NE	33.4	5	155.3	NE	26.4	7.04	159.2	N	2	69
0.316	45.15	5	155.3	NE	26.4	6	145.8	NE	24.5	4.5	33.5	NE	22.9	126
0.316	45.47	6	145.8	NE	24.5	4	152.4	NE	40.3	16.17	159.9	N	6.4	251
0.398	1.95	1	180	E	32	1	165	E	37	9.83	117.8	SE	28.9	204
0.398	5.54	1	135	NE	36	1	112	N	15	22.86	147.3	NW	8.8	60
0.398	7.53	1	86	N	33	1	125	NE	32	20.69	18.6	N	30.9	285
0.398	7.93	1	125	NE	32	3	156.4	NE	30.6	16.24	56.4	NE	30.2	323
0.398	8.32	3	156.4	NE	30.6	3	134.1	NE	34.6	12.66	76.8	E	30.2	165
0.398	8.72	3	134.1	NE	34.6	1	173	E	18	23.21	109.1	E	16.3	15
0.398	10.71	1	133	NE	39	1	33	S	29	42.89	95.6	E	26.2	358
0.398	11.11	1	33	S	29	1	172	E	29	19.55	102.5	E	27.4	195
0.398	11.51	1	172	E	29	3	0.9	E	28.7	4.31	91	E	28.7	360
0.398	13.1	1	165	E	35	1	173	E	30	6.58	133	SE	20.4	38
0.398	13.5	1	173	E	30	1	155	NE	34	10.3	100.1	E	28.9	188
0.398	32.21	4	159.8	E	21.7	4	153.3	NE	25	4.13	120.4	SE	14.2	209
0.398	32.61	4	153.3	NE	25	4	170.7	E	25.5	7.42	67.8	E	24.9	337
0.398	33.8	1	139	NE	21	1	143	NE	22	1.77	14.8	N	17.6	287
0.398	34.2	1	143	NE	22	2	116.8	NE	19	9.56	20.7	N	18.9	113
0.398	44.55	2	168.4	E	34	7	153.2	NE	32.1	8.49	56.1	NE	31.9	149
0.398	44.95	7	153.2	NE	32.1	6	159.7	E	27.4	5.74	125.9	SE	16.1	32
0.398	45.35	6	159.7	E	27.4	7	144.1	NE	31.2	8.52	91.6	E	25.7	179
0.501	5.81	1	135	NE	36	1	112	N	15	22.86	147.3	NW	8.8	60
0.501	6.32	1	112	N	15	1	179	E	26	24.15	31.8	NE	14.8	301
0.501	7.82	2	105.2	N	31	3	156.4	NE	30.6	25.56	41.8	NE	28.2	308
0.501	8.32	3	156.4	NE	30.6	3	134.1	NE	34.6	12.66	76.8	E	30.2	165
0.501	8.82	3	134.1	NE	34.6	1	173	E	18	23.21	109.1	E	16.3	15
0.501	10.33	1	134	NE	21	1	133	NE	39	18.01	132.1	SE	0.7	222
0.501	10.83	1	133	NE	39	1	33	S	29	42.89	95.6	E	26.2	358
0.501	11.33	1	33	S	29	4	178.7	E	28.7	16.39	104.8	E	27.8	197
0.501	12.83	1	165	E	35	1	173	E	30	6.58	133	SE	20.4	38
0.501	13.33	1	173	E	30	1	155	NE	34	10.3	100.1	E	28.9	188
0.501	17.84	1	4	S	18	1	176	E	13	5.43	22.5	N	5.9	113
0.501	18.34	1	176	E	13	1	165	E	20	7.64	147.2	SE	6.3	237
0.501	32.38	5	155.9	NE	22	5	160.1	E	24.7	3.14	8	N	12.1	279
0.501	32.88	5	160.1	E	24.7	2	175.3	E	27.4	7.2	53.3	NE	23.8	325
0.501	33.38	2	175.3	E	27.4	1	139	NE	21	15.94	42.6	NE	20.9	136
0.501	33.88	1	139	NE	21	3	128.3	NE	19.8	3.91	24.9	NE	19.3	116
0.501	44.91	8	156.9	NE	33	8	156.9	NE	24.1	8.81	156.9	SE	0	67
0.501	45.41	8	156.9	NE	24.1	6	146.2	NE	36	12.95	129.8	SE	11.5	218
0.631	4.24	1	1	S	43	1	2	S	35	8.02	178	S	2.8	87
0.631	4.87	1	2	S	35	1	135	NE	36	26.79	70.9	E	33.2	164
0.631	5.5	1	135	NE	36	1	112	N	15	22.86	147.3	NW	8.8	60
0.631	6.13	1	112	N	15	1	179	E	26	24.15	31.8	NE	14.8	301
0.631	6.77	1	179	E	26	1	86	N	33	42.16	50.2	NE	20.8	143
0.631	7.4	1	86	N	33	2	133.3	NE	30.7	24.52	25.4	NE	29.5	291
0.631	8.03	2	133.3	NE	30.7	5	145	NE	32.6	6.41	29.6	NE	30	301
0.631	8.66	5	145	NE	32.6	1	173	E	18	18.51	121.5	SE	14.3	28
0.631	9.29	1	173	E	18	1	134	NE	21	13.11	76.7	E	17.9	167
0.631	9.92	1	134	NE	21	1	133	NE	39	18.01	132.1	SE	0.7	222
0.631	10.55	1	133	NE	39	1	33	S	29	42.89	95.6	E	26.2	358
0.631	11.18	1	33	S	29	4	178.7	E	28.7	16.39	104.8	E	27.8	197
0.631	13.08	1	165	E	35	1	173	E	30	6.58	133	SE	20.4	38
0.631	13.71	1	173	E	30	1	155	NE	34	10.3	100.1	E	28.9	188
0.631	14.34	1	155	NE	34	1	155	NE	35	1	155	SE	0	245
0.631	17.49	1	4	S	18	1	176	E	13	5.43	22.5	N	5.9	113
0.631	18.12	1	176	E	13	1	165	E	20	7.64	147.2	SE	6.3	237
0.631	32	1	165	E	25	7	154.9	NE	23.1	4.5	43.8	NE	21.7	136
0.631	32.63	7	154.9	NE	23.1	4	170.7	E	25.5	6.89	51.5	NE	22.6	322
0.631	33.27	4	170.7	E	25.5	1	139	NE	21	13.12	44.1	NE	20.9	137
0.631	33.9	1	139	NE	21	3	128.3	NE	19.8	3.91	24.9	NE	19.3	116
0.631	44.62	3	165.5	E	34.9	11	154.7	NE	29.3	8.01	21.1	N	22.1	117
0.631	45.25	11	154.7	NE	29.3	8	146.8	NE	30.9	4.22	85.2	E	27.7	173
0.794	2.2	1	180	E	32	1	165	E	37	9.83	117.8	SE	28.9	204
0.794	3	1	165	E	37	1	1	S	43	11.87	45.9	NE	33.4	321
0.794	3.79	1	1	S	43	1	2	S	35	8.02	178	S	2.8	87
0.794	6.17	2	128	NE	25.1	1	179	E	26	21.42	61.1	NE	23.3	329
0.794	6.97	1	179	E	26	2	105.2	N	31	33.53	60	NE	23.1	152
0.794	7.76	2	105.2	N	31	5	146.9	NE	31.6	21.31	34.1	NE	29.6	302
0.794	8.56	5	146.9	NE	31.6	2	147.4	NE	25.3	6.35	145	SE	1.2	55
0.794	9.35	2	147.4	NE	25.3	1	134	NE	21	6.79	9.4	N	17.5	102
0.794	10.15	1	134	NE	21	2	166.8	E	27.5	14.69	33.3	NE	20.7	304
0.794	10.94	2	166.8	E	27.5	3	2.3	E	26.8	7.1	90.6	E	26.8	359
0.794	11.73	3	2.3	E	26.8	1	170	E	35	10.33	142.5	SE	17.9	229
0.794	12.53	1	170	E	35	2	168.7	E	32.4	2.66	2.3	N	8.5	95
0.794	13.32	2	168.7	E	32.4	1	155	NE	34	7.67	85.8	E	32.2	175
0.794	14.12	1	155	NE	34	1	155	NE	35	1	155	SE	0	245
0.794	18.09	2	0.6	E	15.5	1	165	E	20	6.54	127.6	SE	12.5	216
0.794	32.39	5	155.9	NE	22	7	164.8	E	25.3	4.83	25.3	NE	17.1	297
0.794	33.18	7	164.8	E	25.3	2	141	NE	21.5	10.09	39.3	NE	21.1	132
0.794	33.98	2	141	NE	21.5	2	116.8	NE	19	8.68	21.4	N	18.9	113
0.794	45.1	11	157.5	E	31	11	149.5	NE	30	4.2	47.1	NE	29.4	140
1	2.86	2	172	E	34.3	1	1	S	43	10.36	23.3	NE	19.5	298
1	3.86	1	1	S	43	1	2	S	35	8.02	178	S	2.8	87
1	4.86	1	2	S	35	1	135	NE	36	26.79	70.9	E	33.2	164
1	5.86	1	135	NE	36	2	155.2	NE	17.6	20.33	120.8	SE	10.1	27
1	6.86	2	155.2	NE	17.6	2	105.2	N	31	23.47	73.8	E	17.4	163
1	7.86	2	105.2	N	31	6	144.5	NE	32.1	20.28	31.3	NE	30	299
1	8.86	6	144.5	NE	32.1	2	152	NE	18.5	14.01	136.1	SE	5.2	45
1	9.86	2	152	NE	18.5	1	133	NE	39	22.24	120.6	SE	9.9	209
1	10.86	1	133	NE	39	5	5.3	E	28.1	29.92	91.9	E	28	355
1	11.86	5	5.3	E	28.1	1	165	E	35	12.6	122.2	SE	25.5	209
1	12.86	1	165	E	35	2	163.5	E	31.7	3.42	176	N	7.6	88
1	13.86	2	163.5	E	31.7	1	155	NE	35	5.72	109.6	E	26.5	195
1	17.86	1	4	S	18	2	169.4	E	16.4	4.59	66	NE	16	157
1	32.85	10	158.1	E	23.4	3	165.4	E	24.4	3.14	50.6	NE	22.4	323
1	33.85	3	165.4	E	24.4	3	128.3	NE	19.8	14.45	38	NE	19.8	130
1	44.85	7	158.2	E	33.1	15	151.2	NE	29.2	5.31	12.8	N	20.4	108
1.259	0.82	1	159	E	25	1	180	E	32	12.13	41.4	NE	22.5	314
1.259	2.08	1	180	E	32	1	165	E	37	9.83	117.8	SE	28.9	204
1.259	3.34	1	165	E	37	2	1.5	E	39	10.3	69.3	E	36.9	340
1.259	4.6	2	1.5	E	39	1	135	NE	36	27.93	61	NE	34.9	157
1.259	5.86	1	135	NE	36	2	155.2	NE	17.6	20.33	120.8	SE	10.1	27
1.259	7.12	2	155.2	NE	17.6	6	135.7	NE	30.6	15.1	115.8	SE	11.3	204
1.259	8.38	6	135.7	NE	30.6	3	143.6	NE	26.2	5.78	102.7	E	17.8	9
1.259	9.64	3	143.6	NE	26.2	3	156.1	NE	24.5	5.62	78.9	E	23.9	347
1.259	10.9	3	156.1	NE	24.5	4	178.7	E	28.7	10.86	52.5	NE	23.9	324
1.259	12.15	4	178.7	E	28.7	2	168.7	E	32.4	6.26	124.1	SE	24.1	210
1.259	13.41	2	168.7	E	32.4	2	155	NE	34.5	7.83	89.9	E	31.9	178
1.259	18.45	2	0.6	E	15.5	1	165	E	20	6.54	127.6	SE	12.5	216
1.259	19.71	1	165	E	20	1	151	NE	28	9.77	124.7	SE	13.2	213
1.259	31.04	1	145	NE	34	4	159.8	E	21.7	13.99	125.6	SE	12.6	32
1.259	32.3	4	159.8	E	21.7	8	162.1	E	25	3.36	175.5	N	6.2	266

1.259	33.56	8	162.1	E	25	4	131.5	NE	20.1	12.51	33.1	NE	19.9	126
1.259	44.89	8	156.9	NE	33	14	151.5	NE	29	4.83	5.3	N	17.2	99
1.585	1.46	1	159	E	25	2	172	E	34.3	11.24	16.8	N	16	289
1.585	3.04	2	172	E	34.3	2	1.5	E	39	7.34	40.5	NE	27	316
1.585	4.63	2	1.5	E	39	2	128	NE	25.1	30.37	36.8	NE	25.1	134
1.585	6.21	2	128	NE	25.1	3	125.2	NE	25.3	1.2	48	NE	24.8	136
1.585	7.8	3	125.2	NE	25.3	7	147	NE	29.9	10.96	19.5	N	24.5	291
1.585	9.38	7	147	NE	29.9	3	156.1	NE	24.5	6.8	116.7	SE	16.1	23
1.585	10.97	3	156.1	NE	24.5	4	178.7	E	28.7	10.86	52.5	NE	23.9	324
1.585	12.55	4	178.7	E	28.7	3	164	E	32.8	8.49	113.5	SE	26.4	201
1.585	14.14	3	164	E	32.8	1	155	NE	35	5.49	97.3	E	30.6	184
1.585	18.89	3	174.5	E	16.8	1	151	NE	28	14.13	125.6	SE	12.9	214
1.585	31.57	1	145	NE	34	12	161.4	E	23.9	12.76	118.4	SE	16.8	24
1.585	33.16	12	161.4	E	23.9	4	131.5	NE	20.1	11.66	36.8	NE	20	129
1.995	1.9	1	159	E	25	3	175.4	E	37.1	14.67	18.5	N	16.5	291
1.995	3.9	3	175.4	E	37.1	3	149.4	NE	25.9	17.4	29.1	NE	22.8	125
1.995	5.9	3	149.4	NE	25.9	3	125.2	NE	25.3	10.39	43.8	NE	25.1	135
1.995	7.89	3	125.2	NE	25.3	8	145.7	NE	28.7	9.82	23.9	NE	24.9	294
1.995	9.89	8	145.7	NE	28.7	6	175.5	E	28.2	14.07	72.7	E	27.6	341
1.995	11.88	6	175.5	E	28.2	3	164	E	32.8	7.4	122	SE	23.3	209
1.995	13.88	3	164	E	32.8	1	155	NE	35	5.49	97.3	E	30.6	184
1.995	15.87	1	155	NE	35	1	4	S	18	20.92	134.3	SE	13.9	40
1.995	17.87	1	4	S	18	2	169.4	E	16.4	4.59	66	NE	16	157
1.995	19.86	2	169.4	E	16.4	1	151	NE	28	13.36	130.8	SE	10.4	220
1.995	29.84	1	161	E	17	1	145	NE	34	18.2	132.5	SE	8.3	221
1.995	31.83	1	145	NE	34	13	159.8	E	23.6	12.57	121.1	SE	15.3	27
1.995	33.83	13	159.8	E	23.6	3	128.3	NE	19.8	12.09	35.4	NE	19.8	127
2.512	1.5	1	159	E	25	3	175.4	E	37.1	14.67	18.5	N	16.5	291
2.512	4.02	3	175.4	E	37.1	3	149.4	NE	25.9	17.4	29.1	NE	22.8	125
2.512	6.53	3	149.4	NE	25.9	9	139.6	NE	29.7	5.89	97.5	E	20.9	185
2.512	9.04	9	139.6	NE	29.7	5	163.3	E	23.8	12.05	92.7	E	22.6	359
2.512	11.55	5	163.3	E	23.8	6	171.9	E	30.5	7.74	15.4	N	13.2	288
2.512	14.06	6	171.9	E	30.5	1	155	NE	35	10.17	103.6	E	28.7	191
2.512	16.58	1	155	NE	35	3	174.5	E	16.8	19.85	141.3	SE	9.4	49
2.512	19.09	3	174.5	E	16.8	1	151	NE	28	14.13	125.6	SE	12.9	214
2.512	26.62	1	148	NE	17	1	161	E	17	3.79	64.5	NE	16.9	334
2.512	29.13	1	161	E	17	1	145	NE	34	18.2	132.5	SE	8.3	221
2.512	31.65	1	145	NE	34	14	158.7	E	23.4	12.42	123	SE	14.2	29
2.512	34.16	14	158.7	E	23.4	2	116.8	NE	19	15.41	31.1	NE	18.9	124
3.162	2.3	3	168.5	E	31.1	2	1.5	E	39	10.86	32.7	NE	22.8	307
3.162	5.46	2	1.5	E	39	11	137.7	NE	28.8	25.84	44.1	NE	28.7	141
3.162	8.62	11	137.7	NE	28.8	8	171.1	E	25.4	15.41	77.9	E	25.4	345
3.162	11.79	8	171.1	E	25.4	4	161.7	E	33.3	9.09	139	SE	14.2	227
3.162	14.95	4	161.7	E	33.3	2	0.6	E	15.5	19.25	148.8	SE	8.3	56
3.162	18.11	2	0.6	E	15.5	2	156.9	NE	23.8	11.42	126.4	SE	12.7	215
3.162	27.6	1	148	NE	17	2	150.5	NE	25.3	8.35	155	NW	2.1	245
3.162	30.76	2	150.5	NE	25.3	14	158.7	E	23.4	3.89	96.2	E	21	4
3.162	33.92	14	158.7	E	23.4	2	116.8	NE	19	15.41	31.1	NE	18.9	124
3.981	2.95	3	168.5	E	31.1	5	164.4	E	28.6	3.14	22.4	N	18.6	116
3.981	6.93	5	164.4	E	28.6	12	141.7	NE	27.8	10.71	58.3	NE	27.7	150
3.981	10.91	12	141.7	NE	27.8	8	169.6	E	30.7	13.81	52.2	NE	27.8	322
3.981	14.89	8	169.6	E	30.7	3	174.5	E	16.8	14.04	164.5	S	3	74
3.981	18.87	3	174.5	E	16.8	1	151	NE	28	14.13	125.6	SE	12.9	214
3.981	22.86	1	151	NE	28	1	148	NE	17	11.06	155	NW	2.1	66
3.981	26.84	1	148	NE	17	2	150.5	NE	25.3	8.35	155	NW	2.1	245
3.981	30.82	2	150.5	NE	25.3	16	155.5	NE	22.7	3.33	117.6	SE	14.4	25
5.012	2.81	3	168.5	E	31.1	7	147.3	NE	26.6	11.09	41.6	NE	25.7	136
5.012	7.82	7	147.3	NE	26.6	15	158.6	E	28.2	5.46	43.4	NE	25.9	315
5.012	12.83	15	158.6	E	28.2	4	164.2	E	28.8	2.73	56.8	NE	27.7	328
5.012	17.84	4	164.2	E	28.8	3	161.1	E	20	8.88	170.2	N	3.3	81
5.012	22.86	3	161.1	E	20	1	148	NE	17	5.13	26.9	NE	14.7	119
5.012	27.87	1	148	NE	17	12	156.8	NE	23.7	7.3	175.8	N	8.1	267
5.012	32.88	12	156.8	NE	23.7	6	150.1	NE	21.4	3.37	20.4	N	16.8	112
6.31	3.93	4	172.3	E	33.9	14	142.9	NE	27.1	16.24	40.4	NE	26.6	136
6.31	10.24	14	142.9	NE	27.1	10	169.1	E	30.1	12.85	51	NE	27.1	321
6.31	16.55	10	169.1	E	30.1	4	166.4	E	19.3	10.94	173.3	N	2.4	84
6.31	22.86	4	166.4	E	19.3	2	154.5	NE	16.9	4.36	36.6	NE	15	128
6.31	29.16	2	154.5	NE	16.9	17	154.6	NE	23.3	6.43	154.9	NW	0.1	245
7.943	6.97	8	166.1	E	29.6	20	154.2	NE	28.3	5.92	56.3	NE	28.1	148
7.943	14.91	20	154.2	NE	28.3	4	166.4	E	19.3	10.29	133.7	SE	10.7	41
7.943	22.86	4	166.4	E	19.3	3	149.9	NE	22.5	6.66	98.1	E	18	187
7.943	30.8	3	149.9	NE	22.5	16	155.5	NE	22.7	2.17	56.4	NE	22.4	327
7.943	38.74	16	155.5	NE	22.7	22	153.7	NE	30.5	7.87	149.3	SE	2.6	239
10	7.86	10	155.2	NE	27.7	19	159.8	E	28.3	2.26	50.2	NE	26.9	322
10	17.86	19	159.8	E	28.3	4	158.1	E	19.2	9.16	162.9	N	1.7	73
10	27.85	4	158.1	E	19.2	18	154.9	NE	23	3.94	140.3	SE	6.1	230
10	37.85	18	154.9	NE	23	22	153.7	NE	30.5	7.56	150.6	SE	1.8	240
12.589	10.27	18	150.7	NE	28	14	168.6	E	27	8.31	77.7	E	27	345
12.589	22.86	14	168.6	E	27	19	154.6	NE	22.6	7.29	32.3	NE	19.4	126
12.589	35.44	19	154.6	NE	22.6	22	153.7	NE	30.5	7.89	151.5	SE	1.3	241
15.849	14.93	28	157.7	E	28.6	7	158.7	E	20.4	8.16	155.6	SE	1.2	65
15.849	30.78	7	158.7	E	20.4	38	154.4	NE	27.1	6.95	143.1	SE	5.7	232
19.953	12.88	25	157.3	NE	28	20	158.8	E	23.7	4.33	150.4	SE	3.7	59
19.953	32.83	20	158.8	E	23.7	28	153.3	NE	28.6	5.45	131.8	SE	11.3	220
25.119	22.86	32	158.5	E	27.3	41	154.1	NE	26.8	2.1	49.3	NE	26	143

Section III

		first window				second window								
window size	depth between two consecutive windows	number of measures	average orientation			number of measures	average orientation			tilt angle	tilt axis			tilt way
0.02	56.1	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.025	55.46	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.025	56.11	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.032	55.46	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.032	55.75	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.032	55.94	1	159	E	29	1	165	E	30	3.12	50.8	NE	27.8	323
0.032	56.1	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.04	55.16	1	170	E	32	1	167	E	36	4.34	149.3	SE	12.5	236
0.04	55.28	1	160	E	37	1	145	NE	34	9.19	39.7	NE	33	135
0.04	55.4	1	152	NE	33	1	145	NE	37	5.66	109	E	23.9	194
0.04	55.44	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.04	55.64	1	155	NE	28	1	156	NE	34	6.02	159.7	N	2.5	250
0.04	55.76	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.04	55.88	1	158	E	33	1	159	E	29	4.03	152.2	SE	3.8	61
0.04	56	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.04	56.12	1	115	NE	26	1	141	NE	33	14.45	6.4	N	24.8	278
0.04	56.16	1	141	NE	33	1	152	NE	53	21.3	162.2	N	13.2	256
0.04	56.28	1	140	NE	52	1	167	E	30	27.84	121.1	SE	22.5	21
0.05	11.43	1	178	E	33	1	180	E	22	11.04	174.7	S	2.1	84
0.05	11.78	1	177	E	53	1	8	S	29	24.98	169.3	S	10.1	74
0.05	12.03	1	150	NE	28	1	158	E	11	17.17	145.4	SE	2.4	55
0.05	55.18	1	170	E	32	1	167	E	36	4.34	149.3	SE	12.5	236
0.05	55.23	1	167	E	36	1	160	E	37	4.28	90.1	E	35.3	178
0.05	55.28	1	160	E	37	1	145	NE	34	9.19	39.7	NE	33	135
0.05	55.43	1	152	NE	33	2	156.3	NE	30.8	3.17	112.5	SE	22.4	18
0.05	55.58	1	148	NE	32	1	155	NE	28	5.31	114.3	SE	19.1	20
0.05	55.63	1	155	NE	28	1	156	NE	34	6.02	159.7	N	2.5	250
0.05	55.68	1	156	NE	34	1	175	E	16	19.5	143	SE	8.6	50
0.05	55.73	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204

0.05	55.88	1	158	E	33	1	159	E	29	4.03	152.2	SE	3.8	61
0.05	55.93	1	159	E	29	1	165	E	30	3.12	50.8	NE	27.8	323
0.05	55.98	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.05	56.23	1	152	NE	53	1	140	NE	52	9.57	46.2	NE	51.9	142
0.05	56.28	1	140	NE	52	1	167	E	30	27.84	121.1	SE	22.5	21
0.05	56.33	1	167	E	30	1	158	E	28	4.79	44.9	NE	26.1	138
0.063	11.34	1	152	NE	25	1	178	E	33	14.77	39.6	NE	23.3	312
0.063	11.53	1	180	E	22	1	163	E	41	20.81	149.3	SE	11.7	237
0.063	11.6	1	163	E	41	1	162	E	32	9.02	165.6	N	2.2	76
0.063	11.79	1	177	E	53	1	8	S	29	24.98	169.3	S	10.1	74
0.063	11.85	1	8	S	29	1	180	E	42	13.78	167.6	S	10.9	255
0.063	12.04	1	150	NE	28	1	158	E	11	17.17	145.4	SE	2.4	55
0.063	12.1	1	158	E	11	1	154	NE	25	14.05	151.2	SE	1.3	241
0.063	55.26	1	167	E	36	2	152.8	NE	35.3	8.3	63.7	NE	35.3	156
0.063	55.32	2	152.8	NE	35.3	1	152	NE	33	2.31	161.4	N	6.1	74
0.063	55.38	1	152	NE	33	1	145	NE	37	5.66	109	E	23.9	194
0.063	55.45	1	145	NE	37	1	172	E	26	17.66	110.2	E	23.3	14
0.063	55.51	1	172	E	26	1	148	NE	32	12.98	100.1	E	24.9	188
0.063	55.57	1	148	NE	32	1	155	NE	28	5.31	114.3	SE	19.1	20
0.063	55.64	1	155	NE	28	1	156	NE	34	6.02	159.7	N	2.5	250
0.063	55.7	1	156	NE	34	1	175	E	16	19.5	143	SE	8.6	50
0.063	55.76	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.063	55.83	1	151	NE	23	1	158	E	33	10.51	170.8	N	8.2	262
0.063	55.89	1	158	E	33	1	159	E	29	4.03	152.2	SE	3.8	61
0.063	55.95	1	159	E	29	1	165	E	30	3.12	50.8	NE	27.8	323
0.063	56.02	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.063	56.08	1	48	NW	8	2	129.4	NE	28.9	28.7	144.1	NW	8	234
0.063	56.14	2	129.4	NE	28.9	1	152	NE	53	27.98	166.5	N	18.4	260
0.063	56.2	1	152	NE	53	1	140	NE	52	9.57	46.2	NE	51.9	142
0.063	56.27	1	140	NE	52	1	167	E	30	27.84	121.1	SE	22.5	21
0.063	56.33	1	167	E	30	1	158	E	28	4.79	44.9	NE	26.1	138
0.079	0.07	1	2	S	40	1	173	E	37	6.35	53.2	NE	33.2	150
0.079	0.47	1	159	E	29	1	170	E	37	9.97	16.8	N	18.8	291
0.079	0.71	1	162	E	30	1	168	E	37	7.74	6.6	N	13.5	280
0.079	11.35	1	152	NE	25	1	178	E	33	14.77	39.6	NE	23.3	312
0.079	11.43	1	178	E	33	1	180	E	22	11.04	174.7	S	2.1	84
0.079	11.51	1	180	E	22	1	163	E	41	20.81	149.3	SE	11.7	237
0.079	11.59	1	163	E	41	1	162	E	32	9.02	165.6	N	2.2	76
0.079	11.67	1	162	E	32	1	177	E	53	23.2	9.6	N	16.1	284
0.079	11.75	1	177	E	53	1	8	S	29	24.98	169.3	S	10.1	74
0.079	11.83	1	8	S	29	1	180	E	42	13.78	167.6	S	10.9	255
0.079	11.91	1	180	E	42	1	150	NE	28	21.84	31.1	NE	25	129
0.079	11.99	1	150	NE	28	1	158	E	11	17.17	145.4	SE	2.4	55
0.079	12.22	1	154	NE	25	1	1	W	9	33.25	160.8	N	3.1	71
0.079	43.28	1	148	NE	19	1	163	E	26	9	12.9	N	13.7	284
0.079	55.2	1	170	E	32	2	163.5	E	36.4	5.77	132.3	SE	20.9	218
0.079	55.28	2	163.5	E	36.4	1	145	NE	34	10.89	48.6	NE	33.8	143
0.079	55.36	1	145	NE	34	1	152	NE	33	3.99	75.7	E	32.2	342
0.079	55.44	1	152	NE	33	2	156.3	NE	30.8	3.17	112.5	SE	22.4	18
0.079	55.51	2	156.3	NE	30.8	1	148	NE	32	4.5	80	E	30.1	168
0.079	55.59	1	148	NE	32	2	155.5	NE	31	4.06	78.3	E	30.4	345
0.079	55.67	2	155.5	NE	31	1	175	E	16	16.7	139.4	SE	9.5	47
0.079	55.75	1	175	E	16	1	151	NE	23	10.51	115.3	SE	13.9	204
0.079	55.83	1	151	NE	23	2	158.5	E	31	8.67	175.5	N	10	267
0.079	55.91	2	158.5	E	31	1	165	E	30	3.46	91	E	29	358
0.079	55.99	1	165	E	30	1	48	NW	8	34.31	176.1	N	6.3	88
0.079	56.07	1	48	NW	8	2	129.4	NE	28.9	28.7	144.1	NW	8	234
0.079	56.15	2	129.4	NE	28.9	1	152	NE	53	27.98	166.5	N	18.4	260
0.079	56.23	1	152	NE	53	1	140	NE	52	9.57	46.2	NE	51.9	142
0.079	56.31	1	140	NE	52	2	162.6	E	28.9	27.05	124.6	SE	18.8	26
0.1	0.09	1	2	S	40	1	173	E	37	6.35	53.2	NE	33.2	150
0.1	0.19	1	173	E	37	1	166	E	29	8.85	11.4	N	13.4	106
0.1	0.49	1	159	E	29	1	170	E	37	9.97	16.8	N	18.8	291
0.1	0.59	1	170	E	37	1	162	E	30	8.26	13.8	N	16.9	109
0.1	0.69	1	162	E	30	1	168	E	37	7.74	6.6	N	13.5	280
0.1	11.39	1	152	NE	25	2	178.8	E	27.5	12.02	62.4	NE	25	332
0.1	11.49	2	178.8	E	27.5	1	163	E	41	16.08	141.9	SE	17.3	229
0.1	11.59	1	163	E	41	1	162	E	32	9.02	165.6	N	2.2	76
0.1	11.69	1	162	E	32	1	177	E	53	23.2	9.6	N	16.1	284
0.1	11.79	1	177	E	53	1	8	S	29	24.98	169.3	S	10.1	74
0.1	11.89	1	8	S	29	2	167.7	E	34.1	11.72	116.9	SE	27.7	205
0.1	11.99	2	167.7	E	34.1	1	158	E	11	23.32	171.5	N	2.6	82
0.1	12.09	1	158	E	11	1	154	NE	25	14.05	151.2	SE	1.3	241
0.1	12.19	1	154	NE	25	1	1	W	9	33.25	160.8	N	3.1	71
0.1	23.49	1	145	NE	39	1	142	NE	24	15.08	148.7	NW	3	60
0.1	24.09	1	140	NE	22	1	148	NE	25	4.37	8.3	N	16.8	280
0.1	42.19	1	156	NE	18	1	152	NE	22	4.23	136.2	SE	6.3	225
0.1	42.99	1	154	NE	24	1	153	NE	22	2.04	163.7	N	4.3	75
0.1	43.29	1	148	NE	19	1	163	E	26	9	12.9	N	13.7	284
0.1	55.19	1	170	E	32	2	163.5	E	36.4	5.77	132.3	SE	20.9	218
0.1	55.29	2	163.5	E	36.4	2	148.5	NE	33.5	9.08	43	NE	32.5	139
0.1	55.39	2	148.5	NE	33.5	2	156.3	NE	30.8	4.95	99	E	26.7	5
0.1	55.49	2	156.3	NE	30.8	1	148	NE	32	4.5	80	E	30.1	168
0.1	55.59	1	148	NE	32	2	155.5	NE	31	4.06	78.3	E	30.4	345
0.1	55.69	2	155.5	NE	31	2	160.9	E	19.1	12.09	148.3	SE	4.3	57
0.1	55.79	2	160.9	E	19.1	1	158	E	33	13.94	154.7	SE	2.1	244
0.1	55.89	1	158	E	33	2	162	E	29.5	4.11	133.1	SE	15.3	39
0.1	55.99	2	162	E	29.5	2	100.4	N	15.1	25.64	10.5	N	15.1	104
0.1	56.09	2	100.4	N	15.1	2	147.5	NE	42.9	34.1	162.4	N	13.4	253
0.1	56.19	2	147.5	NE	42.9	1	140	NE	52	10.67	121.3	SE	22.3	204
0.1	56.29	1	140	NE	52	2	162.6	E	28.9	27.05	124.6	SE	18.8	26
0.126	0.12	1	2	S	40	1	173	E	37	6.35	53.2	NE	33.2	150
0.126	0.24	1	173	E	37	1	166	E	29	8.85	11.4	N	13.4	106
0.126	0.37	1	166	E	29	1	159	E	29	3.39	72.5	E	29	163
0.126	0.49	1	159	E	29	1	170	E	37	9.97	16.8	N	18.8	291
0.126	0.62	1	170	E	37	1	162	E	30	8.26	13.8	N	16.9	109
0.126	0.75	1	162	E	30	1	168	E	37	7.74	6.6	N	13.5	280
0.126	11.32	1	152	NE	25	1	178	E	33	14.77	39.6	NE	23.3	312
0.126	11.45	1	178	E	33	2	169.2	E	31.2	5.01	59.8	NE	29.8	153
0.126	11.57	2	169.2	E	31.2	1	162	E	32	3.83	88.9	E	30.9	178
0.126	11.7	1	162	E	32	2	1.2	E	40.9	14.34	37.8	NE	27.3	312
0.126	11.82	2	1.2	E	40.9	1	180	E	42	1.36	153.6	SE	21.8	235
0.126	11.95	1	180	E	42	2	152.3	NE	19.5	26.09	15.6	N	13.6	111
0.126	12.08	2	152.3	NE	19.5	1	154	NE	25	5.57	159.3	N	2.5	250
0.126	12.2	1	154	NE	25	1	1	W	9	33.25	160.8	N	3.1	71
0.126	12.33	1	1	W	9	1	176	E	47	55.97	176.6	N	0.7	267
0.126	13.21	1	176	E	47	1	13	S	73	29.75	20.9	N	24.3	300
0.126	24.04	1	140	NE	22	1	148	NE	25	4.37	8.3	N	16.8	280
0.126	40.02	1	165	E	23	1	166	E	25	2.04	176	N	4.6	267
0.126	42.16	1	156	NE	18	1	152	NE	22	4.23	136.2	SE	6.3	225
0.126	42.79	1	151	NE	24	1	154	NE	24	1.22	62.5	NE	24	332
0.126	43.17	1	153	NE	22	1	148	NE	19	3.47	179.2	N	10.1	91
0.126	43.3	1	148	NE	19	1	163	E	26	9	12.9	N	13.7	284
0.126	55.13	1	170	E	32	1	167	E	36	4.34	149.3	SE	12.5	236
0.126	55.26	1	167	E	36	3	152.5	NE	34.5	8.47	57.5	NE	34.4	151
0.126	55.38	3	152.5	NE	34.5	2	156.3	NE	30.8	4.23	129.3	SE	15.2	35
0.126	55.51	2	156.3	NE	30.8	2	151.3	NE	30	2.69	42.7	NE	28.6	137
0.126	55.63	2	151.3	NE	30	2	162.2	E	24.7	7.23	116.1	SE	18.4	23
0.126	55.76	2	162.2	E	24.7	2	155.1	NE	28	4.52	117.1	SE	18.1	205

0.126	55.89	2	155.1	NE	28	2	162	E	29.5	3.67	41.4	NE	25.9	314
0.126	56.01	2	162	E	29.5	3	121.5	NE	20.1	18.9	21.7	N	19.8	116
0.126	56.14	3	121.5	NE	20.1	2	146	NE	52.3	34.8	155	NW	11.4	247
0.126	56.26	2	146	NE	52.3	2	162.6	E	28.9	25.63	134.4	SE	14.7	37
0.158	0.14	2	177.6	E	38.4	1	166	E	29	11.38	21.8	N	17.9	117
0.158	0.3	1	166	E	29	1	159	E	29	3.39	72.5	E	29	163
0.158	0.45	1	159	E	29	1	170	E	37	9.97	16.8	N	18.8	291
0.158	0.61	1	170	E	37	2	165.3	E	33.5	4.46	19.9	N	20.6	116
0.158	11.39	2	166.7	E	28.4	1	180	E	22	8.51	134.3	SE	16.1	41
0.158	11.55	1	180	E	22	2	162.6	E	36.5	16.68	143.7	SE	13.5	232
0.158	11.71	2	162.6	E	36.5	2	1.2	E	40.9	12.38	56.3	NE	35.4	329
0.158	11.87	2	1.2	E	40.9	2	167.7	E	34.1	10.6	38.4	NE	27.7	136
0.158	12.02	2	167.7	E	34.1	2	155.2	NE	18	16.93	178.7	N	7.4	91
0.158	12.18	2	155.2	NE	18	1	1	W	9	26.38	163.6	N	2.7	74
0.158	12.34	1	1	W	9	1	176	E	47	55.97	176.6	N	0.7	267
0.158	13.29	1	176	E	47	1	13	S	73	29.75	20.9	N	24.3	300
0.158	14.72	1	141	NE	14	1	164	E	29	16.94	0.7	N	9	272
0.158	23.44	1	145	NE	39	1	142	NE	24	15.08	148.7	NW	3	60
0.158	24.07	1	140	NE	22	1	148	NE	25	4.37	8.3	N	16.8	280
0.158	39.6	1	148	NE	30	1	133	NE	23	9.64	1.3	N	17.6	95
0.158	40.08	1	165	E	23	1	166	E	25	2.04	176	N	4.6	267
0.158	42.14	1	156	NE	18	1	152	NE	22	4.23	136.2	SE	6.3	225
0.158	42.3	1	152	NE	22	1	153	NE	26	4.02	157.8	N	2.3	248
0.158	42.77	1	151	NE	24	1	154	NE	24	1.22	62.5	NE	24	332
0.158	42.93	1	154	NE	24	1	153	NE	22	2.04	163.7	N	4.3	75
0.158	43.09	1	153	NE	22	1	148	NE	19	3.47	179.2	N	10.1	91
0.158	43.25	1	148	NE	19	1	163	E	26	9	12.9	N	13.7	284
0.158	55.13	1	170	E	32	2	163.5	E	36.4	5.77	132.3	SE	20.9	218
0.158	55.29	2	163.5	E	36.4	3	147.2	NE	34.6	9.58	52.1	NE	34.5	146
0.158	55.45	3	147.2	NE	34.6	3	157.6	E	28.3	8.29	116.2	SE	19.6	21
0.158	55.61	3	157.6	E	28.3	2	162.2	E	24.7	4.13	132.2	SE	13	40
0.158	55.77	2	162.2	E	24.7	3	156.4	NE	28.3	4.41	126.2	SE	15.2	214
0.158	55.93	3	156.4	NE	28.3	2	149.2	NE	13.7	14.76	162.4	N	3.2	73
0.158	56.08	2	149.2	NE	13.7	3	139.6	NE	36.3	22.8	134.9	SE	3.4	224
0.158	56.24	3	139.6	NE	36.3	3	152.7	NE	35.8	7.71	59.9	NE	35.8	329
0.2	0.16	2	177.6	E	38.4	1	166	E	29	11.38	21.8	N	17.9	117
0.2	0.36	1	166	E	29	2	165.1	E	32.9	3.91	159.7	S	3.5	249
0.2	0.56	2	165.1	E	32.9	1	162	E	30	3.3	9.1	N	14.7	103
0.2	0.76	1	162	E	30	1	168	E	37	7.74	6.6	N	13.5	280
0.2	0.95	1	168	E	37	1	151	NE	28	12.75	20.4	N	22	116
0.2	11.33	1	152	NE	25	2	178.8	E	27.5	12.02	62.4	NE	25	332
0.2	11.53	2	178.8	E	27.5	2	162.6	E	36.5	12.39	131.3	SE	21	218
0.2	11.73	2	162.6	E	36.5	3	0.7	E	41.3	12.33	53.6	NE	35	327
0.2	11.93	3	0.7	E	41.3	2	152.3	NE	19.5	25.59	17.3	N	14	112
0.2	12.13	2	152.3	NE	19.5	2	139.9	NE	8.8	11.06	161.6	N	3.3	72
0.2	12.33	2	139.9	NE	8.8	1	176	E	47	40.17	1.5	N	5.8	272
0.2	12.53	1	176	E	47	1	169	E	49	5.57	112.3	E	43.9	195
0.2	14.12	1	177	E	58	1	180	E	60	3.26	32	NE	42.6	320
0.2	14.72	1	141	NE	14	1	164	E	29	16.94	0.7	N	9	272
0.2	23.5	1	145	NE	39	1	142	NE	24	15.08	148.7	NW	3	60
0.2	24.1	1	140	NE	22	1	148	NE	25	4.37	8.3	N	16.8	280
0.2	24.3	1	148	NE	25	1	155	NE	22	4.09	111	E	15.7	18
0.2	24.9	1	153	NE	39	1	156	NE	30	9.16	145.6	SE	5.9	54
0.2	39.06	1	160	E	25	1	157	NE	33	8.13	149.4	SE	4.9	238
0.2	40.06	1	165	E	23	1	166	E	25	2.04	176	N	4.6	267
0.2	40.26	1	166	E	25	1	153	NE	24	5.47	58	NE	23.9	150
0.2	42.26	1	156	NE	18	2	152.5	NE	24	6.12	143.3	SE	4.1	233
0.2	42.86	1	151	NE	24	2	153.5	NE	23	1.42	109.6	E	16.4	17
0.2	43.05	2	153.5	NE	23	1	148	NE	19	4.46	175.6	N	9.1	87
0.2	43.25	1	148	NE	19	1	163	E	26	9	12.9	N	13.7	284
0.2	43.85	1	152	NE	22	1	147	NE	23	2.16	89	E	19.8	177
0.2	55.23	2	168.4	E	34	3	152.5	NE	34.5	8.94	74.4	E	33.9	165
0.2	55.43	3	152.5	NE	34.5	4	153.8	NE	30.4	4.21	145.2	SE	5	53
0.2	55.62	4	153.8	NE	30.4	3	158.6	E	24.1	6.67	139	SE	8.5	47
0.2	55.82	3	158.6	E	24.1	3	160.6	E	30.6	6.64	166.7	N	3.6	258
0.2	56.02	3	160.6	E	30.6	4	134.7	NE	27.5	12.85	42	NE	27.5	136
0.2	56.22	4	134.7	NE	27.5	3	152.7	NE	35.8	12.51	8	N	22.6	281
0.251	0.18	2	177.6	E	38.4	2	162.5	E	29	12.59	26.8	NE	21.1	123
0.251	0.43	2	162.5	E	29	2	166.4	E	33.4	4.91	5.4	N	12.1	279
0.251	0.68	2	166.4	E	33.4	1	168	E	37	3.69	179.4	N	8.4	271
0.251	0.94	1	168	E	37	1	151	NE	28	12.75	20.4	N	22	116
0.251	1.19	1	151	NE	28	1	155	NE	39	11.21	162.6	N	6.1	254
0.251	1.94	1	156	NE	48	1	156	NE	29	19	156	NW	0	66
0.251	11.49	3	170.5	E	26.1	3	168.3	E	41.7	15.67	165.7	S	2.3	255
0.251	11.74	3	168.3	E	41.7	3	173.9	E	32	10.27	155.4	SE	11.2	61
0.251	11.99	3	173.9	E	32	3	147.3	NE	9.5	23.89	2.9	N	5.6	94
0.251	12.24	3	147.3	NE	9.5	1	176	E	47	38.87	1	N	5.3	271
0.251	12.49	1	176	E	47	1	169	E	49	5.57	112.3	E	43.9	195
0.251	13.24	1	176	E	47	1	13	S	73	29.75	20.9	N	24.3	300
0.251	13.5	1	13	S	73	1	179	E	74	13.46	110.6	E	72.9	195
0.251	13.75	1	179	E	74	1	177	E	58	16.1	0.7	N	5.9	95
0.251	14.5	1	180	E	60	1	141	NE	14	49.61	5.8	N	10	102
0.251	14.75	1	141	NE	14	1	164	E	29	16.94	0.7	N	9	272
0.251	23.29	1	155	NE	44	2	143.8	NE	31.5	14.22	173	N	16.6	89
0.251	24.05	1	140	NE	22	1	148	NE	25	4.37	8.3	N	16.8	280
0.251	24.3	1	148	NE	25	1	155	NE	22	4.09	111	E	15.7	18
0.251	24.55	1	155	NE	22	1	153	NE	39	17.03	151	SE	1.6	241
0.251	39.12	1	160	E	25	1	157	NE	33	8.13	149.4	SE	4.9	238
0.251	39.37	1	157	NE	33	1	148	NE	30	5.57	25.8	NE	26	121
0.251	39.62	1	148	NE	30	1	133	NE	23	9.64	1.3	N	17.6	95
0.251	39.87	1	133	NE	23	2	165.5	E	24	12.86	54.6	NE	22.6	324
0.251	41.13	1	150	NE	23	1	151	NE	19	4.02	145.7	SE	1.8	55
0.251	41.88	1	155	NE	26	1	156	NE	18	8.01	153	SE	1	63
0.251	42.13	1	156	NE	18	1	152	NE	22	4.23	136.2	SE	6.3	225
0.251	42.38	1	152	NE	22	1	153	NE	26	4.02	157.8	N	2.3	248
0.251	42.63	1	153	NE	26	1	151	NE	24	2.17	173	N	9.5	85
0.251	42.88	1	151	NE	24	2	153.5	NE	23	1.42	109.6	E	16.4	17
0.251	43.14	2	153.5	NE	23	2	156.6	NE	22.3	1.37	96.4	E	19.6	5
0.251	43.89	1	152	NE	22	1	147	NE	23	2.16	89	E	19.8	177
0.251	55.19	1	170	E	32	5	153.9	NE	35.1	9.4	94.4	E	31.2	182
0.251	55.44	5	153.9	NE	35.1	4	157.1	NE	29.7	5.63	140.2	SE	9.4	48
0.251	55.7	4	157.1	NE	29.7	4	159.4	E	25.1	4.76	146.9	SE	5.8	55
0.251	55.95	4	159.4	E	25.1	5	141.7	NE	27.6	8.18	80	E	24.7	169
0.251	56.2	5	141.7	NE	27.6	3	152.7	NE	35.8	10.05	178.1	N	17.2	272
0.316	0.2	2	177.6	E	38.4	3	165.4	E	31.6	9.79	31.8	NE	24	129
0.316	0.52	3	165.4	E	31.6	2	165.3	E	33.5	1.89	164.1	S	0.8	254
0.316	0.84	2	165.3	E	33.5	1	151	NE	28	9.08	27.3	NE	23.9	122
0.316	1.15	1	151	NE	28	1	155	NE	39	11.21	162.6	N	6.1	254
0.316	2.1	1	156	NE	48	1	156	NE	29	19	156	NW	0	66
0.316	5.58	1	178	E	28	1	150	NE	30	13.61	83.4	E	27.9	174
0.316	11.59	4	168	E	29.8	4	176.8	E	38.6	10.12	17.3	N	15.7	291
0.316	11.9	4	176.8	E	38.6	3	153	NE	21.4	20.69	16.5	N	15.1	112
0.316	12.22	3	153	NE	21.4	2	174.6	E	19	7.79	92	E	18.9	1
0.316	12.54	2	174.6	E	19	1	169	E	49	30.11	166.6	S	2.8	256
0.316	12.85	1	169	E	49	1	176	E	47	5.57	112.3	E	43.9	12
0.316	13.17	1	176	E	47	1	13	S	73	29.75	20.9	N	24.3	300
0.316	13.49	1	13	S	73	1	179	E	74	13.46	110.6	E	72.9	195
0.316	13.8	1	179	E	74	1	177	E	58	16.1	0.7	N	5.9	95
0.316	14.12	1	177	E	58	1	180	E	60	3.26	32	NE	42.6	320

0.316	14.43	1	180	E	60	1	141	NE	14	49.61	5.8	N	10	102
0.316	14.75	1	141	NE	14	1	164	E	29	16.94	0.7	N	9	272
0.316	23.29	1	155	NE	44	2	143.8	NE	31.5	14.22	173	N	16.6	89
0.316	24.24	2	144.2	NE	23.4	1	155	NE	22	4.39	80.3	E	21.3	348
0.316	24.55	1	155	NE	22	1	153	NE	39	17.03	151	SE	1.6	241
0.316	24.87	1	153	NE	39	1	156	NE	30	9.16	145.6	SE	5.9	54
0.316	39.1	1	160	E	25	1	157	NE	33	8.13	149.4	SE	4.9	238
0.316	39.42	1	157	NE	33	2	141.4	NE	26.3	10.16	14.5	N	21.6	109
0.316	39.73	2	141.4	NE	26.3	1	165	E	23	10.3	83.2	E	22.8	350
0.316	40.05	1	165	E	23	1	166	E	25	2.04	176	N	4.6	267
0.316	40.36	1	166	E	25	1	153	NE	24	5.47	58	NE	23.9	150
0.316	40.68	1	153	NE	24	1	150	NE	23	1.56	19.2	N	17.8	112
0.316	41.63	1	151	NE	19	1	155	NE	26	7.16	164.5	N	4.6	255
0.316	41.95	1	155	NE	26	1	156	NE	18	8.01	153	SE	1	63
0.316	42.26	1	156	NE	18	2	152.5	NE	24	6.12	143.3	SE	4.1	233
0.316	42.58	2	152.5	NE	24	1	151	NE	24	0.63	61.9	NE	24	152
0.316	42.89	1	151	NE	24	3	151.9	NE	21.6	2.38	143.7	SE	3.3	53
0.316	43.21	3	151.9	NE	21.6	1	163	E	26	6.23	20.9	N	16.7	293
0.316	43.53	1	163	E	26	1	152	NE	22	5.99	23.2	NE	17.5	116
0.316	43.84	1	152	NE	22	1	147	NE	23	2.16	89	E	19.8	177
0.316	55.23	2	168.4	E	34	6	152.9	NE	32.9	8.59	61.7	NE	32.8	155
0.316	55.54	6	152.9	NE	32.9	5	157.7	E	26.7	6.6	137	SE	10.1	44
0.316	55.86	5	157.7	E	26.7	5	142	NE	22.8	7.57	27.2	NE	20.9	120
0.316	56.18	5	142	NE	22.8	4	152.4	NE	40.3	18.26	162.2	N	8.3	254
0.398	0.32	3	174.4	E	35.2	3	164.1	E	31.9	6.54	44.7	NE	28.5	140
0.398	0.72	3	164.1	E	31.9	2	160.6	E	32.2	1.91	83.5	E	31.6	172
0.398	1.12	2	160.6	E	32.2	1	155	NE	39	7.51	136.5	SE	14.4	223
0.398	1.52	1	155	NE	39	1	156	NE	48	9.03	158.7	N	3	250
0.398	1.91	1	156	NE	48	1	156	NE	29	19	156	NW	0	66
0.398	5.5	1	178	E	28	1	150	NE	30	13.61	83.4	E	27.9	174
0.398	11.47	2	166.7	E	28.4	5	173.2	E	34.9	7.32	14.1	N	14	287
0.398	11.87	5	173.2	E	34.9	5	161.1	E	19.3	16.41	4.9	N	8.1	97
0.398	12.27	5	161.1	E	19.3	1	176	E	47	28.65	3	N	7.5	274
0.398	12.66	1	176	E	47	1	169	E	49	5.57	112.3	E	43.9	195
0.398	13.06	1	169	E	49	2	5.6	E	59.7	17.21	34	NE	39.1	316
0.398	13.46	2	5.6	E	59.7	1	179	E	74	15.51	172.7	S	21	251
0.398	13.86	1	179	E	74	2	178.5	E	59	15.02	179.4	N	1.5	91
0.398	14.26	2	178.5	E	59	1	141	NE	14	48.37	4.4	N	9.7	100
0.398	14.65	1	141	NE	14	1	164	E	29	16.94	0.7	N	9	272
0.398	21.02	1	145	NE	29	1	179	E	15	18.41	120.7	SE	12.8	28
0.398	22.22	1	153	NE	44	1	139	NE	12	32.46	156.9	NW	3.7	68
0.398	23.41	2	150.2	NE	41.4	1	142	NE	24	17.92	158.5	N	7.2	71
0.398	23.81	1	142	NE	24	2	144.2	NE	23.4	1.06	86.8	E	20.1	357
0.398	24.21	2	144.2	NE	23.4	1	155	NE	22	4.39	80.3	E	21.3	348
0.398	24.61	1	155	NE	22	1	153	NE	39	17.03	151	SE	1.6	241
0.398	25.01	1	153	NE	39	1	156	NE	30	9.16	145.6	SE	5.9	54
0.398	38.94	1	160	E	25	1	157	NE	33	8.13	149.4	SE	4.9	238
0.398	39.34	1	157	NE	33	2	141.4	NE	26.3	10.16	14.5	N	21.6	109
0.398	39.74	2	141.4	NE	26.3	2	165.5	E	24	10.43	77.2	E	24	345
0.398	40.13	2	165.5	E	24	1	153	NE	24	5.08	69.3	E	23.9	160
0.398	40.53	1	153	NE	24	1	150	NE	23	1.56	19.2	N	17.8	112
0.398	41.73	1	151	NE	19	2	155.4	NE	22	3.37	179	N	9.2	270
0.398	42.12	2	155.4	NE	22	2	152.5	NE	24	2.29	126.6	SE	11	215
0.398	42.52	2	152.5	NE	24	2	152.5	NE	24	0.02	38.5	NE	22.1	153
0.398	42.92	2	152.5	NE	24	2	150.7	NE	20.5	3.58	161.9	N	4.2	73
0.398	43.32	2	150.7	NE	20.5	2	157.9	E	23.9	4.38	10.9	N	13.6	283
0.398	43.72	2	157.9	E	23.9	1	147	NE	23	4.44	49.8	NE	22.8	141
0.398	55.26	3	165.5	E	34.9	6	151.9	NE	31.4	8.22	39.1	NE	29.3	135
0.398	55.66	6	151.9	NE	31.4	7	157.3	NE	23.5	8.21	138.9	SE	7.8	47
0.398	56.06	7	157.3	NE	23.5	6	146.2	NE	36	13.54	130.5	SE	11.1	219
0.501	0.37	3	174.4	E	35.2	4	165.2	E	33.2	5.53	54.8	NE	31.5	149
0.501	0.88	4	165.2	E	33.2	1	151	NE	28	8.85	28.5	NE	24.2	123
0.501	1.38	1	151	NE	28	2	155.5	NE	43.5	15.71	161.3	N	5.4	253
0.501	1.88	2	155.5	NE	43.5	1	156	NE	29	14.5	154.9	SE	0.6	65
0.501	5.89	1	178	E	28	1	150	NE	30	13.61	83.4	E	27.9	174
0.501	6.39	1	150	NE	30	1	149	NE	27	3.04	157.5	NW	4.3	69
0.501	11.4	2	166.7	E	28.4	6	174.5	E	36.1	8.77	15.3	N	14.5	288
0.501	11.9	6	174.5	E	36.1	5	159.9	E	20.3	17.15	8.6	N	10.1	102
0.501	12.4	5	159.9	E	20.3	1	169	E	49	29.1	173.2	N	4.9	264
0.501	12.9	1	169	E	49	2	5.6	E	59.7	17.21	34	NE	39.1	316
0.501	13.4	2	5.6	E	59.7	1	179	E	74	15.51	172.7	S	21	251
0.501	13.91	1	179	E	74	2	178.5	E	59	15.02	179.4	N	1.5	91
0.501	14.41	2	178.5	E	59	2	156.4	NE	21.2	39.92	4.9	N	10.5	101
0.501	20.42	1	131	NE	47	1	145	NE	29	19.86	116.9	SE	14.6	21
0.501	20.92	1	145	NE	29	1	179	E	15	18.41	120.7	SE	12.8	28
0.501	21.42	1	179	E	15	1	153	NE	44	31.08	143.8	SE	8.8	233
0.501	22.93	1	139	NE	12	2	150.2	NE	41.4	29.7	153.8	NW	3.1	244
0.501	23.43	2	150.2	NE	41.4	1	142	NE	24	17.92	158.5	N	7.2	71
0.501	23.93	1	142	NE	24	2	144.2	NE	23.4	1.06	86.8	E	20.1	357
0.501	24.43	2	144.2	NE	23.4	2	153.7	NE	30.5	8.24	177.7	N	13.5	270
0.501	24.93	2	153.7	NE	30.5	1	156	NE	30	1.24	91.7	E	27.5	358
0.501	38.97	1	160	E	25	1	157	NE	33	8.13	149.4	SE	4.9	238
0.501	39.47	1	157	NE	33	3	148.6	NE	24.8	9.12	176.4	N	12.2	90
0.501	39.97	3	148.6	NE	24.8	2	159.6	E	24.4	4.6	70.2	E	24.4	339
0.501	40.47	2	159.6	E	24.4	1	150	NE	23	4.09	43.8	NE	22.2	135
0.501	40.97	1	150	NE	23	1	151	NE	19	4.02	145.7	SE	1.8	55
0.501	41.47	1	151	NE	19	1	155	NE	26	7.16	164.5	N	4.6	255
0.501	41.97	1	155	NE	26	3	153.5	NE	22	4.05	162.2	N	3.5	73
0.501	42.47	3	153.5	NE	22	2	152.5	NE	24	2.04	142.9	SE	4.2	232
0.501	42.98	2	152.5	NE	24	3	155.4	NE	22.2	2.12	123.4	SE	12.2	32
0.501	43.48	3	155.4	NE	22.2	1	152	NE	22	1.3	53.7	NE	21.8	145
0.501	43.98	1	152	NE	22	1	147	NE	23	2.16	89	E	19.8	177
0.501	55.5	7	158.2	E	33.1	8	157.5	NE	28	5.15	161.3	N	2	72
0.501	56.01	8	157.5	NE	28	7	144.1	NE	31.2	7.33	90	E	26.1	177
0.631	0.43	4	171	E	33.4	3	167	E	34.6	2.55	111.1	E	29.7	198
0.631	1.06	3	167	E	34.6	2	153.3	NE	33.5	7.72	59.9	NE	33.4	153
0.631	1.69	2	153.3	NE	33.5	2	156	NE	38.5	5.26	169.1	N	10.2	262
0.631	5.48	1	178	E	28	1	150	NE	30	13.61	83.4	E	27.9	174
0.631	7.37	1	149	NE	27	1	158	E	39	12.93	172.6	N	11.5	265
0.631	11.79	6	169.1	E	33.8	7	169.8	E	24.7	9.09	167.6	S	1	77
0.631	12.42	7	169.8	E	24.7	1	169	E	49	24.28	168.5	S	0.6	258
0.631	13.05	1	169	E	49	3	4.3	E	64.4	19.98	21.5	N	31.7	303
0.631	13.68	3	4.3	E	64.4	2	178.5	E	59	7.45	25.3	NE	36.9	136
0.631	14.31	2	178.5	E	59	2	156.4	NE	21.2	39.92	4.9	N	10.5	101
0.631	21.25	1	145	NE	29	2	160	E	29	7.24	62.5	NE	28.8	332
0.631	21.88	2	160	E	29	1	139	NE	12	18.26	172	N	6.6	84
0.631	22.51	1	139	NE	12	1	155	NE	44	32.6	159.4	N	4.2	250
0.631	23.14	1	155	NE	44	2	143.8	NE	31.5	14.22	173	N	16.6	89
0.631	23.77	2	143.8	NE	31.5	2	144.2	NE	23.4	8.04	142.8	SE	0.6	53
0.631	24.4	2	144.2	NE	23.4	2	153.7	NE	30.5	8.24	177.7	N	13.5	270
0.631	25.04	2	153.7	NE	30.5	1	156	NE	30	1.24	91.7	E	27.5	358
0.631	38.92	1	160	E	25	2	152.7	NE	31.4	7.28	130.9	SE	12.8	218
0.631	39.55	2	152.7	NE	31.4	3	155.2	NE	22.9	8.57	147.2	SE	3.4	56
0.631	40.18	3	155.2	NE	22.9	1	153	NE	24	1.37	117.6	SE	14.4	206
0.631	40.81	1	153	NE	24	2	150.5	NE	21	3.15	168.4	N	6.8	80
0.631	41.44	2	150.5	NE	21	1	155	NE	26	5.32	171.1	N	7.7	262
0.631	42.07	1	155	NE	26	3	153.5	NE	22	4.05	162.2	N	3.5	73
0.631	42.7	3	153.5	NE	22	4	151.7	NE	22.2	0.73	83.5	E	20.8	169
0.631	43.33	4	151.7	NE	22.2	2	157.9	E	23.9	2.97	28.5	NE	18.9	300

0.631	43.96	2	157.9	E	23.9	1	147	NE	23	4.44	49.8	NE	22.8	141
0.631	55.32	4	160.5	E	34.4	10	155.8	NE	28.9	6.03	179.1	N	12.3	93
0.631	55.95	10	155.8	NE	28.9	8	146.8	NE	30.9	4.88	88.3	E	27	176
0.794	0.79	7	169.2	E	33.9	2	153.3	NE	33.5	8.83	67.7	E	33.4	160
0.794	1.58	2	153.3	NE	33.5	2	156	NE	38.5	5.26	169.1	N	10.2	262
0.794	5.55	1	178	E	28	1	150	NE	30	13.61	83.4	E	27.9	174
0.794	6.35	1	150	NE	30	1	149	NE	27	3.04	157.5	NW	4.3	69
0.794	7.14	1	149	NE	27	1	158	E	39	12.93	172.6	N	11.5	265
0.794	11.91	8	172.9	E	34.1	6	162.9	E	25.5	9.9	14.5	N	14	109
0.794	12.7	6	162.9	E	25.5	2	5.6	E	59.7	37.1	13.9	N	13.8	286
0.794	13.49	2	5.6	E	59.7	3	178.7	E	63.9	7.42	147.8	SE	46.5	219
0.794	14.29	3	178.7	E	63.9	2	156.4	NE	21.2	44.8	3.7	N	10.1	100
0.794	19.85	1	151	NE	26	1	131	NE	47	23.9	115.8	SE	15.7	203
0.794	20.64	1	131	NE	47	2	156.7	NE	21.2	29.05	117.9	SE	13.7	22
0.794	21.44	2	156.7	NE	21.2	1	153	NE	44	22.87	150.5	SE	2.4	240
0.794	22.23	1	153	NE	44	1	139	NE	12	32.46	156.9	NW	3.7	68
0.794	23.03	1	139	NE	12	3	148.3	NE	35.6	23.83	152.2	NW	2.8	242
0.794	23.82	3	148.3	NE	35.6	3	147.7	NE	22.9	12.72	149.2	NW	0.6	59
0.794	24.62	3	147.7	NE	22.9	2	154.3	NE	34.5	12.02	164.7	N	7	256
0.794	36.53	1	152	NE	22	1	158	E	23	2.5	39.8	NE	20.5	311
0.794	38.91	1	160	E	25	3	147.4	NE	28.3	6.56	97	E	22.6	185
0.794	39.71	3	147.4	NE	28.3	3	161.4	E	23.9	7.57	103.1	E	20.6	9
0.794	40.5	3	161.4	E	23.9	1	150	NE	23	4.6	53.6	NE	22.9	145
0.794	41.3	1	150	NE	23	2	153.3	NE	22.5	1.37	85.2	E	21	353
0.794	42.09	2	153.3	NE	22.5	4	152.8	NE	22.5	0.18	64.8	NE	22.5	153
0.794	42.89	4	152.8	NE	22.5	5	154.4	NE	22.5	0.62	60.8	NE	22.5	334
0.794	43.68	5	154.4	NE	22.5	1	147	NE	23	2.92	70.9	E	22.4	161
0.794	55.59	8	156.9	NE	33	14	151.5	NE	29	4.83	5.3	N	17.2	99
1	0.69	6	169.4	E	33.4	3	158.5	E	34.5	6.2	85.6	E	33.3	175
1	1.69	3	158.5	E	34.5	2	156	NE	38.5	4.3	140.8	SE	11.8	227
1	5.69	1	178	E	28	1	150	NE	30	13.61	83.4	E	27.9	174
1	6.69	1	150	NE	30	1	149	NE	27	3.04	157.5	NW	4.3	69
1	7.69	1	149	NE	27	1	158	E	39	12.93	172.6	N	11.5	265
1	11.69	5	166.7	E	30.2	8	171.5	E	28.5	2.92	119.7	SE	23.1	25
1	12.69	8	171.5	E	28.5	4	1.2	E	59.9	32.07	5.7	N	7.6	277
1	13.69	4	1.2	E	59.9	3	174.7	E	45.4	15.38	10.3	N	15.2	109
1	14.69	3	174.7	E	45.4	1	164	E	29	17.57	7.2	N	12.3	102
1	15.69	1	164	E	29	1	154	NE	50	21.88	145.5	SE	10	233
1	19.69	1	151	NE	26	1	131	NE	47	23.9	115.8	SE	15.7	203
1	20.69	1	131	NE	47	2	156.7	NE	21.2	29.05	117.9	SE	13.7	22
1	21.69	2	156.7	NE	21.2	2	149.8	NE	27.9	7.25	131.8	SE	9.3	220
1	22.69	2	149.8	NE	27.9	3	148.3	NE	35.6	7.76	144.1	SE	3	233
1	23.69	3	148.3	NE	35.6	3	147.7	NE	22.9	12.72	149.2	NW	0.6	59
1	24.69	3	147.7	NE	22.9	2	154.3	NE	34.5	12.02	164.7	N	7	256
1	29.69	1	151	NE	44	1	152	NE	36	8.03	148	SE	2.9	57
1	36.69	1	152	NE	22	1	158	E	23	2.5	39.8	NE	20.5	311
1	39.69	4	150.3	NE	27.4	3	161.4	E	23.9	5.93	104.8	E	20.3	11
1	40.69	3	161.4	E	23.9	2	150.5	NE	21	5.05	29.1	NE	18.2	122
1	41.69	2	150.5	NE	21	4	153.9	NE	23	2.38	3.2	N	11.7	275
1	42.69	4	153.9	NE	23	6	153.8	NE	22.8	0.24	160.5	N	2.8	75
1	43.69	6	153.8	NE	22.8	1	147	NE	23	2.67	65.9	NE	22.7	155
1	55.69	10	156.6	NE	32.6	12	150.7	NE	28.6	4.95	7.2	N	18	101
1.259	1.12	8	167.3	E	33.1	3	155.7	NE	38.7	8.8	116.8	SE	26.7	202
1.259	6.16	2	163.6	E	28.3	1	149	NE	27	6.85	54.3	NE	26.9	146
1.259	7.42	1	149	NE	27	1	158	E	39	12.93	172.6	N	11.5	265
1.259	12.45	13	169.5	E	29.2	4	1.2	E	59.9	31.68	6.8	N	9.4	279
1.259	13.71	4	1.2	E	59.9	4	172.2	E	40.1	20.9	9.7	N	14.2	108
1.259	14.97	4	172.2	E	40.1	1	154	NE	50	16.16	120	SE	33.7	203
1.259	20.01	2	138.5	NE	36.1	1	145	NE	29	7.92	119	SE	13.6	25
1.259	21.27	1	145	NE	29	3	156.3	NE	22.6	8.03	115.6	SE	15.2	22
1.259	22.52	3	156.3	NE	22.6	3	148.3	NE	35.6	13.51	137.4	SE	7.7	226
1.259	23.78	3	148.3	NE	35.6	4	149.5	NE	26.8	8.8	145.4	SE	2.1	55
1.259	25.04	4	149.5	NE	26.8	1	156	NE	30	4.42	13.2	N	19.3	286
1.259	30.08	1	151	NE	44	1	152	NE	36	8.03	148	SE	2.9	57
1.259	35.11	1	164	E	22	1	152	NE	22	4.49	68	E	21.9	158
1.259	36.37	1	152	NE	22	1	158	E	23	2.5	39.8	NE	20.5	311
1.259	37.63	1	158	E	23	1	160	E	25	2.16	179.4	N	8.8	271
1.259	38.89	1	160	E	25	5	154	NE	26.3	2.92	96.6	E	22.6	184
1.259	40.15	5	154	NE	26.3	3	151.4	NE	22	4.47	165.4	N	5.6	77
1.259	41.41	3	151.4	NE	22	4	153.9	NE	23	1.39	14.5	N	15.4	286
1.259	42.67	4	153.9	NE	23	6	153.8	NE	22.8	0.24	160.5	N	2.8	75
1.259	43.93	6	153.8	NE	22.8	1	147	NE	23	2.67	65.9	NE	22.7	155
1.259	55.26	2	168.4	E	34	20	152	NE	30.2	9.48	43.4	NE	28.9	138
1.585	1.25	8	167.3	E	33.1	3	155.7	NE	38.7	8.8	116.8	SE	26.7	202
1.585	6	2	163.6	E	28.3	1	149	NE	27	6.85	54.3	NE	26.9	146
1.585	7.59	1	149	NE	27	1	158	E	39	12.93	172.6	N	11.5	265
1.585	12.34	12	168.6	E	27.6	5	180	E	57.2	30.47	5.7	N	8.8	278
1.585	13.93	5	180	E	57.2	4	172.2	E	40.1	18.01	9.1	N	13.8	106
1.585	15.51	4	172.2	E	40.1	1	154	NE	50	16.16	120	SE	33.7	203
1.585	20.27	2	138.5	NE	36.1	3	154.7	NE	28.8	11.31	100.9	E	24	5
1.585	21.85	3	154.7	NE	28.8	3	148.7	NE	31.9	4.31	111.3	E	20.7	198
1.585	23.44	3	148.7	NE	31.9	5	148.1	NE	26.2	5.71	151.1	NW	1.5	61
1.585	25.02	5	148.1	NE	26.2	1	156	NE	30	5.3	13	N	19.1	286
1.585	29.77	1	151	NE	44	1	152	NE	36	8.03	148	SE	2.9	57
1.585	34.53	1	164	E	22	1	152	NE	22	4.49	68	E	21.9	158
1.585	36.11	1	152	NE	22	1	158	E	23	2.5	39.8	NE	20.5	311
1.585	37.7	1	158	E	23	2	158.3	E	29	5.99	159.3	N	0.6	249
1.585	39.28	2	158.3	E	29	5	153	NE	24.5	5.06	1.3	N	12.2	94
1.585	40.87	5	153	NE	24.5	6	152.8	NE	22.3	2.21	154.5	NW	0.7	65
1.585	42.45	6	152.8	NE	22.3	7	152.9	NE	22.8	0.46	154.1	NW	0.5	247
1.585	55.13	1	170	E	32	21	152.8	NE	30.5	9	60.2	NE	30.5	153
1.995	1.25	8	167.3	E	33.1	3	155.7	NE	38.7	8.8	116.8	SE	26.7	202
1.995	7.24	3	158.8	E	27.7	1	158	E	39	11.33	156.6	SE	1.1	246
1.995	13.23	15	170.1	E	31.9	6	178.4	E	52.7	21.52	5.8	N	9.6	278
1.995	15.22	6	178.4	E	52.7	1	154	NE	50	19.22	63.5	NE	50	163
1.995	21.21	3	140.5	NE	33.6	4	155.8	NE	28.4	9.37	95.5	E	25.1	0
1.995	23.2	4	155.8	NE	28.4	7	148.7	NE	28.6	3.35	65.5	NE	28.4	156
1.995	29.19	1	151	NE	44	1	152	NE	36	8.03	148	SE	2.9	57
1.995	35.17	1	164	E	22	1	152	NE	22	4.49	68	E	21.9	158
1.995	37.17	1	152	NE	22	2	159	E	24	3.4	27.3	NE	18.4	299
1.995	39.16	2	159	E	24	7	153.3	NE	25.5	2.83	101	E	20.7	189
1.995	41.16	7	153.3	NE	25.5	8	153.1	NE	22.6	2.89	154.8	NW	0.7	65
1.995	43.15	8	153.1	NE	22.6	4	153	NE	22.4	0.26	162.2	N	3.7	74
2.512	1.82	9	165.7	E	33.7	2	156	NE	38.5	7.49	117	SE	26.6	202
2.512	4.33	2	156	NE	38.5	3	158.8	E	27.7	10.92	150.7	SE	4.2	59
2.512	6.84	3	158.8	E	27.7	1	158	E	39	11.33	156.6	SE	1.1	246
2.512	9.35	1	158	E	39	7	171.5	E	32.9	9.98	117.9	SE	27.5	21
2.512	11.86	7	171.5	E	32.9	12	175.2	E	43.4	10.72	3.2	N	7.4	275
2.512	14.37	12	175.2	E	43.4	3	155.3	NE	30.6	17.4	22.7	NE	23.6	121
2.512	16.89	3	155.3	NE	30.6	1	151	NE	26	5.06	174.3	N	10.9	87
2.512	19.4	1	151	NE	26	4	146.7	NE	33.1	7.38	134.2	SE	8	222
2.512	21.91	4	146.7	NE	33.1	6	146.3	NE	27.5	5.6	148.1	NW	0.9	59
2.512	24.42	6	146.3	NE	27.5	3	154.5	NE	30.3	4.85	21	N	23	295
2.512	26.93	3	154.5	NE	30.3	1	151	NE	44	13.84	145.7	SE	5.1	234
2.512	29.45	1	151	NE	44	1	152	NE	36	8.03	148	SE	2.9	57
2.512	31.96	1	152	NE	36	1	164	E	22	15.1	137.8	SE	10.1	45
2.512	34.47	1	164	E	22	1	152	NE	22	4.49	68	E	21.9	158
2.512	36.98	1	152	NE	22	4	155.5	NE	27.7	5.85	166.9	N	5.9	258
2.512	39.49	4	155.5	NE	27.7	7	153.6	NE	23	4.78	163.4	N	4.2	74

2.512	42.01	7	153.6	NE	23	10	153	NE	22.5	0.46	177.7	N	9.8	88
3.162	2.89	11	163.8	E	34.4	2	163.6	E	28.3	6.17	164.8	N	0.7	75
3.162	6.05	2	163.6	E	28.3	2	154.2	NE	32.9	6.63	117.5	SE	21.2	203
3.162	9.22	2	154.2	NE	32.9	12	168.6	E	27.6	8.93	111.6	E	23.7	16
3.162	12.38	12	168.6	E	27.6	9	176.5	E	50.5	23.45	2.5	N	7.2	274
3.162	15.54	9	176.5	E	50.5	1	154	NE	50	17.29	72.5	E	49.7	168
3.162	18.7	1	154	NE	50	5	147.5	NE	31.5	18.96	160.8	N	8	74
3.162	21.87	5	147.5	NE	31.5	8	148.4	NE	28.2	3.31	141.6	SE	3.6	50
3.162	25.03	8	148.4	NE	28.2	1	156	NE	30	4.12	33.4	NE	25.9	306
3.162	28.19	1	156	NE	30	2	151.5	NE	40	10.33	141.6	SE	8.2	230
3.162	31.35	2	151.5	NE	40	1	164	E	22	19.04	140.3	SE	9.2	47
3.162	34.51	1	164	E	22	2	155.1	NE	22.5	3.41	78.1	E	21.9	168
3.162	37.68	2	155.1	NE	22.5	7	154.7	NE	25.8	3.32	152.5	SE	1	242
3.162	40.84	7	154.7	NE	25.8	13	152.8	NE	22.6	3.31	166	N	5.4	78
3.981	2.31	11	163.8	E	34.4	2	163.6	E	28.3	6.17	164.8	N	0.7	75
3.981	6.29	2	163.6	E	28.3	2	154.2	NE	32.9	6.63	117.5	SE	21.2	203
3.981	10.28	2	154.2	NE	32.9	19	173.8	E	38.8	12.81	42.1	NE	31	315
3.981	14.26	19	173.8	E	38.8	3	155.3	NE	30.6	13.24	31.7	NE	26.3	129
3.981	18.24	3	155.3	NE	30.6	5	147.5	NE	31.5	4.1	75.5	E	30.2	165
3.981	22.22	5	147.5	NE	31.5	9	149.3	NE	28.4	3.22	134.5	SE	7.8	42
3.981	26.2	9	149.3	NE	28.4	1	151	NE	44	15.63	153.2	NW	2.1	244
3.981	30.18	1	151	NE	44	1	152	NE	36	8.03	148	SE	2.9	57
3.981	34.16	1	152	NE	36	3	158	E	22.3	14.03	144.4	SE	5.5	53
3.981	38.14	3	158	E	22.3	11	154.1	NE	24.2	2.47	120.4	SE	14	207
3.981	42.12	11	154.1	NE	24.2	9	152.8	NE	23	1.28	176.7	N	9.8	87
5.012	3.13	11	163.8	E	34.4	4	158.5	E	30.5	4.85	12.6	N	18.3	108
5.012	8.14	4	158.5	E	30.5	14	169.5	E	30.7	5.56	71.5	E	30.5	341
5.012	13.15	14	169.5	E	30.7	8	174.6	E	51	20.51	179.4	N	5.8	271
5.012	18.17	8	174.6	E	51	7	148.6	NE	30.5	26.28	14.7	N	23	115
5.012	23.18	7	148.6	NE	30.5	7	148.7	NE	28.6	1.93	146.4	SE	1.3	57
5.012	28.19	7	148.7	NE	28.6	2	151.5	NE	40	11.55	156.5	NW	4.2	248
5.012	33.2	2	151.5	NE	40	3	158	E	22.3	18.03	145.3	SE	5.1	54
5.012	38.21	3	158	E	22.3	17	153.4	NE	23.7	2.31	106.9	E	17.7	194
5.012	43.23	17	153.4	NE	23.7	3	154.4	NE	23.5	0.44	92.8	E	20.9	0
6.31	6.11	13	163.8	E	33.5	15	167.1	E	29.6	4.25	144.3	SE	12.4	51
6.31	12.42	15	167.1	E	29.6	9	173.9	E	50.7	21.47	179.7	N	7	272
6.31	18.73	9	173.9	E	50.7	13	148.1	NE	29.4	26.58	12.9	N	21.7	112
6.31	25.04	13	148.1	NE	29.4	3	152.7	NE	36.6	7.63	167	N	10.4	259
6.31	31.34	3	152.7	NE	36.6	3	158	E	22.3	14.6	146.4	SE	4.7	55
6.31	37.65	3	158	E	22.3	19	153.9	NE	23.7	2.18	110.6	E	16.8	197
6.31	43.96	19	153.9	NE	23.7	1	147	NE	23	2.82	44.2	NE	22.5	136
6.31	50.27	1	147	NE	23	22	153.7	NE	30.5	8.07	170.1	N	9.5	262
7.943	4.36	11	163.8	E	34.4	16	165.8	E	28.3	6.21	156.7	SE	4.8	65
7.943	12.3	16	165.8	E	28.3	12	168.8	E	47.2	18.94	171.8	N	3.3	263
7.943	20.25	12	168.8	E	47.2	12	150.6	NE	28.5	21.58	5.6	N	17.3	103
7.943	28.19	12	150.6	NE	28.5	4	153.9	NE	30.9	2.86	2.6	N	16	276
7.943	36.13	4	153.9	NE	30.9	21	153.7	NE	23.6	7.22	154.2	NW	0.2	65
10	8.19	15	162.5	E	33.4	22	171.5	E	37.4	6.56	34	NE	27.3	309
10	18.19	22	171.5	E	37.4	14	148.7	NE	29.5	14.75	33.7	NE	27.1	130
10	28.19	14	148.7	NE	29.5	5	154.6	NE	29.2	2.9	67.3	NE	29.2	337
10	38.19	5	154.6	NE	29.2	20	153.5	NE	23.7	5.55	158.2	N	2.1	69
10	48.19	20	153.5	NE	23.7	22	153.7	NE	30.5	6.81	154.1	NW	0.3	244
12.589	9.31	15	162.5	E	33.4	27	167.4	E	35.7	3.6	29.8	NE	25.8	305
12.589	21.9	27	167.4	E	35.7	12	150.7	NE	29.8	10.73	31.5	NE	26.5	127
12.589	34.48	12	150.7	NE	29.8	22	153.7	NE	23.6	6.35	141.3	SE	5.4	50
12.589	47.07	22	153.7	NE	23.6	22	153.7	NE	30.5	6.93	153.7	NW	0	244
15.849	12.34	27	164.9	E	30.9	24	160.9	E	36.4	5.89	144.4	SE	11.8	231
15.849	28.19	24	160.9	E	36.4	25	153.8	NE	24.8	12.18	172.5	N	8.4	85
15.849	44.04	25	153.8	NE	24.8	22	153.7	NE	30.5	5.75	153.4	SE	0.2	243
19.953	18.21	37	167.8	E	35.4	19	150.2	NE	29.4	11.11	32.1	NE	26.4	128
19.953	38.17	19	150.2	NE	29.4	42	153.6	NE	27.1	2.76	119.6	SE	16	27
25.119	15.63	36	168.3	E	35	27	151.5	NE	29.1	10.62	32.3	NE	25.9	128
25.119	40.75	27	151.5	NE	29.1	35	153.4	NE	27.4	1.94	127.4	SE	12.8	34
31.623	28.19	51	162.9	E	33.3	47	153.7	NE	27.4	7.55	12.2	N	17.8	107

Section I

Tilt number	window size	depth	tilt angle	tilt axis	tilt way
1	39.811	36.91	5.14	47.3	139.593
1	31.623	21.09	7.19	29.4	123.183
1	25.119	24.35	6.16	53.6	145.876
2	31.623	52.72	7.8	148.2	57.699
2	25.119	49.46	2.99	155.5	65.677
2	19.953	56.86	9.54	137.3	45.89
2	15.849	60.68	15.63	140.4	49.107
2	12.589	62.08	13.72	139.2	47.965
2	10	56.9	10.28	135.4	43.511
2	10	66.9	7.66	141.9	51.111
2	7.943	52.79	9.69	139.8	48.293
2	6.31	55.83	9.84	137.5	45.847
2	5.012	54.45	9.84	137.5	45.847
2	3.981	54.82	10.04	150.8	61.485
3	19.953	16.95	6.81	16.5	109.744
3	15.849	13.13	5.1	3.3	95.338
3	12.589	11.73	4.61	172.8	83.77
3	10	16.91	7.28	179.6	91.748
3	7.943	21.02	6.47	174.5	86.049
3	6.31	17.98	9.07	174.7	86.059
3	5.012	14.35	6.59	164.3	74.678
3	5.012	19.36	6.63	165.9	76.086
3	3.981	15.01	7.9	166.7	77.471
3	3.981	18.99	3.91	148.6	57.477
3	3.162	14.77	13.3	161.1	69.964
3	2.512	14.3	12.44	155.3	62.71
6	15.849	44.83	9.39	145.1	234.531
6	12.589	49.49	3.54	143.6	232.721
6	10	46.9	14.45	137.4	226.65
6	7.943	44.85	14.33	145.3	235.011
6	6.31	43.21	14.37	149.4	239.485
6	5.012	44.42	14.65	141.6	231.125
7	12.589	24.32	4.23	83.3	173.145
7	10	26.91	5.47	93	182.239
7	7.943	28.96	5.55	91.1	179.37
7	6.31	30.6	4.49	69.3	159.195
7	5.012	29.39	1.81	79.5	167.251
9	10	6.91	1.51	157.9	246.591
9	7.943	5.13	2.86	152.4	240.413
9	6.31	5.36	2.46	150.2	238.091
9	5.012	9.34	3.44	136	221.661
9	3.981	11.03	4.58	159.3	248.675
9	3.162	8.44	2.87	3.8	275.897
10	10	36.91	8.05	139.1	48.263
10	7.943	36.91	8.11	146.4	56.042
10	6.31	36.91	9.03	150.1	60.236
10	5.012	39.41	7.15	128.1	36.525
10	3.981	38.9	11.5	145.4	55.566
11	7.943	68.68	7.39	142.7	51.998
11	6.31	68.45	7.39	142.7	51.998
11	5.012	69.48	7.39	142.7	51.998
11	3.981	66.76	7.61	156.2	66.495
11	3.162	68.53	6.43	153.6	63.688
13	6.31	24.29	3.75	139	227.395
13	5.012	24.38	6.45	152.9	242.398
13	3.981	26.95	7.15	137.7	225.955
13	3.162	24.26	4.74	137.3	225.691
13	2.512	24.35	4.31	129.5	217.556
13	2.512	26.86	5.51	133.5	221.218
15	5.012	4.33	3.81	5.2	277.581
15	3.981	3.07	7.05	24.3	297.386
15	3.162	2.12	7.69	37.8	310.302
15	2.512	1.74	9.26	42.7	314.668
15	1.995	1.99	9.26	42.7	314.668
21	3.981	42.88	16.44	9.2	279.875
21	3.162	43.23	8.05	9.4	280.713
21	2.512	41.93	14.79	0.2	270.727
21	1.995	41.89	11.72	175.4	265.878
22	3.981	46.86	12.91	93.8	182.62
22	3.162	46.39	13.95	100.2	188.732
22	2.512	46.95	23.69	79	172.171
22	1.995	45.88	15.39	103.5	191.307
22	1.585	47.21	23.69	79	172.171
27	3.162	11.61	5.46	160.5	249.346
27	2.512	11.79	9.04	175.9	267.877
27	1.995	11.96	12.73	175.1	266.593
27	1.585	12.34	7.69	174.6	266.441
34	2.512	6.76	3.54	18.1	111.417
34	1.995	5.98	5.33	25.2	119.924
34	1.585	6	5.33	25.2	119.924
34	1.259	6.06	4.42	26.8	122.341
34	1	5.91	4.75	22.1	117.429
43	1.995	7.97	7.34	6.1	279.121
43	1.585	7.58	17.69	15.9	289.201
43	1.259	8.58	13.04	0.6	272.057
48	1.995	25.93	5.69	8.4	280.226
48	1.585	25.02	6.73	3	274.361
48	1.259	24.95	6.64	2.1	273.63
48	1	24.91	5.95	176.4	267.707
48	0.794	24.59	10.63	4.2	275.739
48	0.631	24.6	10.63	4.2	275.739
49	1.995	35.91	7.67	52.7	142.962
49	1.585	36.11	7.67	52.7	142.962
49	1.259	35.02	8.6	76.3	166.261
49	1	35.91	4.49	96.6	184.401
49	0.794	34.92	6.18	111.2	199.68
49	0.794	35.71	5.27	88.3	175.407
53	1.995	49.87	13.84	170.3	262.528
53	1.585	48.79	1.54	168.8	264.689
53	1.259	50.12	2.57	153.7	245.999
53	1	48.9	15.76	174.8	266.029

53	1	49.9	2.57	153.7	245.999
53	0.794	50.01	2.56	153	244.78
53	0.631	49.84	9.61	152.3	243.471
53	0.501	49.94	9.61	152.3	243.471
53	0.398	50.04	6.71	167.4	261.659
63	1.585	40.87	14.37	55	324.183
63	1.259	40.05	12.23	44.2	313.472
63	1	39.9	6.53	24.1	293.703
63	0.794	40.48	12.23	44.2	313.472
63	0.631	41.01	16.49	64.2	333.486
63	0.501	40.91	16.49	64.2	333.486
63	0.398	40.89	11.96	62.9	332.414
63	0.316	41.02	16.49	64.2	333.486
63	0.251	40.92	16.49	64.2	333.486
63	0.2	40.9	6.26	78.9	348.126
63	0.158	40.87	6.34	78.4	346.753
63	0.158	41.03	15.27	65.5	334.822
63	0.126	40.87	6.34	78.4	346.753
63	0.126	41	15.27	65.5	334.822
63	0.1	40.95	9.4	90.7	359.706
63	0.079	40.96	9.4	90.7	359.706
66	1.585	70.98	15	17.1	288.198
66	1.259	71.53	15.35	17.6	288.467
66	1	70.9	11.39	17.5	288.427
66	0.794	71.46	13.92	19.2	290.362
66	0.631	71.29	13.92	19.2	290.362
69	1.259	7.32	7.74	172.8	83.931
69	1	6.91	3.88	177.7	89.528
69	0.794	7.12	3.88	177.7	89.528
69	0.631	6.93	2.98	161.5	70.989
69	0.501	7.33	10.19	169.2	80.167
72	1.259	17.39	5.48	169	260.128
72	1	17.91	8.18	147.8	236.82
72	0.794	18.24	4.02	157.2	247.383
72	0.631	18.29	4.02	157.2	247.383
72	0.501	17.86	8.18	147.8	236.82
72	0.398	17.8	8.29	144.6	233.404
72	0.316	17.93	8.29	144.6	233.404
72	0.251	17.81	8.29	144.6	233.404
72	0.2	17.95	8.29	144.6	233.404
79	1.259	47.61	15.25	12.9	110.258
79	1	47.9	19.22	170.6	84.564
79	0.794	47.63	13.19	169.2	83.923
79	0.631	47.95	13.33	154.4	66.159
79	0.501	47.93	13.33	154.4	66.159
79	0.398	47.65	12.46	159.7	73.03
79	0.316	47.66	12.46	159.7	73.03
79	0.251	47.71	12.19	169.7	84.488
79	0.2	47.68	4.22	151.8	61.913
79	0.2	47.88	21.42	173	87.433
79	0.158	47.68	7.67	145.2	54.093
88	1	25.91	3.48	43.8	315.993
88	0.794	26.18	1.88	53.8	325.333
88	0.631	25.86	3.48	43.8	315.993
88	0.501	25.88	3.71	42.2	314.421
88	0.398	26.16	5.09	46.8	317.645
88	0.316	25.84	3.04	22.5	295.484
97	0.794	22.21	17.97	152.9	60.069
97	0.631	22.08	20.55	154.5	62.26
97	0.501	22.37	16.12	141	45.487
97	0.398	22.18	16.81	151.1	57.861
97	0.398	22.57	3.06	165.1	74.52
101	0.794	36.51	4.48	165	257.826
101	0.631	35.96	2.7	170.3	263.819
101	0.501	36.4	5.51	162.8	255.205
101	0.398	36.51	5.51	162.8	255.205
109	0.631	35.33	11.78	71.7	162.051
109	0.501	35.4	12.94	60.7	152.354
109	0.398	35.31	13.2	56.1	148.074
109	0.316	35.32	13.82	56.3	147.572
109	0.251	35.4	15.25	57.9	149.54
124	0.398	4.66	6.92	41.3	135.352
124	0.316	4.65	8.09	58.3	151.618
124	0.251	4.75	9.08	56.7	150.415
130	0.398	24.56	6.11	179.3	270.575
130	0.316	24.57	7.79	17.5	289.285
130	0.251	24.6	12.44	17.3	289.174
130	0.2	24.53	8.92	25.2	296.514
143	0.316	22.99	15.35	1.5	92.567
143	0.251	22.84	15.4	23.1	115.742
143	0.2	22.94	7.05	18.9	110.947
143	0.158	22.8	21.98	21	113.375
143	0.126	22.87	25.45	20.3	114.716
144	0.316	24.26	5.66	64.3	154.683
144	0.251	24.35	6	70.4	160.406
144	0.2	24.33	7.07	66	156.092
152	0.251	6.76	8.91	20.6	114.786
152	0.2	6.78	9.39	6.8	100.481
152	0.158	6.79	7.89	9.6	103.489
152	0.126	6.75	7.89	9.6	103.489
152	0.1	6.66	4.68	174	85.783
152	0.079	6.64	5.94	9.6	104.311
152	0.063	6.62	5.94	9.6	104.311
157	0.251	25.6	6.25	5.1	98.198
157	0.2	25.73	10.16	9.3	102.872
157	0.158	25.65	8.47	22.5	116.994
193	0.158	24.23	11.43	176.1	87.295
193	0.126	24.25	6.51	18.4	109.779
193	0.1	24.26	6.51	18.4	109.779
193	0.079	24.28	7.48	40.5	131.162
194	0.158	24.38	11.75	139.6	229.334
194	0.126	24.38	11.7	122.5	211.75
194	0.1	24.36	11.7	122.5	211.75
194	0.079	24.35	14.32	142.6	232.919

195	0.158	24.54	6.64	55.5	325.213
195	0.126	24.5	9.87	67.7	335.755
195	0.1	24.46	8.39	77	344.328
204	0.158	47.84	21.42	173	87.433
204	0.126	47.79	19.09	179.5	94.244
204	0.1	47.85	19.41	169.2	83.332
204	0.079	47.87	19.84	171.2	85.45
204	0.063	47.88	19.84	171.2	85.45
204	0.05	47.86	19.03	167.6	81.369
211	0.126	47.67	12.8	120.1	22.577
211	0.1	47.65	13.03	116.5	18.099
211	0.079	47.63	13.18	135.2	41.558
211	0.063	47.63	14.54	114.1	15.258
212	0.126	47.92	6.61	46.5	315.829
212	0.1	47.95	10.32	23.4	293.333
212	0.079	47.95	10.32	23.4	293.333
212	0.063	47.95	10.32	23.4	293.333
212	0.05	47.96	13.11	29.5	298.406
212	0.04	47.95	13.11	29.5	298.406
217	0.1	24.56	3.04	26.3	298.298
217	0.079	24.59	8.54	11.9	284.081
217	0.063	24.6	9.44	9.1	280.942
217	0.05	24.6	9.44	9.1	280.942
217	0.04	24.58	9.44	9.1	280.942
217	0.032	24.59	9.44	9.1	280.942
223	0.1	47.75	6.51	29.3	124.421
223	0.079	47.79	3.98	16.3	111.483
223	0.063	47.76	6.76	25.6	121.175
223	0.05	47.76	6.76	25.6	121.175
223	0.04	47.75	6.54	16.5	112.353
223	0.032	47.74	5.19	23.4	119.39
223	0.032	47.77	2.87	28.7	122.486
229	0.079	24.2	9.78	166.6	77.023
229	0.063	24.22	9.78	166.6	77.023
229	0.05	24.2	15.26	164.2	74.423
229	0.04	24.23	9.63	170.8	81.403
229	0.032	24.21	17.59	168.8	79.09
229	0.025	24.21	15.07	167	77.208
245	0.05	25.5	3.6	8.9	280.921
245	0.05	25.55	10.56	1.7	273.733
245	0.04	25.58	8.68	4.9	277.347
245	0.032	25.57	10.56	1.7	273.733
245	0.025	25.56	11.1	168.3	259.193
272	0.025	47.72	3.92	109.7	194.411
272	0.02	47.72	4.34	134	220.485
272	0.016	47.71	4.04	147.8	236.428
272	0.013	47.71	4.04	147.8	236.428
272	0.01	47.71	4.04	147.8	236.428

Section II

Tilt number	window size	depth	angle	tilt axis	tilt way
3	19.953	32.83	5.450	131.800	219.983
3	15.849	30.78	6.950	143.100	232.222
3	12.589	35.44	7.890	151.500	241.279
3	10	27.85	3.940	140.300	229.734
3	10	37.85	7.560	150.600	240.241
3	7.943	38.74	7.870	149.300	238.789
8	7.943	6.97	5.920	56.300	148.215
8	6.31	3.93	16.240	40.400	135.532
8	5.012	2.81	11.090	41.600	135.686
8	3.981	2.95	3.140	22.400	115.960
8	3.162	5.46	25.840	44.100	141.353
8	2.512	4.02	17.400	29.100	125.240
8	1.995	3.9	17.400	29.100	125.240
8	1.995	5.9	10.390	43.800	135.222
8	1.585	4.63	30.370	36.800	133.872
8	1.585	6.21	1.200	48.000	136.255
8	1.259	4.6	27.930	61.000	156.957
8	1	4.86	26.790	70.900	164.485
12	6.31	10.24	12.850	51.000	321.227
12	5.012	7.82	5.460	43.400	315.271
12	5.012	12.83	2.730	56.800	328.415
12	3.981	10.91	13.810	52.200	322.156
13	6.31	16.55	10.940	173.300	83.842
13	5.012	17.84	8.880	170.200	81.074
13	3.981	14.89	14.040	164.500	73.754
13	3.162	14.95	19.250	148.800	56.460
13	2.512	16.58	19.850	141.300	48.510
13	1.995	15.87	20.920	134.300	40.192
15	6.31	29.16	6.430	154.900	244.855
15	5.012	27.87	7.300	175.800	266.737
15	3.981	26.84	8.350	155.000	245.378
15	3.162	27.6	8.350	155.000	245.378
15	2.512	29.13	18.200	132.500	221.430
15	1.995	29.84	18.200	132.500	221.430
18	3.981	18.87	14.130	125.600	214.478
18	3.162	18.11	11.420	126.400	215.119
18	2.512	19.09	14.130	125.600	214.478
18	1.995	19.86	13.360	130.800	219.630
18	1.585	18.89	14.130	125.600	214.478
18	1.259	18.45	6.540	127.600	216.393
18	1.259	19.71	9.770	124.700	212.984
21	3.162	2.3	10.860	32.700	307.368
21	2.512	1.5	14.670	18.500	291.268
21	1.995	1.9	14.670	18.500	291.268
21	1.585	1.46	11.240	16.800	289.483
21	1.585	3.04	7.340	40.500	316.237
21	1.259	0.82	12.130	41.400	313.650
22	3.162	8.62	15.410	77.900	344.907
22	2.512	9.04	12.050	92.700	358.814
22	1.995	9.89	14.070	72.700	340.839
22	1.585	10.97	10.860	52.500	323.965

22	1.259	10.9	10.860	52.500	323.965
24	3.162	33.92	15.410	31.100	123.546
24	2.512	34.16	15.410	31.100	123.546
24	1.995	33.83	12.090	35.400	127.471
24	1.585	33.16	11.660	36.800	129.149
24	1.259	33.56	12.510	33.100	125.739
24	1	33.85	14.450	38.000	130.481
24	0.794	33.18	10.090	39.300	132.237
24	0.794	33.98	8.680	21.400	113.242
24	0.631	33.27	13.120	44.100	136.763
24	0.631	33.9	3.910	24.900	116.197
24	0.501	33.38	15.940	42.600	136.070
24	0.501	33.88	3.910	24.900	116.197
24	0.398	34.2	9.560	20.700	112.892
24	0.316	34.08	9.560	20.700	112.892
24	0.251	34.16	9.560	20.700	112.892
24	0.2	34.23	44.250	8.100	102.609
27	2.512	14.06	10.170	103.600	190.809
27	1.995	11.88	7.400	122.000	208.678
27	1.995	13.88	5.490	97.300	183.884
27	1.585	12.55	8.490	113.500	200.845
27	1.585	14.14	5.490	97.300	183.884
27	1.259	12.15	6.260	124.100	210.367
27	1	11.86	12.600	122.200	209.327
27	0.794	11.73	10.330	142.500	229.266
29	2.512	31.65	12.420	123.000	29.055
29	1.995	31.83	12.570	121.100	26.900
29	1.585	31.57	12.760	118.400	23.821
29	1.259	31.04	13.990	125.600	32.064
37	1.259	9.64	5.620	78.900	346.809
37	1	10.86	29.920	91.900	354.636
37	0.794	10.94	7.100	90.600	359.323
37	0.631	10.55	42.890	95.600	358.449
37	0.501	10.83	42.890	95.600	358.449
37	0.398	10.71	42.890	95.600	358.449
37	0.316	10.68	42.890	95.600	358.449
38	1.259	13.41	7.830	89.900	178.445
38	1	13.86	5.720	109.600	195.123
38	0.794	13.32	7.670	85.800	174.943
38	0.631	13.71	10.300	100.100	187.923
38	0.501	13.33	10.300	100.100	187.923
38	0.398	13.5	10.300	100.100	187.923
43	1	6.86	23.470	73.800	163.333
43	0.794	6.97	33.530	60.000	152.498
43	0.631	6.77	42.160	50.200	143.131
44	1	7.86	20.280	31.300	299.184
44	0.794	7.76	21.310	34.100	301.711
44	0.631	7.4	24.520	25.400	291.372
44	0.631	8.03	6.410	29.600	301.146
44	0.501	7.82	25.560	41.800	308.385
44	0.398	7.53	20.690	18.600	285.255
44	0.316	7.52	20.690	18.600	285.255
44	0.316	7.83	15.850	36.100	305.965
44	0.251	7.53	20.690	18.600	285.255
44	0.2	7.49	20.690	18.600	285.255
45	1	8.86	14.010	136.100	44.606
45	0.794	8.56	6.350	145.000	54.954
45	0.631	8.66	18.510	121.500	27.821
45	0.501	8.82	23.210	109.100	14.536
45	0.398	8.72	23.210	109.100	14.536
66	0.631	32.63	6.890	51.500	321.969
66	0.501	32.88	7.200	53.300	325.034
66	0.398	32.61	7.420	67.800	337.356
66	0.316	32.5	5.990	60.000	329.550
66	0.316	32.82	6.010	50.300	322.824
66	0.251	32.4	8.290	52.700	322.316
66	0.2	32.43	8.220	35.600	306.984
66	0.158	32.44	8.220	35.600	306.984
66	0.126	32.42	9.190	39.800	310.968
66	0.1	32.45	8.550	35.100	306.637
66	0.079	32.47	8.550	35.100	306.637
84	0.316	32.18	7.480	90.300	179.354
84	0.251	32.15	9.980	79.500	169.214
84	0.2	32.23	5.850	91.200	179.743
84	0.158	32.13	11.080	100.700	189.658
84	0.126	32.17	10.770	89.000	178.231
91	0.251	32.65	1.600	133.300	41.564
91	0.2	32.63	3.700	138.900	46.412
91	0.158	32.6	3.700	138.900	46.412
91	0.126	32.55	1.710	123.800	30.191
91	0.1	32.55	1.710	123.800	30.191
92	0.251	32.9	9.380	36.900	309.396
92	0.2	32.83	5.700	36.200	309.036
92	0.158	32.76	2.660	46.000	318.591
92	0.158	32.92	6.210	28.300	301.063
92	0.126	32.8	6.790	54.500	325.339
93	0.251	44.71	5.180	19.700	115.131
93	0.2	44.6	7.860	44.200	139.155
93	0.158	44.65	7.690	28.300	124.850
93	0.126	44.63	9.080	43.000	138.791
94	0.251	44.96	5.140	131.100	38.087
94	0.2	45	8.120	136.600	44.305
94	0.158	44.96	6.760	128.200	35.146
94	0.126	45.01	12.090	148.300	57.057
97	0.2	8.29	19.210	102.200	190.614
97	0.158	8.19	20.630	89.300	177.051
97	0.126	8.25	25.380	109.100	197.131
97	0.1	8.26	25.380	109.100	197.131
101	0.2	45.2	4.710	177.700	89.577
101	0.158	45.28	17.130	1.700	95.154
101	0.126	45.26	17.560	164.800	75.769
102	0.2	45.4	22.200	129.900	218.609
102	0.158	45.44	29.240	150.900	241.698
102	0.126	45.52	20.250	173.800	267.732

102	0.1	45.45	36.710	162.400	254.191
102	0.079	45.41	28.700	144.100	234.006
102	0.079	45.49	27.980	166.500	260.273
102	0.063	45.41	28.700	144.100	234.006
102	0.063	45.47	27.980	166.500	260.273
102	0.05	45.38	23.950	131.600	221.703
103	0.2	45.6	17.170	107.900	10.602
103	0.158	45.6	19.820	127.200	30.256
103	0.126	45.64	17.240	142.900	49.582
103	0.1	45.55	12.800	154.800	66.647
103	0.1	45.65	12.940	138.100	44.254
103	0.079	45.57	12.800	154.800	66.647
103	0.079	45.65	12.940	138.100	44.254
110	0.158	45.12	6.950	158.100	248.171
110	0.126	45.14	11.920	155.200	244.917
110	0.1	45.15	8.670	175.500	267.452
110	0.079	45.18	8.670	175.500	267.452
110	0.063	45.16	10.510	170.800	262.338
110	0.05	45.13	10.510	170.800	262.338
119	0.126	44.76	3.500	106.400	11.809
119	0.1	44.75	3.170	112.500	17.885
119	0.079	44.78	14.830	110.500	14.700
119	0.063	44.78	17.660	110.200	14.003
119	0.05	44.78	17.660	110.200	14.003
119	0.04	44.77	17.660	110.200	14.003

Section III

Tilt number	window size	depth	angle	tilt axis	tilt way
1	31.623	28.190	7.550	12.200	107.230
1	25.119	15.630	10.620	32.300	127.861
1	19.953	18.210	11.110	32.100	128.094
5	15.849	44.040	5.750	153.400	243.289
5	12.589	47.070	6.930	153.700	243.700
5	10.000	48.190	6.810	154.100	244.357
8	12.589	34.480	6.350	141.300	49.768
8	10.000	38.190	5.550	158.200	69.200
8	7.943	36.130	7.220	154.200	64.530
8	6.310	31.340	14.600	146.400	54.665
8	5.012	33.200	18.030	145.300	53.507
8	3.981	30.180	8.030	148.000	56.786
8	3.981	34.160	14.030	144.400	52.559
8	3.162	31.350	19.040	140.300	47.102
8	2.512	29.450	8.030	148.000	56.786
8	2.512	31.960	15.100	137.800	44.601
8	1.995	29.190	8.030	148.000	56.786
8	1.585	29.770	8.030	148.000	56.786
8	1.259	30.080	8.030	148.000	56.786
8	1.000	29.690	8.030	148.000	56.786
11	7.943	12.300	18.940	171.800	262.579
11	6.310	12.420	21.470	179.700	271.562
11	5.012	13.150	20.510	179.400	270.846
12	7.943	20.250	21.580	5.600	102.667
12	6.310	18.730	26.580	12.900	112.355
12	5.012	18.170	26.280	14.700	114.783
12	3.981	14.260	13.240	31.700	128.516
13	7.943	28.190	2.860	2.600	276.308
13	6.310	25.040	7.630	167.000	259.240
13	5.012	28.190	11.550	156.500	247.757
13	3.981	26.200	15.630	153.200	243.687
13	3.162	28.190	10.330	141.600	229.652
13	2.512	26.930	13.840	145.700	234.301
19	5.012	23.180	1.930	146.400	57.157
19	3.981	22.220	3.220	134.500	42.111
19	3.162	21.870	3.310	141.600	50.159
19	2.512	21.910	5.600	148.100	58.592
24	3.981	42.120	1.280	176.700	86.953
24	3.162	40.840	3.310	166.000	77.515
24	2.512	39.490	4.780	163.400	74.464
24	1.995	41.160	2.890	154.800	64.819
24	1.585	40.870	2.210	154.500	64.976
24	1.259	40.150	4.470	165.400	76.713
26	3.162	12.380	23.450	2.500	274.092
26	2.512	11.860	10.720	3.200	275.262
26	1.995	13.230	21.520	5.800	278.360
26	1.585	12.340	30.470	5.700	277.720
26	1.259	12.450	31.680	6.800	279.021
26	1.000	12.690	32.070	5.700	277.447
26	0.794	12.700	37.100	13.900	286.488
26	0.631	13.050	19.980	21.500	303.214
26	0.501	12.900	17.210	34.000	315.695
26	0.398	13.060	17.210	34.000	315.695
26	0.316	13.170	29.750	20.900	300.300
26	0.251	13.240	29.750	20.900	300.300
31	2.512	1.820	7.490	117.000	201.725
31	1.995	1.250	8.800	116.800	201.948
31	1.585	1.250	8.800	116.800	201.948
31	1.259	1.120	8.800	116.800	201.948
31	1.000	1.690	4.300	140.800	227.094
36	1.995	21.210	9.370	95.500	0.329
36	1.585	20.270	11.310	100.900	5.179
36	1.259	20.010	7.920	119.000	24.983
36	1.259	21.270	8.030	115.600	22.453
36	1.000	20.690	29.050	117.900	22.161
36	0.794	20.640	29.050	117.900	22.161
41	1.585	13.930	18.010	9.100	106.387
41	1.259	13.710	20.900	9.700	107.584
41	1.000	13.690	15.380	10.300	108.893
41	1.000	14.690	17.570	7.200	102.042
41	0.794	14.290	44.800	3.700	99.947
41	0.631	13.680	7.450	25.300	136.359
41	0.631	14.310	39.920	4.900	100.750
41	0.501	13.910	15.020	179.400	90.655

41	0.398	13.860	15.020	179.400	90.655
41	0.316	13.800	16.100	0.700	95.125
41	0.251	13.750	16.100	0.700	95.125
44	1.585	23.440	5.710	151.100	61.365
44	1.259	23.780	8.800	145.400	54.770
44	1.000	23.690	12.720	149.200	59.362
44	0.794	23.820	12.720	149.200	59.362
44	0.631	23.140	14.220	173.000	89.412
44	0.501	23.430	17.920	158.500	71.068
44	0.398	23.410	17.920	158.500	71.068
44	0.316	23.290	14.220	173.000	89.412
44	0.251	23.290	14.220	173.000	89.412
44	0.200	23.500	15.080	148.700	59.694
44	0.158	23.440	15.080	148.700	59.694
49	1.259	22.520	13.510	137.400	226.060
49	1.000	21.690	7.250	131.800	220.353
49	1.000	22.690	7.760	144.100	233.303
49	0.794	21.440	22.870	150.500	240.078
52	1.259	43.930	2.670	65.900	154.985
52	1.000	43.690	2.670	65.900	154.985
52	0.794	43.680	2.920	70.900	160.884
52	0.631	43.960	4.440	49.800	141.210
52	0.501	43.480	1.300	53.700	144.941
52	0.398	43.720	4.440	49.800	141.210
53	1.000	0.690	6.200	85.600	175.087
53	0.794	0.790	8.830	67.700	159.993
53	0.631	1.060	7.720	59.900	153.194
62	1.000	55.690	4.950	7.200	100.989
62	0.794	55.590	4.830	5.300	99.420
62	0.631	55.320	6.030	179.100	92.669
62	0.501	55.500	5.150	161.300	71.890
62	0.398	55.660	8.210	138.900	46.787
62	0.316	55.540	6.600	137.000	43.921
62	0.251	55.440	5.630	140.200	47.626
62	0.251	55.700	4.760	146.900	55.159
62	0.200	55.430	4.210	145.200	53.391
62	0.200	55.620	6.670	139.000	46.686
62	0.158	55.610	4.130	132.200	39.953
62	0.126	55.630	7.230	116.100	22.677
63	0.794	1.580	5.260	169.100	262.011
63	0.631	1.690	5.260	169.100	262.011
63	0.501	1.380	15.710	161.300	252.504
63	0.398	1.120	7.510	136.500	222.675
63	0.398	1.520	9.030	158.700	249.742
63	0.316	1.150	11.210	162.600	254.046
63	0.251	1.190	11.210	162.600	254.046
67	0.794	23.030	23.830	152.200	242.466
67	0.631	22.510	32.600	159.400	249.817
67	0.501	22.930	29.700	153.800	244.024
71	0.631	11.790	9.090	167.600	77.252
71	0.501	11.900	17.150	8.600	101.768
71	0.398	11.870	16.410	4.900	97.343
71	0.316	11.900	20.690	16.500	111.512
71	0.251	11.990	23.890	2.900	94.432
71	0.200	11.930	25.590	17.300	112.273
71	0.158	11.870	10.600	38.400	136.368
71	0.126	11.950	26.090	15.600	110.678
71	0.100	11.990	23.320	171.500	82.358
72	0.631	12.420	24.280	168.500	258.333
72	0.501	12.400	29.100	173.200	264.112
72	0.398	12.270	28.650	3.000	274.165
72	0.316	12.540	30.110	166.600	256.164
72	0.251	12.240	38.870	1.000	271.328
72	0.200	12.330	40.170	1.500	271.837
72	0.158	12.340	55.970	176.600	266.589
72	0.126	12.330	55.970	176.600	266.589
80	0.631	41.440	5.320	171.100	262.322
80	0.501	41.470	7.160	164.500	255.199
80	0.398	41.730	3.370	179.000	270.262
80	0.316	41.630	7.160	164.500	255.199
84	0.501	0.370	5.530	54.800	149.490
84	0.398	0.320	6.540	44.700	140.072
84	0.316	0.200	9.790	31.800	128.534
84	0.251	0.180	12.590	26.800	123.194
84	0.200	0.160	11.380	21.800	117.274
84	0.158	0.140	11.380	21.800	117.274
84	0.126	0.240	8.850	11.400	105.583
84	0.100	0.190	8.850	11.400	105.583
88	0.501	11.400	8.770	15.300	288.456
88	0.398	11.470	7.320	14.100	287.197
88	0.316	11.590	10.120	17.300	291.064
90	0.501	14.410	39.920	4.900	100.750
90	0.398	14.260	48.370	4.400	99.863
90	0.316	14.430	49.610	5.800	101.530
90	0.251	14.500	49.610	5.800	101.530
94	0.501	39.470	9.120	176.400	89.711
94	0.398	39.340	10.160	14.500	109.428
94	0.316	39.420	10.160	14.500	109.428
94	0.251	39.370	5.570	25.800	120.680
94	0.251	39.620	9.640	1.300	95.165
95	0.501	39.970	4.600	70.200	338.581
95	0.398	39.740	10.430	77.200	344.813
95	0.316	39.730	10.300	83.200	350.442
97	0.501	42.470	2.040	142.900	231.984
97	0.398	42.120	2.290	126.600	214.524
97	0.316	42.260	6.120	143.300	232.548
97	0.251	42.130	4.230	136.200	225.227
97	0.251	42.380	4.020	157.800	248.264
97	0.200	42.260	6.120	143.300	232.548
97	0.158	42.140	4.230	136.200	225.227
97	0.158	42.300	4.020	157.800	248.264
97	0.126	42.160	4.230	136.200	225.227
97	0.100	42.190	4.230	136.200	225.227
122	0.316	56.180	18.260	162.200	253.868

122	0.251	56.200	10.050	178.100	271.682
122	0.200	56.220	12.510	8.000	281.351
134	0.251	55.190	9.400	94.400	182.364
134	0.200	55.230	8.940	74.400	164.993
134	0.158	55.290	9.580	52.100	146.153
134	0.126	55.260	8.470	57.500	150.960
134	0.100	55.290	9.080	43.000	138.791
134	0.079	55.280	10.890	48.600	143.342
134	0.063	55.260	8.300	63.700	156.411
134	0.050	55.280	9.190	39.700	134.979
134	0.040	55.280	9.190	39.700	134.979
137	0.200	0.560	3.300	9.100	102.936
137	0.158	0.610	4.460	19.900	115.876
137	0.126	0.620	8.260	13.800	108.958
137	0.100	0.590	8.260	13.800	108.958
141	0.200	12.130	11.060	161.600	72.159
141	0.158	12.020	16.930	178.700	90.980
141	0.158	12.180	26.380	163.600	74.013
141	0.126	12.200	33.250	160.800	71.441
141	0.100	12.190	33.250	160.800	71.441
141	0.079	12.220	33.250	160.800	71.441
146	0.200	43.050	4.460	175.600	87.185
146	0.158	42.930	2.040	163.700	74.595
146	0.158	43.090	3.470	179.200	90.947
146	0.126	43.170	3.470	179.200	90.947
160	0.158	56.080	22.800	134.900	224.497
160	0.126	56.140	34.800	155.000	246.651
160	0.100	56.090	34.100	162.400	253.175
160	0.079	56.070	28.700	144.100	234.006
160	0.079	56.150	27.980	166.500	260.273
160	0.063	56.080	28.700	144.100	234.006
160	0.063	56.140	27.980	166.500	260.273
171	0.126	56.010	18.900	21.700	115.525
171	0.100	55.990	25.640	10.500	103.940
171	0.079	55.990	34.310	176.100	87.709
171	0.063	56.020	34.310	176.100	87.709
171	0.050	55.980	34.310	176.100	87.709
171	0.040	56.000	34.310	176.100	87.709
172	0.126	56.260	25.630	134.400	37.366
172	0.100	56.290	27.050	124.600	25.900
172	0.079	56.310	27.050	124.600	25.900
172	0.063	56.270	27.840	121.100	20.920
172	0.050	56.280	27.840	121.100	20.920
172	0.040	56.280	27.840	121.100	20.920
183	0.100	55.690	12.090	148.300	57.057
183	0.079	55.670	16.700	139.400	46.835
183	0.063	55.700	19.500	143.000	50.403
183	0.050	55.680	19.500	143.000	50.403
184	0.100	55.790	13.940	154.700	244.339
184	0.079	55.830	8.670	175.500	267.452
184	0.063	55.830	10.510	170.800	262.338

Section I

Tilt number	window size	depth	tilt angle	tilt axis	tilt way		
1	31.623	21.09	7.19	29.4	123.183	7.19	7.19
2	10	56.9	10.28	135.4	43.511	15.63	#REF!
2	10	66.9	7.66	141.9	51.111	17.94	####
3	3.162	14.77	13.3	161.1	69.964	13.3	#REF!
6	5.012	44.42	14.65	141.6	231.125	14.65	#REF!
7	7.943	28.96	5.55	91.1	179.37	5.55	#REF!
9	3.981	11.03	4.58	159.3	248.675	4.58	#REF!
10	3.981	38.9	11.5	145.4	55.566	11.5	#REF!
11	3.981	66.76	7.61	156.2	66.495	7.61	#REF!
13	2.512	24.35	4.31	129.5	217.556	7.15	#REF!
13	2.512	26.86	5.51	133.5	221.218	9.82	####
15	1.995	1.99	9.26	42.7	314.668	9.26	#REF!
21	3.981	42.88	16.44	9.2	279.875	16.44	16.44
22	1.585	47.21	23.69	79	172.171	23.69	#REF!
27	1.995	11.96	12.73	175.1	266.593	12.73	#REF!
34	1.585	6	5.33	25.2	119.924	5.33	#REF!
43	1.585	7.58	17.69	15.9	289.201	17.69	#REF!
48	0.631	24.6	10.63	4.2	275.739	10.63	#REF!
49	0.794	34.92	6.18	111.2	199.68	8.6	#REF!
49	0.794	35.71	5.27	88.3	175.407	11.45	####
53	1	48.9	15.76	174.8	266.029	15.76	#REF!
53	1	49.9	2.57	153.7	245.999	18.33	####
63	0.158	40.87	6.34	78.4	346.753	16.49	#REF!
63	0.158	41.03	15.27	65.5	334.822	21.61	####
66	1.259	71.53	15.35	17.6	288.467	15.35	#REF!
69	0.501	7.33	10.19	169.2	80.167	10.19	#REF!
72	0.2	17.95	8.29	144.6	233.404	8.29	#REF!
79	0.2	47.68	4.22	151.8	61.913	19.22	#REF!
79	0.2	47.88	21.42	173	87.433	25.64	####
88	0.398	26.16	5.09	46.8	317.645	5.09	#REF!
97	0.631	22.08	20.55	154.5	62.26	20.55	#REF!
101	0.398	36.51	5.51	162.8	255.205	5.51	#REF!
109	0.251	35.4	15.25	57.9	149.54	15.25	#REF!
124	0.251	4.75	9.08	56.7	150.415	9.08	#REF!
130	0.251	24.6	12.44	17.3	289.174	12.44	#REF!
143	0.126	22.87	25.45	20.3	114.716	25.45	#REF!
144	0.2	24.33	7.07	66	156.092	7.07	#REF!
152	0.2	6.78	9.39	6.8	100.481	9.39	#REF!
157	0.2	25.73	10.16	9.3	102.872	10.16	#REF!
193	0.158	24.23	11.43	176.1	87.295	11.43	#REF!
194	0.079	24.35	14.32	142.6	232.919	14.32	#REF!
195	0.126	24.5	9.87	67.7	335.755	9.87	#REF!
204	0.158	47.84	21.42	173	87.433	21.42	#REF!
211	0.063	47.63	14.54	114.1	15.258	14.54	#REF!
212	0.04	47.95	13.11	29.5	298.406	13.11	#REF!
217	0.032	24.59	9.44	9.1	280.942	9.44	#REF!
223	0.032	47.74	5.19	23.4	119.39	6.76	#REF!
223	0.032	47.77	2.87	28.7	122.486	8.06	####
229	0.032	24.21	17.59	168.8	79.09	17.59	#REF!
245	0.05	25.5	3.6	8.9	280.921	3.6	#REF!
245	0.05	25.55	10.56	1.7	273.733	14.16	####
272	0.02	47.72	4.34	134	220.485	4.34	#REF!

Section II

Tilt number	window size	depth	tilt angle	tilt axis	tilt way
3	10	27.85	3.94	140.3	229.734
3	10	37.85	7.56	150.6	240.241
8	1.585	4.63	30.37	36.8	133.872
8	1.585	6.21	1.2	48	136.255
12	3.981	10.91	13.81	52.2	322.156
13	1.995	15.87	20.92	134.3	40.192
15	1.995	29.84	18.2	132.5	221.43
18	1.259	18.45	6.54	127.6	216.393
18	1.259	19.71	9.77	124.7	212.984
21	1.585	1.46	11.24	16.8	289.483
21	1.585	3.04	7.34	40.5	316.237
22	3.162	8.62	15.41	77.9	344.907
24	0.2	34.23	44.25	8.1	102.609
27	1.585	12.55	8.49	113.5	200.845
27	1.585	14.14	5.49	97.3	183.884
29	1.259	31.04	13.99	125.6	32.064
37	0.316	10.68	42.89	95.6	358.449
38	0.398	13.5	10.3	100.1	187.923
43	0.631	6.77	42.16	50.2	143.131
44	0.316	7.52	20.69	18.6	285.255
44	0.316	7.83	15.85	36.1	305.965
45	0.398	8.72	23.21	109.1	14.536
66	0.316	32.5	5.99	60	329.55
66	0.316	32.82	6.01	50.3	322.824
84	0.158	32.13	11.08	100.7	189.658
91	0.158	32.6	3.7	138.9	46.412
92	0.251	32.9	9.38	36.9	309.396
93	0.126	44.63	9.08	43	138.791
94	0.126	45.01	12.09	148.3	57.057
97	0.1	8.26	25.38	109.1	197.131
101	0.126	45.26	17.56	164.8	75.769
102	0.079	45.41	28.7	144.1	234.006
102	0.079	45.49	27.98	166.5	260.273
103	0.1	45.55	12.8	154.8	66.647
103	0.1	45.65	12.94	138.1	44.254
110	0.126	45.14	11.92	155.2	244.917
119	0.04	44.77	17.66	110.2	14.003

Section III

Tilt number	window size	depth	tilt angle	tilt axis	tilt way
1	19.953	18.210	11.110	32.100	128.094
5	12.589	47.070	6.930	153.700	243.700

8	2.512	29.450	8.030	148.000	56.786
8	2.512	31.960	15.100	137.800	44.601
11	6.310	12.420	21.470	179.700	271.562
12	6.310	18.730	26.580	12.900	112.355
13	3.981	26.200	15.630	153.200	243.687
19	2.512	21.910	5.600	148.100	58.592
24	2.512	39.490	4.780	163.400	74.464
26	0.794	12.700	37.100	13.900	286.488
31	1.259	1.120	8.800	116.800	201.948
36	0.794	20.640	29.050	117.900	22.161
41	0.631	13.680	7.450	25.300	136.359
41	0.631	14.310	39.920	4.900	100.750
44	0.398	23.410	17.920	158.500	71.068
49	0.794	21.440	22.870	150.500	240.078
52	0.398	43.720	4.440	49.800	141.210
53	0.794	0.790	8.830	67.700	159.993
62	0.200	55.430	4.210	145.200	53.391
62	0.200	55.620	6.670	139.000	46.686
63	0.398	1.120	7.510	136.500	222.675
63	0.398	1.520	9.030	158.700	249.742
67	0.631	22.510	32.600	159.400	249.817
71	0.200	11.930	25.590	17.300	112.273
72	0.126	12.330	55.970	176.600	266.589
80	0.316	41.630	7.160	164.500	255.199
84	0.251	0.180	12.590	26.800	123.194
88	0.316	11.590	10.120	17.300	291.064
90	0.251	14.500	49.610	5.800	101.530
94	0.316	39.420	10.160	14.500	109.428
95	0.398	39.740	10.430	77.200	344.813
97	0.158	42.140	4.230	136.200	225.227
97	0.158	42.300	4.020	157.800	248.264
122	0.316	56.180	18.260	162.200	253.868
134	0.079	55.280	10.890	48.600	143.342
137	0.100	0.590	8.260	13.800	108.958
141	0.158	12.020	16.930	178.700	90.980
141	0.158	12.180	26.380	163.600	74.013
146	0.158	42.930	2.040	163.700	74.595
146	0.158	43.090	3.470	179.200	90.947
160	0.063	56.080	28.700	144.100	234.006
160	0.063	56.140	27.980	166.500	260.273
171	0.040	56.000	34.310	176.100	87.709
172	0.040	56.280	27.840	121.100	20.920
183	0.050	55.680	19.500	143.000	50.403
184	0.100	55.790	13.940	154.700	244.339