



# Rice Quality Analysis Report

Scan 16:55 · - · 24 Oct 2026 16:58

| KEY METRICS         |           |                     |             |         |             |
|---------------------|-----------|---------------------|-------------|---------|-------------|
| AVG LENGTH, WHOLE   |           | AVG LENGTH, SAMPLE  |             | BROKEN  | WHOLE GRAIN |
| 8.540 <sub>mm</sub> |           | 8.538 <sub>mm</sub> |             | 1.1 % W | 98.9 % W    |
| AVG WIDTH           | L/W RATIO | CHALKY              | DISCOLOURED | DAMAGED | WHITENESS   |
| 1.849 <sub>mm</sub> | 4.64      | 0.0 % W             | 40.3 % W    | 6.7 % W | 29.2        |

| 1 DIMENSIONAL METROLOGY (ALL CLASSIFIED GRAINS) |        |         |       |        |
|-------------------------------------------------|--------|---------|-------|--------|
| PARAMETER                                       | MEAN   | STD DEV | MIN   | MAX    |
| Length (mm)                                     | 8.538  | 0.528   | 7.299 | 9.864  |
| Length, whole grains (mm) n = 94 / 95           | 8.540  | 0.530   | 7.299 | 9.864  |
| Width (mm)                                      | 1.849  | 0.127   | 1.536 | 2.101  |
| L/W ratio                                       | 4.638  | 0.409   | 3.507 | 5.797  |
| Area (mm²)                                      | 12.990 | 1.305   | 9.614 | 15.631 |

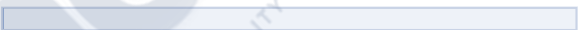
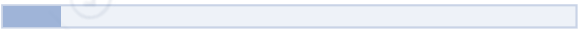
| 2 GRAIN COMPOSITION & LENGTH CLASSIFICATION |        |       |
|---------------------------------------------|--------|-------|
| FRACTION                                    | GRAINS | % W   |
| Whole length (no cut end)                   | 94     | 98.86 |
| Broken 3/4 (≥ 75% of R)                     | 1      | 1.14  |
| Broken 2/3 (50–75% of R)                    | 0      | 0.00  |
| Broken 0–50% of R                           | 0      | 0.00  |
| Total broken                                | 1      | 1.14  |

R = 8.54 mm, the average of the 94 unbroken grains. % W is each class's share of the total grain area (weight estimate).

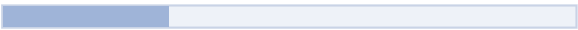
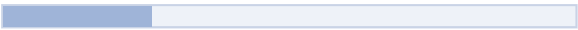
### 3 DEFECT, DISCOLORATION & WHITENESS

| DEFECT TYPE                             | GRAINS | % W   |
|-----------------------------------------|--------|-------|
| Chalky ( $\geq 65\%$ opaque area)       | 0      | 0.00  |
| Discoloured – light                     | 35     | 36.94 |
| Discoloured – dark                      | 3      | 3.32  |
| Discoloured – black                     | 0      | 0.00  |
| Discoloured – red                       | 0      | 0.00  |
| Total discoloured                       | 38     | 40.26 |
| Damaged                                 | 6      | 6.71  |
| Foreign matter (not rice)               | 1      | -     |
| Whiteness index (mean, Kett-equivalent) |        | 29.2  |

### 4 LENGTH DISTRIBUTION

| LENGTH RANGE   | GRAINS | % W  | DISTRIBUTION                                                                         |
|----------------|--------|------|--------------------------------------------------------------------------------------|
| < 4.27 mm      | 0      | 0.0  |    |
| 4.27 – 6.41 mm | 0      | 0.0  |    |
| 6.41 – 8.54 mm | 48     | 47.8 |    |
| 8.54 – 9.39 mm | 42     | 46.4 |  |
| $\geq 9.39$ mm | 5      | 5.8  |  |

### 5 WIDTH DISTRIBUTION (SIZER)

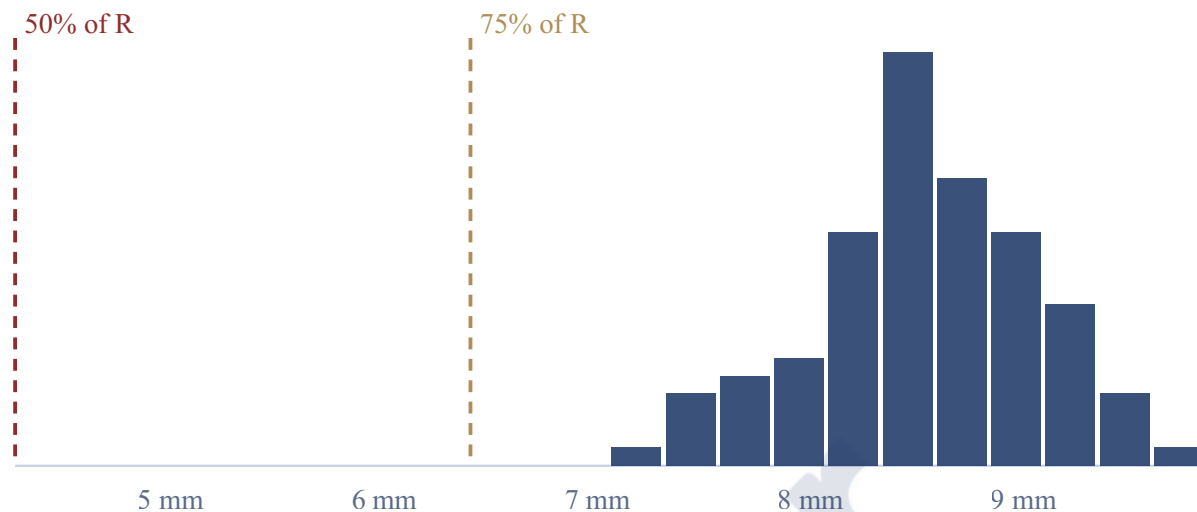
| WIDTH RANGE    | GRAINS | % W  | DISTRIBUTION                                                                         |
|----------------|--------|------|--------------------------------------------------------------------------------------|
| 1.54 – 1.65 mm | 10     | 8.9  |  |
| 1.65 – 1.76 mm | 9      | 8.5  |  |
| 1.76 – 1.87 mm | 31     | 32.5 |  |
| 1.87 – 1.99 mm | 35     | 38.8 |  |
| 1.99 – 2.10 mm | 10     | 11.4 |  |

### 6 DETECTION & MEASUREMENT QUALITY

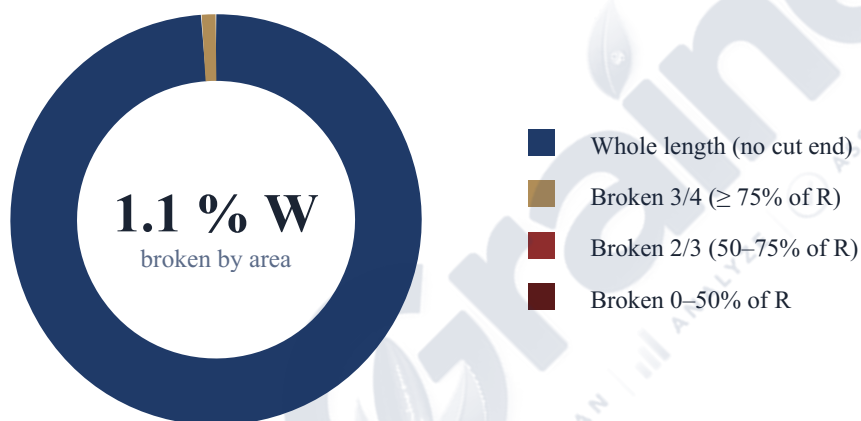
| MEASURE                      | VALUE                    |
|------------------------------|--------------------------|
| Objects detected             | 96                       |
| Classified grains            | 95                       |
| Touching / merged (excluded) | 0                        |
| Foreign matter               | 1                        |
| Measurement confidence       | high (100.0% classified) |

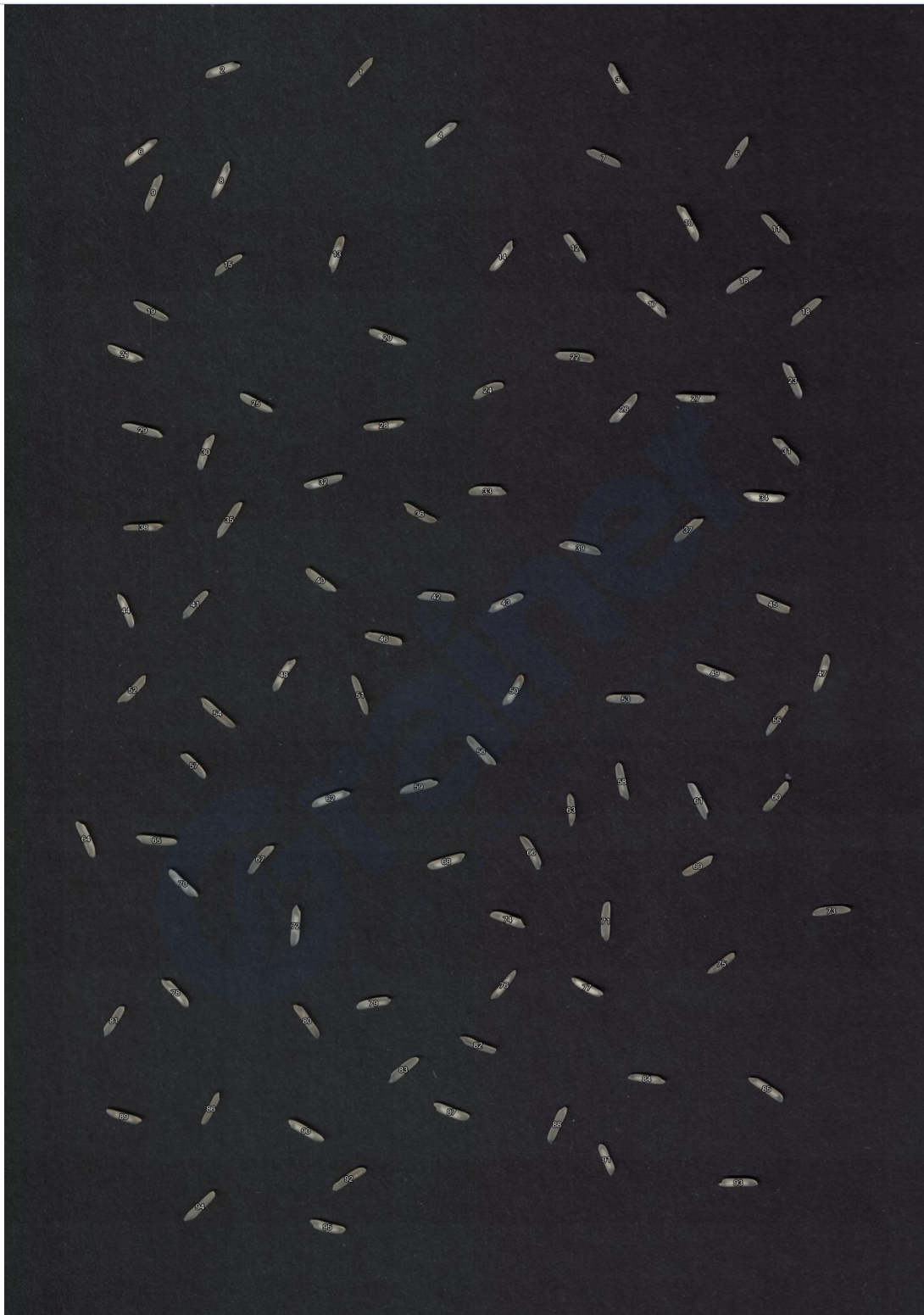
## 7 CHARTS

Length distribution (50% and 75% of R cut-offs)



Whole vs broken, by area





## 9 PER-GRAIN MEASUREMENTS — ALL 95 GRAINS

| NO. | LENGTH MM | % OF R | WIDTH MM | L/W  | AREA MM² | CHALKY | DISCOLOURATION | DAMAGED | LENGTH CLASS |
|-----|-----------|--------|----------|------|----------|--------|----------------|---------|--------------|
| 1   | 8.467     | 99.1   | 1.536    | 5.51 | 10.994   | no     | none           | no      | Whole        |
| 2   | 7.995     | 93.6   | 1.951    | 4.10 | 12.736   | no     | none           | no      | Whole        |
| 3   | 7.949     | 93.1   | 1.828    | 4.35 | 11.882   | no     | none           | no      | Whole        |
| 4   | 8.693     | 101.8  | 1.876    | 4.63 | 13.816   | no     | Light          | no      | Whole        |
| 5   | 8.624     | 101.0  | 1.787    | 4.82 | 12.897   | no     | Light          | yes     | Whole        |
| 6   | 9.072     | 106.2  | 1.793    | 5.06 | 12.669   | no     | Light          | no      | Whole        |
| 7   | 8.345     | 97.7   | 1.839    | 4.54 | 12.848   | no     | Light          | no      | Whole        |
| 8   | 9.021     | 105.6  | 1.715    | 5.26 | 12.428   | no     | none           | no      | Whole        |
| 9   | 8.745     | 102.4  | 1.825    | 4.79 | 13.284   | no     | none           | no      | Whole        |
| 10  | 9.119     | 106.8  | 1.831    | 4.98 | 14.107   | no     | Light          | yes     | Whole        |
| 11  | 9.036     | 105.8  | 1.859    | 4.86 | 14.049   | no     | none           | no      | Whole        |
| 12  | 7.592     | 88.9   | 1.771    | 4.29 | 11.676   | no     | Light          | yes     | Whole        |
| 13  | 8.424     | 98.6   | 1.972    | 4.27 | 13.538   | no     | none           | no      | Whole        |
| 14  | 8.201     | 96.0   | 1.730    | 4.74 | 11.666   | no     | none           | no      | Whole        |
| 15  | 7.593     | 88.9   | 1.672    | 4.54 | 10.111   | no     | none           | no      | Whole        |
| 16  | 9.264     | 108.5  | 1.955    | 4.74 | 15.200   | no     | none           | no      | Whole        |
| 17  | 8.490     | 99.4   | 1.882    | 4.51 | 13.256   | no     | none           | no      | Whole        |
| 18  | 8.900     | 104.2  | 1.939    | 4.59 | 14.024   | no     | Light          | no      | Whole        |
| 19  | 8.661     | 101.4  | 1.839    | 4.71 | 13.219   | no     | none           | no      | Whole        |
| 20  | 8.801     | 103.1  | 1.821    | 4.83 | 13.029   | no     | none           | no      | Whole        |
| 21  | 8.411     | 98.5   | 1.957    | 4.30 | 13.300   | no     | none           | no      | Whole        |
| 22  | 8.715     | 102.0  | 2.046    | 4.26 | 14.864   | no     | none           | no      | Whole        |
| 23  | 8.815     | 103.2  | 1.845    | 4.78 | 13.931   | no     | Light          | no      | Whole        |
| 24  | 7.366     | 86.2   | 2.101    | 3.51 | 12.003   | no     | none           | no      | Whole        |
| 25  | 8.179     | 95.8   | 1.818    | 4.50 | 12.089   | no     | none           | no      | Whole        |
| 26  | 8.574     | 100.4  | 1.986    | 4.32 | 13.775   | no     | none           | no      | Whole        |
| 27  | 8.922     | 104.5  | 1.633    | 5.47 | 12.303   | no     | none           | no      | Whole        |
| 28  | 9.109     | 106.7  | 1.718    | 5.30 | 12.417   | no     | Dark           | no      | Whole        |
| 29  | 9.475     | 110.9  | 1.709    | 5.54 | 13.433   | no     | Light          | no      | Whole        |
| 30  | 8.441     | 98.8   | 1.846    | 4.57 | 12.876   | no     | Light          | no      | Whole        |
| 31  | 8.219     | 96.2   | 1.795    | 4.58 | 12.292   | no     | none           | no      | Whole        |
| 32  | 8.877     | 103.9  | 1.859    | 4.77 | 13.736   | no     | Light          | no      | Whole        |
| 33  | 8.412     | 98.5   | 2.022    | 4.16 | 14.173   | no     | none           | no      | Whole        |
| 34  | 9.205     | 107.8  | 1.925    | 4.78 | 14.228   | no     | none           | no      | Whole        |
| 35  | 9.609     | 112.5  | 1.782    | 5.39 | 14.113   | no     | none           | no      | Whole        |
| 36  | 8.307     | 97.3   | 1.832    | 4.54 | 11.880   | no     | Light          | no      | Whole        |
| 37  | 8.018     | 93.9   | 1.948    | 4.12 | 12.766   | no     | Light          | no      | Whole        |
| 38  | 8.852     | 103.7  | 1.630    | 5.43 | 11.202   | no     | Light          | no      | Whole        |
| 39  | 9.458     | 110.8  | 1.963    | 4.82 | 15.244   | no     | none           | no      | Whole        |
| 40  | 8.241     | 96.5   | 1.928    | 4.27 | 13.116   | no     | none           | no      | Whole        |
| 41  | 8.160     | 95.5   | 1.752    | 4.66 | 11.924   | no     | Light          | no      | Whole        |
| 42  | 8.351     | 97.8   | 1.918    | 4.35 | 13.239   | no     | none           | no      | Whole        |
| 43  | 8.479     | 99.3   | 1.911    | 4.44 | 13.539   | no     | none           | no      | Whole        |
| 44  | 8.086     | 94.7   | 1.642    | 4.92 | 11.278   | no     | none           | no      | Whole        |
| 45  | 8.288     | 97.0   | 2.007    | 4.13 | 14.127   | no     | none           | no      | Broken 3/4   |
| 46  | 8.539     | 100.0  | 2.008    | 4.25 | 14.536   | no     | Light          | no      | Whole        |
| 47  | 8.770     | 102.7  | 1.862    | 4.71 | 13.762   | no     | none           | yes     | Whole        |
| 48  | 8.477     | 99.3   | 1.791    | 4.73 | 11.996   | no     | none           | no      | Whole        |
| 49  | 9.037     | 105.8  | 1.910    | 4.73 | 14.456   | no     | none           | no      | Whole        |
| 50  | 7.912     | 92.6   | 1.917    | 4.13 | 12.335   | no     | Light          | no      | Whole        |
| 51  | 9.429     | 110.4  | 1.627    | 5.80 | 13.013   | no     | Light          | no      | Whole        |
| 52  | 8.578     | 100.4  | 1.960    | 4.38 | 13.223   | no     | Light          | no      | Whole        |

| NO. | LENGTH MM | % OF R | WIDTH MM | L/W  | AREA MM² | CHALKY | DISCOLOURATION | DAMAGED | LENGTH CLASS |
|-----|-----------|--------|----------|------|----------|--------|----------------|---------|--------------|
| 53  | 8.591     | 100.6  | 1.945    | 4.42 | 13.964   | no     | none           | no      | Whole        |
| 54  | 9.864     | 115.5  | 1.943    | 5.08 | 15.631   | no     | Light          | no      | Whole        |
| 55  | 8.099     | 94.8   | 1.596    | 5.08 | 10.759   | no     | none           | no      | Whole        |
| 56  | 9.003     | 105.4  | 1.887    | 4.77 | 14.131   | no     | none           | no      | Whole        |
| 57  | 7.526     | 88.1   | 1.833    | 4.11 | 11.837   | no     | Light          | no      | Whole        |
| 58  | 8.513     | 99.7   | 1.892    | 4.50 | 13.661   | no     | Light          | no      | Whole        |
| 59  | 8.775     | 102.8  | 1.961    | 4.47 | 13.803   | no     | Light          | no      | Whole        |
| 60  | 8.388     | 98.2   | 1.853    | 4.53 | 13.413   | no     | none           | no      | Whole        |
| 61  | 9.011     | 105.5  | 1.978    | 4.55 | 14.662   | no     | Dark           | no      | Whole        |
| 62  | 8.896     | 104.2  | 1.805    | 4.93 | 13.132   | no     | none           | no      | Whole        |
| 63  | 7.299     | 85.5   | 1.635    | 4.46 | 9.614    | no     | none           | no      | Whole        |
| 64  | 8.881     | 104.0  | 2.010    | 4.42 | 14.742   | no     | none           | no      | Whole        |
| 65  | 9.155     | 107.2  | 1.829    | 5.01 | 13.738   | no     | Light          | no      | Whole        |
| 66  | 8.527     | 99.8   | 1.934    | 4.41 | 13.578   | no     | none           | no      | Whole        |
| 67  | 8.301     | 97.2   | 1.917    | 4.33 | 12.688   | no     | none           | no      | Whole        |
| 68  | 8.712     | 102.0  | 1.979    | 4.40 | 14.207   | no     | none           | no      | Whole        |
| 69  | 7.798     | 91.3   | 1.906    | 4.09 | 12.740   | no     | Light          | no      | Whole        |
| 70  | 8.689     | 101.7  | 1.858    | 4.68 | 12.671   | no     | Light          | no      | Whole        |
| 71  | 8.807     | 103.1  | 2.062    | 4.27 | 15.272   | no     | none           | yes     | Whole        |
| 72  | 9.183     | 107.5  | 1.955    | 4.70 | 15.143   | no     | Light          | yes     | Whole        |
| 73  | 8.631     | 101.1  | 1.850    | 4.67 | 13.206   | no     | none           | no      | Whole        |
| 74  | 8.211     | 96.1   | 1.975    | 4.16 | 13.086   | no     | none           | no      | Whole        |
| 75  | 7.349     | 86.0   | 1.689    | 4.35 | 10.125   | no     | Light          | no      | Whole        |
| 76  | 8.351     | 97.8   | 1.552    | 5.38 | 10.044   | no     | none           | no      | Whole        |
| 77  | 7.770     | 91.0   | 1.598    | 4.86 | 10.010   | no     | none           | no      | Whole        |
| 78  | 8.375     | 98.1   | 1.909    | 4.39 | 13.206   | no     | Light          | no      | Whole        |
| 79  | 7.815     | 91.5   | 1.896    | 4.12 | 12.097   | no     | Light          | no      | Whole        |
| 80  | 9.120     | 106.8  | 1.800    | 5.07 | 13.754   | no     | none           | no      | Whole        |
| 81  | 7.912     | 92.6   | 1.984    | 3.99 | 12.488   | no     | Light          | no      | Whole        |
| 82  | 8.564     | 100.3  | 1.782    | 4.81 | 11.976   | no     | none           | no      | Whole        |
| 83  | 8.537     | 100.0  | 2.069    | 4.13 | 14.200   | no     | Light          | no      | Whole        |
| 84  | 8.340     | 97.7   | 1.653    | 5.05 | 11.080   | no     | none           | no      | Whole        |
| 85  | 9.154     | 107.2  | 1.832    | 5.00 | 13.868   | no     | Dark           | no      | Whole        |
| 86  | 8.014     | 93.8   | 1.538    | 5.21 | 10.381   | no     | none           | no      | Whole        |
| 87  | 8.473     | 99.2   | 1.998    | 4.24 | 13.796   | no     | none           | no      | Whole        |
| 88  | 8.715     | 102.0  | 1.916    | 4.55 | 13.979   | no     | none           | no      | Whole        |
| 89  | 8.252     | 96.6   | 1.684    | 4.90 | 11.194   | no     | Light          | no      | Whole        |
| 90  | 8.978     | 105.1  | 1.878    | 4.78 | 13.538   | no     | none           | no      | Whole        |
| 91  | 7.328     | 85.8   | 1.833    | 4.00 | 11.121   | no     | none           | no      | Whole        |
| 92  | 8.711     | 102.0  | 1.834    | 4.75 | 13.329   | no     | none           | no      | Whole        |
| 93  | 8.777     | 102.8  | 1.798    | 4.88 | 12.459   | no     | Light          | no      | Whole        |
| 94  | 9.285     | 108.7  | 1.900    | 4.89 | 14.035   | no     | Light          | no      | Whole        |
| 95  | 8.091     | 94.7   | 2.014    | 4.02 | 13.106   | no     | none           | no      | Whole        |

No. is the grain number printed on the annotated scan. Chalky, discolouration and damaged show only when flagged; the same table is in the CSV export.