

## **The accretive value of Ga and Ge to the Polymetallic Nxuu Deposit, Botswana**

To clarify further queries received re the contribution of the six individual metals in the Polymetallic Nxuu Deposit, the Company has assembled the following data. In addition to the contribution of Zinc, Lead and Silver, the data now shows the individual contribution of Gallium, Germanium and Vanadium Pentoxide.

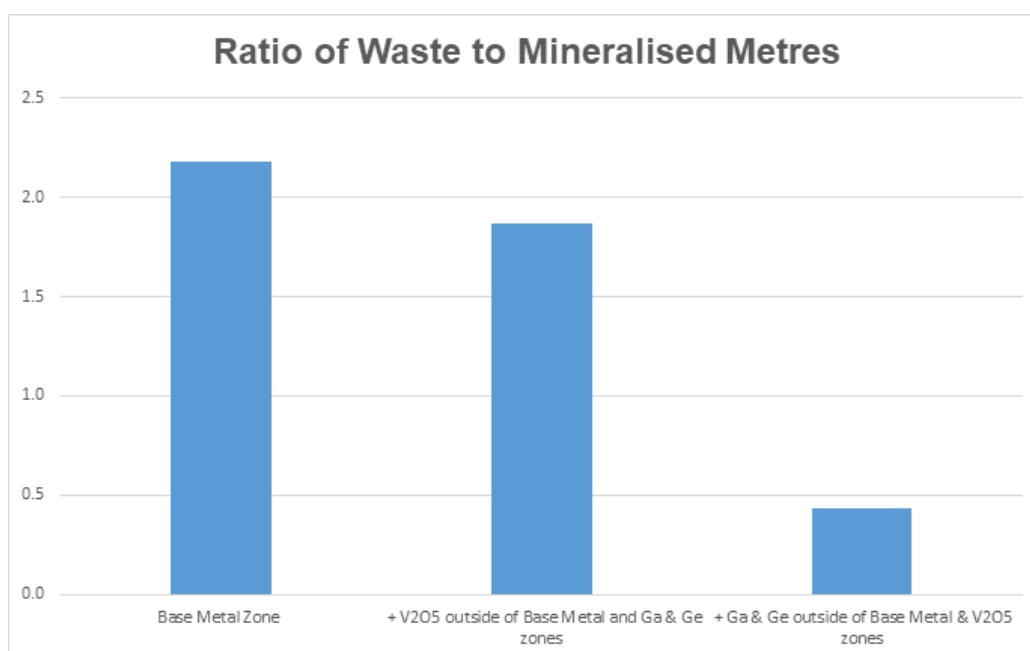
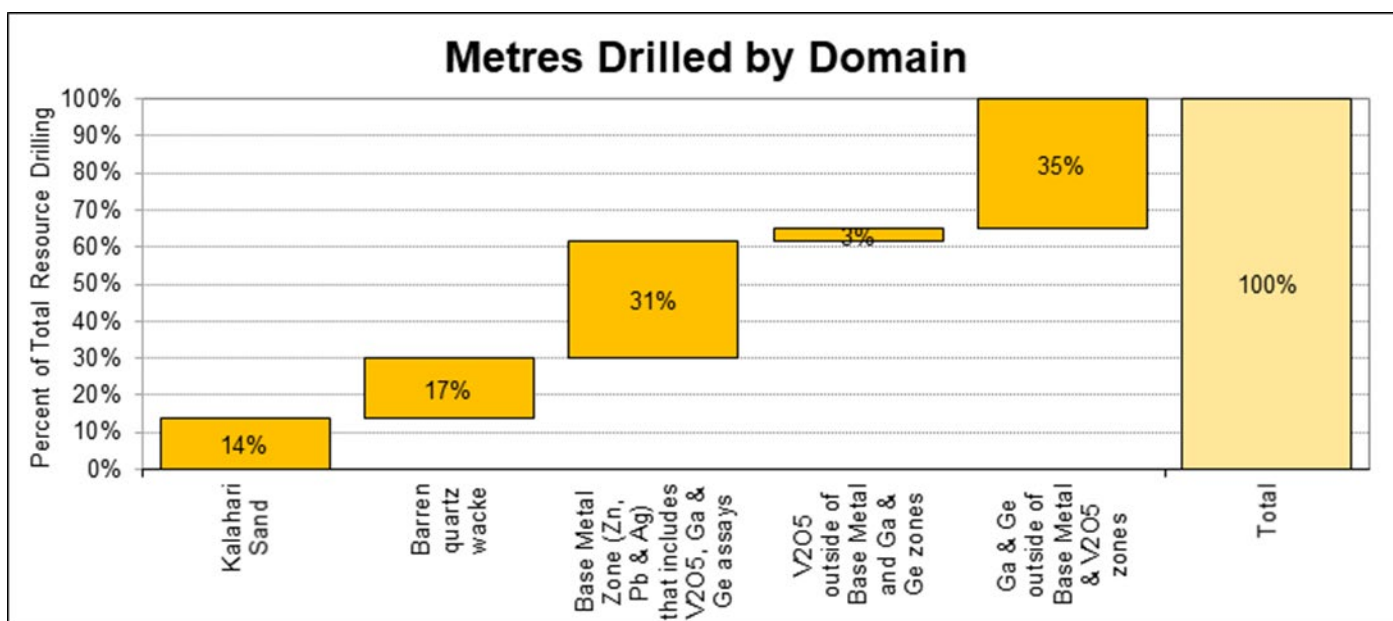
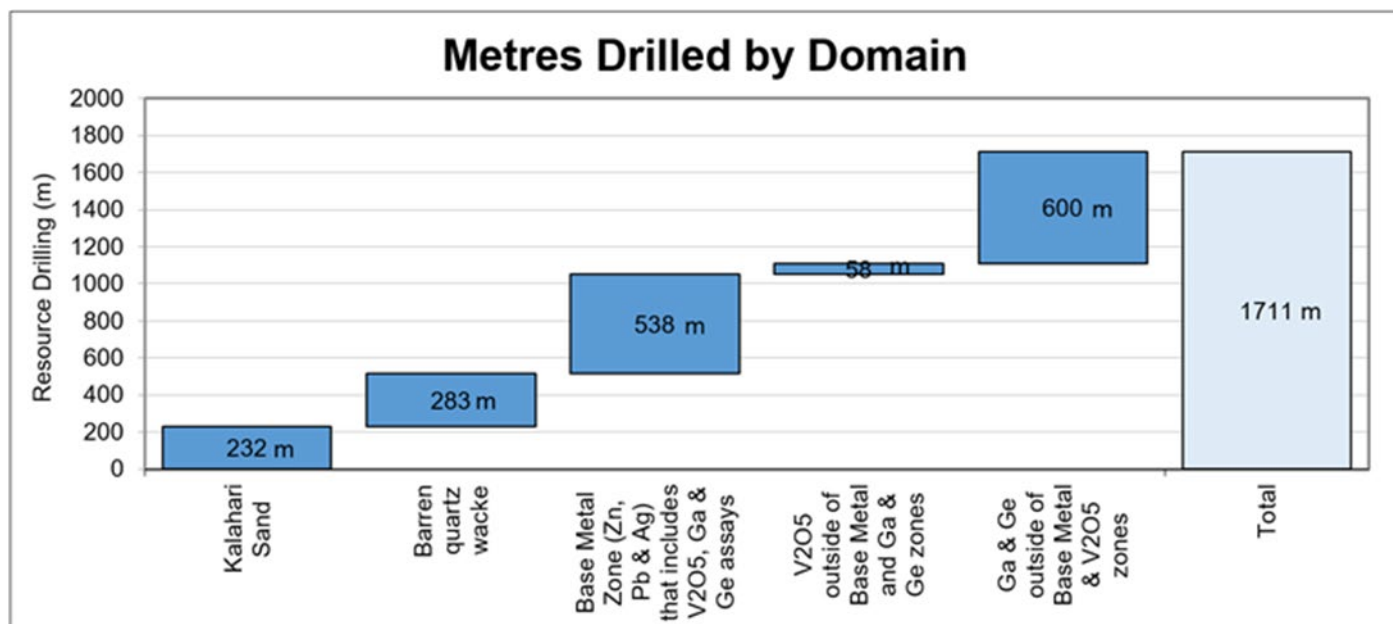
The Nxuu Deposit is a shallow deposit where Zinc, Lead, Silver, Vanadium, Gallium and Germanium SEDEX style mineralisation occurs in a totally oxidised and weathered quartz wacke, under Kalahari sand cover and situated on top of a barren dolostone basin. (Refer Figure 1)

**By including all six metals as credits for the Nxuu deposit, a total of 70% of the total metres of resource drilling to the base of mineralisation, contain above low-cut grades of mineralisation.**

The order of contribution of each metal within the total metres of resource drilling, comprising 40 drill holes, or 1,711.7m, averaging 42.8m per hole to the base of mineralisation, so far applied to the Indicated/Inferred Mineral Resource Estimate, is as follows:

- **Gallium contributes 1,004.7m** of mineralisation in the 40 drill holes **at an average grade of 11.07g/t** (Ref: Figure 5) Current Price US\$931.15/kg (Strategic Metals Invest)
- **Zinc contributes 497.73m** of mineralisation in 32 of the drill holes **at an average grade of 1.8%** (Ref: Figure 7). Current Price US\$3,083/t (LME)
- **Germanium contributes 473.87m** of mineralisation in 33 of the drill holes **at an average grade of 4.22g/t** (Ref: Figure 6) Current Price US\$4,079.68/kg (Strategic Metals Invest)
- **Vanadium Pentoxide contributes 389.78m** of mineralisation in 38 of the drill holes **at an average grade of 1,159ppm** (Ref: Figure 9) Current Price US\$10.83/kg (Vanadium Price)
- **Lead contributes 243.59m** of mineralisation in 29 of the drill holes **at an average grade of 1.4%** (Ref: Figure 8) Current Price US\$2,005/t (LME)
- **Silver contributes 144.42m** of mineralisation in 26 of the drill holes **at an average grade of 21g/t (0.67oz/t)** (Ref: Figure 10). Current Price US\$30.61/oz (Kitco)

The following graphs show 40 holes' metres and percentages intersected to base of mineralisation.



Covering Kalahari sand intersected in 40 drill holes amounts to 231.9m, averaging 5.8m per hole, which should be able to be dozed off. This leaves 1,479.8m of quartz wacke to the base of mineralisation.

Within the 1,479.8m of quartz wacke, 81% or 1,198.5m, contain above low-cut grade Ga/Zn/Ge/V<sub>2</sub>O<sub>5</sub>/Pb/Ag mineralisation. Only 281.3m is barren or below low-cut grade quartz wacke.

The following low-cut grades have been applied:

- Gallium 10.0 g/t
- Zinc 1.0%
- Germanium 3.0g/t
- Vanadium Pentoxide 300ppm
- Lead 1.0%
- Silver 10.0g/t

Figures 2 to 10 show depth to base of mineralisation of the 40 drill holes. In order to view the location of these holes refer to the Nxuu deposit drill hole map (Ref: Figure 1).

With the Nxuu Deposit originally seen as only a Zinc, Lead, Silver deposit, the addition of Gallium, Germanium and Vanadium, now sought as modern, strategic metals, will represent significant credits for the project.

As can be seen, Gallium, Germanium and Vanadium Pentoxide make the following significant contributions:

- Gallium contributes more than double the mineralised lengths of Zinc.
- Germanium contributes almost the same mineralised lengths of Zinc.
- Vanadium pentoxide contributes 78.3% of the mineralised lengths of Zinc.

Ga/Ge/V<sub>2</sub>O<sub>5</sub> extend the zones of mineralisation to 70% of drill hole lengths, significantly reducing what was previously considered as waste when only Zinc, Lead and Silver were assayed.

### **Recovery of metals on site from the Nxuu Oxide Deposit**

Test work conducted to date has shown that:

- 93% of Zinc can be recovered on site through solvent extraction and electro-winning
- 93% of Lead can be recovered to produce a lead concentrate
- 82% of Vanadium Pentoxide can be recovered on site through gravity separation, followed by subjecting the tail to flotation applying hydroxamate acid for recovery
- 84% of Silver has known to be recovered on site from similar oxide deposits.

Test work currently being undertaken is to determine the leaching kinetics of the Nxuu life of mine composite. The dissolution rate of the elements (Zn, V, Ga and Ge) within the ore into a solution in an acid or alkaline environment will assist in determining the sequence and economics of the process and consumables required.

**Additional test work is also required in the development of producing marketable products and concentrates on site, particularly with Gallium to produce a saleable compound as Gallium Nitride (GaN) or Gallium Arsenide (GaAs), noting that Ga liquifies at 30°C. Cerussite will be recovered by gravity.**

## Modern Uses of Gallium, Germanium and Vanadium Pentoxide

### Gallium

Gallium, a soft silvery metal with a low melting point of 29.76 deg, has the following modern strategic uses:

- Gallium alloys are used in fibre optics, electronics and nuclear engineering because of their nontoxicity and resistance to nuclear radiation and beta decay.
- Gallium is also used as an alloy for aluminium, copper and tin to create Gallium Arsenide (GaAs), a critical component in semiconductors.
- Gallium Nitride (GaN) is used to convert power into light in light emitting diodes (LEDs). It is also used to power amplifiers, solar cells, military radar, laser technology and satellites.
- Gallium Arsenide (GaAs) chips are used in modern day 5<sup>th</sup> generation (5G) and 6<sup>th</sup> generation (6G) base stations, computers, laptops and smart phones to cope with the substantial increase in current internet traffic. Previously used silicon chips overheat with the increase in internet traffic.

### Germanium

Germanium has modern strategic uses:

- Alloyed with other metals to create a strong lightweight alloy for use in aircraft construction.
- Germanium oxide (GaO) is used as an infra-red optical material and a catalyst in the production of polyethylene terephthalate (PET). Ge-68 is used in PET scans
- Semiconductors. Taiwan currently produces 92% of the world's most advanced semiconductors.
- Solar panels where Germanium can convert 40% of sunlight into power, compared to 20%, at best when using silicon
- Cameras and microscope lenses
- Aircraft and drones for night vision and night targeting
- Motor vehicle headlights for increased nighttime vision
- Fibre optics to cope with modern high speed internet communication

Analysts predict that by 2030 demand for Germanium will outstrip supply by more than six times

### Vanadium Pentoxide

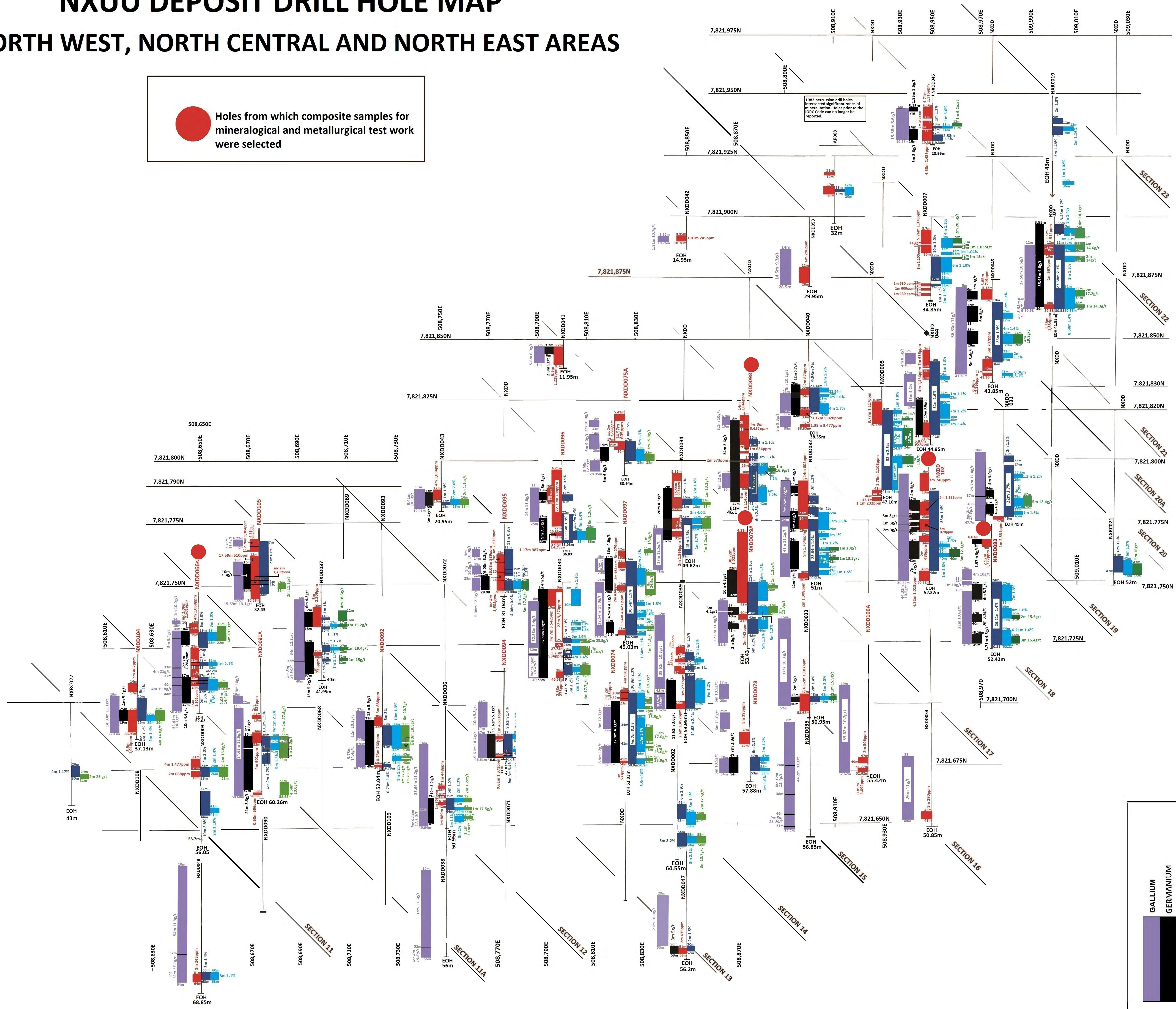
Vanadium Pentoxide ( $V_2O_5$ ) is used in the manufacture of vanadium redox flow (VRF) batteries used for power storage. VRF batteries can store huge amounts of power over long periods of time. They can be subject to variable high/low power storage levels over short periods of time without impacting on power storage capacity.

Lithium-ion batteries must be kept at constant power storage levels otherwise they deteriorate rapidly.



## NORTH WEST, NORTH CENTRAL AND NORTH EAST AREAS

## FIGURE 1





**FIGURE 2**

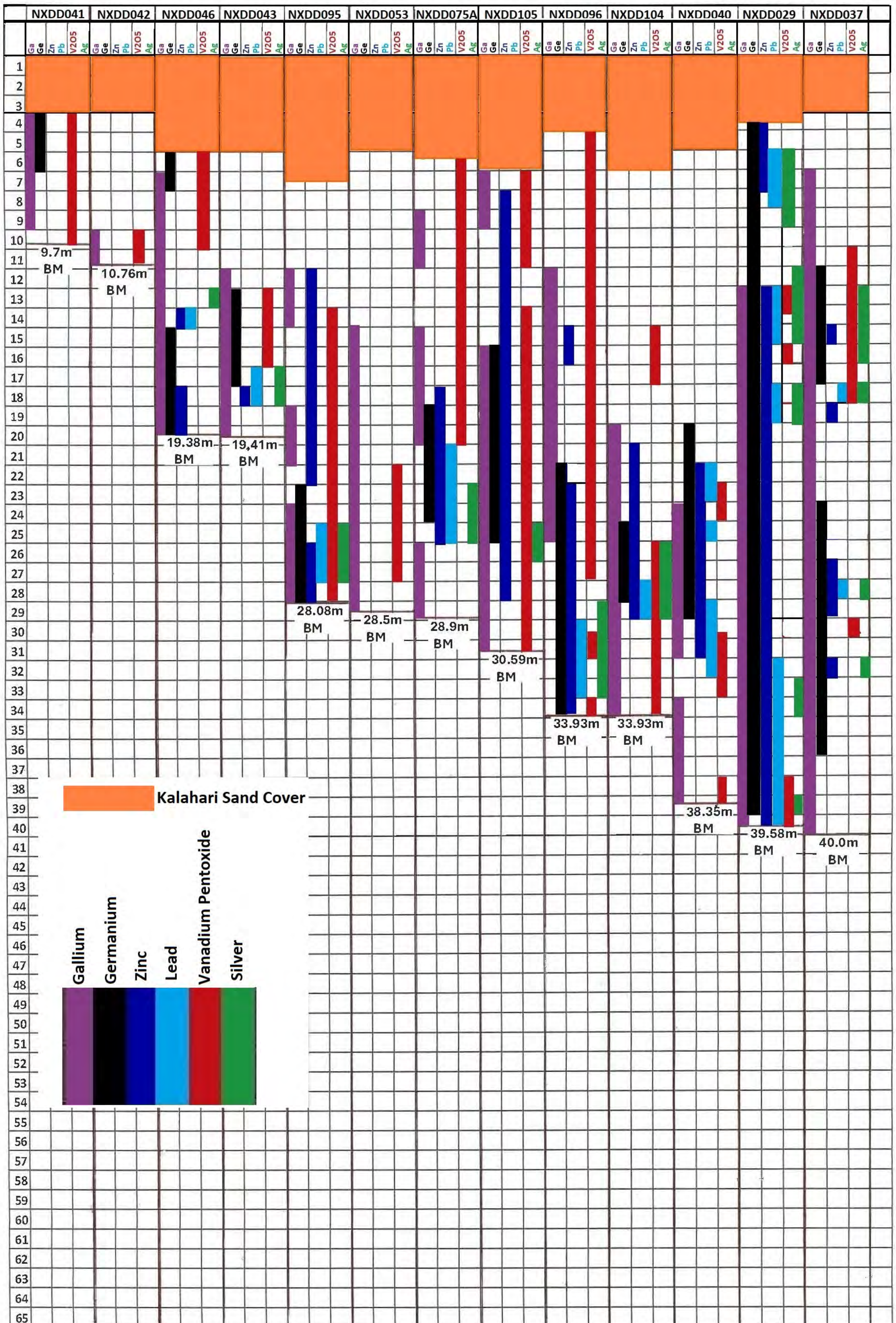




FIGURE 3

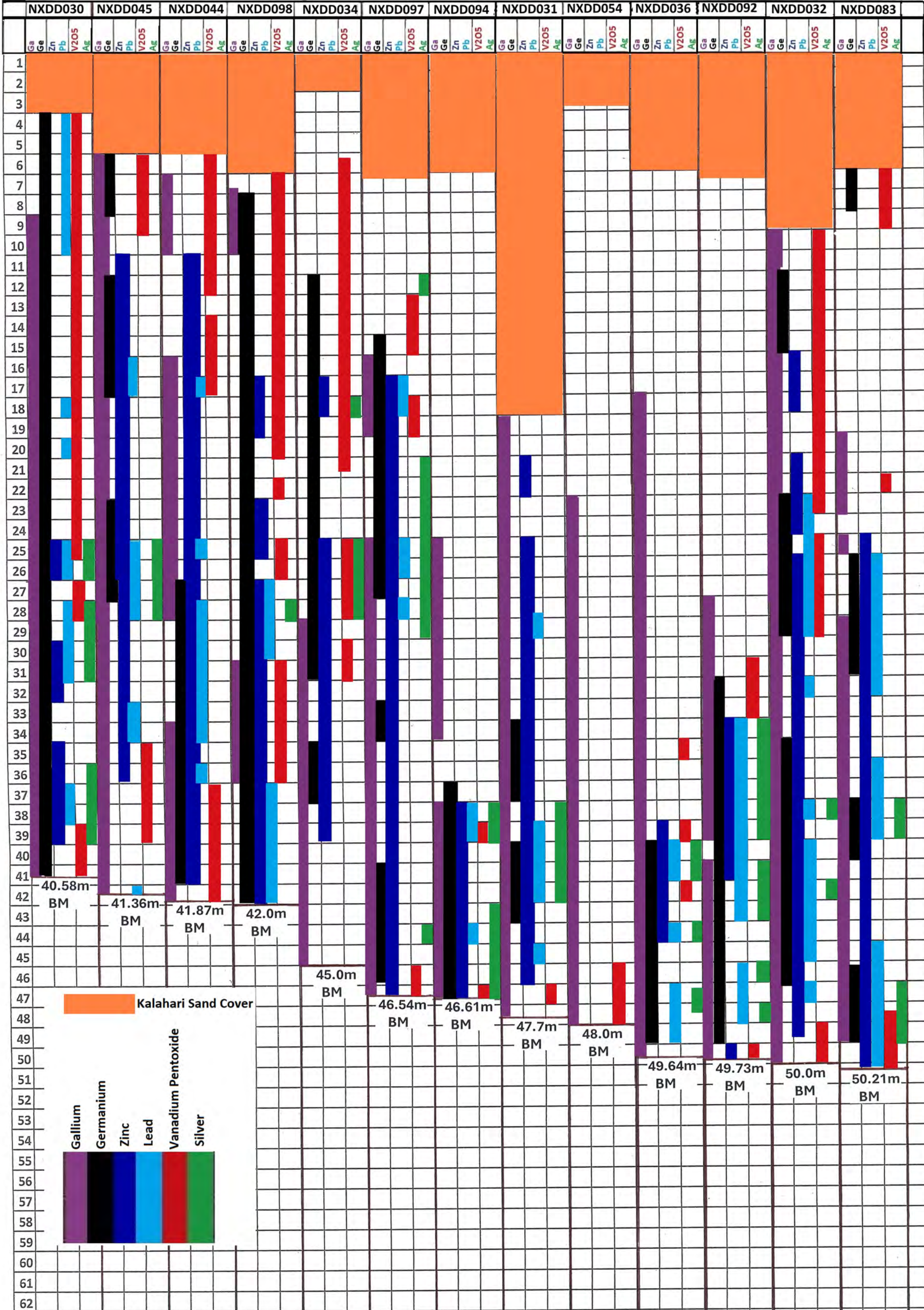




FIGURE 4

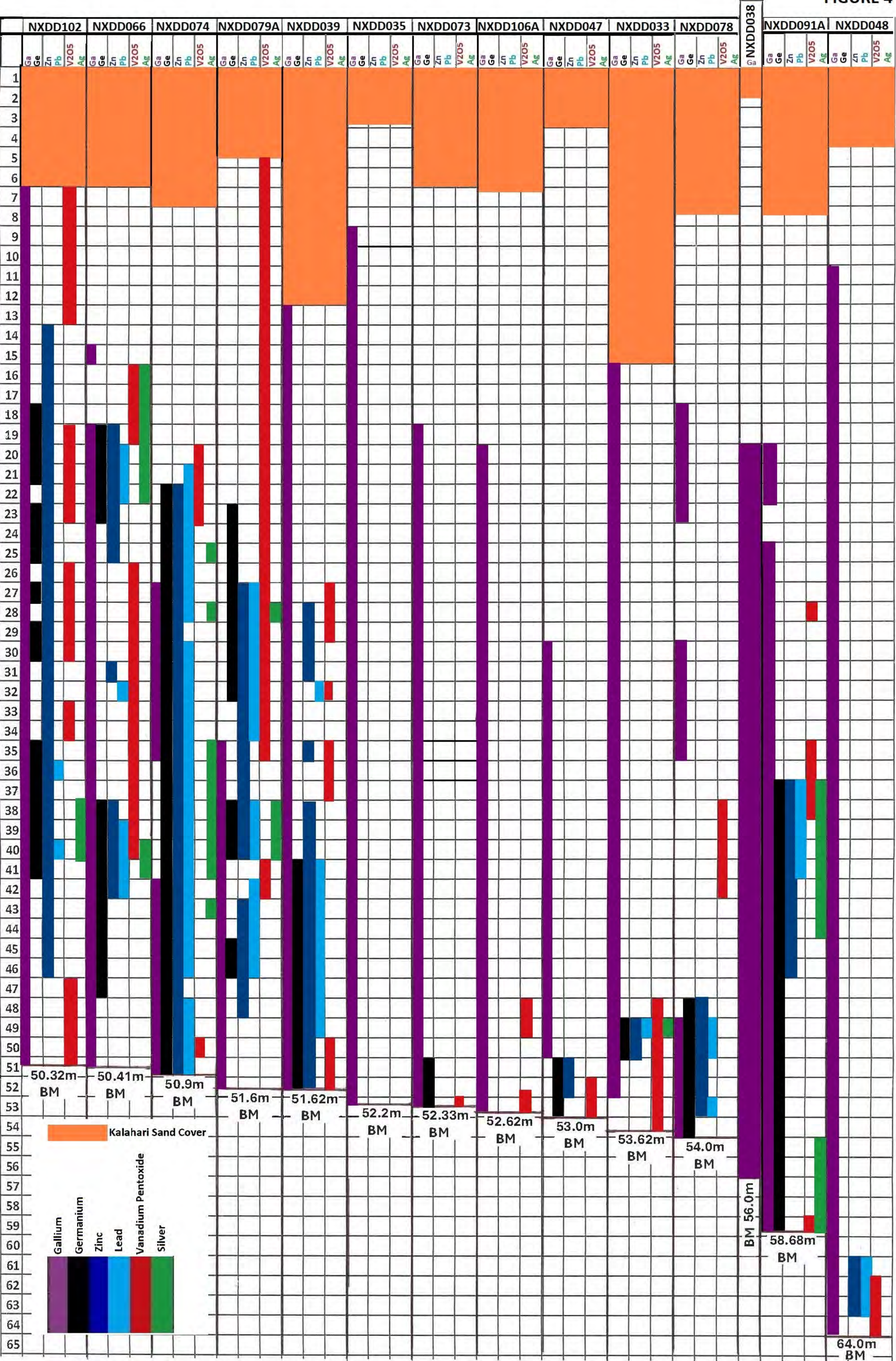




FIGURE 5

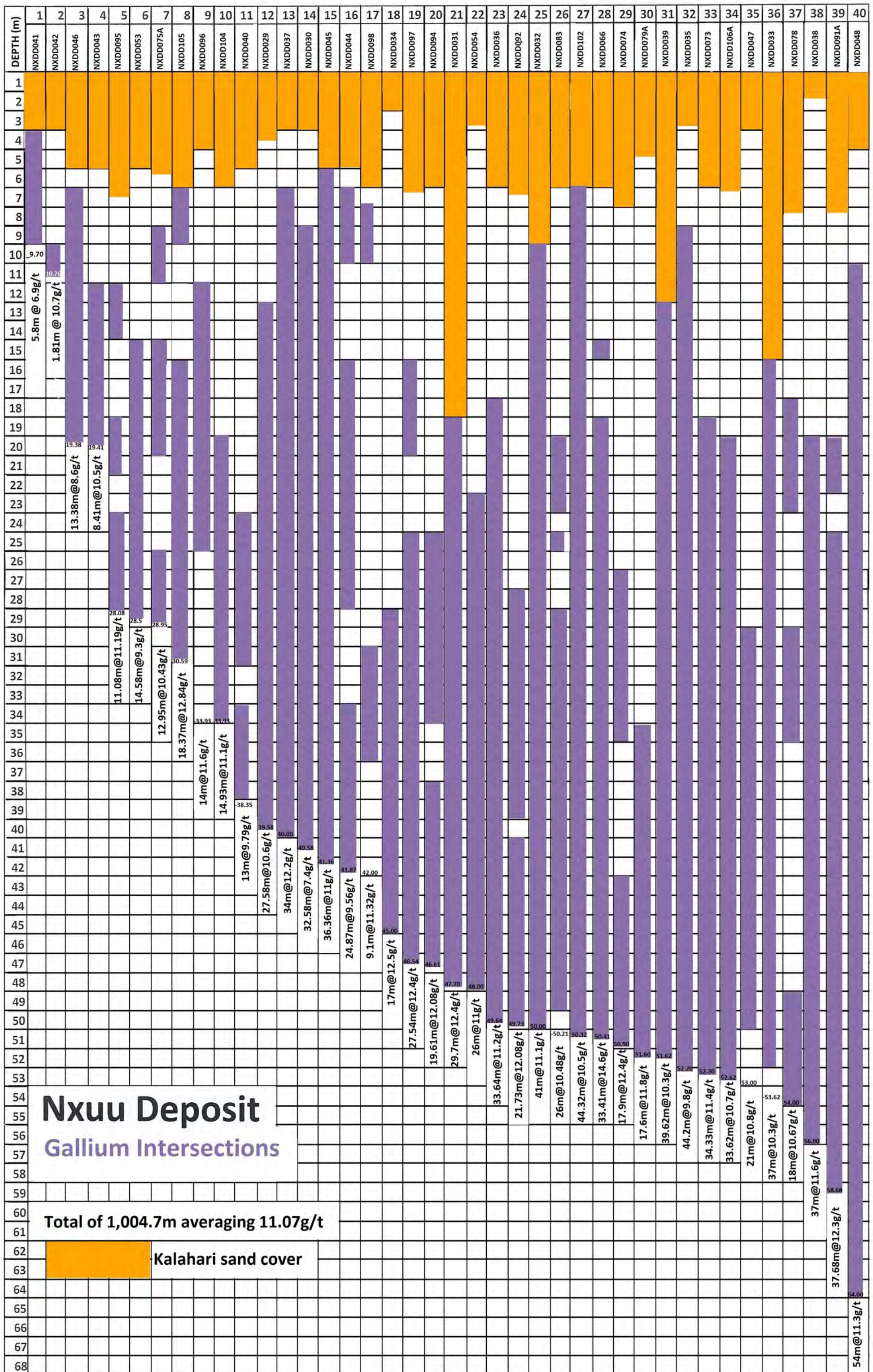
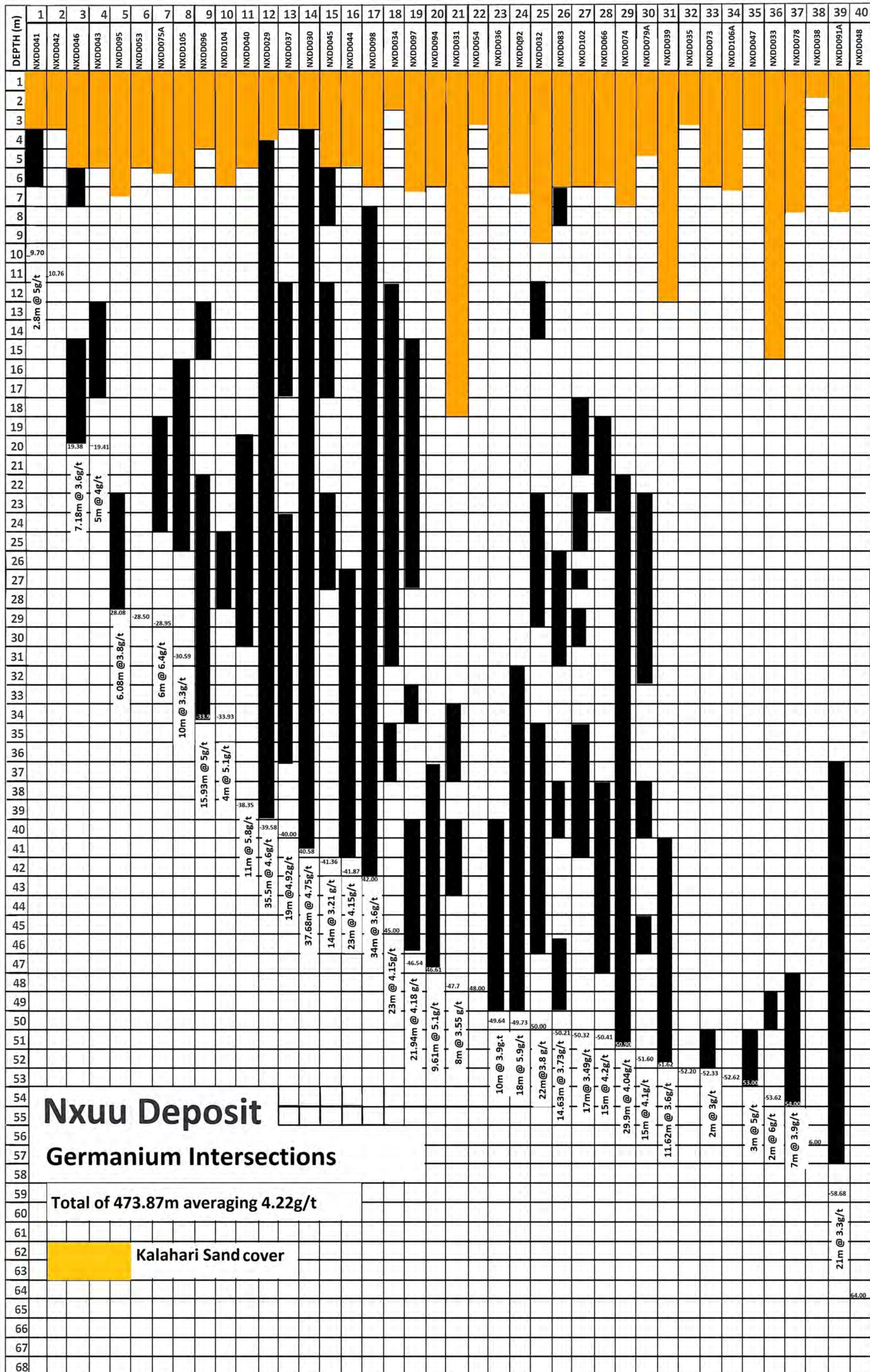




FIGURE 6





**FIGURE 7**

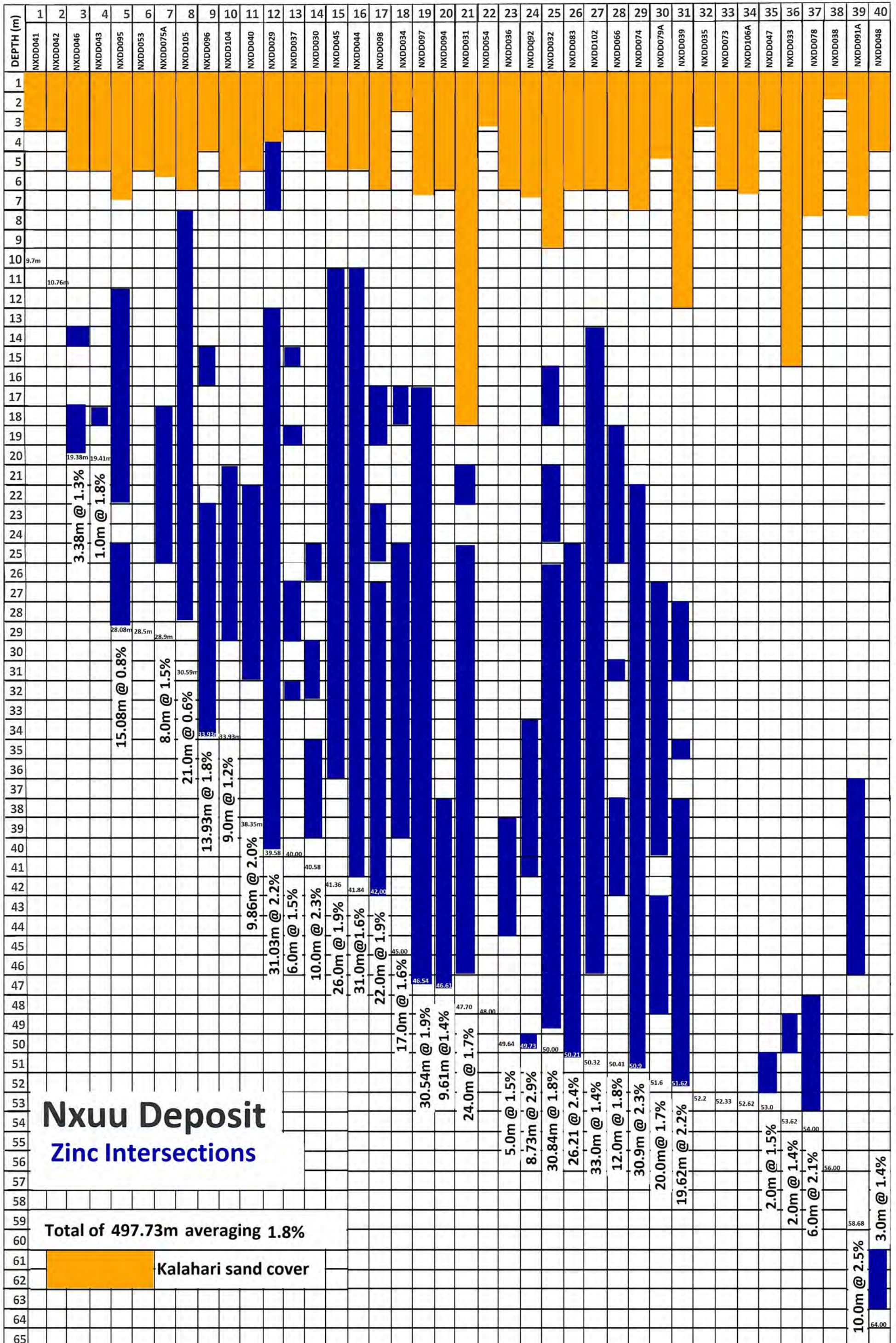
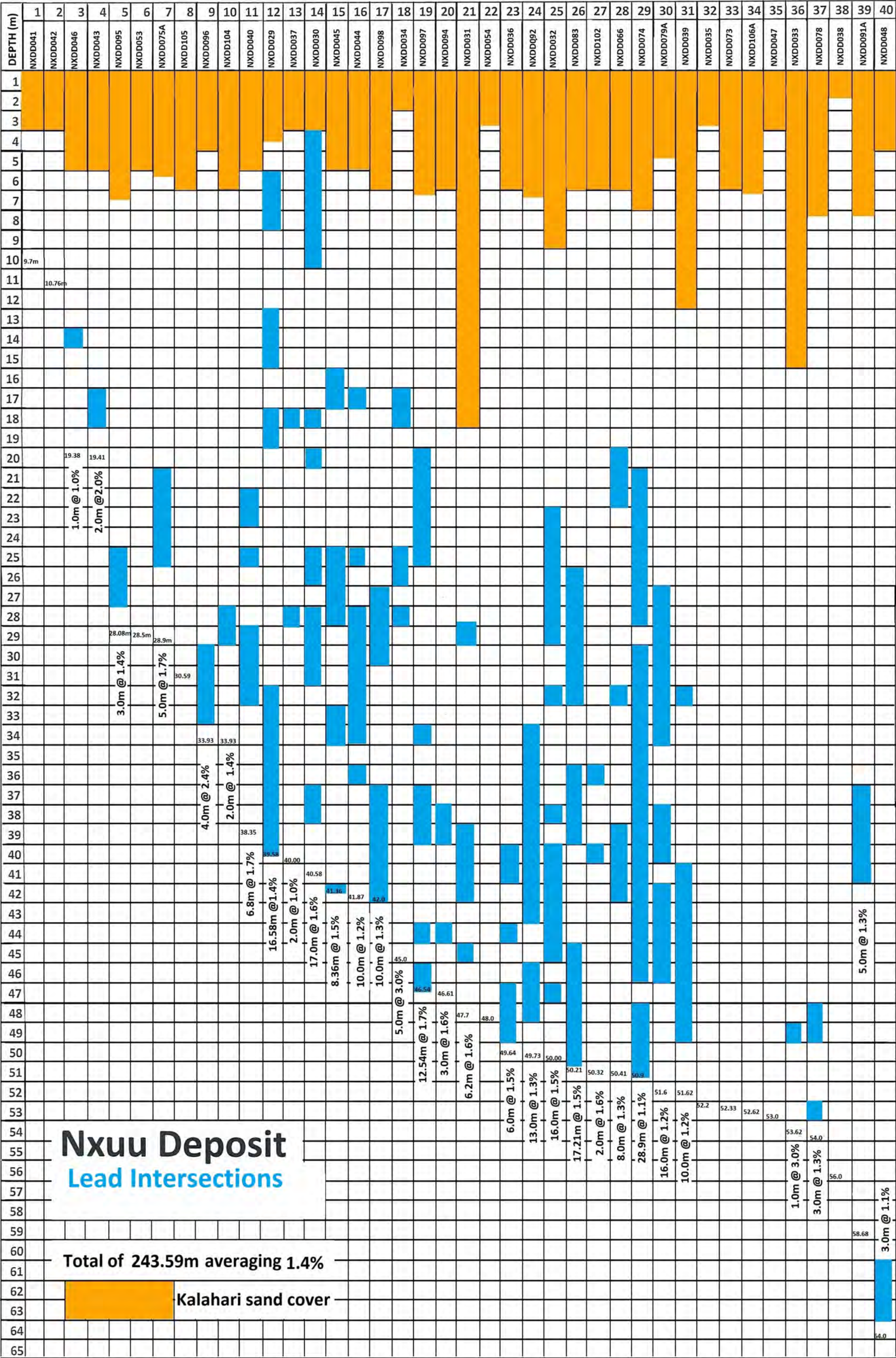




FIGURE 8





**FIGURE 9**

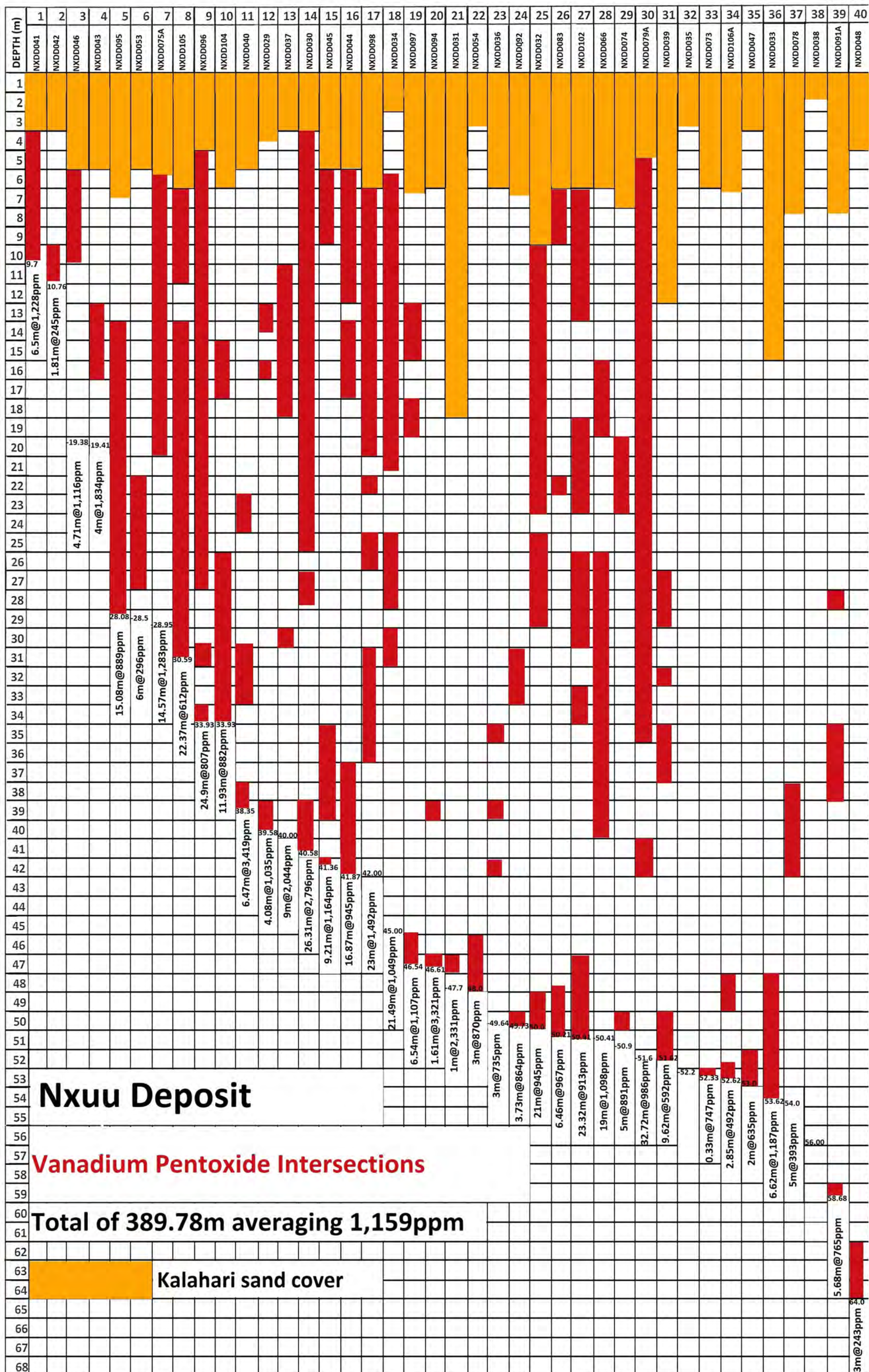
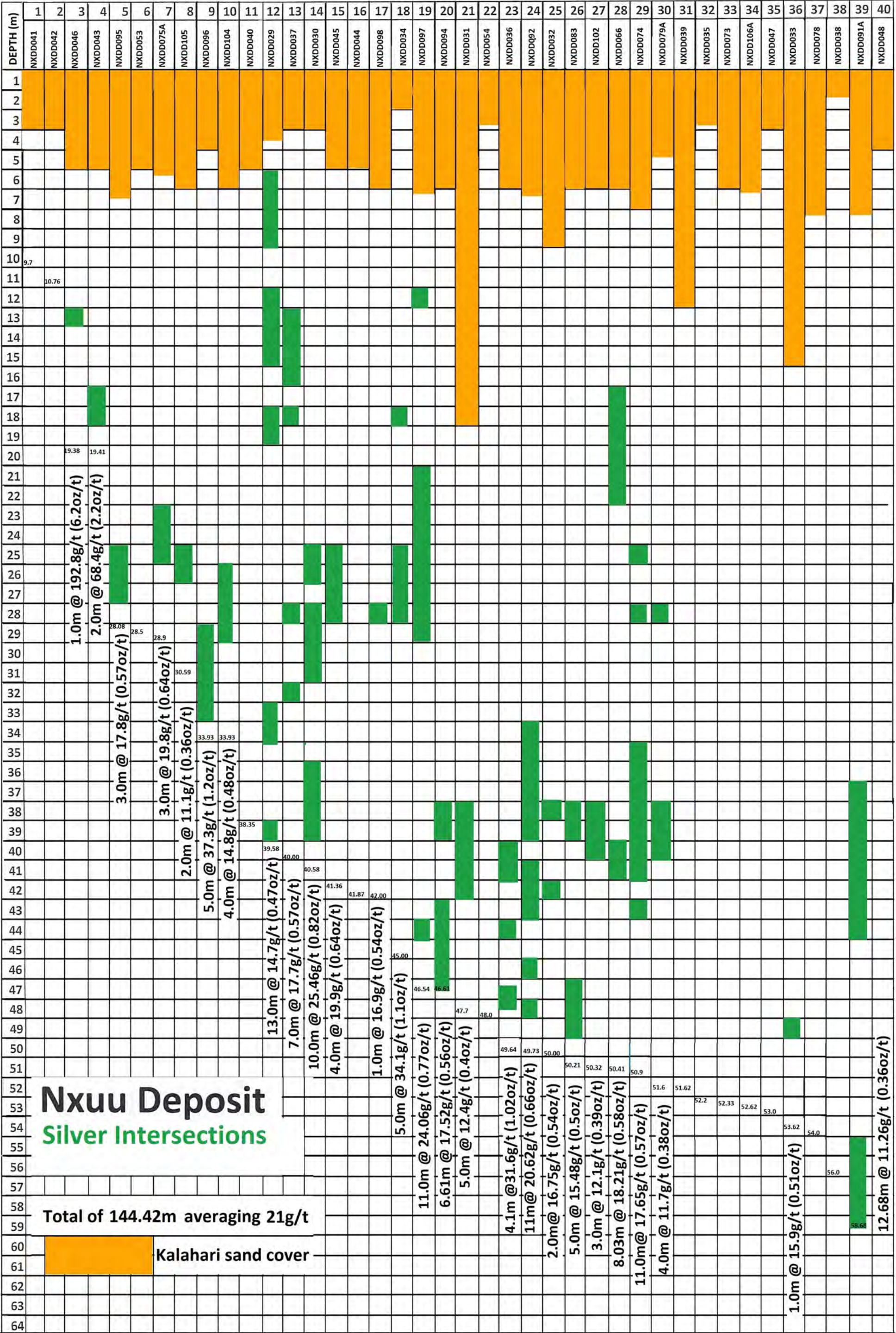


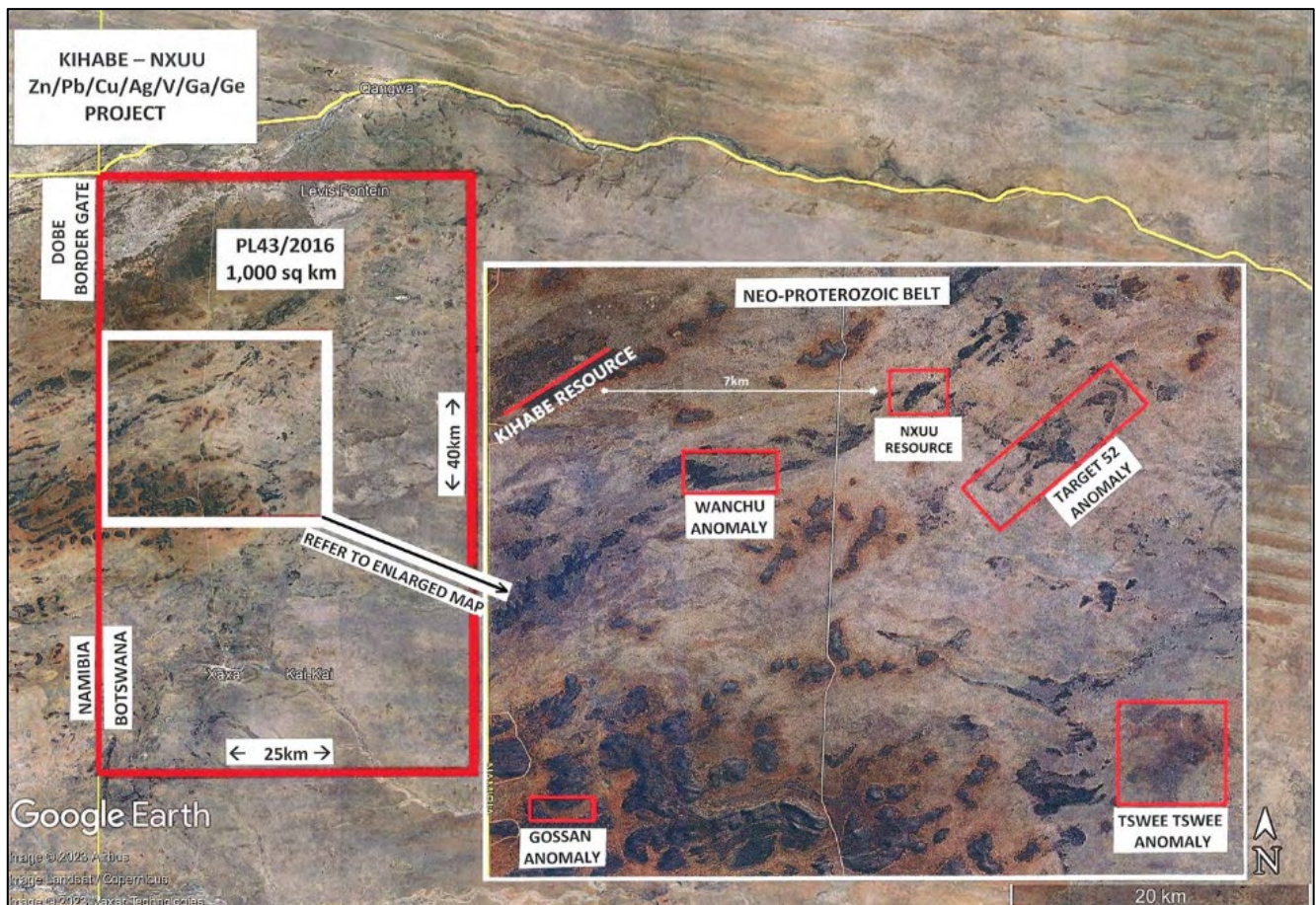


FIGURE 10





## Prospecting Licence PL43/2016 – 100% Owned and Operated by MTB



### Forward Looking Statement

This report contains forward looking statements in respect of the projects being reported on by the Company. Forward looking statements are based on beliefs, opinions, assessments and estimates based on facts and information available to management and/or professional consultants at the time they are formed or made and are, in the opinion of management and/or consultants, applied as reasonably and responsibly as possible as at the time that they are applied.

Any statements in respect of Ore Reserves, Mineral Resources and zones of mineralisation may also be deemed to be forward looking statements in that they contain estimates that the Company believes have been based on reasonable assumptions with respect to the mineralisation that has been found thus far. Exploration targets are conceptual in nature and are formed from projection of the known resource dimensions along strike. The quantity and grade of an exploration target is insufficient to define a Mineral Resource. Forward looking statements are not statements of historical fact, they are based on reasonable projections and calculations, the ultimate results or outcomes of which may differ materially from those described or incorporated in the forward-looking statements. Such differences or changes in circumstances to those described or incorporated in the forward-looking statements may arise as a consequence of the variety of risks, uncertainties and other factors relative to the exploration and mining industry and the particular properties in which the Company has an interest.

Such risks, uncertainties and other factors could include but would not necessarily be limited to fluctuations in metals and minerals prices, fluctuations in rates of exchange, changes in government policy and political instability in the countries in which the Company operates.



**Competent Person's Statements**

The information in this report that relates to drilling results at the Nxuu and Kihabe Deposits fairly represents information and supporting documentation approved for release by Giles Rodney Dale FRMIT who is a Fellow of the Australasian Institute of Mining & Metallurgy. Mr Dale is engaged as an independent Geological Consultant to the Company. Mr Dale has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Mr Dale consents to the inclusion in this report of the drilling results and the supporting information in the form and context as it appears.

The information in this report that relates to mineralogical/metallurgical test work results conducted on samples from the Nxuu and Kihabe Deposits fairly represents information and supporting documentation approved for release by Mr R Brougham (FAusIMM). Mr Brougham, non-executive Director of the Company, is a qualified person and has sufficient experience relevant to the process recovery under consideration and to the laboratory activity to which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Mr Brougham consents to the inclusion in the report of the matters, based on the information in the form and context in which it appears.



# JORC Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>HQ and PQ diamond Core was marked and collected in sample trays, visually logged and cut in half. Samples were collected as nominal 1m intervals but based on visible geology with minimum samples of 0.3m and maximum samples of 1.3m. Half of each core was retained on site in core trays and the other half was double bagged and sent to Intertek Genalysis Randburg, South Africa where they were crushed. A portion of each intersection sample was then pulverised to p80 75um and sent to Intertek Genalysis in Perth for assaying via ICPMS/OES for Ag/Pb/Zn/V/Ge/Ga.</li> <li>Individual meters of RC drill chips were bagged from the cyclone. These were then riffle split for storage in smaller bags, with selected drill chips being stored in drill chip trays. A trowel was used to select drill chip samples from sample bags to be packaged and sent to Intertek Genalysis, Randburg, South Africa where they were crushed. A portion of each intersection's sample was then pulverised to P80 75um and sent to Intertek Genalysis in Perth for assaying via ICP/OES for Ag/Co/Cu/Pb/Zn.</li> <li>The remainder of the crushed samples were then sent from Intertek Genalysis Randburg to Intertek Genalysis in Perth where they were then collected by the Company for storage. Samples from various intersections from drill holes were selected by the Company for submission for metallurgical test work.</li> <li>Based on the distribution of mineralisation the core sample size is considered adequate for representative sampling.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>HQ and PQ diameter triple tube was generally used for diamond core drilling at Nxuu and Kihabe.</li> <li>RC chips were collected over 1m intervals, and two-stage riffle split to produce a sample for dispatch to the assay laboratory. The remainder of the sample was bagged and kept on site for access pending assay results; with washed chip samples for each metre also collected in chip trays for logging and later reference.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Sample recoveries have in general been good and no unusual measures were taken to maximise sample recovery other than the use of triple tube for diamond core drilling. In the event of unacceptable core loss MTB drills twin holes. MTB believes there is no evidence of sample bias due to preferential loss/gain of fine/coarse material for holes being reported on.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant</li> </ul>	<ul style="list-style-type: none"> <li>Holes were logged in the field by qualified geologists on MTB's log sheet template and of sufficient detail to support Mineral Resource estimation: qualitative observations covered lithology, grain size, colour, alteration, mineralisation, structure. Quantitative logging included vein percent. SG measurements were obtained at approximately 5m intervals on DD holes.</li> <li>All core is photographed wet and dry.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>intersections logged.</i>	<ul style="list-style-type: none"> <li>All drill holes are logged in full.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>HQ and PQ Core was sawn in half on site. Half of each core was retained on site in core trays and the other half was double bagged and labelled noting hole number and interval both within the bag and on the bag. Sample bags were then placed in larger bags of ~40 individual samples and the larger bag also labelled describing the contents. Field duplicates were inserted at regular intervals.</li> <li>RC chips were collected over 1m intervals, and two-stage riffle split to produce a sample for dispatch to the assay laboratory. The remainder of the sample was bagged and kept on site for access pending assay results; with washed chip samples for each metre also collected in chip trays for logging and later reference.</li> <li>All samples currently being reported on were assayed for Ag/Pb/Zn/V/Ge/Ga/Cu/Co.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples prior to 2008 were dispatched to the Ongopolo Laboratory situated in Tsumeb, Namibia. Check samples were also sent to Genalysis in Perth.</li> <li>Samples since 2008, when originally assayed, were sent to Intertek Genalysis Perth, for assaying according to the following standard techniques.</li> <li>Diamond core samples were analysed for: (a) Ore grade digest followed by ICPMD – OES finish for Silver, Lead, Zinc, Copper, Cobalt, Vanadium, Germanium, Gallium; (b) Also 4 acid digest for silver, lead, zinc followed by AAS.</li> <li>RC samples were analysed with Ore grade digest followed by ICP-OES for Ag/Co/Cu/Pb/Zn/Cu/Co.</li> <li>MTB quality control procedures include following standard procedures when sampling, including sampling on geological intervals, and reviews of sampling techniques in the field.</li> <li>The current laboratory procedures applied to the MTB sample preparation include the use of cleaning lab equipment with compressed air between samples, quartz flushes between high grade samples, insertion of crusher duplicate QAQC samples, periodic pulverised sample particle size (QAQC) testing and insertion of laboratory pulp duplicates QAQC samples according to Intertek protocols.</li> <li>Intertek inserts QA/QC samples (duplicates, blanks and standards) into the sample series at a rate of approx. 1 in</li> <li>20. These are tracked and reported on by MTB for each batch. When issues are noted, the laboratory is informed and investigation conducted defining the nature of the discrepancy and whether further check assays are required. The laboratory completes its own QA/QC procedures, and these are also tracked and reported on by MTB. Acceptable overall levels of analytical precision and accuracy are evident from analyses of the routine QAQC data.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>A selection of the original digital assay files from MTB has been checked and verified against the supplied database.</li> <li>Numerous twin, and close spaced holes have been drilled. Results show close spatial and grade correlation.</li> <li>All drilling logs were validated by the supervising geologist.</li> <li>Adjustments to assay data included converting</li> </ul>



Criteria	JORC Code explanation	Commentary
		assays recorded in ppm to percent for Zn, Pb, Cu and V; the conversion of V to V <sub>2</sub> O <sub>5</sub> and the conversion of negative or below detection limit values to half detection limit.
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All drill hole collars were surveyed using DGPS equipment in WGS84 UTM Zone 34S coordinates.</li> <li>Drill holes were routinely down hole surveyed using Eastman single shot magnetic survey instruments, with the dip and azimuth monitored by the driller and site geologist to ensure the hole remained on track within the stipulated guidelines. Readings were obtained at approximately 25m intervals down hole.</li> <li>Topographic control was derived from collar surveys. The Nxuu area is overlain by Kalahari Sand cover and is predominantly flat.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Data spacing (drill holes) is variable and appropriate to the geology. Sections are spaced at 30m intervals, with hole spacings predominantly 30m on section.</li> <li>The spacing is considered sufficient to establish geological and grade continuity appropriate for a Mineral Resource estimation.</li> <li>Samples were composited to 1m intervals prior to estimation.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation at the Nxuu Deposit is sub-horizontal, therefore holes were drilled vertically. Mineralisation at the Kihabe Deposit is sub vertical. Holes were drilled at minus 60°, at 150° or 330° Azimuth.</li> <li>The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation.</li> <li>Reported intersections are down-hole intervals and are generally representative of true widths.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were taken by vehicle on the day of collection to MTB's permanent field camp and stored there until transported by MTB personnel to Maun from where they were transported via regular courier service to laboratories in South Africa.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>MTB's exploration geologists continually reviewed sampling and logging methods on site throughout the drilling programs.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Kihabe-Nxuu Project is located in north-western Botswana, adjacent to the border with Namibia. The Project is made up of one granted prospecting licence PL 43/2016, which covers an area of 1000 sq km. This licence is 100% owned and operated by MTB. The title is current to 31 December 2024</li> <li>PL 43/2016 is in an area designated as Tribal Land. The Tenement is current and in good standing.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Geological Survey of Botswana undertook a program of soil geochemical sampling in 1982. As a result of this program, Billiton was invited to undertake exploration and drilling activities in and around the project area. MTB first took ownership of the project in 2003 and has undertaken exploration activities on a</li> </ul>



Criteria	JORC Code explanation	Commentary
		continual basis since then.
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Kihabe-Nxuu Project lies in the north-western part of Botswana at the southern margin of the Congo craton. The Gossan Anomaly is centred on an exposed gossan within the project. To the north of the project are granitoids, ironstones, quartzites and mica schists of the Tsodilo Hills Group covered by extensive recent Cainozoic sediments of the Kalahari Group. Below the extensive Kalahari sediments are siliciclastic sediments and igneous rocks of the Karoo Supergroup in fault bounded blocks.</li> <li>The Nxuu deposit mineralisation occurs in a flat-lying quartz wacke unit situated on the contact of a barren dolomite basement unit. The deposit is weathered, with base metal and associated V/Ge/Ga mineralisation occurring as a series of sub-horizontal units overlying the barren dolomite unit.</li> <li>The Kihabe Deposit mineralisation occurs in a quartz wacke situated on the contact of a steeply dipping barren dolostone unit. The deposit is variably weathered with base metal and associated V/Ge/Ga mineralisation occurring as a series of steeply dipping to sub vertical units in the hanging wall of the barren dolostone.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration results are not being reported.</li> <li>All information has been included in the appendices. No drill hole information has been excluded.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration results are not being reported.</li> <li>Not applicable as a Mineral Resource is being reported.</li> <li>For the Nxuu Deposit <math>ZnEq = \text{Zinc equivalent grade, which is estimated based on Kitco prices as of 21}^{st} \text{ October 2022 and calculated with the formula:}</math> <math display="block">ZnEq = [(Zn\% \times 3,000) + (Pb\% \times 2,000) + (Ag \text{ g/t} \times (20.0/31.1035)) + (V_2O_5\% \times 16,000)] / (3,000).</math> </li> <li>For the Kihabe Deposit <math>ZnEq = \text{zinc equivalent grade, which is estimated on LME closing prices on 30 June 2022 and calculated with the formula:}</math> <math display="block">ZnEq = \{(Zn\% \times 3,410) + (Pb\% \times 1,955) + Ag \text{ g/t} \times (20.7/31.1035)\} + V_2O_5\% \times 20,720 / (3,410)</math> </li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>MTB is of the opinion that all elements included in the metal equivalent calculation have reasonable potential to be recovered and sold.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation at Nxuu is sub-horizontal. Holes are drilled vertically.</li> <li>Reported hole intersections generally represent true width.</li> <li>Mineralisation at Kihabe is steeply dipping to sub vertical. Holes are drilled at approximately -60 deg towards azimuths 150 deg and 330 deg.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Figures 2-10 show drill hole intersections for all of Ga/Ge/Zn/Pb/V2O5/Ag and Figure 1 is a drill hole map for Nxuu Deposit.
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Figures 2-10 show drill hole intersections for all of Ga/Ge/Zn/Pb/V2O5/Ag and Figure 1 is a drill hole map for Nxuu Deposit.
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Results were estimated from drill hole assay data, with geological logging used to aid interpretation of mineralised contact positions.</li> <li>Geological observations are included in the report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Follow up drilling will be undertaken to improve confidence.</li> <li>Drill spacing is currently considered adequate for the current level of interrogation of the Project.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>The database has been systematically audited by MTB geologists.</li> <li>The database used for estimation was cross checked with original records where available.</li> <li>Ashmore performed initial data audits in Surpac. Ashmore checked collar coordinates, hole depths, hole dips, assay data overlaps and duplicate records.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Ashmore has not undertaken a site visit to the Relevant Assets by the CP as at the date of this report. Ashmore notes that it plans to conduct a site visit as part of the future works and upgrade of the Mineral Resource to higher categories.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The confidence in the geological interpretation is considered to be good and is based on visual confirmation within drill hole intersections.</li> <li>Geochemistry and geological logging have been used to assist identification of lithology and mineralisation.</li> <li>The Nxuu deposit consists of sub-horizontal units. Alternative interpretations are highly unlikely.</li> <li>The Kihabe Deposit consists of steeply dipping to sub vertical units. Alternative interpretations are highly unlikely.</li> <li>Infill and extensional drilling has supported and refined the model and the current interpretation is considered robust.</li> <li>Observations from the host rocks; as well as infill drilling, confirm the geometry of the mineralisation.</li> <li>Infill drilling has confirmed geological and grade continuity.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The Nxuu Mineral Resource area extends over an northeast strike length of 730m, has a maximum width in plan view of 265m and includes the 80m vertical interval from 1,155mRL to 1,075mRL.</li> <li>The Kihabe mineral resource area extends over an east-southeast strike length of 2,440m. It has a maximum width in plan view of 80m and includes the 220m vertical interval from 1,190m RL to 970mRL. Overall the mineral resource extends from 500,500mE to 502,600mE</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul style="list-style-type: none"> <li>Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades in three passes using Surpac software. Linear grade estimation was deemed suitable for the Nxuu and Kihabe Mineral Resources due to the geological control on mineralisation. Maximum extrapolation of wireframes from drilling was 30m along strike and down-dip for Nxuu and 100m along strike and down dip for Kihabe. This was equal to the drill hole spacing in these regions of the Project. Maximum extrapolation was generally half to one drill hole spacing.</li> <li>Zn (%), Pb (%), Ag (ppm), Cu (%), V<sub>2</sub>O<sub>5</sub> (%), Ga (ppm) and Ge (ppm) were all interpolated.</li> <li>Reconciliation could not be conducted as no mining has occurred.</li> <li>It is assumed that Zn, Pb and Ag can be recovered in a Zn concentrate and V<sub>2</sub>O<sub>5</sub> can be recovered in a V<sub>2</sub>O<sub>5</sub> concentrate. In addition, Ga and Ge may be recovered as by-products.</li> <li>It is assumed that there are no deleterious elements when considering the proposed processing methodology for the Nxuu and Kihabe mineralisation.</li> <li>At Nxuu the parent block dimensions used were 15m EW by 15m NS by 5m vertical with sub-cells of 3.75 by 3.75m by 1.25m. The model was rotated to align with the strike of the deposit of 045°. At Kihabe the parent block dimensions used 12.5m EW by 5m NS, by 5m vertical with sub cells of 3.125 x 1.25m x 1.25m was selected on the results obtained from Kriging Neighbourhood Analysis that suggested this was the optimal block size for</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>the dataset.</p> <ul style="list-style-type: none"> <li>An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography. Up to three passes were used for each domain. The first pass had a range of 50m for Nxuu and 80m for Kihabe, with a minimum of 8 samples for Nxuu and 10 samples for Kihabe. For the second pass, the range was extended to 100m for Nxuu and 150m for Kihabe with a minimum of 4 samples for Nxuu and 6 samples for Kihabe. For the final pass, the range was extended to 150m for Nxuu and 250m for Kihabe with a minimum of 2 samples. A maximum of 20 samples was used for all three passes for Nxuu with a maximum of 24 samples being used for all three passes at Kihabe.</li> <li>No assumptions were made on selective mining units.</li> <li>Zn and Pb, as well as Pb and Ag had moderate positive correlations. Zn and Ag had a moderate positive correlation.</li> <li>The mineralisation was constrained by Mineral Resource outlines created in Surpac software, based on logged geology and mineralisation envelopes prepared using a nominal 0.5% combined Zn and Pb cut-off grade with a minimum down-hole length of 2m for Nxuu and 3m for Kihabe. The wireframes were applied as hard boundaries in the estimate.</li> <li>After review of the project statistics, it was determined that high grade cuts were required for Ag and V<sub>2</sub>O<sub>5</sub> within some domains of Nxuu together with copper domains for Kihabe.</li> <li>Validation of the model included detailed comparison of composite grades and block grades by strike panel and elevation. Validation plots showed good correlation between the composite grades and the block model grades.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and grades were estimated on a dry in situ basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>ZnEq cut-off grades of 0.5%, 1.0% and 1.5% for Nxuu and Kihabe were utilised for reporting purposes, assuming an open pit mining method. The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above Zn equivalent ("ZnEq") cut-off grades of 0.5%, 1.0% and 1.5%. For Nxuu Zinc equivalent cut-off grades are estimated based on LME Zn/Pb prices, Kitco Silver Price for Ag, Live Vanadium Price for V<sub>2</sub>O<sub>5</sub>, Kitco Strategic Metals Prices for Ge/Ga, as at 21 October 2022. The ZnEq formula is shown below:</li> <li><math display="block">\text{ZnEq} = 100 \times \frac{(\text{Zn\%} \times 3,000) + (\text{Pb\%} \times 2,000) + (\text{Ag g/t} \times (20.0/31.1035)) + (\text{V}_2\text{O}_5\% \times 16,000)}{(3,000)}</math></li> <li>For the Kihabe Deposit ZnEq = zinc equivalent grade, which is estimated on LME closing prices on 30 June 2022 and calculated with the formula: <math display="block">\text{ZnEq} = \frac{(\text{Zn\%} \times 3,410) + (\text{Pb\%} \times 1,955) + (\text{Ag g/t} \times (20.7/31.1035)) + (\text{V}_2\text{O}_5\% \times 20,720)}{(3,410)}</math></li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating</li> </ul>	<ul style="list-style-type: none"> <li>Ashmore has assumed that the Nxuu deposit could potentially be mined using open pit techniques. No assumptions have been made for mining dilution or mining widths. It is assumed that mining dilution and ore loss will be incorporated into any Ore Reserve estimated from a future Mineral Resource with higher levels of confidence.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Both the Nxuu and Kihabe mineralisation was initially determined to be a zinc and lead sulphide deposit. Metallurgical test work involved the recovery of the zinc / lead by flotation. Initial results gave low zinc recoveries (67.5%), with low sulphur in the tails.</li> <li>Mineralogical evaluation of the tailings determined that the zinc was in an oxide form of smithsonite at Nxuu and baileychlore at the Kihabe Oxide zone and the lead as a carbonate (cerussite) at Nxuu and in Galena at Kihabe. Further flotation tests were conducted, and the tailings subjected to leaching with sulphuric acid at 40 deg C for a zinc extraction rate of 89.5%.</li> <li>Recovery of zinc concentrate by floatation and leaching of the zinc oxides (baileychlore) in the tailings resulted in a zinc extraction of 89.5% giving an overall access availability to 94% of zinc within the ore. Additional test work is recommended.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>No assumptions have been made regarding environmental factors. MTB will work to mitigate environmental impacts as a result of any future mining or mineral processing.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>A total of 513 bulk density measurements were taken on core samples collected from diamond holes drilled at the Nxuu deposit using the water immersion technique. A total of 4258 Bulk density measurements were taken on core samples from the Kihabe Deposit. Bulk densities for the transitional mineralisation at both Nxuu and Kihabe were assigned in the block model based on a density and Zn regression equation. Average densities for weathered mineralisation were applied (2.40t/m<sup>3</sup> for oxide) at Nxuu and 2.46t/m<sup>3</sup> for oxide and 2.58t/m<sup>3</sup> for transitional at Kihabe. Average waste densities were assigned based on lithology and weathering.</li> <li>It is assumed that the bulk density will have some variation within the mineralised material types due to the host rock lithology and sulphide minerals present. Therefore, a regression equation for Zn and density was used to calculate density in the Nxuu transitional material.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li><i>Whether the result appropriately reflects the</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimates are reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Mineral Resources were classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resources were defined within</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>Competent Person's view of the deposit.</i>	<p>areas of close spaced drilling of less than 30m by 30m for the Nxuu Deposit and 50m x 50m for Kihabe and where the continuity and predictability of the mineralised units was reasonable. The Inferred Mineral Resources were assigned to areas where drill hole spacing was greater than 30m by 30m for Nxuu and greater than 50m x 30m for Kihabe and less than 60m by 60m for Nxuu and 200m x 40m for Kihabe or where small, isolated pods of mineralisation occur outside the main mineralised zones.</p> <ul style="list-style-type: none"> <li>The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades.</li> <li>The Mineral Resource estimates appropriately reflect the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>Internal audits have been completed by Ashmore which verified the technical inputs, methodology, parameters and results of the estimate.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>The geometry and continuity have been adequately interpreted to reflect the applied level of Indicated and Inferred Mineral Resource. The data quality is good and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses.</li> <li>The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>No historical mining has occurred; therefore, reconciliation could not be conducted.</li> </ul>

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