# Alphamin Provides Mpama North and Mpama South Drilling Update 

written by Raj Shah | November 8, 2021
November 8, 2021 (Source) - Alphamin Resources Corp. (AFM:TSXV, APH:JSE AltX, "Alphamin" or the "Company"), a producer of $4 \%$ of the world's mined tin ${ }^{1}$ from its high-grade operation in the Democratic Republic of Congo, is pleased to announce drilling progress at its Mpama North mine and Mpama South deposit.

## HIGHLIGHTS

- Strike extension to the operating Mpama North mine identified from significant visual cassiterite drilling intercepts
- Further Mpama South high-grade assay results ${ }^{2}$ received, which include:
- BGH075: 14.4 metres @ 3.2\% Sn from 115.4 metres
- BGH074: 18.4 metres @ 2.2\% Sn from 278.9 metres
- BGH066: 2.6 metres @ $\mathbf{8 . 5 \%}$ Sn from 276.0 metres
- BGH067: 4.7 metres @ $3.2 \%$ Sn from 295.8 metres
- BGH070: 5.4 metres @ $\mathbf{3 . 0 \%} \mathbf{S n}$ from 331.0 metres
- BGH072: 5.1 metres @ 2.7\% Sn from 274.6 metres and 4.4 metres @ $3.6 \%$ Sn from 290.4 metres
- Mpama South drilling intercepts are now within 200m of the Mpama North orebody
- Indications are that Mpama South and Mpama North was one zone of high-grade tin mineralisation offset and displaced by a fault
- Potential for synergies and fast-tracking of underground access to Mpama South exists


## Chief Executive Officer, Maritz Smith comments:

"We are delighted with the recent drilling results and groundbreaking interpretations of these exploration initiatives and look forward to realising our exceptional resource and production expansion potential."
${ }^{1}$ Data obtained from International Tin Association Tin Industry Review 2020
${ }^{2}$ All intercepts are reported as apparent widths and are not true widths

## Mpama North Drilling Update

Alphamin commenced extensional drilling of the Mpama North orebody in July 2021.

By the end of October 2021, $\sim 6,167 \mathrm{~m}$ and 12 drillholes had been completed. Additional drilling has now uncovered the existence of a crosscutting fault causing a downward and westward offset of the deeper mineralisation. By refocussing drilling closer to the final drill line from previous exploration, holes drilled at 75 m further along strike succeeded in intercepting significant zones of cassiterite mineralization. For example, new drillhole MND011 appears to be one of the best intercepts drilled to date on the property, based on the quantity of visual cassiterite distributed over 20.6 metres (part of which is shown in Figure 1). In addition, 5 new holes west of the identified fault have also intercepted mineralised visual cassiterite providing strike extension potential on the western block. Drilling will continue to refine our understanding of these mineralised areas with the objective of adding significantly to the current life-of-mine.

Figure 1: Highly mineralised cassiterite (pink) in Hole MND011
at Mpama North, including a zone of massive cassiterite veins (annotated with red dashed lines)

A Media Snippet accompanying this announcement is available by clicking on the image or link below:


## Mpama South Drilling Update

Mpama South is a high-grade tin discovery located immediately south of Alphamin's operating Mpama North mine. Drilling in 2021 has completed $\sim 18,047 \mathrm{~m}$ and 69 additional drillholes, of which assays from ALS laboratories in South Africa for 57 drillholes have been received to date. The first three phases of drilling will form the basis of a Mineral Resource estimation exercise, the results of which are expected to be announced in January 2022. An updated estimate will be announced later in Q1 2022 from the on-going phase 4 drilling. Selected significant intercepts from the recently received batches of assays from the Mpama South drilling program are listed below as apparent widths:

- BGH075: 14.4 metres @ 3.2\% Sn from 115.4 metres
- BGH074: 18.4 metres @ 2.2\% Sn from 278.9 metres (Incl. 5.0 m @ $2.9 \% \mathrm{Sn}$ and 2.8 m @ $7.2 \% \mathrm{Sn}$ )
- BGH066: 2.6 metres @ 8.5\% Sn from 276.0 metres
- BGH067: 4.7 metres @ $3.2 \%$ Sn from 295.8 metres
- BGH070: 5.4 metres @ 3.0\% Sn from 331.0 metres
- BGH072: 5.1 metres @ 2.7\% Sn from 274.6 metres and 4.4 metres @ 3.6\% Sn from 290.4 metres

The success of the Mpama South drilling is such that the zone of high-grade mineralisation has grown substantially since the recommencement of drilling in December 2020. Figure 2 illustrates this evolution based on assays received for drilling to the end of September 2021. The complete list of intercepts to date is shown in Appendix 2.

Figure 2: Mpama South Assays to-date: Exploration Success Timeline

A Media Snippet accompanying this announcement is available by clicking on the image or link below:


## Proximity of Mpama South to Mpama North

Alphamin has to date reported that Mpama South was located 750 m
south of its currently operating Mpama North mine. However, as drilling has progressed the extent to which mineralisation has been identified has expanded at Mpama South and a newer interpretation is that Mpama North and Mpama South were a single extensive zone of high grade cassiterite mineralisation which was structurally offset by a late-stage cross cutting fault. Current drilling under phase 4 shows Mpama South mineralisation occurs to within 200 m of the southern extents of the declared Mpama North Mineral Resource and on a similar mining level / elevation (See Figure 3). This gap is expected to close further with more drilling. The implication of being able to connect Mpama South to the underground development, infrastructure and services of the Mpama North mine is relevant from a fast-tracked low-cost development potential.

## Figure 3: Proximity of Mpama South Mineralisation to the Mpama North Mine

A Media Snippet accompanying this announcement is available by clicking on the image or link below:


## Regional Exploration Update

Additional assays have been received on the detailed in-fill soil sampling campaign over the 13 km long Bisie Ridge. The results are encouraging to the extent that new targets have been generated for follow up drilling. Drilling of the first major target, Marouge, will commence in late November 2021 (Figure 4).

## Figure 4: Regional Exploration Targets on the Alphamin Licences

A Media Snippet accompanying this announcement is available by clicking on the image or link below:


## Qualified Person

Mr Jeremy Witley, Pr. Sci. Nat., B.Sc. (Hons.) Mining Geology, M.Sc. (Eng.), is a qualified person (QP) as defined in National Instrument 43-101 and has reviewed and approved the scientific and technical information contained in this news release. He is a Principal Mineral Resource Consultant of The MSA Group (Pty.) Ltd., an independent technical consultant to the Company.

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## CAUTION REGARDING FORWARD LOOKING STATEMENTS

Information in this news release that is not a statement of historical fact constitutes forward-looking information. Forward-looking statements contained herein include, without limitation, statements relating to anticipated exploration activities and outcomes, timing and positive outcome of a future resource estimation for Mpama South, potential for synergies and fast-tracking of the Mpama South mineralised area and potential for life-of-mine extension of Mpama North. Forward-looking statements are based on assumptions management believes to be reasonable at the time such statements are made. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Although Alphamin has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking statements include, but are not limited to: uncertainties with respect to social, community and environmental impacts, uninterrupted access to required infrastructure, adverse political events, impacts of the global Covid-19 pandemic on mining as well as those risk factors set out in the Company's Management Discussion and Analysis and other disclosure
documents available under the Company's profile at www.sedar.com. Forward-looking statements contained herein are made as of the date of this news release and Alphamin disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws.

Neither the TSX Venture Exchange nor its regulation services provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this news release.

## Appendix 1: SAMPLE PREPARATION, ANALYSES AND QUALITY CONTROL AND QUALITY ASSURANCE (QAQC)

After receipt of diamond drillcore from the drillers at the drill rig in marked core trays, core was transported to the Company's core shed by the site geologist for logging and sampling. After sample mark up, lithological and geotechnical logging and photography, the core was split longitudinally in half using a water-cooled rotating diamond blade core saw. The cut core was replaced into the core tray with the half to be sampled facing upward. Based on previous experience at Bisie with high density variability and at the qualified person's instruction (Mr J. Witley of MSA Group), specific gravity (SG) was performed exclusively on the half core that was to be sampled. The Archimedes method of weight in air vs weight in water was used on the whole length of the half core that was to be sampled and then replaced in the core trays.

Air dried samples were placed in pre-numbered sample bags together with pre-printed numbered sample tickets, which were cross-checked afterwards to prevent sample swaps. Sample bags were sealed using a plastic cable tie and then placed into polyweave sacks which were in turn sealed with plastic cable ties.

Each poly-weave sack was marked with a number and the sample numbers contained within, ready for delivery to the on-site Alphamin-Bisie laboratory for sample preparation.

At the laboratory, samples were first checked off against the submission list supplied and then weighed and oven dried for 2 hours at 105 degrees Celsius. The dried samples were crushed by jaw crusher to $75 \%$ passing 2 mm , from which a 250 g riffle split was taken. This 250 g split was pulverised in ring mills to $90 \%$ passing $75 \mu \mathrm{~m}$ from which a sample for analysis was taken. Samples were homogenised using a corner-to-corner methodology and two samples were taken from each pulp, one of 10 g for on-site laboratory assaying and another 150 g sample for export and independent accredited 3rd party laboratory assaying.

For the initial on-site laboratory assay, 10 grams of pulverised sample is mixed with 2 grams of binder before press pellet preparation at 20t/psi for 1 minute. Press pellets are analysed in a desktop Spectro Xepos XRF analyser, twelve at a time, for $\mathrm{Sn}, \mathrm{Fe}, \mathrm{Zn}, \mathrm{Cu}, \mathrm{Ag}, \mathrm{Pb}$ and As along with a standard, duplicate and blank. The analytical method conducted on the pressed pellet has an expected $10 \%$ precision and an upper detection limit of 70,000ppm and lower detection limit of 500ppm. Over-limit samples are titrated by wet chemistry with an upper limit validation of $70 \% \mathrm{Sn}$. The on-site laboratory assays are merely an exploration tool and were not used for reporting the exploration results, which are based solely on the ALS assays.

The 150 g sample is packaged in sealed paper sample envelopes and packed in a box for export in batches of approximately 500 samples and prepared for export authorisation with national authorities. Once authorisation is received, samples are aircouriered to ALS Group in Johannesburg South Africa, a subsidiary of ALS Limited, which is an independent commercial analytical facility. ALS operations are ISO 9001:2015
certificated and the Johannesburg office is ISO 17025 accredited for Chemical Analysis by SANAS (South African National Accreditation System, facility number T087), although the accreditation does not extend to the methods used for tin.

Received samples at ALS Johannesburg are checked off against the list of samples supplied and logged in the system. Quality Control is performed in the way of sieve tests every 50 samples and should a sample fail, the preceding 50 samples are ground in a ring mill pulveriser using a carbon steel ring set to $85 \%$ passing $75 \mu \mathrm{~m}$. Samples are analysed for tin using method code MEXRF05 conducted on a pressed pellet with $10 \%$ precision and an upper limit of $5,000 \mathrm{ppm}$. The over-limit tin samples are analysed as fused disks according to method ME-XRF15c, which makes use of pre-oxidation and decomposition by fusion with 12:22 lithium borate flux containing $20 \%$ Sodium Nitrate as an oxidizing agent, with an upper detection limit of $79 \% \mathrm{Sn}$.

Method code ME-ICP61 (HF, HNO3, HClO4 and HCl leach with ICP-AES finish) is used for 33 elements including base metals. ME-OG62, a four-acid digestion, is used on ore grade samples for lead, zinc, copper and silver. Both methods are accredited by SANAS.

The program is designed to include a comprehensive analytical quality assurance and control routine comprising the systematic use of Company inserted standards, blanks and field duplicate samples, internal laboratory standards and analysis at an accredited laboratory. The pulps were accompanied by blind QAQC samples inserted into the sample stream by the Alphamin-Bisie geologists. These comprised blank samples, certified reference materials and pulp duplicates each at an insertion rate of approximately 5\%.

The QAQC results demonstrate that the assay results are both accurate and precise with an insignificant amount of
contamination (in the order of 10 pmm Sn on average) and negligible sampling errors. Further verification work is in progress by additional check assays by SGS South Africa (Pty) Ltd.

## Appendix 2: SIGNIFICANT INTERCEPTS (0.5\% Sn lower threshold over >1.0 metres)

| Hole | Easting | Northing | RL_m | Azi <br> ( ${ }^{\circ}$ ) | Dip <br> $\left({ }^{\circ}\right)$ | From | To | Sn \% | Width <br> (m) ${ }^{1}$ | Sample Position |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GPS | GPS |  |  |  |  |  |  |  | mid_x | mid_y | mid_z |
| BGH017 | 582535 | 9884822 | 732 | 55 | -10 | 237.80 | 238.80 | 4.99 | 1.00 | 582,731.5 | 9,884,965.7 | 678.6 |
| BGH018 | 582535 | 9884822 | 732 | 93 | 0 | 141.20 | 144.35 | 2.07 | 3.15 | 582,690.7 | 9,884,820.4 | 727.9 |
|  |  |  |  |  |  | 145.75 | 151.00 | 0.76 | 5.25 | 582,696.3 | 9,884,820.2 | 727.9 |
| BGH019 | 582535 | 9884822 | 732 | 85 | -5 | 147.00 | 152.00 | 2.05 | 5.00 | 582,696.1 | 9,884,836.5 | 715.8 |
| BGH020 | 582535 | 9884822 | 732 | 84 | -15 | 160.60 | 164.40 | 1.45 | 3.80 | 582,703.6 | 9,884,845.7 | 689.3 |
|  |  |  |  |  |  | 169.30 | 171.10 | 5.42 | 1.80 | 582,711.1 | 9,884,846.4 | 687.7 |
| BGH021 | 582535 | 9884822 | 732 | 93 | -15 | 109.15 | 110.25 | 3.20 | 1.10 | 582,653.5 | 9,884,821.1 | 700.1 |
|  |  |  |  |  |  | 164.60 | 167.32 | 3.29 | 2.72 | 582,708.3 | 9,884,818.3 | 687.6 |
| BGH022 | 582554 | 9884785 | 732 | 90 | 0 | 75.00 | 80.53 | 3.99 | 5.53 | 582,632.6 | 9,884,784.0 | 729.3 |
|  |  |  |  |  |  | 109.00 | 110.00 | 1.35 | 1.00 | $582,664.4$ | 9,884,784.8 | 729.9 |
|  |  |  |  |  |  | 119.22 | 122.10 | 2.22 | 2.88 | 582,675.5 | 9,884,784.7 | 730.1 |
| BGH023 | 582535 | 9884822 | 732 | 75 | -15 | 171.43 | 174.32 | 1.72 | 2.89 | 582,710.4 | 9,884,859.3 | 683.7 |
|  |  |  |  |  |  | 175.85 | 178.00 | 1.09 | 2.15 | 582,714.3 | 9,884,860.1 | 683.0 |
| BGH024 | 582554 | 9884785 | 732 | 103 | -5 | 127.70 | 129.60 | 0.54 | 1.90 | 582,679.2 | 9,884,749.2 | 717.2 |
|  |  |  |  |  |  | 137.95 | 142.00 | 1.13 | 4.05 | 582,690.0 | 9,884,745.8 | 716.2 |
| BGH025 | 582535 | 9884822 | 732 | 55 | -20 | 212.25 | 213.40 | 0.60 | 1.15 | 582,724.4 | 9,884,918.5 | 662.3 |
|  |  |  |  |  |  | 218.00 | 221.45 | 2.29 | 3.45 | 582,730.5 | 9,884,921.2 | 660.7 |
|  |  |  |  |  |  | 222.70 | 223.70 | 13.05 | 1.00 | 582,733.6 | 9,884,922.5 | 659.9 |
|  |  |  |  |  |  | 228.00 | 234.80 | 2.73 | 6.80 | 582,741.0 | 9,884,925.7 | 658.0 |
| BGH026 | 582554 | 9884785 | 732 | 113 | -10 | 103.71 | 108.00 | 3.30 | 4.29 | 582,649.0 | 9,884,734.9 | 713.7 |
|  |  |  |  |  |  | 134.80 | 136.45 | 3.72 | 1.65 | 582,675.5 | 9,884,722.4 | 708.6 |
|  |  |  |  |  |  | 161.00 | 162.50 | 5.61 | 1.50 | 582,698.7 | 9,884,711.1 | 704.5 |
| BGH030 | 582554 | 9884785 | 732 | 115 | -20 | 110.00 | 111.40 | 7.24 | 1.40 | 582,654.5 | 9,884,752.5 | 692.2 |
|  |  |  |  |  |  | 141.90 | 152.50 | 4.85 | 10.60 | 582,686.1 | 9,884,744.8 | 680.0 |
|  |  |  |  |  |  | 158.00 | 161.20 | 3.61 | 3.20 | 582,699.0 | 9,884,741.6 | 675.3 |
|  |  |  |  |  |  | 174.45 | 175.80 | 11.03 | 1.35 | 582,713.3 | 9,884,737.8 | 670.5 |


| BGH032 | 582554 | 9884785 | 732 | 125 | -20 | 177.00 | 178.72 | 1.70 | 1.72 | 582,691.5 | 9,884,683.6 | 671.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 182.00 | 188.25 | 3.00 | 6.25 | 582,697.1 | 9,884,679.4 | 669.1 |
|  |  |  |  |  |  | 190.25 | 193.00 | 0.95 | 2.75 | 582,702.0 | 9,884,675.7 | 667.2 |
|  |  |  |  |  |  | 194.40 | 202.00 | 1.37 | 7.60 | 582,707.1 | 9,884,671.9 | 665.3 |
|  |  |  |  |  |  | 203.50 | 208.00 | 2.67 | 4.50 | 582,712.8 | 9,884,667.5 | 663.2 |
| BGH034 | 582554 | 9884785 | 732 | 115 | -25 | 174.80 | 178.00 | 11.99 | 3.20 | 582,688.9 | 9,884,696.4 | 653.3 |
|  |  |  |  |  |  | 195.70 | 200.00 | 1.21 | 4.30 | 582,705.5 | 9,884,685.9 | 644.8 |
|  |  |  |  |  |  | 202.37 | 206.65 | 1.86 | 4.28 | 582,710.8 | 9,884,682.6 | 642.3 |
|  |  |  |  |  |  | 208.00 | 213.30 | 1.40 | 5.30 | 582,715.6 | 9,884,679.6 | 640.1 |
|  |  |  |  |  |  | 216.25 | 221.30 | 1.42 | 5.05 | 582,722.0 | 9,884,675.5 | 637.3 |
|  |  |  |  |  |  | 225.65 | 231.00 | 0.70 | 5.35 | 582,729.5 | 9,884,670.6 | 634.0 |
| BGH027 | 582544 | 9884822 | 732 | 68 | -27 | 212.35 | 214.00 | 0.58 | 1.65 | 582,728.6 | 9,884, 879.2 | 634.0 |
|  |  |  |  |  |  | 226.00 | 229.30 | 1.32 | 3.30 | 582,741.4 | 9,884,882.8 | 628.4 |
|  |  |  |  |  |  | 235.45 | 236.58 | 1.54 | 1.13 | 582,748.9 | 9,884,884.9 | 625.2 |
| BGH028 | 582554 | 9884785 | 732 | 90 | -10 | 125.00 | 126.00 | 1.72 | 1.00 | 582,676.2 | 9,884,771.5 | 700.9 |
|  |  |  |  |  |  | 136.10 | 137.18 | 1.85 | 1.08 | 582,687.0 | 9,884,770.3 | 698.4 |
|  |  |  |  |  |  | 140.28 | 142.00 | 1.03 | 1.72 | 582,691.4 | 9,884,769.8 | 697.4 |
|  |  |  |  |  |  | 147.46 | 151.25 | 2.88 | 3.79 | 582,699.3 | 9,884,768.9 | 695.5 |
| BGH029 | 582544 | 9884822 | 732 | 93 | -25 | 126.00 | 128.35 | 4.66 | 2.35 | 582,663.2 | 9,884, 826.4 | 678.5 |
|  |  |  |  |  |  | 178.90 | 184.05 | 1.25 | 5.15 | 582,713.4 | 9,884,826.9 | 657.7 |
|  |  |  |  |  |  | 193.70 | 196.05 | 3.95 | 2.35 | 582,725.9 | 9,884, 826.9 | 653.0 |
| BGH031 | 582544 | 9884822 | 732 | 75 | -25 | 208.00 | 211.53 | 0.99 | 3.53 | 582,728.6 | 9,884, 876.2 | 639.9 |
|  |  |  |  |  |  | 219.40 | 222.38 | 1.16 | 2.98 | 582,738.6 | 9,884,878.8 | 636.0 |
| BGH033 | 582544 | 9884822 | 732 | 60 | -27 | 259.00 | 265.46 | 7.32 | 6.46 | 582,756.1 | 9,884,928.5 | 612.8 |
|  |  |  |  |  |  | 268.53 | 270.52 | 1.02 | 1.99 | 582,762.2 | 9,884,931.3 | 610.0 |
| BGH035 | 582554 | 9884785 | 732 | 90 | -25 | 152.00 | 165.00 | 2.96 | 13.00 | 582,686.4 | 9,884, 816.3 | 665.0 |
|  |  |  |  |  |  | 171.00 | 173.60 | 1.47 | 2.60 | 582,703.0 | 9,884,814.9 | 657.4 |
|  |  |  |  |  |  | 176.60 | 180.08 | 2.40 | 3.48 | 582,708.5 | 9,884,814.4 | 654.9 |
| BGH036 | 582544 | 9884822 | 732 | 65 | 0 | 147.45 | 151.35 | 2.31 | 3.90 | 582,686.9 | 9,884,877.7 | 724.8 |
|  |  |  |  |  |  | 156.63 | 160.65 | 0.93 | 4.02 | 582,695.6 | 9,884,880.8 | 724.7 |
| BGH037 | 582554 | 9884785 | 732 | 105 | -30 | 154.00 | 157.00 | 3.81 | 3.00 | 582,679.6 | 9,884,741.2 | 647.5 |
|  |  |  |  |  |  | 194.60 | 197.55 | 1.54 | 2.95 | 582,712.1 | 9,884,730.0 | 626.0 |
|  |  |  |  |  |  | 207.95 | 211.18 | 1.29 | 3.23 | 582,723.1 | 9,884,725.8 | 619.3 |
|  |  |  |  |  |  | 216.25 | 220.15 | 2.79 | 3.90 | 582,730.1 | 9,884,723.1 | 615.1 |
|  |  |  |  |  |  | 222.40 | 226.70 | 1.77 | 4.30 | 582,735.3 | 9,884,721.0 | 612.1 |
| BGH038 | 582544 | 9884822 | 732 | 75 | -30 | 151.70 | 154.60 | 5.22 | 2.90 | 582,676.9 | 9,884,851.3 | 654.3 |
|  |  |  |  |  |  | 218.30 | 223.65 | 3.38 | 5.35 | 582,735.3 | 9,884,861.2 | 621.4 |
|  |  |  |  |  |  | 226.70 | 231.50 | 1.95 | 4.80 | 582,742.5 | 9,884,862.1 | 617.6 |


| BGH039 | 582554 | 9884785 | 732 | 100 | -22 | 112.08 | 113.00 | 2.12 | 0.92 | 582665.1 | 9,884,755.1 | 687.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 116.30 | 120.95 | 3.33 | 4.65 | 582,661.3 | 9,884,753.3 | 686.1 |
|  |  |  |  |  |  | 145.00 | 166.00 | 2.20 | 21.00 | 582,696.1 | 9,884,743.5 | 674.2 |
|  |  |  |  |  |  | 174.50 | 176.00 | 0.95 | 1.50 | 582,712.9 | 9,884,738.5 | 668.9 |
|  |  |  |  | 60 | - | 232.00 | 233.00 | 0.95 | 1.00 | 582,724.8 | 9,884,921.5 | 618.2 |
| BGH040 | 44 | 9884822 |  | 60 | -30 | 273.70 | 277.05 | 3.79 | 3.35 | 582,760.5 | 9,884,936.7 | 600.0 |
| BGH041 | 582500 | 9884847 | 732 | 55 | -25 | 340.00 | 344.50 | 3.03 | 4.50 | 582,807.3 | 9,885, 002.2 | 599.5 |
| BGH042 | 582544 | 9884822 | 732 | 60 | -35 | 277.35 | 280.00 | 1.93 | 2.65 | 582,751.1 | 9,884,922.4 | 569.4 |
|  |  |  |  |  |  | 308.50 | 312.00 | 0.62 | 3.50 | 582,776.0 | 9,884, 932.1 | 552.6 |
|  |  |  |  |  |  | 313.00 | 315.55 | 1.52 | 2.55 | 582,779.2 | 9,884,933.3 | 550.5 |
| BGH043 | 582544 | 9884822 | 732 | 100 | -10 | 102.50 | 104.15 | 2.69 | 1.65 | 582,643.7 | 9,884,807.9 | 709.0 |
|  |  |  |  |  |  | 123.00 | 124.00 | 1.06 | 1.00 | 582,663.2 | 9,884,804.8 | 704.8 |
|  |  |  |  |  |  | 163.64 | 167.00 | 2.82 | 3.36 | 582,703.6 | 9,884,797.5 | 696.7 |
| BGH044 | 582500 | 9884847 | 710 | 70 | -35 | 330.00 | 334.13 | 1.31 | 4.13 | 582,764.0 | 9,884,940.6 | 533.4 |
| BGH045 | 582544 | 9884822 | 732 | 100 | -20 | 120.65 | 121.75 | 31.55 | 1.10 | 582,655.5 | 9,884,805.6 | 687.4 |
|  |  |  |  |  |  | 156.00 | 159.40 | 0.56 | 3.40 | 582,689.1 | 9,884,799.2 | 674.7 |
|  |  |  |  |  |  | 176.70 | 183.62 | 3.24 | 6.92 | 582,707.7 | 9,884,795.2 | 668.1 |
| BGH046 | 582544 | 9884822 | 732 | 100 | -30 | 195.18 | 206.00 | 2.85 | 10.82 | 582,712.2 | 9,884,795.2 | 630.5 |
|  |  |  |  |  |  | 212.53 | 215.18 | 1.90 | 2.65 | 582,723.3 | 9,884,792.9 | 623.7 |
|  |  |  |  |  |  | 218.00 | 220.60 | 7.16 | 2.60 | 582,727.9 | 9,884,791.9 | 620.8 |
|  |  |  |  |  |  | 225.00 | 226.00 | 4.36 | 1.00 | 582,733.1 | 9,884,790.7 | 617.7 |
| BGH047 | 582565 | 9884535 | 718 | 60 | 0 | 121.58 | 124.57 | 0.91 | 2.99 | 582,653.2 | 9,884,878.6 | 739.2 |
|  |  |  |  |  |  | 147.09 | 148.09 | 1.28 | 1.00 | 582,675.2 | 9,884,889.3 | 741.1 |
| BGH048 | 582567 | 9884509 | 727 | 90 | 0 | 140.75 | 143.05 | 0.90 | 2.30 | 582,708.1 | 9,884,496.0 | 727.7 |
|  |  |  |  |  |  | 146.53 | 148.00 | 0.74 | 1.47 | 582,713.4 | 9,884,495.2 | 728.0 |
| BGH049 | 582565 | 9884535 | 718 | 65 | -15 | 145.40 | 147.40 | 4.27 | 2.00 | 582,689.2 | 9,884,599.2 | 674.5 |
| BGH050 | 582567 | 9884509 | 727 | 105 | -5 | 160.00 | 161.38 | 1.06 | 1.38 | 582,721.6 | 9,884,468.8 | 711.7 |
| BGH051 | 582565 | 9884535 | 718 | 40 | 0 | 134.80 | 137.00 | 2.23 | 2.20 | 582,661.9 | 9,884,630.1 | 712.3 |
|  |  |  |  |  |  | 151.00 | 156.30 | 1.20 | 5.30 | 582,674.8 | 9,884,642.2 | 711.4 |
|  |  |  |  |  |  | 164.18 | 169.45 | 3.95 | 5.27 | 582,684.5 | 9,884,651.1 | 710.8 |
|  |  |  |  |  |  | 171.27 | 172.57 | 4.08 | 1.30 | 582,688.3 | 9,884,654.5 | 710.6 |
| BGH052 | 582567 | 9884509 | 727 | 120 | 0 | 205.90 | 207.10 | 1.86 | 1.20 | 582,731.6 | 9,884,384.5 | 722.9 |
| BGH053 | 582565 | 9884535 | 718 | 40 | -15 | 173.73 | 176.93 | 9.58 | 3.20 | 582,684.9 | 9,884,653.3 | 669.2 |
|  |  |  |  |  |  | 178.55 | 181.43 | 4.07 | 2.88 | 582,688.1 | 9,884,656.3 | 667.9 |
|  |  |  |  |  |  | 192.41 | 196.86 | 3.28 | 4.45 | 582,698.4 | 9,884,666.0 | 664.0 |
|  |  |  |  |  |  | 198.86 | 206.77 | 2.45 | 7.91 | 582,704.2 | 9,884,671.4 | 661.8 |
|  |  |  |  |  |  | 207.53 | 209.50 | 5.04 | 1.97 | 582,708.2 | 9,884,675.1 | 660.3 |
|  |  |  |  |  |  | 214.65 | 216.00 | 2.32 | 1.35 | 582,713.0 | 9,884,679.6 | 658.6 |
| BGH054 | No significant intercepts |  |  |  |  |  |  |  |  |  |  |  |
| BGH055 | 582565 | 9884535 | 718 | 80 | -15 | 145.00 | 146.00 | 0.62 | 1.00 | 582,705.3 | 9,884,549.3 | 682.7 |


| BGH056 | No significant intercepts |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BGH057 | No significant intercepts |  |  |  |  |  |  |  |  |  |  |  |
| BGH058 | 582565 | 9884510 | 727 | 95 | -5 | 153.35 | 155.60 | 1.98 | 2.25 | 582,717.3 | 9,884,501.2 | 703.9 |
| BGH059 | 582567 | 9884536 | 718 | 95 | 0 | 165.00 | 166.00 | 3.63 | 1.00 | 582,732.3 | 9,884,528.3 | 714.4 |
| BGH060 | No significant intercepts |  |  |  |  |  |  |  |  |  |  |  |
| BGH061 | 582567 | 9884536 | 727 | 130 | -10 | 157.57 | 159.19 | 1.22 | 1.62 | 582,719.4 | 9,884,524.8 | 677.7 |
| BGH062 | 582567 | 9884537 | 718 | 95 | -15 | 154.00 | 156.00 | 2.18 | 2.00 | 582,695.4 | 9,884,589.1 | 650.2 |
| BGH063 | 582782 | 9884646 | 829 | 270 | -70 | 186.25 | 194.37 | 0.82 | 8.12 | 582,719.4 | 9,884,660.6 | 650.5 |
|  |  |  |  |  |  | 197.42 | 202.45 | 1.12 | 5.03 | 582,715.2 | 9,884,660.6 | 641.8 |
|  |  |  |  |  |  | 205.00 | 209.05 | 0.83 | 4.05 | 582,712.1 | 9,884,660.7 | 635.4 |
|  |  |  |  |  |  | 211.13 | 218.90 | 2.06 | 7.77 | 582,708.6 | 9,884,660.8 | 628.3 |
|  |  |  |  |  |  | 220.40 | 222.55 | 0.86 | 2.15 | 582,705.7 | 9,884,660.9 | 622.5 |
|  |  |  |  |  |  | 231.00 | 233.00 | 0.87 | 2.00 | 582,701.0 | 9,884,661.0 | 613.0 |
| BGH064 | 582888 | 9884976 | 839 | 270 | -50 | 220.80 | 222.60 | 0.63 | 1.80 | 582,745.5 | 9,884,976.0 | 668.9 |
| BGH065 | 582913 | 9885057 | 819 | 270 | -60 | 271.00 | 275.95 | 2.93 | 4.95 | 582,769.3 | 9,885,057.0 | 586.1 |
|  |  |  |  |  |  | 291.56 | 292.56 | 1.70 | 1.00 | 582,758.5 | 9,885,057.3 | 570.9 |
| BGH066 | 582888 | 9884976 | 839 | 270 | -60 | 276.00 | 278.59 | 8.49 | 2.59 | 582,754.2 | 9,884,965.1 | 596.1 |
|  |  |  |  |  |  | 300.00 | 301.00 | 1.78 | 1.00 | 582,741.8 | 9,884,964.8 | 576.6 |
| BGH067 | 582913 | 9885057 | 819 | 270 | -67 | 295.75 | 300.47 | 3.21 | 4.72 | 582,788.8 | 9,885,065.1 | 548.1 |
|  |  |  |  |  |  | 303.00 | 304.62 | 1.56 | 1.62 | 582,786.1 | 9,885,065.4 | 543.1 |
|  |  |  |  |  |  | 337.00 | 338.00 | 0.55 | 1.00 | 582,768.7 | 9,885,067.8 | 514.3 |
| BGH068 | 582913 | 9885057 | 819 | 270 | -50 | 247.00 | 248.20 | 2.10 | 1.20 | 582,749.2 | 9,885,050.8 | 633.1 |
|  |  |  |  |  |  | 251.80 | 255.10 | 1.75 | 3.30 | 582,745.2 | 9,885,050.6 | 628.8 |
| BGH069 | 582888 | 9884976 | 839 | 270 | -70 | 321.80 | 324.73 | 3.84 | 2.93 | 582,779.1 | 9,884,962.0 | 534.7 |
| BGH070 | 582913 | 9885057 | 819 | 270 | -73 | 331.00 | 336.35 | 3.00 | 5.35 | 582,801.5 | 9,885,040.4 | 505.2 |
| BGH071 | No significant intercepts |  |  |  |  |  |  |  |  |  |  |  |
| BGH072 | 582852 | 9884845 | 831 | 270 | -67 | 274.60 | 279.70 | 2.70 | 5.10 | 582,748.9 | 9,884,846.7 | 574.0 |
|  |  |  |  |  |  | 290.40 | 294.80 | 3.61 | 4.40 | 582,742.3 | 9,884,846.9 | 560.0 |
| BGH073 | 582731 | 9884691 | 838 | 280 | -60 | 121.00 | 123.00 | 0.72 | 2.00 | 582,671.2 | 9,884,702.1 | 731.9 |
| BGH074 | 582944 | 9885130 | 798 | 270 | -67 | 278.90 | 283.93 | 2.85 | 5.03 | 582,810.2 | 9,885,137.0 | 551.2 |
|  |  |  |  |  |  | 285.49 | 289.10 | 1.60 | 3.61 | 582,807.0 | 9,885,137.6 | 546.3 |
|  |  |  |  |  |  | 294.51 | 297.30 | 7.14 | 2.79 | 582,802.3 | 9,885,138.5 | 539.1 |
|  |  |  |  |  |  | 299.65 | 303.34 | 0.53 | 3.69 | 582,799.1 | 9,885,139.0 | 534.5 |
| BGH075 | 582731 | 9884691 | 838 | 270 | -70 | 115.40 | 116.65 | 6.76 | 1.25 | 582,689.6 | 9,884,690.4 | 729.4 |
|  |  |  |  |  |  | 119.50 | 120.80 | 15.22 | 1.30 | 582,687.7 | 9,884,690.3 | 725.7 |
|  |  |  |  |  |  | 125.09 | 129.80 | 3.56 | 4.71 | 582,684.3 | 9,884,690.0 | 719.3 |
|  |  |  |  |  |  | 162.55 | 164.63 | 8.94 | 2.08 | 582,666.5 | 9,884,688.9 | 687.8 |

1. Apparent widths, not true thickness
