

ALTAN NAR GOLD PROJECT
Bayankhongor Aimag, Southwest
Mongolia **ALTAN NAR**
GOLD PROJECT Bayankhongor
Aimag, Southwest Mongolia

National Instrument 43-101 Mineral Resource
Technical Report

Erdene Resource Development Corporation

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I, Jeremy Lee Clark, am working as a Principal Geologist for RPMGlobal Asia Limited, Level 13, 68 Yee Woo Street, Hong Kong. This certificate applies to the Technical Report on the Altan Nar Gold Project, Bayankhongor Aimag, Southwest Mongolia, prepared for Erdene Resource Development Corporation, dated 21 June, 2018 (the "Technical Report"), do hereby certify that:

1. I am a registered member of the Australian Institute of Geoscientists ("AIG").
2. I am a graduate of the Queensland University of Technology and hold a B App Sc in Geology, which was awarded in 2001. In addition, I am a graduate of Edith Cowan University in Australia and hold a Graduate Certificate in Geostatistics, which was awarded in 2006.
3. I have been continuously and actively engaged in the assessment, development, and operation of mineral Projects since my graduation from university in 2001.
4. I am a Qualified Person for the purposes of the National Instrument 43-101 of the Canadian Securities Administrators ("NI 43-101").
6. I am responsible for the preparation or the responsible for reviewing, coordinating and final editing of all portions of the Technical Report.
7. I have had no prior involvement with the properties that are the subject of the Technical Report.
8. To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading as of the effective date of the report, 21st June, 2018.
9. I am independent of Erdene Resource Development Corporation in accordance with the application of Section 1.5 of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange or any other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their website and accessible by the public, of the Technical Report.

Dated at Hong Kong, 21st June, 2018



"Jeremy Lee Clark" (QP)

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This certificate applies to the Technical Report on the Altan Nar Gold Project, Bayankhongor Aimag, Southwest Mongolia, prepared for Erdene Resource Development Corporation, dated 7th May, 2018 (the “Technical Report”), do hereby certify that:

1. I am a professional mining engineer having graduated with an undergraduate degree of Bachelor of Engineering (Mining) from the University of Queensland in 1988. In addition, I have obtained a First Class Mine Manager’s Certificate (No. 509) in Western Australia, a Graduate Diploma in Business from Curtin University (Western Australia) in 2000, and a Masters of Commercial Law from Melbourne University in 2004.
2. I am a Fellow of the Australasian Institute of Mining and Metallurgy (108264).
3. I have worked as a mining engineer for a period in excess of thirty years since my graduation from university. Over the last eighteen years I have worked as a consulting mining engineer on mine planning and evaluations for gold operations and development projects worldwide.
4. I am a Qualified Person for the purposes of the National Instrument 43-101 of the Canadian Securities Administrators (“NI 43-101”).
5. I personally inspected the Altan Nar Project in May, 2018.
6. I am responsible for the preparation of Sections 1.2, 2.4, 4, and 5 of the Technical Report.
7. I have had no prior involvement with the properties that are the subject of the Technical Report.
8. To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading as of the effective date of the report, 21st June, 2018.
9. I am independent of Erdene Resource Development Corporation in accordance with the application of Section 1.5 of NI 43-101.
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Dated in Beijing, China, 21st June 2018



“Tony Cameron” (QP)

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I, Andrew James Haigh Newell, am working as a Processing Engineer (Executive Consultant) for RPMGlobal, of Level 2, 295 Ann Street, Brisbane, Queensland, Australia, 4000. This certificate applies to the Mineral Resource Technical Report for the Altan Nar Gold Project, Bayankhongor Aimag, Southwest Mongolia, prepared for Erdene Resource Development Corporation, dated March 2015 (the "Technical Report"), do hereby certify that:

1. I am a Chartered Professional with the Australasian Institute of Mining and Metallurgy ("CP(Met)") and a Chartered Professional of the Institute of Engineers, Australasia ("CP(Eng)").
2. I am a graduate of the University of Melbourne (Australia) and hold a B.E. (1st Class Honours) in Metallurgical Engineering, which was awarded in 1976. Additionally, I am a post graduate of the same institution in M.Eng.Sc. (Mineral Processing), which was awarded in 1985 and hold a doctorate (PhD, Mineral Processing) from the University of Cape Town (South Africa), which was awarded in 2008.
3. I have been continuously and actively engaged in the assessment, development, and operation of mineral processing projects since 1978.
4. I have worked on a large number of relevant projects in various technical and review capacities over this period in gold and silver along with various polymetallic mineralisation assemblages.
5. I am a Qualified Person for the purposes of the National Instrument 43-101 of the Canadian Securities Administrators ("NI43-101").
6. I am responsible for the preparation and the supervision and final editing of sections 13 of the Technical Report.
7. I have limited involvement with the properties that are the subject of the Technical Report, namely discussions on processing options as well as recommendations on mineralogy and subsequent diagnostic leaching analysis for an arsenic rich ore sample.
8. To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading as of the effective date of the report, 21st June, 2018.
9. I am independent of Erdene Resource Development Corporation in accordance with the application of Section 1.5 of NI43-101.
10. I have read NI43-101 and Form 43-101F1 and Section 13 of the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange or any other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their website and accessible by the public, of the Technical Report.

Dated at Brisbane, Australia, this 21st June 2018



Andrew James Haigh Newell" (QP)

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1 Executive Summary

1.1 Introduction

RPMGlobal Asia Limited (“RPM”), was requested by Erdene Resource Development Corporation (“ERD”, “Erdene”, the “Company” or the “Client”) to complete an Updated Mineral Resource Technical Report (“MRTR” or the “Report”) of the Altan Nar Project (“Project” or “Relevant Asset”) for the purpose of the Report’s filing on SEDAR in accordance with the requirements of ‘Canadian National Instrument 43-101’ (“NI 43-101”) of the Canadian Securities Administrators and the Company’s reporting obligations as a Reporting Issuer in Canada. This is an update of the NI 43-101 Report dated 24 March 2015.

The Altan Nar Project is contained within the Exploration license Tsenkher Nomin (XV-016956) located in Bayankhongor Aimag, Southwest Mongolia. ERD is a Canadian based resource company with over 18 years’ experience in precious and base metal exploration in Mongolia.

1.2 Scope and Terms of Reference

This Report includes an independent Mineral Resource estimate for the Altan Nar Project completed by RPM and a review of the potential processing options reviewed subsequent to the previous NI 43-101 Report dated 24th March, 2015. RPM considers that the low to medium grade polymetallic nature of the mineralisation and the substantial thickness and geometry of the deposit, indicates that the Project has potential for eventual economic extraction using both open pit and underground mining techniques, employing conventional mineral processing methods to recover the gold, silver, lead and zinc. RPM understands that ERD will undertake a Preliminary Economic Assessment to review the economic potential based on the updated Mineral Resource stated in this NI43-101 Technical Report.

RPM’s technical team (“the Team”) consisted of geologists, mining engineer and process engineer. Since the maiden Mineral Resource estimate dated 24th March 2015, ERD has undertaken substantial infill and extensional drilling (total 53 diamond holes). This drilling forms the basis of the updated Mineral Resource estimate stated in this Report. As a part of this work, a site visit was carried out by Mr Tony Cameron (mining engineer) and Mr Oyunbat Bat-Ochir (Resource geologist) in May, 2018 both whom are employees of RPM. This visit was undertaken to verify technical aspect of all exploration that was conducted on the Property. RPM found the ERD personnel to be cooperative and open in facilitating RPM’s work.

In addition to the work undertaken to generate an estimate of Mineral Resources, this Report relies largely on information provided by the Company, either directly from the site and other offices, or from reports by other organisations whose work is the property of the Company. The data relied upon for the Mineral Resource estimate completed by RPM and contained in this Report, has been compiled primarily by the Company and validated where possible by the Qualified Person. The Report specifically excludes all aspects of legal issues, marketing, commercial and financing matters, insurance, land titles and usage agreements, and any other agreements/contracts that the Company may have entered into except to the extent required pursuant to NI 43-101.

In RPM’s opinion, the information provided by ERD was reasonable and nothing was discovered during the preparation of the Report that indicated there was any significant error or misrepresentation in respect of that information. RPM does not however, warrant the completeness or accuracy of the information provided to it and which has been used in the preparation of this Report.

RPM has independently assessed the Relevant Asset by reviewing historical technical reports, drill hole databases, original sampling data, sampling methodology, development potential and metallurgical test work resulting in a Mineral Resource estimate. All opinions, findings and conclusions expressed in the report are those of the Qualified Persons named herein.

1.3 Project Summary

- The Altan Nar Project is contained within the Tsenkher Nomin exploration license in Bayankhongor Aimag in south-western Mongolia, approximately 980 km south-west of Ulaanbaatar and 300 km south of the

Aimag capital, Bayankhongor City. The nearest towns (soum centres) are Shinejinst, located 70 km to the northeast and Bayan Undur, located 80 km to the north. The property is also located 40 km west of Erdene's Zuun Mod molybdenum-copper deposit.

- The Tsenkher Nomin exploration license was first acquired in December of 2009 and is currently in its 9th year of issue. Exploration licenses in Mongolia are renewed annually with a maximum tenure of 12 years. At any time during the 12 year tenure, an exploration license can be converted into a mining license by meeting the requirements as set out in the Minerals Law of Mongolia.
- Exploration works undertaken within the license during the past eight years has established Altan Nar as a significant new epithermal intermediate-sulphidation gold-silver-lead-zinc mineralised system. Exploration, specifically the 2013 trenching program and 2014 surface mapping, geochemical and geophysical surveys, trenching and drilling, has greatly expanded the areas of known mineralisation with 20 targets identified over a 6 km x 10 km area within the main structural trend. Drilling has concentrated on the primary location within a zone approximately 5.6 km x 1.5 km.
- ERD has drilled a total of 125 surface holes (total of 19,565.2 m) and excavated 42 trenches (total of 3,151m) between 2011 and 2018. Of importance since the maiden resource ERD has carried out substantial infill and extensional drilling (total 53 diamond holes) which forms the updated Mineral Resource estimate stated in this report. No other material exploration has been undertaken which impacts the report resource estimate.
- There has been no previous production from the area, however RPM is aware some small pits were undertaken centuries ago.
- The geology of the property is dominated by two separate sequences of volcanic rocks, both assumed to be Devonian to Carboniferous in age. A package of andesite flows dominate the east-central part of the license area. These volcanic rocks (referred to as 'Sequence A') have pronounced NW-SE trending linear features that are evident on satellite images. These rocks are interpreted to be a steeply dipping volcanic sequence that was intruded by sub-parallel, NW-trending granite porphyry and fine grained granite intrusions interpreted to be sills, or possibly laccoliths. The geology of the central and western portion of the Tsenkher Nomin license area (Altan Nar Project) consists predominately of a sequence of trachy-andesite and tuffaceous rocks of intermediate composition, with subordinate rhyolite, rhyodacite and andesite tuff. These volcanic units dip at approximately 20-30 degrees to the northeast. The Altan Nar Au-Ag-Zn-Pb Project is hosted by a series of Devonian to Carboniferous shallow-dipping trachy-andesite and andesite tuff units that were intruded by several but volumetrically minor, late stage porphyritic dykes. Trachy-andesite rocks dominate to the north of the Discovery Zone whereas tuffaceous rocks are the dominant lithology to the south of the Discovery Zone. Rhyolite and rhyodacite rocks are the dominant lithologies in the western part of the license. Based on the available exploration data the gold-polymetallic mineralisation appears to be structurally controlled within a large (5.6 km by 1.5 km) NNW-trending zone. The presence of NE/SW-trending and lesser N/S-trending quartz breccia zones with associated white mica alteration within this zone, suggests the principal factor controlling the distribution of mineralisation was structure, with steeply-dipping breccia zones providing locii or conduits for fluids. Depth of burial during the mineralizing event is presumed to also be a controlling factor for deposition of gold and base metals.
- The Altan Nar Project is interpreted as intermediate sulphidation epithermal deposit with carbonate-base metal style characteristics. Specifically, Altan Nar hosts multi-phase epithermal gold-silver-lead-zinc mineralisation with a Ag:Au value of approximately 8, with abundant calcium-iron-manganese carbonate gangue minerals. Mineralisation is associated with quartz breccias and breccia zones and multi-stage comb quartz and chalcedony veins, commonly with geo-petal structures and chalcedony as brecciated fragments, with associated white mica alteration zones (quartz-sericite-pyrite), within widespread propylitic (epidote-chlorite-montmorillonite/illite) alteration of host trachy-andesite and andesite tuff units. Low grade gold mineralisation is generally hosted within broad zones of polymetallic (silver-zinc-lead) mineralisation while high grade gold mineralisation mostly confined within structurally controlled breccia zones with variable amounts of quartz-chalcedony veins.
- RPM reviewed documentation for the sampling procedures, preparation, analysis, and security during their site visits as well as the literature and documentation on the Project. RPM finds the procedures to be acceptable and will result in suitable datasets for resource estimation.
- The processing testwork to date has generally shown a good response to leaching with average gold recoveries of 80% for the low arsenic material. Higher arsenic samples, which appear to make up only a

relatively small portion of the deposit, would require a more intensive, though nonetheless proven, processing method with potentially high gold recoveries (95%).

1.4 Statement of Mineral Resources

RPM has independently estimated the Mineral Resources contained within the Project, based on the data collected by ERD as at 7th May, 2018. The Mineral Resource estimate and underlying data complies with the guidelines provided in the CIM Definition Standards under NI 43-101. Therefore RPM considers it is suitable for public reporting. The Mineral Resources were completed by Mr. David Princep under the supervision of Mr. Jeremy Clark (Qualified Person).

The Statement of Mineral Resources has been constrained by the topography, and a cut off 0.7 g/t AuEq above a pit shell and 1.4 g/t AuEq below the same pit shell. The results of the Mineral Resource estimate for the Altan Nar deposit are presented in **Table 1-1**. RPM suggests using a 0.7 g/t AuEq above pit and 1.4g/t AuEq below pit for reporting cut-off based on the mining / process and cost parameters for the project. A variety of cut-off grades is provided in **Section 14** for reference.

Table 1-1 Altan Nar Project –Mineral Resource Estimate Summary as at 7th May 2018

Type	Indicated Mineral Resource										
	Quantity Mt	Au g/t	Ag g/t	Zn %	Pb %	AuEq* g/t	Au Koz	Ag Koz	Zn Kt	Pb Kt	AuEq Koz
Oxide	0.6	2.0	12.7	0.6	1.0	3.1	39.3	244.3	3.8	6.3	59.6
Fresh	4.4	2.0	15.0	0.6	0.5	2.8	278.4	2,105.4	27.8	22.7	393.4
Total	5.0	2.0	14.8	0.6	0.6	2.8	317.7	2,349.7	31.6	29.0	453.0

Type	Inferred Mineral Resource										
	Quantity Mt	Au g/t	Ag g/t	Zn %	Pb %	AuEq* g/t	Au Koz	Ag Koz	Zn Kt	Pb Kt	AuEq Koz
Oxide	0.8	1.8	7.5	0.6	0.9	2.6	43.3	183.7	4.3	6.5	64.2
Fresh	2.7	1.7	8.0	0.7	0.6	2.5	142.4	682.1	19.4	15.8	212.8
Total	3.4	1.7	7.9	0.7	0.7	2.5	185.7	865.8	23.7	22.3	277.1

Note:

- The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Jeremy Clark who is a full-time employee of RPM and a Member of the Australian Institute of Geoscientists. Mr. Clark has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Qualified Person as defined in the CIM Standards of Disclosure.
- All Mineral Resources figures reported in the table above represent estimates based on drilling completed up to 7th May, 2018. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
- *Au Equivalent (AuEq) calculated using long term 2023 - 2027 "Energy & Metals Consensus Forecasts" March 19, 2018 average of USD1310/oz for Au, USD17.91/oz for Ag, USD1.07/pound for Pb and USD1.42/pound for Zn. Adjustment has been made for metallurgical recovery and is based company's preliminary testwork results which used flotation to separate concentrates including a pyrite concentrate with credits only for Au and Ag. Based on grades and contained metal for Au, Ag, Pb and Zn, it is assumed that all commodities have reasonable potential to be economically extractable.
 - The formula used for Au equivalent grade is: $AuEq\ g/t = Au\ g/t + Ag\ g/t * 0.0124 + Pb\ % * 0.509 + Zn\ % * 0.578$ with metallurgical recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn.
 - Au equivalent ounces are calculated by multiplying Mineral Resource tonnage by Au equivalent grade and converting for ounces. The formula used for Au equivalent ounces is: $AuEq\ Oz = [Tonnage\ x\ AuEq\ grade\ (g/t)] / 31.1035$.
- Mineral Resources are reported on a dry in-situ basis.
- Reported at a 0.7 g/t AuEq cut-off above pit shell and 1.4g/t AuEq below the pit shell. Cut-off parameters were selected based on an RPM internal cut-off calculator, which indicated that a break-even cut-off grade of 0.7g/t Au Equivalent above pit and 1.4g/t AuEq below pit, assuming a gold price of USD1310 per ounce, an open mining cost of USD6 per tonne and a processing cost of USD20 per tonne milled and processing recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn.
- Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability

RPM highlights that the pit optimisations were used to define the depth of the various cut off grades to report the Mineral Resource, however, the cut off grades applied were estimated based on a gold price of USD 1,570. Furthermore it is noted that given the long strike length and variation in mineralisation tenure the potential open

pitiable depth varies, as such the application of a consistent depth is considered not appropriate and the use of a pit optimisation to define variable depths is suitable.

USD 1,570 was selected to determine the maximum depth of potential open pit mining based on historical prices (last 5 years). RPM notes that this price is above the current long term forecast, however notes that the gold price was significantly higher in the past 5 years, as such has utilised a higher price to determine the **maximum** depth of potential open cut mining.

To determine the potential Underground mining cut-off grade an open stopping method was assumed resulting in a total mining cost of USD 35 per tonne.

While a detailed schedule and option analysis has not been completed to confirm the optimal mining method, given the sub vertical continuous style of mineralisation within sheet like shears occurring near surface within the currently defined resource areas, open pit mining is likely to be appropriate, pending the option analysis. Additional mining design and more detailed and accurate cost estimate mining studies and testwork are required to confirm viability of extraction.

RPM notes that these pit shells were completed to report the resource contained within to demonstrate reasonable prospects for eventual economic extraction and highlights that these pits do not constitute a scoping study or a detailed mining study which, along with additional drilling and testwork, is required to be completed to confirm economic viability. It is further noted that in the development of any mine it is likely that given the location of the Project that CAPEX is require and is not included in the mining costs assumed. RPM has utilised operating costs based on in-house databases of similar operations in the region and processing recoveries based on preliminary testwork as outlined in **Section 13**, along with the price noted above in determining the appropriate cut-off grade. Given the above analysis RPM considers both the open pit and material below the pit demonstrates reasonable prospects for eventual economic extraction, however highlights that additional studies and drilling is required to confirm economic viability.

No dilution or Ore loss factors have been applied.

1.5 Recommendations

The recommendations provided are based on observations made during the site visit and subsequent geological and metallurgical reviews and Mineral Resource estimate detailed in **Sections 13, and 14**.

- **Additional Drilling:** Approximately 37% of the Project has been classified as Inferred Mineral Resource and is estimated with insufficient confidence to allow the application of Modifying Factors to support mine planning and evaluation of the economic viability of the remainder of the deposit. RPM recommends drilling to increase confidence in the existing Inferred Mineral Resource, focussing on the highest grade portions including:
 - Additional extensional exploration drilling is recommended in the Discovery Zone and Union North areas of the current resource.
 - Additional scout exploration drilling in un-drilled and partly drilled parts of the Project.
 - Infill drilling to confirm the continuity of the high grade zones at local scale

Approximately cost during the next phase of drilling USD 500,000.

- **QAQC:** Further monitoring of the slight bias and underestimation observed in high grade assays at the SGS Laboratory is recommended. RPM suggests more frequent use of ore grade base metal standards to closely monitor the base metal assays. Approximately costs during the future drilling USD10,000.
- **Bulk Density:**
 - RPM recommends that ERD undertake a bulk density program using the remaining core. This should include up to 200 samples focusing on a range of grades (low to high) with each sample having a density determination as well as assays for Au, Pb, Zn and S. Approximately costs during the future drilling USD 10,000.
 - During future drilling the density measurement intervals correspond directly with geological logging and sampling intervals. It is recommended that density measurements are obtained from all 1m

intervals through the ore zone in order to continue compiling a dataset with sufficient spatial distribution to validate and confirm the current applied regression formula. No cost would be incurred.

- **Metallurgical Testwork:** Following on from the increased geological understanding of the mineralisation styles and likely run of mine feed grades of any operation, RPM recommends processing testwork on samples that are representative of the deposit. This testwork would identify the grinding requirements, as well as gold recoveries and processing requirements based on conventional flowsheets as well as the potential for recovering the base metals into marketable products. RPM estimates that the cost of this testwork and associated works would be approximately USD 400,000 and would include:
 - Mineralogy,
 - Potential for pre-concentration,
 - Comminution testing,
 - Potential for gravity gold recovery,
 - Optimisation of leaching conditions,
 - Viscosity and oxygen uptake studies,
 - Tailings dewatering properties,
 - Establish detoxification requirements, and
 - Treatment strategies for processing high arsenic bearing ores.
- **Mining Study:** In order to guide additional infill drilling, define pit limits and expansion drilling, as well as highlight the economic potential, RPM recommends a preliminary economic assessment (“PEA”) which should consider the various opportunities with the Project’s development. Approximately cost is USD 80,000.

1.6 Opportunities and Risks

The key opportunities for the Project include:

- **Resource Expansion:**
 - RPM considers there is good potential to expand the currently defined resource with further drilling. Mineralisation is open north and south of the currently defined Mineral Resource, where several medium to high grade intersections occur. RPM recommends targeting near surface medium to high grade mineralisation, which if successfully delineated will potentially have a positive impact on any mining study undertaken on the Project.
 - Mineralisation is open along strike and down-dip at all prospects and extensional drilling of the main zones may delineate continuations of the known mineralisation, some of which may be high grade.
- **Multiple Generations:**
 - The narrow high grade Au, Ag mineralisation intersected at Main mineralisation zones has been observed to share closer affinities with narrow polymetallic quartz veins. These may form part of a separate mineralisation event, or represent a marginal feature to the main zone. Regardless of genetic relationships, these narrow vein targets do represent an additional exploration opportunity and further works are required to confirm the interpretation.

The key risks to the Project include:

- **Structural Complexity:** The Project exhibits a moderate to high degree of structural complexity. The mineral resource block model is defined by drilling on a 50m by 50m drill spacing with some areas with 25m by 25m, therefore there is potential for tonnage and overall geometry variations between modelled and actual mineralisation. RPM does not envisage any material variations in the closer spaced drilling areas, however this could potentially occur in the areas of greater than 50m spacing, as a result these areas are classified as Inferred.
- **QAQC:** Sampling and assaying methodology and procedures were satisfactory for the ERD drilling. QAQC protocols were adequate and review of the data did not show any consistent bias or reasons to doubt the

assay data. Slight underestimation of higher grades Au(8.0g/t) and Ag(10 g/t) has been observed in the OREAS62c standard for the 2015 drilling, as well as slight underestimation of Au(9.2 g/t) grade was also observed in OREAS62e for 2016 drilling. For 2017 the OREAS 62E Au standard performed very well with majority of the results falling within two standard deviations (SD); however Ag standards showed poor performance as most of the results fall outside 2SD. There were no potential run of mine grade base metals standards inserted in the QAQC protocols and there is a low to moderate risk to the accuracy of base metal assays. RPM does however note that any variation will not be material to the resources quoted.

- **Barren Dykes:** Number of significant barren dykes have been mapped and logged at the Union North, Maggie and Union East Zones. These dykes have been modelled by RPM and no grades have been estimated within these units. The interpretation of these dykes is, at present, based on wide spaced 25-100m sections. A better understanding of the dyke geometry will be gained through closer spaced infill and extensional drilling. There is a moderate risk that the dykes could actually be similar to those currently modelled as infill holes recorded the same barren dykes mapped at the surface.
- **Bulk Density:** The bulk density regression utilised in the estimate has a relatively low correlation. RPM however considers that this regression is a better reflection of the tonnage variations than an average of the densities, or an estimate due to the limited numbers of determinations. With further density samples it is likely a better correlation will be interpreted which will be reflected in the local tonnage variation. RPM envisages no material variations occur, however some changes are likely, as such no measured resources are classified.

The illustrations supporting the various sections of the report are located within the relevant sections immediately following the references to the illustrations. For ease of reference, an index of tables and illustrations is provided at the beginning of the Report.

The opinions and conclusions presented in this report are based largely on the data provided to RPM during the site visit, during meetings with the Company, and in reports supplied by ERD. RPM considers that the information and estimates contained herein are reliable under these conditions, and subject to the qualifications set forth.

RPM operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to the resources and financial services industries. This Report was prepared on behalf of RPM by technical specialists, details of whose qualifications and experience are set out in **Annexure B**.

RPM has been paid, and has agreed to be paid, professional fees for its preparation of this report. However, none of RPM staff or sub-consultants who contributed to this Report has any interest in:

- the Company, securities of the Company or companies associated with the Company; or
- the Relevant Asset;

Drafts of the Report were provided to the Company, for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in the report. This Report is mainly based on information provided by ERD, either directly from the Project site and other associated offices or from reports by other organisations whose work is the property of the Company. The Report is based on information made available to RPM before May, 2018.

The title of this report does not pass onto the client until all consideration has been paid in full.

2 Introduction and Terms of Reference

2.1 Background

RPMGlobal Asia Limited (“RPM”), was requested by Erdene Resource Development Corporation (“ERD”, “Erdene”, the “Company” or the “Client”) to complete an Updated Mineral Resource Technical Report (“MRTR or the “Report”) of the Altan Nar Project (“Project” or “Relevant Asset”) for the purpose of the Report’s filing on SEDAR in accordance with the requirements of ‘Canadian National Instrument 43-101’ (“NI 43-101”) of the Canadian Securities Administrators and the Company’s reporting obligations as a Reporting Issuer in Canada. This is an update of the NI 43-101 Report dated 24 March 2015.

The Altan Nar Project is contained within the Exploration license Tsenkher Nomin (XV-016956) located in Bayankhongor Aimag, Southwest Mongolia. ERD is a Canadian based resource company with over 18 years’ experience in precious and base metal exploration in Mongolia.

2.2 Terms of Reference

The following terms of reference are used in the Technical Report:

- ERD, the Company and the Client refer to Erdene Resource Development Corporation,
- RPM refers to RPMGlobal Asia Limited and its representatives.
- Project refers to the Altan Nar deposit located in south-western Mongolia.
- Gold and silver grades are described in terms of grams per dry metric tonne (g/t), zinc and lead grades as a percent (%) with tonnage stated in dry metric tonnes.
- Resource definitions are as set forth in the “Canadian Institute of Mining, Metallurgy and Petroleum, CIM Standards on Mineral Resource and Mineral Reserves – Definitions and Guidelines” adopted by CIM Counsel on 30th June, 2011

2.3 Source of Information

The primary source document for this report was:

- “Altan Nar Gold Project”, (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, NI 43-101 Technical Report, J. C. Cowan, Erdene Resource Development Corporation, February 2014.
- The key files supplied to RPM included:
 - Drilling database – supplied in multiple spreadsheets:
 - TND_Drill_Collars to TND133_vV_DGPS.xlsx
 - TND_Flexit_Survey TND09-133_vV.xlsx
 - TND-09_to_133_Drill_Log_Combined_vWorking.xlsx
 - TND-09-133_Combined_Magsus.xlsx
 - TND-Vein Log_31-133_Combined.xlsx
 - AN_LithoCodes_2017.xlsx
 - AN_Lith_TND09-133_vV.xlsx
 - AN_Assay_TND09-133_wAuEq_vFinal.xlsx
 - SGS original assay reports.
 - TND2017_SpecificGravity_Summary.xlsx
 - TND_66-TND_108 Assay_DB_v03Apr16_Complete_wQA-QC_Analysis.xlsx

- TND_109-TND_133 Assay_DB_v30Jan18_Complete_wQA-QC_Analysis.xlsx
- Topography:
 - Detailed topographic survey points and smoothed contour lines (Mapinfo created) were provided by ERD and surveyed by DGPS total station in UTM WGS84 Datum, Zone N47 in end of 2017. Topographic elevation differences were 0.3m-5m from surveyed one against the SRTM created topo surface which used in 2015 resource estimate. RPM created topographic surface from point data.

2.4 Participants

The Project site was visited by Mr. Stewart Coates, Manager – Mongolia, RPM, from 18th to 21st November, 2014. In addition a site visit carried out by RPM in May 2018 by Tony Cameron and Oyunbat Bat-Ochir. Mr. Jeremy Clark prepared or supervised the preparation of the Resource estimate reported in this Report and is a Qualified Person under National Instrument 43-101 for the Resource estimate. Mr. Clark supervised the work of RPM staff and edited or reviewed all portions of the final report.

Other Project participants included:

- Robert Dennis, Executive Consultant, Geology and Mining, (Brisbane);
- David Princep, Principal Resource Consultant, Geology and Mining, (Perth);
- Oyunbat Bat-Ochir, Resource Geologist, (Ulaanbaatar);
- Andrew Newell, Executive Consultant, Processing, Brisbane (Qualified Person); and
- Tony Cameron Executive Mining Consultant, (Beijing), (Qualified Person)

Details of the participants' relevant experience are outlined in **Appendix B**.

RPM notes that the Mineral Resource Qualified Person (Mr. Jeremy Clark) has not visited the site, however, as per the requirements of NI 43-101, a Qualified Person (Mr Tony Cameron) has visited the site and assumes responsibility for **Section 4 and 5** of this Report.

2.5 Limitations and Exclusions

The review was based on various reports, plans and tabulations provided by the Client either directly from the mine sites and other offices, or from reports by other organisations whose work is the property of the Client. The Client has not advised RPM of any material change, or event likely to cause material change, to the operations or forecasts since the date of asset inspections.

The work undertaken for this report is that required for a technical review of the information, coupled with such inspections as the Team considered appropriate to prepare this report.

RPM has specifically excluded making any comments on the competitive position of the Relevant Asset compared with other similar and competing gold producers around the world. RPM strongly advises that any potential investors make their own comprehensive assessment of both the competitive position of the Relevant Asset in the market, and the fundamentals of the gold market at large.

2.6 Capability and Independence

RPM provides advisory services to the mining and finance sectors. Within its core expertise it provides independent technical reviews, resource evaluation, mining engineering and mine valuation services to the resources and financial services industries.

All opinions, findings and conclusions expressed in this Technical Report are those of RPM and its specialist advisors as outlined in **Section 2.4**. Drafts of this report were provided to ERD, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in this Technical Report.

RPM has been paid, and has agreed to be paid, professional fees based on a fixed fee estimate for its preparation of this Report.

This Technical Report was prepared on behalf of RPM by the signatory to this Technical Report whose experiences are set out in **Annexure A** to this Technical Report. The specialists who contributed to the findings within this Report have each consented to the matters based on their information in the form and context in which it appears.

3 Reliance on Other Experts

All Sections of this Report, with the exception of **Item 3** were prepared using information provided by ERD or other third parties and verified by RPM were applicable or based on observations made by RPM. A list of the reports is provided in **Item 27**.

RPM has specifically excluded all aspects of legal, political, environmental and tax issues, commercial and financing matters, land titles and agreements, excepting such aspects as may directly influence technical, operational or cost issues. RPM has not conducted land status evaluations.

4 Property Description and Location

The Altan Nar Project is located within a single exploration license in Bayankhongor Aimag in south-western Mongolia. The UTM license centre coordinates are:

- Easting: 475,716.5 m, and
- Northing: 4,878,958.2 m (Zone 47N, WGS84).

The general location of the Project is shown in **Figure 4-1**.

The Project is located approximately 980 km south-west of Ulaanbaatar and 300 km south of the Aimag capital, Bayankhongor City. The nearest towns (soum centres) are Shinejinst and Bayan Undur, located 70 km northeast and 80 km to the north, respectively. The property is also located 40 km west of Erdene’s Zuun Mod molybdenum-copper deposit. An exploration camp was located on the Tsenkher Nomin license from 2013 to 2015. Since 2016, field work has been carried out from ERD’s Bayan Khundii exploration camp located 15 km south of Altan Nar. Access to the property is primarily by 4WD on sealed road from Ulaanbaatar to Bayanhongor (8 hours). It typically takes 5 hours on regional Mongolian roads from Bayanhongor to Shiinjinst and then another 2 hours to site. The area is sparsely populated with nomadic pastoral activity being the main industry.

4.1 Property Ownership

RPM provides this information for reference only and recommends that land titles and ownership rights be reviewed by legal experts.

The Tsenkher Nomin license is 100% held by Erdene Mongol LLC, which is a wholly owned subsidiary of ERD. RPM understands the Project is subject to a 2% net smelter returns royalty in favour of Sandstorm Gold Ltd. ERD has an option to buy-back 50% of the NSR Royalty for C\$1.2 million to reduce the NSR Royalty to 1% prior to April 2019. RPM is not aware of any environmental liabilities to which the property is subject to.

The original license (XV-015356) was issued in 2009 and covered an area extending westward from the current license location. In 2012, ERD split the original license into two separate licenses, the larger part was to the west of the Altan Nar property and retained the original license number while the second (smaller part) is the current license (also called Tsenkher Nomin, number XV-016956). Only the smaller license is still held by ERD and RPM notes the Report is solely for the XV-016956 license. A summary of the license status is provided in **Table 4-1** and the location of the license and Altan Nar Project are shown in **Figure 4-2**.

Table 4-1 Altan Nar Project - Mining Licence Details

Property Name	License Number	Province	Date of Issue dd/mm/yy	Hectares	2018 Renewal Fees	Minimum 2018 Work Requirement
Tsenkher Nomin	XV-016956	Bayankhongor	11/12/09	4,669	USD 14,045	USD 7,003

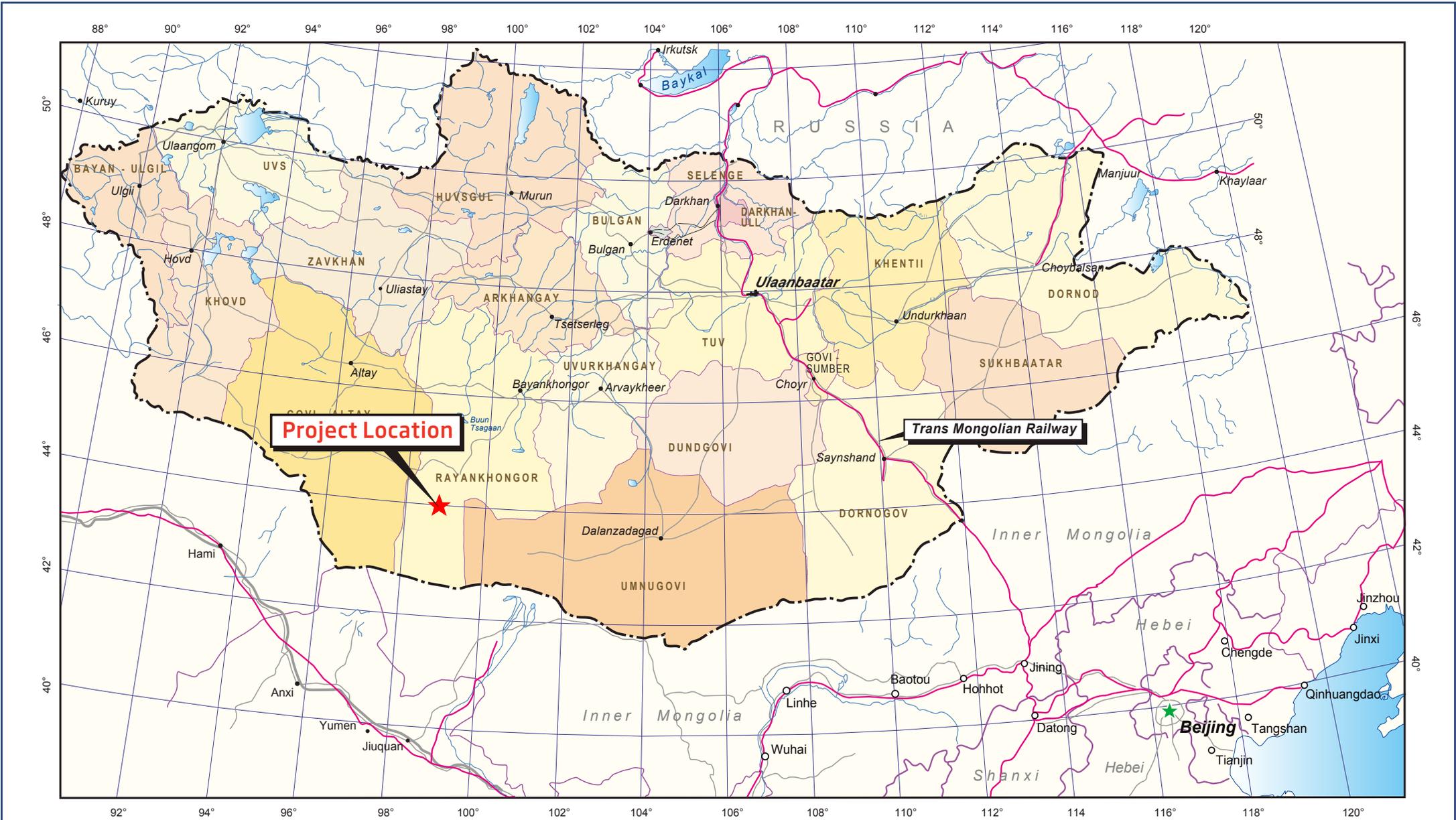
Source: Annual License Document, MRAM, Mongolia

4.1.1 Review of Ownership Documents

RPM was supplied with the MRAM Annual Licence Document which indicates ERD’s ownership of the exploration licence for the Project. RPM reviewed these license details against MRAM data which appears to be currently valid. RPM checked the described license corner points and were found to correspond to the position on the maps provided by ERD. To the best of RPM’s knowledge, the applicable agreements are in good standing, and the representations and warranties given by the parties in each of them remain in effect and are still valid.

ERD has commenced baseline environmental studies; however, these studies have not been finalized. Permits required to carry out planned exploration work on the licence include annual environmental bonds and water use permits. Similar permits have been obtained in previous years and ERD does not anticipate any issues with obtaining these permits for the 2018 exploration season.

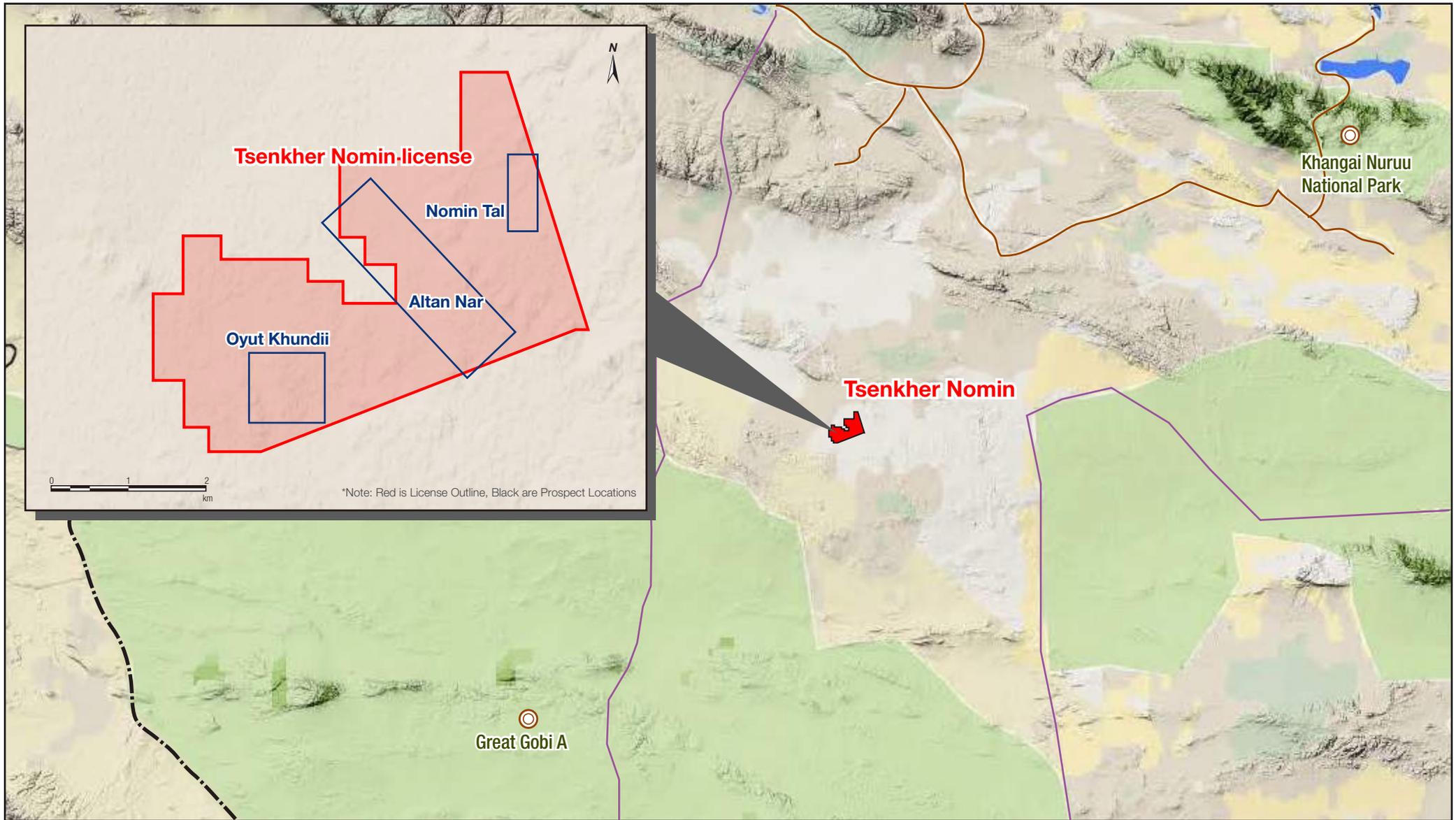
In addition, RPM is not aware of any other issues or liabilities (including surface rights or access) which could impact the future mining operations. RPM notes that ERD will need to obtain additional and separate licenses for water use to support any future mining operation.



LEGEND	
	International Boundaries
	Provincial Boundaries
	Railway
	Main Road
	Rivers
	Provincial Capital

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CLIENT	PROJECT
<p>Erdene Resource Development</p>	NAME ALTAN NAR DEPOSIT
	DRAWING General Location Plan
FIGURE No. 4-1	PROJECT No. ADV-MN-00156
Date May 2018	



LEGEND	
	International Boundaries
	Provincial Boundaries
	Road
	Rivers

0 25 50 km

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CLIENT	PROJECT
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT
	DRAWING Detailed Location Plan
FIGURE No. 4-2	PROJECT No. ADV-MN-00156
	Date May 2018

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility and Infrastructure

The Project is accessible on sealed roads from Ulaanbaatar to Bayanhongor (8 hours), followed by unsealed regional gravel roads from Bayankhongor to Shiinjinst (5 hours), then another 2 hours on to site. The Project is located approximately 160km from the Chinese Mongolian border.

Bayankhongor is the Provincial capital of the Bayankhongor Aimag. Bayankhongor city has a population of approximately 30,000 while the Aimag has a population of approximately 84,000 over an area of 116,000sq.km.

Due to the early stage of the Project, limited infrastructure is on site however an exploration camp has been established to provide any exploration support. To date, power has been generated locally and water has been sourced from local wells. These sources are sufficient to carry out planned exploration work in 2018.

5.2 Climate and Physiography

The area surrounding the Project is characterized by low hills of exposed rock and lower plains of unconsolidated sediments. There is very little to no soil profile developed, with fresh rock generally occurring from or very near to surface. The elevation of the undulating low hills ranges from 1,300 m to 1,350 m above sea level. Vegetation is sparse and restricted to grasses, saxaul bushes (*Haloxylon ammodendron* - a local low shrub to small tree) and shrubs.

The regional climate is characterized by extreme seasonal variations in temperature (-40°C to +40°C) and has an average of 250 sunny days a year. The Project area, much like all of Mongolia, is subject to high wind conditions and can result in extreme wind chill during the winter. Average annual precipitation is less than 100 mm, and most rain falls during the summer months of July and August, producing localized flash flooding. Exploration and mining activities can be conducted all year round, only requiring proper preparation with respect to working in a remote location during extreme cold and hot weather.

6 History

With the exception of regional geological mapping and prospecting carried out at a scale of 1:200,000 under the direction of the Mongolian government, no recorded exploration work is known to have taken place on the property other than that completed by ERD since acquisition in 2009.

The licence was covered by ERD's 2009 SW Porphyry evaluation program which included a regional stream sediment survey and limited prospecting over the license area. The regional stream sediment results identified an area of highly anomalous base metal and gold in the area of the Altan Nar Project.

In 2010, as a follow-up to the 2009 SW Porphyry evaluation program, prospecting was carried out on the eastern part of the Tsenkher Nomin license. Previously undocumented ancient workings (shallow pits) were found on the property in an area referred to as the Nomin Tal project. Based on vegetation characteristics, these pits are estimated to be in excess of 200 years old.

Magnetic and induced polarization (IP) dipole-dipole surveys were carried out in the autumn of 2010. The results of these surveys, which have since been expanded, are discussed below in **Section 9.3**.

Encouraging results from exploration at Nomin Tal, led to additional geological mapping, prospecting, geochemical and geophysical surveys over the central part of the Tsenkher Nomin license during the 2011 field season. The soil sampling program (400 m grid) outlined a 3km by 2km area with highly anomalous values for gold (up to 1.5 g/t) and lead (up to 2.6%) and associated anomalies for zinc, molybdenum, silver and copper. This area is referred to as the Altan Nar Project. Geological mapping and prospecting confirmed the presence of multiple prospects containing gold-bearing epithermal-style quartz veins within the large soil anomaly at Altan Nar.

Resource delineation drilling and trenching carried out between 2012 and 2014 on Tsenkher Nomin license by ERD led to the maiden Mineral Resource Estimate for Altan Nar deposit dated March, 2015. Since then additional exploration work has been carried out, including 53 surface infill, extensional drill holes as well scout diamond drilling and an additional trenching programs completed post 2014 on the Tsenkher Nomin license by ERD. All work to date is summarized in the appropriate sections of this Report.

6.1 Previous Mineral Resources

Mineral Resource estimate has previously been reported for the Altan Nar deposit by RungePincockMinarco (RPM) dated in 19th February 2015. The 2015 Mineral resource utilised following information:

- 71 surface diamond drilling for total 10,819m as well as 39 trenches for total 2,927m from 2011 to 2014.
- Utilised 0.3g/t Au cut-off to delineate the gold mineralized lode with minimum width of 2m and in addition zinc/lead mineralized lodes were interpreted using 1,200ppm Zn cut-off.
- Mineral Resource is reported at 1g/t AuEq cutoff grade. AuEq formula calculation use USD metal prices of \$1,200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc and no allowances have been made for recovery and losses.

The Mineral Resource estimate is summarised in **Table 6-1**.

Table 6-1 Summary of Previous Mineral Resource Estimate for Altan Nar

AuEq g/t Cut-off	Class	Tonnes Mt	Au g/t	Ag g/t	Zn %	Pb %	AuEq g/t	Au kOz	Ag kOz	Zn Mlbs	Pb Mlbs	AuEq kOz
0.6	Indicated	3.4	1	9.4	0.57	0.47	1.7	112	1,014	42.4	34.8	185
0.6	Inferred	3	0.8	9.4	0.51	0.35	1.4	83	913	33.9	23.5	139
1	Indicated	1.8	1.7	11.1	0.61	0.54	2.5	102	657	24.7	22.1	147
1	Inferred	1.5	1.5	10.4	0.54	0.39	2.1	72	498	17.7	12.8	102
1.4	Indicated	1.3	2.3	12.1	0.61	0.58	3.1	92	486	16.8	15.9	124
1.4	Inferred	1	2	10.8	0.53	0.4	2.6	63	342	11.5	8.6	83

6.2 Historical Production

No historic mining apart from undocumented ancient shallow pits have been completed on the Project area.

7 Geological Setting and Mineralisation

The majority of the regional geology information presented below has been summarised from the Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, NI43-101 internal report dated March 2014.

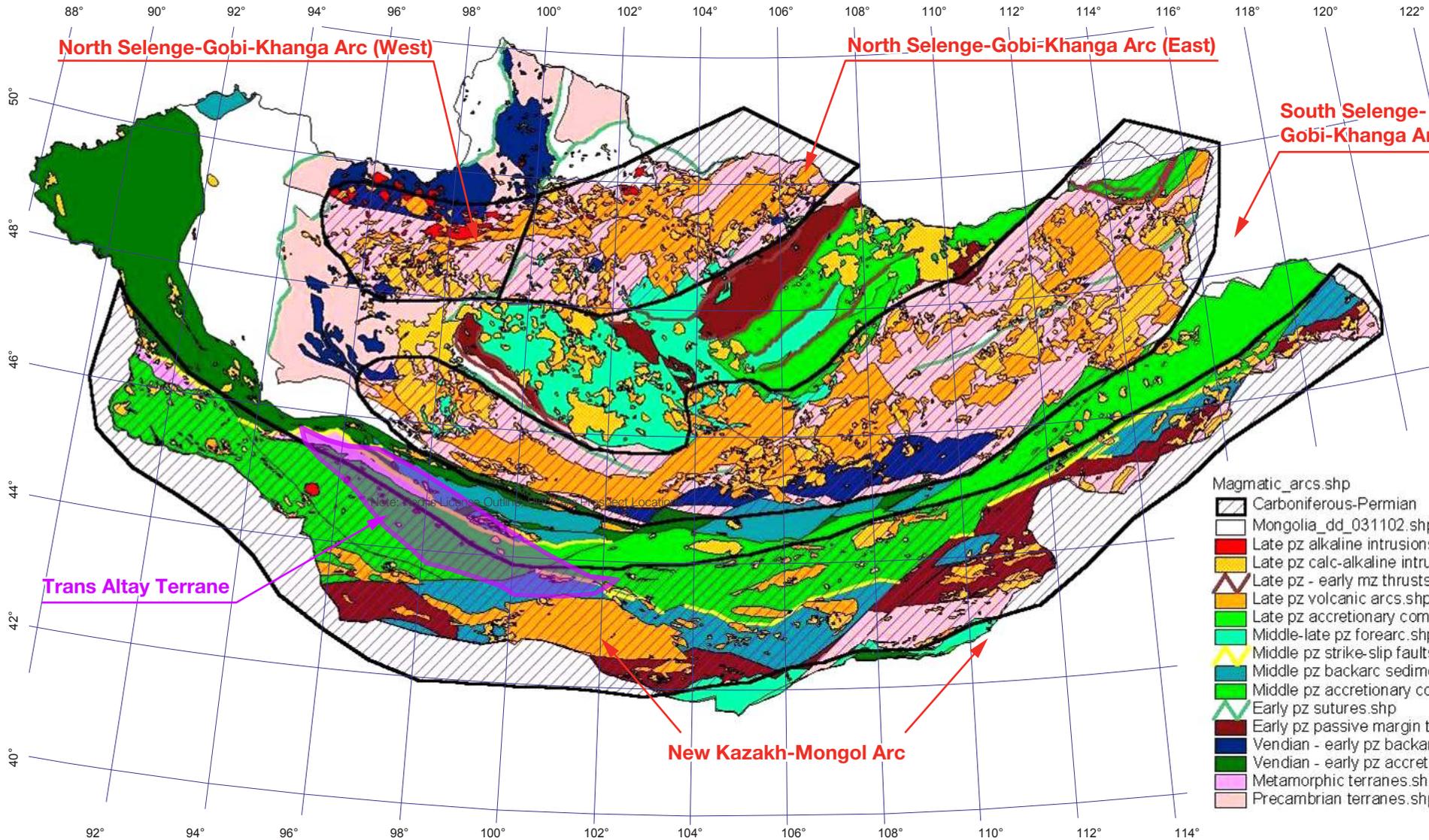
7.1 Regional Geology and Tectonic Setting

The Tsenkher Nomin exploration license is located within the Trans Altai Terrane (“TAT”). The TAT forms part of the western end of the large, composite, arcuate-shaped Carboniferous-Permian New Kazak-Mongol Arc terrain (“NKMA”) as described by Yakubchuk (2002). The NKMA extends along the southern margin of Mongolia, including the border region with China, and contains the Gurvansaikhan Terrane that is host to the Oyu Tolgoi copper-gold porphyry mine (see **Figure 7-1**).

The TAT is located immediately south of the Main Mongolian Lineament (Badarch et. al., 2002) that separates the dominantly PreCambrian and Lower Paleozoic terranes to the north from the dominantly Upper Palaeozoic terrains to the south. The TAT consists mostly of Middle Paleozoic volcanic, sedimentary and meta-sedimentary rocks that were intruded by Middle Paleozoic calc-alkaline plutons. The TAT is comprised of three tectono-stratigraphic terrains (**Figure 7-2**) as defined by Badarch et. al. (2002). These include:

- **Zoolen Accretionary Wedge**, consisting of a lowermost ophiolite sequence of mafic and ultramafic intrusive rocks that are overlain by a sequence of greenschist rocks, pillow lavas, intermediate volcanic and shallow marine sedimentary rocks. The middle stratigraphic portion of the Zoolen Wedge is dominated by intermediate volcanic rocks and rhyolite flows which are overlain by the uppermost sequence of non-marine sedimentary rocks.
- Baraan **Back-arc/Fore-arc Terrane**, is dominated by a lower sequence of intermediate volcanic and volcanoclastic rocks with interbedded shallow marine sedimentary rocks. The upper portion of the Baraan terrane consists of non-marine sedimentary rocks.
- Edren **Island Arc Terrane**, which hosts the Altan Nar project, consists of a lowermost minor sequence of mafic volcanic rocks that are overlain by an interbedded sequence of intermediate volcanic and volcanoclastic rocks, shallow marine clastic deposits, and minor turbidite sedimentary rocks. This sequence is overlain by rhyolite and alkaline volcanic and volcanoclastic rocks. The uppermost portion of the Edren terrane is dominated by non-marine sedimentary deposits.

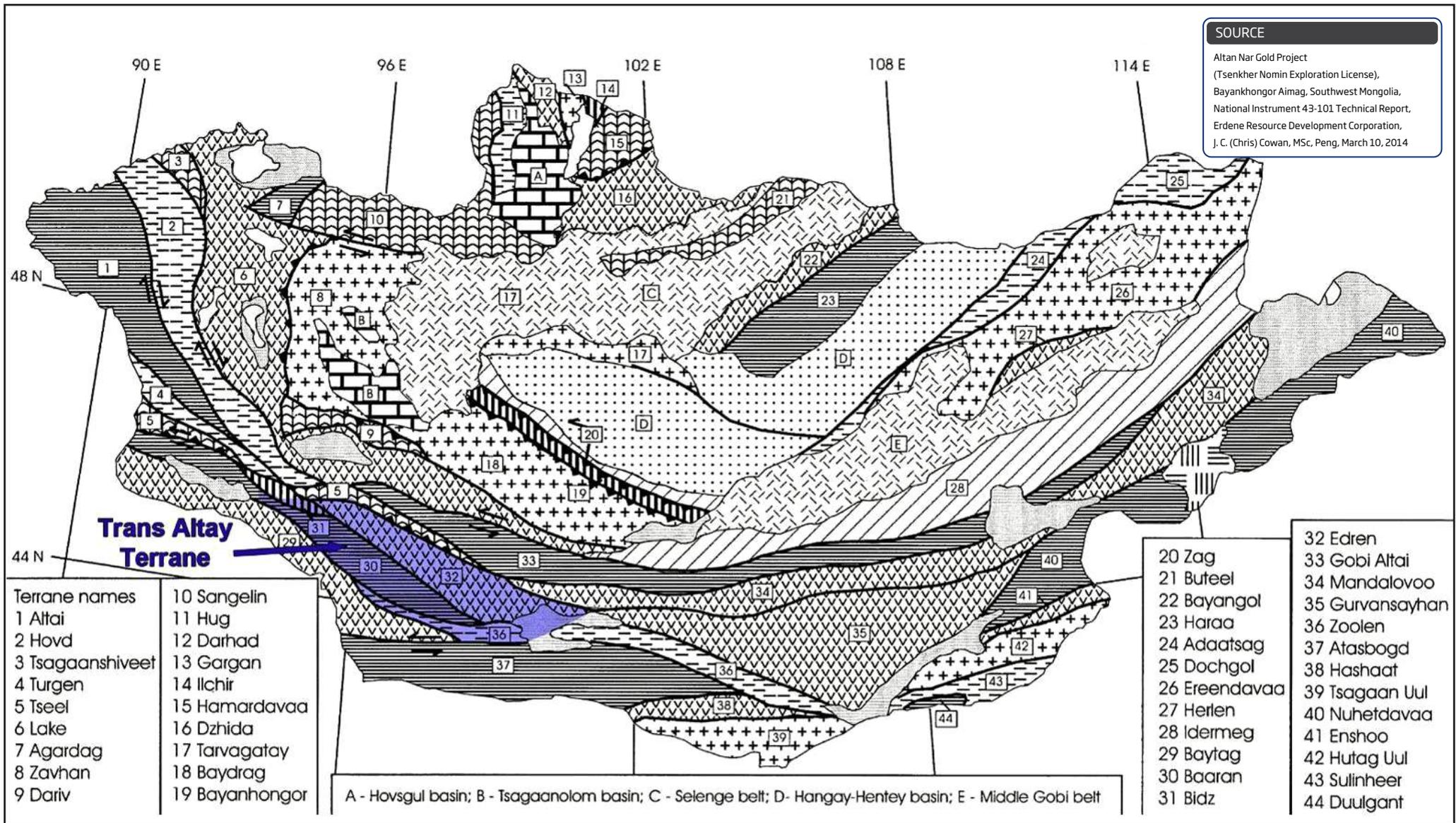
All three tectono-stratigraphic terrains were intruded by Middle Paleozoic calc-alkaline and alkaline intrusions and is overlain by Late Paleozoic, Mesozoic and Cenozoic sedimentary rocks within a series of NW trending sedimentary basins. The geological setting of the TAT, especially the presence of Middle Paleozoic (Silurian-Devonian) island arc rocks intruded by calc-alkaline intrusions, is very similar to the geological setting for the Oyu Tolgoi mine, located approximately 670 km east of Zuun Mod-Altan Nar.



LEGEND
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CLIENT
Erdene Resource Development

PROJECT		
NAME		
ALTAN NAR DEPOSIT		
DRAWING		
Carboniferous-Permian Arcs of Mongolia showing the location of the Trans Altay Terrain (TAT)		
FIGURE No.	PROJECT No.	Date
7-1	ADV-MN-00156	May 2018



SOURCE
 Altan Nar Gold Project
 (Tsenkher Nomin Exploration License),
 Bayankhongor Aimag, Southwest Mongolia,
 National Instrument 43-101 Technical Report,
 Erdene Resource Development Corporation,
 J. C. (Chris) Cowan, MSc, Peng, March 10, 2014

- | Terrane names | |
|------------------|----------------|
| 1 Altai | 10 Sangelin |
| 2 Hovd | 11 Hug |
| 3 Tsagaanshiveet | 12 Darhad |
| 4 Turgen | 13 Gargan |
| 5 Tseel | 14 Ilchir |
| 6 Lake | 15 Hamardavaa |
| 7 Agardag | 16 Dzhida |
| 8 Zavhan | 17 Tarvagatay |
| 9 Dariv | 18 Baydrag |
| | 19 Bayanhongor |

- | | |
|---------------|-----------------|
| 20 Zag | 32 Edren |
| 21 Buteel | 33 Gobi Altai |
| 22 Bayangol | 34 Mandalovoo |
| 23 Haraa | 35 Gurvansayhan |
| 24 Adaatsag | 36 Zoolen |
| 25 Dochgol | 37 Atasbogd |
| 26 Ereendavaa | 38 Hashaat |
| 27 Herlen | 39 Tsagaan Uul |
| 28 Idermeg | 40 Nuhetdavaa |
| 29 Baytag | 41 Enshoo |
| 30 Baaran | 42 Hutag Uul |
| 31 Bidz | 43 Sulinheer |
| | 44 Duulgant |

A - Hovsgul basin; B - Tsagaanolom basin; C - Selenge belt; D - Hangay-Hentey basin; E - Middle Gobi belt

RPMGLOBAL

LEGEND				

CLIENT



Erdene Resource Development

PROJECT

NAME: **ALTAN NAR DEPOSIT**

DRAWING: Tectonic-stratigraphic terrane map for Mongolia (Badarch et al 2002) with location of Trans Altai Terrain

FIGURE No. 7-2	PROJECT No. ADV-MN-00156	Date May 2018
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7.2 General Geology of Eastern Trans Altai Terrain

The regional geology of the Project is outlined in a series of 1:200,000 scale geology maps available through the Mineral Resource Authority of Mongolia (MRAM). The specific maps for the eastern TAT include L-47-XXXII, L-47-XXXIII, L-47-XXXIV, K-47-II, K-47-III, and K-47-IV.

The oldest rocks in the eastern TAT comprise a series of Devonian to Early Carboniferous intermediate volcanic and volcanoclastic rocks, minor felsic (rhyolite) volcanic and volcanoclastic rocks, and sedimentary units including sandstone, conglomerate and minor limestone. Bedding orientations in sedimentary and volcanic map units are predominantly northwest trending throughout the eastern TAT, thus paralleling the overall regional scale faults and structural trends. Primary bedding orientations on MRAM maps were interpreted from lineaments derived from air photograph interpretation, and from regional mapping. Bedding orientations derived from oriented core drilling indicates the Sequence B volcanic rocks (andesite and andesitic tuffs) strike to the northwest and dip approximately 20-30 degrees to the northeast.

The volcanic and sedimentary rocks were intruded by a series of Devonian and Carboniferous calc-alkaline and alkaline granitoid plutons that range in composition from granodiorite and granite, to plagiogranite and syenite, and range in texture from fine- to coarse-grained seriate to equigranular and minor pegmatite. A few small (<5 km²) Carboniferous age gabbro intrusions are exposed in the study area and are thought to represent the most mafic end-members of intrusive suites. Late-stage and mostly post-mineralization dykes cross-cut both granitic intrusions and volcanic-sedimentary country rocks and range in composition from microdiorite to granite, syenite and lamprophyre. Some dykes may be pre- or syn-mineralization. Dyke orientations may be quite variable on a local scale, as noted in the Altan Nar Project area, however, most dykes are oriented NE-SW, especially within and near larger granite intrusions, with some dykes also having N-S or E-W orientations.

7.3 Project Geology

The Tsenkher Nomin license area was mapped, in increasing detail, between 2011 and 2014. The current detailed geology map for the license area is shown in **Figure 7-3**. The geology of the license area is dominated by two separate sequences of volcanic rocks, both assumed to be Devonian to Carboniferous in age, based on the 1:200,000 scale MRAM map L-47-XXXIII. These include:

- a) A package of predominantly andesite flows dominate the east-central part of the license area. These volcanic rocks (referred to as 'Sequence A') have pronounced NW-SE trending linear features that are evident on satellite images. These rocks are interpreted to be a steeply dipping volcanic sequence that was intruded by sub-parallel, NW-trending granite porphyry and fine grained granite intrusions interpreted to be sills, or possibly laccoliths. These intrusions are up to 250 m in width with maximum length of 6 km. Several narrow, NW-trending granitic dykes (<100 m in width) that are similar in composition to the large granite intrusion along the eastern margin of the license, intrude the andesite rocks near the Altan Nar Project area. A few isolated, narrow (10-100 m wide), NW-SE and NE-SW trending trachy dykes intrude the andesite rocks. Widespread development of hornfels textures was noted in the andesite rocks, presumably resulting from contact metamorphism related to the large granite sills or laccoliths. The wedge-shaped package of extrusive-intrusive rocks has a pronounced NW-trending series of linear topographical features that are clearly visible on satellite images. A ground magnetic survey was completed over most of the license in 2011 (**Figure 7-4**). The wedge-shaped Sequence A volcanic rocks and associated granite intrusions were noted to have a much higher magnetic response than the Sequence B volcanic rocks to the west and the granite intrusion situated along the eastern margin of the Tsenkher Nomin license. Areas of low magnetic response within the wedge-shaped sequence correspond to granite sills.
- b) The geology of the central and western portion of the Tsenkher Nomin license area consists mostly of a sequence of volcanic flows and tuffaceous rocks of andesite composition, with subordinate rhyolite, rhyodacite, andesite tuff, and green-coloured andesite. Satellite images for this portion of the license indicate Sequence B volcanic rocks lack the well-developed lineaments and topographical features noted above for the Sequence A rocks. Bedding orientations for the Sequence B volcanic rocks, obtained from 2017 oriented core drilling, indicate these volcanic units strike to the northwest and dip at approximately 20-30 degrees to the northeast. Intrusive rocks are much less abundant in the west and central parts of the license and include a small granodiorite plug (approximately 200 by 300 m)

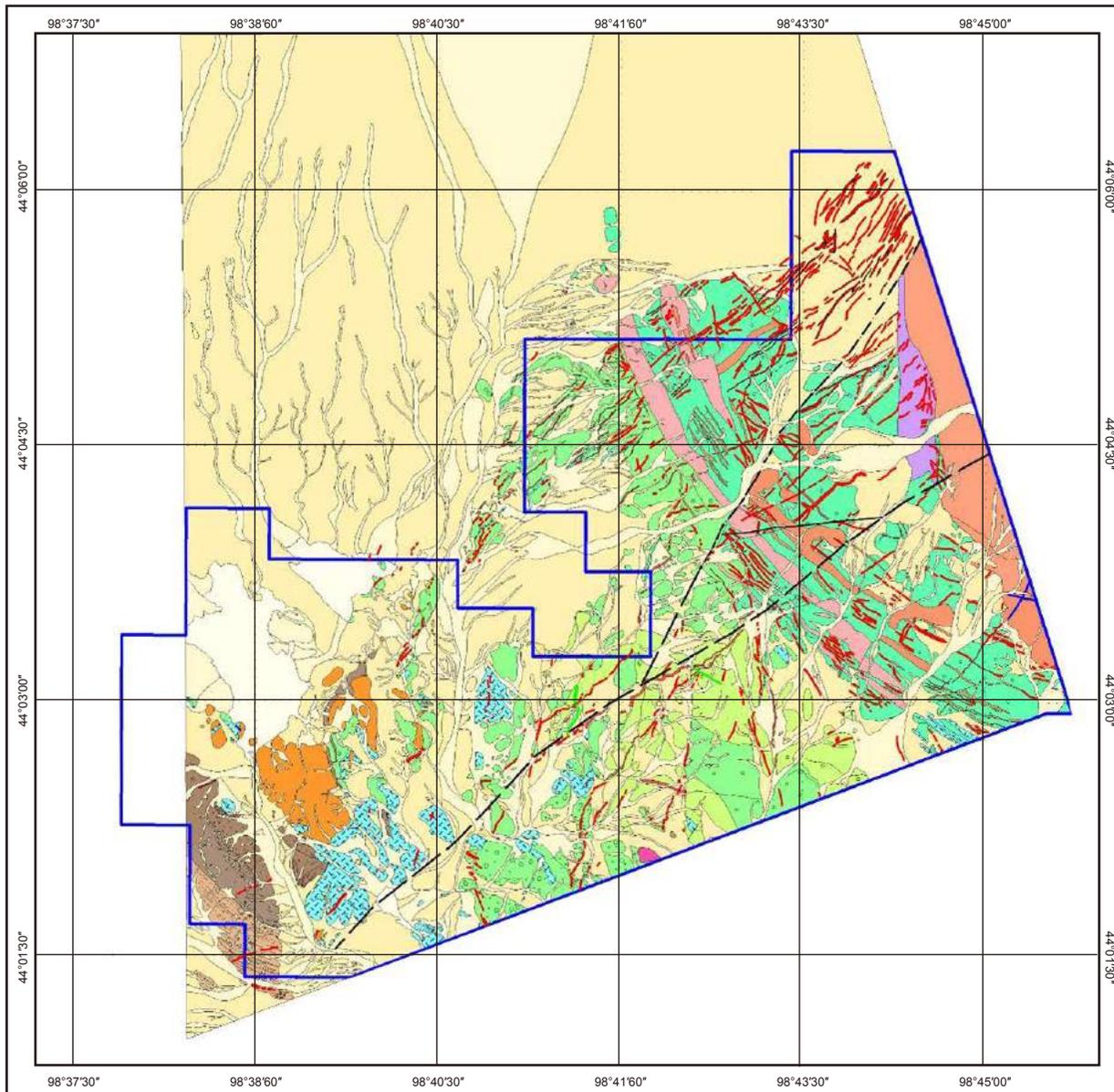
near the southern license boundary, and several variably-oriented trachy-andesite and rhyolite dykes (generally < 50 m wide and up to 1 km in length). The magnetic response of Sequence B volcanic rocks is generally lower than for Sequence A (**Figure 7-4**) and lacks linear orientations, which supports the shallow-dip interpretation for these rocks.

Topographic low areas throughout the Tsenkher Nomin license area are underlain by unconsolidated Quaternary sediments. The pattern and distribution of various facies of Quaternary deposits reflects paleo-drainage systems that were developed along bedrock features including faults and lineament ridges. The abundance and patterns of distribution of Quaternary sediments differs significantly over the Sequence a) and b) volcanic rocks.

Sequence a) andesite and granite rocks are cross-cut by a series of narrow (generally 50 to 200 m wide) regularly spaced (approximately 0.5 to 1.0 km) paleo-drainage valleys that are interpreted to reflect sub-parallel, NE-trending bedrock faults.

Minor north-south and east-west oriented Quaternary valleys may reflect localized structural offsets along some NE faults. Several NE- and ENE-trending faults were mapped in bedrock in the eastern portion of the license. These faults were noted to offset both andesite and later granite dykes and sills, suggesting these structures were developed late in the geological history of this area.

Quaternary deposits and paleo-drainage patterns over Sequence b) rocks in the western and central parts of the license are much more abundant than over Sequence a) rocks and have more randomly oriented drainage systems. A few narrow NE-SW and N-S oriented Quaternary deposits in the east-central part of the license may reflect extensions of bedrock structures developed over Sequence a) rocks.



LEGEND

- Modern quaternary-upper quaternary cover.

- Lower Devonian Ulgii formation (D_1ul)**
- Moderate to pervasive strong biotite-hornfelsed andesite, rarely dacite and rhyolite. Strong magnetic. Locally potassic altered.
- Propylitic altered green, dark green trachyandesite, andesite.
- Light green andesitic fall tuff, tuff sandstone, tuff breccia, rare tuffisite. Pervasive propylitic altered, locally strong silica, phyllic and epidote altered.
- Dark green andesite, andesite ash flow-tuff. Greenstone metamorphosed.
- Dark green andesitic graystone, sandstone, argillite, siltstone, very fine banded. Greenstone metamorphosed.

- Early carboniferous (λC_1)**
- Rhyolite, rarely dacite, pervasive phyllic altered.

- Early-middle Carboniferous granitoids ($qm_{2,3}C_{1-2}bb$)**
- Coarse-middle grained quartz monzodiorite, quartz monzonite. Locally potassic altered.
- Riebeckite-arfvedsonite fine-medium grained granite granite porphyry intrusions and sills. Weak to moderate phyllic and K-spar altered.
- Subvolcanic stock of Rhyodacite. Pervasive phyllic altered, weathered.
- Dacite porphyry dykes and sills. Pervasive silica and selective K-spar altered.
- Trachyrhyodacite, trachydacite porphyry dykes, rarely sienite dykes. Pervasive phyllic and selective K-spar altered.
- Quartz-Fluorite veins
- License boundary
- Granite porphyry dykes, aplite dykes.
- Faults.

SOURCE

Altan Nar Gold Project
 (Tsenkher Nomin Exploration License),
 Bayankhongor Aimag, Southwest Mongolia,
 National Instrument 43-101 Technical Report,
 Erdene Resource Development Corporation,
 J. C. (Chris) Cowan, MSc, Peng,
 March 10, 2014

LEGEND





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CLIENT

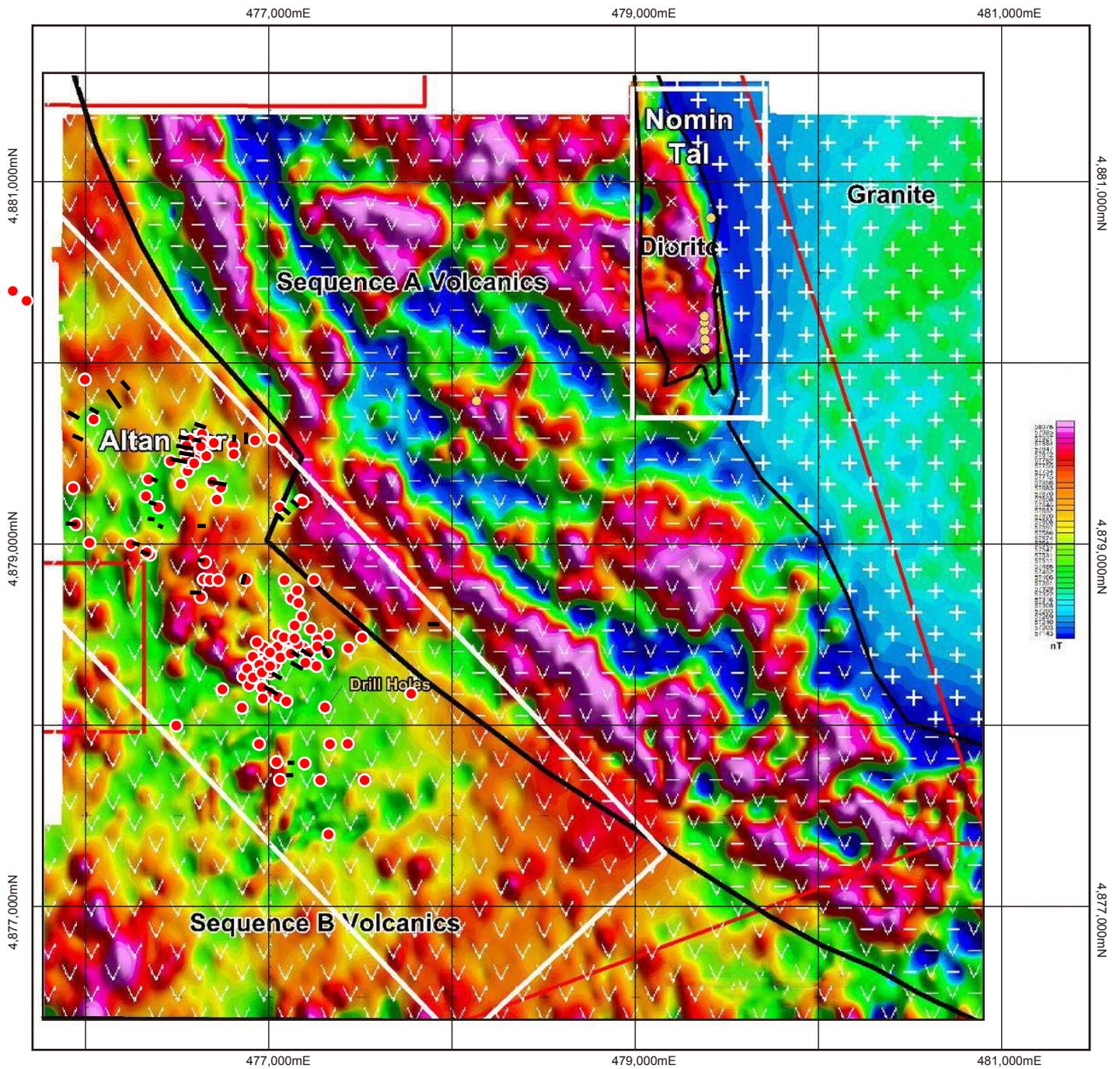


PROJECT

NAME
ALTAN NAR DEPOSIT

DRAWING
Tsenkher Nomin Geology Map

FIGURE No. 7-3	PROJECT No. ADV-MN-00156	Date May 2018
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SOURCE

Altan Nar Gold Project
(Tsenkher Nomin Exploration License),
Bayankhongor Aimag, Southwest Mongolia,
National Instrument 43-101 Technical Report,
Erdene Resource Development Corporation,
J. C. (Chris) Cowan, MSc, Peng,
March 10, 2014

RPMGLOBAL

LEGEND

● Drill hole — Trench lines

N

0 500 1000
m

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CLIENT

Erdene Resource Development

PROJECT

NAME **ALTAN NAR DEPOSIT**

DRAWING Tsenkher Nomin property- Reduced to pole
(RTP) ground magnetic with generalized geology

FIGURE No. 7-4	PROJECT No. ADV-MN-00156	Date May 2018
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7.4 Mineralisation Style

Within the Discovery Zone, gold mineralisation appears to be structurally controlled within NNE to NE trending sub-parallel shear zones that are steeply dipping to sub-vertical. Gold-bearing zones are associated with multi-phase gold-silver-lead-zinc mineralisation related to epithermal quartz and quartz-chalcedony veins and breccias in a northeast-southwest trending, steeply northwest dipping, fault / breccia zone. Preliminary evidence suggests that andesite units, particularly near the contact with more competent silicified volcanic breccia units, act as a favourable host for mineralisation.

There are multiple phases of quartz veins / breccia (+/- mineralisation) within the structurally-controlled mineralized zones at Altan Nar. Only preliminary work has been completed to date regarding the paragenetic sequence for these phases. The following mineralizing phases are based on petrographic observations, coupled with other field and mineralogical data. The following preliminary paragenetic sequence is proposed for Altan Nar:

- Early stage massive quartz veining and brecciation.
- Brecciation, silicification and comb quartz veining and associated white mica alteration (sericite-pyrite-quartz) and deposition of galena-sphalerite-chalcopyrite-gold ±arsenopyrite (low-arsenopyrite gold mineralisation).
- Localized arsenopyrite-pyrite-gold overprint on above sequences, with some associated chalcedony veining and silicification (high-arsenopyrite gold mineralisation).
- Mn-Ca carbonate veining (rhodochrosite, calcite, etc.) – late hypogene
- Late-stage (supergene) oxidation – limonite, Mn oxides, malachite.

Zones of high-arsenic gold mineralisation were initially reported and tested. However, additional drilling and trenching across the Altan Nar property has shown that this type of mineralisation is localized when compared to the dominant low-arsenic style gold-silver-lead-zinc mineralisation.

Six low-arsenic samples (averaging 6.3 g/t Au, 18.7 g/t Ag, 1.8% Pb, 1.2% Zn, 0.2% As) were submitted for both transmitted and reflected light petrographic analysis. Visible gold was observed in three of the six samples, in contrast to previous analysis of high-arsenic samples where very fine grained gold was only noted in two of 20 mineralised samples. In addition, arsenopyrite was absent in four of the six low-arsenic samples, and only present in trace amounts in the other two samples. This is in contrast to previous work on high-arsenic samples where arsenopyrite was observed, in varying amounts, in all samples and constituted up to 1% of the mode.

Preliminary metallurgical testing on both low and high arsenic samples indicate high gold recovery rates (80-90%) can be achieved for both ore types using conventional gold extraction technologies. See **'Section 13'** of this report for further details.

7.5 Mineralised Prospects

Systematic, increasingly more refined, exploration (including geological mapping, geochemical sampling, geophysical surveys, trenching and drilling) has been carried out on the Tsenkher Nomin property by ERD over the past nine years. The characterisation of high-grade gold, silver, lead and zinc mineralisation in drill holes and trenches has provided an improved understanding of mineralisation at Altan Nar and therefore improved targeting utilizing mapping, geochemical and geophysical data. Higher-grade zones are typically associated with broad zones of hydrothermal and sulphide matrix breccia with intense white mica alteration (quartz-sericite-pyrite) that result in IP chargeability highs (disseminated pyrite) and magnetic lows (martitization of magnetite). These zones of alteration are mostly preferentially weathered, resulting in little or no surface expression. Even the remnants of highly resistive quartz breccia zones have mostly been reduced to surface rubble.

The combination of detailed surface mapping, geochemical analysis of soil and rock samples, along with IP and magnetic geophysical surveys has resulted in the identification of 20 highly prospective targets within the Tsenkher Nomin license, 18 of which are within the main Altan Nar trend. With the exception of the Discovery Zone and Union North there are 16 targets which are relatively un-tested, with only limited trenching and scout drilling. These target zones have the potential to significantly expand the areas of known gold-polymetallic mineralisation at Altan Nar. A total of 125 diamond drill holes and 42 trenches have been completed across the

Altan Nar Project (see ‘**Section 10** – Drilling’ and ‘**Section 9.4** – Trenching Program’ for further details). Closer-spaced delineation drilling and closer-spaced trenching was carried out on two prospects, Discovery Zone and Union North, while wider-spaced scout drilling and trenching has been carried out on 14 of the 16 remaining prospects identified within the Altan Nar mineralised trend.

A Maiden Mineral Resource estimate dated 24th March 2015, was only carried out for Discovery and Union North zones while the May, 2018 estimate completed resource modelling on nine prospects (Discovery, Union North, True North, Central Valley, Union South, Riverside, Maggie, Union East and Northfield zones) which are the subject of this report.

7.5.1 Discovery Zone

Drilling to date at the Discovery Zone (“DZ”) has identified a minimum strike length of 650 m and has demonstrated both vertical and lateral continuity of gold, silver, lead and zinc mineralisation. This includes: thirty-one, mostly shallow (<150 m vertical extent) drill holes (pre 2015); an additional twenty five drill holes (post 2014) with depths ranges from 57.3m to 450m (TND-129) drilled at the DZ; along with five trenches (pre 2015) and additional single trench (ANT-42) in 2015 across zones of surface mineralisation. Drill spacing in the DZ was generally at 50 m intervals, however, infill drilling in some areas was at 25m spacing, . Exploration work has identified north-northeast trending, sub-vertical zones of gold and silver mineralisation over variable widths (up to 50 m apparent width) averaging in excess of 1 g/t gold, including drill intervals up to 29 m averaging 4.3 g/t gold and 24.1 g/t silver in DZ South.

Infill drilling in 2016, returned the highest grade intersection to date in drill hole TND-101, 169m of 7.5g/t Au, 27 g/t silver and 0.6% combined lead and zinc including 46 m of 19 g/t gold with 49 g/t silver and 1.1% lead and zinc. Hole TND-101 was drilled at a low-oblique angle to main mineralised trend but clearly shows evidence of high grade zones at Discovery zone. This hole intersected a significant high-grade gold-silver-lead-zinc zone with significant copper, including up to 2.43% Cu over 1 m interval, in the central portion of the DZ. Previous shallow drilling in this part of the DZ intersected only low-grade gold-base metal mineralization. Follow-up drilling oriented perpendicular to TND-101 confirmed continuity of mineralization at depth between the DZN and DZS with the high-grade mineralization bridging these 2 zones.

Within the DZ, gold mineralisation is structurally controlled and is associated multi-stage epithermal comb-quartz and quartz-chalcedony veins with variable brecciation and minor ‘boiling textures’ including bladed calcite and adularia, along with common hydrothermal breccia zones, with mineralized zones being steeply dipping to sub-vertical. The DZ remains open along strike to the north and at depth. Drilling has tested the mineralisation to a vertical depth of 397 m (DZ South) to 390 m (DZ North). The deepest holes at the DZ are ~450m (~390m-397m vertical depth) (TND-31 and TND-129). TND-31 intersected 2m of 9.57 g/t Au, 7g/t Ag, 0.22% combined Zn and Pb at 369-371m depth and TND-129 intersected 2m of 4.77 AuEq at 381-383m depth (consisting of 1.51 g/t Au, 30.5 g/t Ag, 3.88% Pb, 1.57% Zn).

The deepest longest holes at the DZ are ~450m (~390m-397m vertical depth) (TND-31 and TND-129). TND-31 intersected 2m of 9.57 g/t Au, 7g/t Ag, 0.22% combined Zn and Pb at 369-371m depth.

In the DZ, trench results confirmed that mineralisation begins within 1 to 2 metre of surface, is structurally controlled and is associated with quartz veins and breccias within zone of intense white mica alteration. Trench results, in conjunction with previous drill results, indicate the presence of a potential shallow, bulk-tonnage, gold-silver-lead-zinc mineralised system (see ‘**Section 9.4** Trenching Program’ for more details).

The majority of the Mineral Resources reported in the Report are from the DZ.

7.5.2 Union North

Union North is located 1.3 km northwest of the DZ (see **Figure 7-5**). As a series of seven trenches and 10 drill holes (pre 2015), and additional 14 diamond holes (post 2014) drilled at 50 m to 50 m spacing with minor amount closer spaced area (15-20m), have identified mineralisation associated with a structural dilation zone. This zone is located on a large northeast-southwest trending structure that hosts wide, parallel zones of intensely altered and mineralised breccias. Previous drilling (2012) included a single hole (TND-46) at Union North which intersected 47 m of 1.3 g/t gold, including 9 m of 4.3 g/t gold, 12 g/t silver, and 1.7% combined lead-zinc. Drilling in Q2 2014 returned the widest zone of higher grade mineralisation to date and an indication of intensifying

grades at depth, including 22 m of 2.1 g/t and 25 m vertically below expanding to 24 m of similar grade with a high grade core of 12 m of 4 g/t gold, 10 g/t silver and 2.5% combined lead and zinc.

Infill drill hole TND-82 intersected 10m of 4.7g/t Au, 19g/t Ag, 1.9% combined lead and zinc from 26m.

An extensional drill hole drilled at NE end of the Union North mineralisation trend came up barren and potential for additional mineralisation at northern extension is considered low, whereas the south western end remains open and there is potential for additional mineralisation in this area. In contrast to the DZ, which is mostly devoid of granitoid dykes, Union North has several granitoid dykes that have both NE and E-W orientations and follow the overall trend of mineralized vein and breccia zones. The dykes are mostly considered to be post-mineral, however, some dykes may be pre-mineral.

Trenching results from 2013 (ANT-14) included 45m of 4.59 g/t Au, 29 g/t Ag, and 4.56% combined Pb-Zn, including 20.2 g/t gold, 138 g/t silver, 17% lead and 5.3% zinc over 7 metres (see '**Section 9.4 Trenching Program**' for more details). Trenching in Q3 2014, designed to test a geophysical anomaly located 170 m southeast of the main Union North target returned multiple mineralised zones. Trench ANT-37, positioned over the eastern-most portion of the geophysical anomaly, where soil geochemistry returned high gold and base metal values, uncovered multiple zones of alteration and mineralisation averaging greater than 1 g/t gold equivalent over a combined length of 22 m, with one section returning 12 m of 3.7 g/t gold. The western portion of the anomaly trends under a deeper drainage basin and bedrock is beyond the depth accessible through trenching. Union North remains open to the north, south (Union South Prospect) and at depth.

Outside of the DZ and Union North, scout drilling (2011-2012), trenching (2013, Q3 2014) and target drilling (Q2 and Q4 2014, 2015-2018) have been carried out over a 5.0 km portion of the Altan Nar property to test a number of high priority targets, including the following.

7.5.3 Maggie Prospect

Located 700 m north of the DZ and 700 m east of the Union North Prospect, the Maggie Prospect area is a 500 m x 400 m triangular shaped area along a major NE structure and bounded to the east by a large granite sill/stock. This target is characterized by a 10 to 40 m wide linear white mica alteration zone with gold, silver, lead and zinc mineralisation traced for over 300 m on a NE trend through the centre of the target. At the NE end of this NE structure is a 90m by 130m magnetic low feature with a coincident low-level IP chargeability anomaly (11 mSec).

Initial trenching uncovered a well mineralised zone, 38 m wide and hosted by an altered andesite cut by two barren post-mineralisation dykes (7 m and 2 m wide). Excluding the 9 m of post mineralisation dyke, the central mineralised zone returned 17 m of 3.4 g/t gold, 4.9 g/t silver and 1.41% combined lead-zinc. Drilling of this target in Q2 2014 returned two narrower zones with mineralisation apparently displaced by a post-mineralisation porphyry dyke. These two zones, 3 m and 5 m wide and located on either side of the dyke, returned greater than 1 g/t gold, and up to 36 g/t silver and 1.5% combined lead and zinc.

Three trenches completed in Q3 2014 tested soil and IP anomalism northeast and southwest of the previous trench and drill hole and established a 120 m strike length that remains open. Trench results included 8 m of 2 g/t gold equivalent to the northeast and 5 m of 1.2 g/t gold equivalent to the southwest.

In 2017, two diamond holes (TND-123 and TND-133) were drilled on Maggie Prospect and those were collared as drill fans and both holes intersected high grade gold and base metal mineralisation. TND-123 intersected 16m of 3.8g/t Au, 9.4g/t Ag, 0.4% combined Pb and Zn from 28m however mineralisation was cut by 8.8m thick barren post mineralisation dykes.

TND-133 intersected a 4 metre wide interval that averaged 2.2g/t Au, 7.5g/t Ag, 1.04% combined Pb and Zn from 32m. A 5 metre wide zone of lower-grade gold and base metal mineralisation was also intersected at 69 metres depth that averaged 0.52g/t Au, 6.2g/t Ag, 0.32% combined Pb and Zn. Drilling also intersected the same barren andesitic dykes that occurred in TND-123. Mineralisation at the Maggie Project is open along strike (NE-SW) and down-dip and the mineralisation looks to be thicker in the NE direction. Resource modelling has been carried out for the Maggie Prospect.

7.5.4 Northbow Prospect

The North Bow Prospect is located 600 m to the west of Union North. Northbow, extends 600 m on a NE trend and adjoins the South Bow Prospect located to the south. The target is characterized by two or more parallel zones of white mica-altered volcanics/hydrothermal breccias traced over a strike length of 400 m and remains open. The main alteration zone has been tested by two trenches which are approximately 100 m apart along the NE trend and targeted an area of quartz vein rubble at surface returning up to 9 m of 1.3 g/t gold and 1.3% combined lead and zinc. Large portions of the target area are under cover. The priority area remaining to be tested is the NE extension from the trenched areas over a strike length of approximately 200 m. A large soil anomaly, up to 200 m wide, is present in this area with high gold, up to 0.2 g/t, and highly anomalous molybdenum (up to 0.7%). Molybdenum has proven to be a good pathfinder element for the highest intensity gold mineralisation. In addition, evidence of white mica alteration and quartz veining in the surface rubble and evidence of a structural flexure support the high priority assigned to this target area. The recently completed induced polarization study displays moderate chargeability and resistivity anomalies coming to surface through low resistivity cover and broadening and intensifying significantly moving to the north and at depth. A magnetic low anomaly is located on the east side of the target area. Trenching in Q3 2014 in the North Bow area, identified broad zones of mineralisation, with four zones, totaling 34 m, returning an average of 0.4 g/t gold equivalent, while approximately 300 m to the south, a second trench returned 10 m of 0.75 g/t gold equivalent.

A single hole drilled in 2012 (TND-53) did not intersect significant gold mineralization (i.e. all intervals <100 ppb Au), although several zones with 0.3 to 0.5% combined lead and zinc were intersected in the hole. Another hole drilled in 2015 (TND-86) did not intersect any significant mineralisation.

7.5.5 Junction Prospect

The Junction Prospect is located adjacent to, and northeast of, the DZ. This 400 m by 400 m target area has been largely defined by very intense soil anomalism including gold, lead, zinc and locally molybdenum. It is also characterized by a complex dyke swarm. Multiple quartz veins and vein-rubble areas are evident in the centre of the target area and rock samples have returned up to 11.2 g/t gold at the southernmost extent of the target. Much of the area, however, is in low relief and overlain by recent sedimentary cover. Geophysical surveys indicate a structural break near the centre of the target area with a coincident magnetic low, gradient resistivity high and moderate chargeability high. In the western portion of the target area, under recent sedimentary cover, an IP dipole study identified a vertically plunging resistivity low and adjacent high chargeability with lower chargeability at depth, similar in nature to the cupola feature identified at DZ North. Quartz/breccia rubble is present in an area of gold, lead, zinc soil anomalism along the eastern side of the covered drainage area. Trenching in Q3 2014 tested the northeast portion of this target area and intersected a broad zone of base metal mineralisation that included 4 m of 3.7% zinc, 1.2% lead, 16 g/t silver, and 0.1 g/t gold, within a 26 m interval of 0.8% zinc and 0.5% lead. A single hole, TND-126, was drilled in the target in Q3 2017 and intersected 6m of 0.45g/t AuEq from 156m. This interval averaged 0.46% copper with low concentrations of lead and zinc (0.01 % and 0.08% respectively).

7.5.6 South Bow Prospect

South Bow is a 600 m long prospect extending south from North Bow where the most southerly trench returned 9 m of 1.3 g/t gold, 6.6 g/t silver and 1.32% combined lead-zinc. Continuing south from the trench, the North Bow / South Bow prospects are overlain by recent sedimentary cover which buried the most intense chargeability anomaly on the property. One area of minor quartz rubble in the central portion of the South Bow prospect area is coincident with zinc soil anomalism. Although soil values are very low in this area of thick cover, there are still a few gold, molybdenum and zinc anomalies along the trend of the gradient chargeability high anomaly. Given the intensity of the chargeability anomaly and known relationship between high chargeability and areas of mineralisation, the subtle geochemical anomalies poking through cover and evidence of a structural break, the South Bow Prospect is highly ranked. Trenching failed to reach the bedrock however three 120-150m spaced diamond holes were drilled in 2016 (TND-94; -95; -96) and these did not intersect any significant gold anomalism (most samples <100 ppb, 4 samples 100-300 ppb Au) but did intersect narrow high grade Pb and Zn. Highest grade is intersected in TND-94 with 1m of 17g/t Ag and 4.2% combined Pb and Zn. Lithological logging indicates that holes intersected volcanic breccia with several structurally-controlled white mica alteration zones.

7.5.7 Union South Prospect

This prospect is a largely a linear N-S feature which continues over 700 m from just south of TND-30 to the north banks of the E-W drainage adjoining the Union North Prospect. Underlying the main trend there are zones of intense dipole chargeability highs extending to surface that are most pronounced in the northern portion of the target area (near the south end of the Union North Prospect) where there is evidence of a structural offset. Gold values up to 15.4 g/t have been returned from rock samples from this area and are associated with an area of strong white mica alteration. In the southern portion, drilling has identified two parallel, 10 m wide zones, with 1.5 g/t and 2.3 g/t gold equivalent. High grade mineralisation was also discovered in trenching (ANT-24) in the southern area with 10 m of 4.46 g/t gold, 8.9 g/t silver and 2.2% lead. However, continuity has not been well established albeit with limited drilling (four holes in south and one in north). Although one hole (TND-52) has tested the eastern portion of the northern part of the target area, it was targeting a parallel zone of near surface mineralisation which did not extend to depth and this drill hole was not deep enough to reach the main Union South Prospect located further west.

In 2015, 35m step forward hole from TND-29 and TND-39 intersected 3 separate areas of high grade mineralisation 3m at 2.2 g/t Au, 3g/t Ag, 0.4% combined Pb and Zn from 23m, an intersection of 4m at 1.9g/t Au, 4.3g/t Ag, 0.7% combined Pb and Zn from 53m and another intersection of 2m at 2g/t Au, 5.3g/t Ag, 1.2% combined Pb and Zn from 75m. In Q3 2017 a single hole was drilled at the north end of the target area (TND-122) and intersected a 27 metre wide interval of low-grade mineralization, commencing at 105 metres depth, which averaged 0.14 g/t Au, 3.0 g/t Ag, 0.19% Pb and 0.53% Zn. Resource modelling was carried out in this area and mineralisation still remains open along NE/SW and down-dip directions.

7.5.8 Riverside Prospect

This prospect is characterized by an 800 m long gradient IP and geochemical anomaly that follows the trend of white mica alteration, quartz/breccia rubble fields and porphyry dykes all of which follow the same structural pathway. The northern portion exhibits multiple quartz veins in andesite although much of the prospect area is covered by recent sediments. Trenching in this area, located approximately 200 m south of Union North, returned 6 m of 3 g/t gold. A single hole (TND-51) tested this area of the target and returned anomalous gold and base metals in multiple zones (32 m of 0.3 g/t gold equivalent). At the southern end of the target, drill hole TND-45 returned 19 m of 1 g/t gold equivalent. Induced polarization studies completed in 2014 and 2016 indicate moderate chargeability at depth although increasing in the northern portion of the target area and a high-resolution magnetic survey completed in 2016 revealed a NNE-trending intense magnetic low feature in the northern target area, trending into the Union North target. A total of 4 holes have been drilled in the target (TND-88, TND-124, TND-125, TND-128 with the first one drilled in 2015 while the remaining 3 were drilled in 2017) since 2014. TND-124 and TND-125 failed to hit the mineralisation probably because the mineralisation is dipping to the east with those 2 holes drilled from west to east while TND-128 and TND-88 intersected some notable mineralisation.

TND-88 intersected 16m at 0.5g/t Au, 0.5% combined Pb and Zn from 45m including 1m at 3.8g/t Au. This hole also intersected 2m of 1.2g/t Au from 32m and 2m of 1.6g/t from 20m.

TND-128 intersected 38m at 0.21g/t Au, 0.56% combined Pb and Zn from 62m.

Resource modelling was carried out on the Riverside Prospect and mineralisation is still open in each direction.

7.5.9 Northfield Prospect

Four trenches were excavated across this prospect on 100 to 250 metre spacing and notable grades were reported from three trenches, with the highest grade reported from ANT-17 where it intersected 28m at 0.41 g/t Au, 10g/t Ag, 0.4% combined Pb and Zn. Two scissor holes (TND-54 and TND-87) were drilled near trench ANT-17, with TND-54 intersecting 2m at 1.16g/t Au and TND-87 intersecting broad low grade gold mineralisation.

Resource modelling has been carried out on the Northfield Prospect.

7.5.10 Central Valley Prospect

A total of eight diamond holes have been drilled on the Central Valley Prospect to date with no significant continuous high grade zones being intersected in any holes however some narrow moderate grade gold and base metal mineralisation were intersected in some holes. Drillhole TND-18 intersected a 5m interval starting at 18 m depth that averaged 2.77 g/t Au, 5.2 g/t Ag and 1.16% combined Pb and Zn. In addition, several holes intersected broad anomalous low grade mineralisation halos, including TND-17 which intersected a 28m interval that averaged 0.84 g/t Au, 133.0 g/t Ag, and 1.11% combined Pb and Zn commencing at 216m depth.

Resource modelling was carried out on the Central Valley Prospect

7.5.11 True North Prospect

Two trenches were excavated and two drill holes were drilled in the prospect. Trench ANT-03 intersected 6m of 1g/t Au, 5g/t Ag, 1.3% combined Pb and Zn while drill hole TND-32 intersected 2m of 2.1g/t Au, 16g/t Ag, 5% combined Pb and Zn from 52m.

Resource modelling has been carried out on this prospect and mineralisation remains open along strike and down-dip directions.

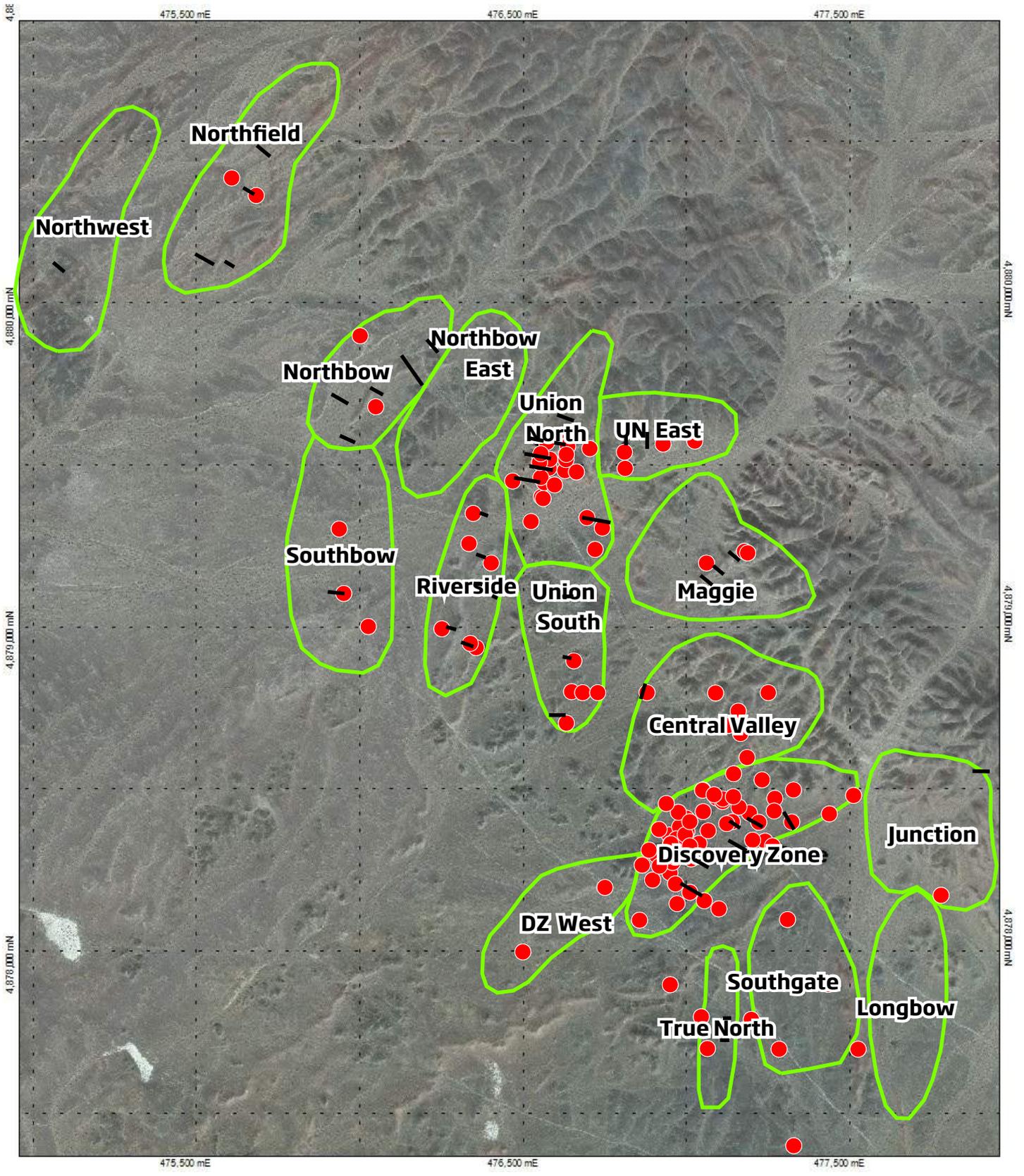
7.5.12 Union North East Prospect

This prospect is located on the east side of the Union North Prospect and extends eastward for approximately 350m. Both of these prospects are potentially connected. Two trenches (ANT-40 and ANT-41) tested surface geochemical anomalies, with ANT-41 returning 27.5m averaging 1.98g/t Au, 4.4 g/t Ag, 0.57% combined Lead and Zinc, including 2m at 8.4g/t Au, 10g/t Ag, and 1.9% combined Pb and Zn. Trench results indicate that grades increase toward the Union North Prospect. Five holes were drilled in this prospect, including TND-97, TND-99, TND-119, TND-120 and TND-121. All holes intersected zones of gold-silver-lead-zinc mineralization with holes TND-97 and TND-120 returning the best intersections. TND-97 intersected an 11m interval which averaged 1.77 g/t Au, 5.8 g/t Ag, and 1.29% combined Pb and Zn starting at 44m depth, whereas drillhole TND-120 intersected a 5.1m interval which averaged 1.08g/t Au, 29.4 g/t Ag, 1.05% Pb and 2.25% Zn, starting at 37m depth.

Resource modelling has been carried out on this Prospect however mineralisation is still open along strike to the east and down-dip direction.

7.5.13 Other Prospects

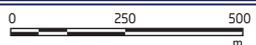
Of the remaining 9 prospects, two are outside the main mineralised trend and are of different styles of mineralisation, albeit with high grades of copper and gold mineralisation over narrow widths. Within the main Altan Nar mineralised trend, a number of other prospects are at a low level of understanding and may improve in ranking as additional data is generated; however, all display evidence of gold and base metal mineralisation at surface.



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● Drill hole	 Prospects
 Trench lines	





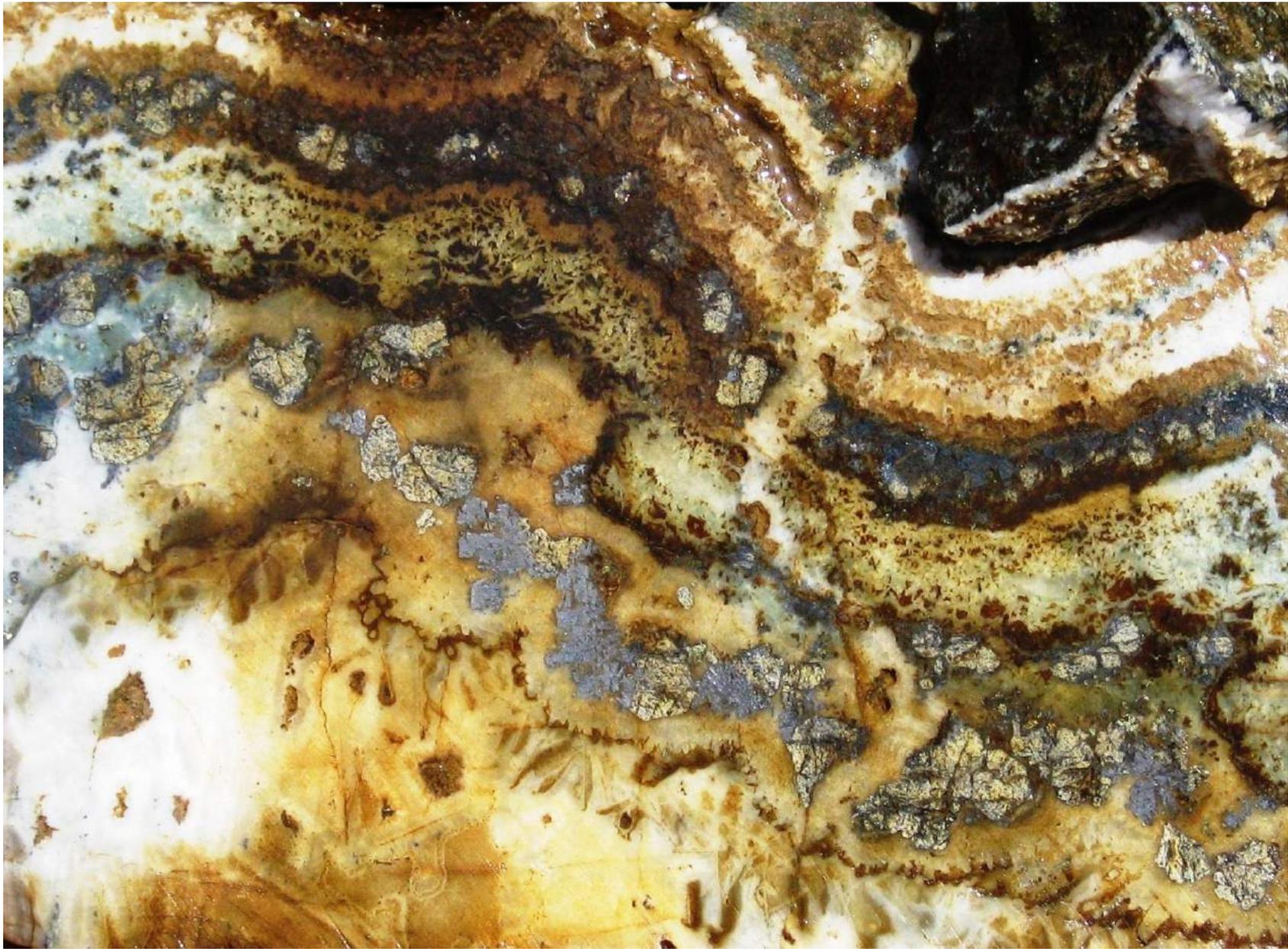
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CLIENT	PROJECT	
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	DRAWING Altan Nar Prospect Location Map	
FIGURE No. 7-5	PROJECT No. ADV-MN-00156	Date May 2018

8 Deposit Types

The Altan Nar Property is located in the Central Asian Orogenic Belt which is host to some of the world's largest gold deposits. Although epithermal gold and porphyry copper deposits are well documented across the border in China and along the westward trend, limited exploration has taken place in southwestern Mongolia due to its isolation, both geographically and politically, until the early 1990's. Exploration since that time in southeastern Mongolia has resulted in the discovery of the world-class Oyu Tolgoi gold-copper deposit containing over 60 million ounces of gold. However, systematic regional exploration in the southwest part of Mongolia has been largely absent with the exception of the work undertaken by ERD over the past nine years which has resulted in the discovery of multiple gold and copper occurrences including the grassroots discovery at Altan Nar.

Altan Nar is an intermediate sulphidation epithermal style deposit which has similar characteristics to the carbonate-base metal gold deposits. These characteristics include a moderate Ag:Au value (7-8 at AN), high base metal concentrations, epithermal quartz textures and abundant gangue minerals which are dominated by Ca-Fe-Mn-Mg carbonate minerals. These styles of mineralization have close magmatic relationships, often being associated with porphyry deposits. This style of gold mineralisation represents the most prolific style of gold mineralisation in the southeast Asia region and includes Kelian, Porgera and Anatok, and elsewhere in the world, Fruta del Norte, Cripple Creek & Montana Tunnels and Rosia Montana and in Mexico five of the world's top silver producers including Penasquito. They are often associated with breccia pipes (diatremes) and can extend vertically for greater than 1 kilometre. The Kelian open pit, for example, is 500 metres deep.



SOURCE
RPM site visit check of drill cores

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ALTAN NAR DEPOSIT		
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Mineralized epithermal coliform crustiform (CC) quartz vein from TND-101; 77.5 m; part of a 1 m interval that assayed 86.5 g/t Au		
FIGURE No.	PROJECT No.	Date
8-1	ADV-MN-00156	May 2018

9 Exploration

A summary of the activity, including methodologies and results, for the exploration work carried out between March 2010 and February 2018 on the Licence is outlined below.

RPM highlights that other than the drilling which followed the maiden resource, no material exploration has been undertaken to influence the resource or the outcomes reported in this report. Below is a description of the previous exploration activities.

9.1 Geological Mapping

ERD has carried out progressively more detailed and extensive geological mapping on the Tsenkher Nomin exploration license since discovery of the historic workings and associated mineralisation at Nomin Tal in the eastern portion of the license in 2010. This work has been principally carried out by ERD geologists over an area of ~50 sq km. The results of this work are discussed in **Section 6.3 - Property Geology** and a detailed geological map for the property is included as **Figure 7-3**.

9.2 Geochemical Surveys

ERD carried out a series of geochemical surveys including rock and soil surveys which are detailed below.

9.2.1 Soil Geochemical Survey

All soil surveys were supervised and carried out by ERD's field geologists in 2011, 2012 and 2014. Because the Project is located within the Gobi region and therefore virtually devoid of organic materials, no A (depleted), or B (enriched) soil horizons exist. Soil samples in the regions therefore consist, for the most part, of residual weathered bedrock along with Aeolian sediments. Samples were taken from shallow hand-dug pits (average depth 25 cm) to minimize Aeolian contamination. Samples were dry sieved in the field with the -2 mm size fraction bagged and sent for analysis. See "**Section 11.0 – Sample Preparation, Analyses, and Security**" for more details. All sample locations were determined by hand-held GPS devices with a location accuracy of approximately 3 m.

Analysis of samples was carried out at SGS Laboratories in Ulaanbaatar. All samples from 2011 were assayed for Au, Ag, Cu, Pb, Zn, As and Mo. Samples from 2012 were assayed for Au and a suite of 45 elements (SGS Code ICP40B). Samples from 2014 were analyzed for Au and a suite of 33 elements (SGS Code ICP40B-2014). See "**Section 11.0 - Sample Preparation, Analyses and Security**" for more details.

In 2011, soil sampling was carried out initially on a 400 m square grid with subsequent infill sampling carried out at 200 m and 100 m spacing along similarly spaced lines (i.e. square grid pattern). The initial 2011 soil sampling program identified a wide zone (2 km by 3 km) of anomalous base-metal-in-soil (Pb and Zn) mineralisation with coincident gold-in-soil mineralisation (Altan Nar Project). Assays of soil samples returned values ranging from back-ground to highly anomalous values including; Au - 1.43g/t; Pb - 2.57%; and Zn - 0.24%. The 2011 in-fill sampling helped to better define the zones of anomalous soil geochemistry and were used as a guide, along with rock geochemistry and geophysics, to identify drill targets in 2011 and early 2012.

In the vicinity of the Nomin Tal project in the eastern part of the license there is a zone of anomalous Cu-in-soil over the area of the historic turquoise pits. This anomaly is 800 m in width and extends to the northwest for approximately 2.3 km. There are also some associated low-level Au-in-soil anomalies in this area. There is also a weakly defined zone of anomalous Cu in the south-western portion of the license coincident with the Oyut Khundii Cu project. In part, this anomaly is poorly-defined due to limited soil sampling because the area includes a wide zone (400 m) of alluvial material that was not sampled as part of the soil sampling program. Maps showing the results for Au, Cu, Pb and Zn from the 2011 soil geochemical survey are included as **Figure 9-1 - A, B, C & D**.

In 2012, an approximately 9 sq.km area was selected for detailed soil sampling with samples taken at 25 m intervals along 100 m spaced E-W lines. Sample analysis included Au and 45 additional elements, including Cu, Pb, Zn, As, Mo and Mn. All of these elements have anomalous signatures coincident with zones of known epithermal mineralisation identified through surface mapping and drilling. Maps showing the results for Au, As,

Pb, Zn, Cu, Mo and Mn from the 2011-2012 soil geochemical survey over Altan Nar are included as **Figure 9-2– A through G**.

The geochemical signature shown on the Altan Nar soil geochemistry maps (**Figure 9-1 and Figure 9-2**) clearly show an extensive zone of base metal mineralisation across the large (~ 1.5 km by 5 km) area of the Altan Nar Project. A significant portion is also covered by coincident Au-Mn-As (and to a lesser extent Mo) anomalies. These results reflect the types of mineralisation intersected in drilling. This includes widespread epithermal Pb-Zn mineralisation and gold mineralisation associated both Pb-Zn epithermal veins as well as gold associated with arsenopyrite rich mineralisation. Manganese (Mn) bearing minerals have been identified in high Au samples through petrographic analysis and there is a strong correlation between Au and Mn soil geochemical anomalies in several prospects.

In Q2 2014, a total of 858 soil samples were collected at 12.5 m intervals along 50 m spaced infill lines over select prospect areas at Altan Nar. The objective of this detailed soil program was to provide greater definition of gold, base-metal and associated alteration-element soil anomalies, which have proven to be very effective in identifying mineralised trends. Approximately 15% of the samples collected (128 samples) returned values greater than 10 ppb gold and are considered to be anomalous based on a regional average of 2.3 ppb gold. One soil sample collected over the Maggie Project returned a highly anomalous value of 1.04 g/t (1,040 ppb) gold.

The soil sampling program on the Tsenkher Nomin license has proven to be an effective exploration tool and has resulted in the location of a number of mineralised zones. There is also a correlation between IP gradient array chargeability highs and geochemical anomalies. Geochemical, geophysical and geological data sets have been used to identify a large number of drill and trenching targets, many of which remain untested by drilling.

9.2.2 Rock Geochemical Survey

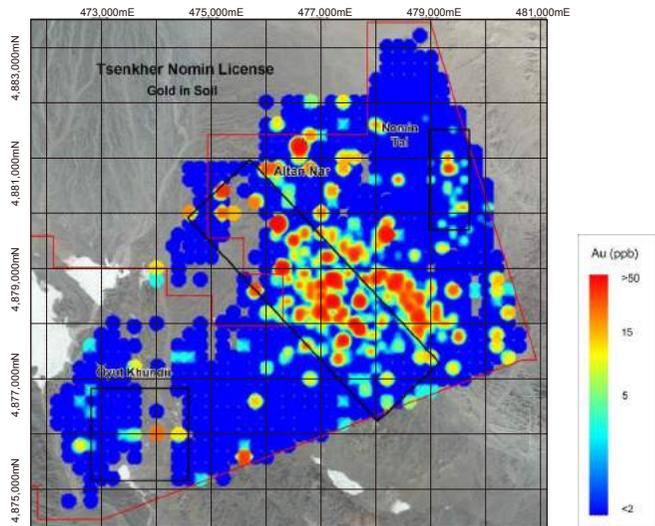
Rock-chip (outcrop) and rock-grab (float) samples were collected from across the Tsenkher Nomin license as part of the geological mapping and prospecting programs that have been carried out intermittently as work on the property and various prospects has advanced. No grid-based rock sampling programs have been carried out to date although detailed geological mapping has been completed. Results from all rock samples taken from 2009 to 2014 are included herein.

All rock sample locations were determined by hand-held GPS units with approximate 3 m location accuracy. All samples were sent to SGS Laboratory in Ulaanbaatar for analysis. All samples were assayed for Au, Ag, Cu, Pb, Zn, As and Mo. See "**Section 10.0 - Sample Preparation, Analyses and Security**" for more details.

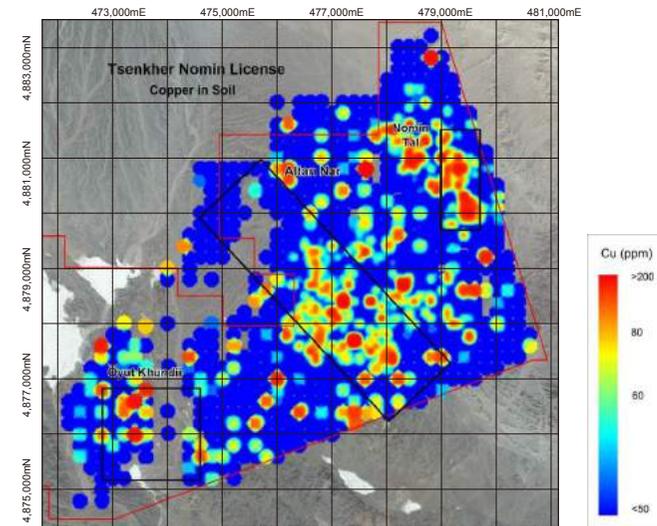
Results to date from the rock geochemical sampling program have identified a number of areas with anomalous zones of Au(As)-Ag-Pb-Zn ±Mo (Altan Nar); Cu-Ag-Au (Nomin Tal) and Cu-As (Oyut Khundii) mineralisation. The rock geochemistry has been used in conjunction with the soil geochemistry and the geophysical data, to identify drill targets on the Nomin Tal and Altan Nar Projects.

Graduated bubble plots of each of Au, Ag, As, Mo, Cu, Pb and Zn are presented in **Figure 9-3 A to G**. These plots indicate the rock data is similar to soil geochemistry, that is, the mineralisation associated with each of the three projects identified to date, Nomin Tal, Altan Nar and Oyut Khundii each have unique geochemical signatures. For example, Nomin Tal has high Cu-Ag-Au values while Altan Nar has high Au-Ag-Pb-Zn (±As-Mo) but low Cu and Oyut Khundii has high Cu and As values. These differences are likely related to either different mineralization styles, or perhaps different modes of emplacement of the mineralisation, and may represent metal zonation within a large overall mineralised system.

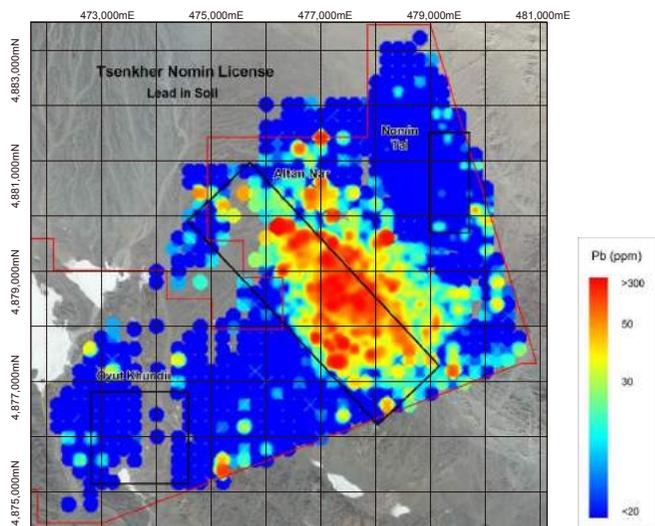
A - Gold



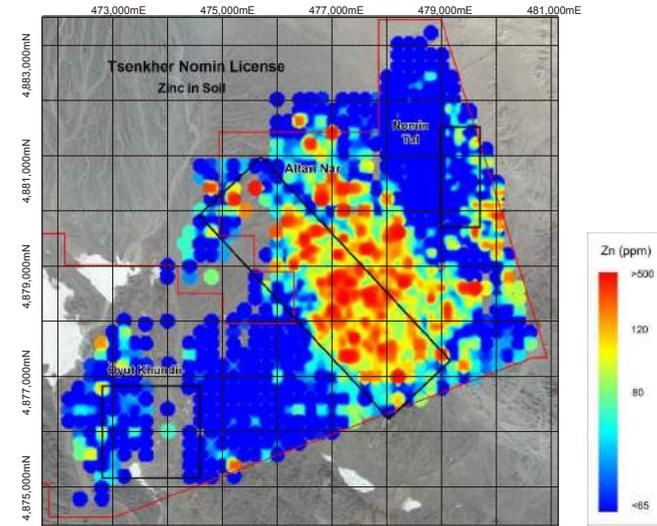
B - Copper



C - Lead



D - Zinc

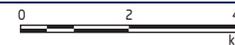


SOURCE

Altan Nar Gold Project
(Tsenkher Nomin Exploration License),
Bayankhongor Aimag, Southwest Mongolia,
National Instrument 43-101 Technical Report,
Erdene Resource Development Corporation,
J. C. (Chris) Cowan, MSc, PEng,
March 10, 2014

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CLIENT



PROJECT

NAME
ALTAN NAR DEPOSIT

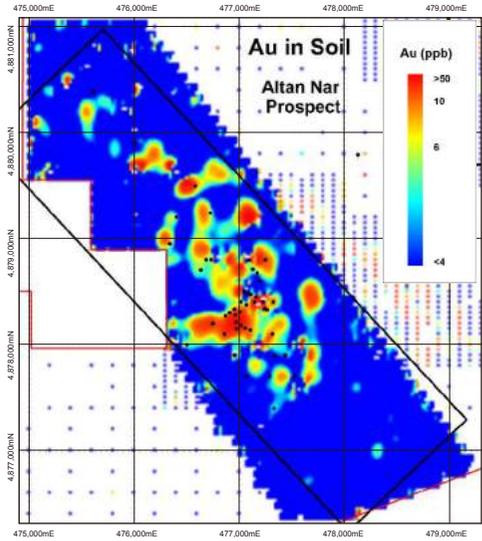
DRAWING
2011 Soil Geochemistry

FIGURE No.
9-1

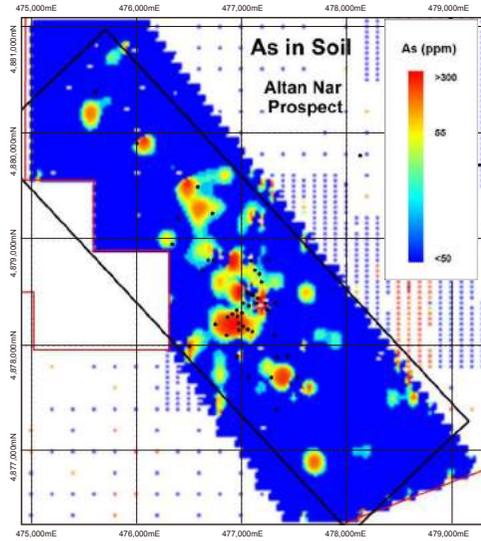
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Date
May 2018

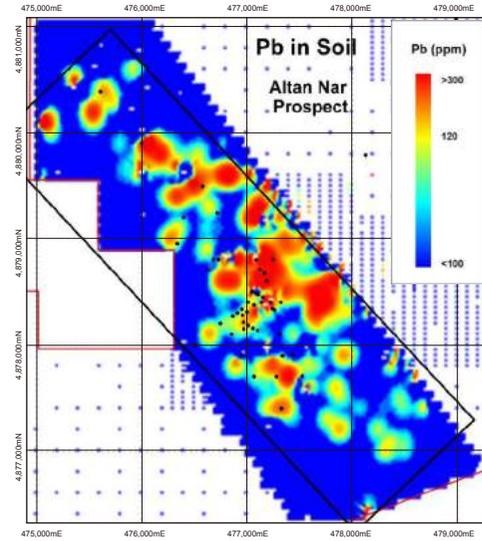
A – Gold



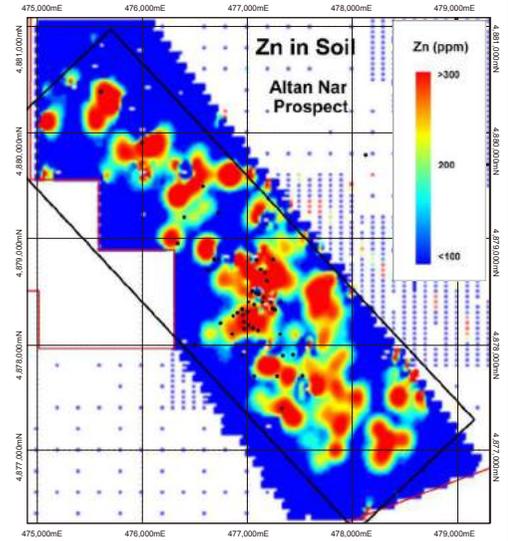
B – Arsenic



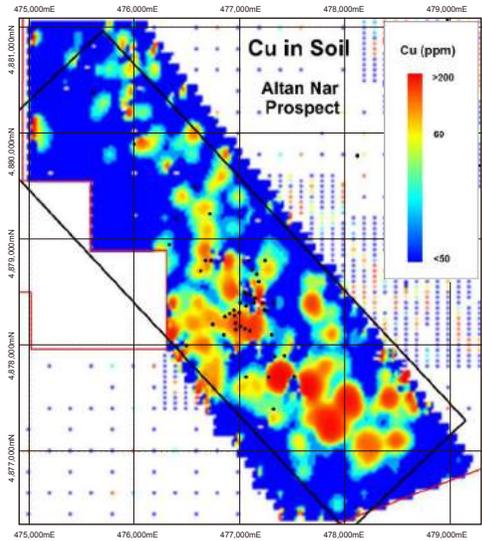
C – Lead



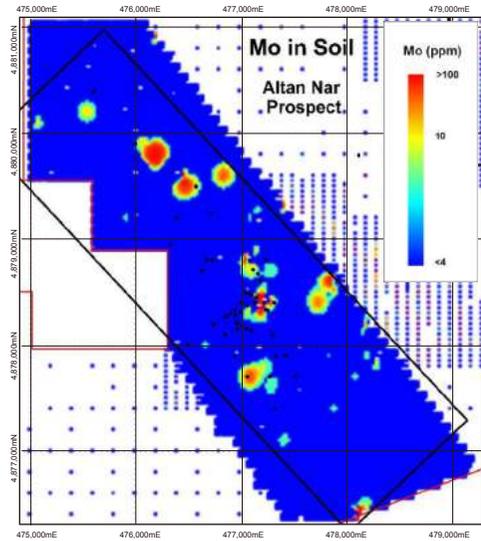
D – Zinc



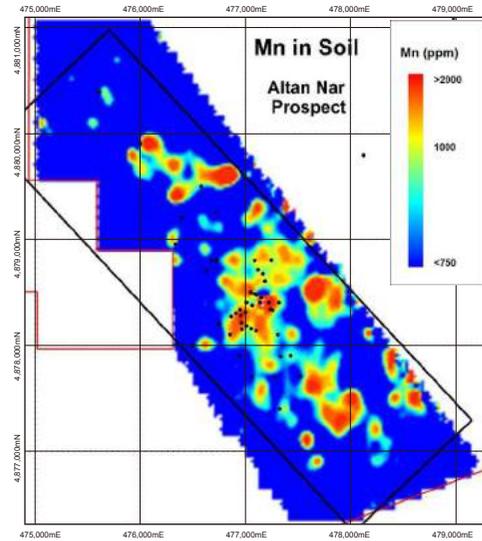
E – Copper



F – Molybdenum



G – Manganese



SOURCE

Altan Nar Gold Project
(Tsenkher Nomin Exploration License),
Bayankhongor Aimag, Southwest Mongolia,
National Instrument 43-101 Technical Report,
Erdene Resource Development Corporation,
J. C. (Chris) Cowan, MSc, Peng,
March 10, 2014

LEGEND

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE



CLIENT



PROJECT

NAME
ALTAN NAR DEPOSIT

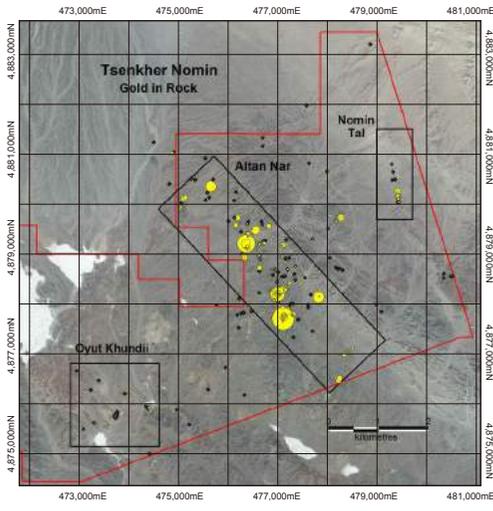
DRAWING
2011 and 2012 Soil Geochemistry - Altan Nar Prospect

FIGURE No.
9-2

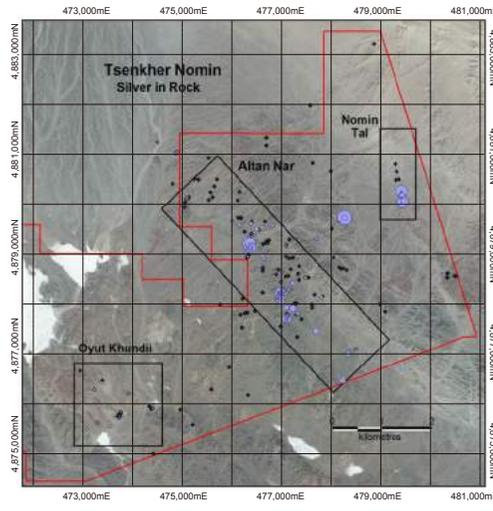
PROJECT No.
ADV-MN-00156

Date
May 2018

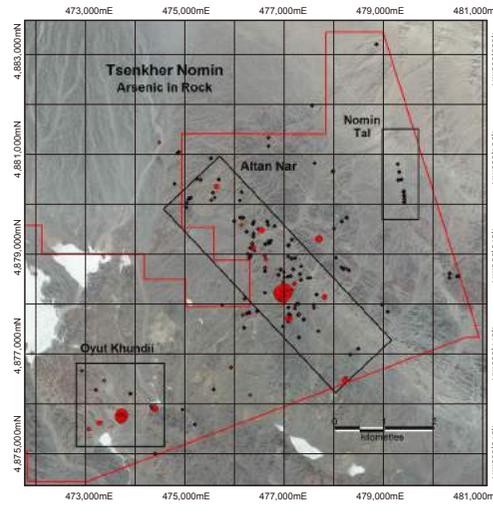
A – Gold



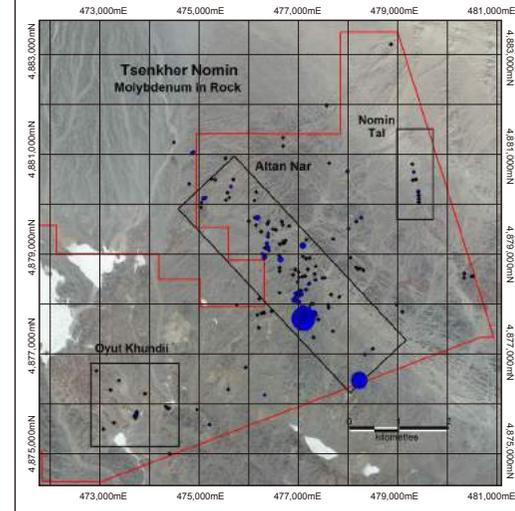
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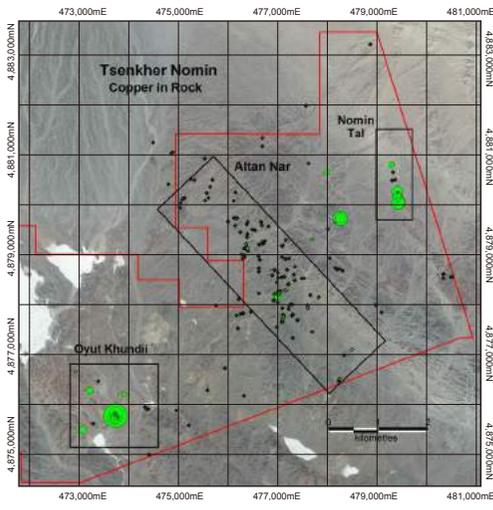
C – Arsenic



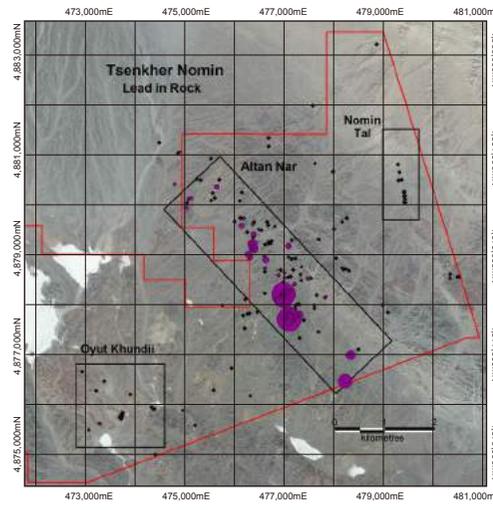
D – Molybdenum



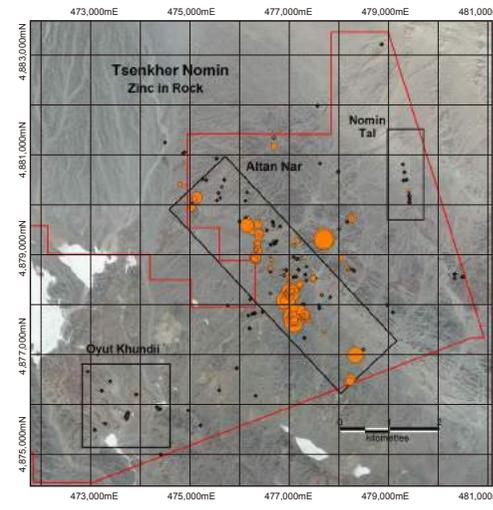
E – Copper



F – Lead



G – Zinc



SOURCE

Altan Nar Gold Project
(Tsenkhor Nomin Exploration License),
Bayankhongor Aimag, Southwest Mongolia,
National Instrument 43-101 Technical Report,
Erdene Resource Development Corporation,
J. C. (Chris) Cowan, MSc, Peng,
March 10, 2014

RPMGLOBAL

LEGEND

- ◆ Rock sample location
- Au in Rock (ppb)
 - 20,000
 - 10,000
 - 2,000
- Ag in Rock (ppm)
 - 100
 - 50
 - 10
- Cu in Rock (ppm)
 - 50,000
 - 25,000
 - 5,000
- Pb in Rock (ppm)
 - 50,000
 - 25,000
 - 5,000
- Zn in Rock (ppm)
 - 15,000
 - 7,500
 - 1,500
- Mo in Rock (ppm)
 - 1,000
 - 500
 - 100
- As in Rock (ppm)
 - 5,000
 - 2,500
 - 500



DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT



PROJECT

NAME	ALTAN NAR DEPOSIT	
DRAWING	Rock Geochemistry	
FIGURE No.	PROJECT No.	Date
9-3	ADV-MN-00156	May 2018

9.3 Geophysical Surveys

9.3.1 Magnetic Survey

A regional magnetic survey (100 m line spacing) has been completed over a 41 km² area covering most of the Tsenkher Nomin exploration license. In addition, within the area of the regional magnetic survey, two areas have been surveyed in more detail (25 m line spacing), including the Nomin Tal (1.4 km² area) and Altan Nar (14.5 km² area) prospects (see **Figure 9-4**). The regional magnetic survey was initiated in 2010 and expanded in 2011 and 2012. The detailed surveys were carried out in 2011 with the Altan Nar area expanded in 2012. In Q4 2016, a high-resolution orientation magnetic survey at 10 line spacing was carried out over the Discovery Zone. This high-resolution magnetic survey was successful on outlining the main mineralized zone and associated alteration zone. In Q2 2017, the high-resolution ground magnetic survey was expanded to cover the entire Altan Nar Project area, using 10 metre line spacing, with a total of 1,000 survey line kilometres. All of the magnetic surveys have been conducted by Erdenyn Erel LLC, a Mongolian geophysical consulting firm based in Ulaanbaatar.

Following completion of the expanded regional, the detailed magnetic surveys in 2012 and the high-resolution survey in 2017, all data was processed by Chet Lide of Zonge Geosciences Inc. of Sparks NV, USA. Mr. Lide compiled all magnetic datasets and produced a series of magnetic map products for each of the surveys, including: 1) Total Magnetic Field; 2) Calculated First Vertical Derivative; 3) Total Field, Reduced to Magnetic North Pole (RTP); 4) Analytical Signal of the Total Magnetic Field. For the regional scale magnetic survey Mr Lide also produced maps for; 5) Pseudo-Gravity of Total Magnetic Field; and 6) Pseudo-Gravity Horizontal Gradient Magnitude.

The results of the regional magnetic survey show distinct magnetic signatures for the main lithological units within the Tsenkher Nomin license area. The large granite pluton on the eastern edge of the license area has a low magnetic signature and shows the sharp, steeply dipping (fault?) contact with the higher magnetic response Sequence A volcanic unit to the west. This unit consists of a wedge-shaped package of trachy-andesite flows dominating the east-central part of the license area. These volcanic rocks have pronounced NW-SE trending linear features that are evident on the magnetic maps and on satellite images. These rocks are interpreted to be a steeply dipping volcanic sequence that was intruded by sub-parallel, NW-trending granite porphyry and fine grained granite intrusions interpreted to be sills, or possibly laccoliths.

As noted above, the central portion of the magnetic survey area (Altan Nar) is underlain by Sequence B volcanic rocks consisting mostly of trachy-andesite and tuffaceous rocks of intermediate composition, with subordinate rhyolite and rhyodacite, which are mostly in the southwestern part of the license, and minor andesite tuff, and green-coloured andesite. The magnetic response of Sequence B volcanic rocks is generally lower than for Sequence A and lacks linear orientations, which supports the shallow-dip (i.e. 20-30°) interpretation for these rocks. Several NE-trending linear magnetic low features and one magnetic high feature near the southern edge of the license are attributed to late stage dykes cross cutting the Sequence B volcanic units.

The western portion of the magnetic survey is underlain by trachy-andesite, pervasive white mica altered rhyolite and sub-volcanic rhyodacite. The magnetic high located just north of the Oyut Khundii project may represent a buried intrusive and the magnetic signatures of the lithologies to the north of this feature appear to wrap-around the central magnetic high.

The 25m detailed magnetic survey carried out over the Altan Nar and Nomin Tal projects has been helpful in identifying possible structural features and lithologic contacts and has been incorporated into the dataset used to interpret and extrapolate the results from the drilling program. There appears to be a correlation between magnetic low features and zones of epithermal mineralisation, which is supported by petrographic studies which show evidence of widespread magnetite destruction ('martitization') in the host lithologies. This feature is thought to reflect widespread epithermal fluid alteration; however, this relationship needs to be investigated further.

The high-resolution ground magnetic survey successfully outlined the known mineralized zones and associated white-mica alteration zones (magnetic lows) in much greater detail than previously available. For example, areas which were previously defined as containing broad magnetic low features were shown to contain multiple linear zones with low magnetic response, which reflect structurally-controlled zones of white mica alteration where primary magnetite in the host andesite rocks was altered ('martitized'), with intervening high magnetic

zones of weakly to unaltered andesite. The increased detail in the high-resolution magnetic survey was used in conjunction with soil and rock chip geochemistry and IP chargeability data to defined drill targets in 2016 and 2017 drilling programs.

9.3.2 Induced Polarization (IP) Surveys

To date, both IP dipole-dipole (“Dp-Dp”) and IP gradient array surveys have been completed on the Tsenkher Nomin property over, and in the vicinity of, the Nomin Tal and Altan Nar projects. All of the IP surveys were carried out by Erdenyn Erel LLC, a Mongolian geophysical contractor based in Ulaanbaatar. All of the IP surveys were also conducted under the direction of geophysicist Chet Lide of Zonge Geosciences Inc. of Sparks NV, USA, who also completed the post-acquisition data processing, quality control and interpretation.

Dipole-Dipole Surveys

A series of 31, east-west oriented, IP Dp-Dp line, spaced from 100 m to 400 m apart, have been completed with a 50m dipole spacing for a total of 55 line-km. These lines were run at four different times, October 2010, August 2011, October 2011 and April 2014. In addition, in Q2 2017 a six-line induced polarization (IP) dipole-dipole survey was completed with 150-metre dipole spacing. The survey lines were oriented at 135 degrees and were centred over the DZ, and were 2,850 metre in length, for a total of 17.1 line-km. The objective of this survey was to identify any significant chargeability anomalies that could represent sulphide mineralization. **Figure 9-5** shows the location, spacing and extent of the various IP Dp-Dp surveys carried out to so far.

The IP Dp-Dp survey over the Nomin Tal project successfully identified the structural contact between the Granite (to the east) and volcanic units (to the west), which hosts the mineralisation identified on surface and in drill core at Nomin Tal. The zone of mineralisation is too narrow and too steeply dipping to be clearly defined by the IP Dp-Dp survey.

In 2011, a series of 10 Dp-Dp lines, spaced 100 m to 200 m apart and totalling 16 line-km, were run over the Altan Nar Project. Dp-Dp chargeability anomalies were used in conjunction with rock and soil geochemical anomalies to identify drill targets for the 2011 scout drilling program.

In 2014, the aerial extent of ground geophysical surveys at Altan Nar was expanded with 20 line kilometres of IP dipole surveys completed along 100 m spaced lines over an area covering the North Bow, South Bow, Riverside, Union North, Union South and Maggie prospect areas. To date, high chargeability anomalism has been an important guide for successful targeting of the gold mineralised zones. The 2011 IP gradient-array survey (see below) identified a series of high chargeability anomalies, up to 190 m wide that are interpreted as representing broad zones of sulphide mineralisation. The 2014 IP Dp-Dp survey results show the presence of multiple, locally intense, chargeability high anomalies, extending from near-surface to depth, often continuing below the IP survey detection limit of approximately 150 m. Anomalies beneath the North Bow/South Bow and Union North, Union South target areas are particularly intense. The majority of these geophysical targets have yet to be drill tested.

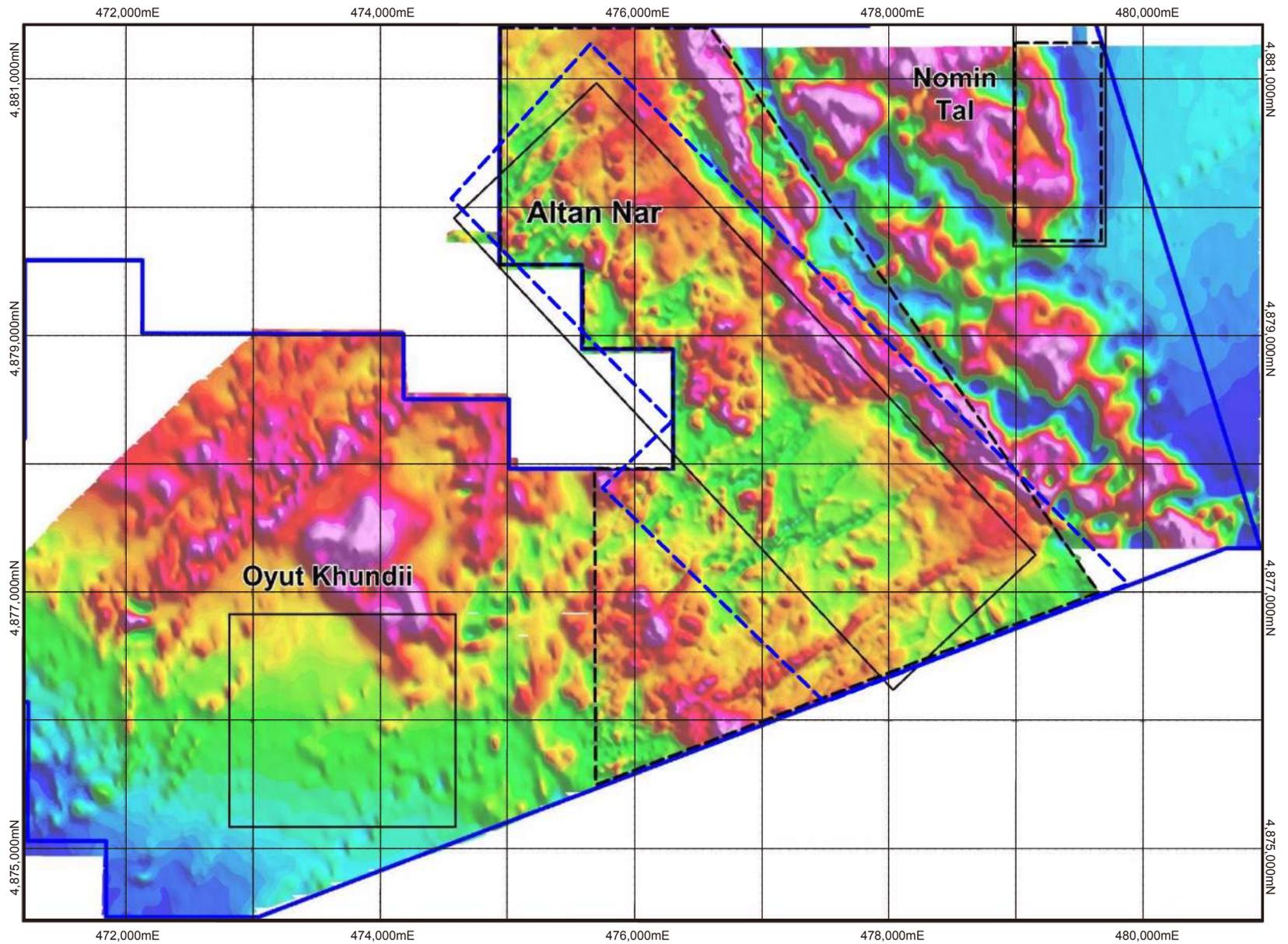
The 2017 IP survey used 150-metre dipole spacing and therefore provided data to 450 metre depth (i.e. 3 x dipole spacing) which was considerably deeper than the 150-metre depth for data from previous surveys which used a 50-metre dipole spacing. The purpose of this survey was to provide information for possible zones of disseminated sulphide at depths greater than 150 metres. This survey clearly defined a major structural/lithological break at the Discovery Zone where tuffaceous rocks to the south of the DZ have a much higher IP resistivity response than the andesite flows north of the DZ. A broad zone (1-2 km wide) of moderate coincident IP chargeability and high IP resistivity response is evident in the southern part of the survey, to the southeast of the DZ. In addition, several smaller (100-200 m wide) coincident IP resistivity and chargeability anomalies were noted in the north-western part of the survey near the Southbow target and between the Riverside and Union South target areas. Several of these anomalies remain untested by drilling.

Gradient Array Survey

In addition to the IP Dp-Dp surveys, an IP gradient array survey was completed in 2011 over both the Nomin Tal Project (an area 500 m by 700 m) and the Altan Nar Project (an area 1.8 by 3.6 km) for a total coverage area of 6.83 km². In 2012, the gradient array survey at Altan Nar was expanded, for a total area of coverage at

Altan Nar of 16 km². Line spacing for the gradient array surveys was 100m. The results of the IP gradient array survey for Altan Nar are shown in **Figure 9-6** (chargeability) and **Figure 9-7** (resistivity).

The expanded IP gradient-array survey corresponds to an area of anomalous soil geochemistry at Altan Nar. Results from the IP gradient-array survey identified a series of high chargeability anomalies, up to 190 m wide that are interpreted as representing broad zones of sulphide mineralisation. The morphology of these IP anomalies, coupled with the geometry of the lineaments evident on satellite imagery, suggests the sulphide mineralisation may intensify within dilation zones along a NNW trending dextral fault system over a distance of approximately 5 km. A review of drill and trenching data to date shows a strong, positive correlation between mineralised intersections and IP gradient array chargeability highs.



SOURCE

Altan Nar Gold Project
 (Tsenkher Nomin Exploration License),
 Bayankhongor Aimag, Southwest Mongolia,
 National Instrument 43-101 Technical Report,
 Erdene Resource Development Corporation,
 J. C. (Chris) Cowan, MSc, Peng,
 March 10, 2014

LEGEND

Licence Boundary Area of 25m Coverage

Outline of 10m spaced Magnetic Survey Line Orientation SE-NW

0 1 2
 km

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

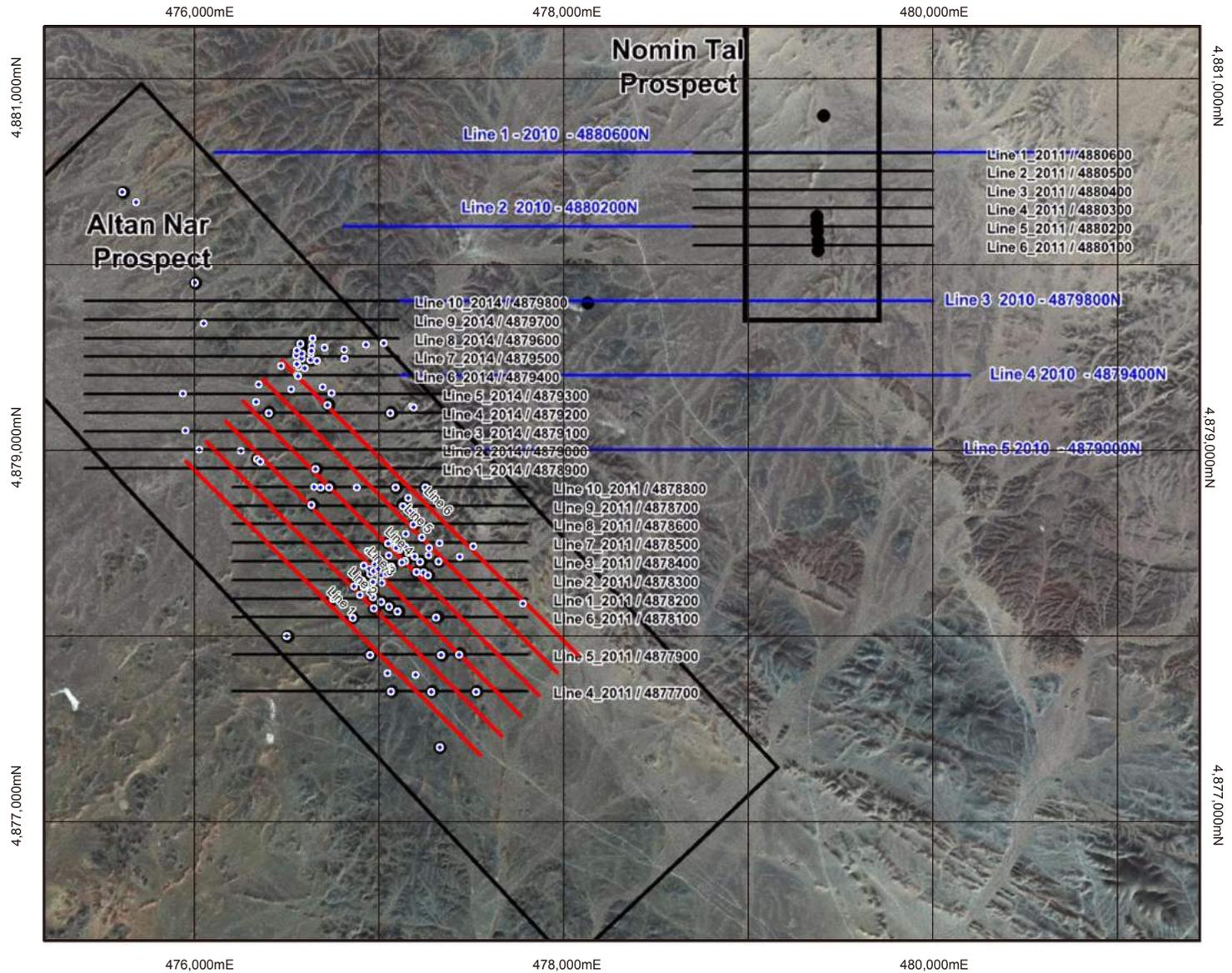
Erdene Resource Development

PROJECT

NAME **ALTAN NAR DEPOSIT**

DRAWING **Magnetic Survey Coverage,
Tsenkher Nomin license (showing RTP)**

FIGURE No. 9-4 PROJECT No. ADV-MN-00156 Date May 2018



SOURCE
Provided by ERD

LEGEND

- 2010 Dipole-Dipole Line
- 2011 Dipole-Dipole Line
- 2017 Dipole-Dipole Line
- Drillholes

0 500 1000
m

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CLIENT



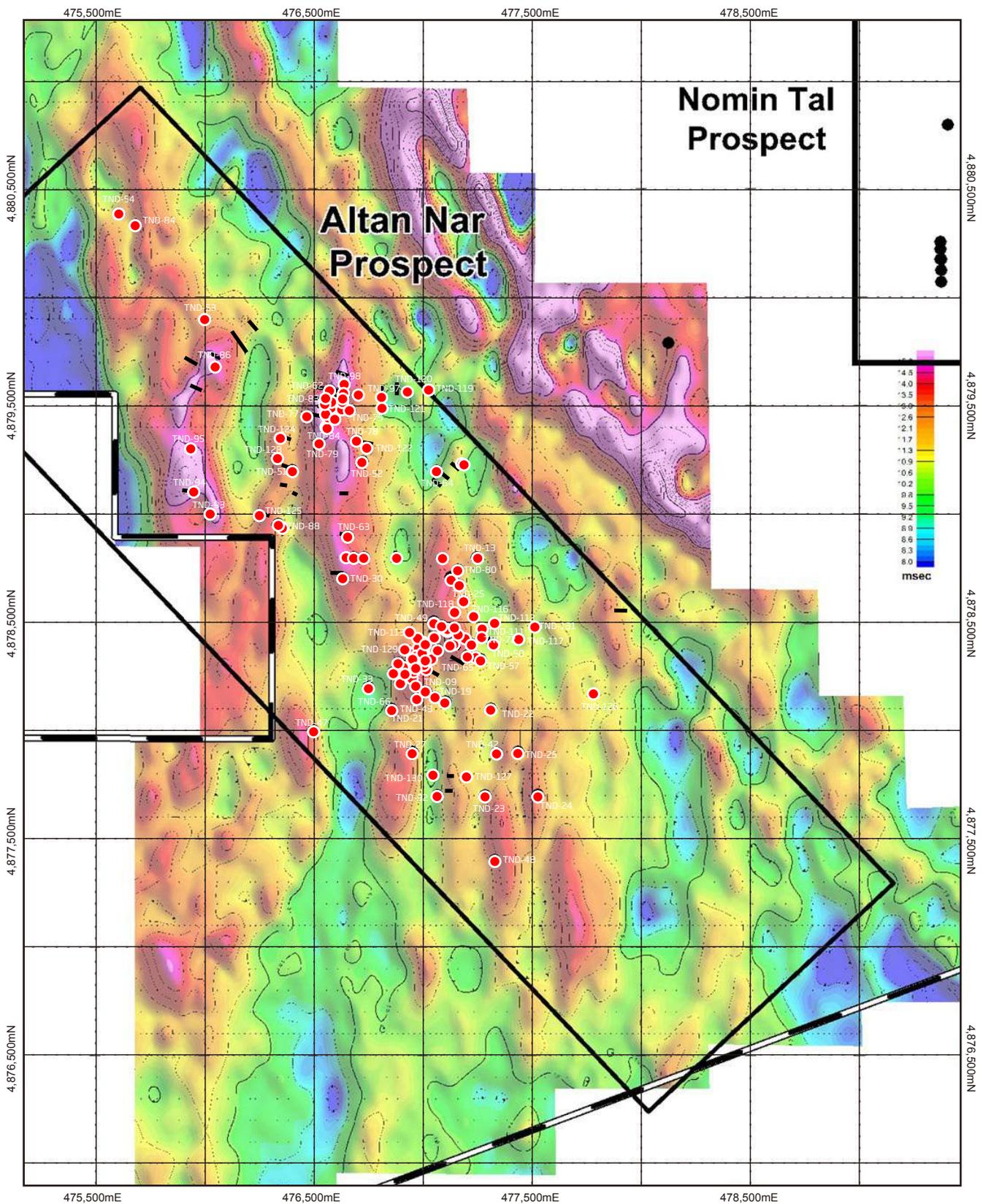
Erdene Resource Development

PROJECT

NAME
ALTAN NAR DEPOSIT

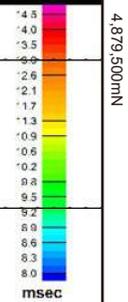
DRAWING
IP Dipole-Dipole (2010 & 2011) Coverage, Tsenkher Nomin License

FIGURE No. 9-5	PROJECT No. ADV-MN-00156	Date May 2018
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Nomin Tal Prospect

Altan Nar Prospect



SOURCE
 Provided by ERD

RPMGLOBAL

LEGEND

- Drill hole
- Trench lines

0 500 1000
 m
 DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT

Erdene Resource Development

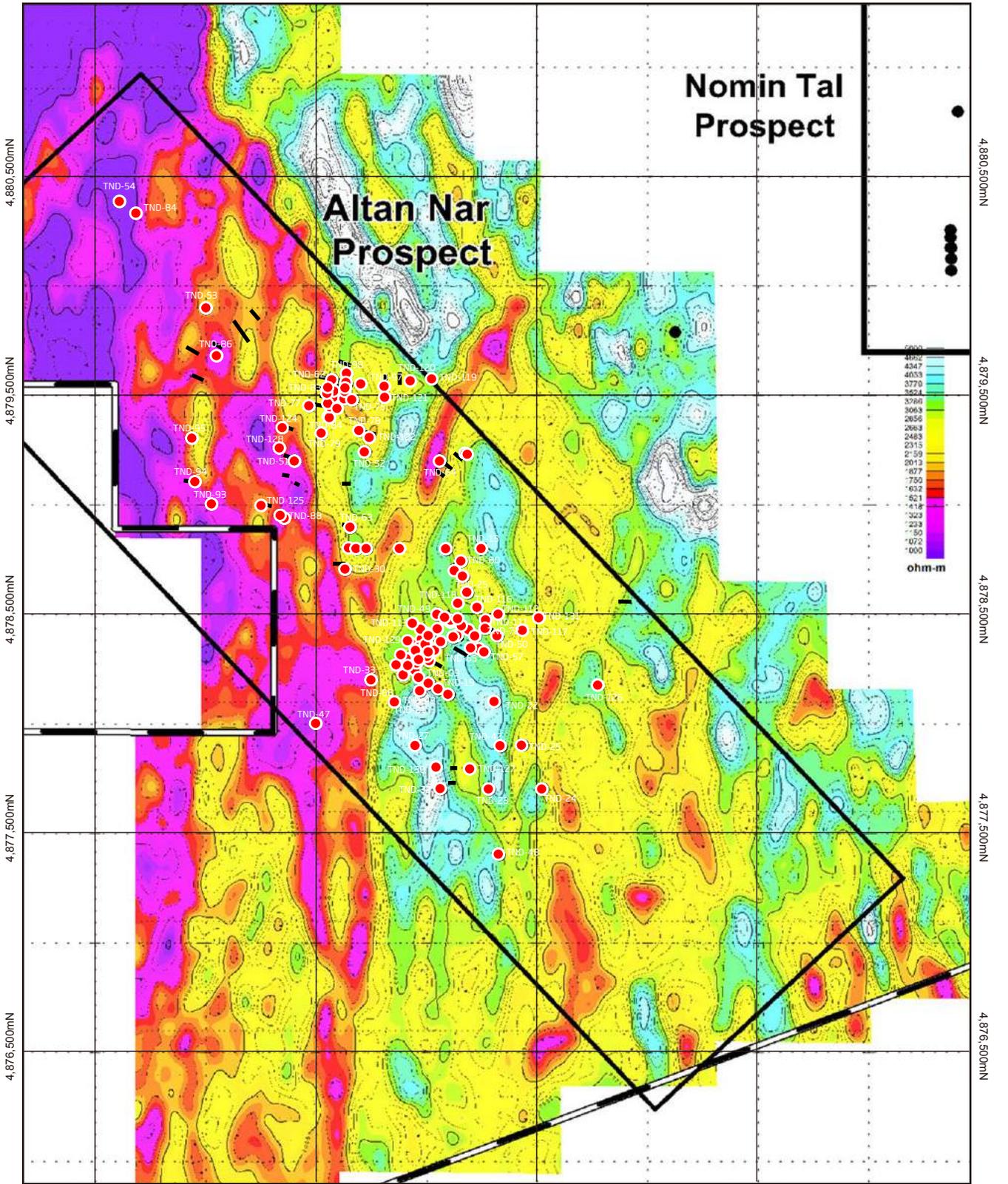
PROJECT

NAME: **ALTAN NAR DEPOSIT**

DRAWING: IP Gradient Array Chargeability (2011-2012) with location of drill holes

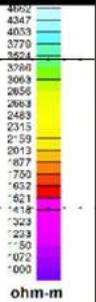
FIGURE No. 9-6	PROJECT No. ADV-MN-00156	Date May 2018
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475,500mE 476,500mE 477,500mE 478,500mE 479,500mE



Nomin Tal Prospect

Altan Nar Prospect



SOURCE
 Altan Nar Gold Project
 (Tsenkher Nomin Exploration License),
 Bayankhongor Aimag, Southwest Mongolia,
 National Instrument 43-101 Technical Report,
 Erdene Resource Development Corporation,
 J. C. (Chris) Cowan, MSc, Peng,
 March 10, 2014

RPMGLOBAL

LEGEND

● Drill hole - - - Trench lines

N
↑



CLIENT

Erdene Resource Development

PROJECT

NAME **ALTAN NAR DEPOSIT**

DRAWING IP Gradient Array Resistivity (2011-2012) with location of drill holes.

FIGURE No. 9-7	PROJECT No. ADV-MN-00156	Date May 2018
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9.4 Trenching Program

In October 2013, ERD carried out an initial trenching program across the Altan Nar Project that included a series of 28 trenches, totalling 1,877 m and ranging in length from 14 m to 142 m. A second trenching program was carried out in September 2014 that included 11 trenches totalling 1,050 m and ranging in length from 66 m to 202 m. In August 2015, an additional 3 trenches were excavated totalling 224m and ranging in length from 38 m to 104 m. The principal objectives of the trenching programs were to further define the near-surface mineralisation identified to date, improve the understanding of the gold mineralised system and prioritize areas for the next phase of delineation drilling. See **Figure 9-8**.

Trenching was carried out over a 19 day period in October, 2013, and a 7 day period in September 2014 with Falcon Drilling supplying the excavator (Hyundai 290), operator and assistants. Trench locations were selected by Erdene's exploration team, oriented normal to the projected trend of mineralisation. Trenches were excavated to a depth of between 1 and 3m. Trench samples were collected at 1m or 2m intervals, as determined by the senior project geologist, based on the lithology and mineralisation. Samples were chipped from the bottom of the trenches and care was taken to ensure each sample was representative of the entire interval being sampled. Representative hand samples for each interval were also collected for reference.

All trench samples were organized into batches of 30 and included a commercially prepared certified reference standard and an analytical blank. Each batch was stored in the field camp in sealed bags. Sample batches were periodically shipped directly to SGS in Ulaanbaatar via Erdene's logistical contractor, Monrud Co. Ltd.

All trench samples from 2013 and select samples from 2014 and 2015 were analysed for gold (fire assay) and a multi-element suite (45 elements in 2013, 33 elements in 2014 and 2015) using 4 acid digestions with ICP-OES finish (SGS analytical code ICP40B). For details of analytical protocols and detection limits please refer to "**Section 11 – Sample Preparation, Analysis and Security**".

The trenching programs include six trenches within the DZ and six trenches at Union North. An additional 30 trenches that tested eleven targets across the 5.6 km length of the Altan Nar Project (see **Figure 7-5**).

Outside the DZ and Union North, twelve of the prospects were so far tested by scout drill holes that intersected anomalous gold-silver-polymetallic mineralisation (Northfield, Northbow, Southbow, Riverside, Union South, Union East, Maggie, Central Valley, DZ west, True North, Southgate and Junction). Resource modelling has been completed on nine of these prospects. The remaining 8 target areas have yet to be tested by drilling but have coincident geochemical anomalies (soil and/or rock) and geophysical anomalies (IP gradient chargeability highs and/or magnetic lows). The following sections provide a summary of the trenching results from each prospect.

9.4.1 Discovery Zone

In the DZ, trench results confirmed that mineralisation begins within 1 to 2 metres of surface, is structurally controlled and is associated with quartz veins and breccia within a zone of intense white mica alteration.

All six trenches (ANT-01, ANT-02, ANT-26, ANT-27, ANT-29 and ANT-42) returned excellent results. Gold-silver mineralised stockwork breccia zones were uncovered over wide intervals of 44 to 50 m in three trenches (ANT-02, ANT-27, ANT-26), all containing an average Au content of greater than 1.0 g/t. Each wide interval contained higher grade, intervals of 11 to 15 m grading 2.4 to 3.0 g/t Au accompanied by 8 to 20 g/t Ag, see **Table 9-1**.

Trench results from the DZ, in conjunction with drilling results, identified the presence of a shallow, potential bulk-tonnage, gold-silver-lead-zinc mineralised system.

475,500mE

476,500mE

477,500mE

4,880,500mN

4,880,500mN

4,879,500mN

4,879,500mN

4,878,500mN

4,878,500mN

4,877,500mN

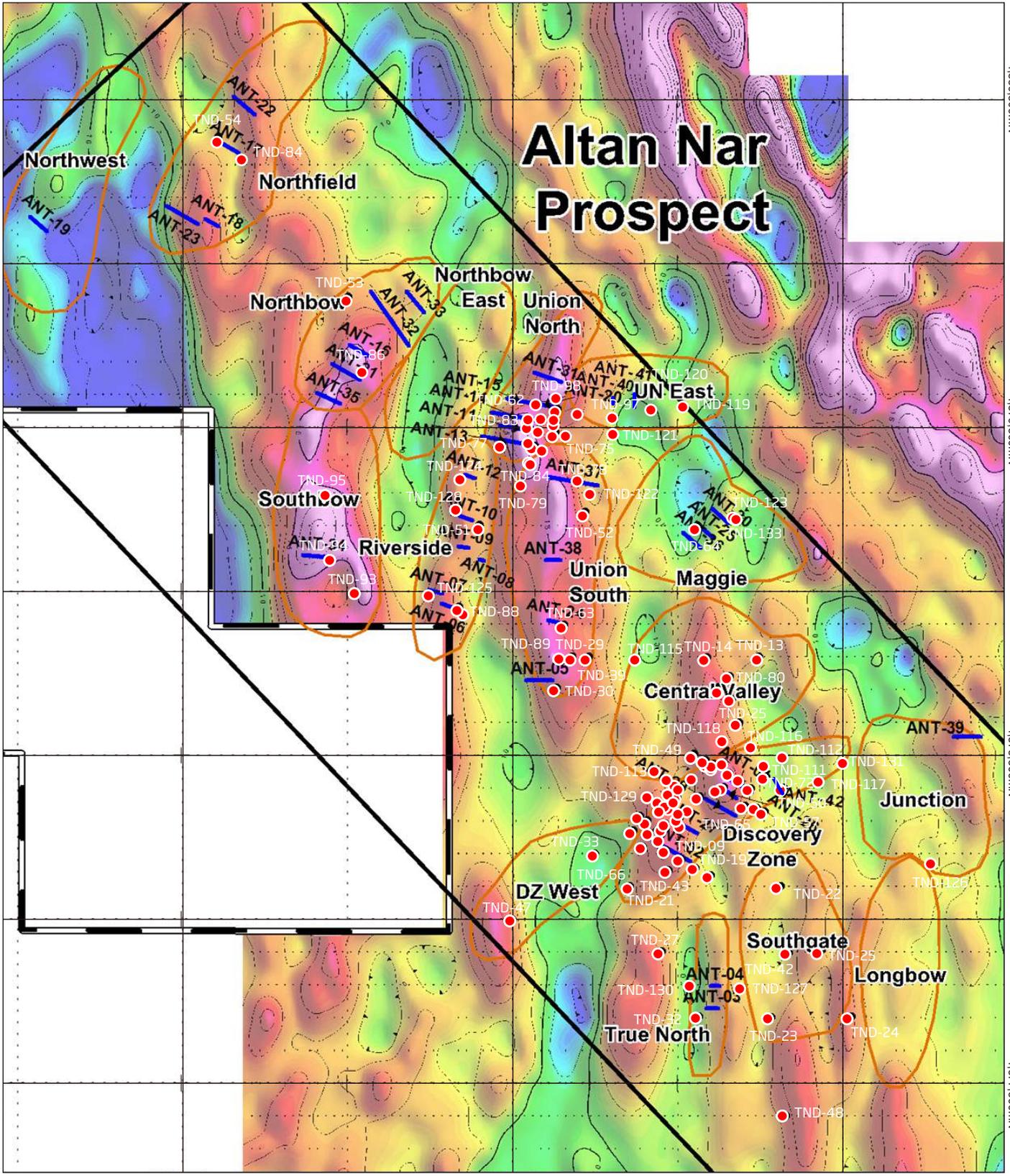
4,877,500mN

475,500mE

476,500mE

477,500mE

Altan Nar Prospect



SOURCE

Altan Nar Gold Project
provided by ERD

RPMGLOBAL

LEGEND

- Drill hole
- Trench lines

0 250 500 m

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CLIENT



Erdene Resource Development

PROJECT

NAME: **ALTAN NAR DEPOSIT**

DRAWING: Altan Nar prospect and trench location map on IP gradient chargeability

FIGURE No. 9-8 PROJECT No. ADV-MN-00156 Date May 2018

Table 9-1 Summary of Trench Result Highlights – Discovery Zone, Altan Nar

Trench	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
ANT-2	44	94	50	1.1	5.4	0.4	0.35
Including	63	78	15	2.4	8	0.93	0.4
Including	69	73	4	6.5	10.8	2.16	0.37
And	117	122	5	0.6	1	0.16	0.2
ANT-26	4	48	44	1.1	11.3	0.54	0.28
Including	16	27	11	3	33.7	1.63	0.46
Including	23	27	4	6.4	67	4.2	0.4
ANT-27	22	68	46	1.2	7.6	0.27	0.26
Including	38	53	15	3	19.6	0.33	0.32
Including	39	44	5	5.2	32	0.4	0.31
Including	50	53	3	5.1	12.7	0.49	0.3

Source: Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, National Instrument 43-101 Technical Report, Erdene Resource Development Corporation, J. C. (Chris) Cowan, MSc, PEng, March 10, 2014

9.4.2 Union North

The Union North Prospect is located 1.3 kilometres northwest of the DZ. A series of six trenches (ANT-11, ANT-13, ANT-14, ANT-15, ANT-20 and ANT-31) and 24 drill holes at 50 m to 50 m spacing with a few closer spaced holes (15-20m) have identified mineralisation associated with a structural dilation zone on a large northeast-southwest trending structure, that hosts wide, parallel zones of intensely altered and mineralised breccias. Initial drilling (TND-46) returned 47 metres at 1.3 g/t gold, including 9 metres of 4.3 g/t gold, 12 g/t silver, and 1.7% combined lead-zinc.

Infill drill hole TND-82 intersected 10m at 4.7g/t Au, 19g/t Ag, 1.9% combined lead and zinc from 26m.

Extensional drill hole drilled at NE end of the Union North mineralisation trend came up barren and potential for additional mineralisation at northern extension remain low while south western end remains open and there is potential for additional mineralisation in this area.

Mineralisation at Union North Prospect tends to be a thicker single mineralised zone however there are cross cutting post mineralisation barren dykes which tends to cut mineralisation in this area.

Trenching results from 2013 included multiple mineralised intervals included 45 m from TND-14 averaging 4.59 g/t Au, 29 g/t Ag, and 4.56% combined Pb-Zn, including 20.2 g/t gold, 138 g/t silver, 17% lead and 5.3% zinc over 7 m. See **Table 9-2** for significant results.

The mineralised zone at Union North is characterized by multiple, sub-vertical stockwork breccia shoots, 2 to 20 metres wide, hosted by an andesite volcanic package subsequently cut by porphyritic dykes. Mineralisation and alteration are characterized by iron oxides, black quartz and very fine black sulphide material, massive galena, quartz breccia and veins in the higher grade zones, and stockwork stringer veinlets in the lower grade zones. The entire mineralised package is hosted in zones of intense white mica (sericite-quartz-pyrite) alteration and Union North remains open to the north, south (Union South Prospect) and at depth.

Table 9-2 Summary of Trench Result Highlights – Union North Zone, Altan Nar

Trench	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
ANT-11*	30	66	36	2.2	0.9	0.63	0.27
incl.	30	45	15	1.01	nil	0.42	0.31
incl.	54	66	12	5.32	2.6	1.35	0.35
And*	86	118	32	1.11	9.3	1.83	0.35
incl.	107	115	8	4.05	35	6.94	0.52
ANT-13	22	30	8	1.03	1.4	0.65	0.33
And	46	48	2	2.03	3.5	0.43	0.38
And	84	85	1	1.14	10	1.31	0.34
And	110	117	7	2.51	2.7	0.86	0.78
ANT-14*	54	99	45	4.59	29.4	3.47	1.18
incl.	54	73	19	8.93	65.9	7.69	2.49
incl.	58	65	7	20.25	137.6	17.29	5.31
incl.	92	99	7	5.02	7.6	1.22	0.19
incl.	96	99	3	10.34	9	2.19	0.22
ANT-15*	2	20	18	1.77	1.4	0.75	0.63
incl.	11	16	5	6	4	2.38	1.06
ANT-20	5	16	11	0.8	2.1	0.42	0.22
incl.	5	9	4	1.52	4	0.54	0.13
And	26	30	4	0.51	2	0.57	0.3
ANT-37	52	64	12	3.75	nil	0.08	0.16

Source: Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, National Instrument 43-101 Technical Report, Erdene Resource Development Corporation, J. C. (Chris) Cowan, MSc, PEng, March 10, 2014 and 2018

9.4.3 Union South Prospect

Approximately 550 metres south of Union North, is trench ANT-24, which tested a small area of quartz float, and a single multi-element geochemical anomaly, coincident with a magnetic low and IP high anomaly under shallow cover. Again, a covered, high grade zone was discovered within 1 m of surface that returned 10 m at 4.46 g/t Au, 8.9 g/t Ag and 2.2% Pb characterized by intense alteration with significant quartz breccia, veining and stockwork and was well mineralised with galena, trace turquoise, iron oxides, and manganese oxides. This trench is 100 m north of drill hole TND-29 which intersected 18 m at 1.0 g/t Au including 4 m of 3.7 g/t gold. These results demonstrate good potential in this area. See **Table 9-3** for significant results.

In central Union South (180 m north of ANT-24) trench ANT-38 (2014) returned a narrow zone of 2.3 m at 1.5 g/t gold equivalent while a surface rock sample from this area returned 3.2 g/t gold, 55 g/t silver, 9.9% lead and 1.2% zinc indicating the high-grade potential of the zone.

Union South and Union North represent a combined 1.3 kilometre long target.

Table 9-3 Summary of Trench Result Highlights – Union South Prospect, Altan Nar

Trench	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
ANT-24	6	16	10	4.46	8.9	2.21	0.53
incl.	10	12	2	11.25	6.5	3.16	0.73
ANT-05	17	22	5	0.27	1	0.16	0.13
ANT-38	33.3	34.3	1	0.92	1	1.35	0.91

9.4.4 Riverside Prospect

The Riverside Prospect is characterized by an 800 m long gradient IP chargeability high and geochemical anomaly that is less intense than the adjacent Union North – Union South IP anomaly located 200 m to the east and Northbow / Southbow IP anomaly located 400 m to the west, the Riverside target was tested by six relatively short trenches. As indicated by previous drilling the Riverside Prospect is well mineralised but tends to average less than 1 g/t gold in the southern portion (Trenches ANT-06,ANT-07,ANT-08 and ANT-09) increasing in grade moving north (Trenches ANT-10 and ANT-12) to the point where it potentially merges into the Union North target. ANT-10, located approximately 250 metres south of ANT-13 (south end of Union North) returned 14 metres of 1.4 g/t gold. See **Table 9-4** for significant results.

Table 9-4 Summary of Trench Result Highlights – Riverside Prospect, Altan Nar

Trench	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
ANT-10	9	11	2	0.7	2.5	0.05	0.23
And	24	38	14	1.38	8.8	0.33	0.24
incl.	24	30	6	3.04	17.5	0.65	0.38
ANT-12	4	16	12	0.53	0.3	0.11	0.43
incl.	7	10	3	1.54	1.3	0.2	0.62

Source: Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, National Instrument 43-101 Technical Report, Erdene Resource Development Corporation, J. C. (Chris) Cowan, MSc, PEng, March 10, 2014

9.4.5 Maggie Prospect

The Maggie Prospect is located 1 km north of the Discovery Zone and 700m east of the Union North Prospect. Maggie is a 500 m x 400 m triangular shaped area along a major NE structure and bounded to the east by a large granite sill/stock. This target is characterized by a 10 to 40 m wide linear white mica alteration zone with gold, silver, lead and zinc mineralisation traced for over 300 m on a NE trend through the center of the target. Trenching (ANT-25) uncovered a well mineralised zone, 38m wide and hosted by an altered andesite cut by two barren post-mineral dykes (7m and 2m wide). The mineralised zone is characterized by black quartz veins and breccia with strong to intense sericite alteration with abundant iron and manganese oxide. Excluding the 9m of post mineralisation dyke, the central mineralised zone returned 17m at 3.4 g/t gold, 4.9 g/t silver and 1.41% combined lead-zinc. The magnetic low feature, a common characteristic of Altan Nar mineralised zones, intensifies north of the trench and may represent an area of intensifying alteration. See **Table 9-5** for significant results. Trenching in 2014 on the Maggie target included two trenches that tested northeast and southwest of trench ANT-25 (ANT-30 and ANT-36, respectively) and established a 120 m strike length that remains open. Results from 2014 included 8m at 2g/t AuEq to the northeast and 5m of 1.2g/t AuEq to the southwest.

Table 9-5 Summary of Trench Result Highlights – Maggie Prospect, Altan Nar

Trench	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
ANT-25	1	39	38	1.6	2.6	0.54	0.21
incl	13	17	4	6.2	6	0.96	0.3
incl	19	22	3	3.7	10	1.51	0.24
incl	29	36	7	2.8	4	1.15	0.28

Source: Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, National Instrument 43-101 Technical Report, Erdene Resource Development Corporation, J. C. (Chris) Cowan, MSc, PEng, March 10, 2014

9.4.6 Northbow Prospect

The five Northbow trenches targeted anomalous geochemistry along a 400 m section of this prospect characterised by a north-south trending, strong gradient-IP chargeability anomaly. Similar gradient IP anomalies are commonly associated with gold-bearing sulfide mineralisation at Altan Nar. The IP anomaly at Northbow extends 700m south where it widens and intensifies. This area, known as Southbow, is covered by younger sediments making detection of geochemical anomalies more difficult. Northbow trenches uncovered wide mineralised zones of moderate to intense white mica alteration characterized by significant amounts of finely disseminated pyrite, a common cause of high chargeability anomalism. The results from the Northbow

trenches are significant in that they are the first confirmation that gold mineralisation is associated with the Northbow-Southbow geophysical anomaly, the largest and most intense identified to date on the Altan Nar property. See **Table 9-6** for significant results.

Single hole drilled in 2015 and hole TND-86 did not intersect any significant mineralisation.

Table 9-6 Summary Trenching Result Highlights – Northbow Prospect, Altan Nar

Trench	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
ANT-16	28	30	2	0.8	5	0.62	0.15
and	37	39	2	0.6	4	1.2	0.27
ANT-21	43	52	9	1.3	6.6	0.87	0.45
Incl	43	45	2	2.4	18	2.4	0.58
Incl	50	52	2	3.2	5.5	0.88	0.57

Source: Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, National Instrument 43-101 Technical Report, Erdene Resource Development Corporation, J. C. (Chris) Cowan, MSc, PEng, March 10, 2014

9.4.7 Junction Prospect

A single 82 m long trench (ANT-39) that was positioned over a new target area, referred to as Junction, located 600 m east of the DZ. The Junction target is characterized by anomalous rock (up to 11.2 g/t gold) and soil geochemistry within a 350 m by 450 m area overlying a large gradient IP chargeability anomaly. Trench ANT-39 tested the northeast portion of this target area and intersected a broad zone of base metal mineralisation that included 4 m at 3.7% zinc, 1.2% lead, 16 g/t silver, and 0.1 g/t gold, within a 26 m interval of 0.8% zinc and 0.5% lead. This target has not been drill tested.

9.4.8 Union North East Prospect

The prospect is located 250m east of Union North Zone and both zones are potentially connecting with each other. Two trenches (ANT-40 and ANT-41) tested surface geochemical anomaly and ANT-41 returned 27.5m of 1.95g/t Au, 4.4 g/t Ag, 1.16% combined Lead and Zinc and includes 2m at 8.4g/t Au, 10g/t Ag, 3.8% combined Pb and Zn. Trench results indicates that grades are increasing toward Union North Prospect. See **Table 9-6** for significant results.

Table 9-7 Summary of Trench Result Highlights – Union East Prospect, Altan Nar

Trench	From (m)	To (m)	Length (m)	Gold (g/t)	Silver (g/t)	Lead (%)	Zinc (%)
ANT-41	6	33.5	27.5	1.95	4.4	0.81	0.35
incl	13	21	8	3.55	5	0.7	3.26
incl	29	31	2	8.44	10	3.3	0.52

9.4.9 Northwest, Northfield, True North and Far South Prospects

A single trench tested the northwestern-most target area (ANT-19; Northwest Prospect) and uncovered strong propylitically altered andesite cut by narrow quartz veins. The zone returned 3 m of 2.5 g/t Au and over 1% Pb.

At Northfield, four trenches (ANT-17, ANT-18, ANT-22, and ANT-23) tested 400 m of strike length and uncovered multiple, often broad, zones of white mica alteration with mineralised stockwork veining and quartz breccia. The broadest zone intersected on the Northfield Prospect was 19 m of 0.6 g/t Au in trench ANT-17 while the highest grade zone was 3.8 g/t Au over 4 m in trench ANT-18.

The True North Prospect, located 200 m south of the Discovery Zone, returned significant results from one of the two trenches excavated on this prospect. Results from trench ANT-03 returned a 4 m zone of 1.3 g/t Au and a high combined lead-zinc content of 3.8%. These results reflect what was intersected in a shallow hole drilled on the True North Prospect in 2012 which returned 2 m at 2.07 g/t Au, 15.5 g/t Ag, and 10.1% lead-zinc.

The Far South Prospect is located a further 1.5 km to the southeast of True North and the single trench (ANT-28) is the only sub-surface work completed to date on this portion of the Altan Nar property. ANT-28 returned 3 m of 2.3 g/t Au, 12.0 g/t Ag and 4.9% lead-zinc, confirming the widespread nature of the gold-silver-base metal mineralisation at Altan Nar.

9.4.10 Discussion of Trench Results

The trenching program met the planned objectives, to further define the near-surface mineralisation identified to date, improve the understanding of the gold mineralised system and prioritize new areas for the next phase of exploration.

The surface expression of the Altan Nar Project area is one of low relief with thin Quaternary cover over much of the area, interspersed with low rolling hills. The intense weathering of the altered, sulfide-rich, stockwork breccia zones leaves little surface expression of the targets and little indication of their size other than remnant quartz rubble. As a result, the extent of alteration and mineralisation observed in the trenches commonly exceeded that indicated by surface expression. A combination of mapping, geochemical and geophysical surveys has been successful in guiding exploration to date; however, results from the trenching program would suggest that even the subtlest of anomalies may indicate significant mineralisation under shallow cover.

The trench results, in conjunction with previous drill results, confirm the potential for a series of gold-silver-lead-zinc mineralised systems at Altan Nar outside of the DZ and Union North.

10 Drilling

The below description of the drilling is separated into pre 2015 (maiden resource) and post 2014. RPM highlights that the pre 2015 include AuEq which has been report using the following criteria as per the March, 2015 report. *AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.*

All drilling on the Tsenkher Nomin license was carried out by independent drilling contractor, Falcon Drilling Limited. All holes were diamond drilled using a truck mounted Longyear 44 wireline drilling rig with all cores HQ sized. First drilling at the project started in 2011 at Nomin Tal Project (8 holes) and 24 holes at Altan Nar Project.

Following review of the trenching and drilling result ERD completed a further 22 holes (2,604.3m) within the Discovery and Union Zones in 2014. This drilling was primarily infill drilling however also included some extensional drilling. Those results were included in previous Mineral Resource estimate by RPM dated 24th March, 2015 with all drilling up to TND-79.

Total 13 holes (1,057.9m) were drilled in 2015 and was primarily infill drilling at both Discovery and Union North zones while 9 holes (1,380m) drilled in 2016 was mainly extensional drilling at Union North zone and other target areas. A Total 31 holes (5,793.9m) were drilled in 2017 which were mostly infill drilling at DZ as well as extensional drilling for other targets while only single hole drilled in 2018. RPM notes that this report includes results for all relevant drilling up to TND-133.

A summary of the drilling data within the Altan Nar Mineral Resource area is shown in **Table 10-1** Altan Nar Drilling Summary .

Table 10-1 Altan Nar Drilling Summary

Company	Period	Drilling Method	Number of Holes	Metres
ERD	2011	Diamond Drilling	24	4,043.4
	2012		26	4,611.1
	2014		22	2,604.3
	2015		13	1,057.9
	2016		9	1,380.0
	2017		31	5,793.9
	Drilling total			125
		Trenching	42	3,151.0
Total			292	22,641.6

Drilling across the Project area had an average hole length of 156m (average vertical depth 117m) and extend in a couple of hole to a maximum vertical depth of approximately 390 m. Drill hole spacing over the deposit area is approximately 50 m by 50 m with closer spaced drilling in select areas (20-25 m by 20-25 m spaced holes).

The drilling programs were designed and carried out under the direction of ERD’s senior technical staff. In the field, the drilling program was under the supervision of ERD geologists who were responsible for communicating and confirming the program’s technical details with the drilling contractor as well as logging and sampling the drill core.

Out of 125-hole collars, 99 holes were DGPS surveyed while the remaining diamond and trench locations were surveyed with handheld GPS. Down-hole orientation surveys were carried out by Falcon at 50-100 m intervals and/or at the bottom of each hole. Down-hole readings included both dip and azimuth of the hole at the recorded depths. RPM observes that there is little dip movement and minor amounts of azimuth movement in the surveyed holes.

During drilling, core was placed in core boxes and a marker showing the depth in the hole was placed in the core box at the end of each drill run. All drill cores were photographed and quick logged by ERD geologists prior to sampling. Standard sampling protocol involved the halving of all drill core using a core saw and sampling over either 1 m intervals (in clearly mineralised sections) or 2 m intervals (elsewhere mostly in for channel samples from trenches). Half of the core was placed in a sealed sample bag and dispatched to SGS's Ulaanbaatar laboratory for analysis and the other half remains on site in core boxes.

Drill core is collected, logged, photographed and sampled at the property by ERD geologists. The orientation of the mineralisation is now relatively well understood and the relationship of azimuth and dip of drill holes to the true thickness of mineralisation is known. Core recoveries are between 90 -100 % throughout the mineralised zones. No relationship exists between sample recovery and grade. Mineralisation is generally sub-vertical.

10.1 Altan Nar Drilling

Since the discovery of mineralised epithermal quartz veins on surface and widespread soil geochemical anomalism across the Altan Nar Project in August 2011, there have been a number of rounds of drilling over a seven year period (see **Table 10-1**). The initial four holes were drilled in September 2011 to test one of a number of the coincident geochemical and geophysical anomalies within the Altan Nar Project. The holes were located approximately 50m apart and all four holes intersected zones of epithermal quartz breccia and comb-quartz veining with associated white mica and propylitic alteration of host andesite and andesitic tuff. Gold mineralisation was associated with zones of quartz breccia and comb-quartz and chalcedony veins within a broader mineralised alteration zone with widespread galena and sphalerite (up to 1.50% Zn and 0.39% Pb over 21 m in TND-12).

In November-December 2011 an expanded drilling program was carried out over an area of approximately 1 km² within the Altan Nar Project, a larger 5 km by 1.5 km area hosting numerous coincident geochemical and geophysical anomalies and gold bearing epithermal veining at surface.

The presence of anomalous gold-bearing mineralised zones in 15 of the 24 holes drilled at Altan Nar in 2011, many within wider zones of lead and zinc mineralisation, confirmed the widespread nature of the Altan Nar mineralised system.

The 2011 drilling also identified an area referred to as the DZ, where multiple shallow holes intersected mineralisation over a 300 m strike length. Within the DZ gold-bearing zones are associated with quartz veins and breccias. Mineralisation appears to be structurally controlled within multiple sub-parallel, steeply dipping to sub-vertical shear zones. (See also "**Section 7.4**" for more details)

The April 2012 drilling program at Altan Nar included more closely spaced drilling within the DZ and a reconnaissance drill hole (TND-39) that was drilled to follow-up encouraging drill-results in holes TND-29 and 30. The nine-hole, 2,029-metre drilling program confirmed lateral and vertical continuity of gold, silver and base metal mineralisation within the DZ and anomalous gold mineralisation in the vicinity of TND-29, -30 and -39, located 500 m NW of the DZ.

In October 2012, a drilling program was carried with the primary objective of testing a number of targets identified across the Altan Nar Project area, outside of the DZ (11 holes) and to further test the lateral and vertical extension of the DZ (6 holes). The targets outside the DZ were identified through analysis of surface exploration work carried out in 2011 and 2012 including close spaced soil sampling, detailed geophysical surveys (magnetic and gradient array IP), detailed geological mapping and rock chip geochemical sampling. An analysis of these data sets resulted in the identification of approximately 30 potential drill targets. Eleven (11) of these targets were tested with shallow (<90 m vertical depth) drill holes in October 2012.

In 2014 a further 22 holes were drilled in the DZ and Union North to further define mineralization. The results from these holes were included in the maiden Mineral Resource estimate for the Altan Nar Deposit dated March 24, 2015.

A total of 53 holes have been drilled since 2014 which form the basis of the Updated Mineral Resource estimate in *Section 14* of this Report. Drilling summary by prospect is summarized in **Table 10-2**

Table 10-2 Drilling Summary by Project

Company	Method	Prospects	Number of Holes	Metres
ERD	Drilling	Discovery Zone	56	10,557
		Union North	24	2,449
		Central Valley	8	1,276
		Discovery Zone West	2	250
		Junction	1	200
		Maggie	3	446
		Northbow	2	173
		Northfield	2	197
		Riverside	6	806
		Southbow	3	539
		Southgate	6	897
		True North	2	320
		UN East	3	400
		Union South	5	782
Others	2	200		
Total			125	19,490.6

10.1.1 Discovery Zone Drilling Results

Drilling to date at the DZ has identified a minimum strike length of 650 m. Thirty-one, mostly shallow (<150 m vertical extent) drill holes (pre 2015), additional twenty five drill holes (post 2014) with hole length ranges from 57.3m (TND-93) to 450m (TND-31 and TND-129) drilled at the DZ and drill spacing was generally at 50 m to 50m intervals, but including some areas with infill holes at 25m spacing, along with five trenches (pre 2015) and additional single trench (ANT-42) in 2015 across zones of surface mineralisation, have demonstrated vertical and lateral continuity of gold, silver, lead and zinc mineralisation (see **Figure 10-1**). The DZ is located in the central part of the Altan Nar Project. Within the DZ, gold mineralisation appears to be structurally controlled within NNE to NE trending sub-parallel shear zones that are steeply dipping to sub-vertical. Gold-bearing zones are associated with epithermal quartz veins and breccias in a northeast-southwest trending fault/breccia zone. Preliminary evidence suggests that andesite units, particularly near the contact with more competent silicified volcanic breccia units, act as a favourable host for mineralisation.

The DZ has been split for ease of representation into two zones; DZ South with most significant intersections given in **Table 10-3** and DZ North with most significant intersections given in **Figure 10-4**.

DZ results to date have included 29 m averaging 4.3 g/t gold and 24.1 g/t silver from drill hole TND-19 which was drilled to intersect a zone 50 m below the mineralisation intersected in TND-09 (23 m of 2.1 g/t gold and 23 g/t silver). These holes are located in the southwestern end of the DZ and displayed in **Figure 10-1** (plan view) and **Figure 10-3** (cross section) along with the mineralised interpretations. The mineralised lodes have been coloured in order to distinguish the individual lodes. RPM notes that the colouring of the objects has no other significance and is a reflection of the software object colouring only. Results from two additional holes (TND-33 and -34) extended the depth of the mineralisation in this area to 150 m; however, gold-silver mineralisation in these holes was narrower and lower grade than previously encountered in TND-09 and 19, and may represent pinching or faulting of this portion of the zone, or perhaps truncation by fluid breccias. This conclusion is supported by the results of a 50 m step-out hole (to the southwest) where TND-43 intersected low grade gold mineralisation (three, 2 m zones of 0.53 g/t to 0.60 g/t Au).

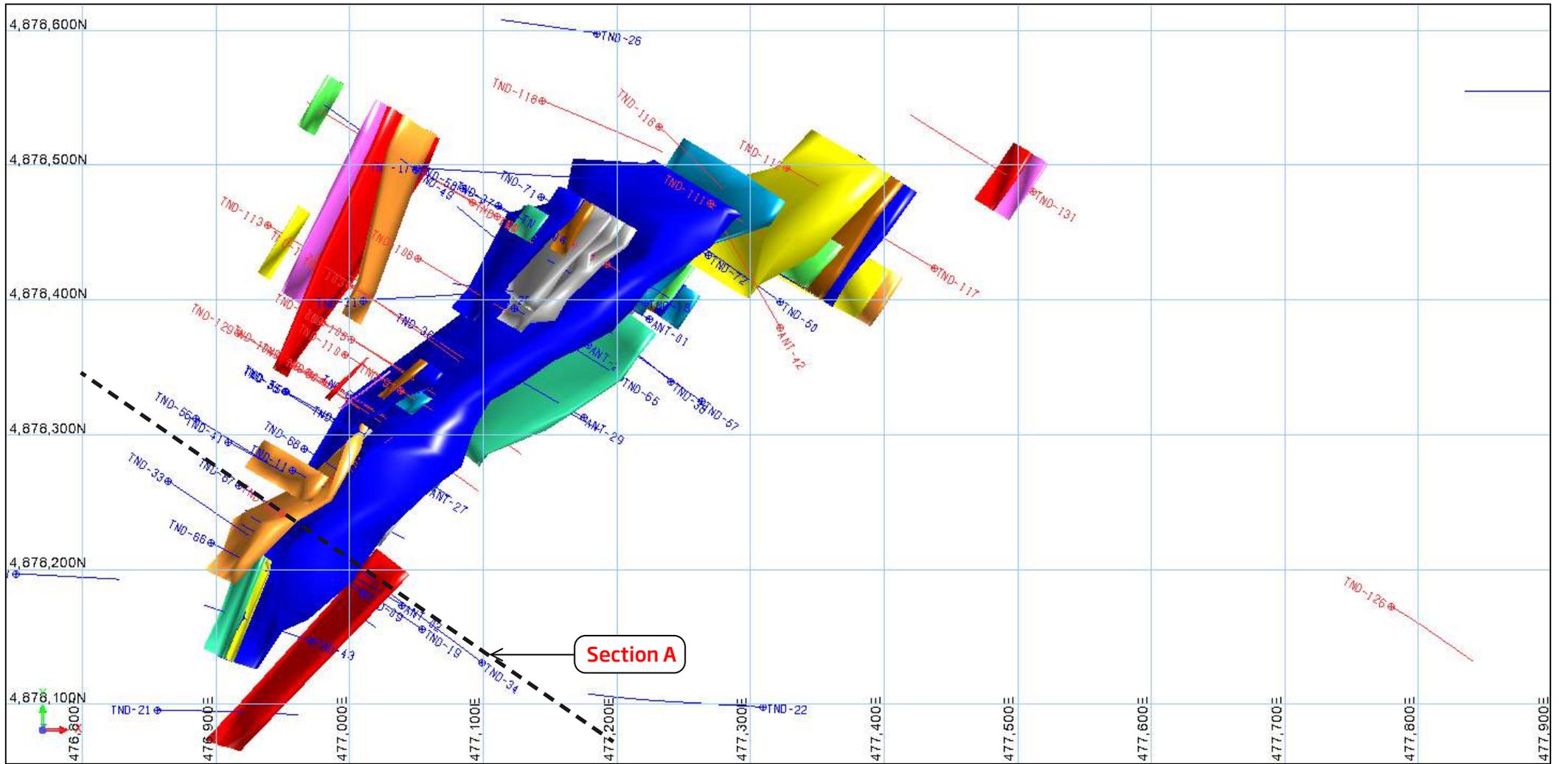
Drilling in the northeastern part of the DZ (TND-40) intersected a broad mineralised zone that included 27 m at 1.8 g/t gold, 11 g/t silver, 0.47% lead and 0.62% zinc and higher grade zones including 4 m at 4.5 g/t gold, 56 g/t silver, 2.5% lead and 1.2% zinc. A 50-metre step-out hole (TND-50) confirmed the lateral extension of the DZ to the northeast, with the intersection of a broad zone of gold-polymetallic mineralisation over a 94 m interval. This zone averaged 0.45 g/t gold and was bounded by higher grade gold zones, including a 5 m interval averaging 2.7 g/t gold (111 to 116 m) and a 4.5 m interval at the bottom of the hole (200 to 204.5 m) averaging 2.4 g/t gold, 18.8 g/t silver, 2.8% lead and 0.86% zinc. Hole TND-58, one of the deepest holes drilled to date (~230 vertical metres), terminated in 5 m at 4.8 g/t Au, 6.0 g/t Ag and 1.1% combined Pb-Zn. This intersection demonstrating that significant potential remains to intersect high-grade mineralisation at depth and that the true vertical extent of the mineralisation within the DZ is yet to be determined.

Hole TND-101 (2016) was drilled, at a 45 degree dip, to a depth of 300 m, and intersected 110 m at 10.5 g/t AuEq (9.3 g/t gold, 32.0 g/t silver, and 1.42% combined lead-zinc) from 32 to 142 m depth. This intersection included 14 m at 60.4 g/t AuEq (55.6 g/t gold, 131.1 g/t silver, and 5.65% combined lead zinc). This hole was consistently mineralised from surface to 170 m with high gold grades not previously observed at Altan Nar. Of particular note, 10 samples in the high-grade portion of hole TND-101 contained in excess of 31.1 g/t gold (i.e. 1 ounce of gold per tonne), whereas only two samples from the more than 9,000 previously assayed drill core samples from Altan Nar drilling between 2011 and 2015, exceeded this grade-threshold.

In addition to the high base metal gold zones, there is also a distinct copper event with high copper-gold that may reflect a new fluid phase at the DZ. Copper levels reached as high as 2.43%. The host rocks include lapilli tuffs and andesites that have been moderately to intensely altered (quartz, mica, pyrite), mineralised (precious metals and carbonate base metal suite), and cut by comb quartz veins, breccias and chalcedony veins.

TND-101 was an exploratory hole drilled perpendicular to a cross-cutting feature observed in geophysical surveys but at a low oblique angle to the mineralised DZ trend and to the lithologic boundary. The hole was oriented to test the intersection of these three structures, and to test possible extensions of mineralisation at depth under DZ North. Due to the hole orientation, and the complex structural setting, the true width of the intersected zone is unknown, however, adjacent holes reported in 2015, immediately south of TND-101 (TND-69 and 90), returned some of the most continuous zones of mineralisation at the DZ, including 51 m of 2.5 g/t AuEq and 43 m of 2.4 g/t AuEq respectively. These holes were drilled at a 45 degree dip, perpendicular to the interpreted vertical structure, implying a true width to the NE trending mineralised zone in the range of approximately 25 to 35 m.

Drilling to date has confirmed lateral and vertical continuity of gold-silver mineralisation within the Discovery Zone. The DZ remains open along strike to the north and additional drilling will be required to determine the true vertical extent of the gold mineralisation. Drilling to date has tested to a vertical depth of 175 m (south) to 230 m (north). **Figure 10-3** shows schematic sections across the DZ (Section A) and Union North East (Section B) that display the extent of gold mineralisation intersected by the drilling program.



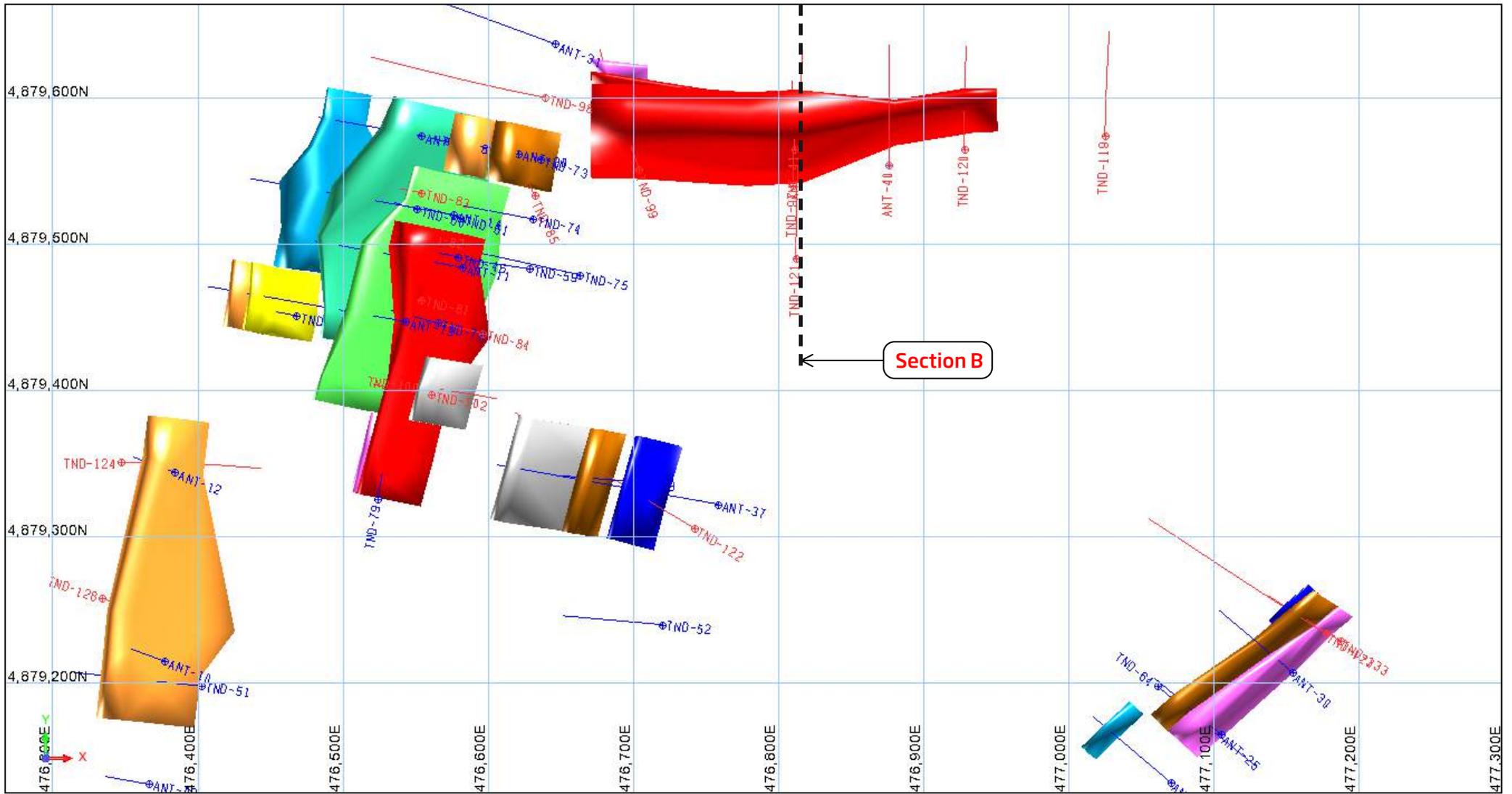
LEGEND	
	Holes drilled pre 2014
	Holes drilled since 2014
	Section Line

N

0 50 100
m

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

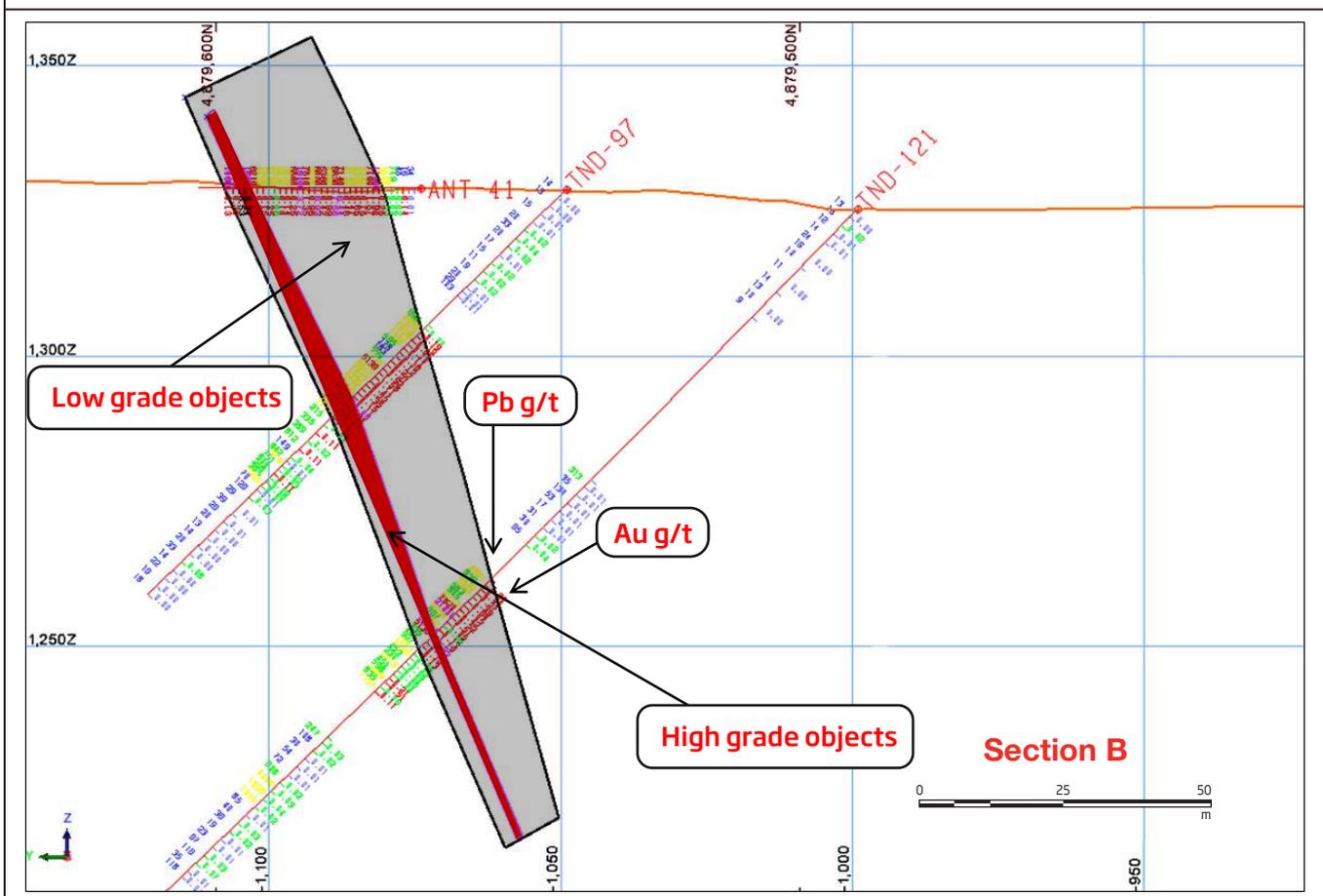
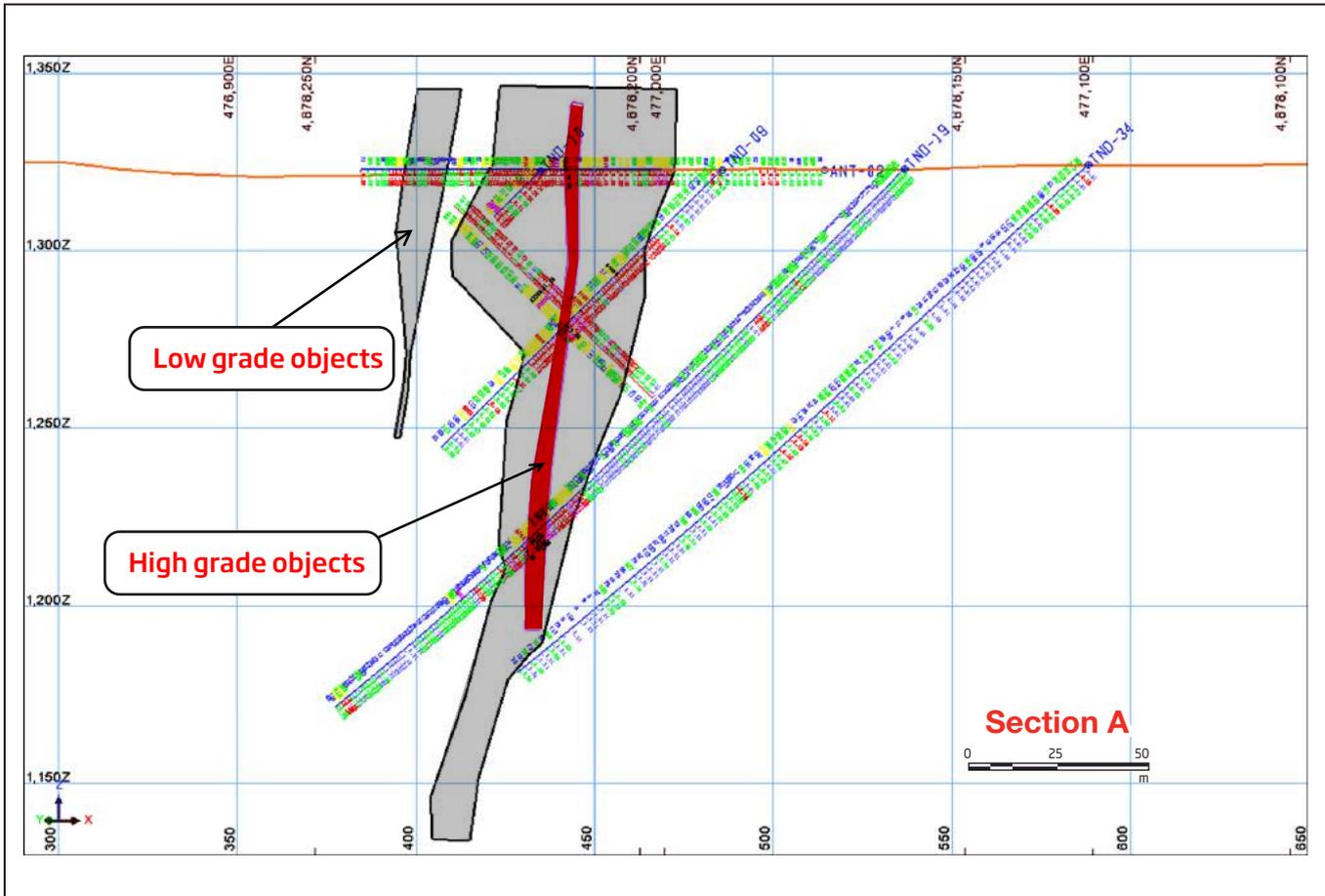
CLIENT	PROJECT
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT
	DRAWING Drill hole location map with Interpretation of Mineralised Bodies, Discovery Zone
FIGURE No. 10-1	PROJECT No. ADV-MN-00156
	Date May 2018



LEGEND	
	Holes drilled pre 2014
	Holes drilled since 2014
	Section Line

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT	PROJECT
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT
	DRAWING Drill hole location map with interpretation of Mineralized bodies - Union North Area
FIGURE No. 10-2	PROJECT No. ADV-MN-00156
	Date May 2018



RPMGLOBAL

LEGEND			
Au_ppm		Pb_ppm	
Light Blue	-1-0.02	Pink	2-8
Green	0.02-0.1	Black	8-156
Red	0.1-2	Light Blue	0-200
		Green	200-1000
		Yellow	1000-5000
		Red	5000-10000
		Pink	10000-50000
		Black	50000-327000

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT PROJECT



NAME **ALTAN NAR DEPOSIT**

DRAWING Schematic sections showing zone of low and high grade gold mineralization intersected in drill holes within the Discovery Zone and Union North East Zone; Section A Discovery Zone, Section B Union North zone.

FIGURE No. 10-3	PROJECT No. ADV-MN-00156	Date May 2018
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Table 10-3 Summary of Intersections at Discovery Zone South, Altan Nar Project

Hole ID	From (m)	To (m)	Interval	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-43	45	50	5	0.33	3.8	0.72	1.37	1.46
TND-66	89	104	15	1.34	32.3	0.44	0.77	2.45
TND-09	37	75	38	1.37	16.2	0.35	0.6	2.1
TND-10	15	32	17	0.49	5.6	0.8	0.31	1.14
TND-19	129	135	6	3.15	60	0.15	0.5	4.38
TND-19	141	157	16	6.5	17.2	0.15	0.53	7.11
TND-33	170	176	6	0.83	29	0.04	0.09	1.34
TND-34	226	236	10	0.46	19.2	0.56	1.67	1.89
TND-67	112	142	30	1.09	11.7	0.12	0.43	1.54
TND-11	37.6	43	5.4	0.23	0.5	0.35	1.3	1.08
TND-11	48	64	16	0.59	5.7	0.28	0.54	1.09
TND-11	69	74	5	0.17	8.4	0.29	1.3	1.11
TND-41	63	75	12	0.71	3.3	0.98	0.66	1.6
TND-41	116	128	12	1.24	9.3	0.44	0.79	2.01
TND-41	146	151	5	0.91	32.2	0.06	0.19	1.52
TND-56	176	186	10	1.06	15.1	0.11	0.32	1.5
TND-68	70	82	12	0.49	16.3	0.16	0.37	1.01
TND-12	28	46.5	18.5	0.88	11.9	0.13	0.33	1.29
TND-12	54	76	22	0.31	8	0.36	1.35	1.31
TND-35	112	128	16	1.01	22.6	0.32	1.54	2.31
TND-35	134	141	7	1.05	22.6	0.03	0.17	1.49
TND-55	132	139	7	0.53	6	0.6	1.51	1.71
TND-55	148	160	12	0.75	3.8	0.13	0.27	1.01
TND-69	47	98	51	1.75	20.6	0.32	0.5	2.48
TND-90	78	131	53	1.39	19.6	0.26	0.42	2.03
incl	91	103	12	3.44	51.8	0.49	0.69	4.82
incl	92	97.8	5.8	5.45	53.1	0.51	0.97	7
incl	115	125	10	1.93	22.2	0.28	0.56	2.69
TND-91	39.7	65	25.3	0.45	6.1	0.1	0.25	0.72
incl	50	62	12	0.63	4.5	0.08	0.21	0.85
and	78	82	4	0.73	21	0.26	0.59	1.48
TND-92	43	81	38	2.02	9.6	0.37	0.77	2.75
incl	46	55	9	7.33	25.4	1.2	1.65	9.17
TND-93	17	39	22	1.43	22.5	1.19	0.76	2.77
incl	34	36	2	8.07	9	0.44	0.95	8.92
TND-101	3	12	9	0.72	6.9	0.28	0.23	1.08
and	32	142	110	9.26	32	0.65	0.77	10.46
incl	39	62	23	2.69	40.9	0.71	0.61	3.98
incl	73	78	5	24.8	49.8	1.08	2.4	27.3
incl	96	110	14	55.6	131.1	2.64	3.01	60.4
and	157	170	13	2.23	13.8	0.37	0.38	2.83
TND-31 ext								
and	220	221	1	5.99	25	0.4	0.62	6.89
and	369	371	2	9.57	7	0.3	0.14	9.9
and	397	409	12	0.33	6.4	0.66	0.31	0.99
incl	401	402	1	2.26	43	4.67	3.1	6.9
and	424.2	428	3.8	0.25	8.8	0.99	0.42	1.11
TND-103	139	169	30	0.25	3.2	0.26	0.49	0.68
and	166	168	2	1.82	22.5	0.24	0.74	2.66
TND-104	126	163	37	2.22	29.7	0.31	0.45	3.05
incl	126	142	16	3.65	50.5	0.63	0.77	5.13
incl	137	140	3	10.1	155	1.32	2.12	14.2
TND-105	100	114	14	7.92	43.7	0.67	1.16	9.52
incl	107	113	6	14.88	65.3	0.68	0.94	16.7

Hole ID	From (m)	To (m)	Interval	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
incl	111	112	1	40	87	1.72	1.87	43.2
TND-106	132	151	19	1.01	11.9	0.21	0.42	1.51
TND-108	120	145	25	1.29	16.6	0.51	0.76	2.2
incl	135	138	3	5.81	55	1.63	1.69	8.34
TND-109	162	170	8	2.71	10.6	0.11	0.32	3.09
TND-110	62	63	1	0.16	16.0	6.18	3.8	5.54
and	97	117	20	10.3	37.5	0.79	0.93	11.8
incl	106	111	5	29.7	44.6	0.86	1.85	31.8
incl	106	107	1	101	84	2.01	3.26	105
TND-113	59	61	2	0.89	7.5	2.05	1.33	2.74
and	79	99	20	0.96	1.7	0.12	0.14	1.11
incl	79	80	1	14.6	7	1.37	0.75	15.79
TND-114	91	108	17	0.94	1.8	0.04	0.09	1.04
TND-129	186	214	28	0.03	0.9	0.16	0.56	0.41
incl	210	214	4	0.03	5	0.34	1.45	1.03
and	232	243	11	1	9.9	0.06	0.25	1.31
and	381	383	2	1.51	30.5	3.88	1.57	4.77
TND-132	154	160	6	0.19	2	0.32	0.37	0.59

Note: All drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

*AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.

Table 10-4 Summary of Intersections, Discovery Zone North, Altan Nar Project

Hole_ID	From_m	To_m	Interval	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-36	93	102	9	1.02	3.9	0.04	0.17	1.19
TND-28	11	19	8	2.98	41.8	0.14	0.38	3.87
TND-28	72	99	27	0.74	8.4	0.2	0.19	1.06
TND-38	119	134	15	3.26	19.6	0.84	0.49	4.23
TND-65	9	14	5	2.15	8	0.26	0.15	2.48
TND-65	82	106	24	4.78	30.6	1.03	1.15	6.36
TND-70	36	63	27	4.62	23.6	0.85	0.46	5.65
TND-18	18	23	5	2.77	5.2	0.53	0.63	3.44
TND-18	26	37	11	0.35	14.7	1.64	1.05	1.95
TND-18	39	46	7	0.77	7.3	0.35	0.28	1.2
TND-18	51	63	12	0.8	9.2	0.88	0.88	1.84
TND-37	94	108	14	0.74	5	0.13	0.36	1.06
TND-37	135	168	33	0.93	10.1	0.64	0.65	1.75
TND-37	200	205	5	1.21	4	0.13	0.21	1.44
TND-37	212	218	6	1.15	1.3	0.06	0.12	1.26
TND-40	59	64	5	0.66	2.6	0.18	0.82	1.22
TND-40	71	90	19	2.26	14.4	0.63	0.68	3.15
TND-58	202	208	6	0.8	4	0.08	0.22	1.01
TND-58	266	272	6	4.79	9.3	0.59	0.78	5.64
TND-71	66	104	38	0.77	7.6	0.32	0.48	1.3
TND-71	152	158	6	1.11	6.7	0.15	0.4	1.43
TND-71	164	170	6	0.88	4	0.02	0.1	1
TND-17	216	244	28	0.84	13	0.34	0.77	1.6
TND-50	110	115	5	2.68	11	0.7	0.37	3.4
TND-50	144	149	5	0.23	19.2	1.23	0.29	1.3
TND-50	163	180	17	0.28	3.3	0.66	1.02	1.19
TND-50	187	224	37	0.87	9.6	0.84	0.41	1.66
TND-72	8	102	94	0.69	6.3	0.18	0.25	1
TND-111	5	150	145	0.18	3.1	0.12	0.24	0.41
incl	40	47	7	0.19	6.6	0.24	0.33	0.58
incl	66	97	31	0.47	4.7	0.26	0.51	0.93
incl	109	112	3	0.62	1.3	0.05	0.19	0.76
TND-112	38	64	26	0.38	4.5	0.32	0.32	0.78
incl	44	51	7	0.77	6.7	0.69	0.54	1.5
TND-116	131	211	80	0.4	2.2	0.07	0.13	0.53
incl	132	149	17	0.67	5.1	0.12	0.17	0.9
incl	158	174	16	0.88	1.9	0.04	0.14	1
TND-117	73.2	94.2	20.9	0.18	9.3	0.33	0.28	0.64
incl	80	88	8	0.34	20.1	0.64	0.51	1.23
TND-131	5	10.5	5.5	1.12	4	0.13	0.27	1.39
and	26	29	3	0.37	10.3	0.44	3.07	0.9
and	73	74	1	3.63	8	1.51	0.13	4.59
and	96	97	1	0.11	11	1.82	1.15	1.81

Note: All drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

*AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.

10.1.2 Union North Prospect Drilling Results

Union North (“UN”) is located 1.3 km northwest of the Discovery Zone. During 2014 the drilling density of the prospect has been increased. The prospect has been tested by 24 holes to date (2018). Significant drill intercepts have been included in **Table 10-5**.

Stronger co-occurrence of gold and base metal mineralisation compared to the Discovery Zone was noted. Strong development of porphyry dyke development is also a characteristic of this area.

Table 10-5 Summary of Intersections at Union North Zone Altan Nar Project

Hole_ID	From_m	To_m	Interval	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-79	23	29	6	0.69	9.7	0.18	0.2	1.03
TND-78	36	42	6	0.53	8.8	0.25	0.83	1.22
TND-76	30	62	32	1.05	3.9	0.45	0.38	1.54
TND-46	20	30	10	0.91	3.2	0.05	0.14	1.05
TND-46	41	43	2	5.36	20	1.14	1.15	6.84
TND-46	58	68	10	3.94	10.6	0.89	0.71	4.92
TND-59	57	71	14	0.84	8.36	0.77	0.85	1.8
TND-59	102	109	7	2.25	5.71	0.67	1.01	3.2
TND-75	115.8	121.1	5.3	1.27	7	1.02	0.86	2.35
TND-60	22	34	12	2.11	6.42	0.49	1	2.98
TND-60	38	47	9	2.35	5.89	0.79	0.63	3.17
TND-60	69	74	5	2.14	5.6	0.64	0.66	2.89
TND-61	45	69	24	2.09	5.8	0.59	0.84	2.91
TND-74	69	75.4	6.4	0.25	10.2	1.76	3.42	3.07
TND-74	152	160	8	0.46	11.4	0.91	1.25	1.74
TND-62	20	34	14	0.43	3.3	0.46	0.57	1.01
TND-73	8.2	38	29.8	1.22	0.7	0.18	0.22	1.44
incl	10	16	6	2.12	1.7	0.32	0.09	2.35
incl	22	28	6	1.98	1	0.1	0.16	2.13
TND-74	69	75.4	6.4	0.25	10.2	1.76	3.42	3.07
and	86	92	6	0.18	2.8	0.4	0.43	0.65
and	152	160	8	0.46	11.4	0.91	1.25	1.74
TND-75	115.8	121.1	5.3	1.28	7.1	1.03	0.86	2.36
TND-76	30	62	32	1.05	3.9	0.45	0.38	1.54
incl	46	56	10	2.94	10.5	1.04	0.9	4.09
TND-77	26	28	2	0.88	5	0.37	0.59	1.45
and	50	51	1	2.55	11	1.5	0.78	3.89
TND-79	23	36	13	0.43	6.1	0.12	0.27	0.72
and	44	57	13	0.26	1.2	0.18	0.24	0.5
TND-81	2	18.4	16.4	0.66	5.4	0.4	0.28	1.09
and	26.9	35.7	8.9	4.99	17.1	1.49	0.28	6.16
and	46	49	3	0.33	2	0.14	0.21	0.54
TND-82	14	16	2	0.94	6	1.17	0.33	1.8
and	26	38	12	3.59	14.4	1.15	1.76	5.3
incl	29	34	5	7.25	29.8	2.64	3.62	10.92
TND-83	20.4	25.6	5.2	3.06	12	1.87	6.76	7.69
TND-84	60	63	3	0.69	6.3	0.45	0.43	1.24
and	81	84	3	1.32	2	0.04	0.05	1.4
and	99	100	1	0.19	4	1.23	0.23	1
and	102	103	1	0.5	4	0.61	0.46	1.11

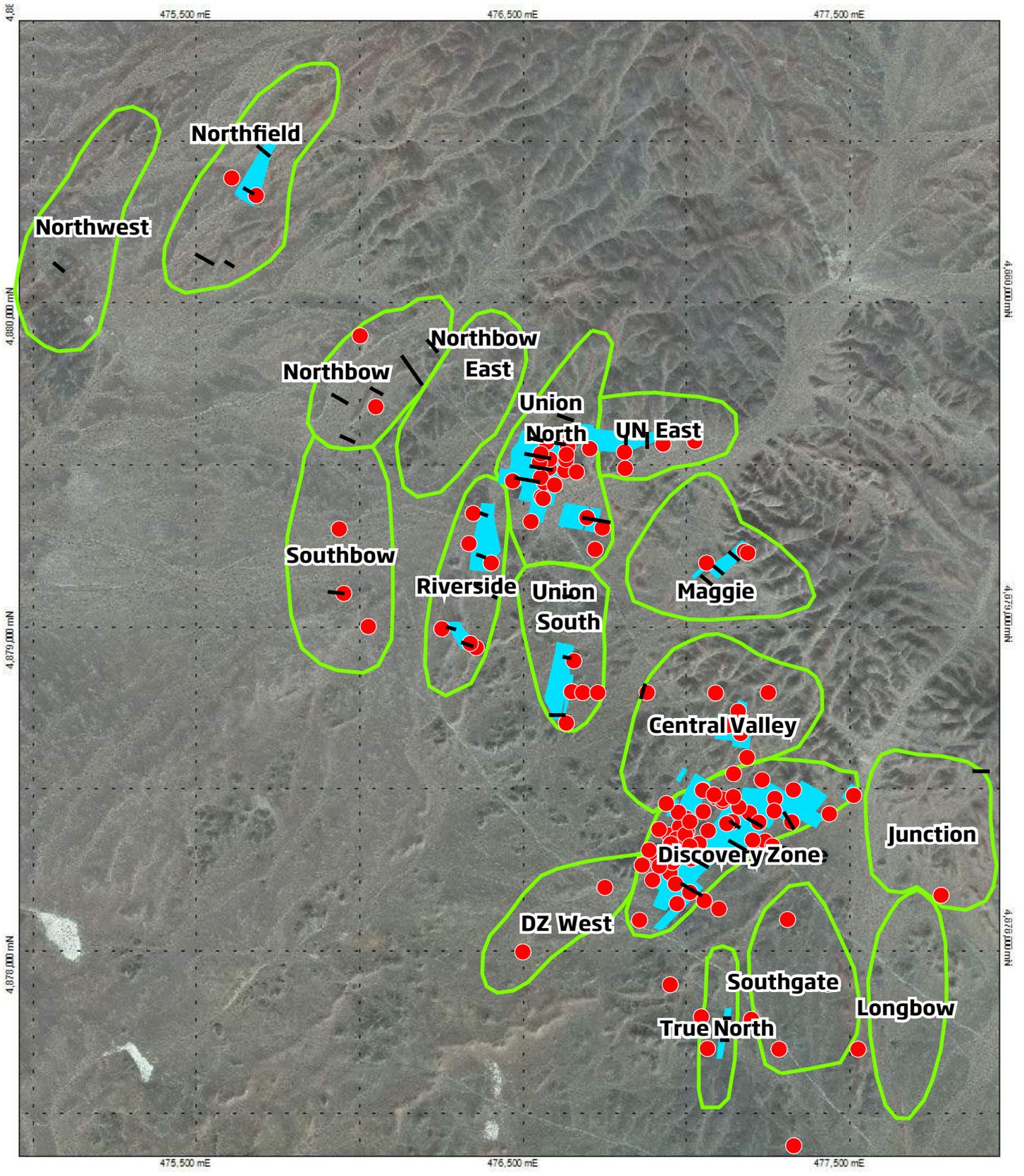
Hole_ID	From_m	To_m	Interval	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-85	23.2	27.5	4.3	0.81	2.3	0.39	0.34	1.21
and	35.2	48	12.8	3.06	1.9	0.29	0.29	3.39
TND-99	24	53	29	0.38	3.8	0.18	0.28	0.67
incl	24	29	5	1.09	4	0.17	0.23	1.35
and	67	97	30	0.24	3.9	0.21	0.52	0.67
incl	73	76	3	0.88	6.3	0.22	0.52	1.35
incl	81	88	7	0.25	4.7	0.28	0.72	0.96

Note: All drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

*AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.

10.1.3 Altan Nar Project - Scout Drilling

To date, exploration programs at Altan Nar have included close-spaced-soil and rock geochemical sampling as well as detailed IP gradient array and magnetic geophysical surveys. This work has resulted in the identification of numerous exploration drill targets along the 5.6 km strike length of the Altan Nar Project, outside the area of the DZ and UN. This work significantly expanded the identified gold-bearing epithermal mineralisation on the Altan Nar property. To date, 45 scout holes (14 in 2011, 9 in 2012 and 3 in 2014, 4 in 2015, 3 in 2016 and 12 in 2017) have been drilled across the Altan Nar Project, outside of the DZ and Union North Zones (see **Figure 10-4**)



RPMGLOBAL

LEGEND	
● Drill hole	 Prospects
 Mineralization wireframe	 Trench lines

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT	PROJECT	
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT	
	DRAWING Altan Nar Prospect Location map	
FIGURE No. 10-4	PROJECT No. ADV-MN-00156	Date May 2018

10.1.4 Union South Prospect

Union South is located directly south of Union North and represents the possible continuation of the Union North mineralisation, slightly offset to the east as suggested by the IP gradient chargeability anomaly in the area. A series of widely spaced drill holes (100m spacing) returned from 6 to 13 m intervals with 1.2 g/t to 3.4 g/t Au Eq values indicating the significant potential of this area which as also returned rock chip samples up to 15.4 g/t Au and trench intervals up to 10 m of 4.46 g/t Au.

In 2015, a 35m step forward hole TND-89 from TND-29 and TND-39 intersected 4m at 2.26g/t AuEq (1.74g/t Au, 3.5g/t Ag, 0.93% combined Pb and Zn from 23m, another intersection of 4m at 2.64g/t Au Eq (1.83g/t Au, 4.0g/t Ag, 1.45% combined Pb and Zn from 53m and another intersection of 3m at 2.39 g/t AuEq (1.45g/t Au, 3.3g/t Ag, 1.73% combined Pb and Zn from 75m. Another intersection of 3m at 2.15 AuEq (0.25g/t Au, 4.3g/t Ag, 3.56% combined Pb and Zn from 91m. Summary of intersections are included in **Table 10-6**.

Table 10-6 Summary of intersection at Union South Prospect

Drill Hole	From (m)	To (m)	Interval*(m)	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-78	36	42	6	0.53	8.8	0.25	0.83	1.22
TND-89	23	27	4	1.74	3.5	0.31	0.62	2.26
and	53	57	4	1.83	4.0	0.61	0.85	2.64
and	75	78	3	1.45	3.3	0.61	1.12	2.39
and	91	94	3	0.25	4.3	0.83	2.73	2.15
TND-122	105	132	27	0.14	3	0.19	0.53	0.56

Note: All drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

**AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.*

10.1.5 Riverside Prospect

Riverside is located 300 m to the west, and is sub-parallel to, Union South and at the northern end it appears to merge with Union North. Two widely spaced drill holes (250 m) returned significantly anomalous results. TND-45 to the south, returned 18 m of 1.0 g/t Au Eq (20 to 38 m) while THD-51 to the north, returned 6 m of 0.84 g/t Au Eq from 10 m. This prospect is characterized by an 800 m long gradient IP and geochemical anomaly that follows the trend of white mica alteration and quartz/breccia rubble fields. This target requires additional follow up exploration.

A total of four holes were drilled in the Riverside Prospect since 2014 (TND-88 in 2015 and TND-124, TND-125, TND-128 in 2017). It is believed that TND-124 and TND-125 failed to intersect any significant mineralisation because mineralisation appears to be dipping to east and these two holes were drilled from west to east while TND-88 and TND-128 intersected some notable mineralisation.

A summary of drill intersections from the Riverside Prospect are included in **Table 10-7**.

Table 10-7 Summary of intersection at Riverside Prospect

Drill Hole	From (m)	To (m)	Interval*(m)	Goldg/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-45	20.0	38.0	18.0	0.46	2.2	0.42	0.59	1.01
TND-51	10.0	16.0	6.0	0.10	1.0	0.94	0.47	0.84
TND-88	20.0	22.0	2.0	1.56	0.0	0.00	0.02	1.57
and	32.0	34.0	2.0	1.19	0.0	0.00	0.01	1.20
and	45.0	61.0	16.0	0.49	0.9	0.26	0.24	0.76
incl	51.0	54.0	3.0	1.63	0.0	0.08	0.24	1.79
TND-128	40.0	100.0	60.0	0.15	1.2	0.16	0.41	0.46
incl	62.0	100.0	38.0	0.21	1.4	0.17	0.39	0.52
incl	92.0	100.0	8.0	0.50	2.3	0.30	0.55	0.92

Note: All Altan Nar drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

**AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.*

10.1.6 Maggie Prospect

Located 1 km north of the DZ and 700 m east of the Union North Prospect, the Maggie Prospect area is a 500 m x 400 m triangular shaped area. This target is characterized by a 10 to 40 m wide linear white mica alteration zone with gold, silver, lead and zinc mineralisation traced for over 300 m on a NE trend through the center of the target. A single drill hole, TND-64, returned two narrower zones with mineralisation apparently displaced by a post-mineral porphyry dyke. These two zones, 4 m and 5.35 m wide returned 2.6 g/t Au Eq and 1.8 g/t AuEq, respectively. Trenching completed to test soil and IP anomalism northeast and southwest of the drill established a 120 m strike length that remains open.

In 2017, two diamond holes were drilled in the Maggie Prospect and these holes were collared as a drill fans and both holes intersected high grade gold and base metal mineralisation. TND-123 intersected 16m at 4.3 g/t AuEq (3.75g/t Au, 9.3g/t Ag, 0.8% combined Pb and Zn) from 28m.

TND-133 intersected 4 m of 2.89g/t AuEq (2.24g/t Au, 7.5g/t Ag, 1.04% combined Pb and Zn from 32m. Low grade gold and base metal mineralisation was intersected at the end of this holes (45m at 0.17g/t Au, 3.8g/t Ag, 0.29% combined Pb and Zn, excluding 6.6 m of post mineralisation dyke). This hole also intersected the same andesitic barren dykes that occurred in TND-123. Mineralisation at Maggie Prospect is open along strike (NE-SW) and down-dip directions and mineralisation looks to get wider towards the northeast..

A summary of the drill intersections at Maggie Prospect is included in **Table 10-8**.

Table 10-8 Summary of intersection at Maggie Prospect

Drill Hole	From (m)	To (m)	Interval*(m)	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-64	40.0	43.0	3.0	1.30	36.3	1.38	0.14	2.64
and	62.7	68.0	5.4	1.10	7.9	0.84	0.30	1.76
TND-123	28.0	44.0	16.0	3.75	9.3	0.59	0.21	4.30
incl	30.9	35.9	5.1	4.76	10.4	0.58	0.23	5.33
and	93.0	95.0	2.0	0.05	11.0	0.82	0.59	0.94
and	111.0	114.0	3.0	0.01	9.3	1.08	0.26	0.97
TND-133	32.0	36.0	4.0	2.24	7.5	0.88	0.16	2.89
and	56.3	58.0	1.7	2.42	16.0	2.04	1.47	4.47
and	69.0	74.0	5.0	0.52	6.2	0.19	0.13	0.78

Note: All drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

*AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.

10.1.7 Central Valley Prospect

Holes TND-15 and 16 were drilled within the Central Valley Prospect, 300 m north of the DZ. These holes were drilled at the same collar location, one oriented east and the other west. When combined, these holes intersected a very wide zone of mineralisation; greater than 200 m of 0.2% zinc with multiple anomalous gold zones including six widely spaced 1-metre samples of 0.5 g/t to 1.9 g/t gold. Two other holes in this prospect, TND-14 and TND-44 returned broad zone of anomalous lead-zinc mineralization including 47 m of 0.08g/t Au, 2.5g/t Ag and 0.53% combined Pb and Zn and 50m of 0.08g/t Au, 1.5g/t Ag and 0.61% combined Pb and Zn, respectively.

Two additional holes have been drilled in the Central Valley Prospect (TND-80 in late 2014, TND-115 in 2017). TND-80 was collared halfway between TND-14 and TND-15 and intersected broad low grade halos and a 1-metre sample of 0.61g/t Au, 11g/t Ag, 1.3% combined Pb and Zn.

TND-115 did not hit any significant gold mineralisation however it intersected 12 m at 0.71g/t AuEq (4.2g/t Ag, and 1.19% combined Pb and Zn) from 179m. Summary of drill intercepts at Central Valley Prospect summarized in **Table 10-9**.

Table 10-9 Summary of intersection at Central Valley Prospect

DrillHole	From(m)	To (m)	Interval*(m)	Gold g/t	Silverg/t	Lead %	Zinc %	AuEq g/t *
TND-14	41	88	47	0.08	2.5	0.23	0.30	0.38
TND-44	47	97	50	0.08	1.5	0.23	0.38	0.41
TND-115	179.0	191.0	12.0	0.03	4.2	0.60	0.59	0.71

Note: All drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

*AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.

10.1.8 True North Prospect

The True North Prospect, located 200m south of the DZ, returned significant results from a single drill hole, TND-32, which returned 3 m at 1.42 g/t Au and a combined Pb and Zn value of 6.9% from 51 m. This result was reflected at surface by a subsequent trench that returned a 4 m zone at 1.3 g/t Au and a high combined Pb-Zn content of 3.8%.

An additional single hole (TND-130) drilled in 2017 collared 100m north of TND-32 and intersected 2m of 0.32g/t Au, 0.4% combined Pb and Zn at 110m. Mineralisation appears to increase to the south.

10.1.9 Southgate Prospect

At the Southgate Prospect, located 500 m southeast of the DZ, hole TND-25 intersected 6 m averaging 0.75 g/t gold or 1.04 g/t gold equivalent. The mineralised intersection in TND-25, consisting of gold bearing epithermal quartz breccia with associated sulphide mineralisation (galena, sphalerite, and arsenopyrite) within a zone of pervasive white mica alteration and is the same as the mineralisation within the DZ. TND-42 drilled from other side of TND-25 and intersected 1m at 0.73 g/t Au, 5g/t Ag, 1.3% As, 0.28% combined Pb and Zn.

Hole TND-23 was collared 200m straight south of hole TND-42 and returned low grade anomalous gold, copper, lead and zinc values.

In 2017, a single hole (TND-127) was drilled between TND-23 and TND-42 and intersected 4m at 0.3g/t Au, 9.5g/t Ag and 0.4% Cu within a broader interval of copper mineralization (12m of 0.3% Cu).

10.1.10 Northfield Prospect

A total four trenches and two scissor holes drilled in the prospect. The best results to date is trench ANT-17 where it intersected 28m at 0.41 g/t Au, 10g/t Ag, 0.4% combined Pb and Zn. Two scissor holes (TND-54 and TND-87) were drilled near trench ANT-17 and hole TND-54 intersected 2m at 1.16g/t Au while TND-87 intersected broad low grade gold mineralisation.

10.1.11 Northbow Prospect

Total 6 trenches excavated on Northbow Prospect results were discussed in Section 9.4. A single hole drilled in 2015 and recent hole TND-86 did not intersect any significant mineralisation.

10.1.12 Southbow Prospect

Given the intensity of chargeability anomaly and known relationship between high chargeability and areas of mineralisation, the subtle geochemical anomalies poking through cover and evidence of a structural break, the South Bow target is highly ranked. Trenching failed to reach the bedrock however three, 120-150m spaced, diamond holes were drilled in 2016 and these holes did not intersect any gold anomalism but did intersect narrow high grade Pb and Zn. The highest grade was intersected in TND-94 with 1m at 17g/t Ag and 8.4% combined Pb and Zn. Lithological logging indicates that holes intersected volcanic breccia and white mica alteration zones.

10.1.13 Union North East Prospect

Not much work was done on the Union East Prospect prior to 2016. A total two trenches (TND-40 and TND-41) and single diamond hole were completed in 2016. The prospect is located 250m east of Union North Zone and both zones are potentially connected to each other. Two trenches (ANT-40 and ANT-41) tested a surface geochemical anomaly and ANT-41 returned 27.5m at 1.95g/t Au, 4.4 g/t Ag, 1.16% combined Pb and Zn and includes 2m at 8.4g/t Au, 10g/t Ag, 3.82% combined Pb and Zn. Trench and drill hole results indicate that grades are increasing toward Union North Prospect. Initial scout hole TND-97 intersected 22m at 1.1g/t Au, 5g/t Ag, 0.8% combined Pb and Zn from 34m.

In 2017, three diamond holes (TND-119 to TND-121) were drilled in this prospect. TND-121 was collared as a 50m step back to the south of TND-97 and intersected 14.5m at 0.93g/t Au, 6.8g/t Ag, 0.89% combined Pb and Zn from 89.5 m. TND-120 was collared 120m east of TND-97 and intersected 5m at 1.1g/t Au, 29.4g/t Ag, 3.3% combined Pb and Zn from 36.9 m. Mineralisation looks to have been thicker at one stage which has subsequently been cut by barren volcanic dykes. Summary of drill intercepts area summarised in **Table 10-10**.

Table 10-10 Summary of intersection at Union East Prospect

Drill Hole	From(m)	To (m)	Interval*(m)	Gold g/t	Silver g/t	Lead %	Zinc %	AuEq g/t *
TND-97	34.0	56.0	22.0	1.08	5.0	0.35	0.46	1.57
incl	44.0	55.0	11.0	1.77	5.8	0.58	0.71	2.52
TND-119	38.4	42.0	3.6	0.06	5.3	0.44	0.78	0.76
TND-120	36.9	42.0	5.1	1.08	29.4	1.05	2.25	3.22
incl	39.0	40.0	1.0	2.43	55.0	1.70	3.10	5.72
TND-121	89.5	104.0	14.5	0.93	6.8	0.47	0.42	1.49

Note: All drill holes were drilled at a dip between -70 to -45 degrees and intersected zones interpreted to be steeply-dipping to vertical. Additional information is required to determine true widths.

**AuEq. has been used to express the combined value of gold, silver, lead and zinc as a percentage of gold, and is provided for illustrative purposes only. No allowances have been made for recovery losses that may occur should mining eventually result. Calculations use USD metal prices of \$1200/oz gold, \$18/oz silver, and \$0.90/lb for lead and zinc.*

These prospects, along with a number of un-drilled high priority prospects, with strong geochemical and geophysical anomalies, require additional exploration, including trenching and drilling, to determine their mineral potential. Resource modelling has been carried out on 9 prospects out of 20 and the remaining prospects have been tested by very limited (shallow) drilling or no drilling.

11 Sample Preparation, Analyses and Security

The details of the sample preparation, analytical methodology and sample security protocols in place for soil, rock, trench and drill-core samples from the exploration programs carried out to date on the Tsenkher Nomin exploration license are included in this section.

11.1 Primary Sample Protocols

Soil samples were taken at regular intervals on a grid varying between 400 m intervals on 400 m spaced lines to down 12.5 m intervals along 50 m spaced lines. Sample locations were determined by hand-held GPS devices with a precision of approximately 3 m in lateral directions. All samples were taken using a consistent sampling methodology which included digging shallow holes (avg. 25 cm) and dry sieving to -2 mm.

Rock chip and rock grab samples were taken from outcrop / sub-crop, respectively, by ERD's geologists with locations determined by hand-held GPS devices (also ± 3 m lateral precision). Samples were taken from mineralised and un-mineralised surface rocks that are, as much as possible, representative of the lithological unit identified while in the field. No grid-based rock chip sampling was carried out over the prospect areas.

All trenches were excavated to bedrock, although zones of intense alteration and deep weathering were encountered and therefore the term 'bedrock' is used loosely. Trench samples were collected at 1 m or 2 m intervals, as determined by the senior project geologist, based on the lithology and mineralisation. Samples were chipped from the bottom of the trenches and care was taken to ensure each sample was representative of the entire interval being sampled. Representative hand samples for each interval were also collected for reference.

ERD's sampling protocol for drill core consisted of routine collection of samples at 1 m, 2 m or 3 m intervals (depending on the lithology and style of mineralisation) over the entire length of the drill hole, with the exception of more recent drilling where late stage dykes were not sampled. Sample intervals were generally based on meterage, not geological controls or mineralisation. However, in the case of early stage or scout drilling programs, samples were sometimes selected based on geological controls to get a better understanding of the distribution of mineralisation. At Altan Nar, some of the mineralised zones were selectively sampled in the initial drill holes (TND-09 to 12). However, subsequent drill holes (TND-13 to 133) were all sampled at 1 m, 2 m or 3 m intervals, depending on the lithology and intensity of mineralisation. For example, all clearly mineralised zones were sampled at 1 m intervals while late-stage, un-mineralised dykes were sampled at 3 m intervals, or not at all. All other drill-hole sections were sampled at 2 m intervals. Drill core recovery was excellent and did not impact the accuracy and reliability of the assay results. All drill-core was sawn in half using a rock saw and it is RPM's opinion that the samples assayed are representative and that it is unlikely there has been sampling bias.

11.2 Sample Handling Protocols and Security

Drill core was delivered directly from the drill site to the Company's exploration camp at the end of every shift. All logging and sampling was done in camp by ERD geologists. Drill core was logged for geology and RQD, and sample intervals were marked. Core was then photographed before being sawn in half with a core saw after which half-core samples for assay were bagged. Magnetic susceptibility readings were taken for each sample interval. The remaining half-core prior to and including 2014 drilling (up to TND-80) is securely stored at the Company's Zuun Mod exploration camp while post 2014 drilling half core samples were stored at Bayan Khundi camp site (TND-81 to TND-133).

All samples (soil, rock, trench and drill core) were organized into batches of 20 or 30 samples and included a commercially prepared certified reference standard and an analytical blank. Each batch was stored in the field camp in sealed bags. Sample batches were periodically shipped directly to SGS in Ulaanbaatar via ERD's logistical contractor, Monrud Co. Ltd.

11.3 Assay Laboratory Sample Preparation and Analysis Protocols

All first assay samples have been prepared and assayed at the Ulaanbaatar laboratory of SGS Mongolia LLC (“SGS”). The laboratory is one of largest commercial laboratories in Mongolia and operated to ISO17025 specifications.

Analytic methods are summarised in **Table 11-1**.

At SGS, all rock samples (drill core, chip and grab) are handled as follows:

- Samples as received are initially sorted and verified against the client Sample Submission Form.
- Samples are air dried at 90°C.
- All samples are crushed to 3.35 mm using a jaw crusher and Boyd crusher in a two-stage process.
- Sample split by rotary sample divider to 600-700 g, with reject retained.
- Whole sample is pulverised to 90% <75 µm
- The pulverised sample is mixed and divided manually, with approximately 200 g retained for the client and 300 g retained for laboratory analysis
- Gold by fire assay 30 g, other metals by AAS21R 300 mg
- If any metals are over range on the AAS21R analysis (eg. Cu>10,000 ppm) then they are rerun using either AAS22S (eg. Cu range 0.01-5%) or AAS43B (eg. Cu range 0.01-40%) using the laboratory split (AAS22S – 400 mg, AAS43B – 250 mg used)

At SGS, all soil samples taken in 2011 were handled as follows:

- Samples are air dried at 110°C
- Sample is sieved to 180 µm to yield a +180 and -180 fraction
- The -180 µm fraction is then pulverised to 90% <75 µm
- The pulverised sample is mixed and divided manually, with approximately 200 g retained for the client and 300 g retained for laboratory analysis
- Fire Assay 30 g, base metals by AAS21R 300mg
- Soil sample taken in 2012 and 2014 were handled in a similar manner to the 2011 samples with the following exceptions:
 - Sample were not sieved to 180 µm, a portion of the whole sample was pulverized to 90% <75 µm
 - 2012 analysis included Fire Assay 30 g, 45-element analysis by ICP40B 300 mg
 - 2014 analysis included Fire Assay 30 g, 33-element analysis by ICP40B 300 mg

Prior to 2013, rock samples (rock-chip/grab, trench, drill core) were assayed for Au, Ag, Cu, Pb, Zn, As and Mo. Samples from TND-09 to 12 were also analyzed for Bi and Sb. In 2013, rock samples were analyzed for Au and a suite of 45 elements using a four-acid digest and ICP-OES finish with ‘ore-grade’ analysis completed on over detection limit samples. Since 2014, the standard suite of elements analyzed by SGS has been reduced from 45 to 33 (see Table 11-1 for details).

All soil samples from 2011 were assayed for Au, Ag, Cu, Pb, Zn, As and Mo, however, soil samples from 2012 were assayed for Au and a suite of 45 elements and samples from 2014 were assayed for Au and a suite of 33 elements. Table 11-1 provides a summary of the analytical methods used by SGS to analyze all of the samples. All drill core sample rejects are saved and stored at a secure facility and are available to carry out check-analyses as necessary.

Standard and blank analyses were monitored by ERD and if SGS analysis varied from the determined assay value by more than 15% then ERD's protocol is to request that the entire batch be re-analyzed. No re-analysis has been required to date.

At SGS, all client-submitted material is retained under cover in the secure Ulaanbaatar facility where 24 hour security is maintained. Sample integrity is maintained during the analysis process by laboratory LIMS generated sample labeling throughout the analytical process. SGS's QA/QC protocols included a 10% internal QC run on analysis; so that each 50 sample batch consists of 45 samples, two duplicates, two standards and one blank.

RPM is of the opinion that adequate procedures for sample preparation, security and analysis are in place, and were used, to ensure accuracy of analytical results.

Table 11-1 SGS Analytical Methods and Detection Limits

Gold Analysis			Detection Limits	
SGS Code	Description	Element	LDL	UDL
FAE303	Fire Assay, Solvent Extraction, AAS ¹ finish, 30g sample	Au	1 ppb	10000 ppb
FAA303	Fire Assay, AAS ¹ finish, 30g sample	Au	0.01 ppm	100 ppm
Multi-Element Analysis				
SGS Code	Description	Element	LDL	UDL
AAS21R	DIG21R (3 acid digest ²) with AAS ¹ finish	Cu	2 ppm	10000 ppm
		Ag	1 ppm	100 ppm
		Pb	3 ppm	5000 ppm
		Zn	2 ppm	10000 ppm
		As	50 ppm	5000 ppm
Mo	5 ppm	10000 ppm		
Multi-Element Ore-Grade Analysis				
SGS Code	Description	Element	LDL	UDL
AAS22S	DIG22S (3 acid digest ²) with AAS ¹ finish	Cu	10 ppm	5000 ppm
		Ag	5 ppm	500 ppm
		Pb	10 ppm	2%
		Zn	10 ppm	2%
		As	0.01%	2.50%
Mo	20 ppm	5%		
Multi-Element Ore-Grade Analysis - Higher Detection Limits				
SGS Code	Description	Element	LDL	UDL
AAS43B	DIG43B (4 acid digest ³) with AAS ¹ finish	Ag	500 ppm	2%
		Pb	0.01%	20%
		Zn	0.01%	40%
		As	0.02%	40%
		Mo	0.02%	40%
45-Element Analysis				
SGS Code	Description	Element: LDL-UDL;		
ICP40B	4 acid digestion ³ with ICP OES ⁴ finish	Ag: 2 ppm – 10 ppm; Al: 0.01% - 15%; As: 3 ppm - 1%; Ba: 1 ppm - 1%; Be: 0.5 ppm - 0.25%; Bi: 5ppm - 1%; Ca: 0.01% - 15%; Cd: 1 ppm - 1%; Ce: 0.05 ppm-1000 ppm, Co: 1 ppm - 1%; Cr: 1 ppm - 1%; Cu: 0.5 ppm - 1%; Eu: 0.05 ppm -1000 ppm, Ga: 0.05 ppm – 500 ppm, Ho: 0.05 ppm – 1000 ppm, Fe: 0.01% - 15%; K: 0.01% - 15%; K ₂ O: 0.01% - 35%; La: 0.5 ppm - 1%; Li: 1 ppm - 1%; Mg: 0.01% - 15%; Mn: 2 ppm - 1%; Mo: 1 ppm - 1%; Na: 0.01% - 15%; Na ₂ O: 0.01% - 35%; Nb: 3 ppm – 1%; Nd: 0.05 ppm to 1%; Ni: 1 ppm - 1%; P: 0.01% - 15%; P ₂ O ₅ : 0.01% - 35%; Pb: 2 ppm - 1%; S: 0.01% - 5%; Sb: 5 ppm - 1%; Sc: 0.5 ppm - 1%; Se: 2 ppm to 1000 ppm; Sn: 10 ppm - 1%; Sr: 0.5 ppm - 1%; Ta: 0.05 ppm to 1%; Te: 0.05 ppm – 500 ppm; Th: 2 ppm to 1%; Ti: 0.01% - 15%; U: 3 ppm to 1%; V: 2 ppm - 1%; W: 10 ppm - 1%; Y: 0.5 ppm - 1%; Yb: 0.5 ppm to 1000 ppm; Zn: 1 ppm - 1%; Zr: 0.5 ppm - 1%		
33-Element Analysis				
SGS Code	Description	Element: LDL-UDL;		
ICP40B (2014)	4 acid digestion ³ with ICP OES ⁴ finish	Ag: 2 ppm – 50 ppm; Al: 0.03% - 15%; As: 5 ppm - 1%; Ba: 5 ppm - 1%; Be: 0.5 ppm - 0.25%; Bi: 5ppm - 1%; Ca: 0.01% - 15%; Cd: 1 ppm - 1%; Co: 1 ppm - 1%; Cr: 10 ppm - 1%; Cu: 2 ppm - 1%; Fe: 0.1% - 15%; K: 0.01% - 15%; La: 1 ppm - 1%; Li: 1 ppm - 1%; Mg: 0.02% - 15%; Mn: 5 ppm - 1%; Mo: 2 ppm - 1%; Na: 0.01% - 15%; Ni: 2 ppm - 1%; P: 0.01% - 15%; Pb: 2 ppm - 1%; S: 0.01% - 5%; Sb: 5 ppm - 1%; Sc: 0.5 ppm - 1%; Sn: 10 ppm - 1%; Sr: 5 ppm - 1%; Ti: 0.01% - 15%; V: 2 ppm - 1%; W: 10 ppm - 1%; Y: 1 ppm - 1%; Yb: 0.5 ppm to 1000 ppm; Zn: 5 ppm - 1%; Zr: 3 ppm - 1%		

1 AAS: Atomic Absorption Spectrophotometer

- 2 3-Acid Digest: Perchloric (HClO₄), Hydrochloric (HCl) and Nitric (HNO₃)
 3 4-Acid Digest: Same as 3-acid plus Hydrofluoric (HF)
 4 ICP OES: Inductively Coupled Plasma Optical Emission Spectrometry
 LDL Lower Detection Limit
 UDL Upper Detection Limit

Source: Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, National Instrument 43-101 Technical Report, Erdene Resource Development Corporation, J. C. (Chris) Cowan, MSc, PEng, March 10, 2014

11.4 Petrographic Work

A suite of 34 representative samples from the Altan Nar epithermal gold-silver deposit, including volcanic and volcanoclastic host rocks, nearby granite and granodiorite intrusive rocks and a suite of late-stage intrusive dykes were submitted to the Mongolian University of Science and Technology ("MUST") for petrographic analysis. In addition, eight samples of high-arsenic ("high-As") and six samples of low-arsenic ("low-As") 'ore-grade' drill core were submitted to MUST. Polished thin sections and standard thin sections were prepared for each of the 48 samples and submitted for reflected light and transmitted light petrographic analysis. The eight high-As samples submitted to MUST, which represented mineralised samples from the south end of the DZ (TND-09, -12, -19), were also submitted to SGS Lakefield laboratory for a comprehensive QEMSCAN analysis, coupled with X-ray Diffraction and electron microscope analysis to determine gangue and ore mineralogy.

While zones of high-As gold mineralisation were initially reported and tested, additional drilling and trenching across the Altan Nar property has shown that this type of mineralisation is a localized (e.g. approximately 75% of DZ south), compared to the more volumetrically extensive low-As gold mineralisation in the DZ.

The results from the MUST and SGS studies yield several important insights into the Altan Nar gold-silver-base metal deposit, including:

- Free gold grains were detected in the reflected light examination at MUST in three of the six samples of low-As samples and in two of the eight polished high-As samples from the Discovery Zone. In addition, arsenopyrite was absent in four of the six low-As samples, and only present in trace amounts in the other two samples. This is in contrast to the high-As samples where arsenopyrite was observed in varying amounts in all samples.
- Ore minerals at Altan Nar, as defined by SGS QEMSCAN analysis, include: arsenopyrite, galena, sphalerite, chalcopyrite, pyrite, pyrrhotite, tetrahedrite and a silver-antimony sulphosalt (pyrargyrite?), a silver-copper sulphosalt (polybasite? or pearceite?). In addition to gold, reflected light petrography indicated the presence of additional copper minerals in the Altan Nar mineralised zones, including: chalcocite, covellite, bornite and malachite.
 - Iron (Fe) content in sphalerite ranges from 1.5 – 4.9%, and is consistent with the 'honey sphalerite' observed in drill core. This may reflect a low Fe fugacity in the mineralizing fluids.
 - Manganese (Mn) content in sphalerite is relatively low, ranging from 0.1 – 0.7%, and is somewhat surprising in light of the high Mn concentrations encountered in geochemical analysis of some mineralised samples (up to >20 weight % Mn). One possible explanation is that sphalerite may have crystallized separately from Mn-rich gold-silver mineralisation.
- Silver as Ag-Sb and Ag-Cu sulfosalts were detected with QEMSCAN analysis (SGS Lakefield), and is tentatively identified as pyrargyrite (Ag₃SbS₃). Ag-Cu sulphides were identified also identified by SGS, and is tentatively identified as polybasite or pearceite (Ag-Cu-Sb-As sulphides).
- Gangue minerals at Altan Nar include: quartz, mica, calcite, kutnohrite (Ca-Mn carbonate), an un-named Mn-Cr oxide, pyroxmangite, rhodochrosite (Mn-carbonate), jacobsonite (Mn-Fe oxide), ankerite (Fe carbonate), chlorite, K-feldspar, amphibole, Mn-silicates, phosphate minerals, titanite, and Fe oxides.
- K-feldspar is pseudomorphed by sericite/muscovite and therefore it was not possible, using X-ray Diffraction techniques (XRD), to determine if adularia was present at Altan Nar. Visual examination of drill core, however, has revealed the presence of adularia, with characteristic 'chisel-pointed' pseudo-orthorhombic crystal shapes, in some quartz veins.

- Manganese in ore zones at Altan Nar – Altan Nar mineralisation in the DZ south contains a complex mineral assemblage including manganese carbonate, manganese oxides and manganese silicates. Identified Mn-bearing minerals include rhodochrosite (Mn-carbonate), jacobsonite (Mn-Fe-oxide), manganite (Mn-oxide-hydroxide), kutnohorite (Ca-Mn-carbonate), pyroxmanganite (Mn-silicate) and an unidentified Mn-Cr-oxides mineral.

Based on petrographic observations, coupled with other field and mineralogical data, the following provisional paragenetic sequence is proposed for Altan Nar:

- Early stage massive quartz veining and brecciation.
- Brecciation, silicification and comb quartz veining and associated white mica alteration (sericite-pyrite-quartz) and deposition of galena-sphalerite-chalcopyrite-arsenopyrite (Au?). Note: some replacement of chalcopyrite by covellite and chalcocite may be later, but part of this mineralizing phase.
- Arsenopyrite-pyrite (+Au?) overprint on above sequences, with some associated (?) chalcedony veining and silicification.
- Mn-Ca carbonate veining (rhodochrosite, calcite, etc.) – late hypogene
- Late-stage (supergene) oxidation – limonite, Mn oxides, malachite.

With respect to depth of formation, several mineralogical features at Altan Nar are consistent with intermediate portions of epithermal deposits, including the presence of quartz veins with colloform and crustiform textures, chalcedony veins and geopetal structures in multi-stage veins, and adularia and bladed calcite textures which are evidence of boiling.

In general, mineralogical and geological features of Altan Nar are consistent with intermediate sulphidation and carbonate-base metal deposits, including:

- mineralisation occurs mostly in veins and breccias (with evidence of multiple brecciation events);
- adularia and bladed calcite textures in quartz veins represent boiling features;
- multi-stage quartz veins with late-stage geopetal structures in chalcedony;
- veins with quartz and Ca-Fe-Mn-Mg carbonates host the Au mineralisation;
- Au is present as native metal with a variety of base metal sulfides and sulfosalts (e.g. Pb- and Sb sulphosalts identified by SGS);
- low-Fe sphalerite, tetrahedrite-tennantite (tentatively identified optically at MUST) and galena often dominate in base metal assemblages;
- Au-bearing veins can show classical banded crustiform-colloform textures; and
- white-mica alteration associated with mineralised zones, consisting of quartz-sericite (i.e. illite)-pyrite.

Additionally, a few features are consistent with high-sulphidation affinities, including ubiquitous presence, albeit in low modal concentrations, of Cu-sulphide minerals and high concentrations of Mo in a few samples. Tennantite-tetrahedrite are also diagnostic of high-sulphidation epithermal deposits and were identified in the MUST study, however, the identification of only Ag-Sb and Ag-Cu sulphide minerals by SGS places uncertainty on the optical mineralogy observations.

Widespread evidence for magnetite destruction ('martitization') was documented in volcanic and volcanoclastic rock samples. In these samples, magnetite is replaced by non-magnetic Fe oxide minerals and this feature is thought to reflect widespread epithermal fluid alteration, and deposition of gold-silver mineralisation. Fresh magnetite, along with altered magnetite, was observed in the andesite sample from the high magnetite response area, as predicted. The most intense martitization was developed in the white-mica alteration zones immediately adjacent to strongly mineralized zones in DZ, where no fresh magnetite was observed. These zones have low magnetic response, as noted above in the geophysical sections.

Petrographic data provides insight into geology of the volcanic and volcanoclastic host rocks at Altan Nar, including:

- These rocks are pervasively altered (propylitic alteration with chlorite, epidote, carbonate), however, based on a consistent plagioclase composition and mafic mineral assemblage of biotite and amphibole most samples are interpreted to be of andesite composition.
- Some volcanoclastic samples contain felsic rock fragments including rhyodacite and rhyolite, suggesting minor bi-modal (i.e. intermediate-felsic) volcanism at Altan Nar, or possibly pyroclastic origin.
- Most volcanic rocks are pervasively altered and contain complex intergrowths of copper minerals (chalcopyrite, covellite, chalcocite and malachite) +/- sphalerite and galena indicating widespread metasomatism by metal-bearing fluids at Altan Nar.

The presence of Cu-Pb-Zn sulphides and Ag-bearing minerals throughout the volcanic rocks at Altan Nar demonstrates widespread alteration of the volcanic pile by metal-rich epithermal fluids.

Petrographic analysis of a single high-grade gold sample from drill hole TND-101 was completed in 2017 at Applied Petrologic Services and Research (APSAR) in New Zealand. This sample was collected from the 164-165m interval that returned assays of 17.3 g/t Au, 21 g/t Ag, 1.19% As, 0.65% Mn, 0.14 % Pb, and 0.22% Zn. Results from this work indicated that:

1. Hydrothermal breccia cement comprises early, very fine grained mosaic quartz and adularia, and later, less voluminous mosaic-drusy quartz interposed with interstitial sericite/illite and overgrown by Fe/Mg/Ca-carbonate. Fe/Mg/Ca-carbonate is also contained along late-stage fracturing and cavities along multiple shears and micro-fractures. Kaolin clay and hydrated Fe-oxides fill residual cavities and late fracturing.
2. A general paragenetic sequence of fracture/cement infilling was established, including:
 - i. Mosaic quartz, adularia (i.e. indicating boiling conditions; altered to illite/kaolin), pyrite, arsenopyrite;
 - ii. Mosaic-drusy quartz, pyrite, arsenopyrite, sphalerite, galena, gold/electrum, chalcopyrite, argentite; sericite/illite; Fe/Mg/Ca-carbonate; and
 - iii. Fe/Mg/Ca-carbonate, chalcopyrite; kaolin, hydrated Fe-oxides;
3. Relict secondary K-feldspar/adularia after groundmass of porphyritic andesite wallrock is impregnated with ultra-fine grained supergene hematite;
4. Very fine grained galena is locally abundant, both filling cavities and occurring as inclusions within pyrite.
5. *Gold/Native Electrum*: occurs as:
 - Intergrowths with galena and some amounts of argentite, filling cavities within and overgrowing pyrite. Gold grains (~15µm) were observed to be intergrown with galena, and contained as inclusions in pyrite (3-35 µm);
 - Interstitial grains to, and as inclusions within, quartz;
 - In-filling along micro-fractures within pyrite;
6. Very fine to fine grained acicular to prismatic arsenopyrite is concentrated in relation to earliest mosaic quartz and adularia of hydrothermal breccia cement;
7. Coarser grained arsenopyrite, together with pyrite, is mutually interlocking with fine grained mosaic to drusy quartz of later stage silica cement;
8. Subhedral to anhedral galena, chalcopyrite and sphalerite are intergrown with, but are mostly interstitial to, quartz and overgrowing pyrite and arsenopyrite;

11.5 Sample and Assaying Methods

RPM accepts that the sampling and assaying methods and approach are reasonable for this style of mineralisation. The samples are representative and there appears to be no sample biases introduced during sampling. SGS laboratory is independent from ERD and any relationship is commercial in nature and SGS laboratory is accredited/certified to ISO 9001.

11.6 Quality Control Data

Due to the reporting of the previous resource in 2015, the QAQC is presented pre and post the data included in the resource.

11.6.1 Pre 2015 Estimate

The Quality Assurance and Quality Control (QA/QC) data provided to RPM consist of 14 types of commercial standards, laboratory internal standards as well as internal repeats. In addition, RPM arranged for 53 independent coarse reject samples from all phase of drilling program to be re-submitted these samples for check analysis to ALS Lab in Ulaanbaatar, Mongolia.

The QA/QC samples for the Project are summarised in **Table 11-2**.

Table 11-2 –Summary of QA/QC samples for the Project (Pre 2015)

2014 diamond drilling program	
QA/QC Sample Type	Number of Samples
SGS internal standards	568
SGS internal repeats	185
External standards	157
External checks	31
Subtotal	941
2012 diamond drilling program	
SGS internal standards	214
SGS internal repeats	250
External standards	383
External checks	12
Subtotal	859
2011 diamond drilling program	
SGS internal standards	301
SGS internal repeats	135
External standards	315
External checks	10
Subtotal	
Total	761

Internal repeats were selected randomly by the laboratory while no check sampling was routinely carried out by the company. Subsequent to the end of the program, 51 external repeats were selected from reject material and sent for assay by ERD.

For the all phase of drilling, standards were inserted at a rate of approximately 1:20 and blank samples were inserted at a rate of approximately 1:20. Monitoring of standards was undertaken by ERD geologists.

11.6.1.1 Internal Laboratory Standards

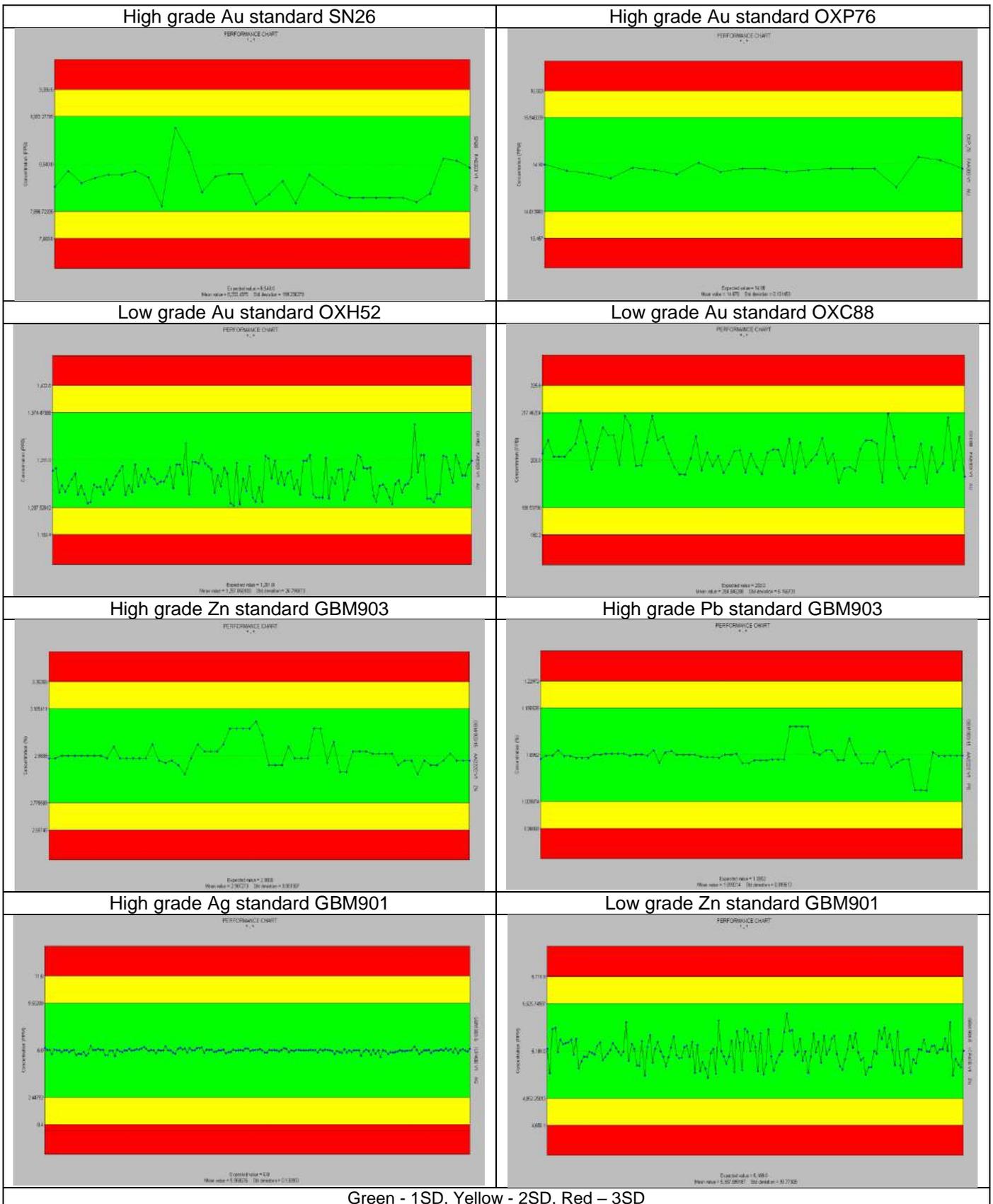
SGS provided RPM with 1083 results (12% of all assays) for the 20 Certified Reference Materials (“CRM”) used for internal laboratory QA/QC for the Project (**Table 11-3**). The results of the SGS internal standards for Au, Zn, Pb and Ag are shown in **Figure 11-1**.

Table 11-3 Numbers of internal SGS standards used for the Project (Pre 2015)

Standard ID	Elements	2011	2012	2014	Description
GBCU.M02	Ag, Cu, Pb, Zn	50			Low grade
GBCU.M04	Ag, Cu, Pb, Zn	42			Low grade
GBM903	Ag, Cu, Pb, Zn	21	7	33	High grade
GBM996	Ag, Cu, Pb, Zn	2	3	6	High grade
GXR-1	Ag, Cu, Pb, Zn, As, Mo	2			Low grade
OXA45	Au	144	46	127	Low grade
OXH52	Au	38	37	39	medium grade
OXF76	Au	2	6	11	High grade
OXL51	Au		10	24	Low grade
OXC102	Au		3		Low grade
OXC88	Au		28	37	Low grade
GXR4	Ag, Cu, Pb, Zn, As		17	51	Low grade
GBM901	Ag, Cu, Pb, Zn, As		28	184	Low grade
GBCU.M01	Ag, Cu, Pb, Zn, As		19		Low grade
AUOE	Au		10	5	medium grade
SN26	Au			19	High grade
GBCU.M99	Pb			21	high grade
GBCU.M98-4c	Ag			6	high grade
CGL108	Ag			3	high grade
AUOI	Au			2	high grade
Total		301	214	568	

Analysis of the plots indicate that the results show an acceptable range of variability over time and between sample batches for Au, Zn, Pb and Ag with all analysis occurring within the upper and lower warning limits (two standard deviations). In addition, RPM notes that no material assay bias can be observed and as such the results highlight the good performance of the SGS laboratory.

Figure 11-1 SGS internal standards results for Au, Zn, Pb, Ag, Cu (Pre 2015)

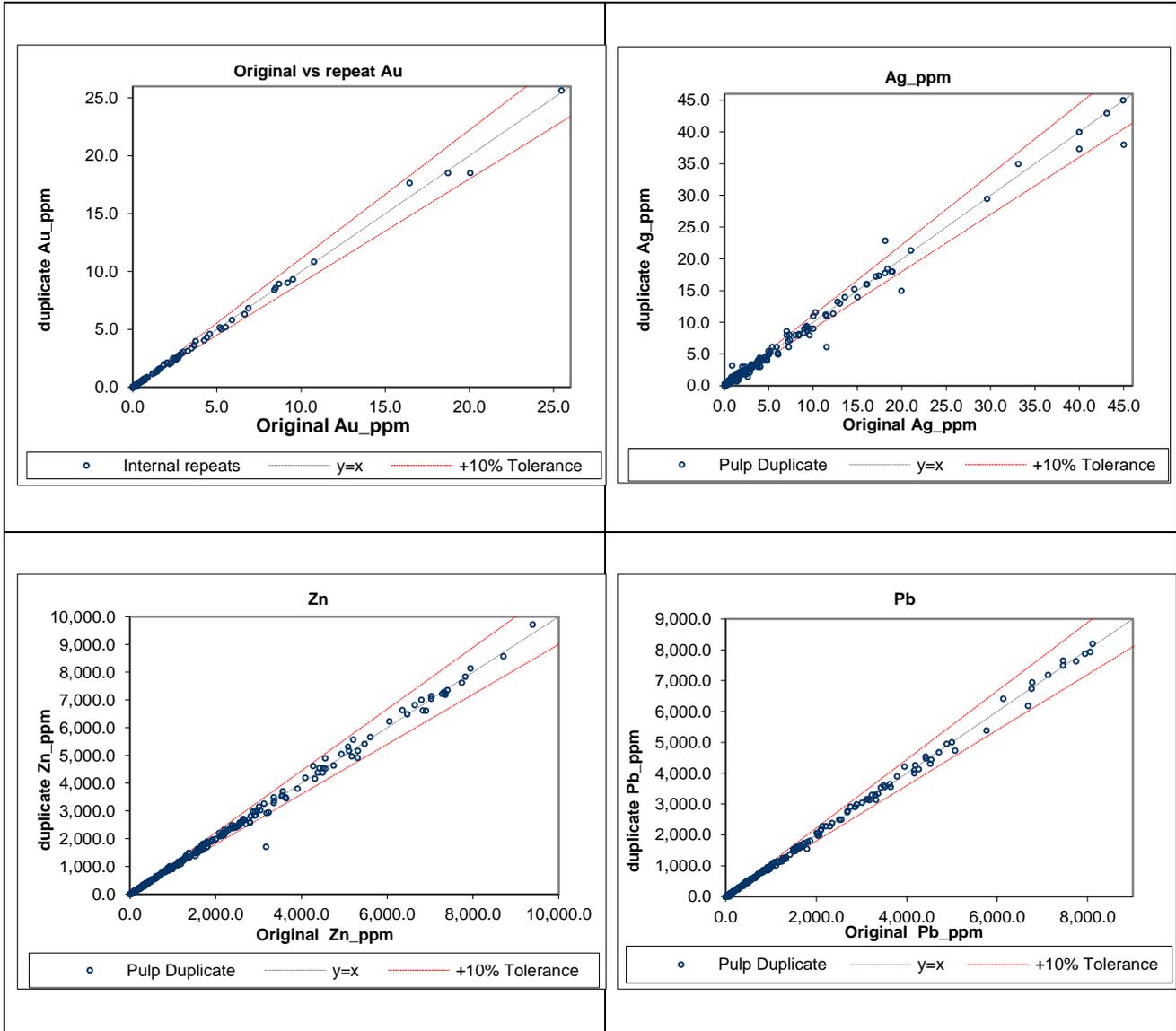


11.6.1.2 SGS Internal Repeats

A total of 570 internal laboratory repeats (6% of all drill hole assays) were analysed for Au, Zn, Pb, As and Ag. The scatterplots of these results are shown in **Figure 11-2**.

Analysis of these plots indicates that the majority of the results for Au, Zn, Pb and Ag are within the 10 % error limits. This indicates good repeatability of the primary pulverized samples and that the pulps appear to be homogenous. In addition, no assay bias can be observed in the data highlighting the precision of the sample preparation and analysis by SGS.

Figure 11-2 SGS internal repeats for Au, Zn, Pb and Ag (Pre 2015)



11.6.1.3 ERD CRM Standards and Blanks

Commercial standards were used during the ERD drill programs and were obtained and certified by OREAS Pty. A total of 855 external standards (10% of all drill assays) were analysed at SGS. A summary table of standards used is shown in **Table 11-4**. Blank standards were sourced from silica sand and barren basalt (OREAS 26a).

Table 11-4 External standards details (Pre 2015)

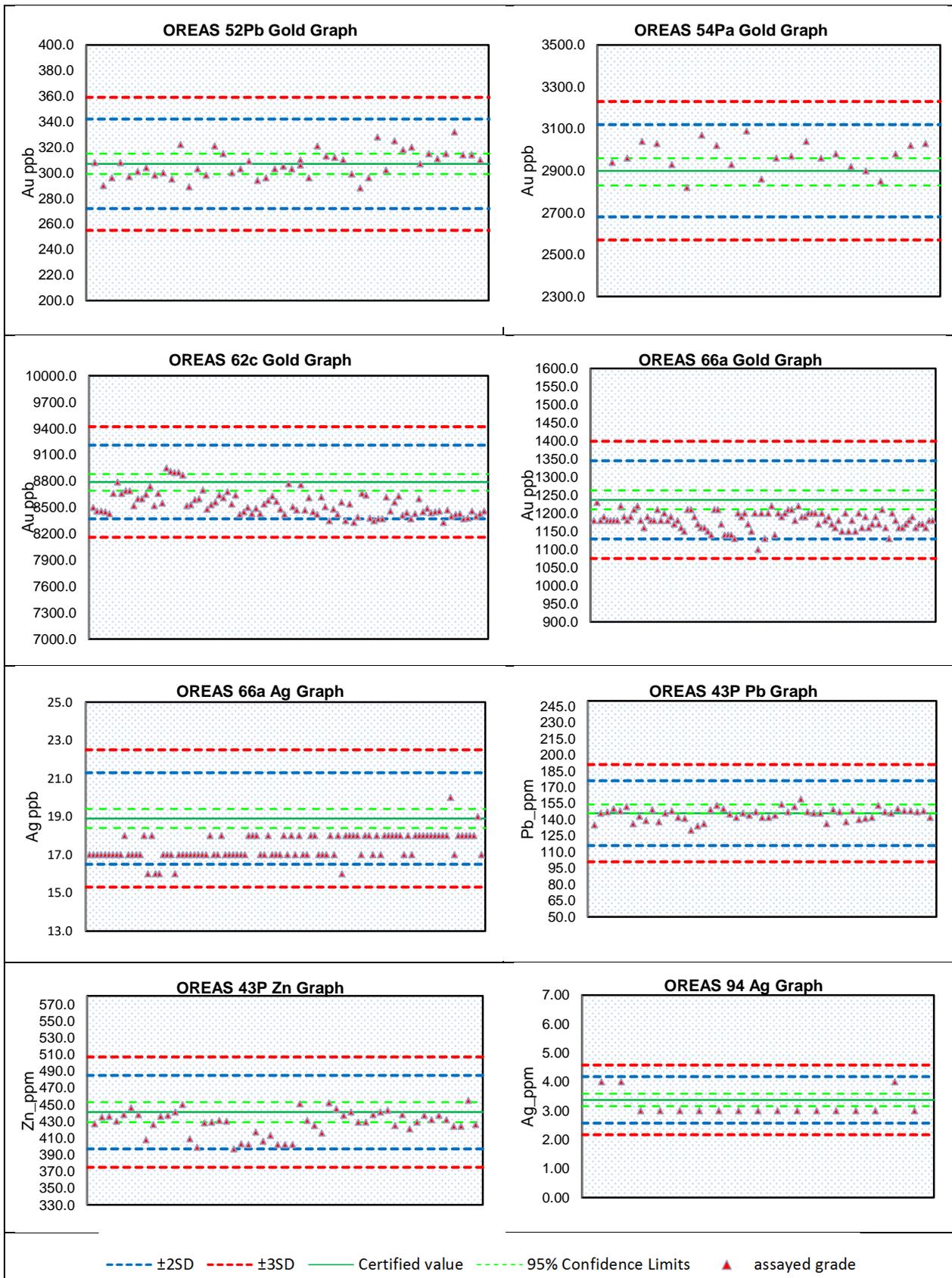
Std_ID	Elements	Count	Std Min	Std Max	Certified value	Actual Ave. Assay	1SD	Outside Expected Range (2SD)
OREAS13P	Au_ppb	41	49	63	47	53.82	3.5	14
	Cu_ppm	41	2530	2680	2504	2598.3	106	-
OREAS42P	Au_ppb	2	94	95	91	94.5	3	-
	Zn_ppm	2	602	633	615	617.5	18	-
	Pb_ppm	2	147	153	150	150	10	-
	Cu_ppm	2	392	398	389	395	13	-
OREAS43P	Au_ppb	53	68	83	73	74.3	5	-
	Zn_ppm	53	397	455	441	427.9	22	2
	Pb_ppm	53	130	159	146	145	15	-
	Cu_ppm	53	396	434	438	413.1	27	-
OREAS44P	Au_ppb	16	65	74	67	68.75	5.8	-
	Cu_ppm	16	387	399	423	392.7	30	-
OREAS4Pa	Au_ppb	8	53	57	52	55.375	4	-
OREAS52Pb	Au_ppb	46	288	332	307	306.8	17	-
	Cu_ppm	46	3380	3560	3338	3449	76	4
OREAS54Pa	Au_ppb	22	2820	3090	2900	2968	110	-
	Cu_ppm	22	15300	16000	15500	15709	233	-
OREAS62c	Au_ppb	97	8330	8950	8790	8534	210	-
	Ag_ppm	97	6	9	8.76	7.9	0.49	13
OREAS66a	Au_ppb	102	1100	1230	1237	1179.6	54	4
	Ag_ppm	102	16	20	18.9	17.4	1.2	5
	Cu_ppm	102	113	129	121	121.8	7	-
OREAS94	Zn_ppm	17	156	169	171	162.64	15	-
	Pb_ppm	17	27	35	30.9	30.35	3.7	-
	Ag_ppm	17	3	4	3.37	3.17	0.4	-
	Cu_ppm	17	11700	11900	11400	11805	433	-
Silica sand	Au_ppb	391	0	306	<2	1.65	-	-
	Cu_ppm	391	0	64	<5	12.7	-	-
OREAS26a	Au_ppb	49	0	22	<1	0.48		1
	Zn_ppm	49	86	155	107	114	4.8	22
	Pb_ppm	49	2	32	2.73	11.3	0.35	-
	Cu_ppm	49	38	65	50	49.44	4.6	12
5Pa	Au_ppb	11	94	106	98	100.9	3.3	1

The 2011 drilling used 8 types of CRM totalling 315 samples (10% of all core samples from 2011 drilling) certified standards inserted at a rate of approximately 1:20. The 2012 drilling used 11 types of CRM totalling 383 samples (10% of all core samples from 2012 drilling) certified standards inserted at a rate of approximately 1:20 while 2014 drilling used 4 types of CRM totalling 157 samples (10% of all core samples from 2014 drilling).

Control charts of the standards are shown in detail in Shewhart plots for ore grade standards are shown on **Figure 11-3**. Analysis of these plots indicates that most results are within the upper and lower warning limits. The results again indicate the acceptable performance of the SGS laboratory.

The blank standards of silica sand have all reported below 0.018g/t Au.

Figure 11-3 External standard results from SGS (Pre 2015)

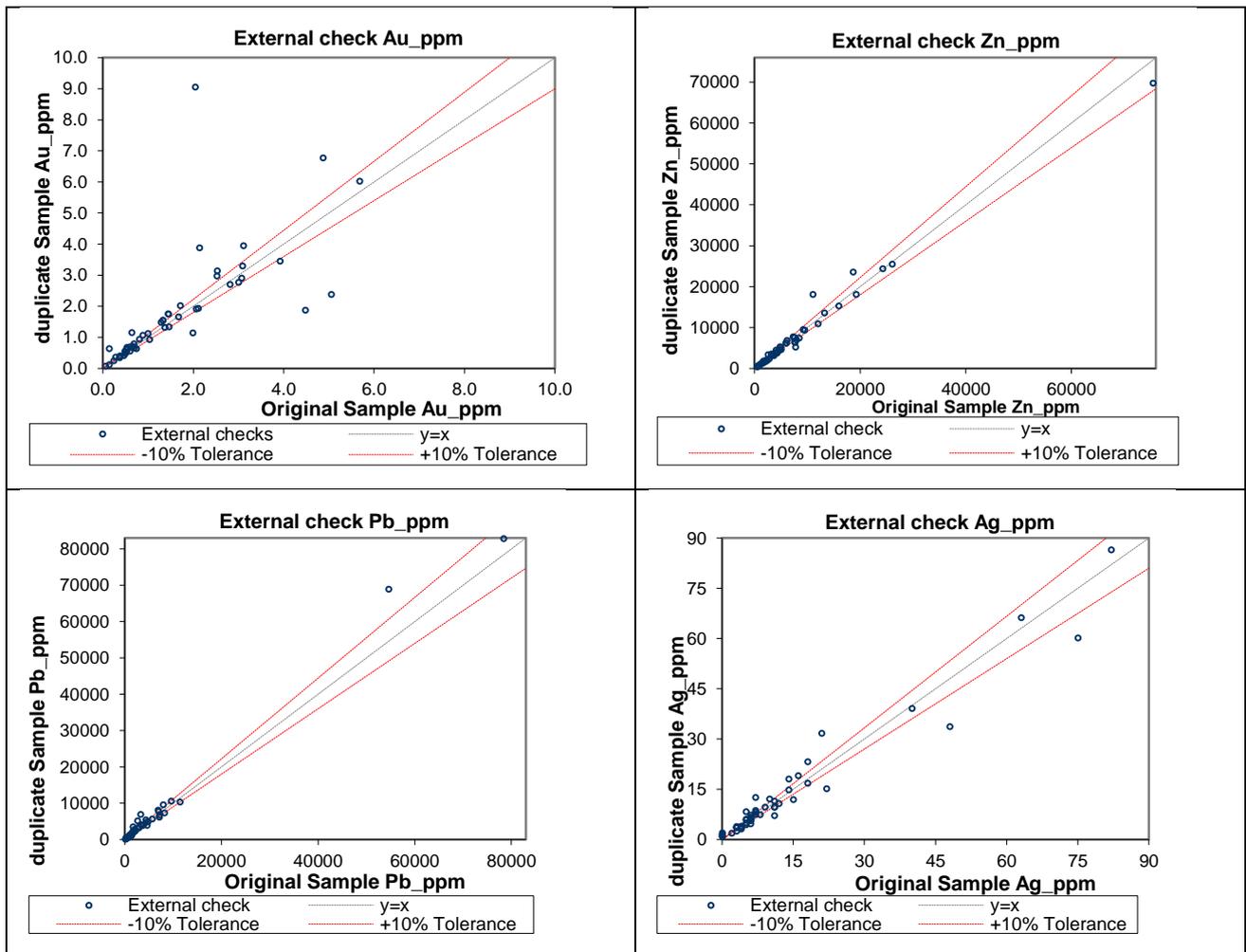


11.6.1.4 External Checks

External checks haven't been routinely carried out by the Company however RPM selected 53 samples from all phase of drilling and these are sourced from coarse rejects. Samples were used to determine if any assay bias exists between the two laboratories. Samples were analyzed at ALS Lab in Ulaanbaatar, Mongolia.

The results of the external repeats for Au, Zn, Pb and Ag are shown in the scatterplots in **Figure 11-4**. The results indicate that the external check samples have negligible bias relative to the original assays especially for coarse reject samples. Base metal shows less scatter while gold shows more variability as would be expected from coarse reject material.

Figure 11-4 External repeats for Au, Zn, Pb and Ag

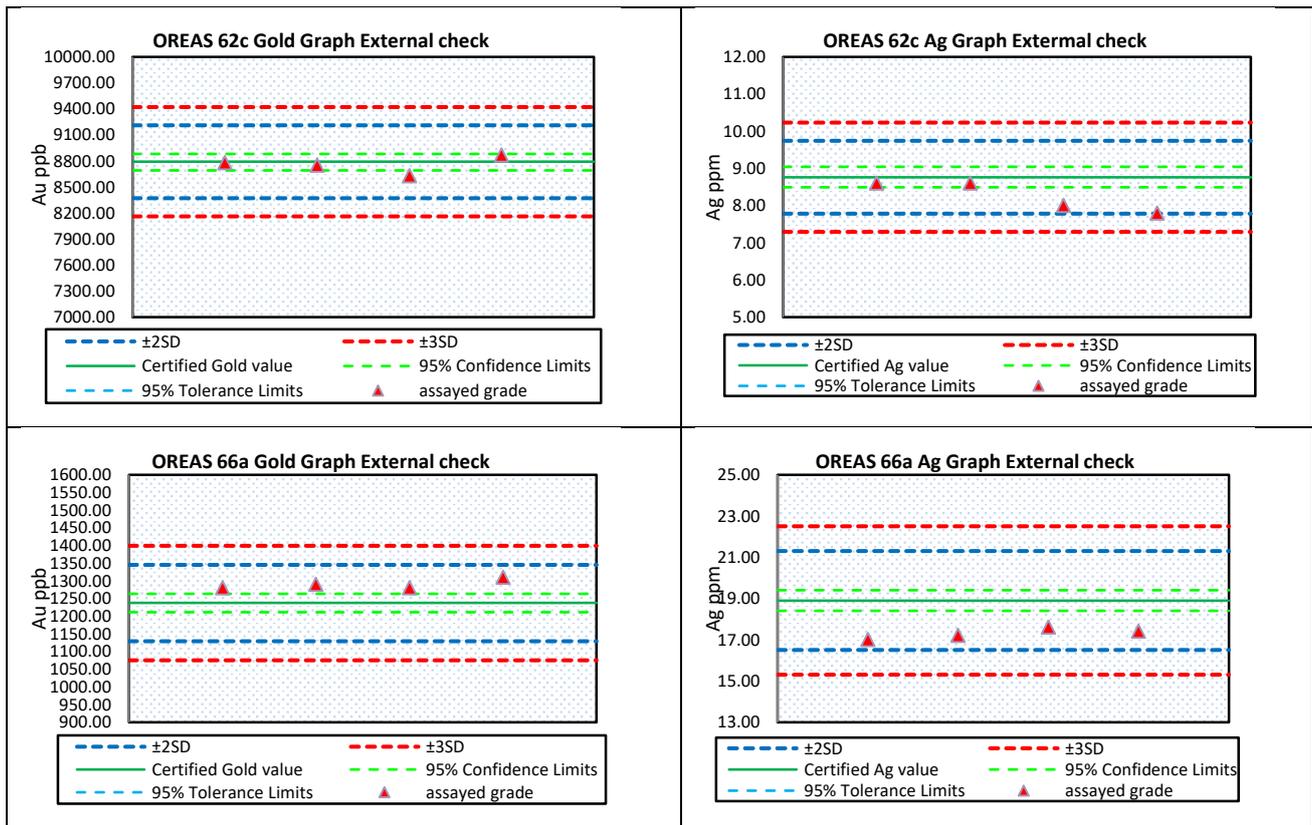


ERD inserted 3 types (Oreas62c, Oreas 66a and Oreas 26a -barren basalt) of standards for a total of 12 standards into the external checks and results are shown on **Figure 11-5**.

Scatterplot indicates that all results were inside 2SD and this indicates that the ALS assaying procedures are of a high standard with good assay repeatability.

Barren basalts were also inserted and all reported below 0.01g/t.

Figure 11-5 External standard results from ALS (Pre 2015)



11.6.1.5 QA/QC Summary

ERD has carried out a program of QA/QC for all phases of the drill program at the Altan Nar deposit. Industry CRMs were inserted at regular intervals and the results have, in the main, accurately reflected the original assays and expected values. Blank standards were sourced from silica sand and have all reported below 0.018g/t Au.

RPM's analysis of the internal repeat results for Au, Zn, Pb and Ag, show an acceptable correlation (most results within the 10 % error limits) with the original sample results. This indicates the sample pulps were reasonably homogenous after sample preparation resulting in high precision and repeatable sample assays. The results for the internal standards for Au, Zn, Pb and Ag were acceptable, as were the CRM results for Au, Zn, Pb and Ag. A recognised laboratory has been used for analysis of samples.

External checks by the company haven't been carried out routinely however RPM independently selected 53 samples from all phases of drilling and the results show scatter in gold but less scatter for base metals. Given the style of mineralisation and type of coarse reject sample taken RPM considers the result to within the acceptable range. As such RPM considers that the QA/QC data indicates that primary laboratory and External lab showed no evidence of systematic bias and the samples are representative.

Overall, the QA/QC data does not indicate any bias and supports the assay data used in the Mineral Resource estimate.

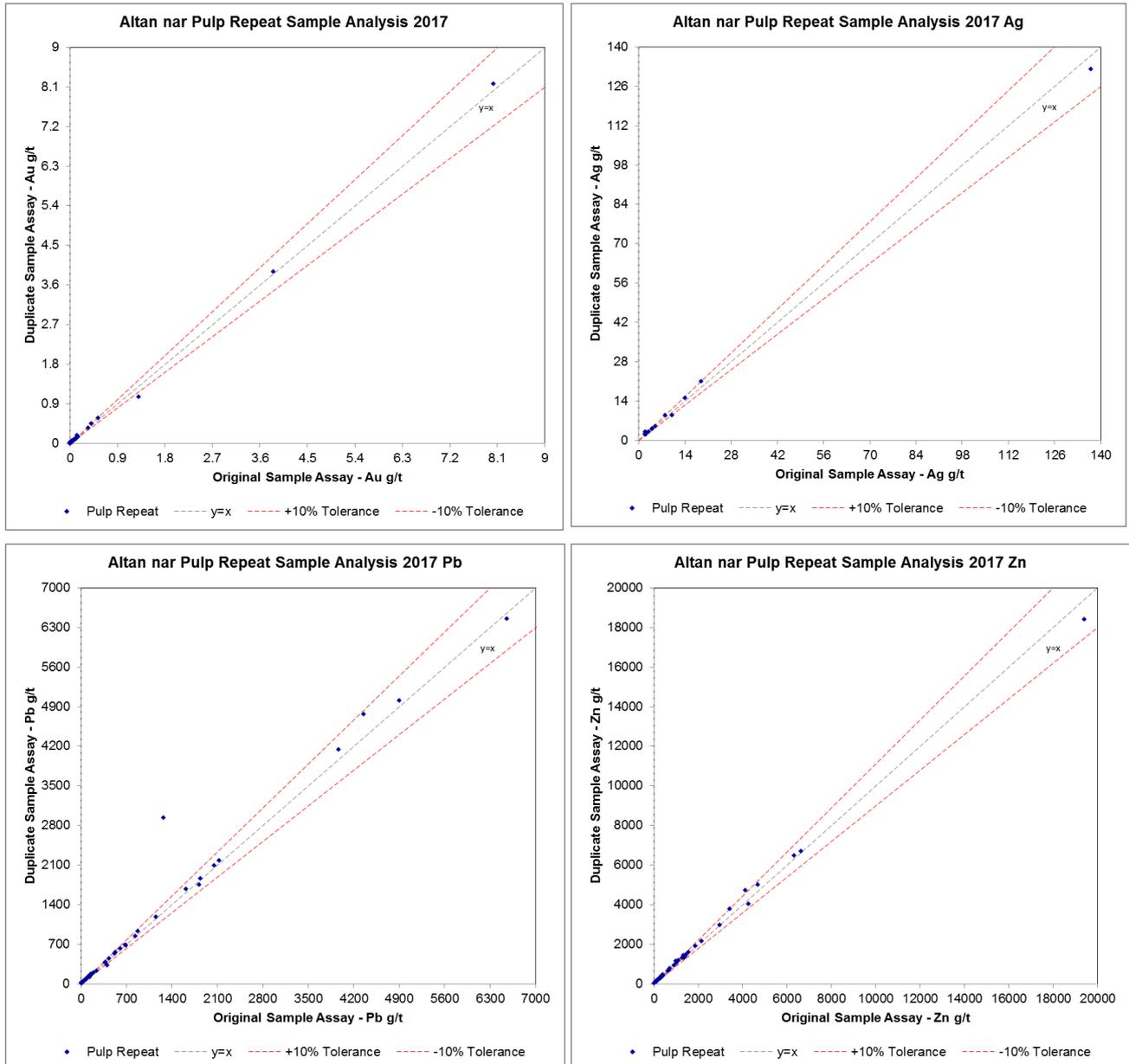
11.6.2 Post 2015 Estimate

Commercial standards were used during 2015-2017 drilling programs and were obtained and certified by OREAS Pty Ltd. 2015-2017 drilling used five certified standards (all Au and Ag standards with trace level Zn and Pb values) and were inserted at a rate of approximately 1:20. Two certified blanks were used, Coarse silica sand and Oreas26a (barren basalt). Blanks were inserted at a rate of 1:20 throughout the 2015-2016 drilling programs and 1:30 in 2017. A total of 69 field duplicates as well 53 pulp repeats were available only for 2017 drilling campaign.

11.6.2.1 Pulp Repeats

A total 53 pulp repeats were analyzed at SGS only in 2017 drilling. Results were shown in **Figure 11-6**.

Figure 11-6 Pulp Repeat sample analysis (Post 2014)



The results indicate that the pulp check samples show a small degree of scatter and have negligible bias relative to the original assays. This indicates that the laboratory sample preparation procedures are of a high standard with good assay repeatability.

11.6.2.2 CRM standards and Blanks

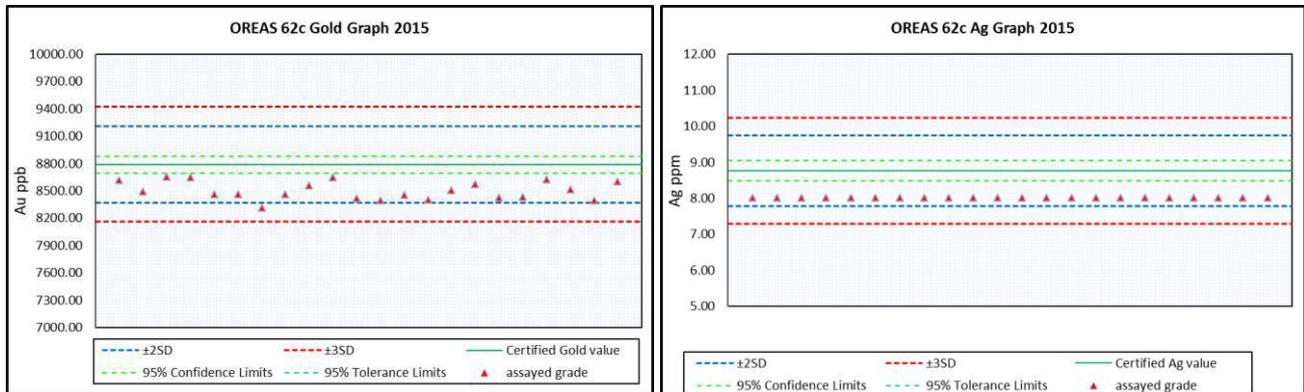
A series of Oreas certified standards were inserted into the sampling program by ERD throughout 2015-2017 drilling programs and summary table for standards is shown in **Table 11-5** while standard control charts are shown in **Figure 11-7** to **Figure 11-9**.

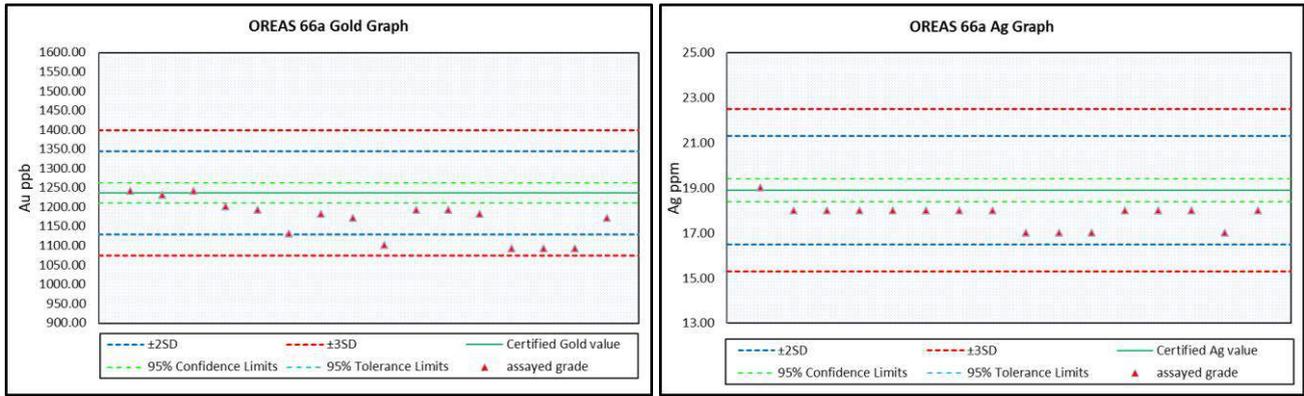
Table 11-5 Certified Standard Summary for 2014-2017 Drilling

Year	Std_ID	Element ppm	Count	Min Assay	Max Assay	Average Assay	Std Min	Std Max	Std Value
2015	Oreas26a	Au	44	<0.001	<0.001	-	-	-	<0.001
		Ag	44	<0.002	<0.002	-	-	-	<0.002
	Oreas62c	Au	22	8.31	8.65	8.5	8.58	9.00	8.79
		Ag	22	8	8	8	8.27	9.25	8.76
	Oreas66a	Au	16	1.09	1.24	1.17	1.18	1.29	1.24
		Ag	16	17	19	17.81	17.7	20.1	18.9
2016	Oreas62e	Au	27	8.4	8.66	8.57	8.72	9.54	9.13
		Ag	27	9	11	9.78	9.52	10.2	9.86
	Oreas67a	Au	22	2.19	2.28	2.24	2.14	2.33	2.24
		Ag	22	34	36	34.82	31.6	35.6	33.6
2017	Oreas62e	Au	79	8.23	9.19	8.85	8.72	9.54	9.13
		Ag	79	9	10	9.1	9.52	10.2	9.86
	Oreas60c	Au	61	2.35	2.7	2.48	2.39	2.55	2.47
		Ag	61	4	5	4.82	2.87	6.87	4.87

Two types of blanks were inserted at a rate of 1:20. Certified blanks were sourced from silica sand and barren basalt and all blanks returned below 1ppb Au.

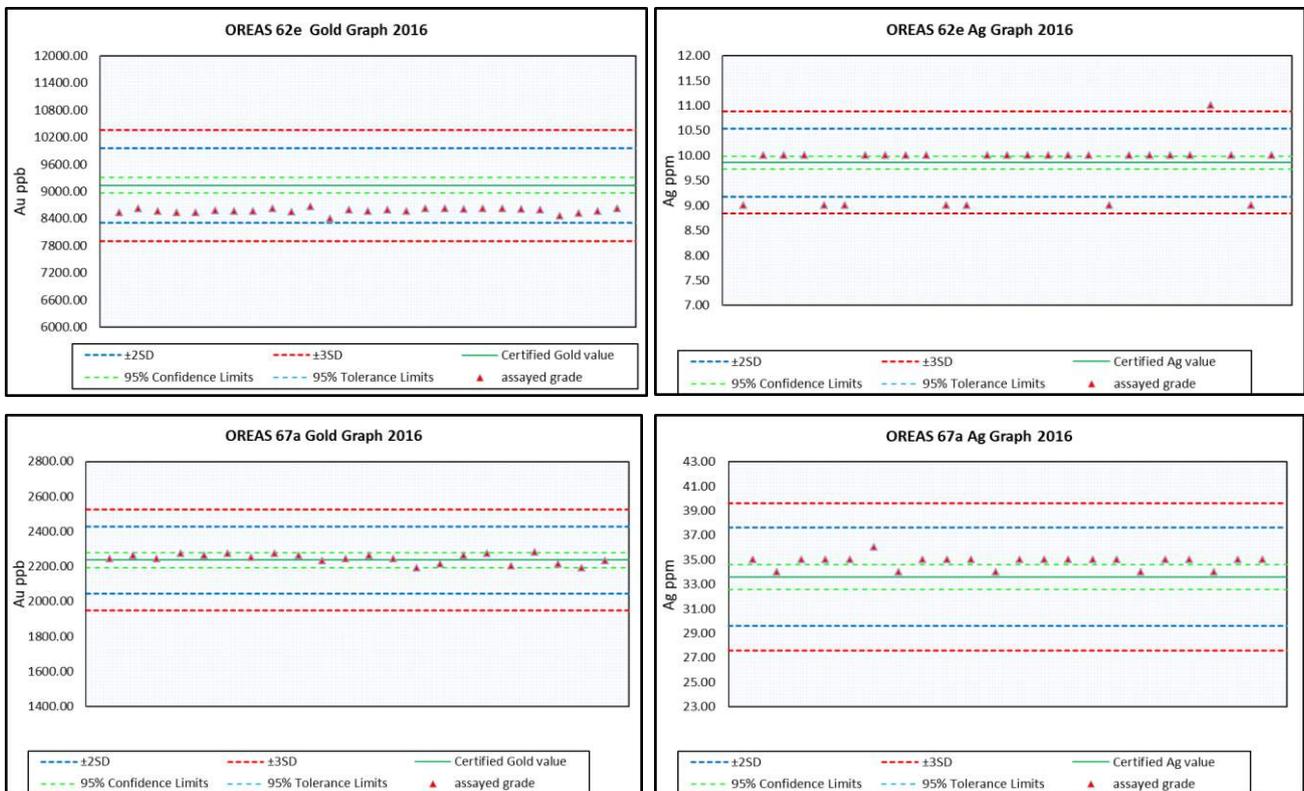
Figure 11-7 Control Charts – Standards 2015





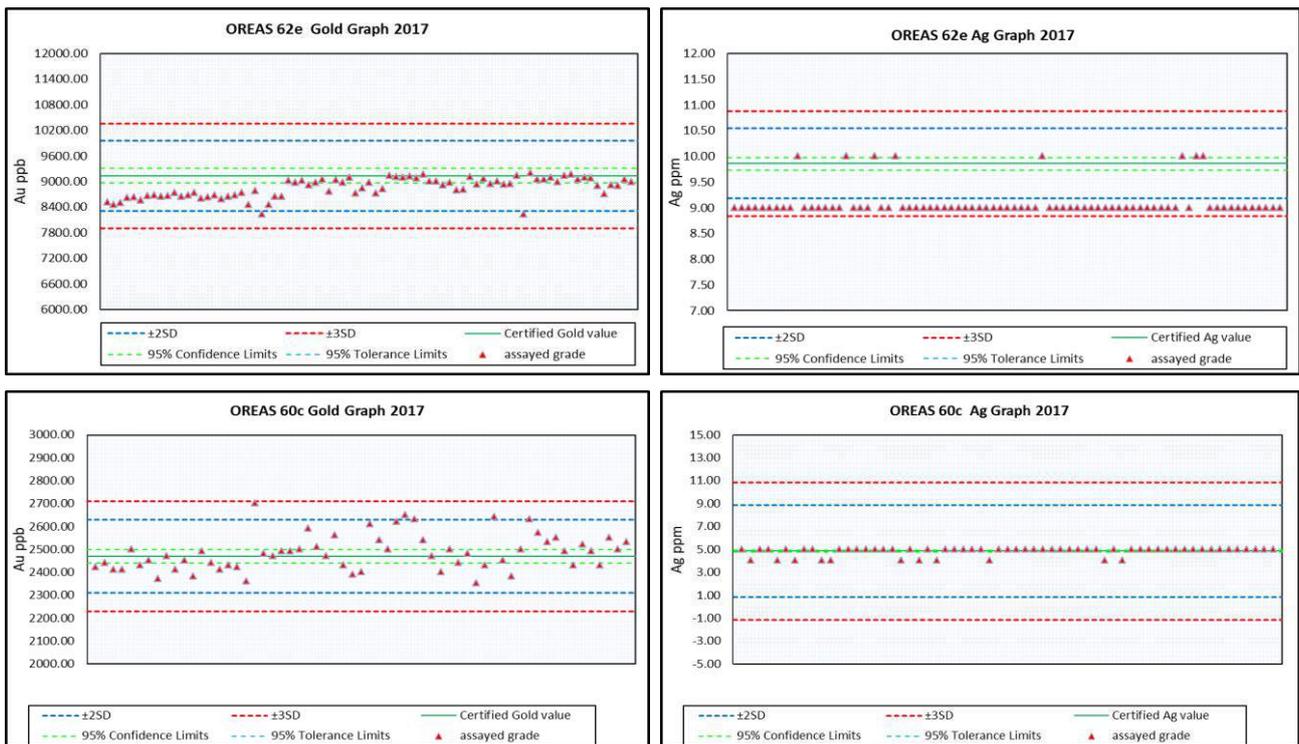
The 2015 standard plots indicates that constant underestimation of Au and Ag can be seen from 2 types of standards while the majority of the results fall within 2SD for both elements. RPM recommends close monitoring of Au and Ag for Oreas 62c and Oreas 66a standards.

Figure 11-8 Control Charts – Standards 2016



For 2016 standards, constant underestimation of Au grade was observed from Oreas 62e while the remaining elements for Oreas62e and Oreas 67a Au and Ag standards performed very well with all results falling within 2SD. Close monitoring of the high grade Au Oreas 62e standard is recommended by RPM.

Figure 11-9 Control Charts – Standards 2017



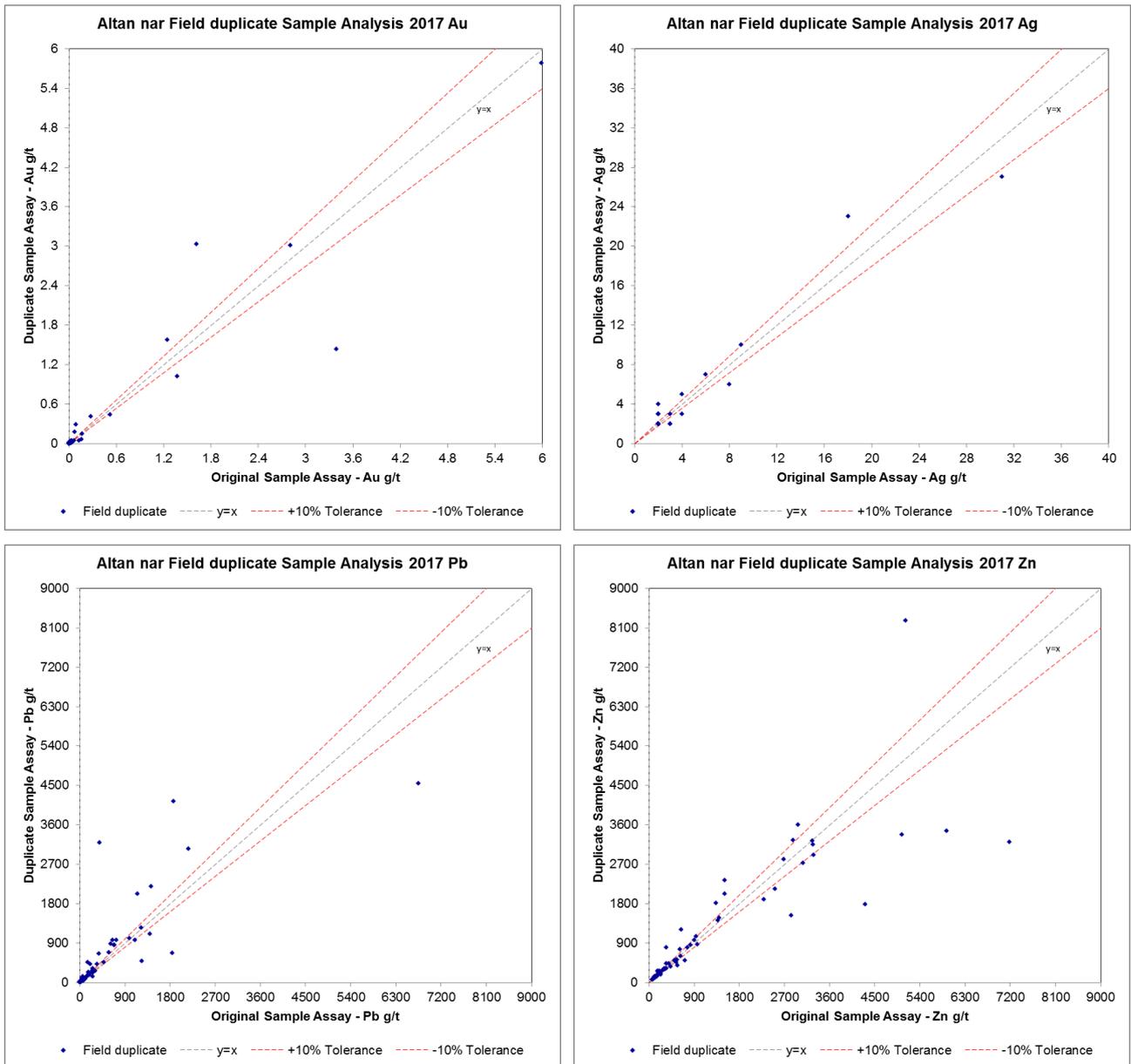
For 2017 the same Oreas 62e standards for Au performed better than those inserted in 2016 with majority of the results falling within in 2SD and near the mean value of the standard material while constant underestimation of Ag grade from Oreas 62e was observed and most of the results fall outside the 2SD. Close monitoring of the Ag value is recommended by RPM for the Oreas 62e standard.

Oreas 60c standard performed quite well with the majority of the results showing scatter but falling within 2SD.

11.6.2.3 Field Duplicate samples

Field duplicate sample analysis was carried out for 2017 drilling program with only 69 samples being analyzed. Results of the field duplicates are shown in **Figure 11-10**.

Figure 11-10 Field Duplicate Sample Analysis



The majority of the field duplicate samples were at low Au values, while the few higher duplicates are widely scattered, suggesting but not proving the possibility of coarse gold. RPM comments that, at some point in the future this will need to be confirmed using screen fire assay analysis.

Zn and Pb field duplicates are also at low but more “in range” values than Au and Ag. They show significant scatter at economically significant grades. Given the spread of duplicate values in general it is suggested that sample splitting protocols be reviewed.

11.6.2.4 QA/QC Summary

ERD has carried out a program of QA/QC for drilling since 2011 at the Altan Nar Project. Certified Reference Material standards were inserted at regular intervals and results have accurately reflected the original assays and expected values. Certified blanks have all reported below 0.001g/t Au.

Slight underestimation of Au (8.0g/t) and Ag (10 g/t) grade was observed from the OREAS62c standards inserted in 2015 drilling campaign; however most of the results were within 2SD.

A large degree of scatter was observed in Zn (105ppm) and Pb (3ppm) for the low grade OREAS 26a standard. But these levels are far below ore grade as they are primarily Au / Ag standards.

Slight underestimation of Au (9.2g/t) grade was also observed from OREAS 62E for 2016 drilling while Ag performed well. For 2017 the OREAS 62E Au standard performed very well with majority of the results falling within 2SD; however Ag standards showed poor performance as most of the results fall outside 2SD. It is suggested that a move to a routine ppm level Au analysis be made.

The majority of the field duplicate samples were at low Au values, while the few higher duplicates are widely scattered, suggesting but not proving the possibility of coarse gold. At some point in the future this needs to be confirmed using screen fire assay analysis. Zn and Pb field duplicates are also at low but more "in range" values than Au and Ag. They show significant scatter at economically significant grades. Given the spread of duplicate values in general it is suggested that sample splitting protocols be reviewed.

RPM recommends duplicate pulp testing of ore grade base metal samples prior to the next re-estimation of the Resource to confirm laboratory performance. This will require inclusion of sufficient base metal CRM to form a statistically valid population.

Instead of two Au CRM's, RPM recommends the use of separate Au and ore grade base metals standards in appropriate ranges to confirm Au and base metals values in future programs.

RPM recommends selection of pulp duplicates from economically significant grade ranges.

Generally QAQC data suggests slight negative bias for high Au standards potentially as a result of approaching the method over-range limit. The results for Au grades >9ppm are likely to be understated, this is not considered a material issue and supports the assay data used in the Mineral Resource estimate.

12 Data Verification

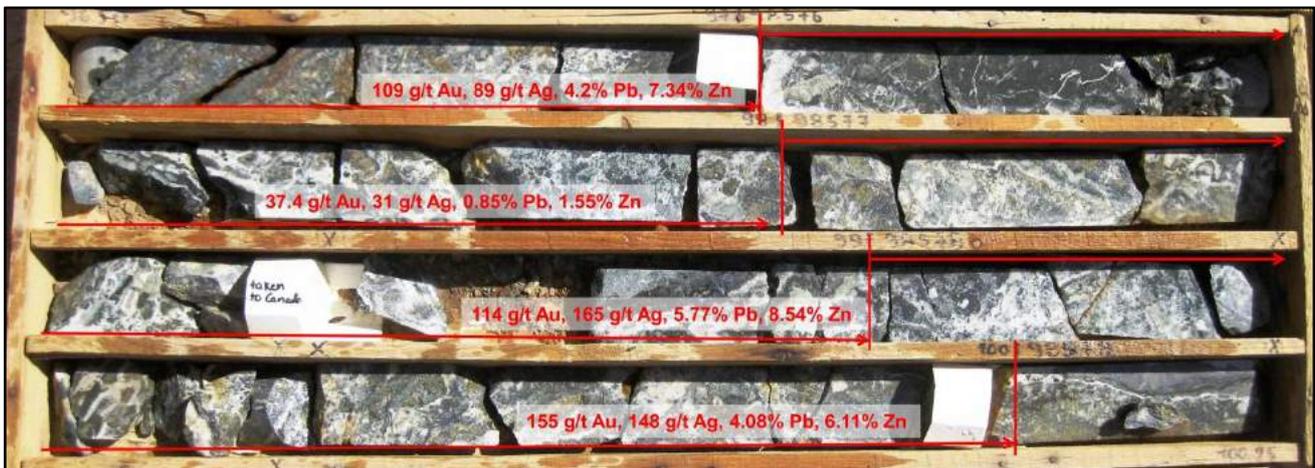
RPM conducted a review of the geological digital data supplied by ERD for the Altan Nar Project to ensure no material issues could be found and there was no cause to consider that the data was not accurate. RPM's review included a site visit undertaken from the 18th to 21st November 2014, and a desktop analysis.

The most recent site visit is conducted between May 15-19, 2018 by Tony Cameron (QP) and Oyunbat Bat-Ochir whom both employees of RPM.

During the site visit, RPM visually checked detailed drill logs and assay results against three drill hole cores stored at the site. These checks were conducted on hole TND-101 from DZ, while holes TND-81 and TND-85 from Union North zones were visually checked against assays results and drill logs.

- It can be noted that high grade gold mineralisation mostly occurring in epithermal breccia zones with comb quartz and chalcedonic veins. Adularia, white mica alterations can be well observed within mineralised intervals. Galena and sphalerites also observed within the breccia zones. See **Figure 12-1**
- High grades are confined within the hydrothermal breccia zones while sulphide dissemination was observed in broader mineralisation halo outside the high grade breccia zones.
- Mineralisation at Union North zone tends to be cut by post mineralisation barren volcanic and intrusion dykes and those intervals were also checked in drill core which is not assayed by the client in most case.

Figure 12-1 Strong mineralised (sph-ga-cpy & py) Epithermal comb qtz vein zone cut strong sil-ser-chl-py altered volcanic breccia



RPM verified collar location of post 2014 drilling with handheld GPS and difference between surveyed collar location and handheld located collars listed in **Table 12-1**. The variations are within the accuracy of the handheld GPS.

Table 12-1 Collar comparison between digital database and handheld GPS

hole_id	in Database			Differences from site visit check		
	X	Y	Z	X	Y	Z
TND-101	477,014	4,878,285	1,323.0	-2	-1	-2
TND-102	476,561	4,879,397	1,323.1	3	-2	-1
TND-103	476,999	4,878,411	1,324.7	-2	-2	0
TND-104	476,947	4,878,359	1,323.2	-1	-2	-1
TND-105	477,001	4,878,371	1,324.4	1	-1	-2
TND-106	476,979	4,878,384	1,324.3	0	-1	-1
TND-107	476,975	4,878,429	1,324.3	-2	-1	0
TND-108	477,051	4,878,431	1,325.9	-1	0	1
TND-109	476,969	4,878,347	1,323.5	-1	-2	-1
TND-113	476,938	4,878,456	1,324.1	-1	-2	0
TND-114	477,092	4,878,473	1,327.5	-1	6	0
TND-115	476,879	4,878,798	1,326.7	-1	-3	1
TND-116	477,231	4,878,529	1,330.8	-1	0	1
TND-118	477,144	4,878,548	1,329.2	-1	-3	0
TND-128	476,334	4,879,258	1,320.8	-2	1	0
TND-129	476,916	4,878,376	1,322.7	-2	-1	0
TND-130	477,045	4,877,798	1,323.2	-1	0	-2
TND-81	476,554	4,879,462	1,324.3	-2	1	-1
TND-82	476,550	4,879,508	1,325.4	-3	3	-2
TND-83	476,554	4,879,535	1,326.5	-4	2	-2
TND-84	476,596	4,879,439	1,324.4	-3	11	-2
TND-85	476,632	4,879,533	1,326.7	-4	0	-1
TND-88	476,356	4,878,937	1,318.3	0	-2	1
TND-89	476,648	4,878,801	1,321.6	0	0	2
TND-90	476,980	4,878,340	1,323.3	-1	-3	-2
TND-91	477,038	4,878,333	1,323.9	-2	0	-2
TND-92	476,949	4,878,242	1,321.5	-3	-3	-3
TND-99	476,704	4,879,551	1,327.9	-1	-1	-1

Collars were cased with rods and covered with cement blocks after drilling is finished. Collars were preserved quite well refers to **Figure 12-2**.

Figure 12-2 Collar Preservation



RPM reviewed drilling, logging, sampling, bulk density measurement procedures during the site visit to Project. ERD supplied RPM with digital Excel files with collar, survey, general lithology, RQD and sampling data. In addition, PDF files of original assay certificates from SGS were supplied along with cross sections of the drilling plotted with assay grades and interpretations. RPM checked all grades and orientation of the drilling against the original assay certificates and cross sections and found no inconsistencies. Hard copy logs were not supplied to RPM.

During this review RPM noted only minor inconsistencies in the provided data which were subsequently corrected in the digital database. The inconsistencies included mislabelled intervals of QA/QC data as well as lithology intervals.

RPM reviewed all QA/QC procedures carried out by ERD including a review of logging, sampling and sample preparation procedures; reviewed all technical data including geophysical and geochemical data; carried out an analysis of the assay QA/QC results; and compared data sets with observations made in the field. RPM is satisfied that QA/QC procedures carried out by ERD conform to generally accepted industry standards and that the data used in this report is reliable.

RPM independently imported all original lab reports and cross checked against the client supplied data 1,134 assay samples (23% of all samples) were checked out of 4,980 samples (post 2014 data) which underpins the updated Mineral Resource Estimate for Altan Nar Project and no errors noted.

The reviewed drilling database formed the underlying data for the independent NI43-101 Statement of Mineral Resources completed by RPM.

12.1 Database validation

RPM conducted a review of the geological digital data supplied by ERD for the Project to ensure no material issues could be found and there was no cause to consider that the data was not accurate. RPM completed systematic data validation steps after receiving the database. Checks completed by RPM included:

- Down hole survey depths did not exceed the hole depth as reported in the collar table.
- Hole dips were within the range of 0° and -90°.
- Assay values did not extend beyond the hole depth quoted in the collar table.
- Assay and survey information was checked for duplicate records.

No errors were noted by RPM.

12.2 Assessment of Database

The database review conducted by RPM shows that ERD has supplied a digital database that is largely supported by verified certified assay certificates, original interpreted sections, and sample books.

Based on the data supplied, RPM considers that the analytical data has sufficient accuracy to enable a Mineral Resource estimate for the Altan Nar Project.

13 Mineral Processing and Metallurgical Testing

Initially zones of high-As gold mineralisation were reported and tested at Altan Nar. However, additional drilling and trenching across the property has shown that this type of mineralisation is principally localised to the DZ south zone and is a later stage overprint of the more volumetrically extensive low - As gold mineralisation.

Three series of metallurgical testing have been carried out on drill core from the Altan Nar property. The first was a gold department testing program carried out in 2012 on a 3 m composite sample of Altan Nar drill core from hole TND-19 (DZ south). The sample contained very high concentrations of Au (17.9 g/t), Ag (14.0 g/t), Pb (0.30%), Zn (0.72%) and As (8.7%). This sample represents the highest grade mineralisation intersected to that time and is not representative of the Altan Nar gold mineralisation as a whole. The analysis was carried out by ALS Ammtec in Perth, Australia. The sample underwent five separate sample preparation / acid digestion procedures designed to characterize the gold mineralisation and identify processing options.

The second phase of metallurgical testing (bottle roll cyanide leach) was completed in 2013 on a series of two to four metre drill core composites that were collected from drill holes from across the Altan Nar property. These samples represent mineralisation from the majority of the DZ and three additional prominent discoveries outside of the DZ - namely Union North, Union South and Riverside. The testwork was conducted by Actlabs Asia LLC.

The third phase of metallurgical testing included 2 sub-phases with the first sub-phase designed to provide preliminary metallurgical evaluation of the property and included dense media amenability testing, gravity amenability testing, flotation and cyanidation of both whole rock selected flotation products. The second sub-phase was designed to compare the flotation response of the UN composite to a flowsheet developed earlier for the DZ composite. Additionally, the program evaluated precious metal recovery of the UN composite using conventional cyanidation. Grindability testwork was executed on a blended composite of UN and DZN material and included Bond Rod Mill Grindability tests and Bond Ball Mill Grindability tests. Finally, modal mineralogy was conducted on samples of both DZN and UN composites. This test work done at Blue Coast Research Ltd in Canada.

13.1 Bottle Roll Testing

For the bottle roll metallurgical testing program, a number of core samples were composited with grades ranging from 0.7 to 11.6 g/t Au, containing varying amounts of associated sulphides. Each core sample was crushed to minus 2 mm and ground to 95% passing 74 microns. Duplicate samples were analysed by fire assay to determine the average head grade of the sample. A 400 gram ground drill core composite sample was then bottle rolled at 50% solids in a dilute cyanide solution for 48 hours to extract the gold. Gold analyses were then undertaken on the solution samples taken after 24, 36 and 48 hours as well as the leached solids after 48 hours. Maximum or near maximum gold recoveries for these composites were typically reached within 24 hours.

The results indicate that, with the exception of localized overprinting gold-arsenopyrite breccia zones (high-As samples), the majority of the gold mineralisation tested by Actlabs is highly amenable to cyanidation. Excluding two samples from the over-printing high-As zone, 12 samples from across the Altan Nar property returned an average gold recovery of 81%. The 24 hour bottle roll results for this style of mineralisation are summarised in **Table 13-1**.

An analysis of the head assays versus the tailings assays, used as a check of the solution assays, demonstrated that on average 77% of the gold went into solution, indicating the solution assays are statistically accurate. Future work will be designed to maximise recoveries through additional metallurgical testwork which is expected to consider finer grind sizes, longer retention times and the use of lead nitrate. The high-As breccia intersected in two holes in the southern part of the DZ, and the subject of testing by ALS Ammtec in 2012, also returned low gold recoveries when tested by Actlabs. These recoveries did not increase over time, and the maximum recovery was achieved within 24 hours. The results are reported in **Table 13-2**.

While the characterisation work completed by ALS Ammtec indicated that these ore types could be pre-treated with nitric acid (HNO₃) followed by cyanidation process to recover the gold locked within arsenopyrite, the more

cost-effective ferric leaching route employing bacteria followed by cyanidation would also deliver high gold recoveries (>91%).

Table 13-1 24 Hour bottle roll results, low-As samples

Target Zone	Composite – Drill Hole	Au g/t Fire Assay Average	24 Hour Recovery
Union South	Comp-TND29-03	6.97	97%
Central Discovery Zone	Comp-TND35-04	2.47	40%
North Discovery Zone	Comp-TND38-05	11.19	43%
North Discovery Zone	Comp-TND40-06	8.94	91%
North Discovery Zone	Comp-TND40-07	1.21	79%
South Discovery Zone	Comp-TND41-08	2.07	89%
Riverside	Comp-TND45-09	0.72	100%
Union North	Comp-TND46-10	5.43	86%
Union North	Comp-TND46-11	2.18	75%
North Discovery Zone	Comp-TND50-12	2.24	100%
North Discovery Zone	Comp-TND50-13	2.95	85%
North Discovery Zone	Comp-TND58-14	4.59	89%
		Average	81%

Source: Spreadsheet Summary of ActLab Bottle Roll Results, supplied by ERD (ActLab assay sheet and procedure were sighted and support this table)

Table 13-2 Hour bottle roll results, high-As samples

Target Zone	Composite – Drill Hole	Au g/t Fire Assay Average	24 Hour Recovery
South Discovery Zone	Comp-TND09-01	2.79	28%
South Discovery Zone	Comp-TND09-02	8.90	10%

Source: Spreadsheet Summary of ActLab Bottle Roll Results, supplied by ERD (ActLab assay sheet and procedure were sighted and support this table)

13.2 Gold Department Study

A gold department characterisation program was carried out in 2012 on a 3 m composite sample of Altan Nar drill core from hole TND-19 (Discovery Zone south) that contained very high concentrations of Au (17.9 g/t), Ag (14.0 g/t), Pb (0.30%), Zn (0.72%) and As (8.7%). This sample represents the highest grade mineralisation intersected to that point in time and is not representative of the Altan Nar gold mineralisation as a whole. The analysis was carried out by ALS Amtec in Perth, Australia. The sample underwent five separate sample preparation / acid digestion procedures designed to characterise the gold mineralisation and identify processing options.

The analysis indicated that this type of gold mineralisation is mostly associated with arsenopyrite (91.6%) with minor amounts as free grains (3.7%), or tied up in carbonate (1.7%), pyrite (1.2%) and silicate minerals (1.8%).

Preliminary assessment of Altan Nar metallurgy indicates several processing options, including:

- Bio-hydrometallurgical (BIOX) Processing – Biox is a well-known process that is used to treat arsenic bearing ores, where bacteria assist in the ferric leaching process that releases the contained gold for leaching. High As concentrations are problematic for BIOX processing (>4% As). However high As ores could be blended with lower grade As material to achieve an acceptable upper As limit. A possible flow sheet could consist of milling-Biox leach-cyanide leach. A feature of the process is the capture of arsenic as the environmentally benign scorodite.
- Pre-concentration by flotation or gravity would reduce the volume of material to be processed (possibly 5% of the plant feed) and reduce both capital and operating costs. The concentrate would undergo Pressure

Oxidation (POX) Processing which would also release the carbonate hosted gold, thus adding 1.7% to the overall gold recovery (i.e. up to 98%). POX requires an oxygen source, such as a PSA (Pressure Swing Adsorption) unit. The resulting 'POX' flow sheet process would therefore be milling-pre-concentration-POX-cyanide leach. Arsenic is also tied up as scorodite.

13.3 Heavy Liquid Testwork

A single amenability test was conducted to determine if a pre-concentration process could be employed to reject clean liberated gangue while maintaining metal values in a concentrated mass. A 2.1 kg subsample of minus ½ inch DZN material was prepared as feed for the heavy liquid test. The sample was pre-screened at 850 µm to remove fines from the heavy liquid feed. A sample of sodium heteropolytungstate was prepared as the heavy liquid medium with a specific gravity of 2.85. Particles with a density greater than this will report to the sink fraction, while particles with a lighter density will report to the float fraction. Screen oversize (+850 µm) was added to the heavy liquid, mixed and allowed to settle for fifteen (15) minutes. The float and sink fractions were then recovered, filtered and washed and the process was repeated until the entire 2.1 kg was processed.

Floats, sinks and fines were then assayed for lead, zinc, gold and silver and a metallurgical balance was generated. Results are presented in Table 4. Results of the test were subpar with significant amounts of lead (25.5%), zinc (45.7%), gold (69.1%) and silver (47.5%) reporting to the float fraction. The large amount of base and especially precious metals lost to the floats would suggest that pre-concentration of the DZN material is not an appropriate process. See **Table 13-3**.

Table 13-3 Heavy Liquid Separation Results

Product	Mass		Grade				Recovery			
	g	%	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Pb	Zn	Au	Ag
HLS Float	1656.4	79.1	0.27	0.41	2.44	8.6	25.5	45.7	69.1	47.5
HLS Sink	182.1	8.7	4.59	2.78	7.4	54.9	48.4	34.5	23.1	33.3
Screen U/S	256.8	12.3	1.76	1.14	1.76	22.4	26.1	19.8	7.8	19.2
Calc. Head	2095.3	100	0.82	0.7	2.79	14.32	100	100	100	100
ERD Head	2100		0.81	0.67	2.51	16.05				
Reconciliation	99.78		101.45	104.63	110.93	89.19				

Source: Altan Nar Preliminary Metallurgical Testwork report from Blue Coast Research Ltd.

13.4 Gravity Testwork

A single Gravity Amenability Test was conducted to determine if gold from the DZN composite could be successfully upgraded by exploiting the differences in density between the precious metals and surrounding rock. 2.0 kg of DZN composite was ground in a laboratory rod mill at 60% solids to a nominal p80 of 75 microns. Results are presented in the following Table 5. Gold recovery to Knelson concentrate was moderate at 45% at a grade of 36.5 g/t. This was upgraded to 398.8 g/t, albeit at a much lower gold recovery (5.8%). This result is un-optimized, however it does highlight that a portion of the gold is recoverable through gravity techniques.

See **Table 13-4**.

Table 13-4 DZ Composite Gravity Test Results

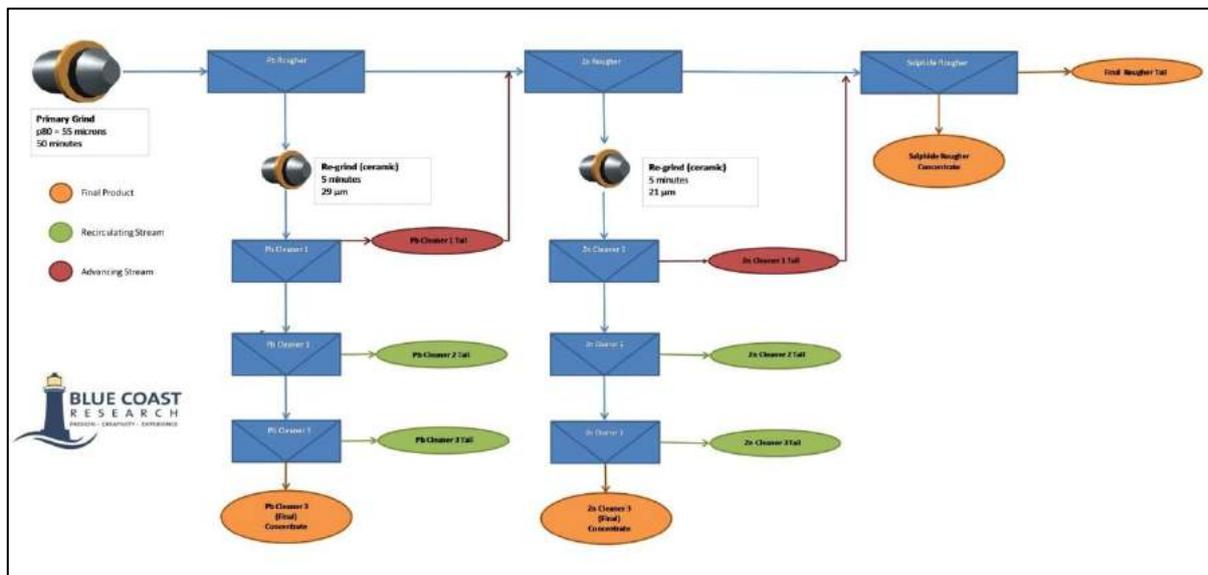
Sample	Mass (g)	Weight %	Grade Au (g/t)	Recovery Au (%)
MAT Tip	0.83	0.04	398.8	5.79
MAT Tails	69.9	3.49	32.2	39.37
Knelson Tails	1930.6	96.47	1.6	54.85
Total	2001.3	100	2.86	100
ERD Head	2000		2.51	
Reconciliation	100.1		113.8	
MAT Tip	0.83	0.04	398.8	5.79
Knelson Conc	70.73	3.53	36.5	45.15

Source: Altan Nar Preliminary Metallurgical Testwork Report from Blue Coast Research Ltd.

13.5 Flotation Testing

Flotation testing was conducted on the Discovery Zone North (DZN) composite to determine conditions which maximize the value of the concentrate produced. A flotation schedule that BCR has employed for similar PbZn-Au-Ag projects was used as the basecase flowsheet for the testwork. A copy of the basic flowsheet is presented in **Figure 13-1**. It is noted that this is testwork flowsheet and further work is required to confirm the optimal flowsheet.

Figure 13-1 Basic Flotation Test Flowsheet



Source: Altan Nar Preliminary Metallurgical Testwork Report from Blue Coast Research Ltd.

13.6 Cyanidation Test Result

A single cyanidation test was conducted on the DZN feed. The test was conducted as a standard 48 hour bottle roll, with a cyanide concentration maintained at 1.0 g/L NaCN. pH was maintained between 10.5 and 11.0. Dissolved oxygen was monitored throughout the test and air was sparged into the reactor if dissolved oxygen levels fell below 5 mg/L.

Result indicates that gold and silver recoveries were 88% and 64% respectively after 48 hours (**Table 13-5**). Cyanide consumption was 0.96 kg/tonne of feed. These results indicate a free milling ore with good overall gold recoveries.

Table 13-5 Overall Gold and Silver Recoveries based on different Process Flowsheets for DZN Composite Sample

Process Route (Test)	Au Recovery (%)	Ag Recovery (%)
Leaching Only (CN-1)	88	64
Flotation Only (F-8)		
Lead Cleaner 3 Concentrate	75	64
Zinc Cleaner 3 Concentrate	6	13
Sulphide Rougher Concentrate	8	3
Flotation Only Total	89	80
Flotation and Cyanidation (F-8 and CN-2)		
Lead Cleaner 3 Concentrate	75	64
Zinc Cleaner 3 Concentrate	6	13
Cyanidation of Zinc Rougher Tails	8	13
Flotation and Cyanidation Total	89	90

Source: Altan Nar Preliminary Metallurgical Testwork Report from Blue Coast Research Ltd.

First sub-phase of test work completed at Blue Coast Research Ltd concluded that :

- The DZN composite received at BCR had a grade of 0.81% lead, 0.67% zinc, 0.15% arsenic, 4.14% iron, 1.93% sulphur, 2.51 g/t gold and 16.1 g/t silver;
- Heavy Liquid Separation (HLS) of a sample of minus ½ inch DZN composite feed resulted in significant losses of base and precious metals to the HLS floats. Accordingly pre-concentration methods (such as heavy liquid or dense media) are not recommended;
- The DZN composite exhibited a moderate amount of gravity recoverable gold, albeit at lower concentrate grades;
- High grade lead concentrates (62% Pb) can be produced with reasonable overall recoveries (74%) using a conventional lead-zinc differential flotation flowsheet;
- Saleable zinc concentrates grading 50% Zn can be produced at reasonable recoveries (61%);
- Gold predominantly reports to the lead concentrate (75%), with secondary amounts reporting to zinc concentrates (6%) and low grade sulphide concentrates (8%);
- Finer primary grinds (80% passing 55 µm) were necessary to effectively separate galena and sphalerite from the host rock;
- Evidence of some fine sphalerite textures is present, resulting in zinc losses to rougher tails of approximately 20%;
- Direct leaching of the DZN composite resulted in 48 hour gold and silver recoveries of 88% and 64% respectively;
- Leaching of the zinc rougher tails from F8 resulted in 48 hour gold and silver recoveries of 48% and 69% respectively.
- Overall gold recoveries were similar (88-89%) for the direct leach option, differential flotation and flotation followed by cyanidation; and
- Overall silver recovery was highest (90%) when differential flotation was followed by cyanidation of the zinc rougher tails.

The UN benchscale testwork program was designed to compare the flotation response of the UN composite to the flowsheet developed earlier for the DZN composite. Additionally, the program evaluated precious metal recovery of the UN composite using conventional cyanidation. Comminution testwork was executed on a blended composite of UN and DZN material and included Bond Rod Mill Work Index tests and Bond Ball Mill Work Index tests. Finally, modal mineralogy was conducted on samples of both DZN and UN composites.

Comparing the precious metal recoveries obtained from different process routes (flotation versus cyanidation) shows that overall gold and silver recovery obtained through flotation is slightly higher than that obtained through direct cyanidation. **Table 13-6** highlights the precious metal recoveries obtained through both flotation and cyanidation.

Table 13-6 Overall Gold and Silver Recoveries based on Different Process Flowsheets for UN Composite Sample

Process Route (Test)	Au Recovery (%)	Ag Recovery (%)
Leaching Only (CN-3)	68	60
Flotation Only (F-12)		
Lead Cleaner 3 Concentrate	45	40
Zinc Cleaner 3 Concentrate	5	15
Sulphide Rougher Concentrate	24	12
Flotation Only Total	74	67

Source: Altan Nar Preliminary Metallurgical Testwork Rreport from Blue Coast Research Ltd.

The testwork program concluded that:

- The UN composite received at BCR had a grade of 1.53% lead, 1.23% zinc, 0.30% arsenic, 6.16% iron, 3.94% sulphur, 3.30 g/t gold and 13.6 g/t silver;
- Sulphide mineralization at Altan Nar is comprised of galena, sphalerite, pyrite, arsenopyrite and minor amounts of chalcopyrite. UN contains a greater proportion of sulphide mineralization than DZN;
- Gangue mineralization is dominated by quartz and feldspars which combined make up 65% of DZN and 45% of UN.;
- The presence of non-sulphide mineral hosts for lead and zinc were identified in both composites, with greater quantities found in UN material. Non-sulphide lead and zinc forms were found to be largely unrecoverable Mn-Pb sulphates and Zn-Mn silicates, oxides and sulphates;
- A blend of 50% DZN and 50% UN material was found to have a Bond Rod Mill Work Index of 18.5 kWh/tonne and a Bond Ball Mill Work Index of 18.4 kWh/tonne;
- Limited cleaner testwork identified that moderate grade lead concentrates (48% Pb) can be produced albeit at lower overall recoveries (54%);
- Zinc concentrates grading 48% Zn can be produced at reasonable recoveries (58%);
- Gold predominantly reports to the lead concentrate (45%), with secondary amounts reporting to zinc concentrates (5%) and low grade sulphide concentrates (24%); and
- Direct leaching of the DZN composite resulted in 48 hour gold and silver recoveries of 68% and 60% respectively.

13.7 Reasonable Expectation of Acceptable Metallurgical Recovery

RPM has concluded that recovery rates of greater than 80% are likely achievable for the low arsenic material using a CIL plant, with up to 95% achievable for the high-gold/high-arsenic mineralisation from using proven pressure oxidation processing techniques.

Metallurgical test work carried out to date on both low and high-As samples from the Altan Nar property have returned encouraging results. However, additional metallurgical test work, on samples representative of both ore-types, should be carried out to determine the optimum recoveries for not only gold but also for the potentially significant by-products silver, lead and zinc. Improving the gold recoveries of samples Comp-TND35-04 and Comp-TND38-05 would also be on the testwork agenda. This information is critical in determining resource potential and production costs associated with future resources estimates, feasibility studies and mine planning.

14 Mineral Resource Estimates

A Mineral Resource estimate has been independently completed by RPM in accordance with the CIM Definition Standards and the CIM Best Practice Guidelines. Information contained in this Report is based on information provided to RPM by ERD and verified where possible by RPM. All statistical analysis and mineral resource estimations were carried out by RPM. RPM developed three dimensional digital estimates for the concentrations of the Au, Ag, Zn, and Pb metal and developed the mineral resource model based on the statistical analysis of the data provided. RPM considers the Mineral Resource estimate meets general guidelines for CIM Definition Standards compliant resources for the Indicated and Inferred confidence levels.

14.1 Data

The key files supplied to RPM are outlined in **Section 2.3**.

14.1.1 Sample Data

The supplied drilling data spreadsheets were compiled by RPM into an Access database 'andhdb_20180201.mdb' and contained drilling data up to hole TND-133 and included tabulated information for collar, assay, survey, bulk density, detailed lithology and summary lithology, vein logging and magnetic susceptibility data. The data was then loaded into Surpac software. All Mineral Resource estimation work conducted by RPM was based on drillhole data received as at 1st of February, 2018, up to and including drill hole TND-133.

The Altan Nar database contains the records for 125 diamond drill holes (DD) for 19,490.6 m of drilling and 42 trenches (TR) for 3,151m. A summary of the drill hole database is shown in **Table 14-1**

Table 14-1 Summary of Data Used in Resource Estimate

In Project					In Mineral Resource			
Company	Period	Drilling Method	Drill holes		Drill holes		Intersection	
			Number	Metres	Number	Metres	LG Metres	HG Metres
ERD	2011-2018	DD	125	19,490.6	99	15,677.22	2,646.02	304.77
		TR	42	3,151.00	26	1,947.00	569.5	72
Total			167	22,716.21	125	17,624.22	3,215.52	376.77

Note: LG-Low grade mineralisation wireframe, HG-High grade mineralisation wireframe.

No data was excluded from the model, however a number of intervals were identified as being un-sampled during sample processing. ERD has indicated that the majority of these intervals occur where barren dykes are encountered and no assaying is conducted on those samples.

14.1.2 Bulk Density Data

ERD collected 230 bulk density measurements from 20 drill holes using the water immersion technique. The majority of the determinations are in fresh rock.

The bulk density values range from 1.42t/cu.m to 3.92t/cu.m normally distributed about a mean of 2.71 t/ cu.m. RPM considers these procedures would result in determinations which are representative of the underlying geology and, as a result, are representative of the deposit. The density measuring apparatus is shown below in **Figure 14-1**.

Figure 14-1 Altan Nar Project - Density Apparatus



RPM extracted the density measurements from the database and subdivided the measurements into mineralised (inside wireframes) and non-mineralised (outside wireframes). Results are tabulated in **Table 14-2**.

The vast majority of the Altan Nar Project is fresh rock, with minor overburden at the surface. The bulk density value assigned to fresh waste material is shown in **Table 14-2** and, in the absence of core measurements, the bulk density value of 2.2t/cu.m was assigned to overburden having been derived from known bulk densities of similar geological terrains. These values are considered by RPM to be reasonable.

Table 14-2 Bulk Density Summary

Domain	Discovery Zone			Union North Zone			All		
	Min			Min			Waste		
	Oxide	Fresh	Total	Oxide	Fresh	Total	Oxide	Fresh	Total
Number	2	52	54	-	24	24	21	119	140
Minimum	2.57	2.23	2.23	-	2.53	2.53	2.52	2.22	2.22
Maximum	2.66	3.27	3.27	-	3.23	3.23	3.92	3.76	3.92
Mean	2.62	2.74	2.74	2.62	2.83	2.83	2.71	2.71	2.71
Std Dev	0.07	0.16	0.16	-	0.15	0.15	0.28	0.16	0.18
Variance	0.00	0.02	0.02	-	0.02	0.02	0.08	0.03	0.03
Coeff Var	0.03	0.06	0.06	-	0.05	0.05	0.10	0.06	0.07

Three bulk density measurements were excluded from the data prior to regression analysis of the mineralised material and those three measurements recorded below 1.8t/cu.m. It is likely that some small errors were omitted during bulk density measurement process.

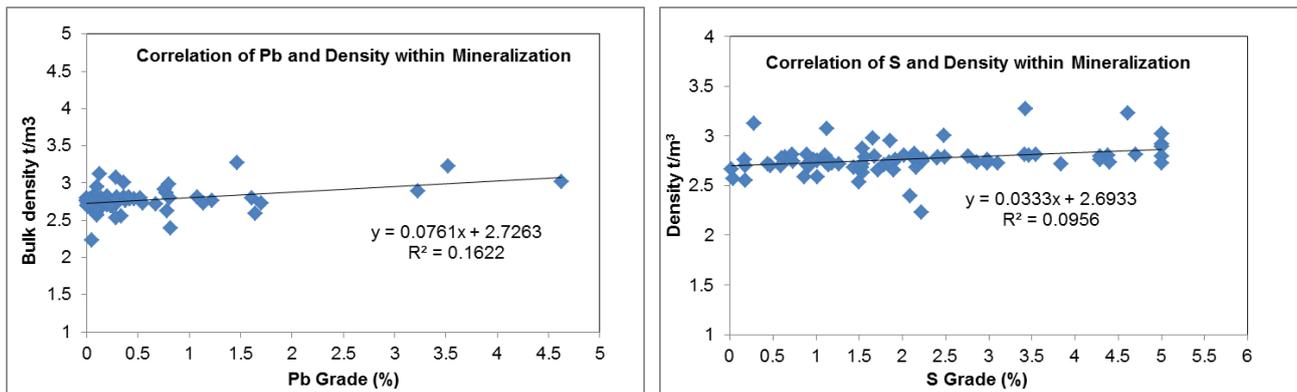
A linear regression analysis completed was completed between density and Au, Ag, Zn+Pb, and Pb grades for the 78 density measurements within the wireframes. This analysis indicated bulk density and Pb grade showing the highest correlation for the elements. The correlation coefficient between elements and density is shown in **Table 14-3**. The Linear regression for density and Pb grade is shown in **Figure 14-2**. The low correlation of S is likely due to the limited number of samples and the assignment of the density values across the entire 1m

sample, as such the S content may not exactly reflect the area of the determination (see recommendation below).

Table 14-3 Correlation Coefficient Table

Correlation	Pb	S	Au	Ag	Zn
Bulk Density	0.40	0.31	0.26	0.11	0.22

Figure 14-2 Linear Regression for Density and Pb Grade for Mineralisation



The regression equations from **Figure 14-2** above were applied to all mineralisation (pod>0) in the block model. The assigned bulk densities within the block model are tabulated in **Table 14-4**.

Table 14-4 Bulk Densities Assigned in the Block Model

Type	Mineralised or Waste	Bulk Density (t/cu.m)
Overburden	Waste (type = ob)	2.2
Mineralisation	Mineralised (pod > 0)	equation: (Pb% grade x 0.0761) + 2.73
Waste	Waste (pod = 0)	2.71

Although the correlation coefficients were low, RPM recognised that the density of the deposit is likely to be variable due to, most likely the sulphide mineral content. As such RPM utilised the Pb regression to estimate the density rather than the average values.

To determine the global suitability of the equations, RPM compared the hard average density values against the regression formula. The average is a value of 2.75t/cu.m while the regression calculated a global average of 2.76t/cu.m. Therefore RPM deemed it appropriate to utilise the linear regression between Pb and density to estimate density values within the block model.

While RPM considers this method suitable, given the low correlation coefficient it is considered that there is potential for variation on a local scale when additional data is sourced. While the drill spacing in portions of the deposit (25m by 25m) could be considered suitable for measured classification, the accuracy of the tonnage value is not, as such RPM has limited the classification to Indicated only. To increase the accuracy RPM recommends the following:

- RPM recommends that ERD undertake a bulk density program using the remaining core. This should include up to 200 samples focusing on a range of grades (low to high) with each sample having a density determination as well as assays for Au, Pb, Zn and S. Approximately costs during the future drilling USD 5,000.
- During future drilling the density measurement intervals correspond directly with geological logging and sampling intervals. It is recommended that density measurements are obtained from all 1m intervals through the ore zone in order to continue compiling a dataset with sufficient spatial distribution to validate

and confirm the current applied regression formula. No cost would be incurred in addition to planned exploration expenditure.

Absence of density measurements from weathered zones is not significant as the Mineral Resource is predominantly in fresh rock.

14.2 Geology and Resource Interpretation

As noted previously, host lithologies are principally intermediate (andesitic) volcanic and volcanoclastic units that have been pervasively altered (propylitic alteration with chlorite, epidote, carbonate). The presence of Cu-Pb-Zn sulphides and Ag-bearing minerals throughout the volcanic rocks at the Project demonstrates widespread alteration of the volcanic pile by metal-rich epithermal fluids. In addition, widespread evidence for magnetite destruction ('martitization') was noted in the host lithologies, with maximum martitization associated with narrow (mostly <50 m wide) structural-controlled mineralized zones where most or all of the magnetite in host lithologies were altered or replaced by other mineral phases. This feature is interpreted to reflect widespread epithermal fluid alteration. There is clear evidence of multi-stage quartz veining, brecciation and gold-silver-base metal mineralisation at the Project.

Altan Nar is interpreted to be an intermediate-sulphidation epithermal deposit with similarities to carbonate-base metal deposits of southeastern Asia. Mineralogical and geological features of Altan Nar that are consistent with intermediate sulphidation deposits, include:

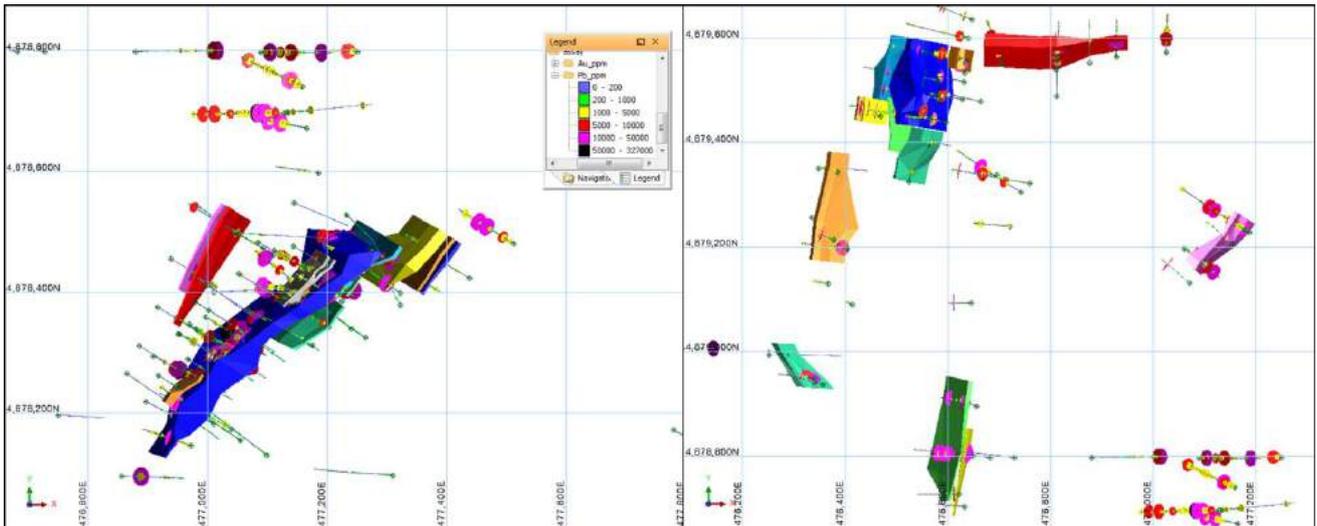
- mineralisation occurs mostly in veins and breccias (with evidence of multiple brecciation events);
- veins with quartz and Ca-Fe-Mn-Mg carbonates host the Au mineralisation;
- adularia and bladed calcite textures in quartz veins represent boiling features;
- multi-stage quartz veins with late-stage geopetal structures in chalcedony;
- Au is present as native metal with a variety of base metal sulfides and sulfosalts (e.g. Pb- and Sb sulfosalts identified by SGS);
- low-Fe sphalerite, tetrahedrite-tennantite and galena often dominate in base metal assemblages;
- Au-bearing veins can show classical banded crustiform-colloform textures; and
- white-mica alteration associated with mineralised zones, consisting of quartz-sericite (i.e. illite)-pyrite.

Additionally, some features suggest high-sulphidation affinities such as the ubiquitous presence, albeit in low modal concentrations, of Cu-sulphide minerals and high concentrations of Mo in a few samples.

Exploration to date has been targeting gold-silver-zinc-lead mineralisation associated with comb quartz and chalcedony veins, quartz breccias and breccia zones with associated white mica alteration zones (quartz-sericite-pyrite) within widespread propylitic (epidote-chlorite-montmorillonite/illite) alteration of host andesite and andesite tuff units. Gold-polymetallic mineralisation has been intersected in drilling and trenching within broad zones of zinc-lead mineralisation.

Even though moderate correlation was observed between Au vs Base metals, actual distribution of elements doesn't overlap, this can be seen from drill sections. . It was decided that wireframing should be done only where base metals are distributed along with gold mineralisation due to likely selective mining method to be implemented. See **Figure 14-3**.

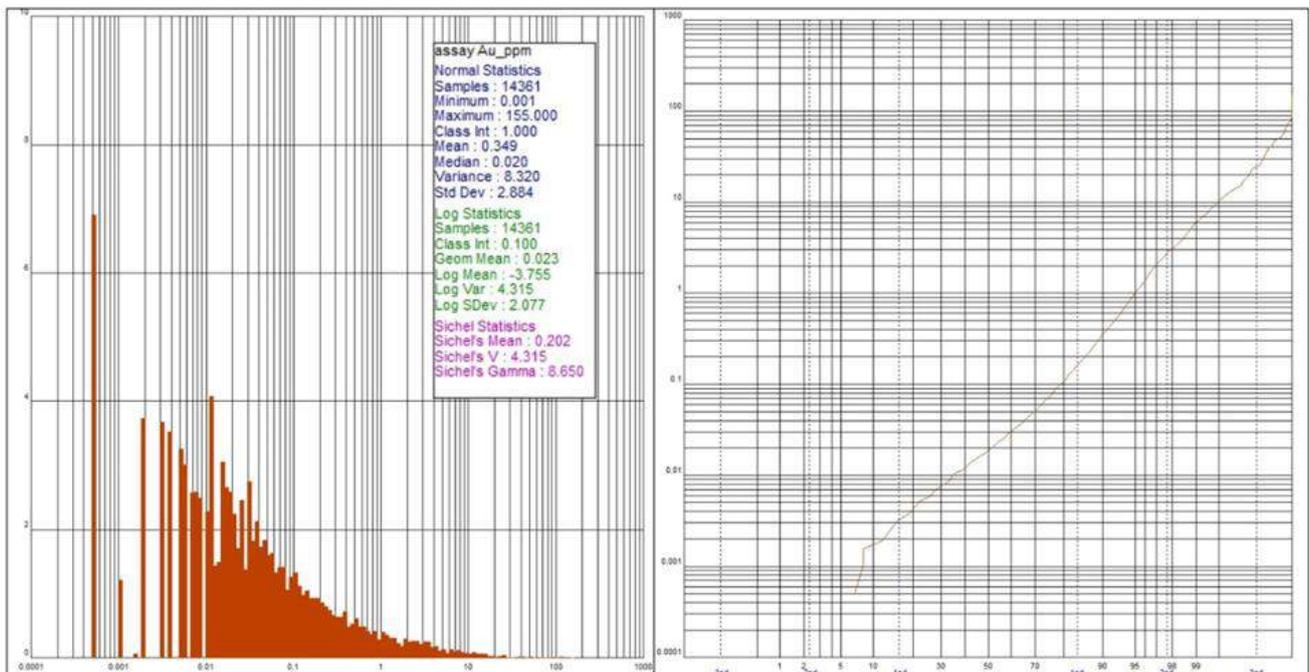
Figure 14-3 Base Metal Grades (Cylindrical shapes colour coded with Pb grades) outside the modelled mineralisation



Mineralisation interpretations were prepared by RPM using a nominal 0.1g/t Au cut-off grade value representing lower grade material and 2g/t Au for high grade material. All mineralisation intersections were defined with a minimum downhole width of 2m. These cut offs were based on statistical analysis which indicated a natural cut-off at approximately 0.1g/t Au, and a high grade cut-off around 2-3g/t Au (refer **Figure 14-4**).

RPM highlights that while low and high grade domains were interpreted, there appears to be a gradational grade distribution between the domains. The use of high grade domains was considered suitable due to the continuity of the high grades and clear statistical variation between the domains. Due to this apparent gradation of grade the estimation method varied between hard and soft boundaries as outlined below.

Figure 14-4 Log Histogram and Log Probability Plot for Au Assays at Altan Nar



14.3 Preparation of Wireframes

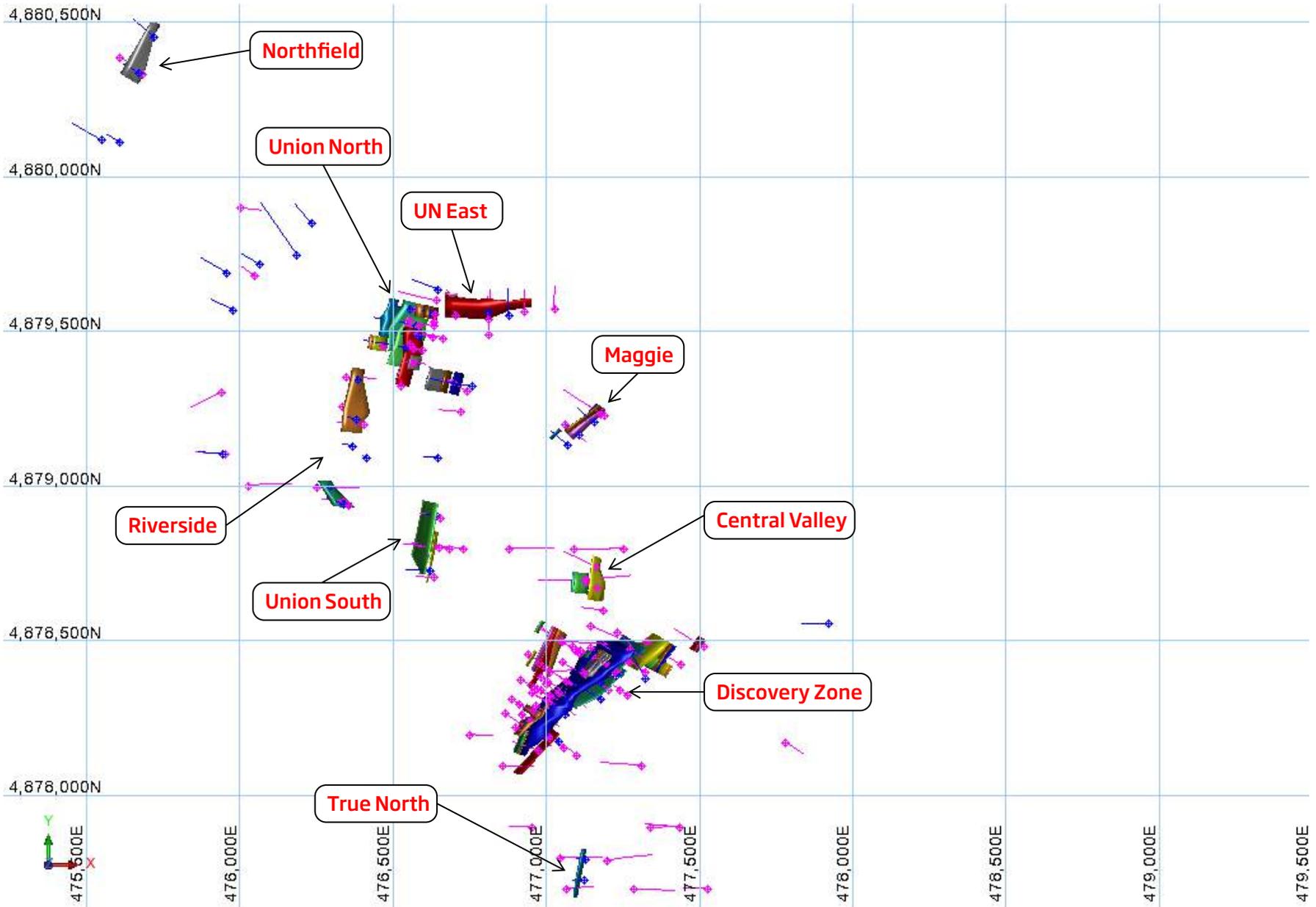
14.3.1 Resource Wireframes

The interpreted sectional outlines were manually triangulated to form wireframes. The end section strings were copied to a position midway to the next section or to 20-25 m distance and adjusted to match the dip, strike and plunge of the zone. The wireframed objects were validated using Surpac software and set as solids.

A total of 90 resource wireframes ('an_res_20180327.dtm') including 19 resource wireframes (object 1 to 19) for high grade zones and 71 resource wireframes (object 101 to 171) for low grade zones were created and used to select the sample data to be used for grade estimation, and to constrain the block model for estimation purposes.

The mineralisation wireframes were treated as hard boundaries for high grade zones, that is, only assays from within each high grade wireframes were used to estimate blocks within that high grade wireframe. The outside of the Low grade wireframes were also treated as hard boundaries, however due to the interpreted gradational mineralisation (as discussed above) between the high and low grades those high grade zones falling within each low grade shell were used as soft boundaries during the estimate i.e. low grade domains were estimated including the high grade population. To avoid inappropriate smearing of grade the high grade samples had additional high grade cuts applied as outlined in **Section 14.4.2**

The extent of the interpreted domains, and drilling at Altan Nar are shown in **Figure 14-5** to **Figure 14-8**. The mineralised lodes have been depicted in different colours to distinguish individual lodes. The colouring has no other significance and is a reflection of the software utilised (Surpac). Representative sections at each of the areas are shown in **Figure 14-9** and **Figure 14-10**.



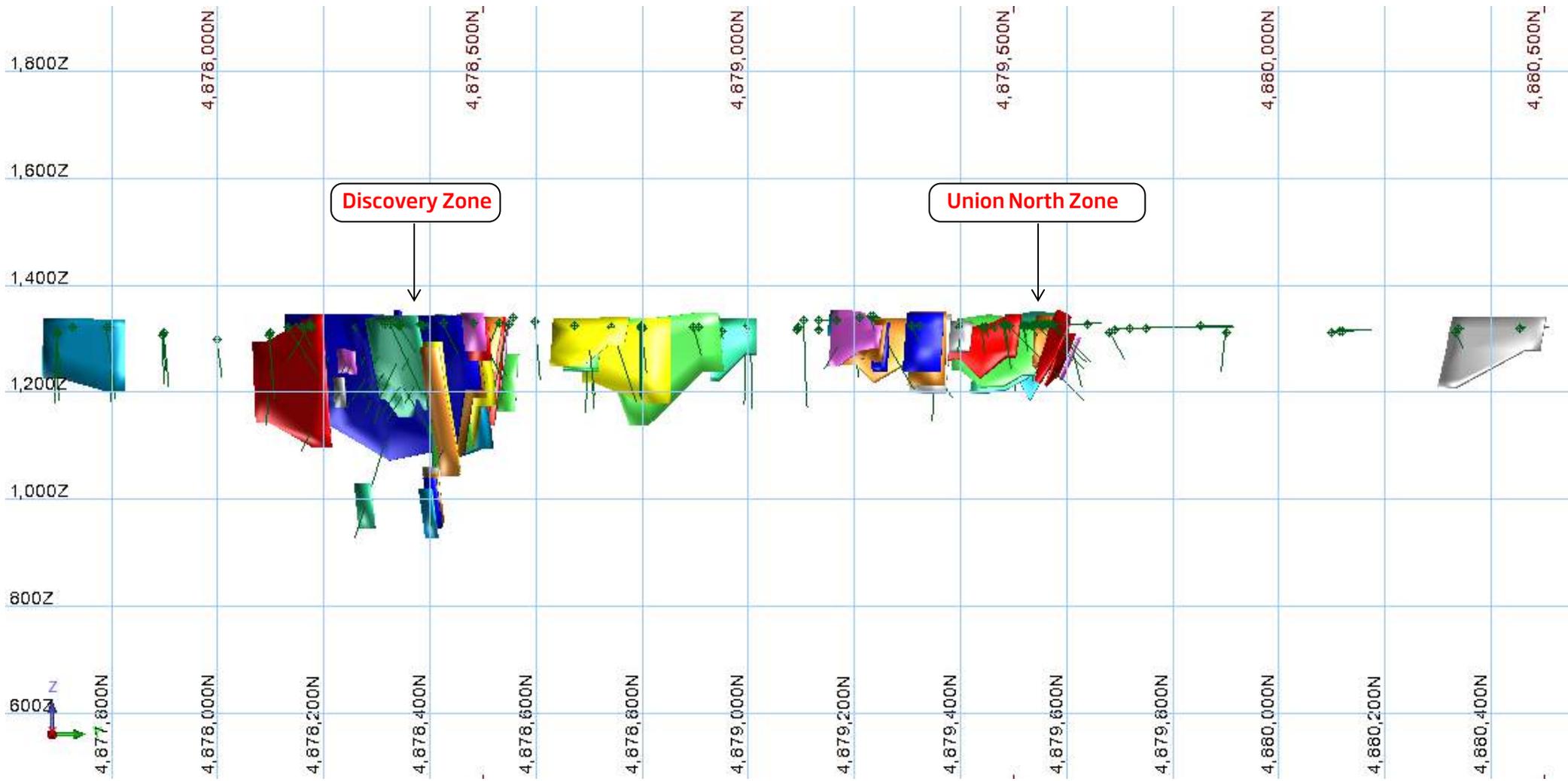
LEGEND	
	Diamond holes
	Trench

N

0 250 500
m

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

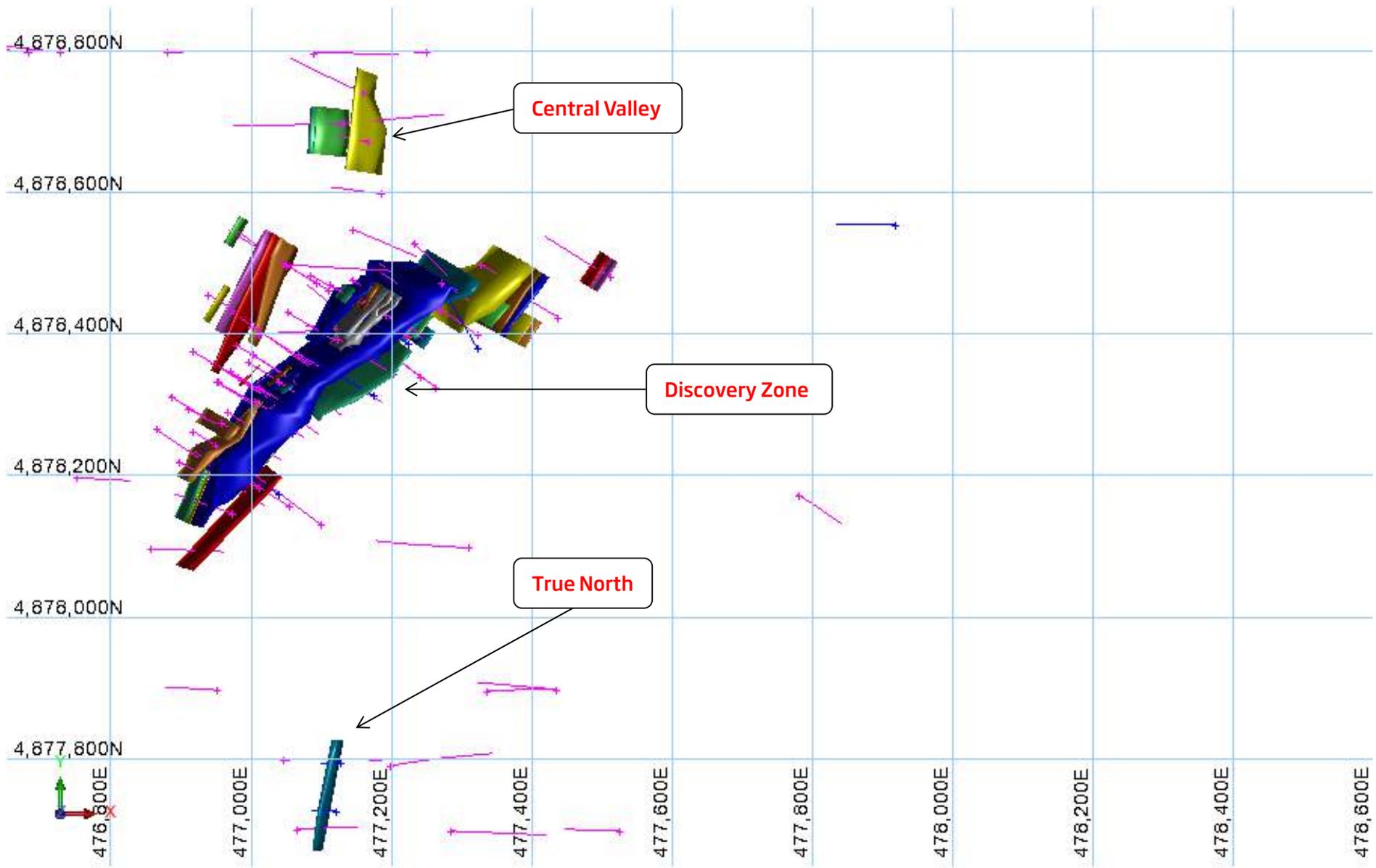
CLIENT	PROJECT	
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT	
	DRAWING Altan Nar Mineralised Lodes, Prospects and Drilling - Plan View	
	FIGURE No. 14-5	PROJECT No. ADV-MN-00156



LEGEND	
	Drill holes
DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE	

CLIENT
 Erdene Resource Development

PROJECT		
NAME		
ALTAN NAR DEPOSIT		
DRAWING		
Altan Nar Mineralised Lodes, Prospects and Drilling - Long Section		
FIGURE No. 14-6	PROJECT No. ADV-MN-00156	Date May 2018



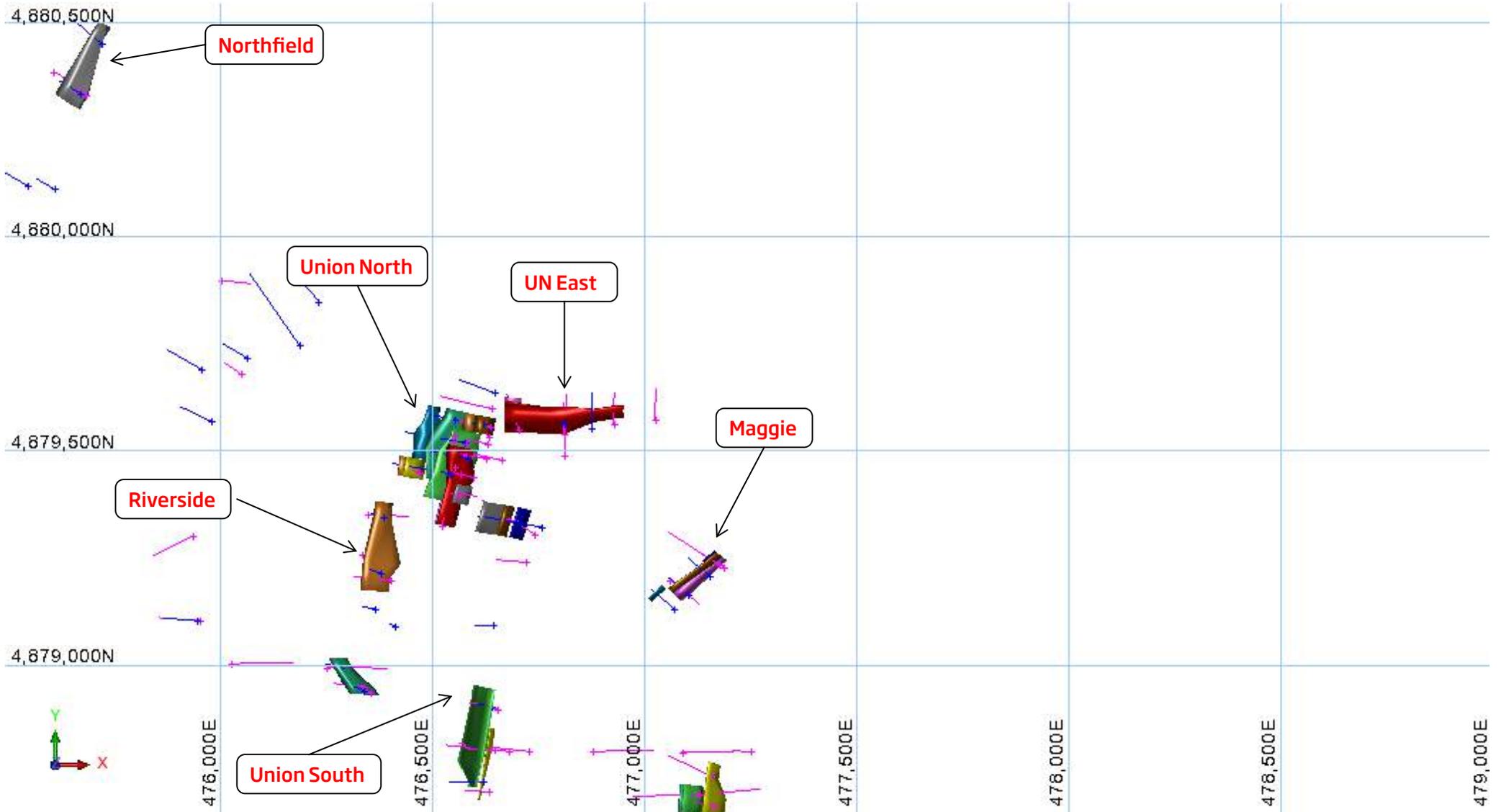
LEGEND	
	Diamond holes
	Trench





DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

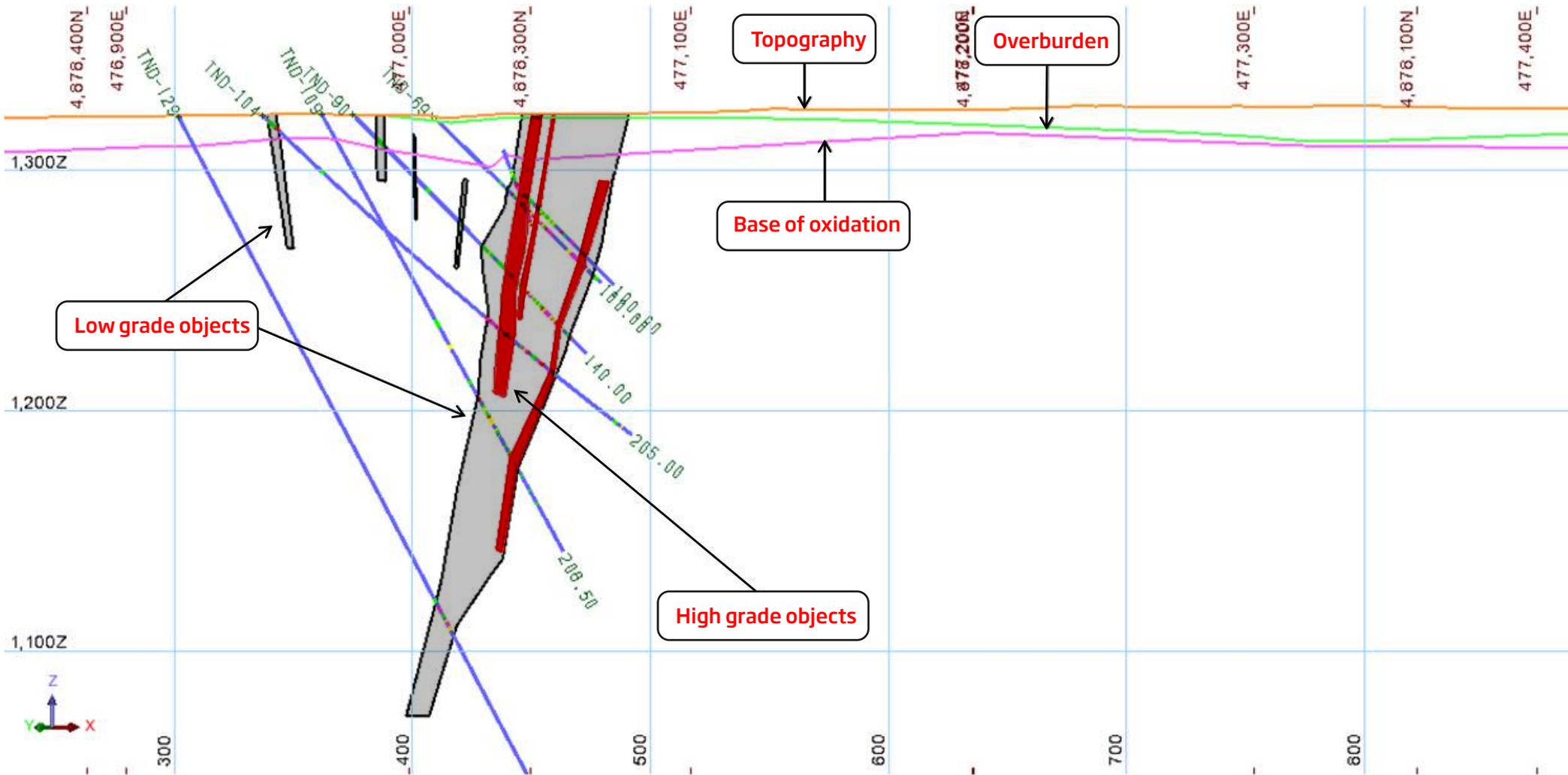
CLIENT	PROJECT	
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT	
	DRAWING Altan Nar Mineralised Lodes at Southern Area - Plan View	
	FIGURE No. 14-7	PROJECT No. ADV-MN-00156



LEGEND	
	Diamond holes
	Trench

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT	PROJECT	
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT	
	DRAWING Altan Nar Mineralised Lodes Northern Area- Plan View	
	FIGURE No. 14-8	PROJECT No. ADV-MN-00156



Low grade objects

Topography

Overburden

Base of oxidation

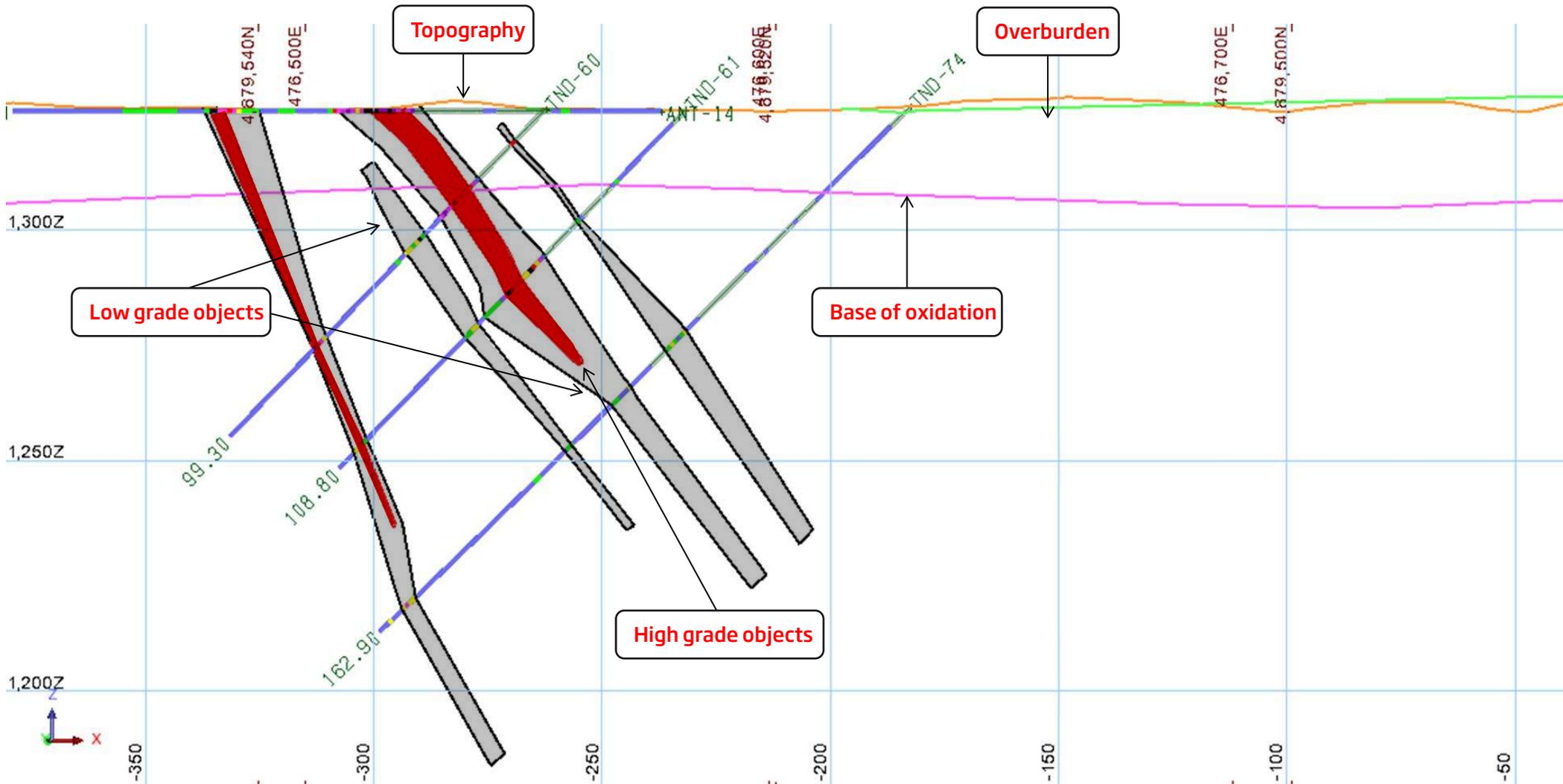
High grade objects

LEGEND			
Au_ppm			
Blue	Yellow	Magenta	Black
-1-0.1	0.3-0.6	1-4	10-156
Green	Red	Purple	
0.1-0.3	0.6-1	4-10	

0 50 100 m

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT	PROJECT
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT
	DRAWING Cross Section of Wireframe and Drilling at Discovery Zone
	FIGURE No. 14-9
	Date May 2018



LEGEND			
Au_ppm			
■ -1-0.1	■ 0.3-0.6	■ 1-4	■ 10-156
■ 0.1-0.3	■ 0.6-1	■ 4-10	

0 25 50
m

N

DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS ON SITE

CLIENT	PROJECT	
 Erdene Resource Development	NAME	ALTAN NAR DEPOSIT
	DRAWING	Cross Section of Wireframe and Drilling at Union North Zone
	FIGURE No. 14-10	PROJECT No. ADV-MN-00156

14.3.2 Overburden Wireframes

Drill logs recorded soils and sands in first 0-2m of some of the holes as such a surface for the overburden was prepared by RPM using the geological logging ('*overburden_20180409.dtm*'). The surface was extended beyond the block model extents and is shown in on the sections in **Figure 14-9** and **Figure 14-10**.

14.3.3 Weathering Wireframes

ERD geological logs of the drill cores indicates that weathering at Altan Nar is minimal and is constrained to 0-10m below the surface visually, however sulphur assay data suggests that weathering surfaces can reach depth of up to 20m in some places. Two distinct populations were observed in sulphur assay data.

RPM created weathering surfaces '*weathering.dtm*' based on assay (<0.1% S) data and is shown in on the sections in **Figure 14-9** and **Figure 14-10**. RPM notes that not all drill holes have sulphur assays however holes with sulphur assays are spread reasonably throughout the deposit to allow interpretaion.

14.3.4 Topographic Surface

ERD supplied two separate files for topographic surface SRTM 30m data and 10m spaced DGPS surveyed points creating 0.2m contour data. The two datasets have elevation differences of 0.3-5m and as a consequence the DGPS surveyed point data was used to create topographic surface ('*topo_20171201.dtm*').

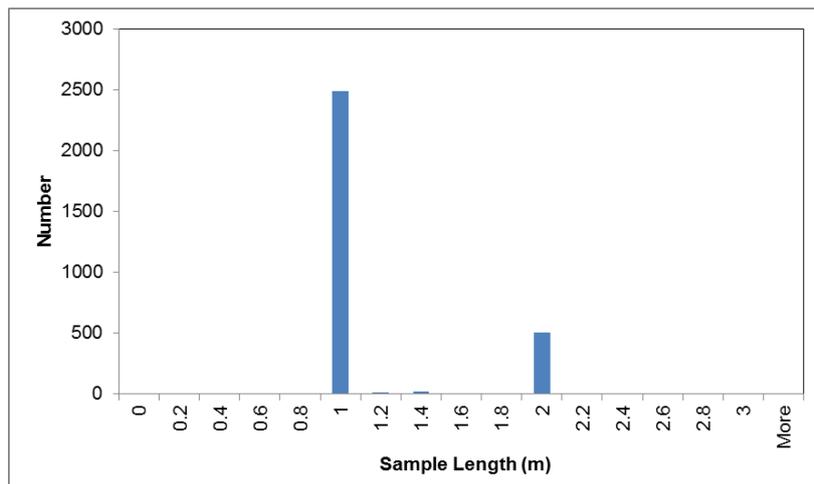
RPM notes that some extents of current modelled mineralisation fall outside the 0.2m contour data and RPM merged 0.2m contour data with SRTM data to fully encompass the extent of the mineralisation wireframes.

14.4 Compositing and Statistics

The wireframes of the mineralised zones were used to define the Mineral Resource intersections. These were coded into the 'res_zone' table within the database.

Separate intersection files were generated for each resource domain. A review of sample length within these files was carried out to determine the optimal composite length. This review determined that a variety of sample lengths were used during the original sampling, these lengths ranged from less than 0.5 m to 3 m. The majority of sample lengths within the mineralisation were 1 m lengths (refer to **Figure 14-11**) as such 1m was utilised.

Figure 14-11 Sample Lengths Inside Wireframes



Surpac software was then used to extract 'best fit' 1m down-hole composites within the intervals coded as 'domain' intersections. This method adjusts the composite length within intersections to eliminate "rejected" samples that can occur when fixed length compositing is used. A minimum length of 50% was used due to the numerous very narrow intersections. This allowed a composite to be generated for intersections as narrow as 0.5m.

The composites were checked for spatial correlation with the wireframe objects, the location of the rejected composites and zero composite values. Individual composite files were created for each of the domains in the wireframe models and contained Au, Ag, As, Cu, Zn and Pb assay data. The composite data was imported into Supervisor software for analysis. The 90 individual wireframe lenses were grouped into two main geologically similar resource zones (**Figure 14-12**). These were termed the DZ and Union North zone where most of the mineralisation and assay data located. There are a few mineralization wireframes fall outside the grouped domains (refer to red wireframes in **Figure 14-2**) as those individual shells looks to have different orientation from two main grouped domains **Table 14-9**. Grouped data was also separated by high grade and low grade domains. High grade domains only contain samples falling within high grade shell while low grade shell is combined with high grade shell. Summary statistics for each zone are shown in **Table 14-5** to **Table 14-8**.

Figure 14-12 Domain Groupings (Blue - Union North, Brown – Discovery Zone)

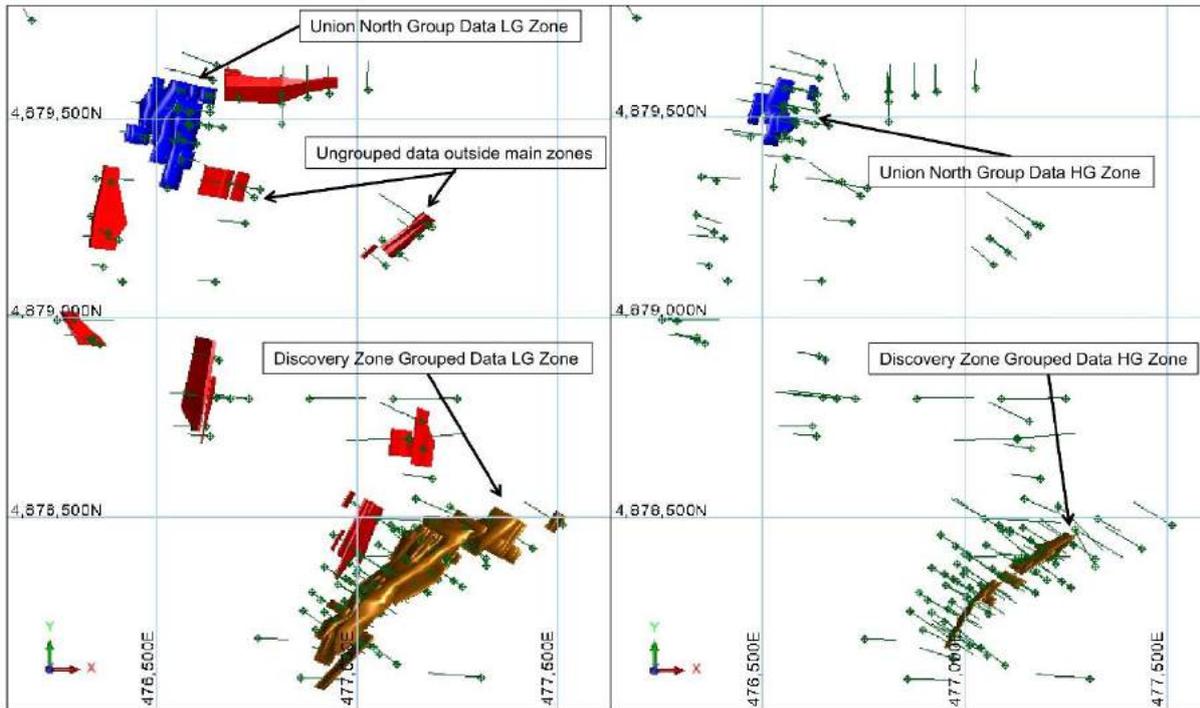


Table 14-5 Summary Statistics for 1m Composites in Discovery Zone - High Grade Domain

Discovery Zone						
Domain	High Grade					
Element	Au_ppm	Ag_ppm	As_ppm	Cu_ppm	Zn_ppm	Pb_ppm
Number	248	248	248	248	248	248
Minimum	0.0	1	2	26	371	126
Maximum	155.0	358	119000	24300	170000	126000
Mean	9.1	43	11082	1108	9886	8432
Variance	339.0	3406	310398235	7413865	248318602	186115912
Std Dev	18.4	58	17618	2723	15758	13642
Coeff Var	2.015	1.353	1.590	2.458	1.594	1.618
Percentiles						
10	1.1	5	239	64	1600	822
20	2.0	8	651	101	2477	1415
30	2.4	12	1720	139	3457	1900
40	2.9	16	3025	203	4735	2536
50	3.4	21	4935	270	5494	3340
60	4.6	26	7331	365	6820	4946
70	6.6	41	12600	589	8384	7060
80	10.6	70	16550	1030	11900	11450
90	15.4	101	25100	2340	20950	20600
95	38.7	152	41450	5486	32200	37550
97.5	74.8	213	68400	9799	50800	45100

Table 14-6 Summary Statistics for 1m Composites in Discovery Zone - Low Grade Domain

Discovery Zone						
Domain	Low Grade					
Element	Au_ppm	Ag_ppm	As_ppm	Cu_ppm	Zn_ppm	Pb_ppm
Number	2407	2407	2407	2407	2407	2407
Minimum	0.0	1	2	0	69	1
Maximum	155.0	358	119000	24300	170000	143204
Mean	1.4	10	2912	292	4189	3087
Variance	43.0	629	54557017	970044	66320148	61553142
Std Dev	6.6	25	7386	985	8144	7846
Coeff Var	4.70	2.46	2.54	3.37	1.94	2.54
Percentiles						
10	0.1	1	70	40	458	115
20	0.1	1	100	57	943	266
30	0.1	2	150	74	1310	466
40	0.2	3	227	87	1725	708
50	0.3	4	381	104	2220	1001
60	0.4	5	710	129	2800	1340
70	0.6	7	1640	165	3590	1946
80	1.0	11	3697	243	4965	3163
90	2.4	21	8367	491	7662	6640
95	4.6	41	14050	951	13850	12750
97.5	8.3	73	19250	1735	23600	22650

Table 14-7 Summary Statistics for 1m Composites in Union North Zone - High Grade Domain

Union North Zone						
Domain	High Grade					
Element Number	Au_ppm	Ag_ppm	As_ppm	Cu_ppm	Zn_ppm	Pb_ppm
95	95	95	95	95	95	95
Minimum	0.2	1	53	6	550	595
Maximum	45.4	338	33143	1674	226272	311112
Mean	6.5	23	2914	304	16227	30678
Variance	45.1	2480	18959001	116788	948700325	3190309473
Std Dev	6.7	50	4354	342	30801	56483
Coeff Var	1.03	2.14	1.49	1.12	1.90	1.84
Percentiles						
10	1.9	1	127	19	1610	1370
20	2.5	3	349	64	2142	2954
30	3.1	4	557	90	3365	5110
40	3.5	7	1045	148	4774	8211
50	4.0	10	1660	176	5470	12281
60	5.0	13	2371	230	7320	16131
70	7.8	17	2920	293	10111	20800
80	9.6	23	4362	528	16832	32045
90	12.4	45	6226	747	35755	59972
95	19.4	78	9923	1146	83809	154474
97.5	27.4	232	14915	1289	101435	262035

Table 14-8 Summary Statistics for 1m Composites in Union North Zone - Low Grade Domain

Union North Zone						
Domain	Low Grade					
Element Number	Au_ppm	Ag_ppm	As_ppm	Cu_ppm	Zn_ppm	Pb_ppm
549	549	549	549	549	549	549
Minimum	0.0	1	2	2	106	32
Maximum	45.1	334	32635	1676	166966	308128
Mean	1.6	7	946	151	6130	8428
Variance	13.8	543	5270316	41036	184081847	698016561
Std Dev	3.7	23	2296	203	13568	26420
Coeff Var	2.30	3.35	2.43	1.34	2.21	3.13
Percentiles						
10	0.1	1	73	21	875	446
20	0.1	1	125	41	1299	706
30	0.2	1	172	56	1815	1097
40	0.2	2	223	75	2338	1543
50	0.3	3	281	94	2878	2070
60	0.5	3	363	116	3460	3092
70	0.9	4	530	144	4576	4710
80	2.0	6	912	189	6011	7088
90	4.0	12	2344	299	9669	16454
95	8.2	23	4359	514	22844	31351
97.5	11.2	38	6253	746	34161	59091

Table 14-9 Combined Mineralization wireframe samples outside of DZ and Union North

Combined mineralization wireframe outside the 2 main domains						
Domain	LG and HG combined					
Element	Au_ppm	Ag_ppm	As_ppm	Cu_ppm	Zn_ppm	Pb_ppm
Number	677	677	677	677	677	677
Minimum	0.0	1	2	0	76	11
Maximum	22.3	77	9813	3886	71100	77300
Mean	1.1	4	374	187	4196	4517
Variance	2	8	685	308	7165	8183
Std Dev	6	64	469514	94811	51339342	66965798
Coeff Var	2.19	1.78	1.83	1.65	1.71	1.81
Percentiles						
10	0.1	1	41	29	580	198
20	0.1	1	68	46	1021	463
30	0.1	1	85	61	1430	707
40	0.2	1	112	75	1825	989
50	0.3	2	142	92	2257	1346
60	0.4	3	178	115	2841	2255
70	0.6	4	262	165	3682	3515
80	1.2	6	434	217	5280	5944
90	2.8	9	1000	399	7620	13041
95	5.4	15	1623	635	13300	20400
97.5	7.8	19	2440	1165	30200	27068

Analysis of the descriptive statistics indicates that the elements within each domain appear to have a log normal distribution with moderate to high variability, a large range, coefficient of variation and variance is seen in the Au base metal elements (*Table 14-5 to Table 14-8*) This interpretation is further supported when the log probability plots and histograms are analysed (*Figure 14-13 to Figure 14-22*), resulting in the interpretation that all elements have a relatively lognormal distribution and a highly positively skewed distribution as would be expected with the style of mineralisation observed within the deposit. The distribution for the Zn and Pb elements appear to have a long upper tail which varies slightly from the Au dataset. Histogram and probability plots for other elements were shown in *Figure 14-15 to Figure 14-22*. RPM highlights that the low grade plots clearly show the bimodal distribution of the population further supporting the use of separate domains.

Figure 14-13 Au Histogram and Probability Plots for Discovery Zone – Low Grade

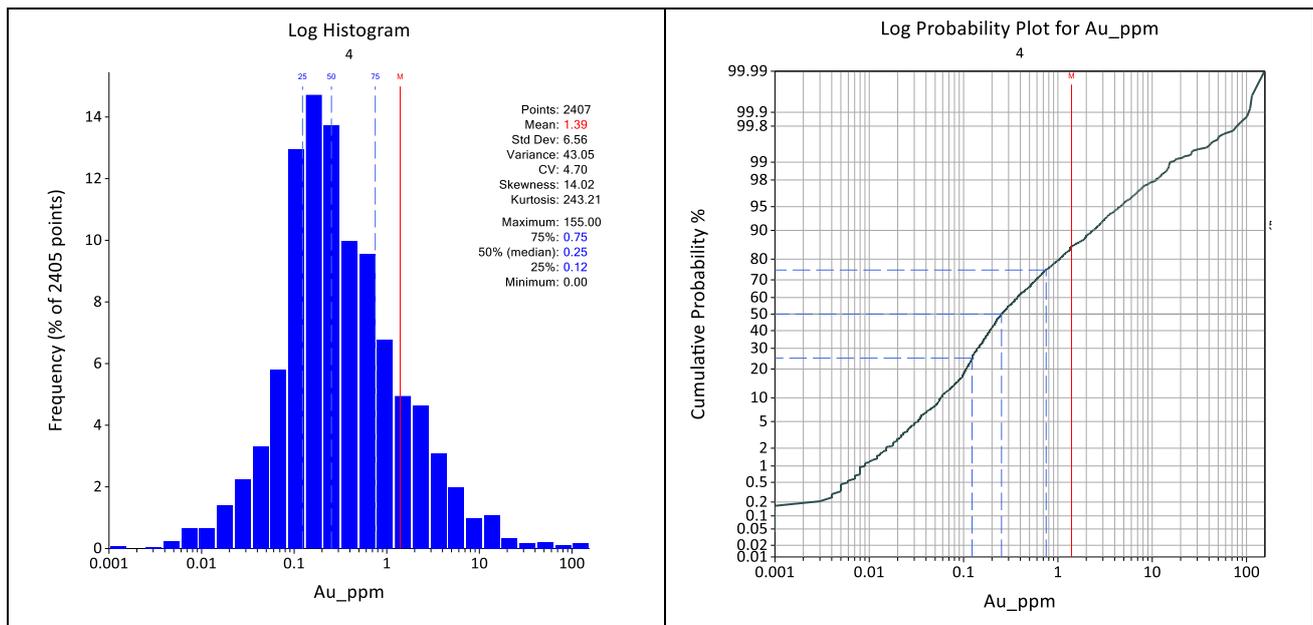


Figure 14-14 Histogram and Probability Plots for Union North Zone – Low Grade

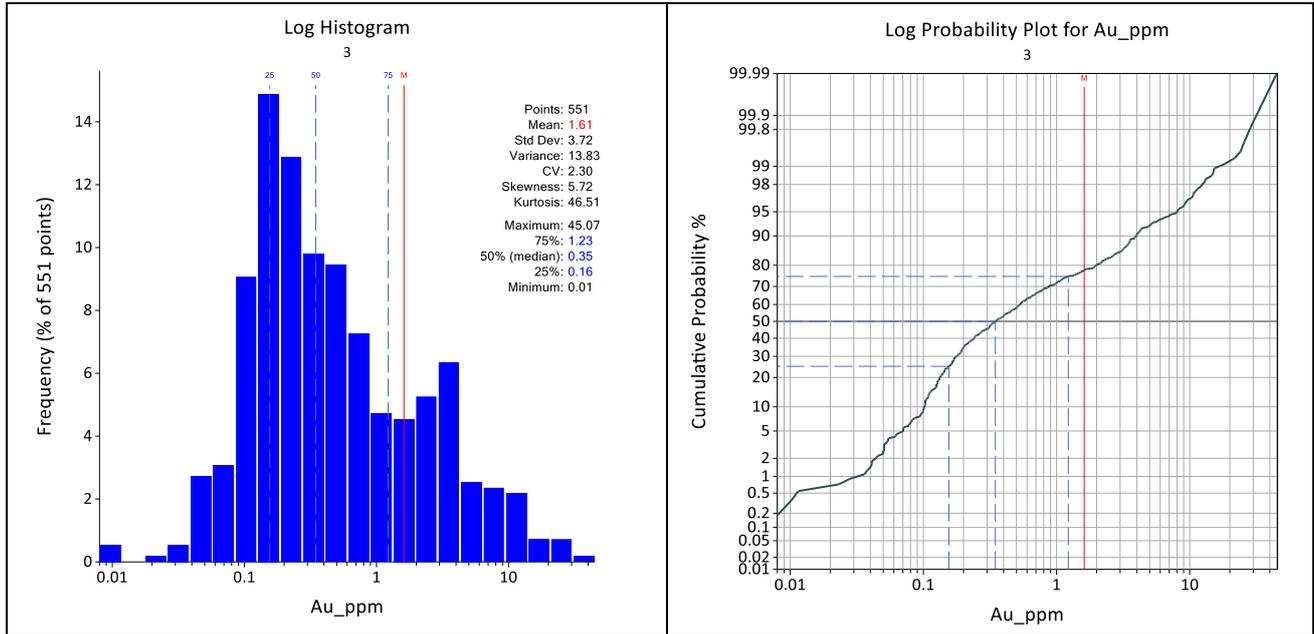


Figure 14-15 Histogram and Probability Plots (Union North Zone – HG Domain - Au, Ag and As)

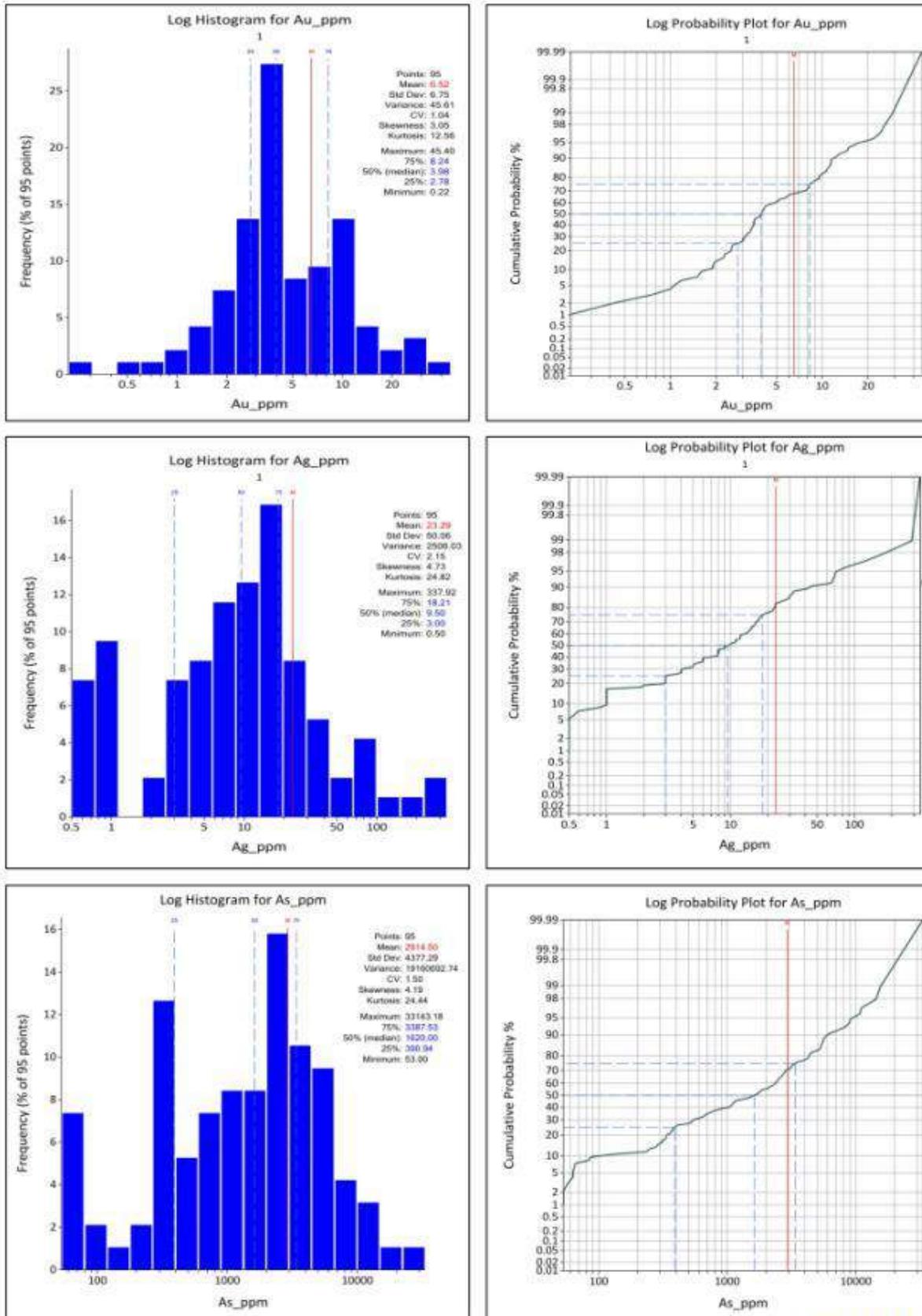


Figure 14-16 Histogram and Probability Plots (Union North Zone – HG Domain - Cu, Zn and Pb)

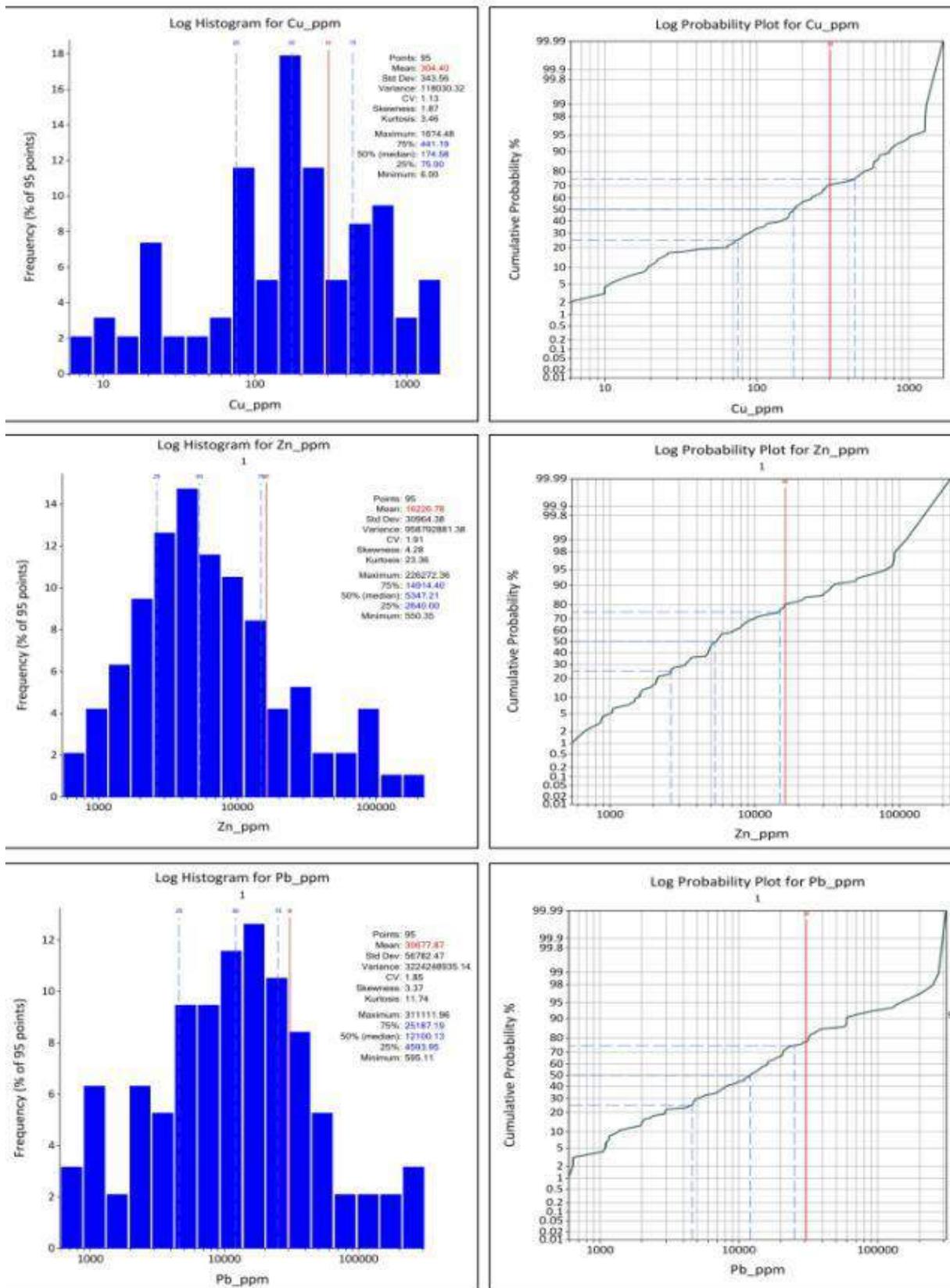


Figure 14-17 Histogram and Probability Plots (Union North Zone – LG Domain - Au, Ag and As)

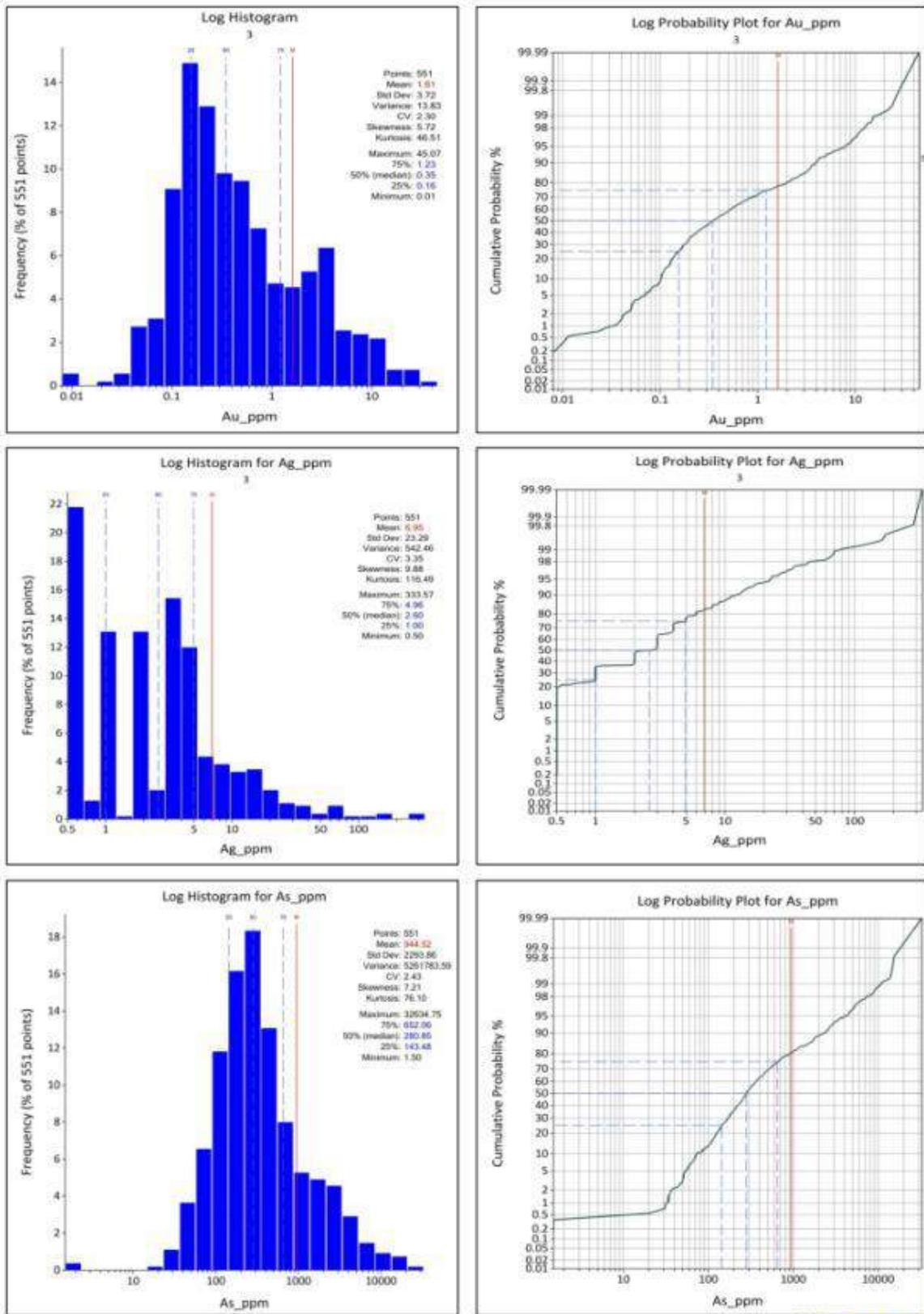


Figure 14-18 Histogram and Probability Plots (Union North Zone – LG Domain - Cu, Zn and Pb)

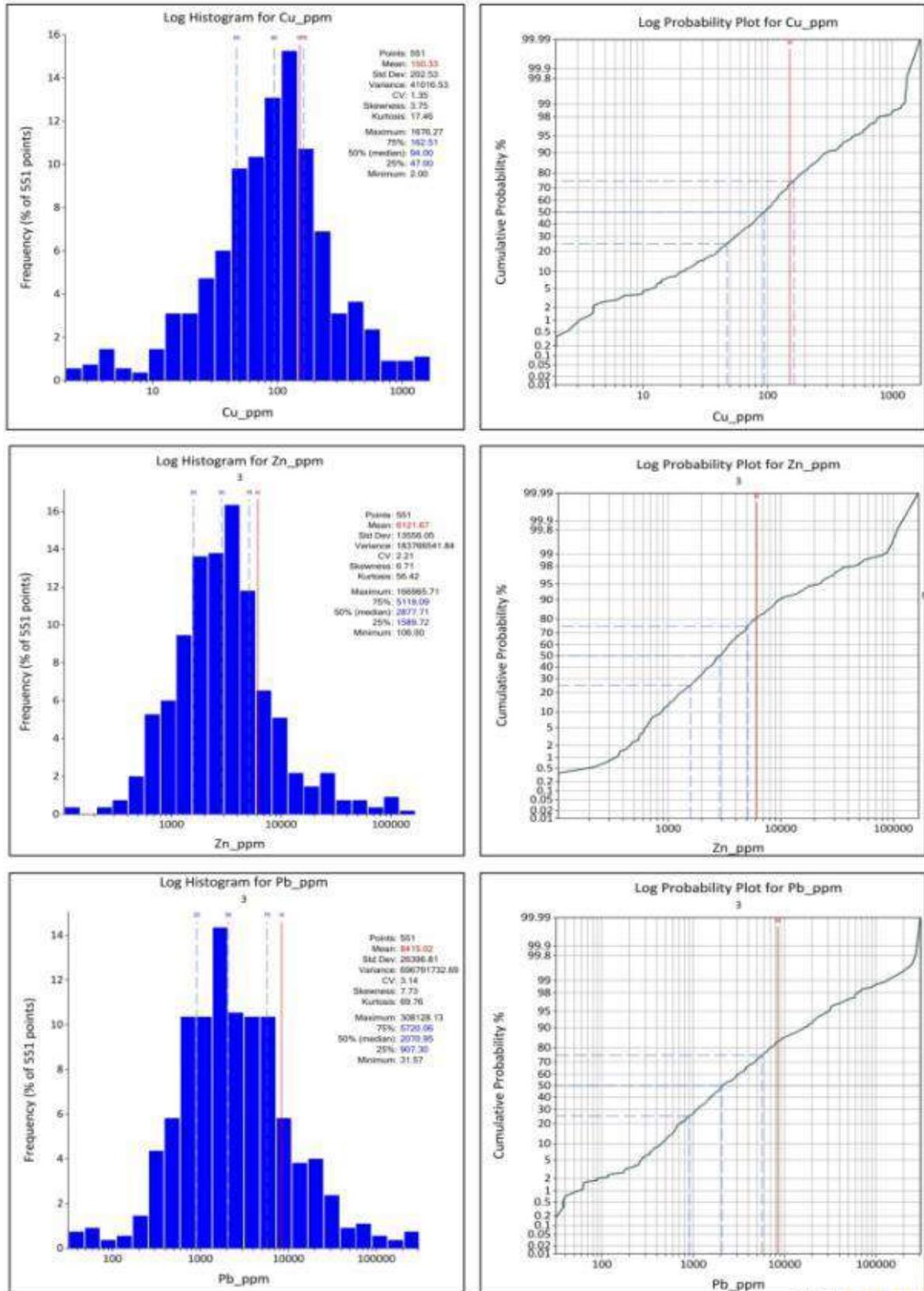


Figure 14-19 Histogram and Probability Plots (Discovery Zone – HG Domain - Au, Ag and As)

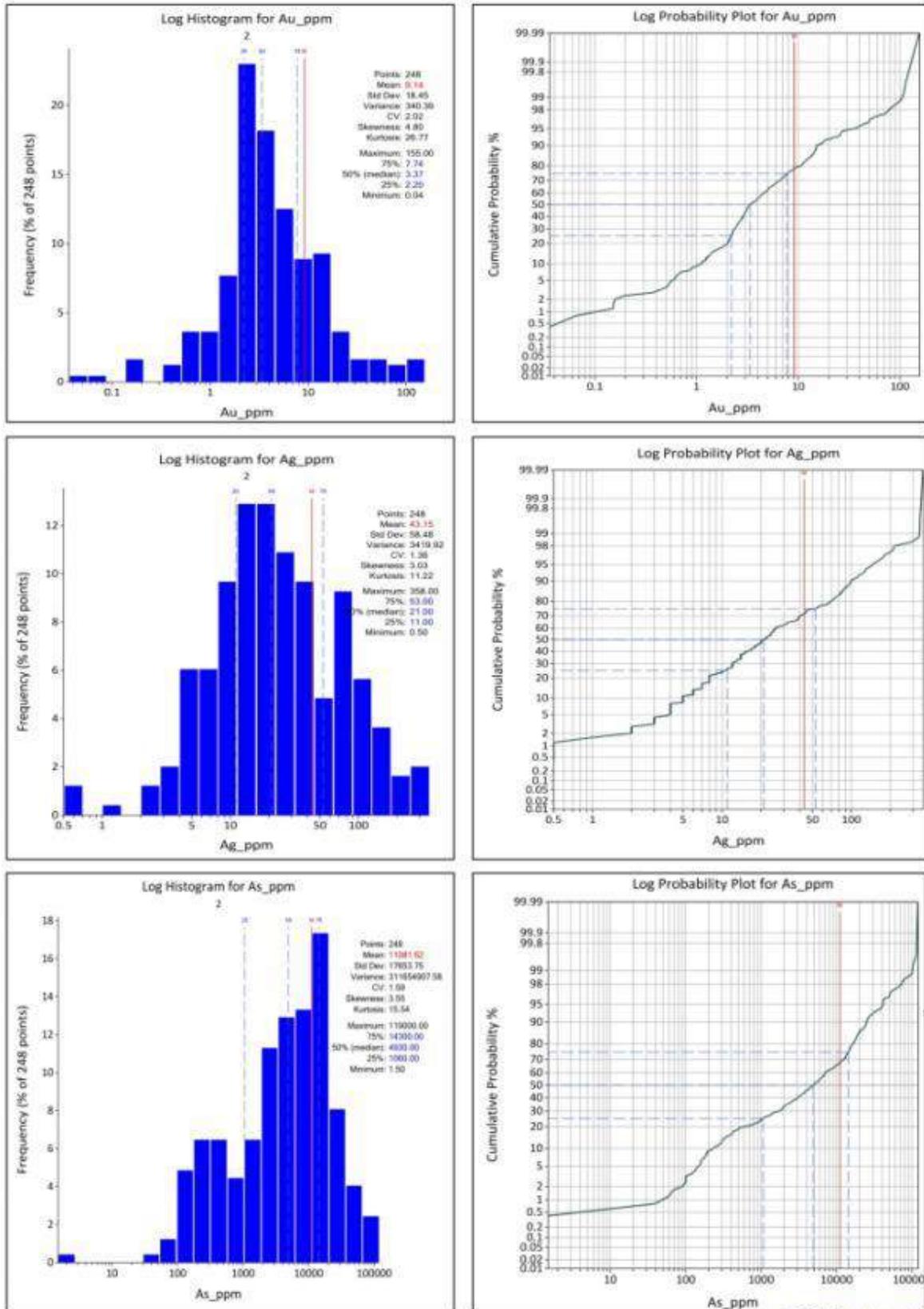


Figure 14-20 Histogram and Probability Plots (Discovery Zone – HG Domain – Cu, Zn and Pb)

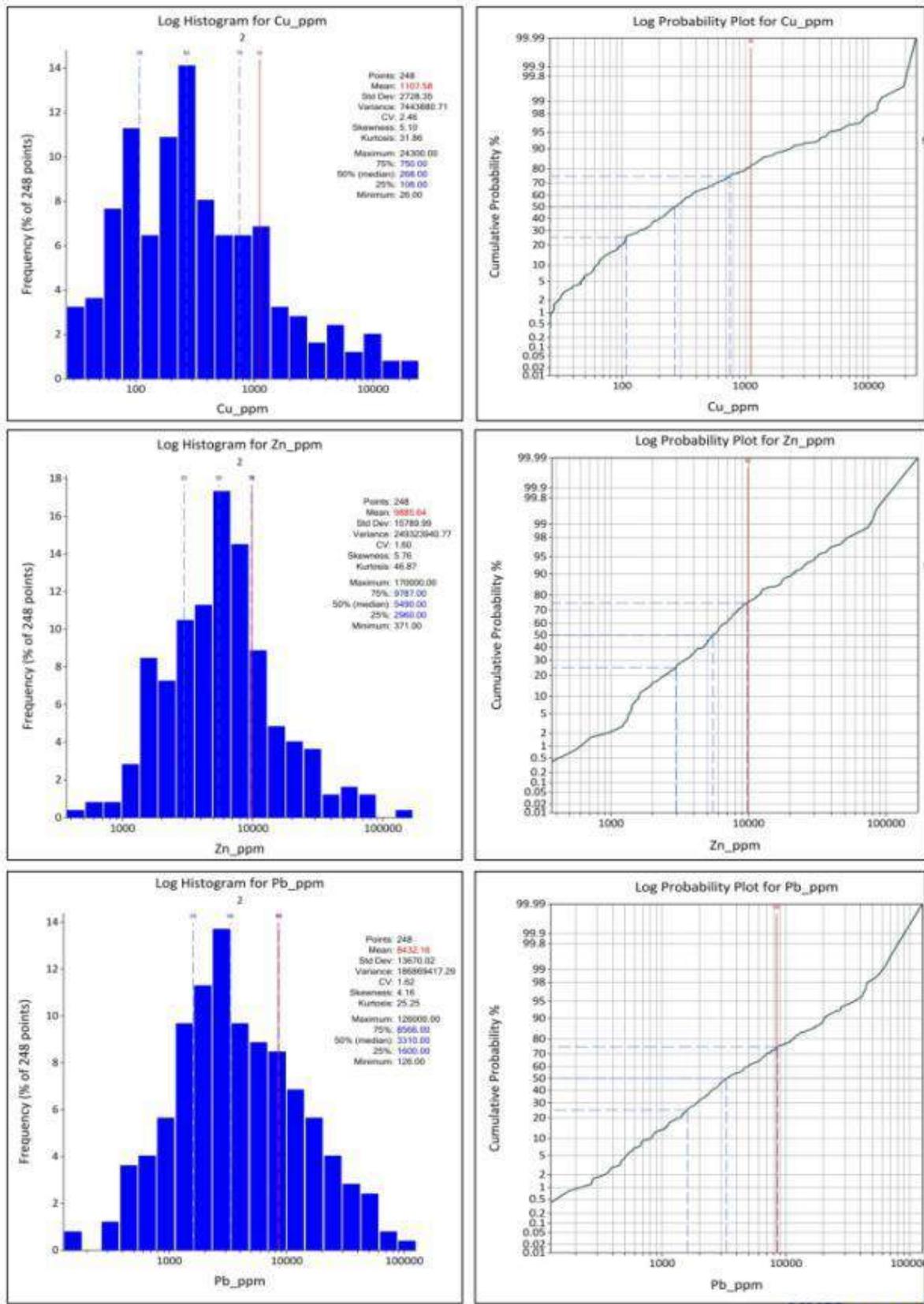


Figure 14-21 Histogram and Probability Plots (Discovery Zone – LG Domain - Au, Ag and As)

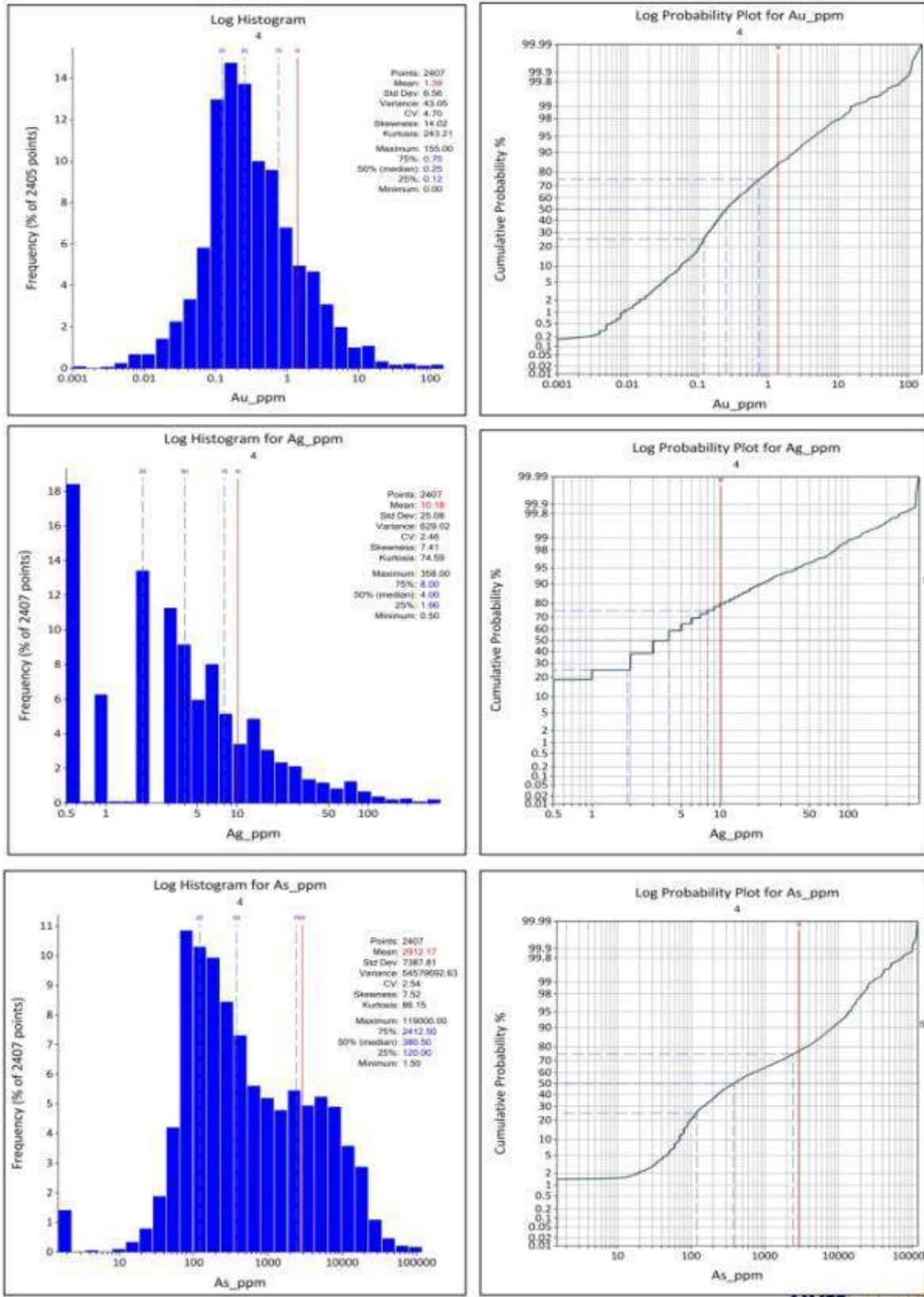
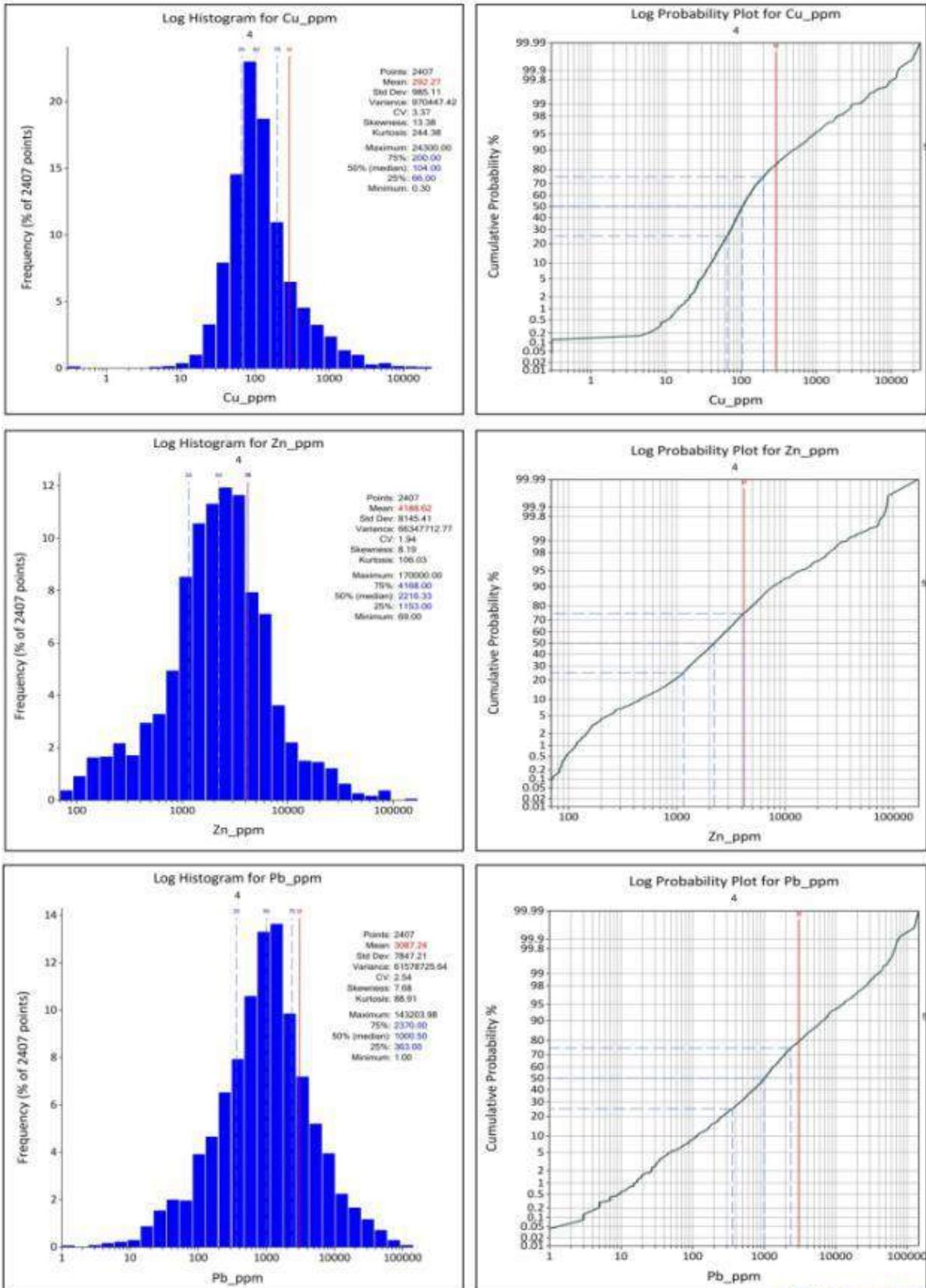


Figure 14-22 Histogram and Probability Plots (Discovery Zone – LG Domain – Cu, Zn and Pb)



RPM interprets these statistics to be representative of the style and tenure of mineralisation observed at the Project. Gold mineralisation occurs as distinct zones within the broader base metal mineralisation. This interpretation is further supported by the metals correlation analysis.

14.4.1 Correlation Analysis

The correlations of the metals within the deposit are typical of epithermal style systems, with a reasonable correlation between Au and Ag, Au and Cu, Ag and Pb while moderate correlation was observed for Au and Zn and Pb. Further supporting the association of the mineralisation within the deposit with sulphide minerals is the good correlation of Pb and Zn. The correlation of Zn and Pb is commonly found in sulphide hosted base metals deposits. Although the correlation coefficients are moderate, given the style of mineralisation, the likely occurrence of native gold, and high levels of non-gold bearing sulphide minerals within the veins, RPM considers this correlation to be reasonable although there is evidence for additional domaining requirements which is utilised in the methods applied.

The remaining elements are un-correlated. Correlation matrices for all combined mineralisation are shown in **Table 14-10** while correlation matrices for separate domain and zones were summarised in **Table 14-11** to **Table 14-14**.

Table 14-10 Metals Correlation Matrix All Mineralisation

	Au	Ag	As	Cu	Zn	Pb
Au	1					
Ag	0.49	1				
As	0.17	0.33	1			
Cu	0.53	0.50	0.04	1		
Zn	0.37	0.35	0.10	0.25	1	
Pb	0.32	0.55	0.07	0.18	0.44	1

Table 14-11 Metals Correlation Matrix Union North HG Domain

	Au	Ag	As	Cu	Zn	Pb
Au	1					
Ag	0.41	1				
As	0.62	0.42	1			
Cu	0.31	0.10	0.10	1		
Zn	0.20	0.25	0.27	0.21	1	
Pb	0.56	0.90	0.58	0.10	0.3	1

Table 14-12 Metals Correlation Matrix Union North LG Domain

	Au	Ag	As	Cu	Zn	Pb
Au	1					
Ag	0.50	1				
As	0.63	0.46	1			
Cu	0.39	0.22	0.18	1		
Zn	0.37	0.37	0.32	0.27	1	
Pb	0.64	0.90	0.57	0.24	0.42	1

Table 14-13 Metals Correlation Matrix Discovery Zone HG

	Au	Ag	As	Cu	Zn	Pb
Au	1					
Ag	0.43	1				
As	-0.04	0.07	1			
Cu	0.52	0.51	-0.14	1		
Zn	0.54	0.36	-0.02	0.30	1	
Pb	0.45	0.63	-0.11	0.38	0.42	1

Table 14-14 Metals Correlation Matrix Discovery Zone LG

	Au	Ag	As	Cu	Zn	Pb
Au	1					
Ag	0.50	1				
As	0.15	0.32	1			
Cu	0.54	0.54	0.02	1		
Zn	0.43	0.38	0.10	0.31	1	
Pb	0.36	0.53	0.04	0.31	0.51	1

An interesting correlation is observed for Union North Zone for both HG and LG domains. There is a strong correlation observed for Au and As, Au and Pb while Au and As are un-correlated in the DZ. Au, Ag, Pb and Zn correlations remain relatively consistent for each domain.

14.4.2 Top-Cuts

Visual analysis of the grade distributions within drill holes indicates that the high grade gold mineralisation occurs as narrow, near vertical semi-parallel lodes within a broader low grade shell.

Analysis of the statistics indicates that the composite data for all elements are positively skewed with moderate to high coefficients of variation. The application of top cuts is considered necessary prior to using the data for linear grade interpolation.

Statistical data, histogram and probability plots indicate that mineralisation has two populations (High grade and low grade) however the high grade populations have a long upper tail which suggests that smooth transition from high to low grade estimation would be necessary for the estimate. This necessitated the use of high grade zones using a hard boundary with only samples falling within high grade zone while samples from high grades zone were combined with samples falling within low grade shell but utilising severe top cut to more appropriately model the transition from high grade domains to low grade domains.

To assist in the selection of appropriate top cuts, the composite data was imported into Supervisor software, where population histograms, log probability plots and the coefficient of variation statistics were generated for all high and low grade domains. The log histogram and log probability plots are shown in **Figure 14-15** to **Figure 14-22**.

Top cuts were determined for all high and low grade zones using the shape of distribution on the log probability plots and population histograms, and determining the spatial location of the samples subject to high grade cuts. The high grades cuts applied to the low grade zones were based on the distribution of grades within the low grade domains exclusive of the higher grade data contained within the wholly surrounded high grade domains. These high grade top cuts were then applied to the combined high and low grade datasets for use in estimating the low grade domains, this ensured appropriate treatment of the grade distribution within both the high and low grade domains.

Following a review of the plots, a top cut of 110g/t Au was applied within the high grade domain for DZ, a top cut of 30 g/t Au was applied to the high grade domain for Union North zone resulting in a total of 3 Au samples being cut. Top cuts applied to other elements were summarized in **Table 14-15**.

Table 14-15 Altan Nar Project – Top-Cuts Applied to Domains

Grouped Composite data	Domain	Assign	Au	Ag	As	Cu	Pb	Zn
Union North Zone	HG	Cut Value (g/t)	30	300	20,000	1,300	250,000	100,000
		Number Cut	1	1	1	6	2	2
	LG	Cut Value (g/t)	7	300	10,000	1,300	250,000	90,000
		Number Cut	45	1	7	8	2	5
Discovery Zone	HG	Cut Value (g/t)	110	300	100,000	12,000	60,000	80,000
		Number Cut	2	4	3	3	3	2
	LG	Cut Value (g/t)	9	300	100,000	12,000	60,000	75,000
		Number Cut	58	4	3	3	9	7

14.5 Geospatial Analysis

14.5.1 Variography

Mineralisation continuity was confirmed via variography. Variography examines the spatial relationship between composites, and seeks to identify the directions of mineralisation continuity and to quantify the ranges of grade continuity. Variography was also used to determine the random variability or 'nugget effect' of the deposit. The results provide the basis for determining appropriate kriging parameters for resource estimation.

RPM has interpreted experimental variograms of Au, Ag As, Cu, Zn and Pb for HG and LG domains for both Discovery and Union North Zones (refer to **Figure 14-12**). All variography was completed using Supervisor software.

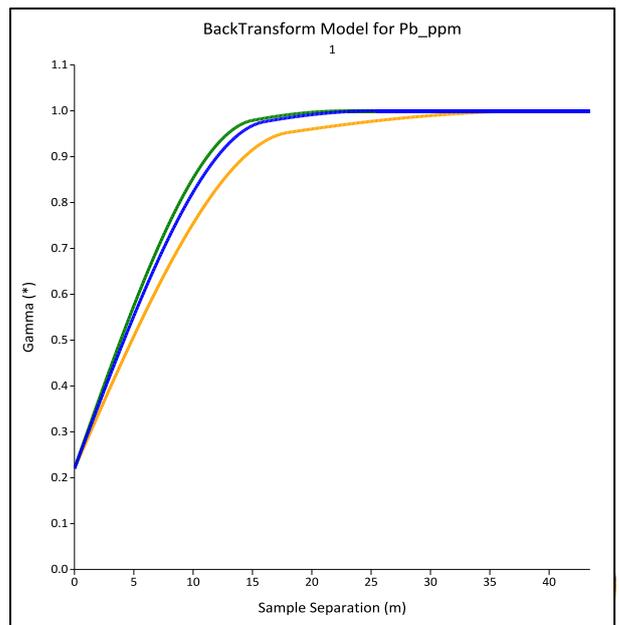
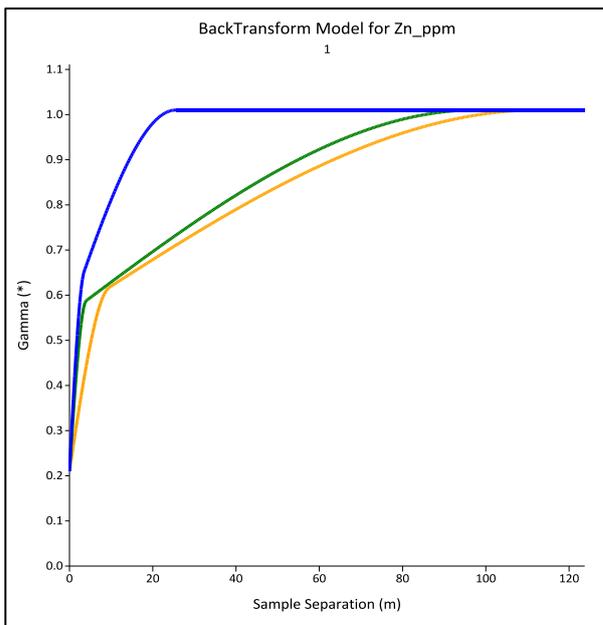
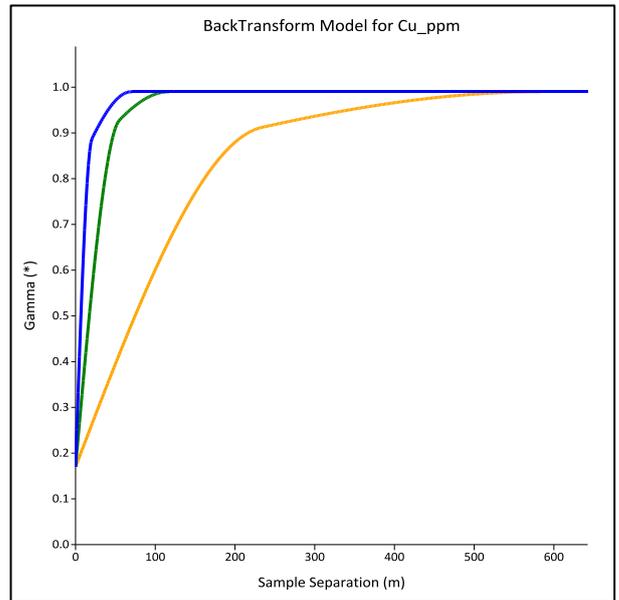
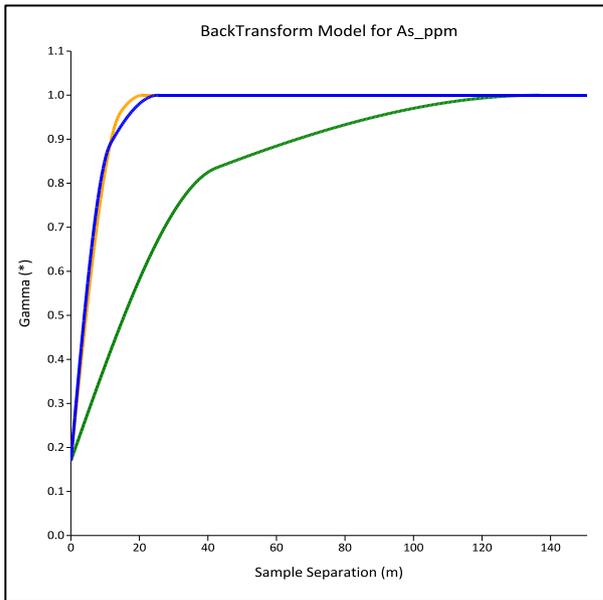
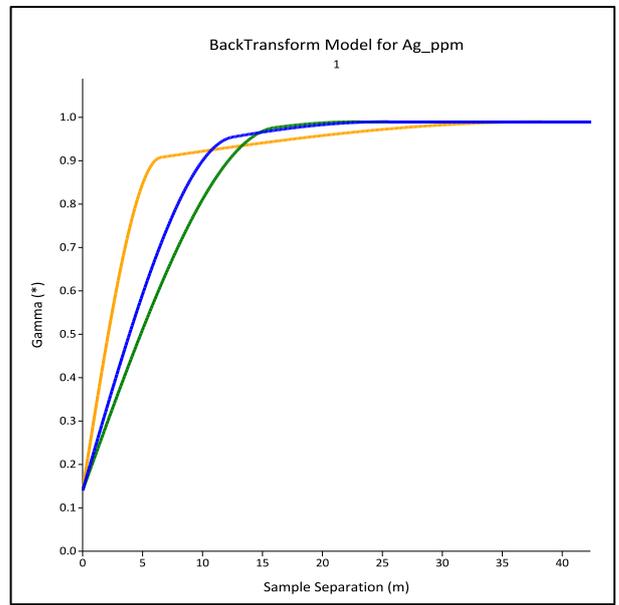
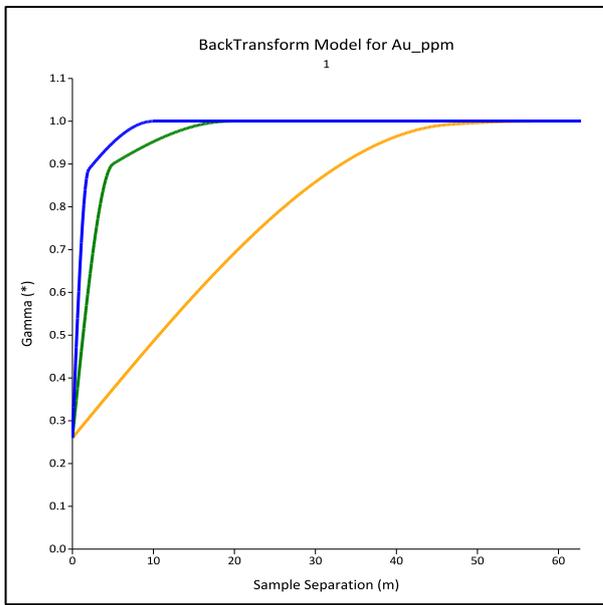
The 1m composite sample data was transformed into a normal distribution using a normal scores transformation to help identify the main directions of mineralisation continuity from the skewed original data. The experimental variograms are normalised against the sample variance so that the sill value is 1 and the structures are viewed as ratios or proportions of the sill.

A two structured nested spherical model was found to model the experimental variogram reasonably well. The down-hole variogram provides the best estimate of the true nugget values which was 0.33 (Au), 0.31 (Ag), 0.15 (As), 0.2 (Cu), 0.38 (Zn) and 0.33 (Pb) for the HG domain for the DZ while nugget values for the HG domain for Union North Zone was 0.26 (Au), 0.14 (Ag), 0.17 (As), 0.17 (Cu), 0.21 (Zn) and 0.22 (Pb). The orientation of the plane of mineralisation was aligned with the interpreted wireframe for the main objects. The experimental variograms were calculated with the first direction aligned along the main mineralisation continuity while the second direction was aligned in the plane of mineralisation at 90° to the first orientation. The third direction was orientated perpendicular to the mineralisation plane, across the width of the mineralisation.

RPM modelled the down-hole and three orthogonal variograms of Au, Ag, As, Cu, Zn and Pb for the HG and LG domain. Interpreted variogram parameters are shown in **Table 14-16**. Full details of the directional continuity analysis can be found in to **Figure 14-23** to **Figure 14-26**.

Table 14-16 Altan Nar Project – Interpreted Variogram Analysis

Zone	Domain	Element	Nugget Co	Structure 1				Structure 2			
				C1	A1	Semi1	Minor1	C2	A2	Semi2	Minor2
Union North	High Grade	Au	0.26	0.58	47	9.30	23.25	0.16	57	2.92	5.70
		Ag	0.14	0.74	16	1.28	2.46	0.11	39	1.51	1.67
		As	0.17	0.53	43	2.93	3.70	0.30	137	5.37	6.52
		Cu	0.17	0.64	234	4.26	11.41	0.18	584	5.01	8.40
		Zn	0.21	0.35	10	2.38	2.71	0.45	113	1.15	4.41
		Pb	0.22	0.65	18	1.13	1.20	0.13	40	1.55	1.72
	Low Grade	Au	0.15	0.71	6	1.33	1.33	0.14	60	1.76	3.00
		Ag	0.24	0.51	19	2.85	6.17	0.25	187	1.09	14.96
		As	0.15	0.48	17	1.74	2.06	0.38	161	2.63	7.64
		Cu	0.15	0.37	14	3.38	5.40	0.47	207	1.25	1.61
		Zn	0.20	0.70	28	1.20	13.75	0.11	118	1.41	1.74
		Pb	0.14	0.73	7	1.44	1.63	0.13	66	1.22	1.59
Discovery Zone	High Grade	Au	0.33	0.55	11	3.00	7.00	0.11	26	1.11	3.40
		Ag	0.31	0.47	15	1.88	2.50	0.21	163	1.21	5.82
		As	0.15	0.36	20	1.86	3.90	0.49	326	1.42	11.63
		Cu	0.20	0.54	10	1.46	2.11	0.26	219	1.34	7.82
		Zn	0.38	0.39	9	1.50	2.25	0.23	104	1.93	3.70
		Pb	0.33	0.27	6	1.33	1.33	0.40	165	1.02	5.88
	Low Grade	Au	0.26	0.66	6	1.10	1.10	0.08	35	1.35	1.49
		Ag	0.26	0.67	15	1.21	1.81	0.07	189	2.10	7.27
		As	0.12	0.44	29	1.41	5.27	0.45	167	1.11	2.78
		Cu	0.37	0.56	21	3.15	3.42	0.07	120	1.06	1.89
		Zn	0.23	0.68	26	1.79	3.47	0.09	153	1.27	3.91
		Pb	0.19	0.70	12	1.64	2.30	0.12	229	2.91	3.29



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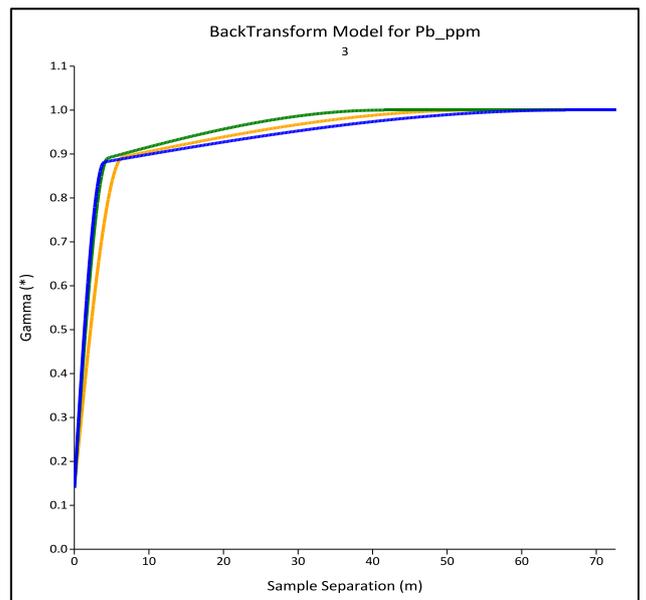
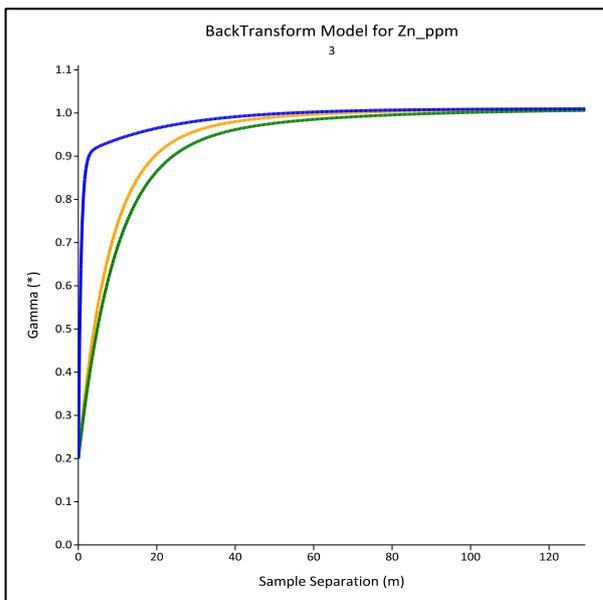
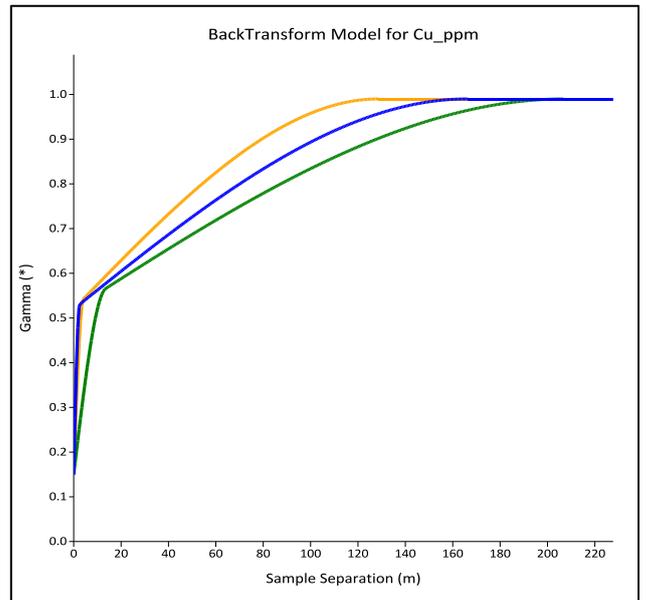
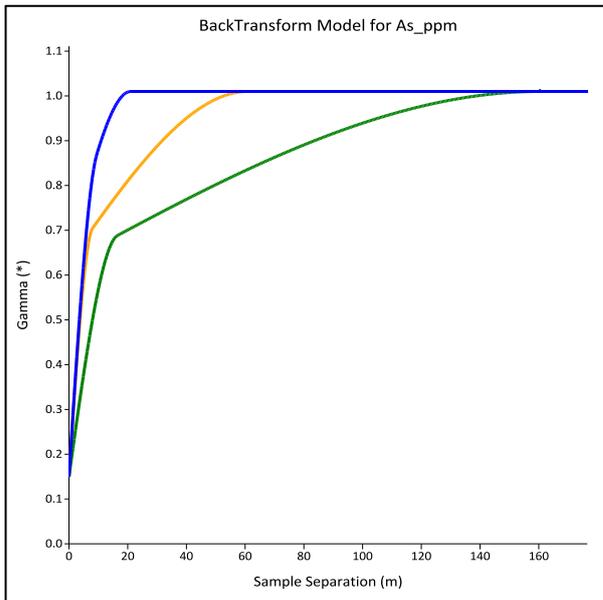
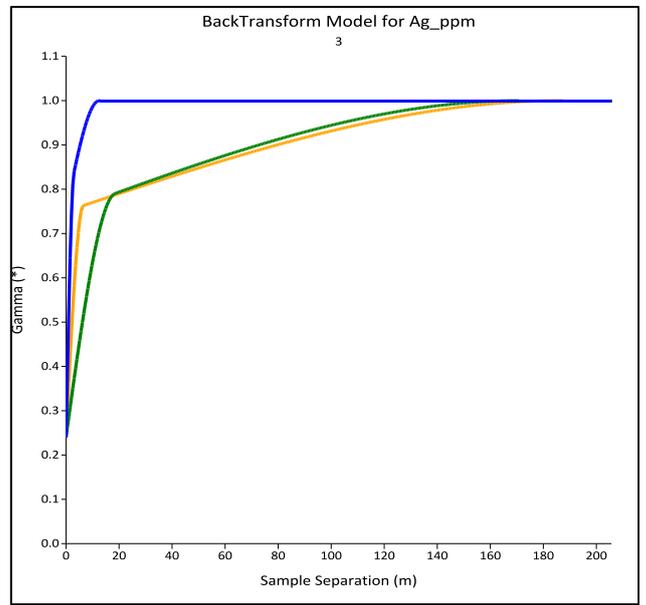
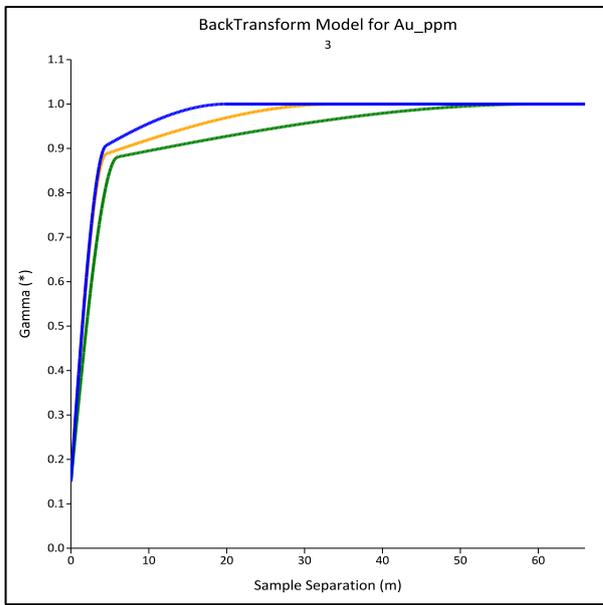
Variograms HG Domain - Union North Zone

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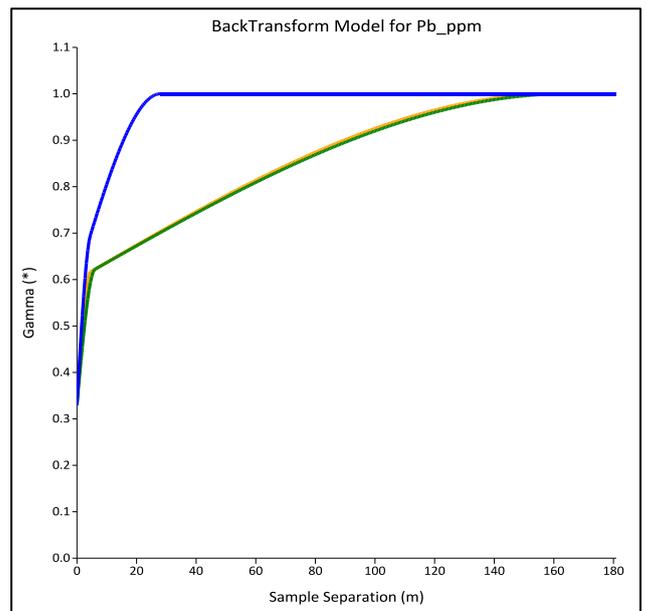
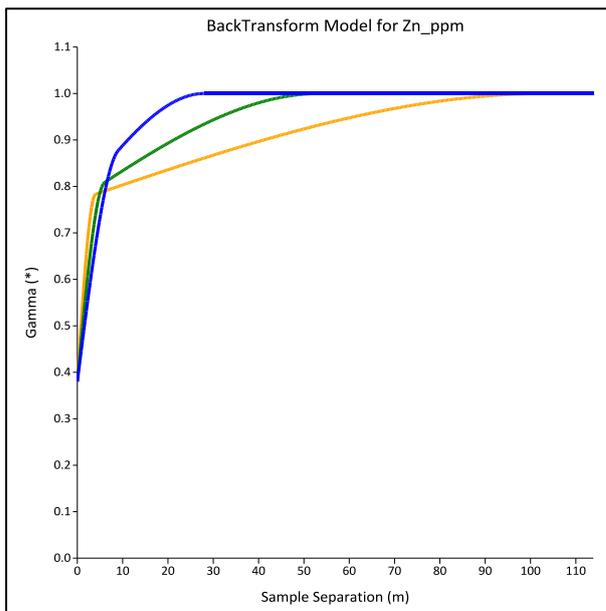
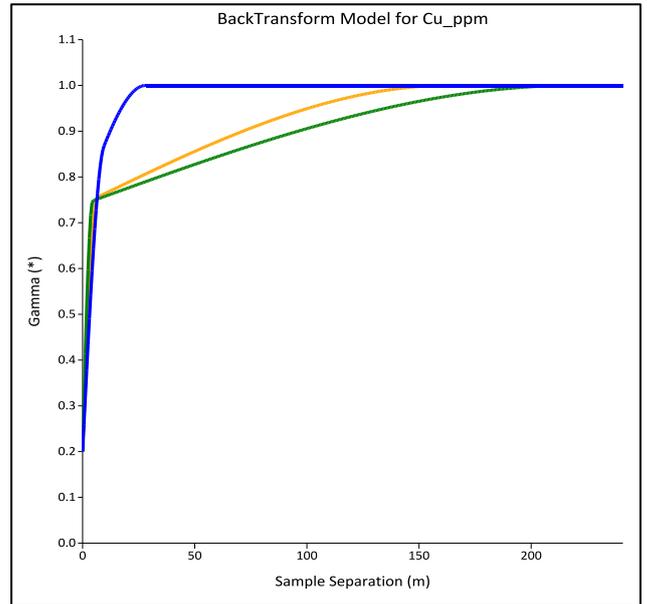
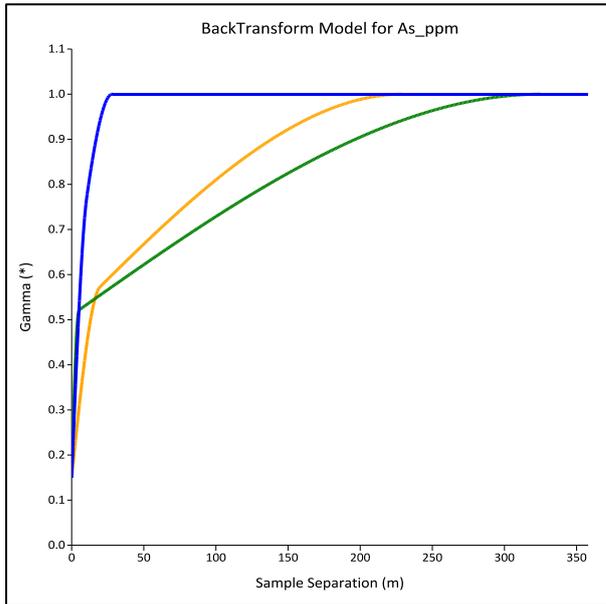
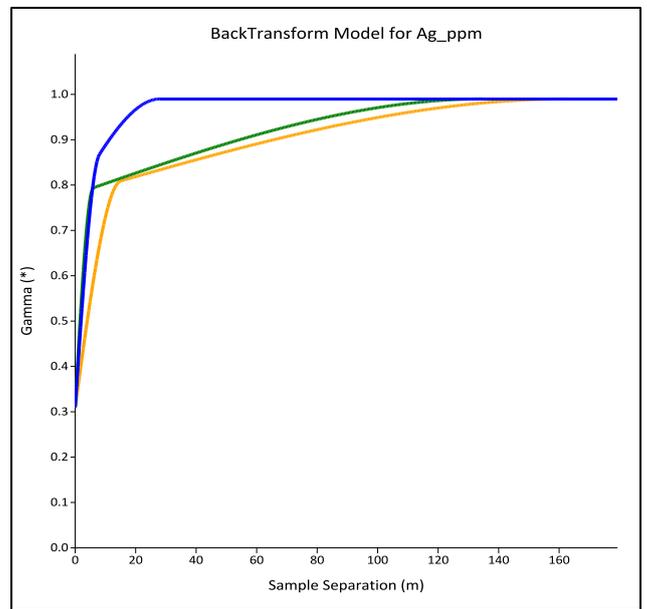
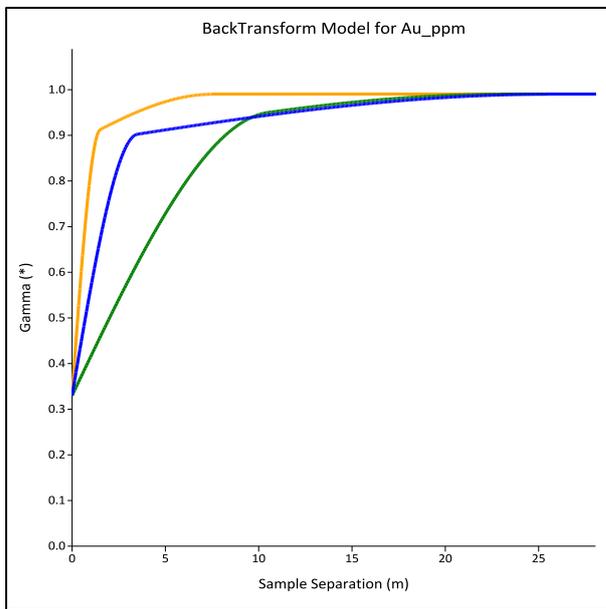
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Variograms LG Domain - Union North Zone

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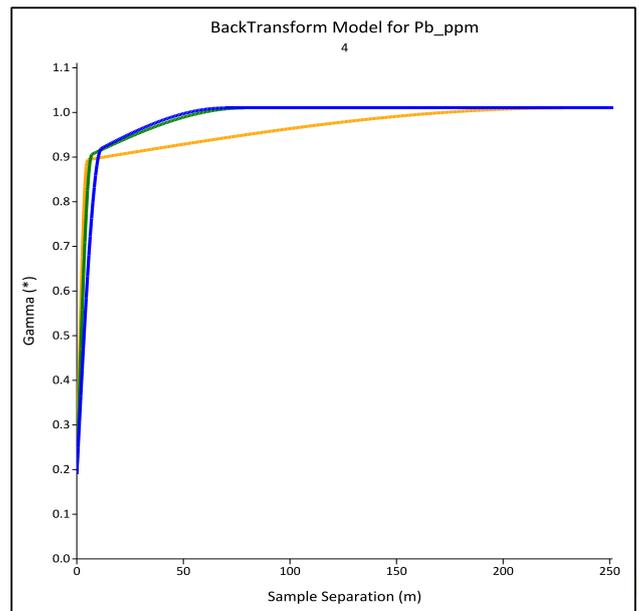
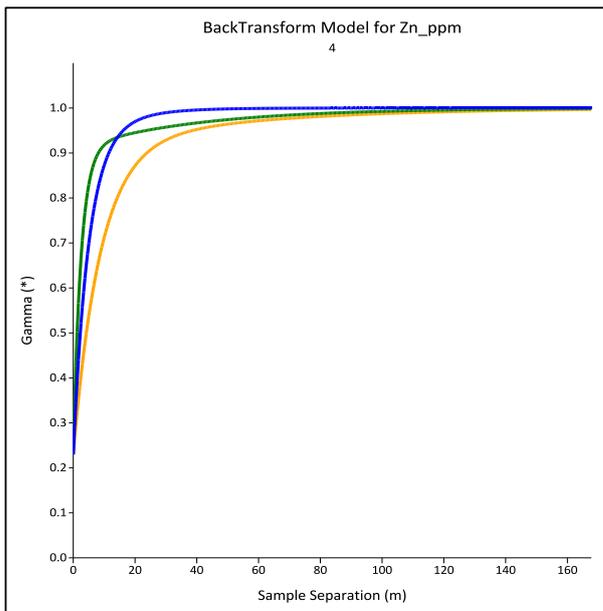
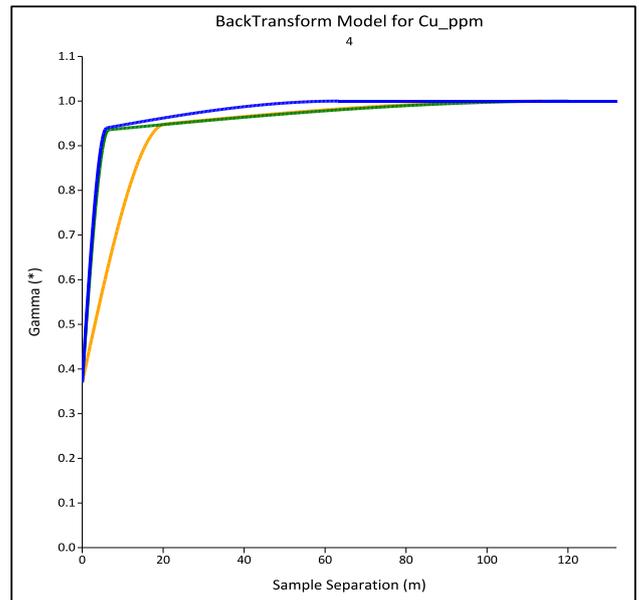
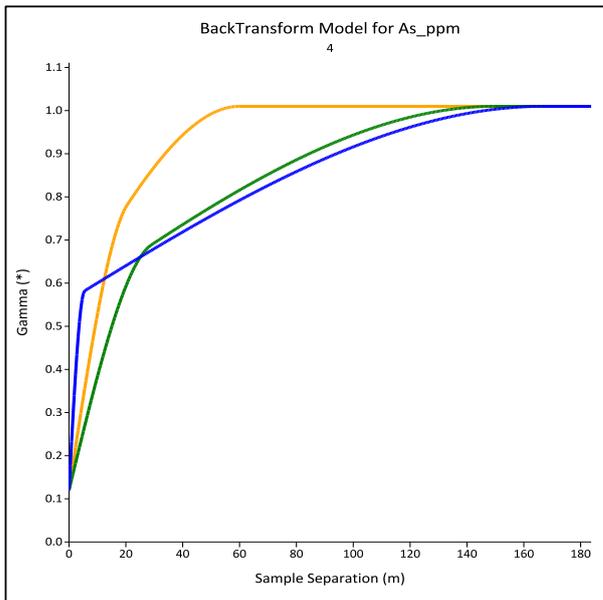
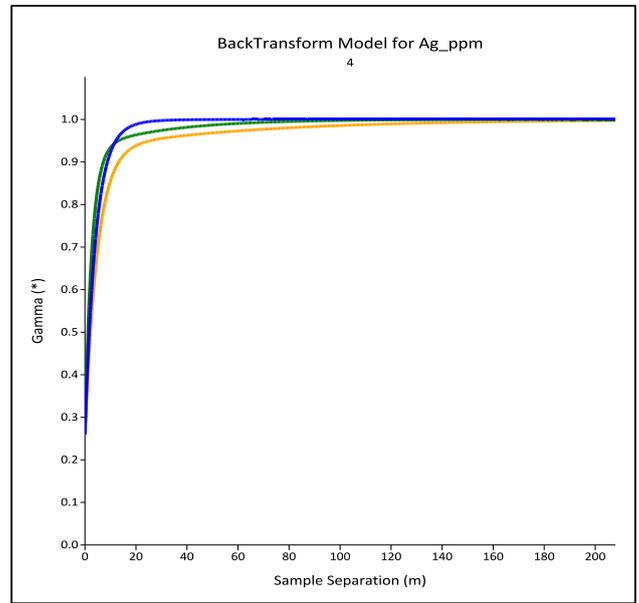
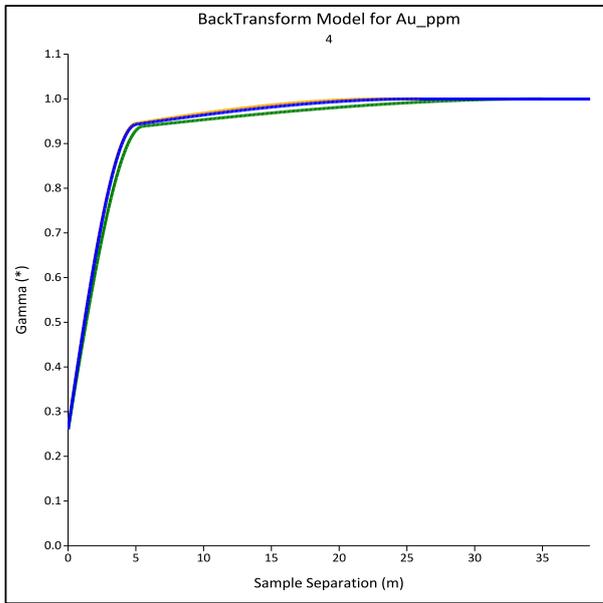
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Variograms HG Domain - Discovery Zone

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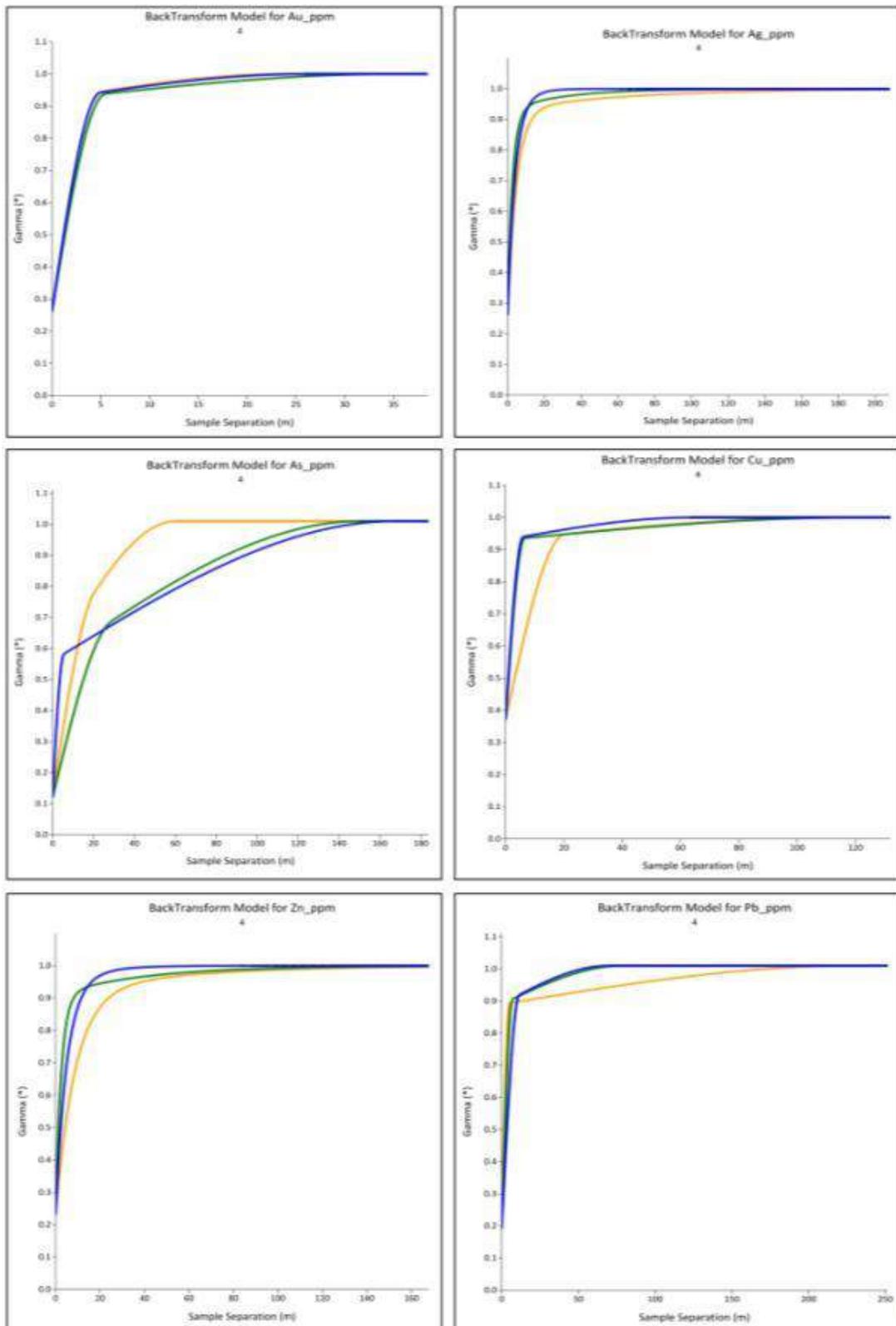
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Variograms LG Domain - Discovery Zone

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Figure 14-26 Back Transformed Variogram Model – LG Domain Discovery Zone



14.6 Mineral Resource estimation

14.6.1 Block Model

A single Surpac block model was created to encompass the full extent of the deposit. Block model parameters are listed in **Table 14-17**. The block dimensions used the model were 12.5 m NS by 5 m EW by 5 m vertical with sub-cells of 1.5625 m by 0.625 m by 0.625 m.

The parent block size was selected on the basis of kriging neighbourhood analysis (**Section 14.6.3**), while sub-cell were selected to provide sufficient resolution to the block model relative to the mineralisation wireframes in use.

Table 14-17 Altan Nar Project - Block Model Parameters

Model Name	altannar_ok_20180412.mdl		
	Y	X	Z
Minimum Coordinates	4,877,450	475,400	800
Maximum Coordinates	4,880,700	477,700	1450
Block Size (Sub-blocks)	12.5 (1.5625)	5 (0.625)	5 (0.625)
Rotation	0		
Attributes:			
au_cut	OK gold estimated using cut grades - Reportable		
au_uncut	OK uncut gold grade - Reportable		
au_eq	Au Equivalence = $au_cut+(ag_cut*0.0134)+(pb_cut*0.0000461)+(zn_cut*0.0000483)$ - Reportable		
ag_cut	OK silver estimated using cut grades - Reportable		
ag_uncut	OK uncut silver grade - Reportable		
pb_cut	OK lead estimated using cut grades - Reportable		
pb_uncut	OK uncut lead grade - Reportable		
zn_cut	OK zinc estimated using cut grades - Reportable		
zn_uncut	OK uncut zinc grade - Reportable		
cu_cut	OK copper estimated using cut grades		
cu_uncut	OK uncut copper grade		
as_cut	OK arsenic estimated using cut grades		
as_uncut	OK uncut arsenic grade		
bd	bulk density		
class	ind-Indicated, inf-Inferred		
class_code	2=ind, 3=inf		
domain	Propsect names		
mined	y=yes, n=no		
num_sam	number of informing au_cut samples		
pass_elements	OK estimation pass number per element		
pod	Pod number of wireframe (object 1-19 HG) (obj101-171 LG)		
type	air-above topo, ob-overburden, fr_min-fresh mineralisation, ox_min-oxide mineralisation, fr_was-fresh waste, ox_was-oxide waste		

14.6.2 Block Model Coding

The block model was coded with weathering type in the “type” attribute and domain codes in the “domain” attribute. **Table 14-18** below shows block model coding for the weathering type in the order they were coded, and **Table 14-19** shows block model coding for the mineralisation domains.

Table 14-18 Block Model Coding - Type

Type	Order	Assignment Methodology
fr_was	1	Fresh waste ("fr_was") - blocks below overburden (overburden_20180409.dtm) and base of oxidation surface (weathering.dtm) and outside the mineralisation (pod=0)
ox_was	2	Oxide waste (ox_was) – block below overburden (overburden_20180409.dtm) and topography (topo_20171201.dtm) and above base of oxidation surface (weathering.dtm) and outside the mineralisation (pod=0)
fr_min	3	Fresh mineralisation - blocks below overburden (overburden_20180409.dtm) and base of oxidation surface (weathering.dtm) and inside mineralisation (pod>0)
ox_min	4	Oxide mineralisation– block below overburden (overburden_20180409.dtm) and topography (topo_20171201.dtm) and above base of oxidation surface (weathering.dtm) and inside mineralisation (pod=0)
ob	5	Overburden/alluvial ("ob") – blocks above overburden (overburden_20180409.dtm) and below topography (topo_20171201.dtm)
air	6	Air ("air") - blocks above the topography surface (topo_20171201.dtm)

Table 14-19 Block Model Coding - Domain

Zone	Pod	Assignment Methodology
LG	101-171	Low grade object/wireframe – blocks within mineralised wireframe object number (101-171)
HG	1-19	High grade objects/wireframe – blocks within mineralised wireframe object number (1-19)

14.6.3 Kriging Neighbourhood Analysis

Kriging neighbourhood analysis (KNA) is conducted to minimise the conditional bias that occurs during grade estimation as a function of estimating block grades from point data. Conditional bias typically presents as overestimation of low grade blocks and underestimation of high grade blocks due to use of non-optimal estimation parameters and can be minimised by optimising parameters such as:

- block size
- size of sample search neighbourhood
- number of informing samples

The degree of conditional bias present in a model can be quantified by computing the theoretical regression slope and kriging efficiency of estimation at multiple test locations within the region of estimation. These locations are selected to represent portions of the deposit with excellent, moderate and poor drill (sample) coverage.

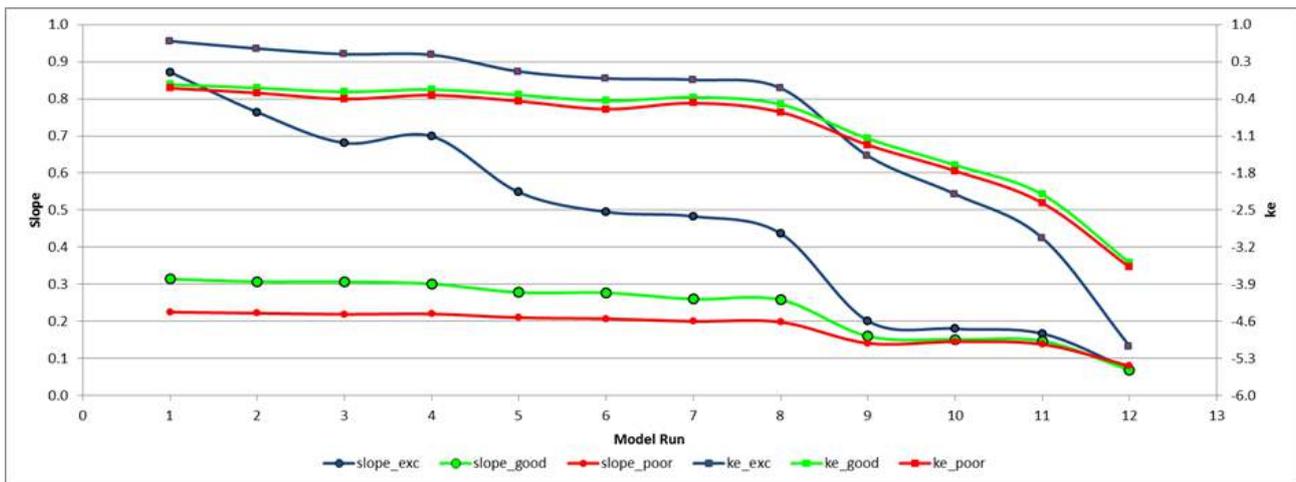
14.6.3.1 Block Size

To test the optimal block size for existing drilling at Altan Nar, single blocks within the low grade object at Discovery Zone (Object 101) were assessed at excellent, good and poor sample coverage locations. A range of block sizes were assessed for regression slope and kriging efficiency and summarised in **Table 14-20** and **Figure 14-27** below.

Table 14-20 Block Sizes Assessment

Iteration	1	2	3	4	5	6	7	8	9	10	11	12
y	5	10	10	12.5	20	20	25	25	50	50	50	100
x	5	5	5	5	5	5	5	5	10	10	20	20
z	5	5	10	5	5	10	5	10	10	20	20	20

Figure 14-27 Block Size Analysis Chart



Results from the chart above indicate that slope of regression and kriging efficiency 'sill' out around model runs four and six. These iterations represent block sizes of 12.5 m by 5 m in the Y and X planes and are deemed appropriate for the Altan Nar drill spacing of approximately 20-25 m by 20-25 m. RPM chose iteration four as the optimal block size for the Altan Nar block model as there is a higher likelihood of using a 5 m bench height in the case of any future open pit mining occurring at the Project.

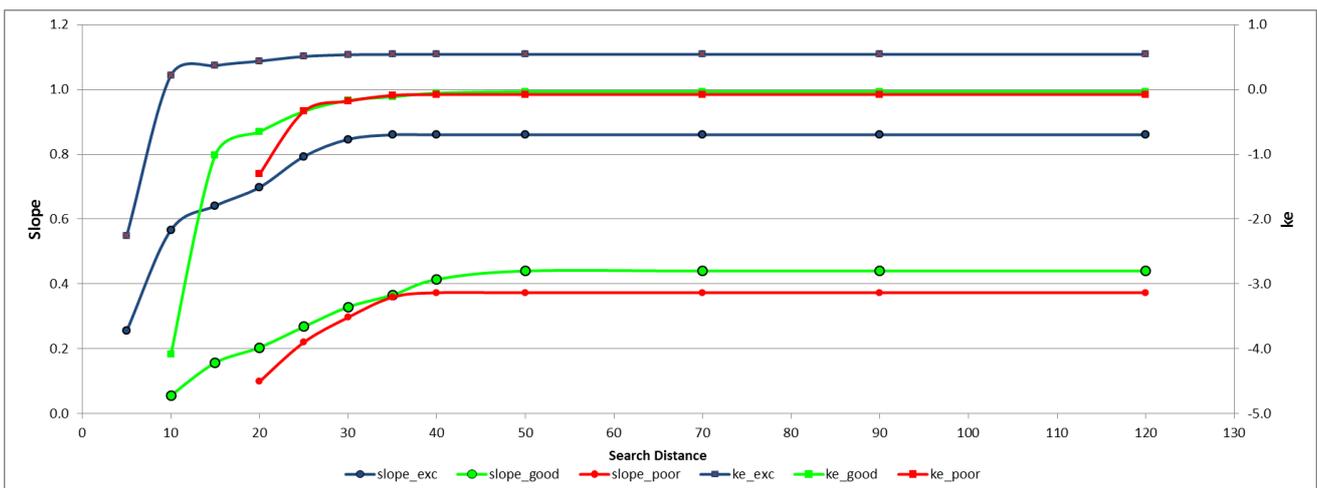
14.6.3.2 Search Distance

To test the optimal search distance, single blocks within the Low grade lode (Object 101) were assessed at excellent, good and poor sample coverage locations. A range of search radii were assessed for regression slope and kriging efficiency and summarised in **Table 14-21** and **Figure 14-28** below.

Table 14-21 Search Radii Assessed

Iteration	1	2	3	4	5	6	7	8	9	10	11	12
Search Distance (m)	5	10	15	20	25	30	35	40	50	70	90	120

Figure 14-28 Search Radii Analysis Chart



The results above were used as a guide in determining optimal search distance radii for each interpolation pass. The first interpolation pass adopted a search radius of 40 m. Further details are discussed in **Section 14**.

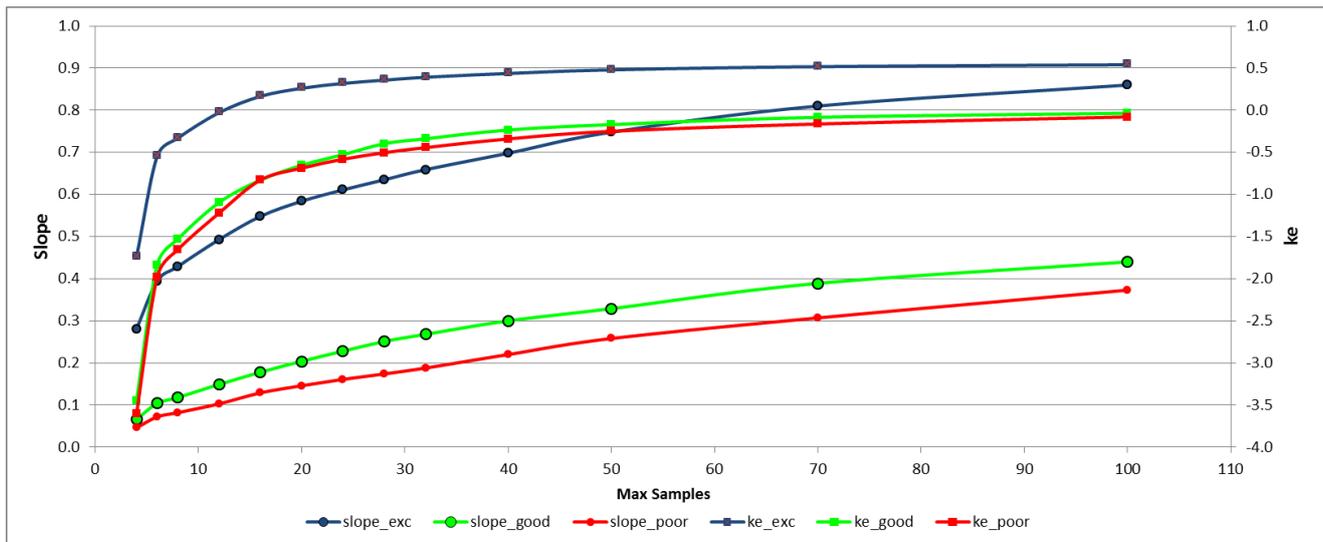
14.6.3.3 Number of Informing Samples

To test the optimal 'maximum number of samples' to be used in the kriging estimations, single blocks within the low grade lode (Object 101) were assessed at excellent, good and poor sample coverage locations. A range of maximum samples were assessed for regression slope and kriging efficiency and summarised in **Table 14-22** and **Figure 14-29** below.

Table 14-22 Maximum Number of Samples Assessed

Iteration	1	2	3	4	5	6	7	8	9	10	11	12	13
Max Sample	100	70	50	40	32	28	24	20	16	12	8	6	4

Figure 14-29 Maximum Number of Samples Analysis Chart



Based on the results above, a maximum number of 24 samples was adopted for the estimate.

14.6.4 Grade Interpolation

14.6.4.1 General

The ordinary kriging ("OK") algorithm was used for the grade interpolation and the wireframes were used as a hard boundary for the grade estimation of each object. OK was selected as it results in a degree of smoothing which is appropriate for the clustered nature of the sample density.

14.6.4.2 Search Parameters

An orientated search ellipse with an 'ellipsoid' search was used to select data for interpolation. Each ellipse was oriented based on kriging parameters and were consistent with the interpreted geology. Variogram parameters of the main lodes were applied to the associated adjacent lodes. Differences between the kriging parameters and the search ellipse may occur in order to honour both the continuity analysis and the mineralisation geometry. Search neighbourhood parameters were derived from the KNA analysis discussed in **Section 14.6.3**

Three passes were used to estimate 6 elements (Au, Ag, As, Cu, Zn and Pb) into the BM.

For the interpolation, a first pass radius of 40m and a second pass of 80m were used with a minimum number of samples of 6. A third pass search radius of 200m was used with a minimum of two samples to ensure all blocks within the mineralisation lodes were estimated. In all estimations, the maximum number of samples used in first two passes was set to 24 while 3rd pass used a maximum number of samples value of 4. The search parameters are shown in **Table 14-23**.

Table 14-23 Altan Nar Project – OK Estimation Parameters

Parameter	Pass 1	Pass 2	Pass 3
Search Type	Ellipsoid	Ellipsoid	Ellipsoid
Bearing	4° to 332°		
Dip	-85° to 89°		
Plunge	0°		
Major-Semi Major Ratio	1		
Major-Minor Ratio	6		
Search Radius	40m	80m	200
Max Vertical Search	999	999	999
Minimum Samples	6	6	2
Maximum Samples	24	24	4
Block Discretisation	2X by 4Y by 2Z	2X by 4Y by 2Z	2X by 4Y by 2Z
Percentage Blocks Filled	57%	35%	8%

14.6.5 Model Validation

A three step process was used to validate the estimates. Firstly a qualitative assessment was completed by slicing sections through the block model in positions coincident with drilling. Overall the assessment indicated that the trend of the modelled grade was consistent with the drill hole grades. A typical Au section is shown in **Figure 14-30**.

Secondly a quantitative assessment of the estimate was completed by comparing the average grades of the top-cut composite file input against the block model output for all the lodes. The comparative results are tabulated in **Table 14-24** and **Table 14-25**.

Local variations between the average grade of the estimates within some domains, when compared to the mean of the underlying sample composites, is due to a combination of the spatial distribution of the composites (particularly those at the ends of the grade range) and the number of underlying composites used in the estimation. Due to the limited number of sample composites within some of the domains, like domains were combined together to provide a coherent dataset in order to reasonably model the variography and this has potentially locally affected the estimation of grades within some of the smaller domains.

Table 14-24 Average Composite Input v Block Model Output the – LG Zone

Domain	Object	Block Model							Composites						
		Resource Volume	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t	Number of Comps	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t
DZ	101	2,309,593	0.9	10	2,762	281	4,605	3,042	1,709	1.1	12	3,563	330	4,683	3,462
DZ	102	327,653	1.2	6	418	219	3,765	3,021	72	1	5	451	195	2,519	1,891
DZ	103	132,769	0.8	6	3,023	426	2,033	936	83	0.8	7	3,474	361	2,218	896
DZ	104	31,315	1.1	4	286	134	1,064	555	18	0.8	4	216	149	844	475
DZ	105	429,672	0.5	3	1,077	119	3,478	2,236	74	0.5	4	1,365	144	3,491	2,264
DZ	106	88,935	0.2	1	576	132	2,401	1,141	67	0.2	2	618	138	2,620	1,387
DZ	107	234,832	0.6	2	391	79	1,435	1,093	67	0.6	2	469	80	1,309	890
DZ	108	65,155	0.7	2	310	129	1,036	629	15	0.7	2	288	122	915	504
DZ	109	160,948	0.7	7	2,451	112	3,634	1,702	116	0.8	8	2,607	109	3,446	1,669
DZ	110	112,321	0.2	3	46	191	982	735	29	0.3	3	50	246	967	641
DZ	111	103,295	0.2	8	64	260	2,345	2,517	21	0.2	10	68	291	2,719	2,871
DZ	112	83,336	0.5	3	127	105	10,598	8,546	22	0.6	3	120	117	11,248	8,751
UN	113	104,642	0.4	1	156	86	3,755	2,507	70	0.4	2	157	90	3,557	2,821
UN	114	106,881	1.7	4	659	332	5,745	7,460	36	1.8	5	726	367	6,229	8,604
UN	115	89,965	0.7	4	298	230	10,281	5,824	28	0.7	3	331	223	8,331	4,631
UN	116	178,574	0.7	4	226	97	3,849	1,927	68	0.5	3	239	90	3,697	1,912
UN	117	489,634	0.8	5	290	135	4,190	3,818	104	1	6	350	156	4,433	4,596
UN	118	45,925	1.9	7	82	188	2,328	6,233	28	2	7	106	207	2,487	7,359
UN	119	210,394	0.3	6	1,015	246	2,356	3,707	56	0.3	5	1,030	210	2,474	3,547
UN	120	63,964	1.3	2	171	25	2,448	2,865	76	1.2	2	164	24	2,515	2,637
UN	121	32,539	0.4	2	684	91	3,069	2,056	29	0.5	3	722	78	3,516	3,163
UN	122	98,566	1.4	8	799	280	4,842	11,205	66	1.2	9	794	276	4,635	12,054
UN	123	164,157	1.3	9	867	145	8,195	10,589	149	1.8	13	1,290	169	11,020	14,901

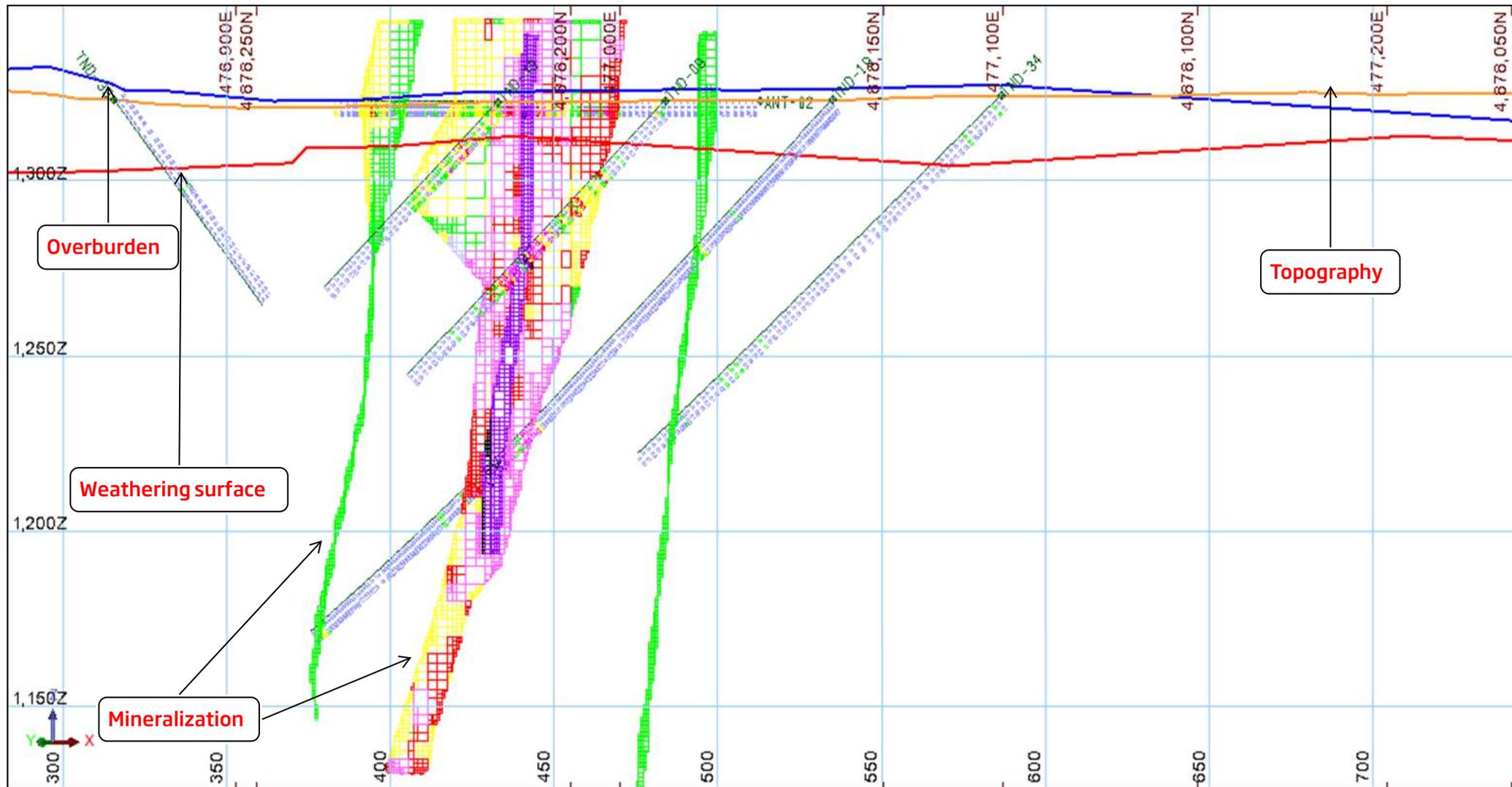
Domain	Object	Block Model							Composites						
		Resource Volume	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t	Number of Comps	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t
UN	124	105,587	1.2	6	1,274	116	6,876	7,116	78	1.9	7	1,625	126	6,618	9,088
UN	125	11,248	0.2	2	354	54	5,167	4,520	6	0.2	2	352	52	5,362	4,452
UN	126	11,696	1.9	3	851	568	7,395	6,348	9	2.1	3	845	611	7,360	7,469
UN	127	100,284	0.7	4	541	149	3,639	3,274	90	0.7	4	556	150	3,165	3,208
UN	128	13,812	0.3	1	795	68	2,603	2,049	8	0.3	1	800	68	2,578	1,966
UN	129	17,067	0.2	3	249	172	1,418	1,522	23	0.2	3	239	166	1,260	1,408
UN	130	32,589	1.6	9	56	349	3,645	10,201	23	1.7	11	55	388	3,640	9,939
UN	131	19,914	0.4	4	37	79	1,194	1,799	17	0.3	4	31	77	1,217	1,542
UN	132	7,408	0.6	10	94	164	3,562	7,879	4	0.7	11	103	157	3,505	9,643
DZ	133	23,488	0.2	1	56	89	1,670	569	6	0.2	1	51	91	1,502	464
DZ	134	14,198	0.4	1	274	66	8,122	845	5	0.4	1	272	66	8,066	860
DZ	135	11,398	0.4	1	2,318	58	1,319	761	5	0.4	1	2,284	59	1,377	788
DZ	136	22,129	0.6	3	414	116	4,427	7,788	22	0.5	3	419	115	3,905	5,600
DZ	137	149,066	0.2	1	99	109	925	243	25	0.2	1	101	92	1,141	267
DZ	138	5,361	0.3	8	2,254	215	2,456	977	7	0.4	9	4,064	209	2,837	1,137
DZ	139	8,907	0.2	1	58	290	379	91	8	0.2	1	58	290	388	93
DZ	140	7,546	0.2	2	94	54	3,068	839	4	0.2	2	92	49	2,486	652
DZ	141	11,285	0.5	10	80	201	4,844	10,384	6	0.6	10	75	220	5,722	10,700
DZ	142	8,155	0.3	10	33	479	4,803	12,986	4	0.3	9	32	420	4,218	9,870
DZ	143	4,249	1.5	31	203	174	15,669	36,455	2	1.5	31	203	174	15,669	36,450
DZ	144	34,861	0.5	7	149	89	2,160	2,558	7	0.5	6	159	90	2,046	2,261
DZ	145	32,136	0.2	1	67	50	1,961	1,045	7	0.2	2	57	59	2,260	1,302
DZ	146	34,442	0.4	2	76	65	635	270	7	0.6	2	60	56	529	212
DZ	147	14,318	0.2	7	201	83	1,995	2,235	7	0.2	7	281	76	2,058	2,303

Domain	Object	Block Model							Composites						
		Resource Volume	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t	Number of Comps	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t
DZ	148	7,183	1.5	5	102	170	3,166	1,526	3	1.7	5	99	176	3,192	1,642
DZ	149	43,188	0.2	2	197	96	1,258	1,077	26	0.2	2	216	94	1,328	1,108
DZ	150	11,816	0.3	1	76	102	508	71	8	0.3	1	69	105	432	63
DZ	151	48,224	0.3	1	78	99	810	213	21	0.3	1	77	100	836	236
DZ	152	3,246	0.4	2	2	119	241	54	4	0.4	2	2	119	241	54
DZ	153	4,581	0.5	2	29	117	4,963	1,685	4	0.4	2	28	112	3,929	1,233
DZ	154	12,459	0.6	5	71	592	6,482	2,141	6	0.6	3	66	388	3,424	1,211
DZ	155	9,528	0.3	1	242	73	247	39	4	0.3	1	242	73	247	39
DZ	156	76,552	0.1	1	116	77	1,632	790	21	0.1	1	108	74	1,533	725
DZ	157	4,005	0.2	1	482	166	1,780	902	7	0.2	1	544	147	1,936	913
DZ	158	1,694	4.1	4	67	413	5,547	3,573	3	3.4	3	72	356	4,403	2,835
DZ	159	1,135	1.7	12	16,758	252	38,408	14,627	2	1.7	12	16,700	252	38,510	14,629
DZ	160	3,422	0.1	4	293	57	9,624	14,911	5	0.1	4	306	57	8,828	12,743
DZ	161	7,726	0.2	2	150	125	12,021	3,641	6	0.2	2	159	116	8,419	2,596
DZ	162	6,188	0.2	3	906	92	2,738	2,665	7	0.2	3	941	92	2,657	2,547
DZ	163	24,939	0.6	2	133	92	2,310	1,519	8	0.5	2	150	91	2,293	1,409
DZ	164	23,348	0.2	2	97	100	3,154	2,703	8	0.2	2	94	99	3,015	2,829
DZ	165	32,408	0.3	2	65	94	1,041	463	13	0.3	3	71	99	1,112	612
UN	166	24,993	0.2	3	102	93	3,919	6,243	18	0.2	3	99	89	3,737	5,963
UN	167	55,169	0.3	3	104	151	3,039	1,200	11	0.4	3	106	159	2,903	1,161
UN	168	10,065	0.5	6	1,449	41	8,919	2,881	3	0.5	6	1,644	43	9,601	3,364
UN	169	43,934	0.4	6	802	174	12,635	8,383	9	0.4	6	779	174	11,570	8,028
UN	170	43,547	0.4	5	862	195	8,807	3,247	15	0.4	5	831	200	8,713	3,560
UN	171	20,811	4	3	190	228	3,594	3,247	6	4.6	2	194	229	3,385	2,814

Domain	Object	Block Model							Composites						
		Resource Volume	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t	Number of Comps	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t
Total		6,886,371	0.8	6	1,337	199	4,038	3,269	3,601	0.8	7	1,664	218	4,050	3,554

Table 14-25 Average Composite Input v Block Model Output – HG Zone

Domain	Object	Block Model							Composites						
		Resource Volume	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t	Number of Comps	Au_Cut g/t	Ag_Cut g/t	As_Cut g/t	Cu_Cut g/t	Zn_Cut g/t	Pb_Cut g/t
DZ	1	10,582	3.6	33	2,411	339	3,348	14,250	9	3.9	33	2,401	313	3,170	14,951
DZ	2	84,696	5.3	40	20,041	558	8,800	6,344	95	5.0	46	20,562	551	8,623	6,679
DZ	3	18,992	23.4	53	6,356	2,532	15,428	9,385	43	26.2	68	6,499	3,083	17,767	12,629
DZ	4	42,761	7.7	39	2,518	890	8,850	10,142	45	7.8	41	2,629	968	9,415	10,721
DZ	5	9,125	3.0	15	4,262	414	3,882	2,624	9	3.5	14	4,279	369	3,760	2,921
DZ	6	15,112	2.6	15	573	413	7,093	4,771	13	2.8	16	589	474	7,869	5,403
DZ	7	23,611	3.8	12	139	299	7,898	5,893	12	4.1	11	140	293	7,500	6,401
DZ	8	10,516	4.9	44	21,347	485	4,615	1,923	12	4.8	38	19,932	415	4,770	1,929
DZ	9	8,171	4.5	14	5,819	639	4,284	1,506	8	4.8	14	6,642	612	4,344	1,626
UN	10	32,785	7.6	30	4,094	373	26,298	36,849	40	7.9	36	4,278	364	27,070	41,670
UN	11	18,253	6.2	35	2,972	647	6,653	58,747	12	6.1	30	2,881	672	6,375	53,503
UN	12	18,546	6.7	15	2,479	236	6,376	19,207	20	6.8	14	2,522	207	6,288	19,623
UN	13	11,038	3.0	2	151	17	2,521	2,802	16	3.1	2	168	17	2,394	2,770
UN	14	25,812	4.7	11	210	284	11,448	15,543	8	4.8	13	214	291	12,236	16,201
UN	15	15,958	5.6	27	65	510	5,767	18,980	7	5.5	24	63	495	6,286	19,371
UN	16	37,557	7.0	22	1,703	1,082	14,906	36,207	9	7.4	14	1,753	1,061	16,363	28,722
UN	17	5,944	4.1	12	700	236	12,168	11,413	7	4.1	11	698	218	11,650	11,803
UN	18	27,238	5.1	8	121	261	2,831	8,580	11	4.9	8	137	288	2,776	9,237
DZ	19	4,942	9.6	7	129	76	1,372	3,047	2	9.6	7	129	76	1,372	3,047
Total		421,638	6.4	27	6,140	612	9,719	15,690	378	6.6	29	6,262	640	10,078	15,642



LEGEND

Au_cut

Undefined	0.10->0.30	0.06->1.00	4.00->10.00
-1.00->0.10	0.03->0.60	1.00->4.00	10.00->999.00

0 250 500
m

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CLIENT



Erdene Resource Development

PROJECT

NAME
ALTAN NAR DEPOSIT

DRAWING
Au Block Grades Sectional Validation

FIGURE No. 14-30	PROJECT No. ADV-MN-00156	Date May 2018
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Thirdly, to check that the interpolation of the block model correctly honoured the drilling data, validation was carried out by comparing the interpolated blocks to the sample composite data for the combined high and low grade lodes at each prospect. The trend analysis was completed by comparing interpolated blocks to the sample composite data for elevation in 20m bench heights. The strike orientation of the lodes at all zones, and the use of a rotated block model required the use of 20-30m wide panels to conduct the swath analysis across deposit. The trend analysis results for Au, Ag, Zn and Pb are shown in **Figure 14-31** and **Figure 14-32**.

The validation plots show good correlation between the composite grades and the block model grades when compared by panel and elevation. The trends shown by the composite data are honoured by the block model. The direct observation of sections on screen show that the model estimate has honoured the drill hole data at the local scale.

The comparisons show the effect of the interpolation, which results in smoothing of the block grades compared to the composite grades. RPM considers the estimate is representative of the composites and is indicative of the known controls of mineralisation and the underlying data.

Figure 14-31 Block Model Validation by Panels DZ Zone All HG objects Combined

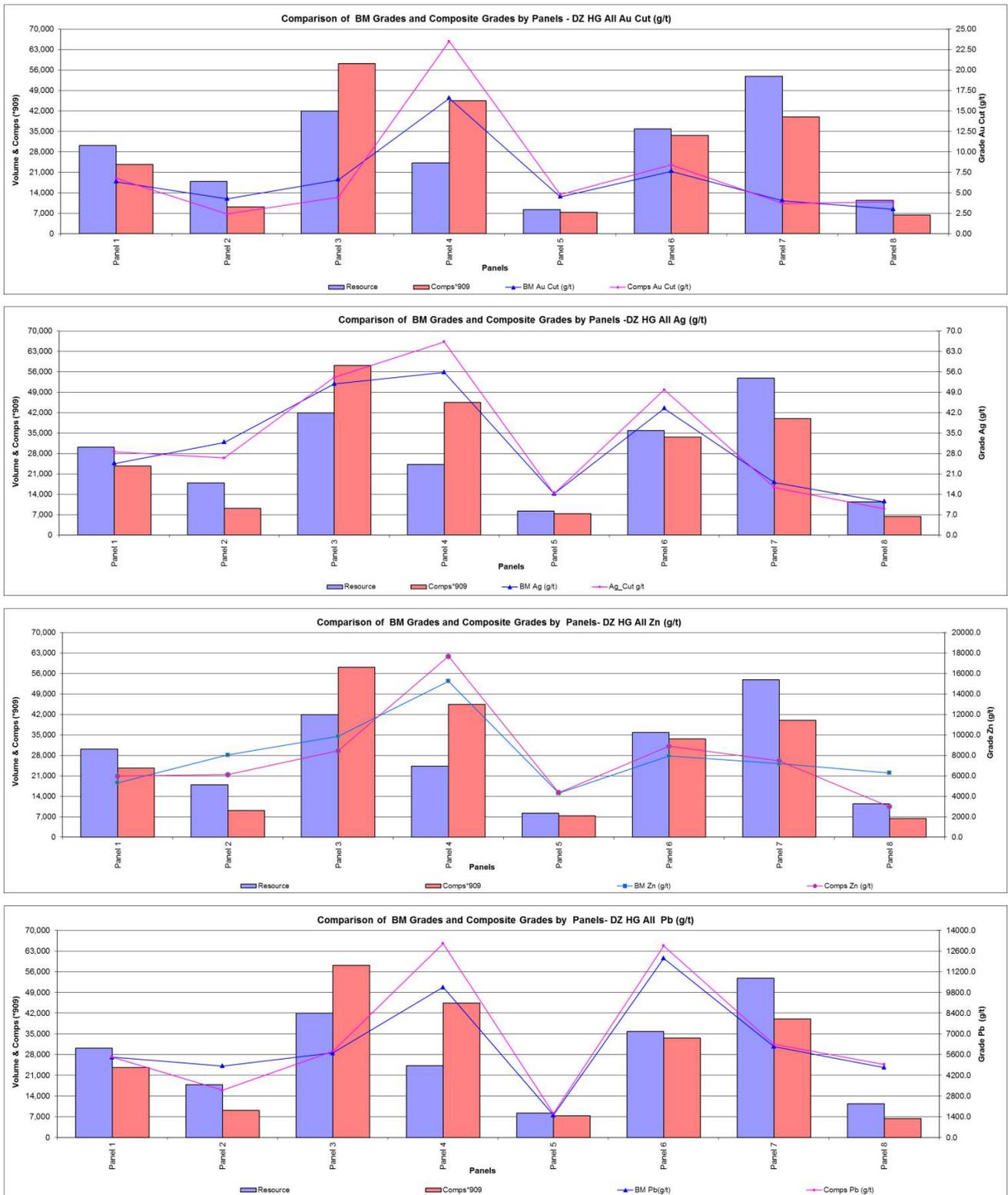
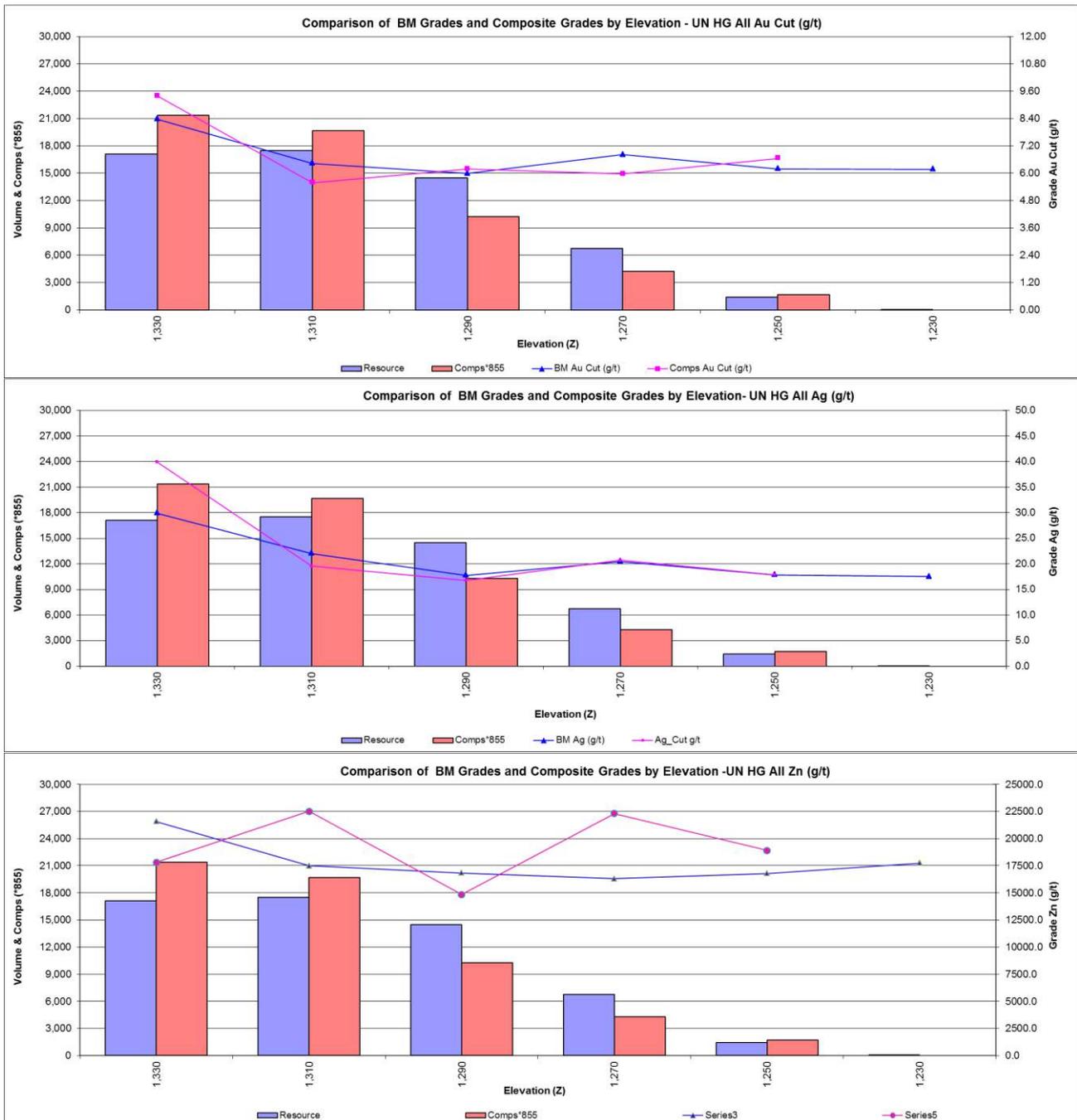
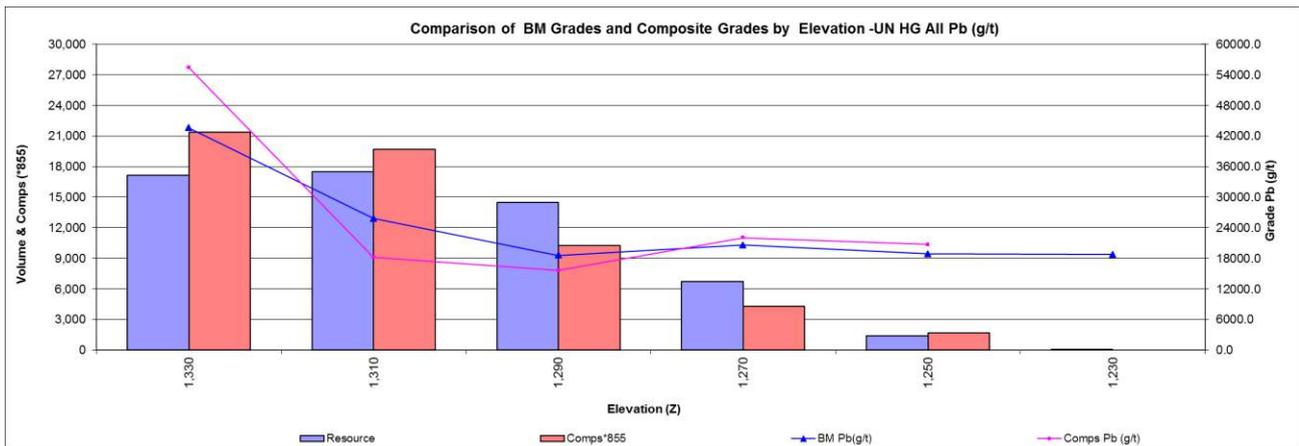


Figure 14-32 Block Model Validation by Elevation Union North Zone All HG objects Combined





14.6.6 Mineral Resource Classification

The Altan Nar deposit shows good continuity within the main mineralised lodes which allowed the drill hole intersections to be modelled into coherent, geologically robust wireframes. Consistency is evident in the thickness of the structure, and the distribution of grade appears to be reasonable along strike and down dip.

The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity.

The Indicated Mineral Resource was confined to the Main deposit within areas of close spaced diamond drilling of 50m by 50m or less, and where the continuity and predictability of the lode positions was good. This spacing was deemed appropriate for the application of Indicated Mineral Resource after considering the reasonable mineralisation and grade continuity, the relatively low to moderate nugget effect, low coefficient of variance statistics and variogram ranges of between 40 and 100m depending on the element and domain.

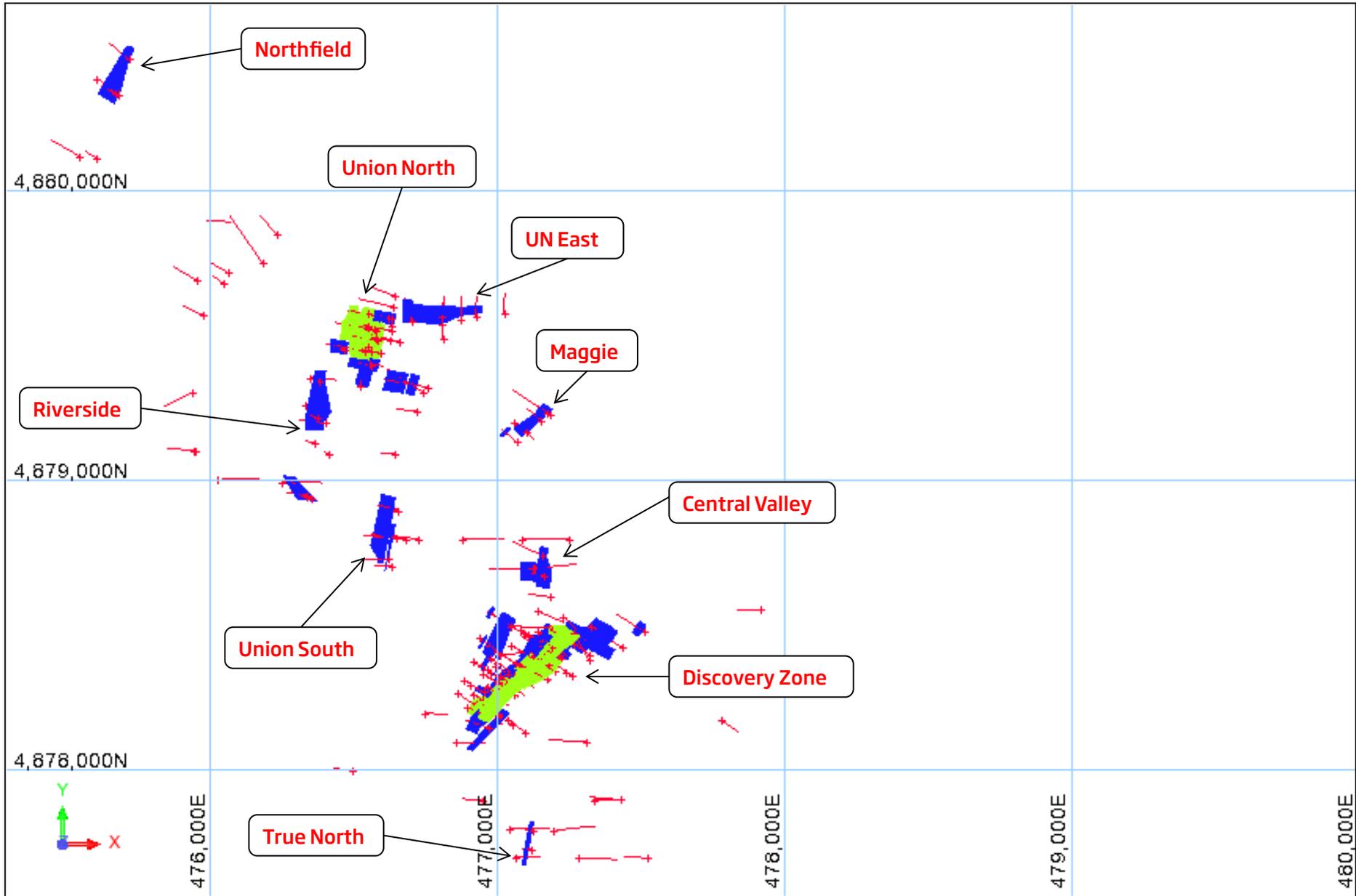
The Inferred Mineral Resource was assigned to areas of the deposit where drill hole spacing was greater than 50m by 50m, where small isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones. RPM notes that the likely drilling spacing for measured would be 25m, of which there is a portion in the resource. No measured resources were classified due to the low correlation of the bulk density regression. Upon further testwork this will be reviewed.

The resource block model has an attribute “class” for all blocks within the resource wireframes coded as either “ind” for Indicated or “inf” for Inferred. The Plan view of Mineral Resource classification is shown in **Figure 14-33** and detailed classification illustration shown in **Figure 14-34** and **Figure 14-35**.

The extrapolation of the lodes along strike has been limited to a distance equal to the previous section drill spacing or to 20-25 m. Extrapolation of lodes down-dip has been limited to a distance equal to the previous down-dip drill spacing or to 50m. Areas of extrapolation have been classified as Inferred Mineral Resource.

Internal audits have been completed by RPM which verified the technical inputs, methodology, parameters and results of the estimate. The lode geometry and continuity has 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. The Mineral Resource statement relates to global estimates of tonnes and grade.

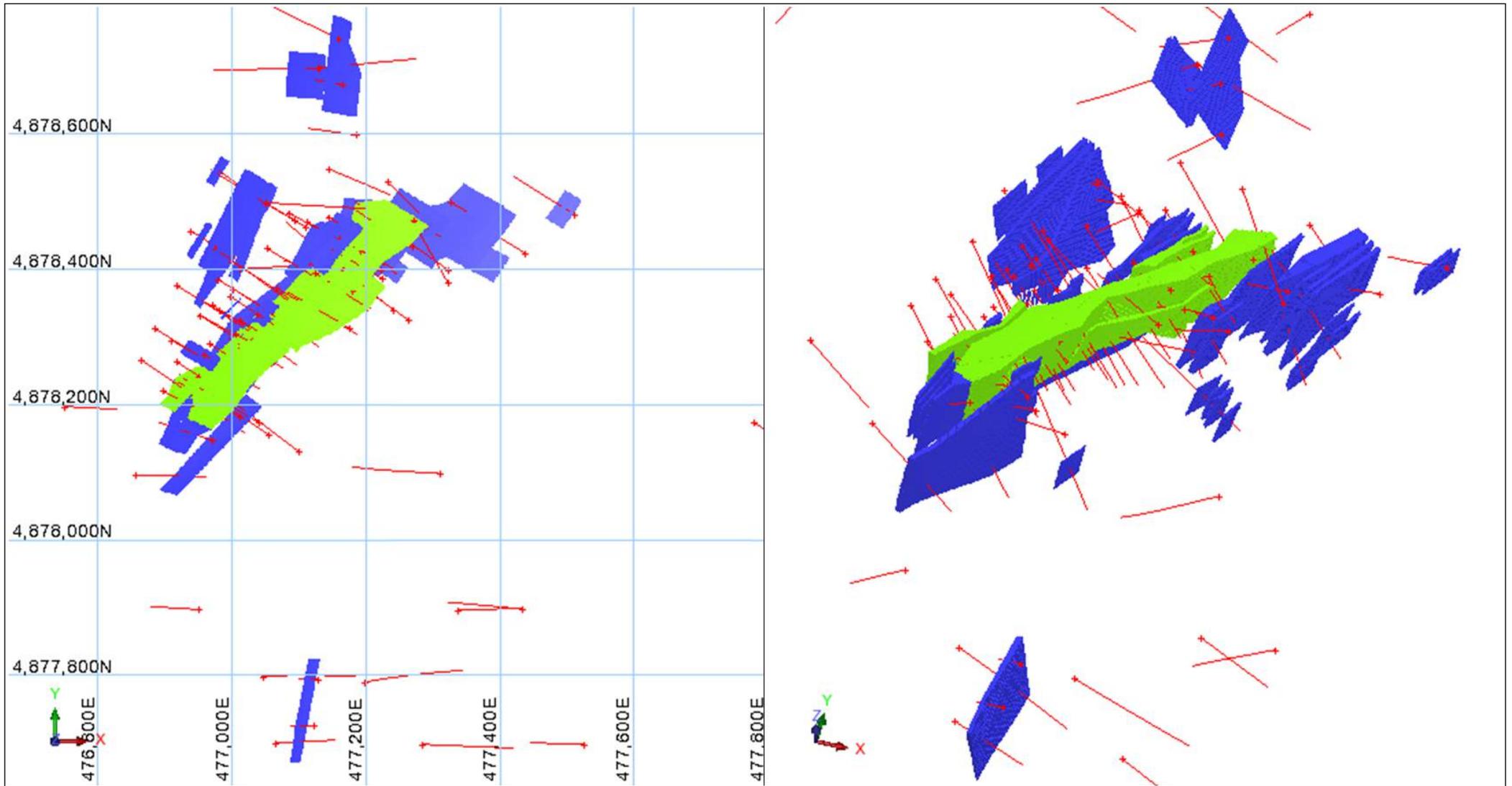
This Report has been prepared in accordance with NI 43-101 and discloses a Mineral Resource Estimate (“MRE”).



LEGEND		
■ Indicated	■ Inferred	+ Drill hole

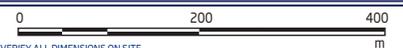
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CLIENT	PROJECT	
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT	
	DRAWING Mineral Resource Classification - Plan View	
	FIGURE No. 14-33	PROJECT No. ADV-MN-00156



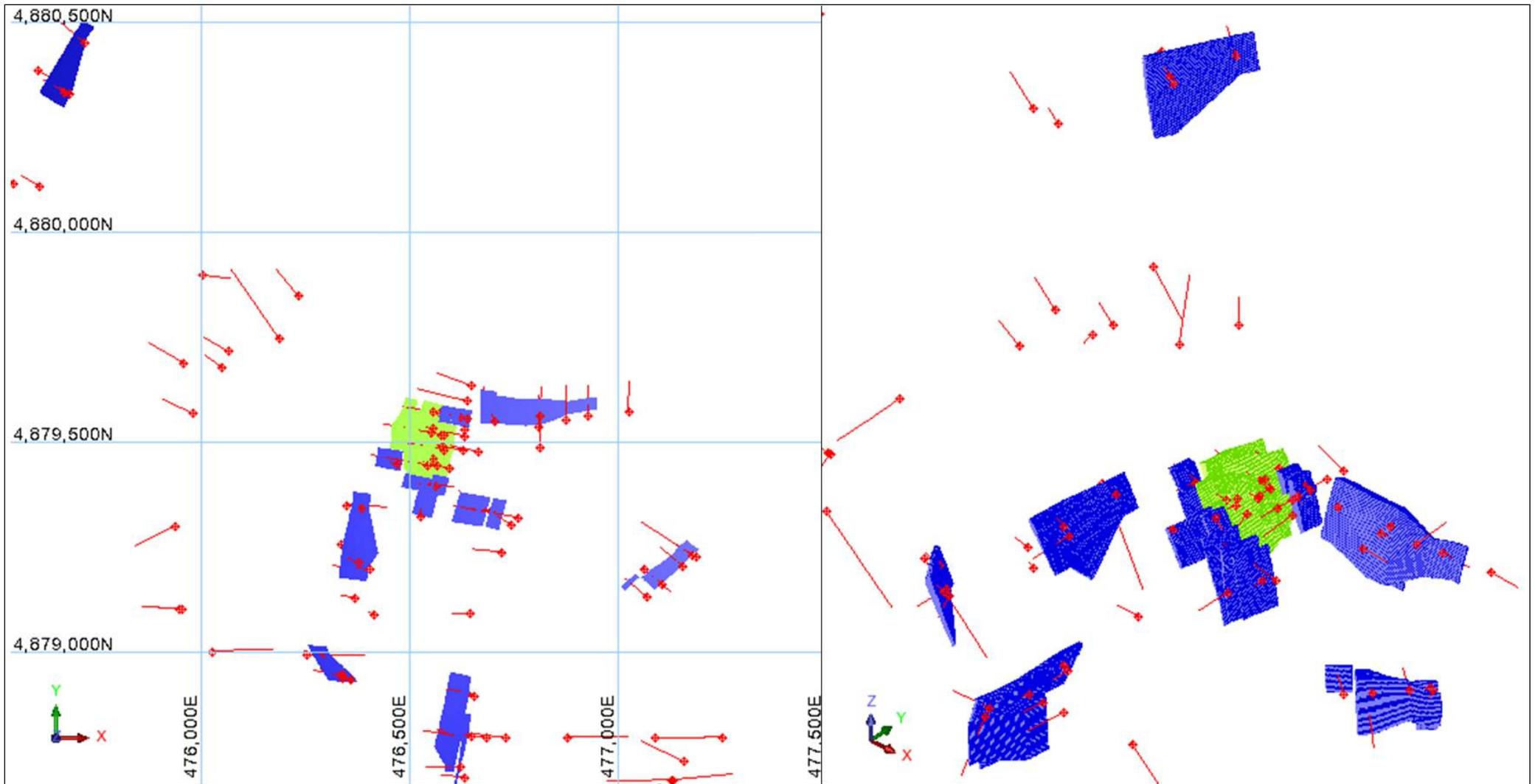
LEGEND		
■ Indicated	■ Inferred	— Drill hole

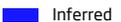




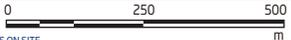
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CLIENT	PROJECT
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT
	DRAWING Mineral Resource Classification - Southern Area
	FIGURE No. 14-34
	Date May 2018



LEGEND		
	Indicated	
	Inferred	Drill hole





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CLIENT	PROJECT	
 Erdene Resource Development	NAME ALTAN NAR DEPOSIT	
	DRAWING Mineral Resource Classification - Northern Area	
FIGURE No. 14-35	PROJECT No. ADV-MN-00156	Date May 2018

14.6.7 Mineral Resource Statement

RPM has independently estimated the Mineral Resources contained within the Project, based on the data collected by ERD as at 1st February, 2018. The Mineral Resource estimate and underlying data complies with the guidelines provided in the CIM Definition Standards under NI 43-101 and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines. Therefore RPM considers it is suitable for public reporting. The Mineral Resources were completed by Mr. David Princep of RPM and under the supervision of Mr. Jeremy Clark of RPM. The Mineral Resources are reported at a number of Au Equivalent cut-off values.

The Statement of Mineral Resources has been constrained by the topography, and a cut off 0.7 g/t AuEq above a nominal pit shell and 1.4 g/t AuEq below the same pit shell.

The results of the Mineral Resource estimate for the Altan Nar deposit are presented in **Table 14-26** and RPM has reported the resource at different AuEq cut-off grades in **Table 14-27**. RPM suggests using a 0.7 g/t AuEq above pit and 1.4g/t AuEq below the pit shell as a reporting cut-off based on a mining / process and cost parameters for the Project.

Table 14-26 Altan Nar Deposit May 2018 Mineral Resource Estimate (0.7g/t AuEq Cut-off above pit and 1.4g/t AuEq below pit)

Type	Indicated Mineral Resource										
	Quantity Mt	Au g/t	Ag g/t	Zn %	Pb %	AuEq g/t	Au Koz	Ag Koz	Zn Kt	Pb Kt	AuEq Koz
Oxide	0.6	2.0	12.7	0.6	1.0	3.1	39.3	244.3	3.8	6.3	59.6
Fresh	4.4	2.0	15.0	0.6	0.5	2.8	278.4	2,105.4	27.8	22.7	393.4
Total	5.0	2.0	14.8	0.6	0.6	2.8	317.7	2,349.7	31.6	29.0	453.0

Type	Inferred Mineral Resource										
	Quantity Mt	Au g/t	Ag g/t	Zn %	Pb %	AuEq g/t	Au Koz	Ag Koz	Zn Kt	Pb Kt	AuEq Koz
Oxide	0.8	1.8	7.5	0.6	0.9	2.6	43.3	183.7	4.3	6.5	64.2
Fresh	2.7	1.7	8.0	0.7	0.6	2.5	142.4	682.1	19.4	15.8	212.8
Total	3.4	1.7	7.9	0.7	0.7	2.5	185.7	865.8	23.7	22.3	277.1

Note:

- The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Jeremy Clark who is a full-time employee of RPM and a Member of the Australian Institute of Geoscientists. Mr. Clark has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Qualified Person as defined in the CIM Standards of Disclosure.
- All Mineral Resources figures reported in the table above represent estimates based on drilling completed up to 7th May, 2018. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
- *Au Equivalent (AuEq) calculated using long term 2023 - 2027 "Energy & Metals Consensus Forecasts" March 19, 2018 average of USD 1310/oz for Au, USD 17.91/oz for Ag, USD 1.07/pound for Pb and USD 1.42/pound for Zn. Adjustment has been made for metallurgical recovery and is based company's preliminary testwork results which used flotation to separate concentrates including a pyrite concentrate with credits only for Au and Ag. Based on grades and contained metal for Au, Ag, Pb and Zn, it is assumed that all commodities have reasonable potential to be economically extractable.
 - The formula used for Au equivalent grade is: $AuEq\ g/t = Au\ g/t + Ag\ g/t * 0.0124 + Pb\ % * 0.509 + Zn\ % * 0.578$ with metallurgical recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn.
 - Au equivalent ounces are calculated by multiplying Mineral Resource tonnage by Au equivalent grade and converting for ounces. The formula used for Au equivalent ounces is: $AuEq\ Oz = [Tonnage\ x\ AuEq\ grade\ (g/t)] / 31.1035$.
- Mineral Resources are reported on a dry in-situ basis.
- Reported at a 0.7 g/t AuEq cut-off above pit shell and 1.4g/t AuEq below the pit shell. Cut-off parameters were selected based on an RPM internal cut-off calculator, which indicated that a break-even cut-off grade of 0.7g/t Au Equivalent above pit and 1.4g/t AuEq below pit, assuming a gold price of USD 1310 per ounce, an open mining cost of USD 6 per tonne and a processing cost of USD 20 per tonne milled and processing recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn.
- Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability

Table 14-27 Mineral Resource Estimate At various AuEq Cut-offs

AuEq g/t Cutoff	Classification	Tonnes Mt	Au g/t	Ag g/t	Zn %	Pb %	AuEq g/t	Au Koz	Ag Koz	Zn Kt	Pb Kt	AuEq Koz
0	Indicated	5.8	1.7	12.9	0.6	0.5	2.5	324.6	2,430.7	33.7	30.1	466.6
0	Inferred	4.1	1.5	7.0	0.6	0.6	2.2	190.8	919.2	24.9	23.0	286.2
0.4	Indicated	5.6	1.8	13.5	0.6	0.5	2.6	323.2	2,412.4	33.2	29.9	463.9
0.4	Inferred	3.7	1.6	7.5	0.7	0.6	2.3	188.9	901.4	24.5	22.8	282.9
0.7	Indicated	5.0	2.0	14.8	0.6	0.6	2.8	317.7	2,349.7	31.6	29.0	453.0
0.7	Inferred	3.4	1.7	7.9	0.7	0.7	2.5	185.7	865.9	23.7	22.3	277.1
1	Indicated	4.2	2.3	16.6	0.7	0.7	3.2	305.6	2,212.5	28.6	27.4	431.2
1	Inferred	3.2	1.8	8.2	0.7	0.7	2.7	182.2	837.5	22.8	21.5	270.2
1.4	Indicated	3.3	2.7	18.9	0.8	0.8	3.8	285.4	2,002.0	24.9	25.2	397.9
1.4	Inferred	2.9	1.9	8.6	0.8	0.7	2.8	175.6	795.3	21.5	20.4	258.8
1.7	Indicated	2.8	3.0	20.3	0.8	0.8	4.1	271.7	1,850.3	22.7	23.6	375.5
1.7	Inferred	2.7	2.0	8.9	0.8	0.7	2.9	170.1	769.5	20.6	19.6	250.1
2	Indicated	2.5	3.2	21.4	0.8	0.9	4.4	258.2	1,716.4	20.9	22.3	354.9
2	Inferred	2.6	2.0	9.1	0.8	0.7	2.9	165.0	749.2	20.0	19.0	242.6

Note: Figures in above table reported the resource at various AuEq cutoff above pit and added material below pit using 1.4g/t AuEq Cut-offs.

14.6.7.1 Selection of Reportable Cut-off Grade

A pit shell was utilised to determine the maximum depth of potential open pit mining, within which the above cut off grades were utilised to report the Mineral Resource using a USD\$1,570 per ounce price (with the below costs and recoveries) (20% above the USD\$1,310 per ounce optimisation price).

The pit sell selected was the 1.2 Revenue Factor pit shell generated using the following parameters which are based on RPM internal cost pricing within the Mongolia and the preliminary metallurgical study completed:

- Metal Prices, RPM notes this is based on the eventual extraction sometime in the future and not the long term consensus forecast:
 - Gold: USD 1,310 per ounce.
 - Silver: USD 18 per ounce.
 - Lead: USD 2,400 per tonne.
 - Zinc: USD 3,100 per tonne
- Mining Cost of USD 6.0 /tonnes rock;
- A re-blocked model to 10m N, 5m E and 5 m Z, which is considered the SMU, with 5% dilution included, and 10% ore loss was applied;
- Processing costs of USD 20 per tonne milled, and
- Processing recoveries of:
 - Gold: 88%.
 - Silver: 81%.
 - Lead: 81%.
 - Zinc: 60%

RPM highlights that the pit optimisations were used to define the depth of the various cut off grades to report the Mineral Resource, however the cut off grades applied were estimated based on a gold price of USD 1,570. Furthermore it is noted that given the long strike length and variation in mineralisation tenure the potential open pit depth varies, as such the application of a consistent depth is considered not appropriate and the use of a pit optimisation to define variable depths is suitable.

USD 1,570 was selected to determine the maximum depth of potential open pit mining based on historical prices (last 5 years). RPM notes that this price is above the current long term forecast, however notes that the gold price has been significantly higher in the past 5 years, as such has utilised a higher price to determine the **maximum** depth of potential open cut mining.

To determine the potential Underground mining cut-off grade an open stopping method was assumed resulting in a total mining cost of USD 35 per tonne.

While a detailed schedule and option analysis has not been completed to confirm the optimal mining method, given the sub vertical continuous style of mineralisation within sheet like shears occurring near surface within the currently defined resource areas, open pit mining is likely to be appropriate, pending the option analysis. Additional mining design and more detailed and accurate cost estimate mining studies and testwork are required to confirm viability of extraction.

RPM notes that these pit shells were completed to report the resource contained within to demonstrate reasonable prospects for eventual economic extraction and highlights that these pits do not constitute a scoping study or a detailed mining study which along with additional drilling and testwork, is required to be completed to confirm economic viability. It is further noted that in the development of any mine it is likely that given the location of the Project that CAPEX is require and is not included in the mining costs assumed. RPM has utilised operating costs based on in-house databases of similar operations in the region and processing recoveries based on preliminary testwork as outlined in Section 13, along with the price noted above in determining the appropriate cut-off grade. Given the above analysis RPM considers both the open pit and material below the pit demonstrates reasonable prospects for eventual economic extraction, however highlights that additional studies and drilling is required to confirm economic viability.

14.6.8 Risk and Opportunities

The key risks to the Project include:

- **Structural Complexity:** The Project exhibits a moderate to high degree of structural complexity. The mineral resource block model is defined by drilling on a 50m by 50m drill spacing with some areas with 25m by 25m, therefore there is potential for tonnage and overall geometry variations between modelled and actual mineralisation. RPM does not envisage any material variations in the closer spaced drilling areas, however this could potentially occur in the areas of greater than 50m spacing, as a result these areas are classified as Inferred.
- **QAQC:** Sampling and assaying methodology and procedures were satisfactory for the ERD drilling. QAQC protocols were adequate and review of the data did not show any consistent bias or reasons to doubt the assay data. Slight underestimation of higher grades Au(8.0g/t) and Ag(10 g/t) has been observed in the OREAS62c standard for the 2015 drilling, as well as slight underestimation of Au(9.2 g/t) grade was also observed in OREAS62e for 2016 drilling. For 2017 the OREAS 62E Au standard performed very well with majority of the results falling within two standard deviations (SD); however Ag standards showed poor performance as most of the results fall outside 2SD. There were no potential run of mine grade base metals standards inserted in the QAQC protocols and there is a low to moderate risk to the accuracy of base metal assays. RPM does however note that any variation will not be material to the resources quoted with the classification applied.
- **High Grade Variability:** Geostatistical analysis generated models of spatial grade continuity that reflected the geological understanding of the deposit. The modelled nugget effect is relatively low and a significant proportion of the variance occurs within the scale of the block dimensions resulting in a moderate degree of smoothing which is evident in the block model.
- **Barren Dykes:** Number of significant barren dykes have been mapped and logged at the Union North, Maggie and Union East Zones. These dykes have been modelled by RPM and no grades have been estimated within these units. The interpretation of these dykes is, at present, based on wide spaced 25-100m sections. A better understanding of the dyke geometry will be gained through closer spaced infill and extensional drilling. There is a moderate risk that the dykes could actually be similar to those currently modelled as infill holes recorded the same barren dykes mapped at the surface.
- **Bulk Density:** The bulk density regression utilised in the estimate has a relatively low correlation. RPM however considers that this regression is a better reflection of the tonnage variations than an average of the densities, or an estimate due to the limited numbers of determinations. With further density samples it is likely a better correlation will be interpreted which will be reflected in the local tonnage variation. RPM

envisages no material variations occur, however some changes are likely, as such no measured resources are classified.

- **High Grade Continuity:** Structural control on high grade zones not well understood with mineralisation tending to discontinue in some places at Discovery Zone as a result of (likely) post-mineralisation faulting.

The key opportunities for the Project include:

- **Resource Expansion:**
 - RPM considers there is good potential to expand the currently defined resource with further drilling. Mineralisation is open north and south of the currently defined Mineral Resource, where several medium to high grade intersections occur. RPM recommends targeting near surface medium to high grade mineralisation, which if successfully delineated will potentially have a positive impact on any mining study undertaken on the Project.
 - Mineralisation is open along strike and down-dip at all prospects and extensional drilling of the main zones may delineate continuations of the known mineralisation, some of which may be high grade. Significant amount of high grade base metal anomalism observed in Central valley, Maggie, and the north-eastern extension of the DZ area where no significant gold mineralisation was observed. However RPM notes that scout holes drilled at some of the prospects didn't intersect any potential gold mineralisation where surface trenching program intersected high grade gold mineralisation.
- **Multiple Generations:**
 - The narrow high grade Au, Ag mineralisation intersected at Main mineralisation zones has been observed to share closer affinities with narrow polymetallic quartz veins. These may form part of a separate mineralisation event, or represent a marginal feature to the main zone. Regardless of genetic relationships, these narrow vein targets do represent an additional exploration opportunity and further works are required to confirm the interpretation.
 - There is a significant amount of vein like, sometimes broader, high grade base metal zones with lower gold grades intersected in holes outside current modelled mineralisation areas and these areas present an additional exploration opportunity for high grade base metal and possible gold mineralisation.

14.6.9 Dilution and Ore Losses

The block model is undiluted with no ore loss factors applied; as a result appropriate dilution and ore loss factors must be applied for any economic reserve calculation.

14.6.10 Other Information

RPM is not aware of any other factors, including environmental, permitting, legal, title, taxation, socio-economic, marketing and political or other relevant factors, which could materially affect the Mineral Resource.

15 Mineral Reserve Estimates

Not included in this NI43-101 Report because of the early stage of Project investigation.

16 Mining Methods

Not included in this NI43-101 Report because of the early stage of Project investigation.

17 Recovery Methods

Not included in this NI43-101 Report because of the early stage of Project investigation.

18 Project Infrastructure

Not included in this NI43-101 Report because of the early stage of Project investigation.

19 Market Studies and Contracts

Not included in this NI43-101 Report because of the early stage of Project investigation.

20 Environmental Studies, Permitting and Social and Community Impact

Not included in this NI43-101 Report because of the early stage of Project investigation.

21 Capital and Operating Costs

Not included in this NI43-101 Report because of the early stage of Project investigation.

22 Economic Analysis

Not included in this NI43-101 Report because of the early stage of Project investigation.

23 Adjacent Properties

There are no adjacent properties with similar publically well-known mineralisation to provide comparative mineralisation characteristics. However, the Project is situated in a well mineralised belt with the ERD owned Zuun Mod porphyry molybdenum / copper deposit situated 40km east of the Project. The Zuun Mod project was described in the NI43-101 Report titled “Erdene Resource Development Corp., Zuun Mod Porphyry Molybdenum Copper project, by Minarco Mine Consult, June 2011”. Bayan Khundi gold deposit also located 20km south of Altan Nar deposit which is fully owned by ERD and significant resource delineation drilling is in progress at the site. Recently ERD has acquired significant white mica altered porphyry target adjacent to the Bayan Khundi project. The heat and fluid involved in the formation of the Altan Nar mineralisation may be derived from similar intrusion related hydrothermal systems at depth under the wider Altan Nar area, however further analysis is required to confirm this interpretation.

There is potential for a number of other deposits to be found in this apparently well mineralised belt which has previously not been well explored.

24 Other Relevant Data and Information

24.1 Project Development

RPM notes the following through discussion with the Company:

- ERD plans to commence a Preliminary Economic Assessment (PEA) study, in accordance with the requirement of NI 43-101, for the global resource of the Project. The PEA will provide a high-level economic evaluation of the Project.
- ERD plans to carry out the necessary studies required to register the mineral resource in accordance with the terms and conditions of the Minerals Law of Mongolia and related regulations. Registration of the mineral resource is required prior to applying for a mining license.
- Included in the necessary studies for the mineral resource registration process are geotechnical and hydrology studies of the Altan Nar deposit area, additional metallurgical testing and an economic evaluation study of the Project.
- ERD, through the Company's Mongolian contractor, has carried out work on a baseline environment and social impact assessment study over the past year or more. This study is expected to be finalized in mid 2018. This study is also required as part of the mining license application process in Mongolia.
- As part of ERD's commitment to minimizing the social and environmental impact of its operations, the Company has started trial reclamation and rehabilitation studies at Altan Nar and neighboring Bayan Khundii project areas..
- Additional metallurgical testing is currently underway at Blue Coast Laboratory with sample material designed to further enhance the currently knowledge around mineral processing and metal recovery.

24.2 Exploration Program

ERD does not have any immediate plans to carry out additional exploration programs at the Altan Nar Project.

24.3 Development Programs

ERD developed plans to continue investigation of the Project for remainder of 2018 includes:

1. Complete a maiden resource estimate for the Company's Bayan Khundii Gold Project and incorporate it with the Altan Nar resource to report global resource numbers for the Khundii Gold District;
2. Commence a joint Preliminary Economic Assessment study, in accordance with the requirement of NI 43-101, for the Bayan Khundii and Altan Nar Projects;
3. Advance the mining license application process;
4. Mining and Processing Studies; and
5. Complete the social and environmental baseline study.

25 Interpretation and Conclusions

The following interpretations and conclusions have been made on the Altan Nar Gold Project from the findings of the Technical Report:

- The Project represents a promising intermediate sulphidation epithermal gold-silver-polymetallic project, and has resources of sufficient quality to warrant additional investigation. No Measured Resources have been classified, however, Indicated Resource of 452,900 ounces (“oz”) gold equivalent (“AuEq”) averaging 2.8 g/t AuEq and Inferred Resource of 277,100 oz AuEq averaging 2.5 g/t AuEq, at a 0.7 g/t AuEq cut-off grade, within a total resource of 5.0 million tonnes (“Mt”) Indicated and 3.4 Mt Inferred;
- Indicated Resource includes 317,700 oz gold, 31,600 tonnes (“t”) zinc, 29,000 t lead, and 2.35 million oz silver, while the Inferred Resource contains 185,700 oz gold, 23,700 t zinc, 22,300 t lead, and 865,900 oz silver;
- Approximately 63% of the Mineral Resource is classified as Indicated;
- For the Indicated Resource, the total AuEq ounces increased 208%, from 147,000 oz to 452,900 oz and the AuEq grade increased by 12% to 2.8 g/t, compared to the Company’s March 2015 Altan Nar maiden mineral resource estimate;
- For the Inferred Resource, the total AuEq ounces increased 172%, from 102,000 oz to 277,100 oz and the AuEq grade increased by 19% to 2.5 g/t, compared to the Company’s March 2015 Altan Nar maiden mineral resource estimate;
- Approximately 90% of the Mineral Resources are within 150 metres of surface with all zones open along strike and at depth;
- A Mineral Resource estimate, using ordinary kriging method, was completed by RPM. The Mineral Resource estimate in this Technical Report is reported using cut-off grades which are deemed appropriate for the style of mineralisation and the current state of the Mineral Resources.;
- RPM considers the estimated Mineral Resources to be compliant with CIM Guidelines for Resource Estimates under NI 43-101. Of importance for mine planning, the model accommodates in situ and contact dilution but excludes mining dilution. Block size is similar (12.5 x 5 x 5 meters, sub-blocked to 1.5625 x 0.625 x 0.625) to the expected small-mining units conventionally used in this type of deposit, and appropriate for an open pit mine;
- Multiple undrilled and scout-drilled prospects along the 5.6 kilometre Altan Nar trend have the potential for hosting additional gold-polymetallic resources;
- Potential for increasing of the Mineral Resources are good, with the DZ and UN areas along strike and also down dip, which requires further drilling to investigate potential. In addition, previously undrilled and scout drilled areas have potential which will need drill investigation;
- Metallurgical testwork is at an early stage but samples tested to date have generally shown a good response to leaching with average gold recoveries of 80% for the low arsenic material. Higher arsenic samples, which appear to make up only a relatively small part of the deposit, would require a more intensive, though nonetheless proven, processing method with potentially high gold recoveries (95%); and
- The proposed processing circuit has not yet been defined for the Project. This will be completed based on ongoing metallurgical studies.

26 Recommendations

The recommendations provided are based on observations made during the site visit and subsequent geological and metallurgical reviews and Mineral Resource estimate detailed in **Sections 13, and 14**.

- **Additional Drilling:** Approximately 37% of the Project has been classified as Inferred Mineral Resource and is estimated with insufficient confidence to allow the application of Modifying Factors to support mine planning and evaluation of the economic viability of the remainder of the deposit. RPM recommends drilling to increase confidence in the existing Inferred Mineral Resource, focussing on the highest grade portions including:
 - Additional extensional exploration drilling is recommended in the Discovery Zone and Union North areas of the current resource.
 - Additional scout exploration drilling in un-drilled and partly drilled parts of the Project.
 - Infill drilling to confirm the continuity of the high grade zones at local scale

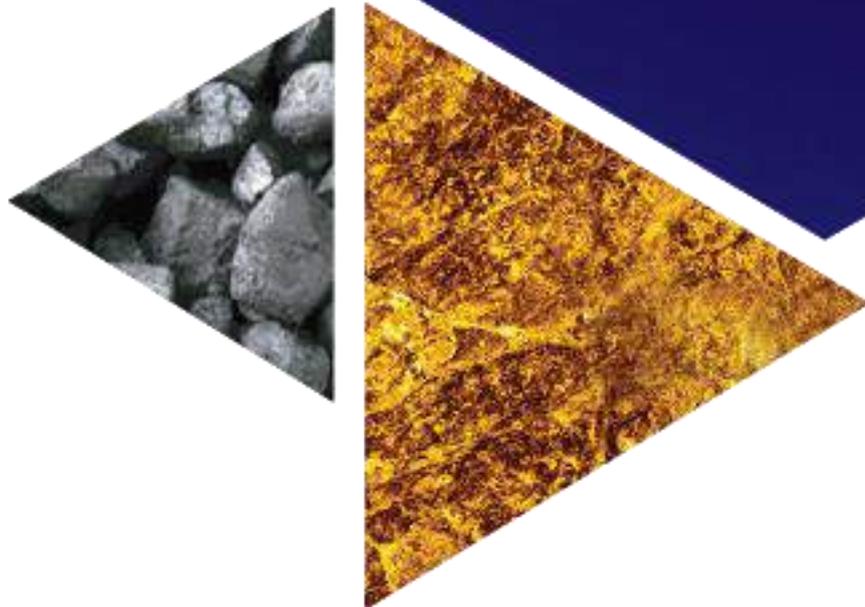
Approximate cost for the next phase of drilling is USD 500,000.

- **QAQC:** Further monitoring of the slight bias and underestimation observed in high grade assays at the SGS Laboratory is recommended. RPM suggests more frequent use of ore grade base metal standards to closely monitor the base metal assays. Approximately costs during the future drilling USD10,000.
- **Bulk Density:**
 - RPM recommends that ERD undertake a bulk density program using the remaining core. This should include up to 200 samples focusing on a range of grades (low to high) with each sample having a density determination as well as assays for Au, Pb, Zn and S. Approximately costs during the future drilling USD 10,000.
 - During future drilling the density measurement intervals correspond directly with geological logging and sampling intervals. It is recommended that density measurements are obtained from all 1m intervals through the ore zone in order to continue compiling a dataset with sufficient spatial distribution to validate and confirm the current applied regression formula. No cost would be incurred.
- **Metallurgical Testwork:** Following on from the increased geological understanding of the mineralisation styles and likely run of mine feed grades of any operation, RPM recommends processing testwork on samples that are representative of the deposit. This testwork would identify the grinding requirements, as well as gold recoveries and processing requirements based on conventional flowsheets as well as the potential for recovering the base metals into marketable products. RPM estimates that the cost of this testwork and associated works would be approximately USD 400,000 and would include:
 - Mineralogy;
 - Potential for pre-concentration;
 - Comminution testing;
 - Potential for gravity gold recovery;
 - Optimisation of leaching conditions;
 - Viscosity and oxygen uptake studies;
 - Tailings dewatering properties;
 - Establish detoxification requirements; and
 - Treatment strategies for processing high arsenic bearing ores.
- **Mining Study:** In order to guide additional infill drilling, define pit limits and expansion drilling, as well as highlight the economic potential, RPM recommends a preliminary economic assessment (“PEA”) which should consider the various opportunities with the Project's development. Approximately costs during the future drilling USD 80,000.

27 References

- Annual Information Form, SEDAR, Erdene Resource Development Corporation, for Fiscal Year ended December 2013, March 27, 2014
- Altan Nar Gold Project (Tsenkher Nomin Exploration License), Bayankhongor Aimag, Southwest Mongolia, National Instrument 43-101 Technical Report, Erdene Resource Development Corporation, J. C. (Chris) Cowan, MSc, PEng, March 10, 2014
- Badarch, G., Cunningham, W.D., and Windley, B.F., 2002., A new terrane subdivision for Mongolia: implications for the Phanerozoic crustal growth of Central Asia. *Journal of Asian Earth Sciences* 21. Pp. 87-110.
- Buchanan, L.J. (1981): Precious Metal Deposits associated with Volcanic Environments in the Southwest; in Relations of Tectonics to Ore Deposits in the Southern Cordillera; *Arizona Geological Society Digest*, Volume 14, pages 237-262.
- Mineral Resource Authority of Mongolia, 1:200,000 scale geology maps of Mongolia; include L-47-XXXII, L-47-XXXIII, L-47-XXXIV, K-47-II, K-47-III, and K-47-IV
- Yakubchuk, A. 2002. Geodynamic reconstructions of Mongolia and Central Asia. Internal report for Gallant Minerals.
- NI43-101 Report: Erdene Resource Development Corp., Zuun Mod Porphyry Molybdenum Copper Project, by Minarco Mine Consult, June 2011.

Appendix A. Glossary



The key terms used in this report include:

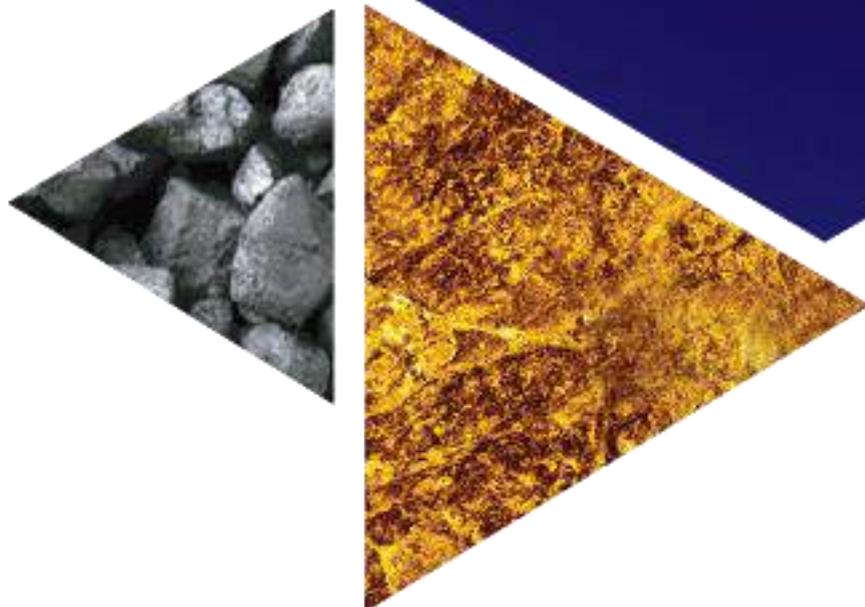
- **Company** means ERD Resources Inc. “ERD” or “the Client”.
- **concentrate** a powdery product containing higher concentrations of minerals resulting from initial processing of mined ore to remove some waste materials; a concentrate is a semi-finished product, which would still be subject to further processing, such as smelting, to effect recovery of metal
- **contained metal** refers to the amount of pure metal equivalent estimated to be contained in the material based on the metal grade of the material.
- **element** Chemical symbols used in this report
Au – Gold; Ag – Silver; As – Arsenic; Cu – Copper; Pb – Lead; Zn – Zinc
- **exploration** activity to identify the location, volume and quality of a mineral occurrence
- **Exploration Target/Results** includes data and information generated by exploration programmes that may be of use to investors. The reporting of such information is common in the **early** stages of exploration and is usually based on limited surface chip sampling, geochemical and geophysical surveys. Discussion of target size and type must be expressed so that it cannot be misrepresented as an estimate of Mineral Resources or Ore Reserves.
- **exploration right** the licensed right to identify the location, volume and quality of a mineral occurrence
- **flotation** is a separation method for the recovery of minerals using reagents to create a froth that collects target minerals
- **gangue** is a mining term for waste rock
- **grade** any physical or chemical measurement of the concentration of the material of interest in samples or product. The units of measurement should be stated when figures are reported
- **grind** means to crush, pulverize, or reduce to powder by friction, especially by rubbing between two hard surfaces
- **In situ** means rock or mineralisation in place in the ground
- **In Situ Quantities** estimates of total in ground tonnes and grade which meet the requirements of the PRC Code or other international codes for reserves but do not meet either NI 43-101 or Joint Ore Reserves Committee's recommendations
- **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
- **Inferred Mineral Resource** is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.
- **ITR** stands for Independent Technical Review
- **ITRR** stands for Independent Technical Review Report
- **Km** stands for kilometre
- **Kt** stands for thousand tonnes

- **Lb** stands for pound, a unit of weight equal to 453.592 grams
- **m** stands for metres
- **M** stands for million
- **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.
- **metallurgy** Physical and/or chemical separation of constituents of interest from a larger mass of material. Methods employed to prepare a final marketable product from material as mined. Examples include screening, flotation, magnetic separation, leaching, washing, roasting etc.
- **mine production** is the total raw production from any particular mine
- **Mineable Quantities** Estimates of in ground tonnes and grades which are recoverable by mining
- **Mineral Reserves** is the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.
- **mineral right** for purposes of this Projects, mineral right includes exploration right, mining right, and leasehold exploration or mining right
- **mineralisation** any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest. The term is intended to cover all forms in which mineralisation might occur, whether by class of deposit, mode of occurrence, genesis or composition
- **mining rights** means the rights to mine mineral resources and obtain mineral products in areas where mining activities are licensed
- **RPM** refers to RPMGlobal Asia Limited
- **mRL** means meters above sea level
- **Mt** stands for million tonnes
- **Mtpa** means million tonnes per annum
- **NI 43-101** National Instrument 43-101
- **OC** open cut mining which is mining from a pit open to surface and usually carried out by stripping of overburden materials
- **Ore** is the portion of a reserve from which a metal or valuable mineral can be extracted profitably under current or immediately foreseeable economic conditions
- **ore processing** is the process through which physical or chemical properties, such as density, surface reactivity, magnetism and colour, are utilized to separate and capture the useful components of ore, which are then concentrated or purified by means of flotation, magnetic selection, electric selection, physical selection, chemical selection, reselection, and combined methods
- **ore selection** the process used during mining to separate valuable ore from waste material or barren rock residue
- **ore t** stands for ore tonne

- **preliminary feasibility study** is a comprehensive study of the viability of a mineral Project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve.
- **primary mineral deposits** are mineral deposits formed directly from magmas or hydrothermal processes
- **Probable Mineral Reserve** is the economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.
- **Project** means a deposit which is in the pre-operating phase of development and, subject to capital investment, feasibility investigations, statutory and management approvals and business considerations, may be commissioned as a mine
- **Proven Mineral Reserve** is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.
- **raw ore** is ore that has been mined and crushed in an in-pit crusher, but has not been processed further
- **recovery** The percentage of material of initial interest that is extracted during mining and/or processing. A measure of mining or processing efficiency
- **regolith** is a geological term for a cover of soil and rock fragments overlying bedrock
- **reserves** the [economically] mineable part of a Measured and/or Indicated Mineral Resource, including diluting materials and allowances for losses which may occur when the material is mined
- **resources** a concentration or occurrence of a material of intrinsic economic interest in or on the earth's crust in such form, quality and quantity such that there are reasonable Projects for eventual economic extraction
- **Resources** Resources which have been estimated in accordance with the recommendations of the guidelines provided in the JORC or NI 43-101 Standards of Disclosure for Mineral Projects.
- **RL** means Reduced Level, an elevation above sea level
- **RMB** stands for Chinese Renminbi Currency Unit;
- **RMB/t** stands for Chinese Renminbi per material tonne
- **ROM** stands for run-of-mine, being material as mined before beneficiation
- **saprolite** is a geological term for weathered bedrock
- **secondary mineral deposits** are mineral deposits formed or modified as a result of weathering or erosion of primary mineral deposits
- **shaft** a vertical excavation from the surface to provide access to the underground mine workings
- **sq.km** square Kilometre
- **t** stands for tonne
- **t/bcm** stands for tonnes per bank cubic metre (i.e. tonnes in situ) a unit of density

- **tonnage** An expression of the amount of material of interest irrespective of the units of measurement (which should be stated when figures are reported)
- **tonne** refers to metric tonne
- **tpa** stands for tonnes per annum
- **tpd** stands for tonnes per day
- **UG** underground mining which is an opening in the earth accessed via shafts, declines or adits below the land surface to extract minerals
- **upgrade ratio** is a processing factor meaning ROM Grade% / Product Grade %
- **USD** stands for United States dollars
- **\$** refers to United States dollar currency Unit

Appendix B. Participants' relevant experience



Jeremy Clark – Project Director – RPMGlobal Hong Kong, Bsc. with Honours in Applied Geology, Grad Cert Geostatistics, MAIG, MAUSIMM

Jeremy has over 15 years of experience working in the mining industry. During this time he has been responsible for the planning, implementation and supervision of various exploration programs, open pit and underground production duties, detailed structural and geological mapping and logging and a wide range of experience in resource estimation techniques. Jeremy's wide range of experience within various mining operations in Australia and recent experience working in South and North America gives him an excellent practical and theoretical basis for resource estimation of various metalliferous deposits including iron ore and extensive experience in reporting resource under the recommendations of the NI-43-101 reporting code.

With relevant experience in a wide range of commodity and deposit types, Jeremy meets the requirements for Qualified Person for 43-101 reporting, and Competent Person ("CP") for JORC reporting for most metalliferous Mineral Resources. Jeremy is a member of the Australian Institute of Geoscientists.

Bob Dennis, Executive Mining Consultant – RPMGlobal Brisbane, Bsc. With Honours, First Class in Applied Geology, FAUSIMM

Mr. Dennis has 30 years involvement in the mining industries of Australia and in Italy. He has worked in operations management, including mining, processing, planning and support services; planned and executed exploration programs from grass roots to feasibility study levels; recruited and developed teams; estimated resources using geostatistical methods and evaluated prospect and mining opportunities.

Specific Au experience includes ongoing due diligence on numerous epithermal and hydrothermal gold and cu projects in Indonesia, Malaysia and Mongolia. Bob has reviewed and made specific recommendations with respect to the geology, geostatistics, hydrology, environmental studies and the interaction between these aspects and the mining and metallurgy and has assisted Clients in successfully identifying and developing a number of projects within Asia.

David John Princep – Principal Geologist – Resource Estimation – RPMGlobal Perth, Bsc. MAIG, FAUSIMM

David is a highly experienced geologist with more than 25 years' experience in the mining industry. David's experience includes, but is not limited to, Due Diligence, Mineral Deposit/Resource Evaluation and Audit, Strategic Pit Optimisation, Conditional simulation grade control implementation, development and training, and Geostatistical training. David is also a Licensed Professional Geoscientist.

David is a Competent Person under JORC and a Qualified Person under NI 43-101.

Oyunbat Bat-Ochir – Resource Geologist, RPMGlobal, Mongolia, Bsc. Geology

Oyunbat is geologist with 8 years of experience in Mongolian mining industry. He has technical background in fields of exploration and mapping projects for base metals and gold including detailed mapping and logging, supervision of designing various holes, data analysis and implementation of QA/QC. He involved technical and Mongolian standard resource reports for main gold, VMS, Iron skarn, Au-Co-Mo porphyry projects. He also has good background on GIS softwares for processing data analyses.

Since joined RPMGlobal in 2012, Oyunbat has been working on Due Diligence, GRL, ITR and Exploration advisory projects for Iron, Copper-gold, Molybdenum, Tungsten minerals commodities. Oyunbat has gained an expert level of proficiency in Surpac 3D modelling software.

Andrew Newell – Executive Consultant, Processing, Brisbane, PhD, BEngSc, BE (Metallurgy, 1st Class Honours), MAusIMM (CP), MIEA (CP), MCIM, MAIME

Andrew is a metallurgical engineer with over 40 years of experience in a variety of operating, managerial, technical, engineering and consulting roles in base and precious metals processing as well as industrial minerals.

Importantly, he has commissioned and operated a number of gold leaching and base metal flotation operations (including lead and zinc) and developed processing flowsheets, designed and managed metallurgical testwork programs for base metal flotation and gold leaching projects.

Andrew has interpreted testwork data, prepared design criteria and been closely involved in the design of and equipment selection for both base metal flotation (including lead and zinc) and gold leaching facilities. In addition, he has conducted a significant number of Due Diligences and Independent Technical Reviews for gold, lead and zinc projects as well as a large number of Studies including Feasibility Studies, mainly for base metal flotation (including lead and zinc) and gold leaching projects.

Andrew meets the requirements for Qualified Person for NI43-101 reporting and is a Competent Person for metallurgical input for JORC reporting for most metalliferous and non-metalliferous Ore Reserves.

Tony Cameron – Executive Mining Consultant MAIG, FAUSIMM

Tony is a mining engineer with over 30 years of experience in the mining industry. With a strong background in mine geology, Tony gained post graduate qualifications in Business, Law, and Arbitration leading to a specialisation in contracts, along with reserve estimation and project evaluation. Tony worked in operational roles in the first half of his career. He obtained his first class mine manager's certificate and advanced to the positions of Mine Superintendent and Mine Manager for mining companies. He also worked as Project Manager and Area Manager for a Mining Contractor. Over the last 16 years Tony has worked as a mining consultant focused on the Asian and African regions and has been based in Beijing for the past 8 years. During his time as a consultant, Tony has worked with leading consulting groups and financial institutions across Asia, Europe, and Africa on transactions ranging from Due Diligences to IPO's and has gained detailed understanding of the requirements of both investors and banks in regards to public technical report requirements and listing processes on various financial exchanges. Tony has an in depth knowledge of the Asian reserve reporting systems and has gained significant experience in both reviewing projects based on these systems and in converting projects from this region to international standards of reporting such as JORC and NI 43-101. Tony meets the requirements for Qualified Person for 43-101 reporting, and Competent Person for JORC reporting for most metalliferous and non-metalliferous Ore Reserves and is a Fellow of the Australian Institute of Mining and Metallurgy (Membership No: 108264).



– END OF REPORT –

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