National Instrument 43-101 Technical Report

Pickett Mountain Project
Resource Estimation Report

Penobscot County, Maine, USA

Located at:
68.468°W Longitude
46.134°N Latitude

Prepared For:
Wolfden Resources Corporation

Prepared By:
Finley Bakker, P. Geo.
Jerry Grant, P. Geo.
Brian LeBlanc, P. Eng.

Effective Date:
January 7, 2019

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1.0 SUMMARY

The Pickett Mountain Property is located in northeastern Maine, USA, in the southeast quarter of Township 6, Range 6, Penobscot County. It is about 153 km north of Bangor and approximately 53 kilometres (km) from the Canadian border. The Property consists of 2,781 hectares of private land that was acquired for US$8.5 million in 2017 by Wolfden Mt. Chase LLC (a wholly-owned subsidiary of Wolfden Resources Corporation) and included all of the mineral, timber, oil, and surface rights, exclusive of the surface area of any lakes ("ponds").

The project is located within the Ganderia zone of the northern Appalachian orogenic belt, formed during the Paleozoic orogen. The area is underlain by Late Neoproterozoic to Early Ordovician rocks that have undergone multiple stages of deformation, metamorphism, and plutonism and record the development and destruction of a continental margin. The Property covers a portion of the southeast limb of the southwest-plunging Weeksboro-Lunksoos Lake Anticlinorium that is cored by Early Cambrian shale and siltstone with interbedded quartzite that are unconformably overlain by a sequence of quartz-feldspar crystal tuff, rhyolite, volcanic breccia, and lapilli tuff, a massive sulphide horizon that varies from 0 to about 15 metres thick dominated by sphalerite-galena-chalcopyrite-pyrite mineralisation, hanging wall tuffs, mafic flows, and shale.

The mineral zone at Pickett Mountain is a stratabound volcanogenic massive sulphide deposit that has been traced by drilling approximately 900 metres along strike and 750 metres down dip. It consists of 4 primary lenses (W1, W2, E1, and E2) and several minor lenses. This style of deposit is a major source of Cu, Zn, and to a lesser extent Pb, Ag, Au, Cd, Se, Sn, Bi, and minor amounts of other metals. This style of mineralisation typically has a high value due to its multi-element character and concentrated value per tonne mined.

Between 1978 and 1989, the Property was explored by Getty Mineral Company (Getty) and then by Chevron Resources Company (Chevron). Over this period, 111 holes totalling 34,058 metres were drilled. An historical resource estimate was prepared by Getty and estimated the deposit to contain approximately 3.15 million tons with an average grade of 9.66% Zn, 4.30% Pb, 1.24% Cu, 2.96 opt Ag, and 0.029 opt Au. In 1989, Chevron completed another historical resource estimate using an updated geological interpretation and more rigorous controls. This estimate was 2.5 million tons averaging 11.42% Zn, 4.94% Pb, 1.62% Cu, and 3.3 opt Ag. Wolfden is not treating these historical estimates as current Mineral Resources and the historical estimates are not NI 43-101 compliant.

Since acquiring the Property in December 2017, Wolfden has completed an exploration program consisting of an airborne geophysical survey (VTEM^{TM}), ground Time-Domain (TDEM) electromagnetic surveys, bore-hole TDEM electromagnetic surveys, ground induced polarization surveys (IP), and geological mapping as well as diamond drilling.

To date, 111 historical drill holes and 38 drill holes completed by Wolfden in 2017-2018, have tested the Pickett Mountain deposit and other regional exploration targets. Total footage for these combined drilling campaigns is 49,655 metres.

A current National Instrument 43-101 compliant Mineral Resource estimate (January 7, 2019) calculated on the Pickett Mountain deposit is based on a 9.0% Zn equivalent cut-off and is tabulated below (Table 1.1).

TABLE 1.1
MINERAL RESOURCE STATEMENT – JANUARY 7, 2019

Category	Tonnes	% Zn	% Pb	% Cu	g/t Ag	g/t Au	Density	% ZnEq
Indicated	2,050,000	9.88	3.93	1.38	101.58	0.92	3.99	19.32
Inferred	2,030,000	10.98	4.35	1.20	111.45	0.92	4.00	20.61

A number of potential cut-off grades for Zinc Equivalent were calculated for each resource category as represented in the sensitivity tables below (Table 1.2 and Table 1.3). The tonnage and grade are robust over the intervals chosen. A 9% Zinc Equivalent cut-off was considered to be conservative until further technical studies have been completed.

TABLE 1.2
SENSITIVITY TO CUT-OFF GRADES – INDICATED MINERAL RESOURCE – JANUARY 7, 2019

% ZnEq Cut-off Grade	Tonnes	% Zn	% Pb	% Cu	g/t Ag	g/t Au	Density	% ZnEq
3% ZnEq	3,970,000	6.03	2.38	1.02	65.39	0.68	4.02	12.39
5% ZnEq	2,820,000	7.89	3.12	1.21	83.61	0.81	4.00	15.79
7% ZnEq	2,320,000	9.11	3.62	1.32	95.04	0.88	3.98	17.99
9% ZnEq	2,050,000	9.88	3.93	1.38	101.58	0.92	3.99	19.32
11% ZnEq	1,770,000	10.77	4.29	1.41	109.32	0.96	4.00	20.79

TABLE 1.3
SENSITIVITY TO CUT-OFF GRADES – INFERRED MINERAL RESOURCE – JANUARY 7, 2019

% ZnEq Cut-off Grade	Tonnes	% Zn	% Pb	% Cu	g/t Ag	g/t Au	Density	% ZnEq
3% ZnEq	4,020,000	6.59	2.58	0.94	69.91	0.68	4.03	13.03
5% ZnEq	2,980,000	8.35	3.29	1.06	87.12	0.79	4.01	16.14
7% ZnEq	2,450,000	9.67	3.83	1.15	99.99	0.86	4.00	18.43
9% ZnEq	2,030,000	10.98	4.35	1.20	111.45	0.92	4.00	20.61
11% ZnEq	1,740,000	12.06	4.77	1.24	121.42	0.97	4.00	22.39

1.1 MINERAL RESOURCE ESTIMATE PARAMETERS AND ASSUMPTIONS

- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves.
- Resources are presented as undiluted and in-situ for an underground mining scenario and are considered having reasonable prospects for economic extraction.

- The metal prices used to determine Zinc Equivalent (ZnEq) grades were US$1.20/pound for Zn, US$1.00/pound for Pb, US$2.50/pound for Cu, US$16.00/troy ounce for Ag, and US$1200/troy ounce for Au. The base case utilised a calculated cut-off grade of 9.00% ZnEq.
- Indicated Resources were estimated using a maximum distance of 25 metres from a drill hole and meeting a single hole minimum.
- Inferred Resources were estimated utilising a no hole minimum and using a minimum of 25 metres and maximum of 200 metres from a drill hole.
- The MRE encompasses 3 mineralised massive sulphide lenses.
- A total of 148 drill holes comprise the database including 2,550 samples; of these 940 samples were utilised in the estimate.
- Grade capping was not utilised as it was noted that the general uniformity of grade was fairly consistent with no significant outliers in the assay results.
- The specific gravities used in the MRE were based on a total of 253 physically measured specific gravities within the mineralised lenses.
- Wolfden is not aware of any legal, political, environmental, or other risks that could materially affect the potential development of the Mineral Resources.

The compliant Mineral Resource estimate represents a signficiant increase from the previous historical, unqualified resources prepared by Getty Minerals and Chevron Resources in the 1980s.

Continued expansion and infill drilling will have significant potential to expand and upgrade the Mineral Resource. Additionally, several high-quality exploration targets situated near the deposit as well as elsewhere on the Property and volcanic belt, offer excellent potential for the discovery of additional massive sulphide lenses.

Based on the positive results of the 2018 diamond drill program, the resulting updated resource estimate, new geological theories, and geophysical targets identified by the airborne and ground surveys, additional work is warranted and recommended as follows:

- To upgrade the Inferred Mineral Resource, a limited infill drill program with a 25 metres by 25 metres pattern is required to confirm if the current 50 metre by 50 metre drill pattern is sufficient.
- Complete down-hole EM surveying of several completed drill holes in order to test for the potential to expand mineralisation outside of the current modeled lenses. Drill test the higher priority down-hole plate conductors.
- Drill untested areas immediately adjacent to the modeled Inferred Resource domains in order to test for potential expansion, continuity, and grades of the mineralised lens.
- Drill untested, higher priority regional geophysical anomalies after further ground trothing and verification.
- Collection of a representative metallurgical sample from drill core rejects for further testing and more advanced studies. As part of the metallurgical testing, investigate various pre-concentration techniques that could be assessed in future studies.
- Following completion of the metallurgical test work, commission an engineering study to undertake a basic mine design and a Preliminary Economic Assessment of the resource. The geometry of the resource appears amenable to bulk mining techniques. These should be investigated to determine the most cost effective mining methods and processing techniques.

The estimated budget for such an exploration program is C$4,050,000 and is tabulated below (Table 1.4).

TABLE 1.4
ESTIMATED BUDGET FOR EXPLORATION PROGRAM

ITEM	COST
Diamond Drilling (15,000 metres @ $180/metre all inclusive)	$2,700,000
Geophysics (borehole EM as well as ground EM & other surveys)	$350,000
Geology (mapping, prospecting, analyses & reporting)	$350,000
Metallurgical Testing (to include QEMSCAN mineralogical work)	$200,000
Baseline Environmental Work	$250,000
Preliminary Economic Assessment (mine design, first order economics)	$200,000
Total (Canadian Dollars)	**$4,050,000**

2.0 INTRODUCTION

2.1 TERMS OF REFERENCE

This technical report was prepared by A - Z Mining Professionals Limited (AMPL) for the purpose of providing a National Instrument (NI) 43-101 Technical Report describing the geology and previous exploration history for the base metal deposit known as the Pickett Mountain Project (formerly known as Mount Chase) in Penobscot County, Maine, USA. This report also provides an NI 43-101 compliant Mineral Resource estimate for the Pickett Mountain base-metal deposit.

The Pickett Mountain Project Property was acquired in 2017 by Wolfden Mt. Chase LLC, a wholly-owned subsidiary of Wolfden Resources Corporation (Wolfden), in an arm's length, third party transaction of US$8.5 million.

AMPL was retained by Mr. Ronald Little, President and CEO of Wolfden, to prepare this report for Wolfden.

As of the date of this Report, Wolfden is a Canadian junior exploration and development company listed on the Canadian TSX Venture stock exchange (WLF.TSXV) and with a corporate office at:

1100 Russell Street, Unit 5
Thunder Bay, Ontario P7B 5N2
Canada
Tel: 807-624-1131
Fax: 807-624-1133

This Report is considered effective as of January 7, 2019.

AMPL's qualified persons are responsible for the areas in this report identified in their "Certificates of Qualified Persons" submitted with this report to the Canadian Securities Administrators. AMPL has relied on and believes there to be a reasonable basis to rely on the following experts who have contributed the information stated in this report, as noted below:

- Finley Bakker, P.Geo, Contract Resource Geologist to AMPL
- Jerry Grant, P.Geo, Contract Geologist, QA/QC, and Geology
- Brian LeBlanc, P.Eng, Senior Partner, AMPL

2.2 SOURCES OF INFORMATION

This Report is based, in part, on internal company technical reports and maps, published government reports, company letters and memoranda, public information, documented results concerning the project, and discussions held with technical personnel from the company regarding all pertinent aspects of the project as listed in the "References" (Section 27.0) of this report.

AMPL has not conducted detailed land status evaluations, but has obtained tenure information from previous technical reports, public documents, and statements by Wolfden regarding property status and legal title to the project.

2.3 SITE VISIT

Mr. Alan Aubut, P. Geo., previously of A - Z Mining Professionals Ltd. (AMPL), a qualified person under the terms of NI 43-101, conducted a site visit to the Pickett Mountain Property on September 27, 2017. A site visit to a core storage facility housing the Pickett Mountain core and maintained by Huber Engineered Woods at their Easton, Maine production facility was conducted on September 26, 2017. Jerry Grant, P.Geo, a qualified person under the terms of NI 43-101 and acting as a consulting geologist for Wolfden, worked on site on the 2018 drill program, verified current and previous data, and oversaw the QA/QC results and program.

2.4 UNITS AND CURRENCY

Unless otherwise stated:

- All units of measurement in the Report are in the metric system
- All currency amounts in this Report are stated in US dollars (“US$”), unless otherwise stated
- Gold (Au) and Silver (Ag) assay values are reported in ounces per ton (opt), unless otherwise stated
- Copper (Cu), Lead (Pb), and Zinc (Zn) assay values are reported in percent (%), unless otherwise stated
- All metal prices are expressed in terms of US dollars (“US$”)

Maps are either in UTM coordinates or in the latitude/longitude system.

2.5 GLOSSARY AND ABBREVIATIONS OF TERMS

Abbreviation	**Meaning**
°C	degrees Celsius
C$ and CA$	currency of Canada
Ag	silver
Altius	Altius Minerals Corporation
AMPL	A - Z Mining Professionals Ltd.
Au	gold
Chevron	Chevron Resources Company, a subsidiary of Chevron Oil
cm	centimetre
Cu	copper
DDH or ddh	diamond drill hole
E	east
EM	electromagnetic
g	gram

Abbreviation	Meaning
g/t	grams per tonne
Getty	Getty Mineral Company, a subsidiary of Getty Oil
ha	hectare
HLEM	Horizontal Loop electromagnetics (geophysical survey method)
IP	induced polarization
km	kilometre
kW	kilowatts
MDEP	Maine Department of Environmental Protection
m	metre
mm	millimetre
Mt	millions of tonnes
N	north
NSR	net smelter return
opt	ounces per ton
P.Geo	Professional geoscientist
PEA	Preliminary Economic Assessment
Pb	lead
ppm	parts per million
QP	Qualified Person
t	tonne (metric)
t/m^3	tonne per cubic metre
TDEM	time domain electromagnetic
US$	currency of the United States of America
USA	United States of America
USGS	United State Geological Survey
UTM	Universal Transverse Mercator
VTEM™	Versatile time domain electromagnetic
WCC	Woodward-Clyde Consultants
Wolfden	Wolfden Resources Corporation
Zn	zinc
ZnEq	zinc equivalent

3.0 RELIANCE ON OTHER EXPERTS

The Mineral Resource estimate has been prepared by Independent Qualified Persons (QP), Finley Bakker (P. Geo.), Jerry Grant (P. Geo.), and Brian LeBlanc (P. Eng.), of A to Z Consultants, and has an effective date of January 7, 2019. The estimate also included the input and review by Andre Labonte, a resource technician.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 DESCRIPTION OF AREA AND LOCATION

The Pickett Mountain Property is located in northeastern Maine, in the southeast quarter of Township 6, Range 6, Penobscot County. The Property consists of 2,781 hectares of private land. It is about 16 km north of the village of Patten and about 153 km north of Bangor (Figure 4.1). It is approximately 53 km from the Canadian border and is approximately 67 km due west of the town of Woodstock, New Brunswick.

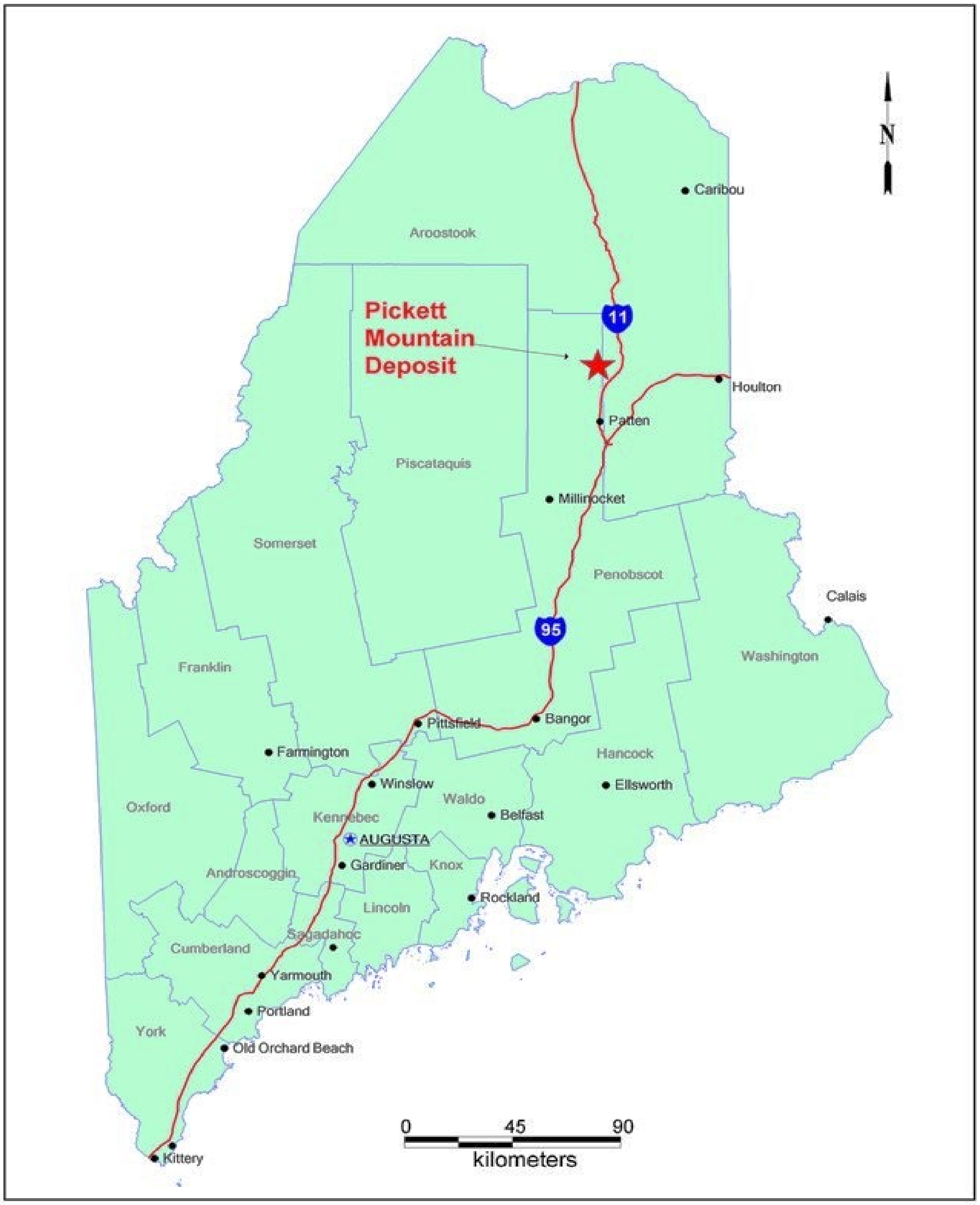

Figure 4.1 Pickett Mountain Project location map

4.2 LAND TENURE

Wolfden acquired, through its indirect wholly-owned subsidiary Wolfden Mt. Chase LLC, all of the mineral, timber, oil, and surface rights, exclusive of the surface area of great ponds (lakes that include the waters of Pickett Mountain Pond, Pleasant Lake and Mud Lake) covering approximately 2,781 hectares (Figure 4.2). More specifically, the Property consists of the southeast quarter of Township 6, Range 6, in Penobscot County, Maine. The only known encumbrances are two small surface rights parcels on the north shore of Pleasant Lake and a small surface rights lease on the south side of Pleasant Lake for recreation purposes.

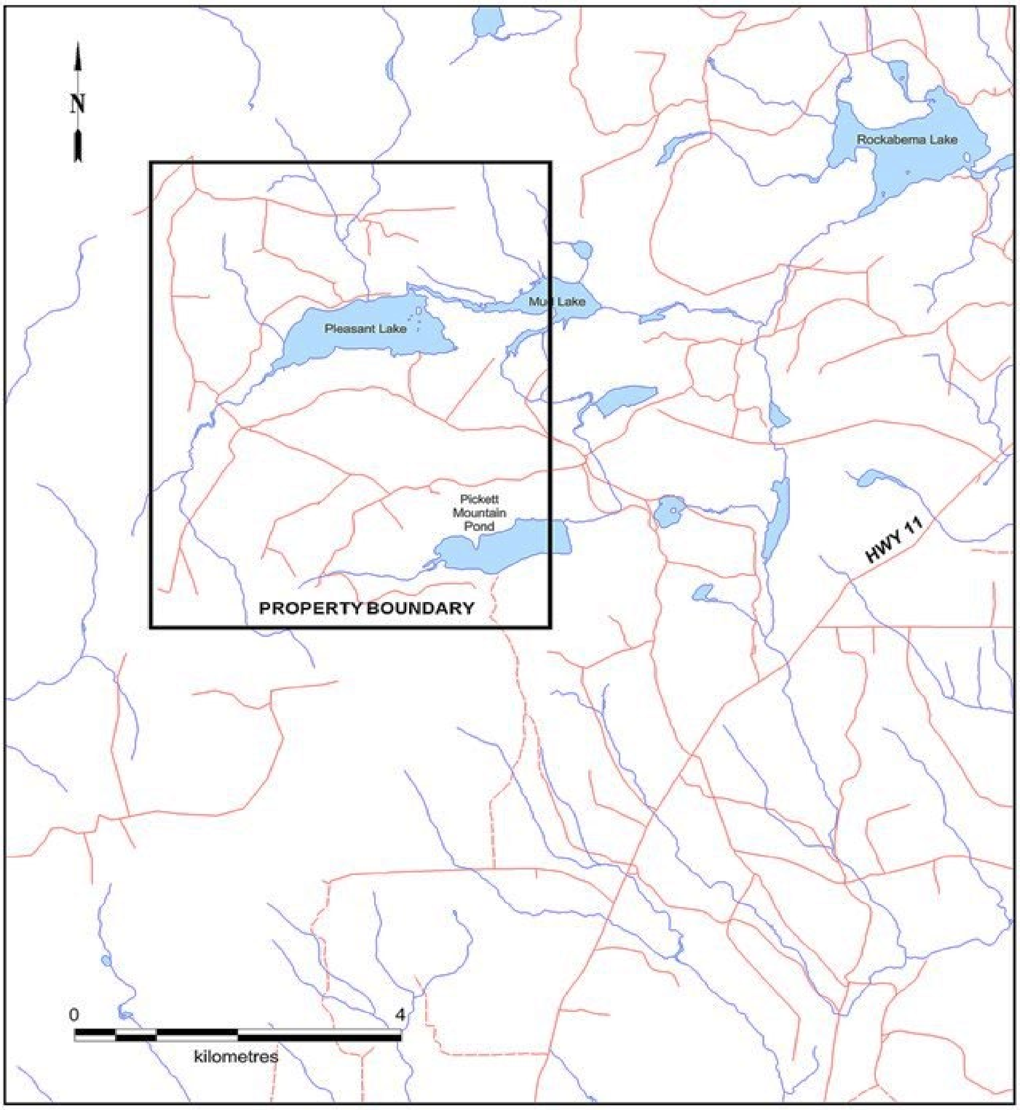

Figure 4.2 Pickett Mountain Property map

Wolfden advises that it does not require any permits to complete the contemplated exploration work on the Property. The authors are not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Property as currently contemplated. There are no known environmental liabilities to which the Property is subject to.

4.3 PURCHASE AGREEMENT

On November 15, 2017, Wolfden Mt. Chase LLC acquired a 100% interest in the Pickett Mountain Project for a cash purchase price of US$8.5 million (the "Acquisition") from a third party vendor. To fund the acquisition, the Company granted a 1.35% gross sales royalty on the Pickett Mountain Project to a subsidiary of Altius Minerals Corporation for cash consideration of US$6 million and completed a non-brokered private placement of 20,200,000 subscriptions at a price of C$0.25 per subscription receipt for gross proceeds of C$5,050,000.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

Access to the Property from State Highway 11 is by an 8.4 km long, well used logging road. From State Highway 11, there are paved primary and secondary highways with access to Interstate Highway 95 at Island Falls, a total distance from the Property of about 36 km. The presence of existing infrastructure permits exploration to be carried out year-round.

5.2 CLIMATE

The climate of Northern Maine is a typical humid continental climate. The average annual temperature in Patten is 4.2°C. In a year, the average rainfall is 1,002 mm. Between the driest and wettest months; the difference in precipitation is 42 mm. During the year, the average temperatures vary by 30.1°C. Summer temperatures typically vary between 6°C and 25°C while winter temperatures usually range between 2°C and -17°C with an average January temperature of -11°C (Figure 5.1). The region usually receives approximately 63 to 105 mm of precipitation per month with November being normally the wettest month (www.Climate-Data.org).

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	-11.5	-10	-4	3.2	10.1	15.8	18.6	17.3	12.4	6.4	0.1	-8
Min. Temperature (°C)	-17.8	-16.9	-10.3	-2.6	3.1	8.9	11.9	10.6	5.8	0.6	-4.4	-13.4
Max. Temperature (°C)	-5.1	-3.1	2.4	9.1	17.2	22.8	25.4	24.1	19	12.3	4.6	-2.6
Avg. Temperature (°F)	11.3	14.0	24.8	37.8	50.2	60.4	65.5	63.1	54.3	43.5	32.2	17.6
Min. Temperature (°F)	-0.0	1.6	13.5	27.3	37.6	48.0	53.4	51.1	42.4	33.1	24.1	7.9
Max. Temperature (°F)	22.8	26.4	36.3	48.4	63.0	73.0	77.7	75.4	66.2	54.1	40.3	27.3
Precipitation / Rainfall (mm)	69	63	67	74	83	85	98	98	85	87	105	88

Figure 5.1 Patten, ME Historical Weather Data
(From https://en.climate-data.org/location/140940/)

5.3 LOCAL RESOURCES

The nearest community to the Property is Patten, Maine, located 16 km south-southeast along Highway 11. It has a population of approximately 1,000, and is the site where Wolfden established its operational base for the project. By taking Secondary Highway 159 east approximately 14.5 km, one can connect to Interstate Highway 95 at Island Falls. There, it is possible to connect to a railway operated by the Maine Northern Railway.

5.4 INFRASTRUCTURE

The area is well supported by local infrastructure, including well maintained roads, highways, and access to rail in the town of Sherman Station (27 km from the Property), as well the state's electric grid that runs along Highway 11.

5.5 PHYSIOGRAPHY

The Property lies within rolling hills just to the northeast of a range of hills with the highest elevation being at nearby Mount Chase at 744 metres above sea level. The average surface elevation is about 366 metres. The area is well wooded with a mixture of hardwood and softwood. Hardwood species present include maple, beech, and birch with lesser ash. Softwood includes spruce and some pine and cedar.

6.0 HISTORY

Exploration in Maine for massive sulphides commenced soon after 1953 when the Brunswick #6 deposit was discovered in neighbouring New Brunswick. This early work concentrated on the volcanic rocks known to exist along the Maine coast and resulted in two deposits being found and developed; Cape Rosier and Blue Hill. Intermittent exploration continued in northern and western Maine through to the 1970s. In 1967, a consortium of exploration companies operated under the name "The Northeast Joint Venture." This group eventually discovered the base metal deposit at Bald Mountain in 1977 (Scully, 1988).

The first documented mineral exploration work in the immediate area was done by Humble Oil and Refining Company in 1968. Their subsidiary, North American Exploration Co., completed regional geochemical surveys that resulted in a 915 metre by 1830 metre grid being established in the area of Pickett Mountain and distinct anomalies were detected (Luethe, 1989).

1978 – 1984: In 1978, Getty Mineral Company (Getty) explored the area and again using a regional geochemical sampling program located an anomalous area close to Pickett Mountain (see Figure 6.1 to Figure 6.3, below). The program involved collecting stream, seep, and soil samples averaging about 30 samples per square mile. This program was followed by a more detailed soil sampling program that further defined the geochemical anomaly. During the summer of 1979, a Max-Min horizontal loop electromagnetic (HLEM) and magnetic surveys were conducted (see Figure 6.4, below). A bedrock conductive source was identified and drilled in the fall. This drilling intersected massive sulphides within volcanics. The initial drill program consisted of 12 holes totalling 1,473 metres (Luethe, 1989).

During 1980, Getty undertook additional geophysics. In 1981, 10 diamond drill holes were completed totalling 1,602 metres to test some outlying targets. The drilling failed to locate any massive sulphides. In 1982, an EM-37 survey was undertaken (see Figure 6.4, below) to test for deeper mineralisation. An airborne "Input" survey was flown over the Property in 1983.

Hole 23 was drilled in 1982 and intersected significant sulphide mineralisation. A total of 28,020 metres in 96 holes were drilled between 1982 and 1984. During this same period, preliminary metallurgical testing, baseline environmental studies, and a pre-feasibility study were completed.

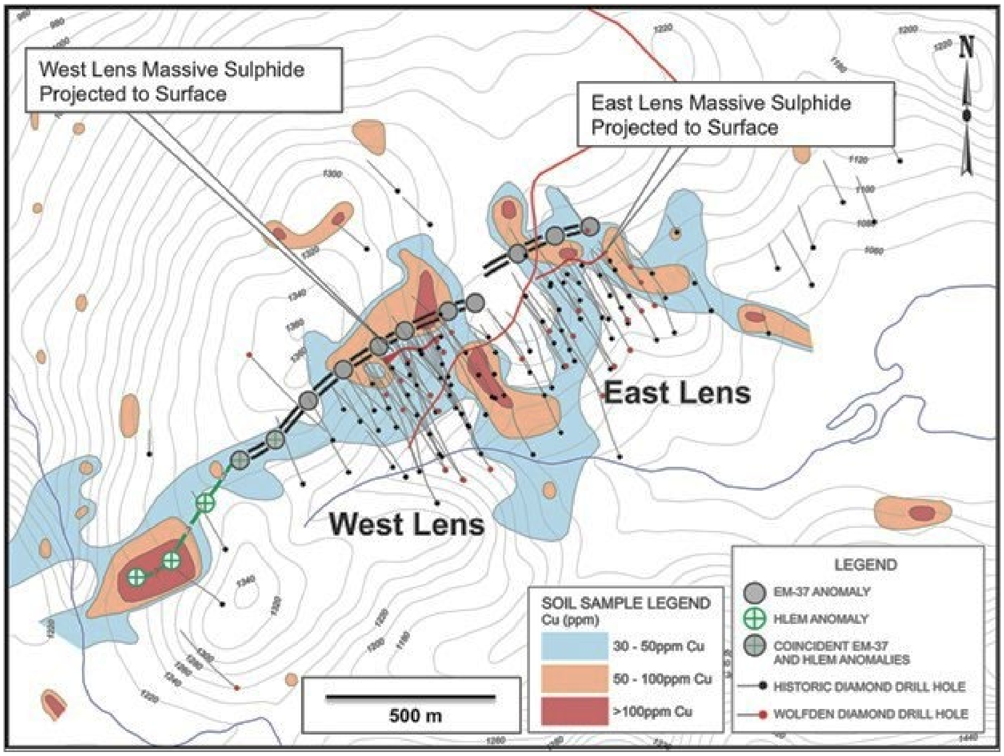

Figure 6.1 Historic soil sampling over the Pickett Mountain Property – Cu

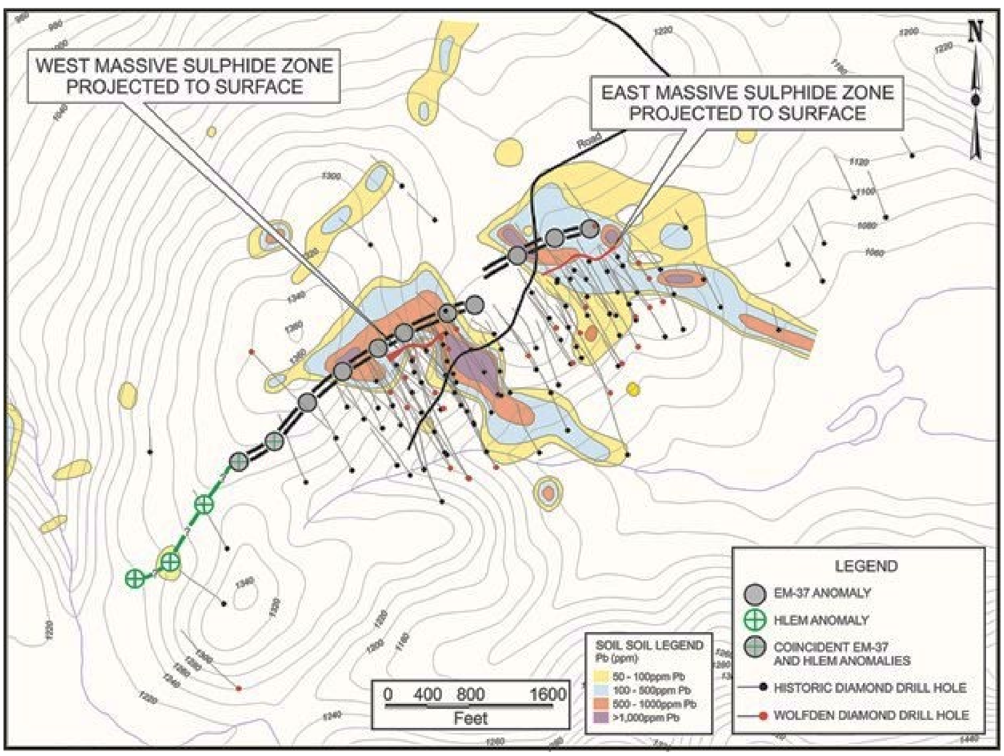

Figure 6.2 Historic soil sampling over the Pickett Mountain Property – Pb

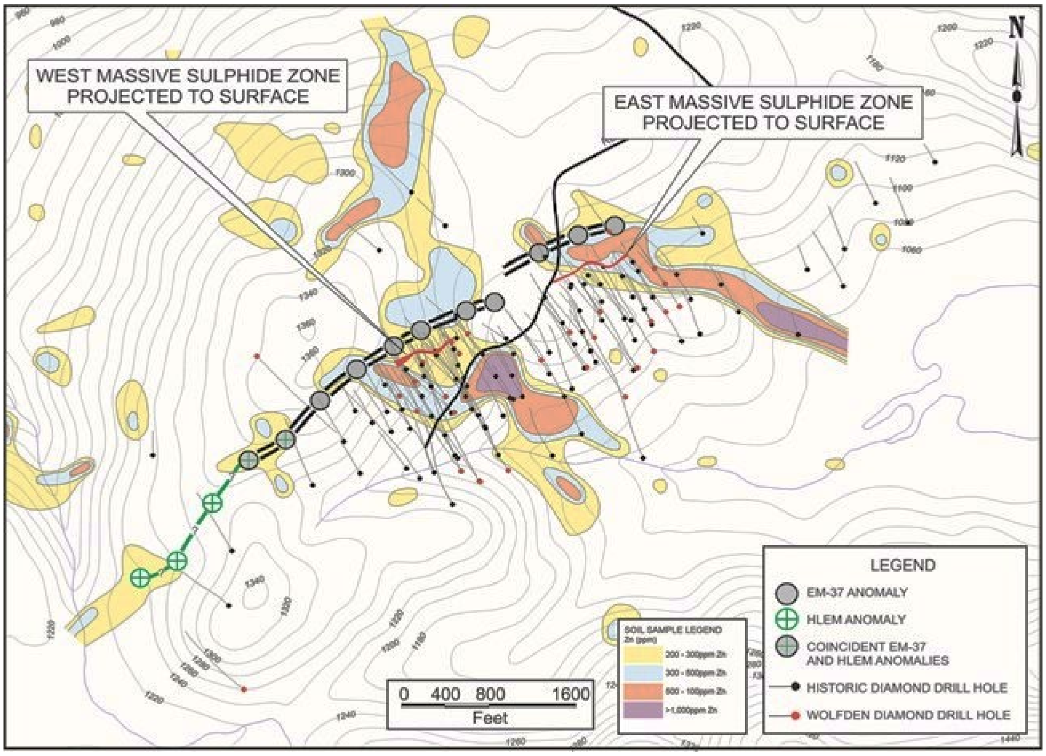

Figure 6.3 Historic soil sampling over the Pickett Mountain Property – Zn

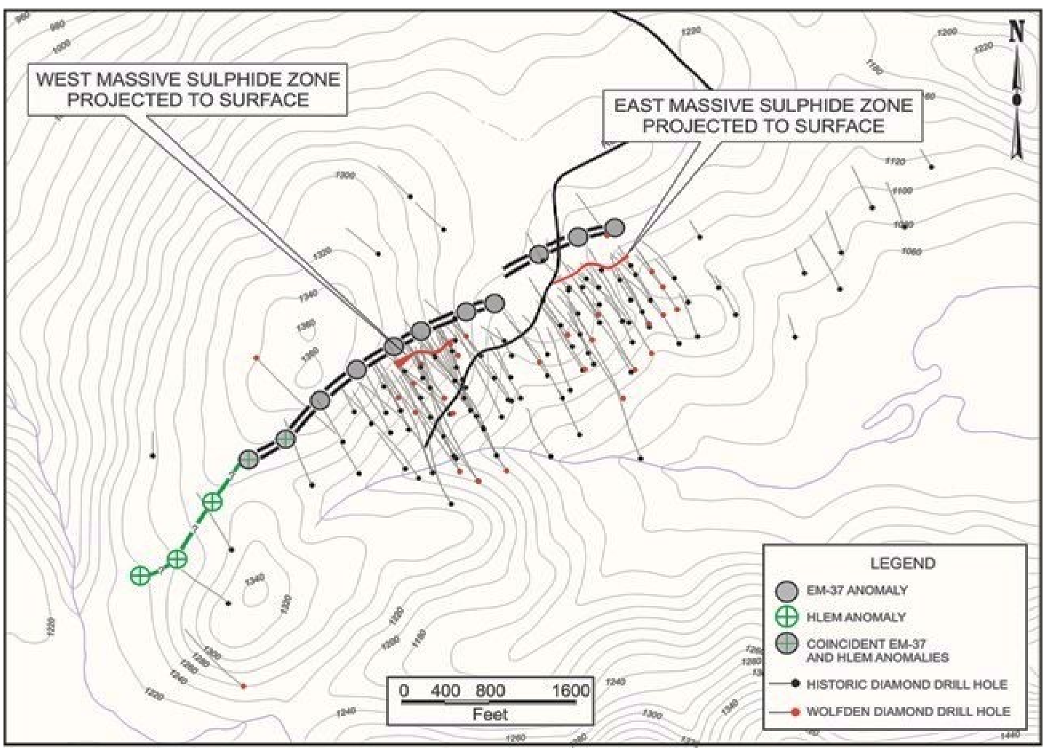

Figure 6.4 Compilation of historical geophysical surveys

An historical resource estimate was undertaken using the “Contour Method” for Getty in 1983. The methodology used involved creating thickness and grade-thickness grids that used an eight-foot thickness and 4% total sulphide cut-off, with any area not meeting either threshold not being included in the calculation. As it was still early in the exploration of the deposit, no geologic interpretation was used to limit the deposit size. Using an average tonnage factor of 8.25 cubic feet (a density of 4.1 t/m^3) per ton, to a depth of approximately 1,300 feet (400 metres), the estimated resource was 3.15 million tons with an average grade of 9.66% Zn, 4.30% Pb, 1.24% Cu, 2.96 opt Ag, and 0.029 opt Au (Laverty, 1983; Riddell, 1983). This historical resource does not use the classification terms “Inferred Mineral Resource,” “Indicated Mineral Resource,” and “Measured Mineral Resource” that have the meanings ascribed to them by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended. The authors have not done sufficient work to classify this historical estimate as a current Mineral Resource and Wolfden is not treating this historical estimate as a current Mineral Resource.

With the purchase of Getty Oil by Texaco in late 1984, the project was terminated and the leases put up for sale.

1985 – 1989: Chevron Resources Company purchased the Getty lease in October 1985 and then immediately renewed exploration on the Property primarily looking for additional massive sulphides along strike. Additional geophysical surveys, including a proprietary deep penetrating EM survey were completed. An additional 16 drill holes totalling 6,038 metres were drilled. Sulphides were intersected although no significant massive sulphides were located (Luethe, 1989).

In the second half of 1988, work was carried out in the vicinity of Getty hole 66-84-90. A detailed re-evaluation commenced and a revised geologic interpretation was completed. Additional metallurgical work was also done (Luethe, 1989).

Chevron completed another historical resource estimate using the updated geological interpretation. This estimate involved using the polygonal method to a depth of approximately 1,300 feet (400 metres). Grades were converted to zinc equivalent (%ZnEq = %Zn + (%Pb × 0.53) + (%Cu × 1.64) + (opt Ag × 0.45). Using a minimum horizontal thickness of 5 feet and an arbitrary cut-off grade of 11% ZnEq the resource was estimated to be 2.5 million tons averaging 11.42% Zn, 4.94% Pb, 1.62% Cu, and 3.3 opt Ag. Even though it has some of the highest grades intersected by drilling, the #1 lens was excluded as only 4 holes had tested the lens (Luethe, 1989). This historical resource does not use the classification terms “Inferred Mineral Resource,” “indicated Mineral Resource,” and “Measured Mineral Resource” that have the meanings ascribed to them by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended. The authors have not done sufficient work to classify this historical estimate as a current Mineral Resource and Wolfden is not treating this historical estimate as a current Mineral Resource.

To the best of the knowledge of the authors of this report, the last historical work completed on the project and any related accessible data from that work was in 1989.

7.0 GEOLOGICAL SETTING AND MINERALISATION

7.1 REGIONAL GEOLOGY

The Pickett Mountain project is located in the northern Appalachian orogenic belt. The Appalachians are a Paleozoic orogen that formed along the northern margin of Gondwana in the Neoproterozoic and early Paleozoic. It has been subdivided into 5 domains based on stratigraphic and structural contrasts: Humber, Notre Dame, Ganderia, Avalonia, and Meguma, as shown in Figure 7.1 (Hibbard, et al., 2007; Fyffe, et al., 2009). The Pickett Mountain project is located within the Ganderia zone.

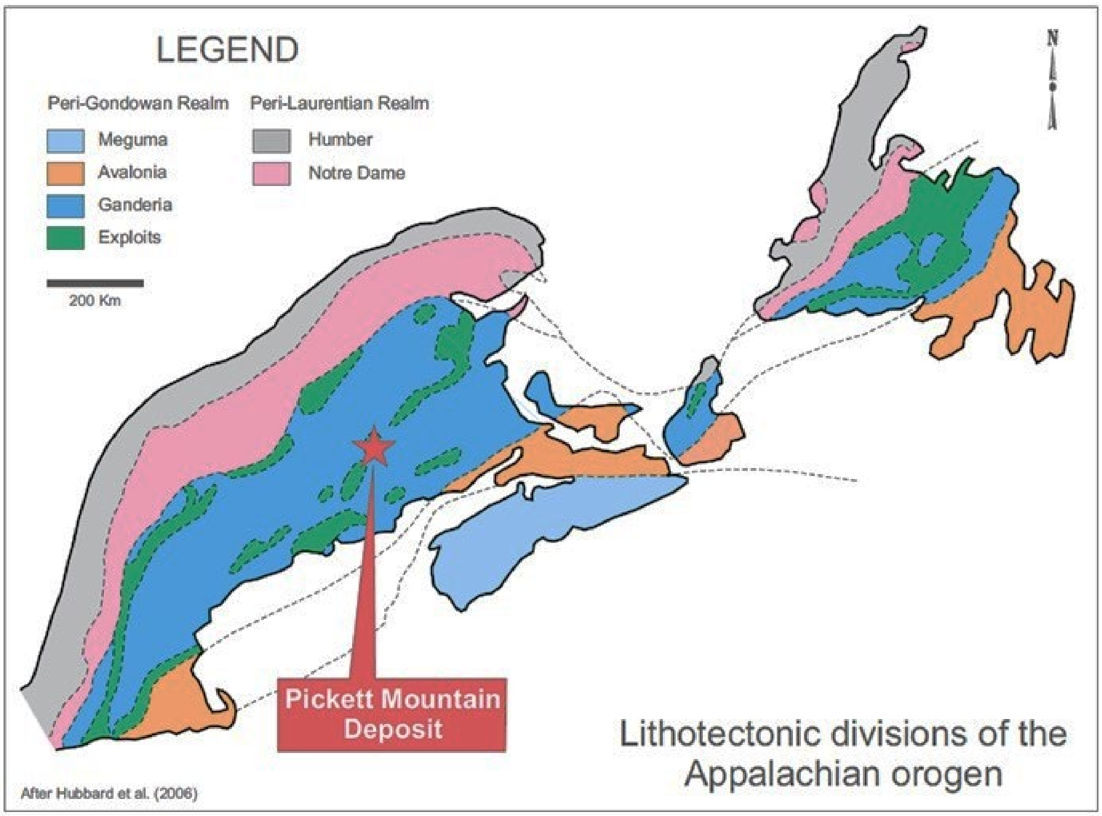

Figure 7.1 Lithotectonic divisions of the northern Appalachian orogen
(Source: Adapted from Hibbard, et al., 2006)

The Ganderia Zone consists of Late Neoproterozoic to Early Ordovician rocks that are predominantly continent-derived, quartz-rich sediments and with Neoproterozoic volcanic and plutonic rocks (Fyffe, et al., 2009). These have undergone multiple stages of deformation, metamorphism, and plutonism and record the development and destruction of a continental margin (Williams, 1978).

The Property covers a portion of the southeast limb of the southwest plunging Weeksboro-Lunksoos Lake Anticlinorium that is cored by the Grand Pitch Formation, made up of complexly folded shale and siltstone with interbedded quartzite and greywacke and believed to be of Early Cambrian age (Figure 7.2). The stratigraphic sequence within the Anticlinorium and above the unconformity is illustrated in Figure 7.3.

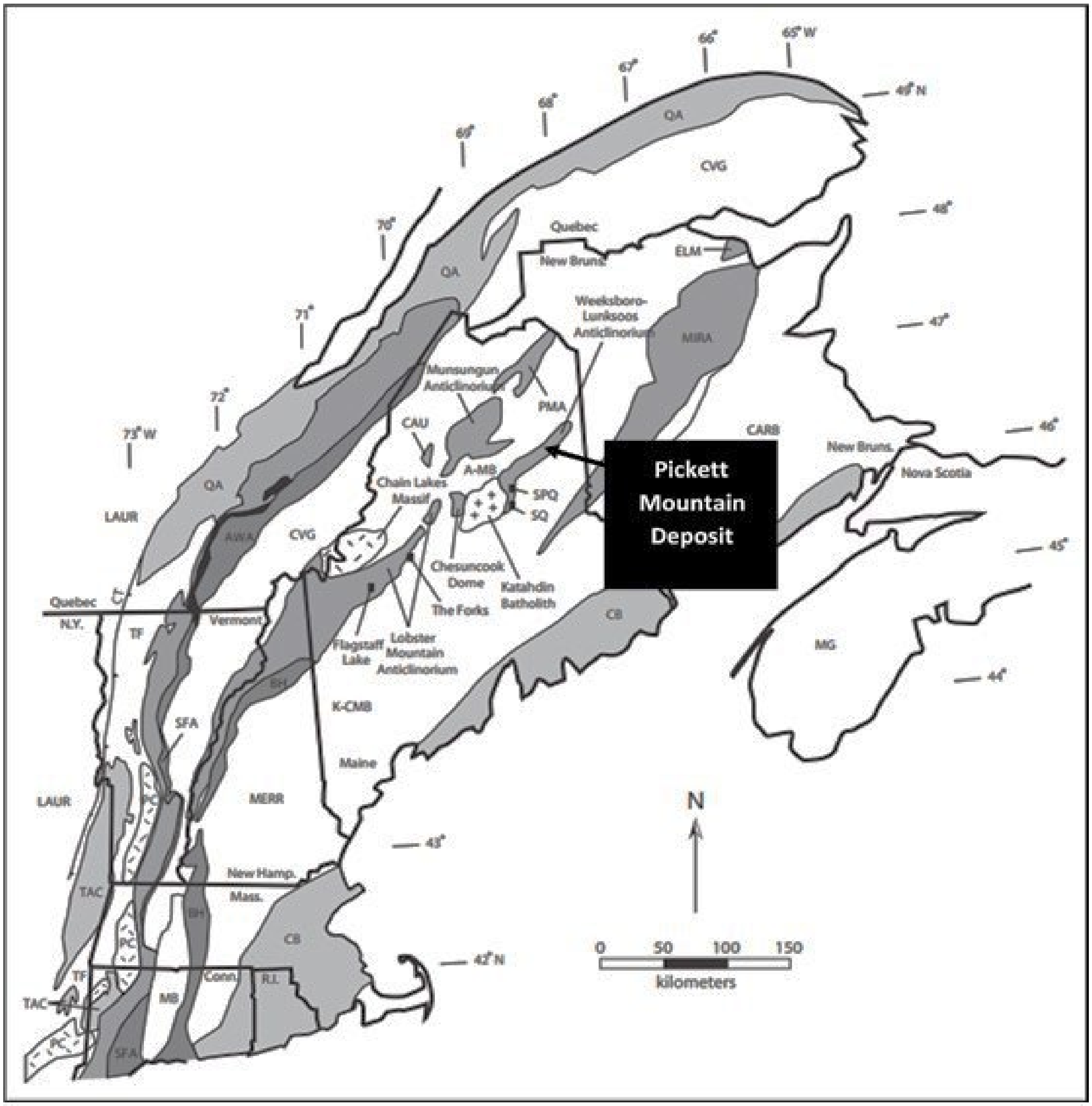

Figure 7.2 Generalised geology of the northern Appalachians

(Source: Schoonmaker, et al., 2017)

Pre-Devonian units are shaded. LAUR = autochthonous Laurentian margin, QA = Quebec Allochthons, TAG = Taconic Allochthons, TF = transported Laurentian margin and basin deposits, PC = Precambrian massifs, SFA-AWA = Shelburne Falls arc, Ascot-Weedon arc, and related oceanic rocks, including ophiolitic fragments (black), MB = Mesozoic basin, CVG = Connecticut Valley Gaspe Synclinorium, BH = Bronson Hill Arc, MERR = Merrimack Synclinorium, CAU = Caucomgomoc inlier, A-MB = Aroostook-Matapedia belt, SPQ = Shin Pond quadrangle, SQ = Stacyville quadrangle, PMA = Pennington Mtn. Anticlinorium, MIRA = Miramichi Highlands, K-CMB = Kearsarge–Central Maine belt, ELM = Elmtree-Belledune inlier, CARB = Carboniferous cover rocks, CB = Coastal belt, MEG = Meguma terrane

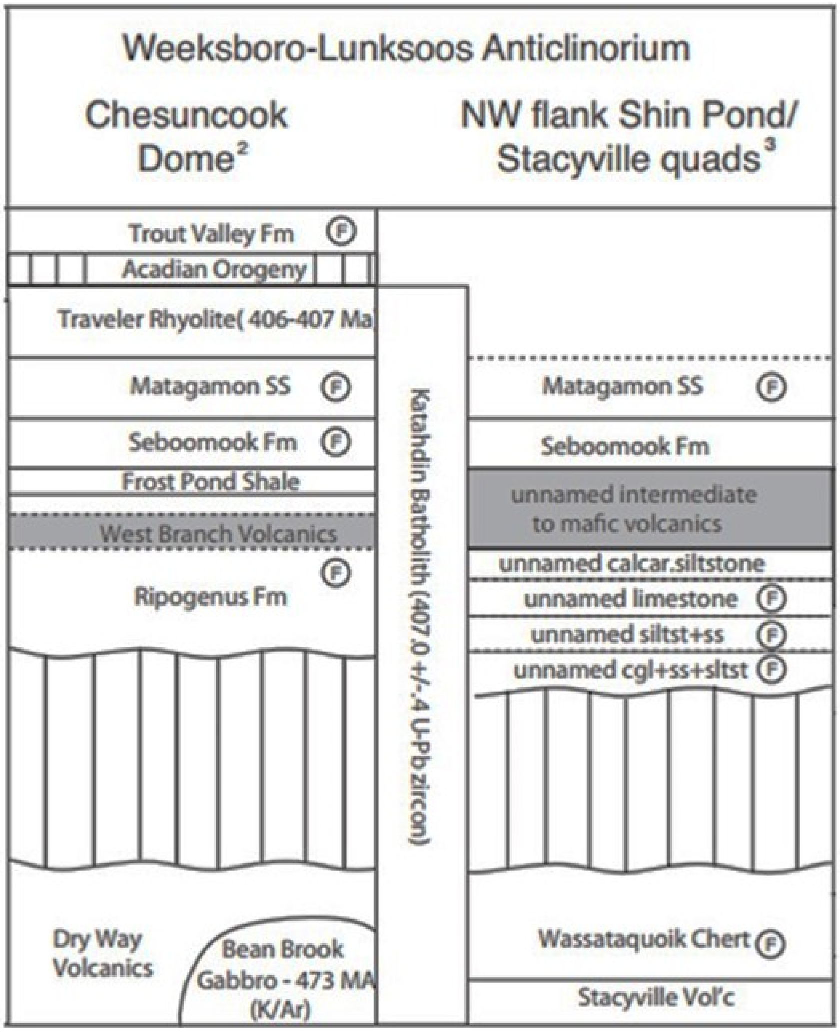

Figure 7.3 Stratigraphic section for the Weeksboro-Lunksoos Lake Anticlinorium, north-central Maine, showing Ordovician through Devonian rocks
All units shown lie unconformably above the Cambrian Grand Pitch Formation
(Source: Adapted from Schoonmaker, et al., 2011)

7.2 LOCAL GEOLOGY

The local stratigraphy documented in this section is thought to be equivalent to the lower-most Ordovician-age volcanic rocks (Dry Way Volcanics and Stacyville Volcanics) illustrated on Figure 7.3. The geology of the Pickett Mountain deposit locale, as mapped in 2018, is illustrated in Figure 7.4 and a cross section of the deposit and associated lithotypes are depicted on Figure 7.5.

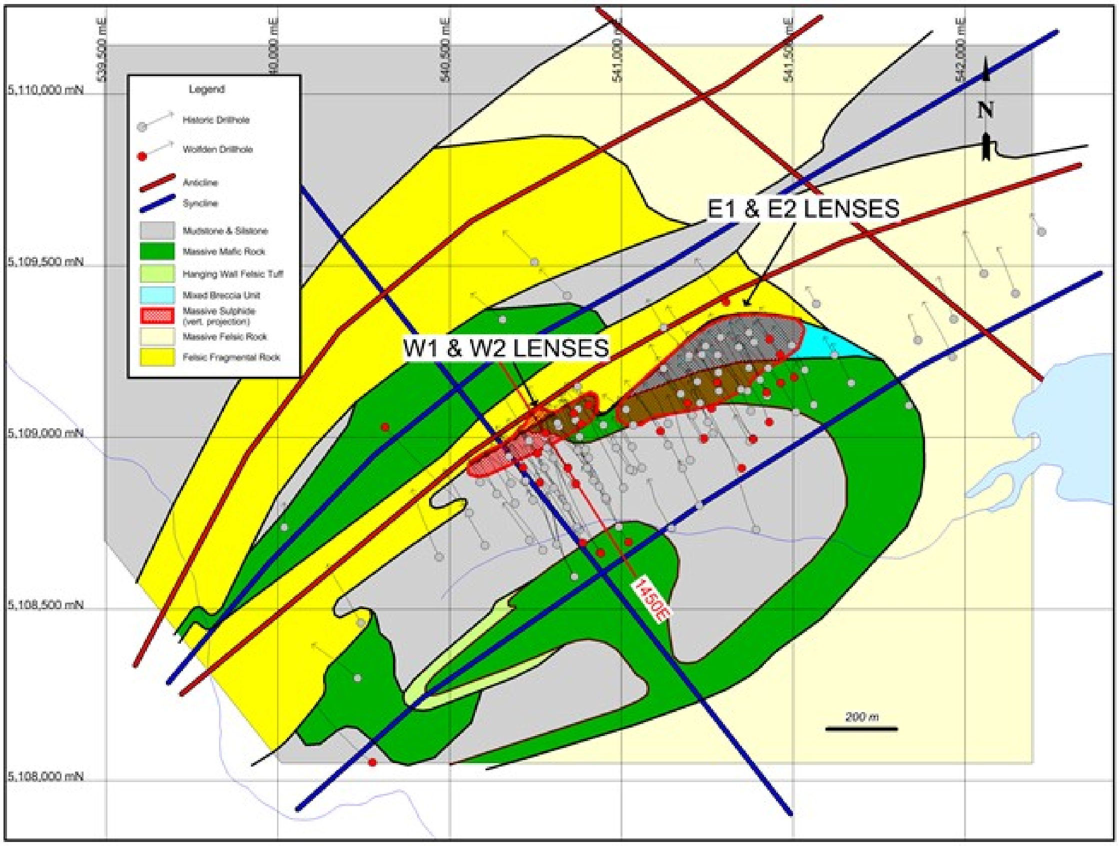

Figure 7.4 Geology plan map of the Pickett Mountain deposit

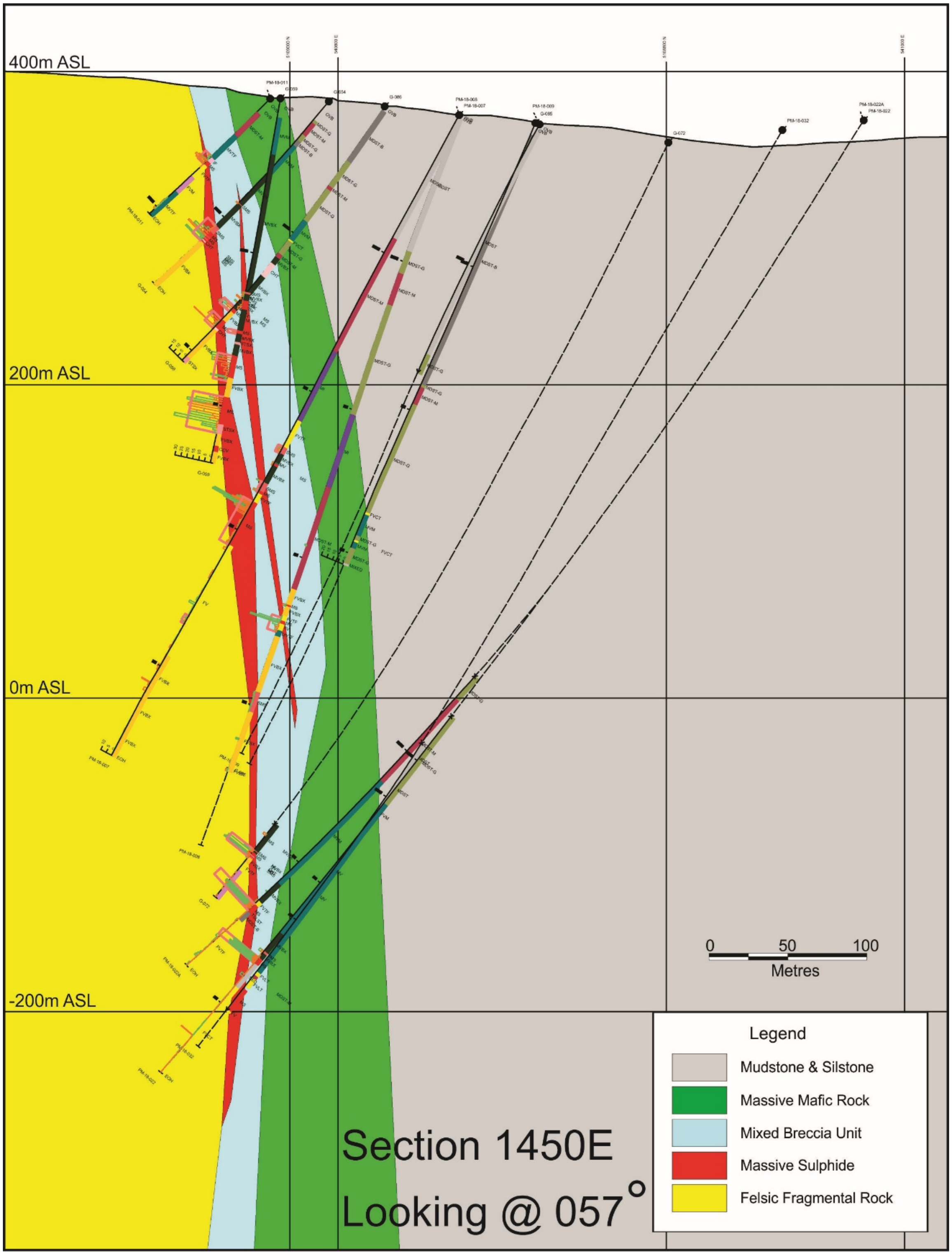

Figure 7.5 Cross Section of the Pickett Mountain deposit

In 2018, geological mapping was completed in the deposit area as well as in the northwest portion of the Property. Outcrop exposure is quite poor; mapping was augmented with the logged drill-hole geology in the deposit area. Three main rock units were observed in the outcrop: footwall felsic volcanic rock, hanging wall mudstone-siltstone, and hanging wall massive mafic rock.

In the deposit area, the contact between the footwall and hanging wall rocks is occupied by an assemblage of mafic and felsic flows and breccia, mudstone, and massive sulphide. Generally, contacts and bedding strike northeast and dip steeply to the southeast. Repetitions of the contact between the footwall and hanging wall rocks suggest folding. The W1 and W2 Lenses are planar and steeply dipping. The E1 Lens is similarly oriented at its west edge, but the strike rotates clockwise and the dip shallows eastward, as it becomes affected by an interpreted synclinal fold nose with an axis that plunges towards the southwest.

7.2.1 STRATIGRAPHY

7.2.1.1 Footwall Felsic Rocks

The lowermost rock units are felsic volcanic fragmental rocks and a unit of massive, quartz-feldspar porphyritic rock described herein as QFP.

The fragmental rock is commonly felsic volcanic breccia, consisting of rounded, oblate fragments in a matrix of similar composition and texture, but a slightly different colour. Quartz and more commonly, feldspar phenocrysts, are generally round and less than 1 mm. Sections of the breccia contain abundant blocky patches of dark, fine-grained felsic rock with scattered 0.5 mm plagioclase phenocrysts thought to be fiamme, although wall rock rip-ups have also been reported. The fragmental rock also includes sections of tuff and lapilli tuff, which are compositionally similar to the volcanic breccia. Thin aplite dykes are reported in the drill logs. The foliation is usually penetrative and the aspect ratio of the fragments is 2:1:1. Sericitisation is always present and commonly minor, but increases to strong in the deposit area.

The QFP is massive and hard, with abundant 1-2 mm rounded quartz and feldspar phenocrysts in a fine-grained, hard, felsic matric. The quartz eyes tend to clump together in 0.5-1.0 cm masses somewhat resembling raspberries. The foliation appears as anastomosing 0.5 cm-spaced cleavage, and alteration is not observed.

7.2.1.2 Massive Sulphide

The massive sulphide is fine-grained and weakly to moderately banded, with the banding defined by centimetre to decimetre scale variations in the content of pyrite, sphalerite, galena, chalcopyrite, and gangue minerals. Other minerals present in varying amounts include calcite, chlorite, tetrahedrite, arsenopyrite, and magnetite.

The massive sulphide attains a maximum horizontal width of up to 25 metres (E1 Lens).

7.2.1.3 Breccia Unit

In the deposit area, a disrupted assemblage of rock types separates the deposit contact and a stratigraphically overlying massive mafic flow. The unit is 150 metres wide horizontally in the footwall to the East Zone, but thins to the west, pinching out near the West Zone.

The unit is not exposed on the surface; the drill logs suggest the unit is dominantly mafic breccia, with fist-sized mafic bombs in hyaloclastite. Other rocks include massive felsic and pyroclastic flows (which have Zr/Ti ratios distinctly lower than those of the footwall felsic rock), black and maroon mudstone (similar to those in the mudstone-siltstone unit), maroon chert, and semi-massive and massive sulphide.

A tentative interpretation of this unit is a flow breccia at the front of, and then overridden by the overlying mafic flow.

7.2.1.4 Massive Mafic Flow

This thick unit was initially mapped as anorthosite, as it consists almost entirely of fine-grained, equant plagioclase with <5% clinopyroxene. The rock is featureless and massive and has been named massive mafic flow because of the associated breccias.

7.2.1.5 Mudstone and Siltstone

Mudstone, with lesser siltstone, is the uppermost unit observed. The mudstone is dark green to black or, in a 200 metre thick horizon, alternating medium green and maroon. The siltstone is light beige and occurs in 5 cm to 30 cm beds. Bedding is otherwise faint to absent.

7.2.2 Metamorphism

Chlorite is the only possible prograde metamorphic mineral observed suggesting at most, lower greenschist grade metamorphism.

7.2.3 Structure

Similar felsic volcanic rocks and mudstone-siltstone are repeated across several contacts throughout the mapped area. Regional USGS mapping of nearby stratigraphic units indicate contacts repeated by closely spaced anticlines and synclines, or folding, in nearby stratigraphic units rather than a history of alternating volcanism and sedimentation. The deposit horizon is rotated into an interpreted syncline east of the East Zone, also arguing for fold repetitions of the contact.

Foliations in the rocks are axial planar to the interpreted folds near contacts but tend to be more northerly away from contacts. It is suggested that these foliations record a later flattening that produced cross-folding in the deposit area.

7.3 MINERALISATION

The mineral zone at Pickett Mountain is a volcanogenic massive sulphide deposit that strikes at approximately 057°. It has been traced by drilling approximately 900 metres along strike and to 750 vertical metres below surface. It consists of 4 primary lenses and several minor lenses that likely reflect the original formation of the mineralisation. It is stratabound and is hosted primarily by an intermediate to felsic lapilli tuff to volcanic breccia unit (Scully, 1988).

Primary minerals of economic interest are chalcopyrite, galena, and sphalerite intercalated with variable amounts of pyrite. Accessory minerals include tetrahedrite and minor arsenopyrite. There are four primary lenses of massive sulphide that have been discovered to date (W1, W2, E1, and E2). These vary from 0.5 metres to about 25 metres in horizontal width and with the highest base metal grades situated at or near the base of the massive sulphide lenses. The high-grade Cu-Pb-Zn sulphides are typically finely laminated and are overlain and in sharp contact with massive pyrite (Scully, 1988).

The high-grade sulphides typically include 45% to 60% pyrite, 15% sphalerite, 3% galena, and 4% chalcopyrite. There are also minor amounts of tetrahedrite, tennantite, arsenopyrite, magnetite, and barite. Laminations are typically 2 mm to 5 cm in thickness and are compositionally defined (Scully, 1988).

The W1 Lens is the most prominent massive sulphide lens discovered to date having been traced by drilling over a 300 metre strike length and to a vertical depth of 750 metres. Notably, it also is the highest grade of all lenses based on current and historic drilling. The W2 Lens is situated in the hanging wall, or slightly to the south of the W1 Lens. It also has been traced over a 300 metre strike length and to a vertical depth of approximately 600 vertical metres.

The E1 and E2 Lenses are situated at the same stratigraphic level; the E2 Lens is located close to the surface while the E1 Lens sits at greater depth. Collectively, they have been traced over a strike-length of close to 550 metres and to a maximum vertical depth of about 400 metres below the surface.

Longitudinal sections for all 4 massive sulphide lenses are depicted in Figure 7.6 and Figure 7.7.

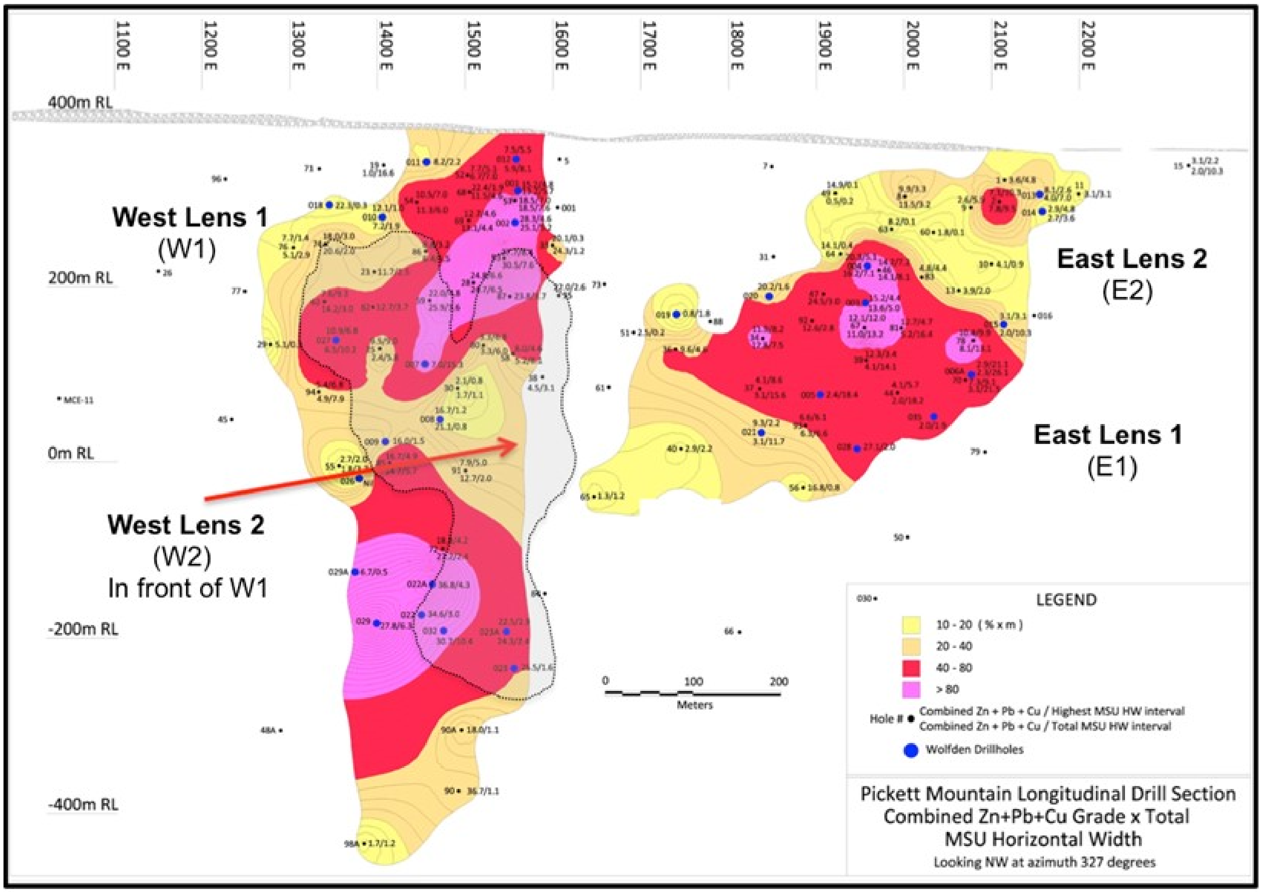

Figure 7.6 Longitudinal section of the W1, E1, and E2 massive sulphide lenses

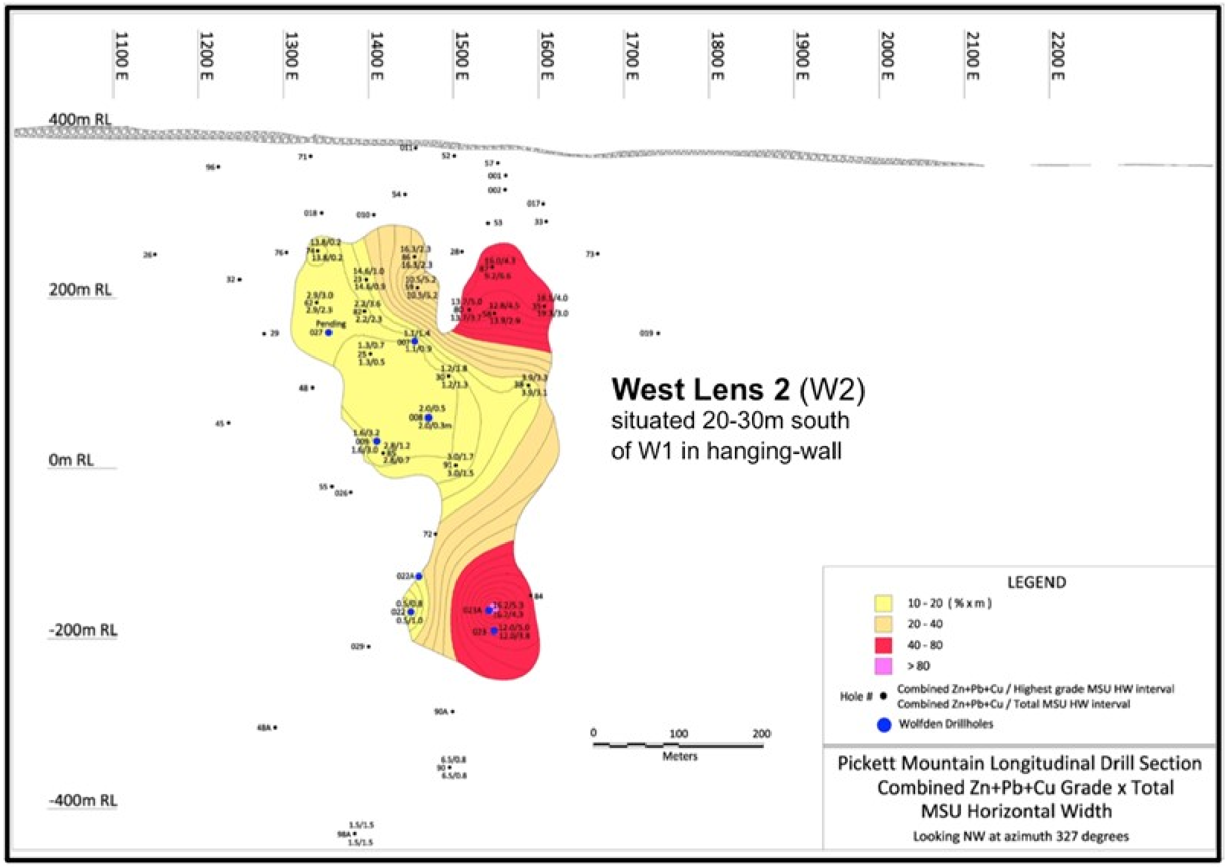

Figure 7.7 Longitudinal section of the W2 massive sulphide lens

Table 7.1 tabulates the most significant intersections obtained from the 4 massive sulphide lenses based on historic drilling (Getty and Chevron) and by recent drilling completed by Wolfden.

TABLE 7.1
SIGNIFICANT DRILL INTERCEPTS FROM HISTORIC DRILLING AND WOLFDEN DRILLING
(PM SERIES OF HOLES)

Pickett Mountain Massive Sulphide Zone Comprehensive Drill Results - Historical and Recent													
Section	Zone	Hole #	From (m)	To (m)	Length (m)	Long HW (m)	Zn (%)	Pb (%)	Cu (%)	Ag (%)	Au (%)	Cu + Pb + Zn (%)	(Cu + Pb + Zn) * HW (%m)
1250E	MS-W1	29	279.04	279.65	0.45	0.28	3.50	1.30	0.26	8.57	0.34	5.06	1.40
1300E	MS-W1	76	162.89	168.30	5.41	2.89	1.67	0.57	2.88	38.24	0.36	5.12	14.79
1350E	MS-W1	55	457.60	462.77	5.18	3.71	0.99	0.33	0.56	8.96	0.18	1.88	6.99
1350E	MS-W1	62	212.59	219.91	7.31	3.00	8.59	4.55	1.09	76.88	0.87	14.23	42.69
1350E	MS-W1	74	158.20	161.54	3.34	1.98	13.53	5.11	1.95	167.80	0.98	20.58	40.75
1350E	MS-W1	94	316.43	332.25	15.82	7.89	2.71	1.08	1.09	44.55	0.73	4.89	38.61
1350E	MS-W1	PM-18-018	110.10	110.60	0.49	0.29	11.70	8.31	2.25	100.00	0.46	22.26	6.48
1350E	MS-W1	PM-18-027	254.99	279.40	13.20	10.21	6.47	2.72	1.41	96.92	0.56	10.60	108.28
1350E	MS-W1	PM-18-029A	612.46	613.42	0.95	0.70						Pending	Pending
1400E	MS-W1	23	197.92	201.32	3.40	2.45	6.32	3.22	2.12	65.37	0.71	11.66	28.61
1400E	MS-W1	25	314.55	321.47	6.92	5.78	1.35	0.33	0.72	10.74	0.24	2.39	13.83
1400E	MS-W1	82	254.20	259.10	4.90	3.66	7.22	2.85	2.64	115.21	0.95	12.71	46.53
1400E	MS-W1	85	398.50	411.21	12.71	5.70	8.81	4.04	1.88	92.74	1.02	14.72	83.88
1400E	MS-W1	98A	925.92	927.32	1.40	1.16	1.58	0.01	0.10	1.30	0.10	1.69	1.96
1400E	MS-W1	PM-18-010	123.60	126.89	3.30	1.91	5.02	1.63	0.50	40.10	0.30	7.15	13.68
1400E	MS-W1	PM-18-026	492.49	497.20	4.71	3.21						Nil	Nil
1400E	MS-W1	PM-18-029	657.60	668.15	10.55	6.34	19.32	7.24	1.24	206.36	1.28	27.80	176.37
1450E	MS-W1	54	112.93	121.30	8.37	6.01	7.76	2.27	1.23	44.25	0.71	11.26	67.65
1450E	MS-W1	59	194.28	211.99	17.70	3.60	14.98	7.80	3.14	150.75	1.19	25.92	93.30
1450E	MS-W1	72	526.77	530.69	3.92	2.44	18.10	8.54	0.56	210.05	1.13	27.20	66.30
1450E	MS-W1	86	172.20	180.20	8.00	5.53	3.04	1.11	2.23	35.78	0.59	6.38	35.30
1450E	MS-W1	PM-18-007	279.70	311.19	31.49	15.32	4.41	1.65	0.97	60.54	0.61	7.03	107.69
1450E	MS-W1	PM-18-008	342.29	344.70	2.41	0.79	16.78	3.98	0.37	68.38	0.53	21.13	16.78
1450E	MS-W1	PM-18-009	380.90	384.40	3.50	1.50	10.58	4.14	1.26	85.15	0.59	15.97	23.96
1450E	MS-W1	PM-18-011	56.59	59.59	3.00	2.15	4.22	1.42	2.60	34.26	0.54	8.24	17.75
1450E	MS-W1	PM-18-022	662.20	666.91	4.71	3.01	23.83	9.88	0.88	262.59	1.52	34.58	104.25
1450E	MS-W1	PM-18-022A	639.40	645.30	5.90	4.25	23.95	11.84	0.95	324.08	1.35	36.73	156.13
1500E	MS-W1	28	200.75	210.82	10.06	6.53	15.91	7.41	1.42	181.06	1.83	24.74	161.57
1500E	MS-W1	30	342.35	344.00	1.62	1.13	0.90	0.40	0.36	22.00	0.27	1.67	1.89
1500E	MS-W1	52	54.03	68.00	13.79	6.96	4.03	1.71	0.92	33.75	0.50	6.66	46.39
1500E	MS-W1	68	64.77	85.64	20.87	4.55	7.80	2.59	1.13	44.75	0.52	11.51	52.44
1500E	MS-W1	69	91.28	121.60	30.32	4.37	8.40	3.55	1.16	107.32	0.95	13.11	57.34
1500E	MS-W1	80	283.46	293.06	9.61	6.04	1.61	1.09	0.58	14.74	0.44	3.27	19.76
1500E	MS-W1	90	812.43	814.34	1.91	1.10	25.21	10.66	0.87	140.53	0.85	36.75	40.27
1500E	MS-W1	91	432.51	435.12	2.62	1.95	8.26	3.00	1.45	70.65	1.45	12.72	24.81
1500E	MS-W1	90A	761.76	763.13	1.37	1.05	12.50	4.75	0.77	93.24	0.79	18.02	18.96
1500E	MS-W1	PM-18-023	722.00	724.40	2.40	1.60	20.39	3.75	1.39	107.14	1.05	25.53	40.82
1500E	MS-W1	PM-18-023A	686.90	690.19	3.29	2.42	15.83	7.78	0.70	167.87	0.93	24.30	58.78
1550E	MS-W1	53	157.89	171.79	13.90	7.58	18.61	10.25	1.63	229.89	1.62	30.49	230.94
1550E	MS-W1	57	81.40	95.98	14.58	7.64	11.06	5.91	1.54	145.75	0.92	18.51	141.36
1550E	MS-W1	58	278.07	292.61	14.54	8.15	2.97	1.30	0.94	78.25	0.45	5.21	42.48
1550E	MS-W1	87	214.97	220.70	5.73	3.71	15.53	6.02	2.25	191.42	0.88	23.80	88.19
1550E	MS-W1	PM-17-001	84.25	92.20	7.95	5.69	7.88	3.83	1.51	104.01	0.85	13.23	75.25
1550E	MS-W1	PM-17-002	109.80	119.69	9.90	5.19	16.31	7.09	1.73	185.61	1.42	25.13	130.40
1550E	MS-W1	PM-18-012	37.30	48.70	11.40	8.14	3.63	1.43	0.83	34.84	0.30	5.89	47.94
1600E	MS-W1	33	156.88	158.44	0.76	1.25	13.60	9.78	0.90	186.76	1.01	24.28	30.25
1650E	MS-E1	65	413.30	416.59	3.29	1.16	0.77	0.26	0.32	4.86	0.53	1.35	1.57
1750E	MS-E1	36	275.97	282.30	6.33	4.52	6.11	2.46	1.07	63.61	0.72	9.64	43.60
1750E	MS-E1	40	385.66	388.90	3.20	2.22	1.54	0.59	0.77	0.00	0.55	2.90	6.43
1750E	MS-E1	PM-18-019	235.90	238.80	2.90	1.83	0.40	0.08	0.28	3.88	0.05	0.76	1.39
1850E	MS-E1	34	245.04	259.10	14.06	7.53	8.68	3.28	0.82	78.59	0.99	12.78	96.23
1850E	MS-E1	37	320.03	341.99	21.96	15.62	1.64	0.69	0.72	51.18	0.73	3.05	47.71
1850E	MS-E1	PM-18-020	194.60	197.80	3.20	1.65	13.15	5.34	1.70	124.66	1.14	20.20	33.24
1850E	MS-E1	PM-18-021	350.00	371.00	21.00	11.68	1.99	0.69	0.34	15.02	0.30	3.02	35.25
1900E	MS-E1	47	181.19	187.60	6.40	3.02	17.09	6.42	1.02	128.91	1.40	24.53	74.20
1900E	MS-E1	49	67.21	67.57	0.30	0.22	0.21	0.17	0.12	0.17	0.14	0.50	0.11
1900E	MS-E1	56	396.85	398.80	1.95	0.81	12.00	4.08	0.67	96.38	1.30	16.76	13.53
1900E	MS-E1	64	118.06	130.82	12.77	0.35	8.24	3.71	1.36	83.84	0.78	13.32	4.72
1900E	MS-E1	92	225.31	229.50	4.19	2.82	8.41	3.29	0.87	76.64	0.81	12.57	35.48
1900E	MS-E1	93	330.04	343.70	13.66	6.62	3.94	1.46	0.85	72.97	1.12	6.25	41.38
1900E	MS-E1	PM-18-005	278.11	323.91	45.80	18.39	1.30	0.51	0.59	24.04	0.43	2.41	44.28
1950E	MS-E1	39	236.52	268.70	32.15	14.09	2.31	0.90	0.85	22.46	0.44	4.06	57.26
1950E	MS-E1	46	161.85	171.91	9.30	8.08	9.58	3.66	0.79	86.27	0.72	14.04	113.34
1950E	MS-E1	67	172.66	254.12	68.28	13.20	6.78	3.04	1.20	50.22	0.65	11.02	145.65
1950E	MS-E1	PM-18-003	192.89	202.60	9.71	4.99	9.27	3.39	0.99	58.78	0.73	13.64	68.10
1950E	MS-E1	PM-18-004	170.61	180.89	10.29	7.12	10.96	4.06	1.23	117.31	0.96	16.25	115.76
1950E	MS-E1	PM-18-028	390.89	394.30	3.41	2.04	19.14	7.37	0.60	151.04	1.16	27.12	55.22

TABLE 7.1
SIGNIFICANT DRILL INTERCEPTS FROM HISTORIC DRILLING AND WOLFDEN DRILLING (PM SERIES OF HOLES)
(CONTINUED)

Section	Zone	Hole #	From (m)	To (m)	Length (m)	Long HW (m)	Zn (%)	Pb (%)	Cu (%)	Ag (%)	Au (%)	Cu + Pb + Zn (%)	(Cu + Pb + Zn) * HW (%m)
2000E	MS-E1	8	88.09	91.74	2.74	3.25	7.27	2.62	1.63	60.61	1.47	11.53	37.46
2000E	MS-E1	44	292.46	318.21	25.69	18.19	0.94	0.52	0.53	8.50	0.41	1.99	36.24
2000E	MS-E1	63	95.71	95.90	0.20	0.04	5.30	2.40	0.54	30.17	0.45	8.24	0.35
2000E	MS-E1	81	230.12	255.60	25.01	16.44	3.16	1.22	0.78	32.11	0.59	5.16	84.81
2000E	MS-E1	83	204.37	209.85	5.48	4.41	3.14	1.24	0.43	29.45	0.33	4.81	21.23
2050E	MS-E2	9	78.03	85.95	7.62	5.88	2.08	0.28	0.30	20.16	0.75	2.66	15.63
2050E	MS-E2	13	183.79	186.69	2.74	2.14	2.62	0.54	0.72	57.90	0.57	3.88	8.30
2050E	MS-E1	60	94.49	96.31	1.82	0.13	0.79	0.28	0.75	5.14	0.17	1.82	0.24
2050E	MS-E2	70	263.05	304.80	35.35	21.53	1.76	0.58	0.69	20.40	0.49	3.03	65.22
2050E	MS-E2	78	229.51	252.56	23.05	13.10	5.01	2.00	1.10	48.88	0.62	8.12	106.32
2050E	MS-E2	PM-18-006A	255.70	308.10	52.40	26.09	1.33	0.48	0.50	18.63	0.30	2.31	60.28
2100E	MS-E2	1	40.84	47.55	6.58	4.90	2.08	0.73	0.72	29.36	0.20	3.54	17.36
2100E	MS-E2	2	64.16	76.96	12.65	9.50	5.02	1.87	0.91	49.63	0.63	7.80	74.08
2100E	MS-E2	10	168.86	170.08	1.07	1.02	2.49	0.67	0.93	48.48	0.20	4.09	4.18
2150E	MS-E2	PM-18-013	59.10	68.50	9.40	7.01	2.38	0.83	0.75	32.17	0.41	3.96	27.78
2150E	MS-E2	PM-18-014	86.70	91.70	5.00	3.61	1.70	0.55	0.47	24.66	0.28	2.72	9.84
2100E	MS-E2	PM-18-015	229.00	245.50	16.50	10.33	1.10	0.42	0.52	18.58	0.27	2.04	21.08
2200E	MS-E2	11	53.04	57.45	4.41	3.06	2.15	0.56	0.42	30.43	0.41	3.13	9.58
1350E	MS-W2	62	199.33	205.13	5.80	2.37	1.47	0.50	0.94	20.53	0.72	2.91	6.90
1350E	MS-W2	74	151.27	151.64	0.01	0.22	9.30	3.65	0.84	82.96	0.62	13.79	3.03
1350E	MS-W2	PM-18-027	242.80	246.00	3.20	1.32						Pending	Pending
1400E	MS-W2	23	192.02	193.32	1.30	0.92	8.08	5.01	1.58	101.95	0.87	14.66	13.51
1400E	MS-W2	25	308.46	309.07	0.61	0.50	0.60	0.23	0.50	14.23	0.33	1.33	0.67
1400E	MS-W2	82	242.83	245.97	3.15	2.32	0.94	0.32	0.91	26.52	0.46	2.17	5.03
1400E	MS-W2	85	382.21	383.87	1.34	0.72	1.75	0.85	0.23	7.54	0.24	2.83	2.03
1400E	MS-W2	PM-18-009	369.60	376.40	6.79	2.92	0.78	0.25	0.53	16.53	0.23	1.56	4.56
1450E	MS-W2	59	167.19	181.66	14.47	2.88	6.16	2.75	1.58	88.43	0.62	10.49	30.17
1450E	MS-W2	86	162.00	164.59	2.59	1.76	11.18	3.86	1.28	85.01	1.03	16.31	28.63
1450E	MS-W2	PM-18-007	251.60	253.39	1.80	0.85	0.63	0.15	0.34	9.03	0.14	1.12	0.96
1450E	MS-W2	PM-18-008	331.88	332.88	0.98	0.33	0.96	0.36	0.73	17.60	0.17	2.05	0.67
1450E	MS-W2	PM-18-022	656.80	658.30	1.50	0.96	0.00	0.00	0.54	28.92	0.58	0.54	0.52
1500E	MS-W2	30	309.67	311.63	1.95	1.31	0.39	0.08	0.74	0.00	0.17	1.22	1.60
1500E	MS-W2	80	217.63	223.87	6.24	3.73	8.15	3.90	1.64	110.32	1.00	13.68	51.01
1500E	MS-W2	91	413.00	415.10	2.10	1.51	1.00	0.37	1.65	9.25	0.38	3.02	4.56
1550E	MS-W2	58	212.63	218.45	5.82	2.93	8.08	3.31	2.40	123.54	1.12	13.79	40.43
1550E	MS-W2	87	151.27	163.37	12.10	6.63	5.54	2.35	1.28	56.94	0.56	9.17	60.81
1550E	MS-W2	PM-18-023	661.14	667.06	5.92	3.79	7.48	3.21	1.31	62.66	0.73	12.00	45.44
1550E	MS-W2	PM-18-023A	646.60	652.60	6.00	4.33	10.19	4.69	1.28	52.93	0.49	16.17	70.01
1600E	MS-W2	35	210.65	215.10	4.39	3.03	12.82	5.65	0.86	87.84	0.83	19.34	58.61
1600E	MS-W2	38	327.57	331.55	3.98	3.09	2.26	0.88	0.73	32.37	0.45	3.87	11.98

Notes: The historical drill results included in this table were generated between 1979 to 1989 by Getty Mining Company and Chevron Resources. The historic drill core samples were cut in half using a diamond saw or core splitter and sent to Skyline Laboratories in Tucson, Arizona for analyses. Copper, lead, and zinc were analyzed utilising atomic absorption spectrometry (AA) while gold and silver were analysed utilising the fire-assay technique. High-grade copper, lead, and zinc assays obtained by AA were checked routinely utilising wet chemistry techniques. Wolfden is not aware of the quality assurance and quality control programs undertaken with these results, if any. The historical data, which does include most of the drill core in storage, does not include the original assay certificates. The historical results were compiled by Wolfden utilising original drill logs, drill sections, working files and reports, and databases prepared by the former owners of the Property at that time and subsequently acquired by Wolfden. Wolfden has not independently verified the historic results. Holes drilled by Wolfden begin with PM-17 and PM-18.

8.0 DEPOSIT TYPES

The Pickett Mountain mineral deposit type is a volcanogenic massive sulphide or VMS deposit. This style of deposit is a major source of Cu, Zn, and to a lesser extent Pb, Ag, Au, Cd, Se, Sn, Bi, and minor amounts of other metals. They have a high value due to their multi-element character and concentrated value per tonne mined. Geology, geophysics, and geochemistry can all be used to target VMS mineralisation. Issues include a generally small size (2.7 to 7.1 Mt depending on VMS model type, metallurgical changes, such as grain size and deleterious metal content (Gibson, et al., 2007).

VMS deposits are typically an accumulation of massive to semi-massive sulphides that are syngenetic, stratabound, and in part strataform. They usually consist of two parts: a concordant massive sulphide lens and an underlying discordant vein-type sulphide stringer or stock-work zone that is within a footwall alteration zone (Figure 8.1).

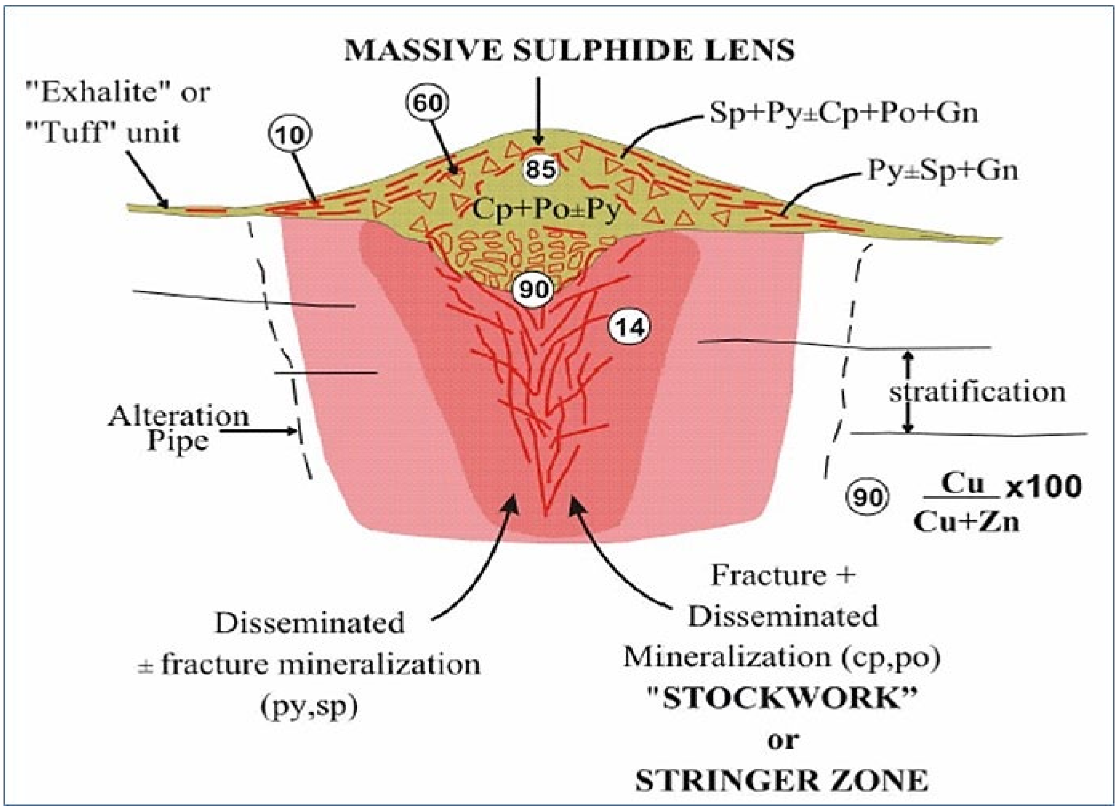

Figure 8.1 Idealized VMS deposit showing a strataform lens of massive sulphide overlying a discordant stringer sulphide zone within an envelope of altered rock (alteration pipe)
Base metal zonation indicated by numbers in circles with the highest numbers being Cu-rich and the lower numbers more Zn-rich (Py = pyrite, Cp = chalcopyrite, Po = pyrrhotite, Sp = sphalerite, and Gn = galena
(Source: Modified from Gibson, 2005)

VMS deposits are the product of hydrothermal vents on the sea floor that form syngenetically with active volcanism and/or plutonism. They form at or just below the sea floor as a product of the discharge of high temperature, seawater-dominated hydrothermal fluid, as illustrated in Figure 8.2. There are 6 main elements typically present and are considered essential for the formation of VMS hydrothermal systems and their associated base metal deposits (Gibson, et al., 2007):

1) A heat source is required to drive the hydrothermal system. This may be syn-volcanic, high level intrusions.

2) There is a high-temperature reaction zone that forms through the reaction of seawater with volcanic and sedimentary strata that result in the leaching of metals from these rocks.

3) There need to be deep penetrating syn-volcanic faults that allow the recharge and discharge of the metal-bearing hydrothermal fluid.

4) The interaction of the ascending high-temperature fluids and mixing with ambient seawater results in footwall and hanging wall alteration zones.

5) Massive sulphide deposits form at or near the seafloor due to interaction with the overlying cold seawater and the ascending hydrothermal fluids resulting in the precipitation of dissolved metals.

6) Distal products, usually exhalites, form due to the contribution of the hydrothermal system to background sedimentation.

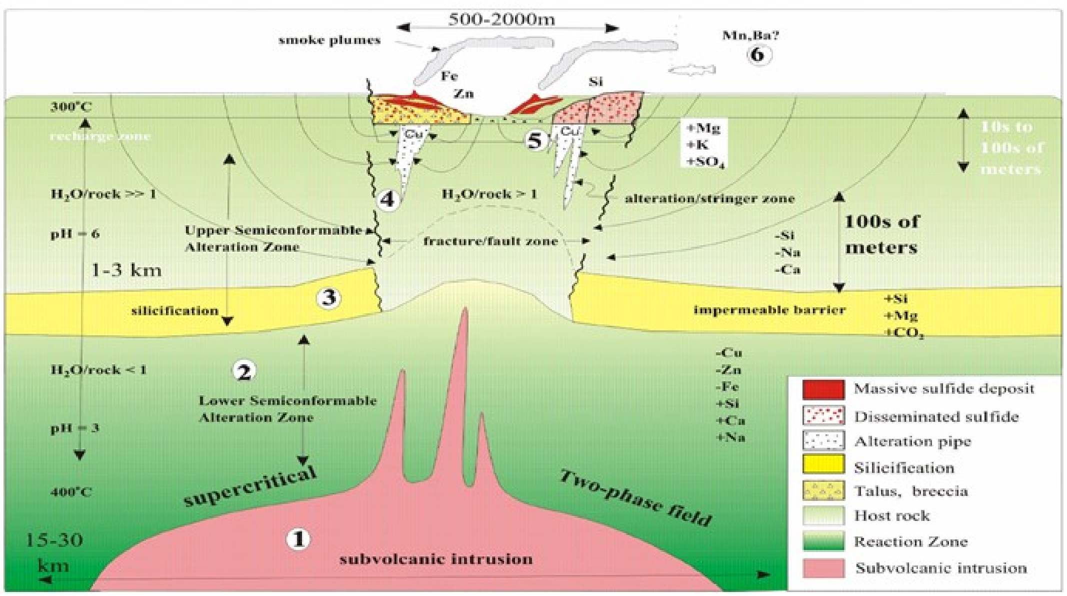

Figure 8.2 Schematic illustrating the relationship between subvolcanic intrusions, subsea-floor alteration, syn-volcanic faulting and the generation of VMS deposits (Soure: Modified after Galley, 1993 and Franklin, et al., 2005)

VMS deposits typically form in a diverse spectrum of volcanic-sedimentary environments that range from those dominated by flow, volcaniclastic, and or sedimentary rock types. Any of the three end members may be dominant, but what is characteristic for exploration purposes are the overall characteristics listed above.

9.0 EXPLORATION

Since acquiring the Property in November 2017, Wolfden has completed an airborne geophysical survey (VTEM™), ground Time-Domain (TDEM) electromagnetic surveys, bore-hole electromagnetic surveys, ground induced polarization surveys (IP), as well as geological mapping. A summary of each component of the exploration program is presented in this section.

9.1 AIRBORNE GEOPHYSICAL SURVEY

During May 3 to May 24, 2018, Geotech Ltd. carried out a helicopter-borne geophysical survey over the Pickett Mountain project situated near Patten, Maine.

The geophysical surveys consisted of helicopter-borne electromagnetics (EM) using the versatile time-domain electromagnetic (VTEM™) plus system with Full-Waveform processing. Measurements consisted of Vertical (Z) and In-line Horizontal (X) components of the EM fields using an induction coil and a horizontal magnetic gradiometer using two caesium magnetometers. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 2,853 line-kilometres of geophysical data, covering an area of 397 square kilometres, were acquired during the survey, as illustrated in Figure 9.1, below.

Data quality control and quality assurance and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Preliminary and final data processing, including generation of final digital data and map products, were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

Follow-up investigation is warranted where a clear indication of a bedrock conductor has been interpreted. The highest priority targets are reserved for those with a high conductance that can often indicate sulphide mineralisation. Lower priorities are assigned for lower conductance; however, it is important to note that lower conductance can be associated with economic mineralisation that is located deeper below the surface as well as less conductive material, such as zinc.

The VTEM survey delineated a number of EM anomalies across the Property, including prominent anomalies over the known Pickett Mountain deposit. According to calculated TAU values, most of the conductors defined by the survey correspond to low to moderate conductive targets. Additionally, most of the conductors delineated are associated with high magnetic gradient zones. Ground geophysical surveys were recommended to follow-up on the results of the airborne VTEM survey.

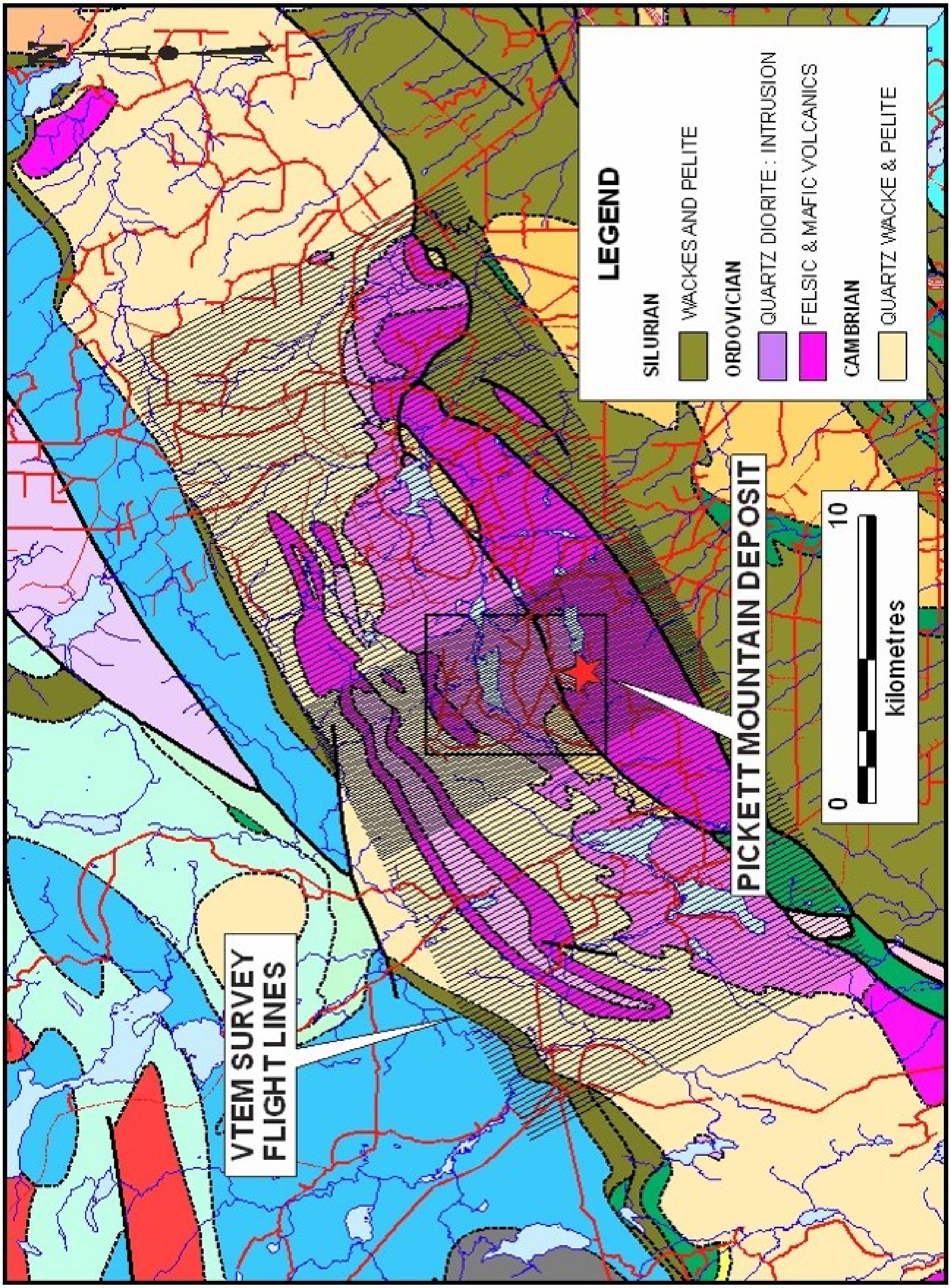

Figure 9.1 VTEM™ airborne geophysical survey coverage

9.2 GROUND INFINITEM XL TIME DOMAIN ELECTROMAGNETIC SURVEY

A ground TDEM survey was completed on the Pickett Mountain Property from April 16 to April 27, 2018 by Abitibi Geophysics, based out of Val d'Or, Quebec. The purpose of the survey was to establish an electromagnetic signature over the known Pickett Mountain massive sulphide deposit and to look for similar EM signatures in the locale of the known deposit or elsewhere on the Property that might be reflecting the presence of additional massive sulphide lenses or deposits.

A total of 18 lines were surveyed for total survey coverage of 21.4 line kilometres with readings being collected every 25 metres and 50 metres on the grid lines. The survey utilised the InfiniTEM XL configuration reading the X, Y, Z, B-field, and dB/dt components on lines spaced 100 metres and 200 metres apart, as illustrated on Figure 9.2.

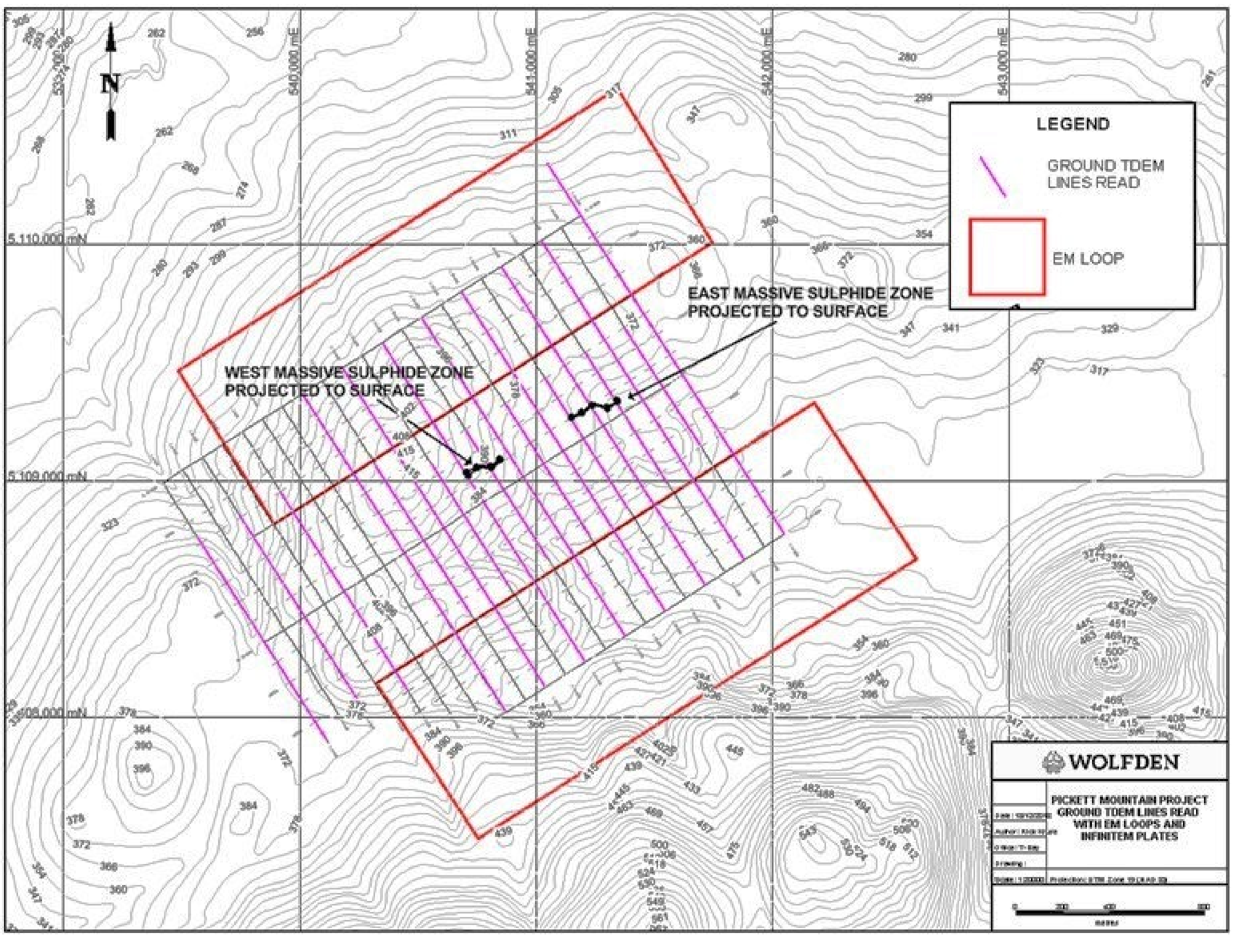

Figure 9.2 Ground InfiniTEM Time-Domain EM survey coverage

The surface probe utilised was the ARMIT 3 axis B-field and dB/dt sensor and the receiver used for the survey was the EMIT SMARTem 24. The survey employed 2 Tx Terrascope transmitters for a total of 36 kW.

The ground TDEM survey delineated a number of conductors or conductive plates, as illustrated on Figure 9.3. The conductive plates were modeled utilising the Maxwell™ software. Maxwell™ automates the handling of large data sets with inversion and forward modeling of conductive plate targets. Both the

East and West Lenses of the Pickett Mountain massive sulphide deposit elicited prominent conductive responses and are reflected by coincident conductive plates. In addition to these conductors, 3 additional significant bedrock conductors were delineated by the survey.

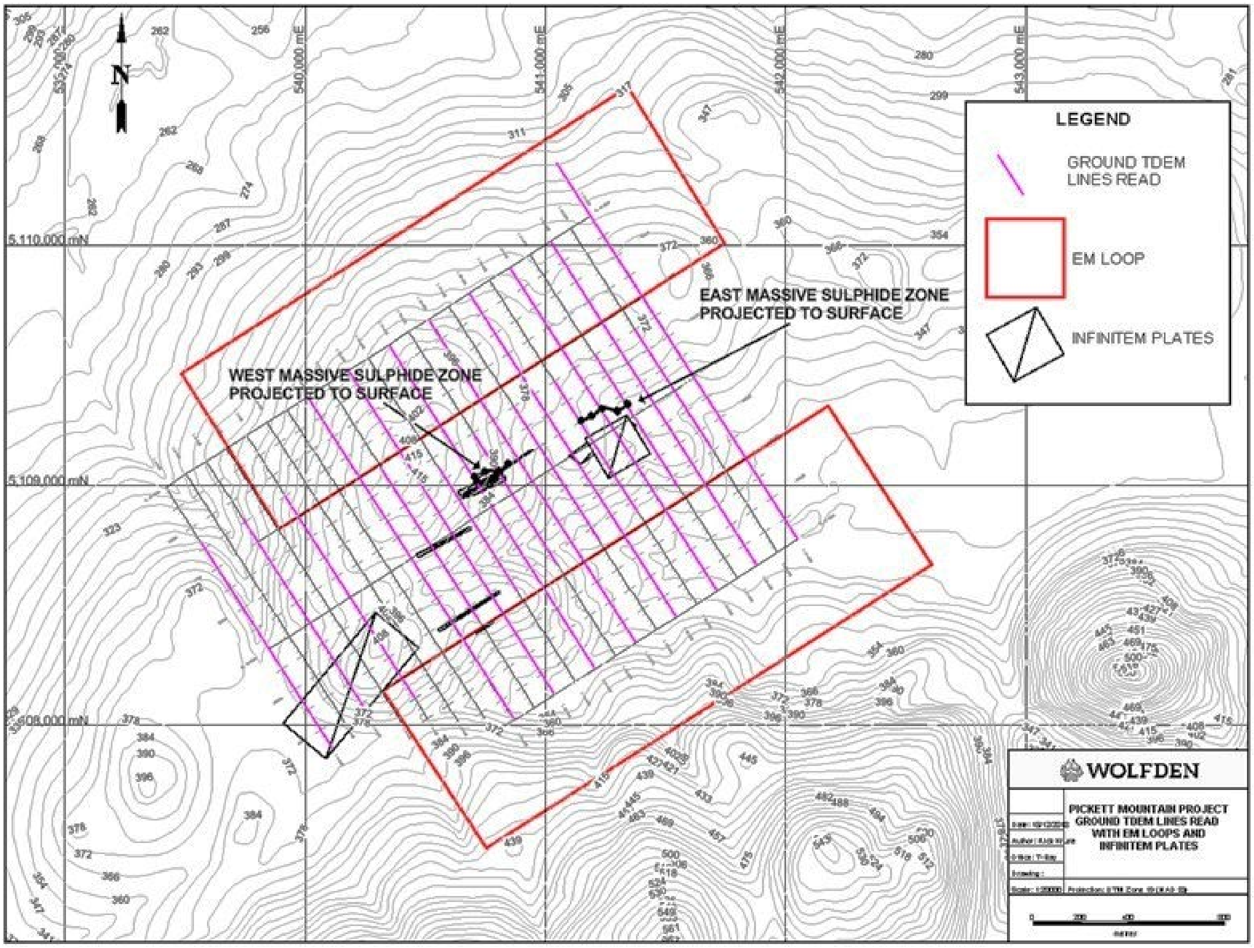

Figure 9.3 Conductors defined by the ground InfiniTEM Time-Domain EM survey

9.3 BOREHOLE INFINITEM XL TIME DOMAIN ELECTROMAGNETIC SURVEY

Borehole EM surveys were also completed by Abitibi Geophysics on the Pickett Mountain Property in 2018. The surveys were carried out in 2 phases; the first occurred in April 2018 and involved the surveying of 12 drill holes, while the second occurred in August 2018 and comprised the surveying of 3 drill holes, as illustrated on Figure 9.4. The purpose of the surveys was to help trace the depth and down-plunge extension of the known massive sulphide lenses, to detect and characterize deeply buried conductors potentially reflective of new massive sulphide mineralisation, and to identify additional targets for future exploration.

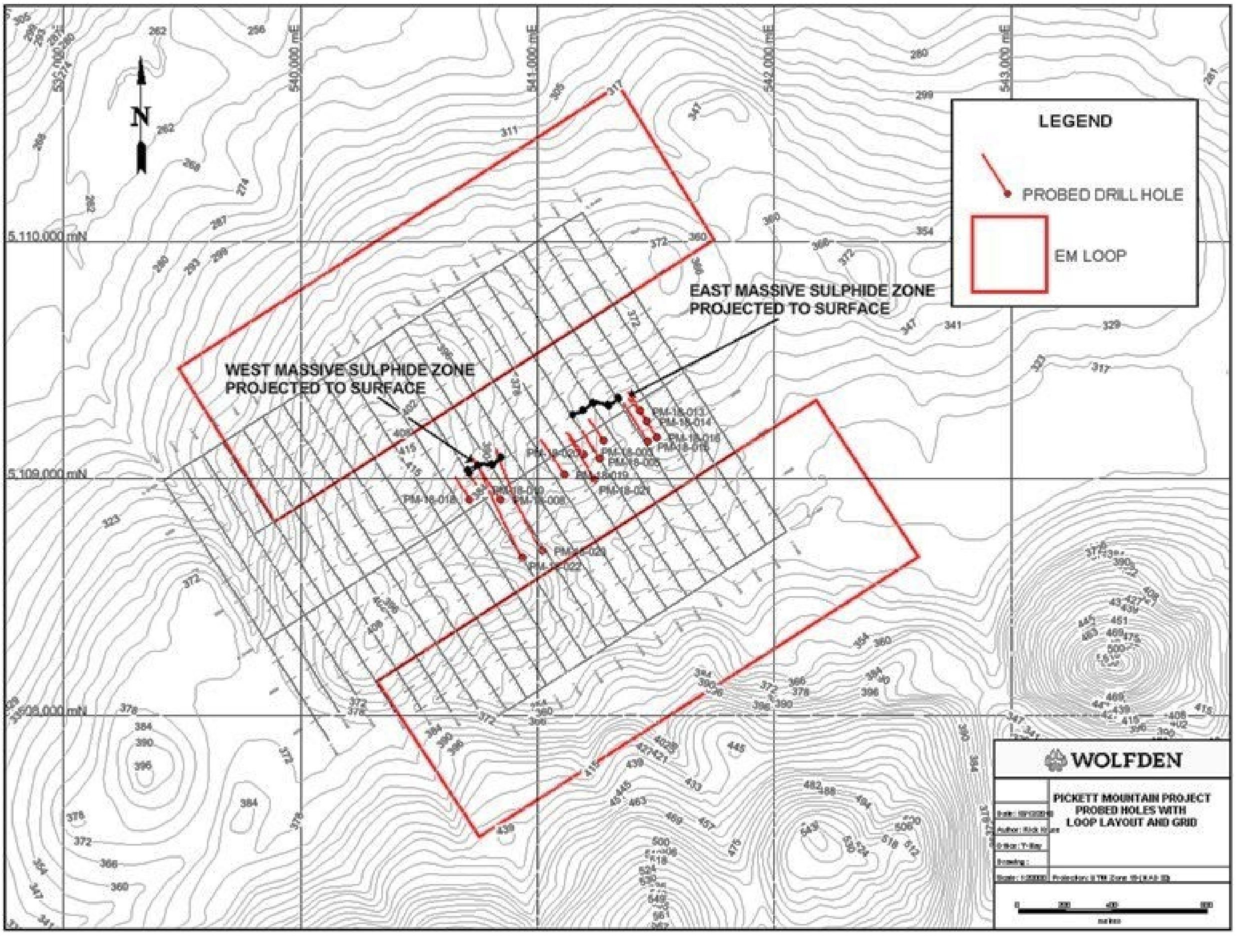

Figure 9.4 Holes surveyed by InfiniTEM XL TDEM survey

The borehole surveys utilised the InfiniTEM XL configuration and measured the secondary magnetic B-field as well as the axial (A) and orthogonal (U and V) components with the DigiAtlantis™ sensor. Reading intervals for the borehole surveys were at 5 metre and 10 metre intervals down-the-hole.

The surveys utilised 2 TX TerraScope 600V, 25A, 18 kW transmitters powered by a Voltmaster 12 kW generator. A DigiAtlantis™ receiver and probe was also employed during the survey.

Modeling of the electromagnetic data by the Maxwell™ software delineated a number of conductive plates, as shown in Figure 9.5. The known configuration of the West Lens is well reflected by conductive plates over much of its extent while the East Lens exhibits fewer conductive plates. The East Lens may have been subjected to more structural complexities, including folding or offsets. Notably, both the East and West Lenses show potential for expansion from their known extent as reflected by the location of the conductive plates.

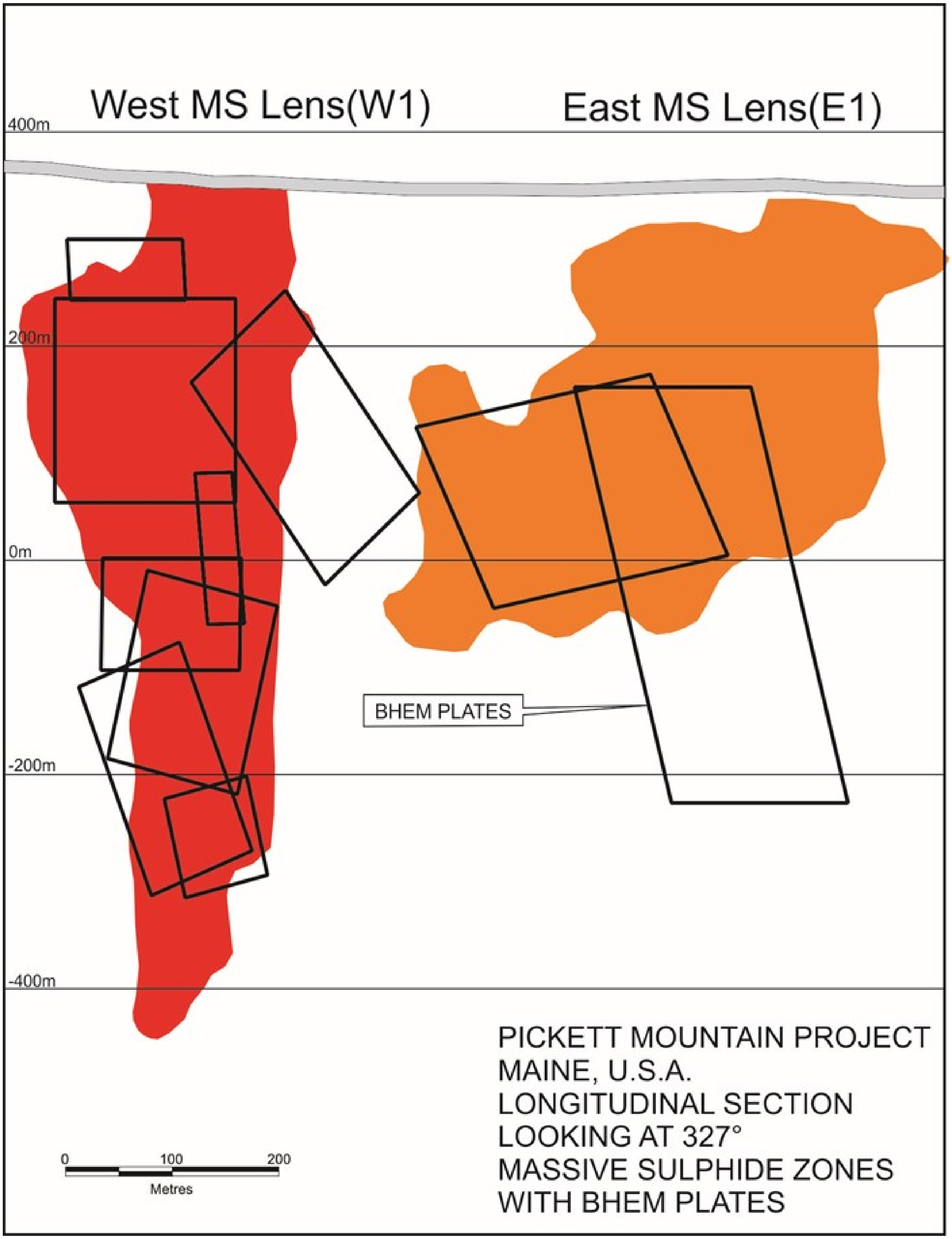

Figure 9.5 Conductive plates defined by the down-hole InfiniTEM XL TDEM survey

9.4 OREVISION INDUCED POLARIZATION SURVEY (IP)

Abitibi Geophysics completed an OreVision Time Domain Resistivity/Induced Polarization survey on the Pickett Mountain Property during the period of March 24 to April 2, 2018. The purpose of the survey was to identify geophysical signatures over mineralised zones and to define and prioritise targets for future mineral exploration. In all, the survey totalled 24.75 line-kilometres, comprising the surveying of 15 grid lines spaced 100 metres apart.

The IP transmitter utilised was the IRIS Instrument TIPIX with a maximum output of 2.2 kW employing a Honda 2000 VA as a power supply. The receiver employed during the survey was an IRIS Elrec-PRO with integrated SwitchPRO featuring 10 input channels. Electrode spacing or “a” spacing was 50 metres and readings were taken from “n”= 1 to 20.

Detailed interpretation of the pseudosections reveals a number of chargeability sources or anomalies (Figure 9.6). The strongest chargeable sources were delineated over the East and West Lenses of the Pickett Mountain deposit. Other chargeability anomalies are located primarily to the north of the Pickett Mountain deposit and immediately to the south of it. A prominent chargeability low occupies the southern portion of the survey grid and the northern anomaly may represent a lens in the footwall, 180 metres from the East Lens.

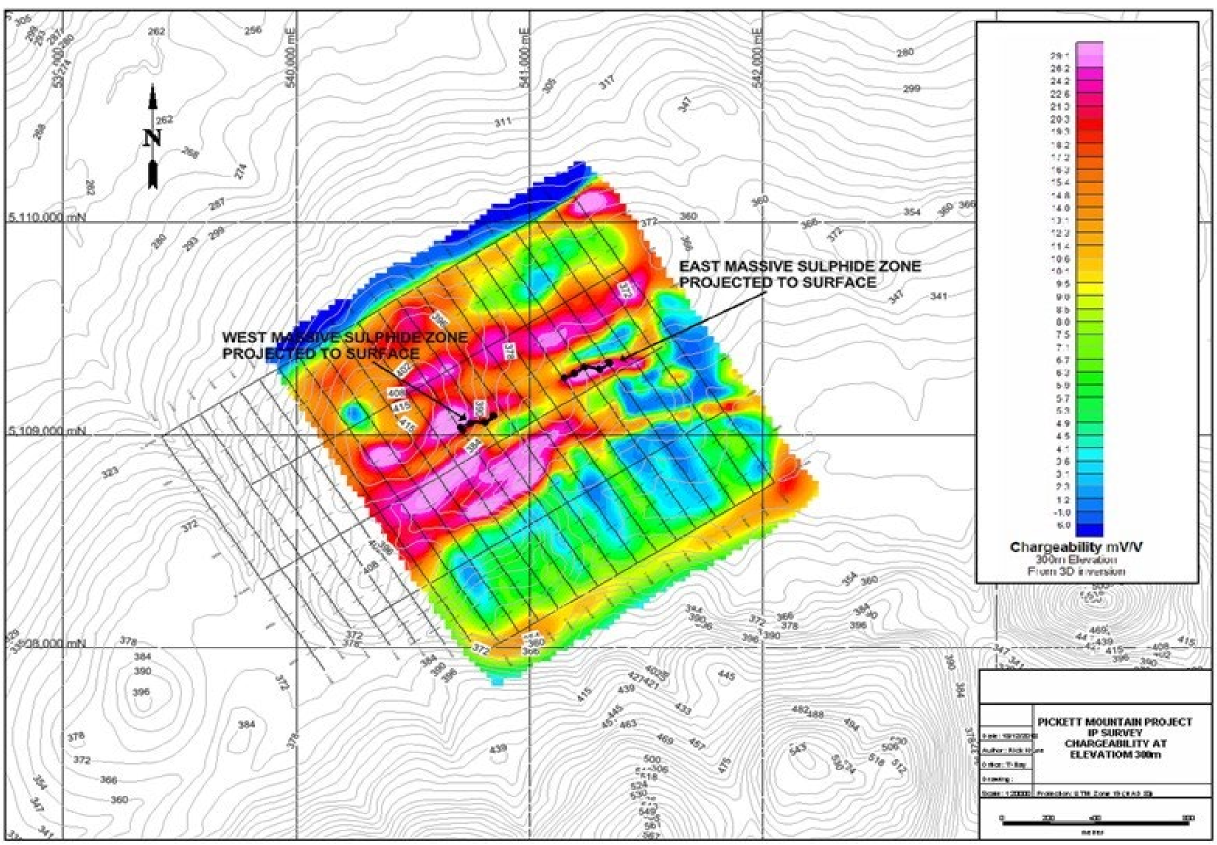

Figure 9.6 Chargeability anomalies defined by the Orevision IP survey

Resistivity anomalies were also interpreted by studying the pseudosections. As was the case with chargeability, both the East and West Lenses of the deposit were manifested by anomalous responses, in this case deep resistivity low trends, reflecting massive sulphide mineralisation (Figure 9.7). A broad area characterised by low resistivity located immediately to the south of the West Lens is thought to be reflecting the presence of sedimentary rocks.

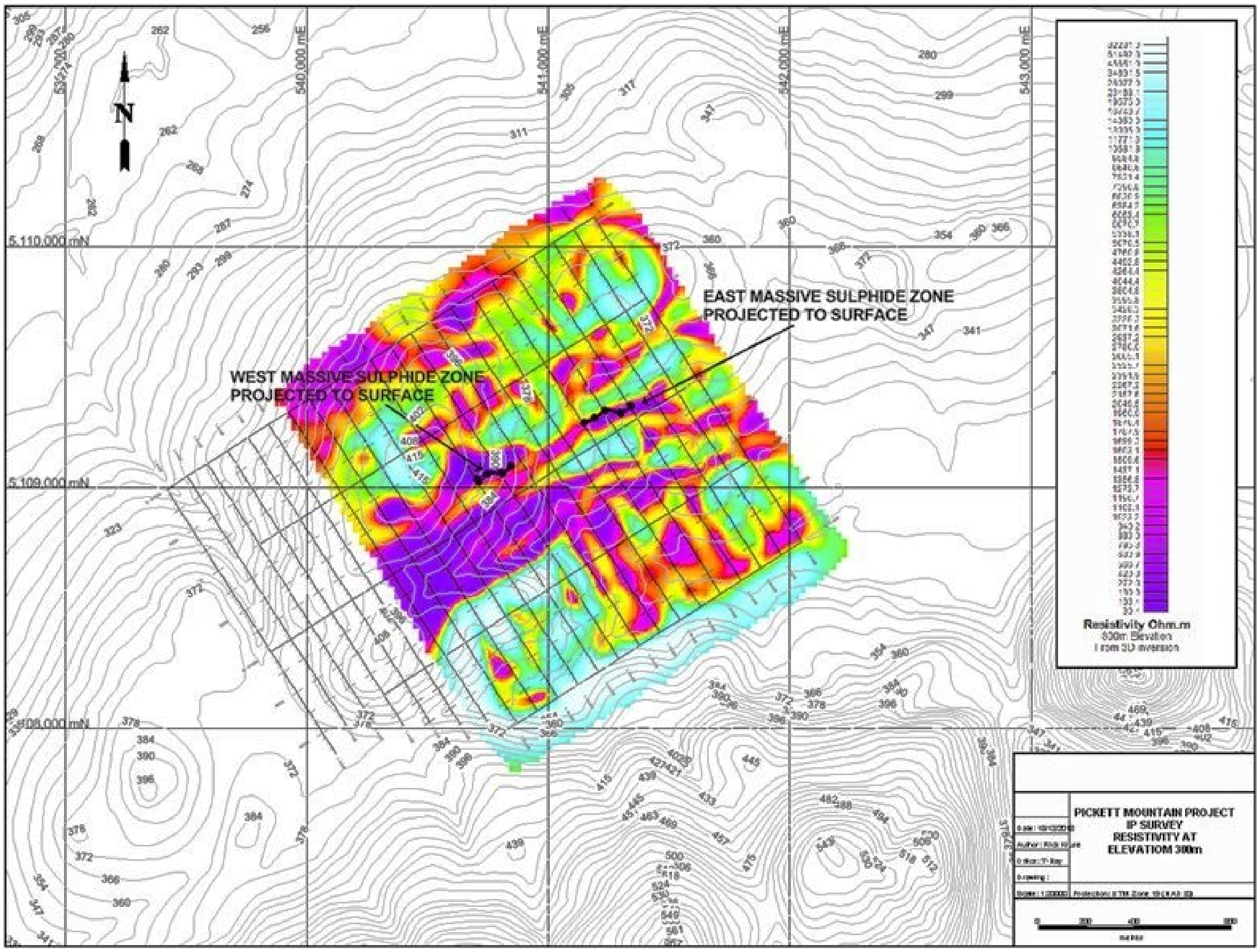

Figure 9.7 Resistivity anomalies defined by the OreVision IP survey

10.0 DRILLING

10.1 HISTORIC DRILLING

Getty Mining and Chevron Resources completed historic diamond drilling programs at Pickett Mountain during the period of 1979 to 1985. The drilling was completed by Kennebec Drilling, based out of Bangor, Maine.

In all, a total of 113 drill holes were completed during this period, for a total meterage of 34,204 metres. All of HQ-, NQ-, and BQ-sized equipment were utilised during these drilling programs. The drill holes were surveyed at the collar and down-the-hole using a Gyro instrument that measured the dip and azimuth every metre. In general, core recovery was very good averaging over 90%.

The drilling program was very successful in that the first drill hole completed, intersected massive sulphide mineralisation. This result subsequently led to an extensive drilling campaign in efforts to determine the size and grade of the new discovery as well as the limits of mineralisation. Of the 113 historic drill holes completed by Getty Mining and Chevron Resources, 74 of them intersected massive sulphide mineralisation bearing significant Zn-Pb-Cu-Ag-Au values (Table 7.1). Mineralisation from this drilling was traced over a 900 metre strike length and to a vertical depth of 750 metres.

The location, azimuth, and dip for all historic drill holes are summarized in Table 10.1. Additionally, the intersected widths and corresponding horizontal widths of all mineralised intercepts generated by the historic drilling, is documented on Table 7.1. It is notable that the general uniformity of grade for the mineral deposit is consistent, with no significant outliers in the assay results.

The data from most of these drill holes are utilised in the Mineral Resource estimate documented in this report. The historic drill core samples were cut in half using a diamond saw and sent to Skyline Laboratories in Tuscon, Arizona for analyses. Copper, lead, and zinc were analysed by atomic absorption spectrometry (AA) while gold and silver were analysed utilising fire-assay techniques. High-grade copper, lead, and zinc assays, obtained by AA, were checked routinely using wet chemistry techniques.

The historical data includes most of the drill core in storage but does not include the original assay certificates. The historical results were compiled by Wolfden using original drill logs, drill sections, working files, reports, and databases prepared by the former owners of the Property at that time and subsequently acquired by Wolfden.

TABLE 10.1
SUMMARY OF HISTORIC DIAMOND DRILLING

Hole Number	Easting (UTM m)	Northing (UTM m)	Elevation (m)	Azimuth	Dip	Total Depth (m)
1	541370.81	5109305.38	353.02	330	-45	91.89
2	541385.58	5109278.11	350.62	328	-55	117.65
3	541836.67	5109092.73	324.88	344	-50	100.58
4	540874.33	5109082.93	374.24	360	-50	24.54
5	540873.19	5109147.93	374.33	150	-45	140.36
6	541123.38	5109319.83	365.35	330	-50	130.75
7	541122.99	5109201.08	365.47	330	-48	112.16
8	541280.06	5109239.92	356.41	334	-45	112.16
9	541341.19	5109263.01	353.34	340	-60	113.68
10	541427.34	5109201.69	348.61	334	-59	246.27
11	541495.30	5109268.47	345.16	329	-48	182.57
12	541620.00	5109239.60	336.38	330	-60	100.27
13	541370.76	5109203.18	350.17	330	-70	213.65
14	541534.18	5109196.63	350.76	337	-50	202.07
15	541567.89	5109388.96	347.31	330	-50	91.44
16	542222.75	5109598.30	336.15	330	-50	91.44
17	541372.95	5108988.45	339.67	330	-60	152.40
18	541034.17	5108902.76	353.99	330	-60	183.18
19	540731.63	5108990.83	385.09	330	-50	213.36
20	540603.01	5108685.53	380.00	330	-60	182.88
21	540018.86	5108738.69	381.62	0	-45	101.80
22	540870.35	5108737.85	359.93	330	-60	166.41
23	540776.62	5108911.88	377.16	329	-60	279.49
24	540776.62	5108911.88	377.16	330	-80	159.72
25	540841.22	5108797.24	364.85	330	-60	361.78
26	540557.09	5108780.22	387.70	330	-60	248.40
27	540241.63	5108459.88	394.85	330	-60	309.05
28	540873.13	5108962.11	372.48	330	-60	266.99
29	540690.59	5108808.31	378.70	330	-60	358.73
30	540918.18	5108874.56	362.68	330	-60	382.81
31	541173.09	5109126.88	363.27	330	-60	228.59
32	540732.62	5108700.34	372.98	330	-60	218.38
33	540947.81	5109035.96	365.70	330	-60	233.78
34	541206.72	5109064.11	359.35	330	-60	334.20
35	540984.57	5108970.01	360.09	330	-60	334.35
36	541135.80	5108977.89	353.54	330	-60	325.21
37	541234.91	5108994.81	351.16	330	-66	386.16
38	541024.66	5108906.73	354.99	330	-65	453.22
39	541283.48	5109135.14	355.68	330	-65	328.25
40	541178.09	5108910.90	343.64	330	-65	453.22
41	540877.61	5108731.32	359.81	330	-65	322.16
42	540955.90	5108818.48	354.28	330	-65	213.65
43	541669.01	5109158.94	335.36	330	-65	288.63
44	541366.42	5109135.30	348.11	330	-73	438.28
45	540771.49	5108671.72	370.71	330	-70	495.89
46	541282.58	5109189.47	354.58	330	-65	179.82
47	541220.87	5109162.47	360.45	330	-70	232.55
48	540811.17	5108688.33	367.64	335	-75	471.50
48A	540811.17	5108688.33	367.64	335	-75	806.77
49	541195.64	5109231.09	361.41	335	-58	92.35
50	541376.35	5109077.55	344.37	335	-77	524.23
51	541034.45	5109036.36	360.61	333	-70	249.01
52	540818.36	5109031.73	380.03	333	-62	151.78
53	540878.27	5109002.47	372.41	335	-60	197.20
54	540783.22	5108970.38	381.00	333	-50	161.54
55	540811.63	5108689.10	367.65	339	-60	599.54
56	541266.56	5109011.47	350.37	334	-73	453.83
57	540866.03	5109050.23	374.54	337	-61	132.28

TABLE 10.1
SUMMARY OF HISTORIC DIAMOND DRILLING
(CONTINUED)

Hole Number	Easting (UTM m)	Northing (UTM m)	Elevation (m)	Azimuth	Dip	Total Depth (m)
58	540904.10	5108941.50	368.42	338	-62	337.09
59	540776.92	5109003.32	382.87	335	-80	237.12
60	541288.58	5109292.07	356.59	274	-88.5	115.21
61	541031.16	5108973.11	358.11	335	-73	334.04
62	540719.45	5108872.77	379.53	335	-65	411.46
63	541245.53	5109266.18	358.90	336	-80	119.17
64	541196.86	5109239.11	361.03	301	-89	152.70
65	541060.01	5108911.26	352.35	335	-73	510.21
66	541200.47	5108933.74	345.62	340	-73	600.46
67	541234.24	5109240.72	358.78	207	-90	257.24
68	540813.23	5109043.25	380.72	337	-78	149.65
69	540813.30	5109042.80	380.59	335	-83	164.89
70	541424.32	5109121.70	347.08	335	-66	387.38
71	540672.74	5108944.46	389.61	334	-64.5	160.93
72	540953.60	5108823.49	354.68	329	-64.5	565.07
73	541013.59	5109081.09	365.29	301	-66.5	184.40
74	540720.44	5108873.57	379.43	336.5	-56.5	181.04
75	541560.37	5109094.72	344.30	339	-66.5	295.34
76	540678.28	5108866.87	384.40	337	-59	241.39
77	540636.86	5108835.05	386.43	337	-62.5	242.32
78	541403.82	5109167.83	348.06	338.5	-65	297.78
79	541508.48	5109073.72	341.26	334	-65	455.20
80	540899.87	5108911.40	367.25	335	-56	345.02
81	541347.38	5109138.78	349.80	333.5	-59	273.39
82	540803.61	5108853.57	369.85	331	-54	294.73
83	541348.29	5109139.39	349.71	339	-46	261.20
84	541005.67	5108853.87	352.60	338	-70	611.09
85	540859.54	5108862.82	367.14	331	-67	450.47
86	540803.13	5108940.86	377.78	337	-55	208.78
87	540895.03	5108965.40	370.21	338	-59	254.80
88	541135.56	5109040.81	361.28	337.5	-64	261.20
89	541226.32	5108802.15	338.03	336	-73	492.84
90	540992.25	5108739.72	347.20	337	-68	886.01
90A	540992.25	5108739.72	347.20	337	-68	791.53
91	540935.17	5108856.23	359.46	336	-67	602.13
92	541228.45	5109100.87	358.56	339	-65	260.59
93	541251.87	5109044.19	353.67	336.5	-70	355.38
94	540743.10	5108817.77	372.77	338	-67	373.97
95	540231.95	5108298.99	406.55	315	-60	263.64
96	540588.38	5108870.09	393.63	334.5	-50	138.07
97	541400.02	5108730.94	328.59	337	-69	953.06
98	540863.16	5108594.94	382.21	330	-75	749.16
98A	540863.16	5108594.94	382.21	330	-75	944.22
99	541145.16	5108737.09	336.66	325	-80	762.30
MCE-1	542683.15	5109593.93	337.60	330	-55	214.57
MCE-2	540842.26	5109411.65	376.68	315	-45	158.79
MCE-3	540747.18	5109510.09	383.26	315	-50	199.63
MCE-4	540656.83	5109340.40	394.31	310	-50	184.40
MCE-5	543334.79	5109910.38	339.53	150	-55	159.77
MCE-6	541863.34	5109282.79	331.46	340	-55	130.75
MCE-7	541967.88	5109344.40	328.85	340	-55	227.06
MCE-8	542055.06	5109477.16	331.40	335	-55	224.02
MCE-9	541963.69	5109234.86	324.62	338	-62	321.85
MCE-10	542146.93	5109419.86	327.16	340	-65	306.61
MCE-11	540469.52	5108651.52	383.52	335	-60	398.05
					Total	19459.17

10.2 WOLFDEN DRILLING

Wolfden completed a drilling program comprising 38 drill holes totalling 15,451 metres during the period of December 2017 to December 2018. The drilling was completed by Downing Drilling Inc., based out of Duluth, Minnesota.

Both NQ- and HQ-sized equipment was utilised in the Wolfden drilling program. Drill holes were surveyed at the collar and down-hole using a Gyro instrument, every 30 metres down-the-hole. Core recovery was greater than 95%.

Most of the holes were drilled in the locale of the known Pickett Mountain deposit, largely directed at confirming the nature, grade, and extent of the massive sulphide deposit. The holes were intended largely as fill-in holes and a few were twinned holes in order to validate the historical drill findings obtained by Getty and Chevron during their earlier drilling campaigns. Step-out holes along trend and down-plunge from the known mineralisation were also completed by Wolfden, in efforts to determine the limits of massive sulphide mineralisation and to explore for additional massive sulphide lenses.

In general, the Wolfden drilling program was successful in that it did confirm and verify the nature, grade, and extent of the massive sulphide deposit in relation to the historic work. The infill component of Wolfden’s drilling program largely demonstrated continuity of massive sulphide mineralisation in locales where there were significant gaps along strike and at depth, in the historic drilling. In particular, deeper drilling below the 400 metre level at the site of the West Lens (W1) was successful in intersecting high-grade base and precious metal mineralisation and is an instrumental component in the new 43-101 compatible Mineral Resource estimate, documented in this report.

The step-out component of Wolfden’s drilling program also generated success with the discovery of a potential new massive sulphide lens located In the footwall, 180 metres to the north of the known massive sulphide deposit (E1-E2 Lens). The New Footwall Lens yielded an intercept of 4.1 metres at 38.2% ZnEq, including 16.6% Zn, 8.4% Pb, 1.9% Cu, 612.0 g/t Ag, and 0.5 g/t Au in drill hole PM-18-031. Further drilling to test the continuity of this new lens is clearly warranted.

Drill hole locations, azimuth, and inclination for Wolfden drill holes are included in Table 10.2. The intersected widths and corresponding horizontal widths of all mineralised intercepts obtained in the Wolfden drilling program are documented in Table 7.1.

The location of the historic drill holes and Wolfden drill holes are illustrated on Figure 10.1. Total metreage for both the historical and Wolfden drilling campaigns is 49,665, comprising 151 drill holes.

TABLE 10.2
SUMMARY OF WOLFDEN DIAMOND DRILLING

Hole Number	Easting (UTM m)	Northing (UTM m)	Elevation (m)	Azimuth	Dip	Total Depth (m)
PM-17-001	540881.9	5109037.7	372.7	327	-46	168
PM-17-002	540882.3	5109037.0	372.7	327	-61	180
PM-18-003	541278.9	5109158.7	356.4	327	-64	234
PM-18-004	541278.7	5109160.1	356.3	327	-50	378
PM-18-005	541262.7	5109084.4	355.2	327	-68	354
PM-18-006	541422.6	5109131.5	346.5	333	-63	33
PM-18-007	540843.9	5108911.0	372.3	327	-62	465
PM-18-008	540844.0	5108910.9	372.2	327	-69	495.5
PM-18-009	540867.7	5108865.1	366.5	316.5	-60.5	447
PM-18-010	540755.5	5108954.2	381.7	327	-55	198
PM-18-011	540778.5	5109012.0	382.9	327	-45	106.5
PM-18-012	540860.8	5109070.2	375.9	327	-45	99
PM-18-013	541431.9	5109286.8	349.1	327	-45	120
PM-18-014	541462.2	5109242.0	347.8	327	-45	171
PM-18-015	541463.6	5109158.1	350.3	327	-55	312
PM-18-016	541502.6	5109175.0	351.7	327	-55	312
PM-18-017	540905.1	5109095.1	369.8	327	-69	120
PM-18-018	540713.5	5108912.7	383.6	327	-55	192
PM-18-019	541113.1	5109018.3	358.8	327.0	-55.0	298
PM-18-020	541193.0	5109099.5	362.7	327.0	-63.0	237
PM-18-021	541241.3	5108996.6	351.0	327.0	-63.0	420
PM-18-022	540938.7	5108664.0	369.4	329.0	-58.0	759
PM-18-022A	540938.7	5108664.0	369.4	329.0	-58.0	699
PM-18-023	541020.3	5108694.6	349.2	327.0	-58.0	801
PM-18-023A	541020.3	5108694.6	349.2	327.0	-58.0	750.0
PM-18-024	540275.2	5108052.8	381.7	310.0	-70.0	597
PM-18-025	541304.7	5109393.7	357.9	329.5	-50.0	258
PM-18-026	540887.6	5108692.3	363.2	326.0	-57.0	585
PM-18-027	540762.4	5108868.5	374.3	321.5	-65.0	336
PM-18-028	541383.2	5108995.7	339.4	328.9	-60.0	708
PM-18-029	540940.9	5108662.1	369.3	325.5	-62	771
PM-18-029A	540940.9	5108662.1	369.3	325.5	-62	753
PM-18-030	541383.5	5108995.3	339.4	325.5	-74	651
PM-18-031	541349.7	5108910.0	336.9	326.3	-69.2	846
PM-18-032	540887.7	5108692.4	363.2	335	-60	705
PM-18-033	540513.0	5113880.0	313.9	340	-50	250
PM-18-034	540312.0	5109030.0	402.7	140	-55	522
PM-18-035	541430.0	5109044.0	339.0	331	-59	537

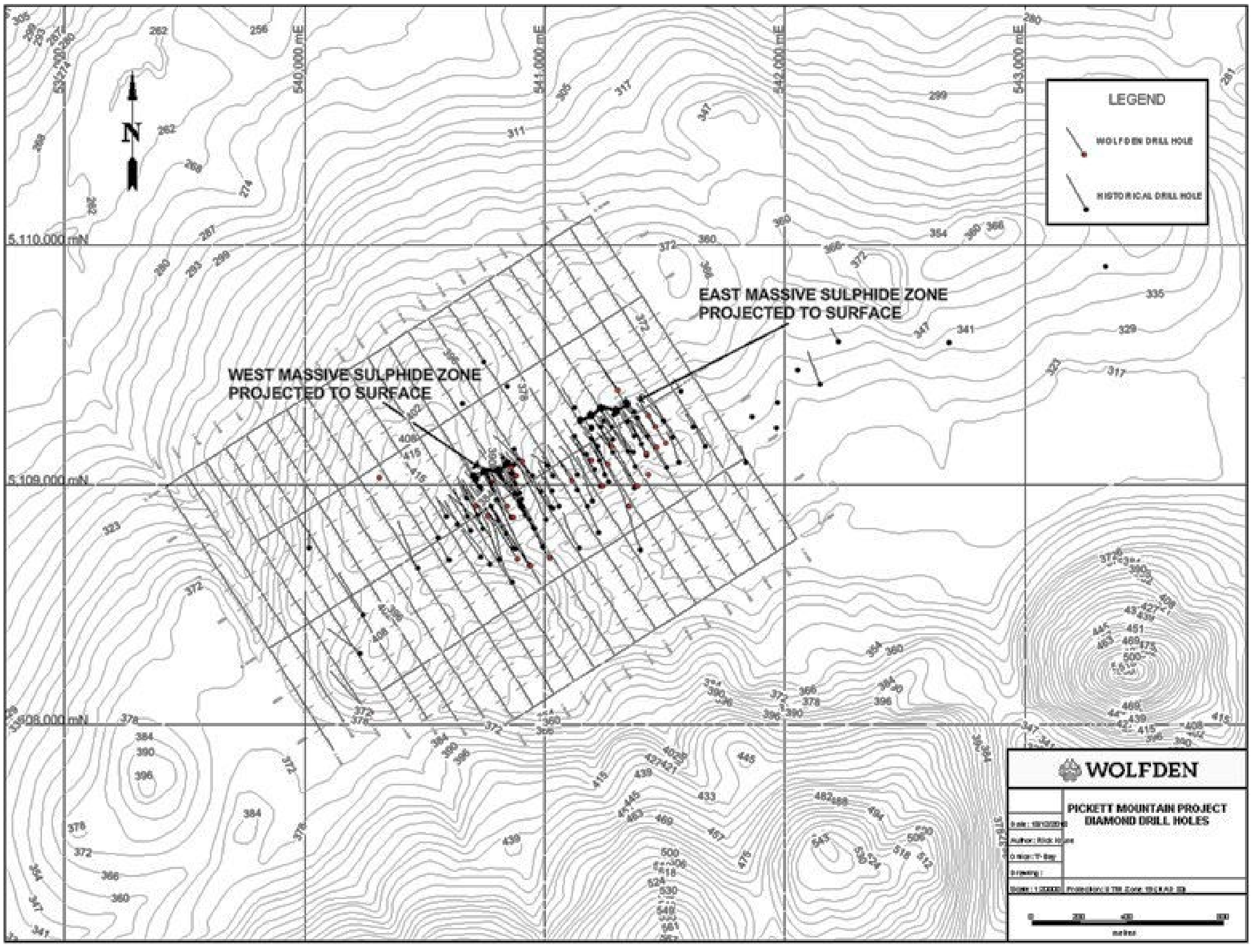

Figure 10.1 Location of historical and Wolfden drill holes

11.0 Sample Preparation, Analyses, and Security

At the core shed, the core boxes are laid out in order on benches, which can support up to five boxes. A geological technician measures the core and labels the box ends with UV-resistant plastic dymo tape. A geologist then logs and samples the core. A technician then collects magnetic susceptibility and conductivity measurements at 0.5 metre to 3.0 metre intervals, as determined by the geologist. All drill core is photographed wet and dry, after which some core may be placed on pallets and moved to outdoor storage.

Where base and/or precious metal minerals have been observed or are suspected to occur – intervals immediately above and below are marked in red wax for assay sampling by the geologist. Assay samples are generally 0.3 metre to 1.0 metre long and where warranted, intervals up to 3 metres have been routinely sampled. The breaks between samples are marked at changes in rock type or metal content in mineralisation, although some wall rock must be included in shorter intervals.

The date, drill hole number, and interval are recorded on the computer and in a pre-numbered tag book provided by the assay lab. Two tags, one large and one small, are placed under the core at the end of the sample interval.

The core for the sample interval is cut, piece by piece, in a core saw using diamond-impregnated steel blades. The core is cut parallel to the core axis, if possible, along the long axis of the intersection between the dominant structural fabric and the core. One-half of the core is returned to the core box, if possible, with the structural fabric at a counter-clockwise angle to the core axis. The other half of the core is placed in a sturdy plastic sample bag. After the last piece of cut core has been cut, the small sample tag is stapled in the core box at the end of the sample. The large sample tag is inserted into the sample bag, and the bag is sealed with a zip tie. The sample bag is added to a labeled rice bag, which is also zip tied, once it contains up to 25 kg of samples.

For assay samples, several digestions and ICP packages have been used in the past. Currently, the assay techniques are:

1) 1E3 Aqua Regia ICP(AQUAGEO): digestion by aqua regia and ICP-OES analysis of 38 elements;
2) 8-Peroxide ICP Sodium Peroxide Fusion ICP: reanalysis of over-grade zinc, lead, or copper by peroxide digestion and ICP-OES;
3) 8-Ag Ag-Fire Assay Gravimetric: reanalysis of over-grade silver by 30 gram fire assay and atomic absorption analysis; and
4) 1A2 Au-Fire Assay AA: analysis of gold by 30-gram fire assay with a gravimetric finish.

WRA samples are analysed by:

1) ME-MS61: 4-acid digestion and ICP-MS analysis of 43 elements.

Drill core is stored in 1.5 metre-long wooden core boxes containing 3 rows of NQ core (4.76 cm diameter) or two rows of HQ core (6.35 cm diameter). A second core box is placed inverted on top, and the two are fibre-taped together for transportation. Usually, drill core is held at the drill until shift change, when it is taken to the driller’s lay-down area and transferred to the drill foreman’s truck. The foreman is met by the drill geologist at the core shed and the core is moved onto benches. In some circumstances, the core may be transported from the drill to the core shed by Wolfden employees.

The core remains in the locked core shed during core processing. Long intervals of unmineralised hanging wall rock are stacked on pallets, bundled with metal strapping and plastic wrapped and moved to an unsecured outdoor core storage.

Mineralised core is sampled and with any other core of interest to the geologist, is moved to the locked indoor storage facility. Core samples are stored in the locked core shed until Wolfden's staff transports them to the assay laboratories sample prep lab. At present, the prep lab is Actlabs' facility in Fredericton, New Brunswick.

Actlabs is an independent, commercial assay laboratory that provides contract analytical services to Wolfden on the Pickett Mountain Project. They are ISO 17025 accredited and/or certified to 9001:2008.

It is the opinion of the authors of this technical report that sample preparation, security, and analytical procedures, currently employed, are adequate and meet industry standards.

12.0 DATA VERIFICATION

12.1 HISTORICAL DATA VERIFICATION

The Pickett Mountain Mineral Resource estimate documented in this technical report, in part utilises historical drilling data generated between 1979 and 1989. Of the 111 historical drill holes on record, most of the cores from these holes are located in two storage facilities owned and maintained by Huber Engineered Wood, at their production facility located in Easton, Maine. At the time of a site visit on September 26, 2017, it was observed that some core is on shelving and is easily accessible (see Figure 12.1).

Figure 12.1 Core storage facilities maintained by Huber Engineered Woods at their plant located in Easton, Maine at "remote warehouse 1" where a majority of the core is stored piled on shelving units

Of the core in storage, most is stacked on pallets, wrapped in shrink wrap and held together with binding straps. This prevented many of the holes being available for examination and re-sampling. However, some are stored on open shelves or racks. Subsequently, 4 holes (66-82-23, 66-82-28, 66-83-36, and 66-83-39) known to have massive sulphide were located, examined, and sampled (see Figure 12.2).

Figure 12.2 Core boxes with mineralised sections located at the core storage facility

Subsequent to the September 2017 visit to the Huber storage facility in Easton, Maine, the core has since been moved to a new secure storage facility located in Presque Isle, Maine. The new storage facility is operated and maintained by the Maine Geological Survey.

Data verification consisted of examining portions of these four holes. A random selection of medium- to high-grade intervals were selected and after cutting with a diamond saw, a total of 7 intervals of quartered core was sampled. Table 12.1 show the comparison of the re-assays with the original assays on record.

TABLE 12.1
COMPARISON OF CHECK SAMPLE ASSAYS WITH HISTORICAL RECORD
SIX DIGIT SAMPLE NUMBERS ARE THE VALIDATION SAMPLES (AU AND AG IN OZ/T, CU, PB, AND ZN IN %)

Sample	*Au*	*Ag*	*Cu*	*Pb*	*Zn*
537556	0.007	0.875	0.41	0.27	2.93
13712	0.006	0.290	0.44	0.28	2.20
537557	0.005	0.758	0.31	0.21	0.48
13713	0.007	0.140	0.29	0.18	0.41
537558	0.025	3.238	3.82	3.76	8.23
13721	0.028	3.000	3.85	4.25	8.50
537559	0.016	2.392	1.06	2.02	5.60
4823	0.023	2.030	1.91	3.69	8.97
537560	0.040	11.435	1.11	14.00	31.00
2021	0.055	8.880	0.92	15.40	29.90
537561	0.020	2.975	1.18	4.98	12.70
13747	0.025	2.590	1.25	4.80	12.50
537562	0.024	3.676	1.33	6.48	14.70
2008	0.058	3.410	1.16	5.52	12.00

All validation sample values are in the same order of magnitude, as the historical values. While not exactly the same, considering that less sample material was submitted due to the quartering of the core, all validation sample results are consistent with that of the historic numbers and confirm that they are a valid record of mineral grades.

In addition, the collars of 3 holes were located in the field where the casing had not been removed or destroyed. Figure 12.3 shows the collar of drill hole 66-46; the GPS coordinates (541190E, 5109225N) correspond within acceptable error with the calculated UTM equivalent to the original hole collar location (541195.6E, 5109231.1N) Maine State Plane coordinates. Two other collars were located (66-42 and 66-63) and similar correlations were found.

Figure 12.3 The casing located in the field and identified as being the collar for hole 66-46

Based on the positive correlation of the assays obtained from check sampling of the historic drill core and for the hole collars found in the field, it is the opinion of authors, the QPs responsible for this report, that the information in the historical documents is reliable and is suitable for use for current and future studies, including Mineral Resource estimation.

12.2 CURRENT DATA VERIFICATION

Control charts showing standard, blank, duplicate, same-lab check, and outside-lab check sample results for each of Zn, Pb, Cu, Ag, and Au indicate good reliability for the assay data, except high blanks are common, indicating poor cleaning at the sample preparation lab.

12.2.1 DESCRIPTION OF CONTROL CHARTS

The standard, duplicate, same-lab check, and outside-lab check control charts plot the results of the control sample analysis against the reference values.

Standard Charts**:** The reference values for standard samples are the certified values taken from certificates published on-line. For the base metals, the selected certified values and errors (1σ) are those appropriate to the digestion: 4 acid for standards with certified values below the upper detection limit and sodium peroxide for those above.

The standard results for each lab report were evaluated against the certificate values at ±2σ and ±3σ; however, to save space, +10% and -10% lines have been substituted on the standard charts.

Blank Charts: The blank charts plot the blank sample results versus the results for the preceding sample (which assumes the samples were prepared in alphabetical order). Below-detection values were set to half of the detection limit.

Lines representing a US$2/t value for the metal are shown for reference and calculated as:

Element	Price	US$02/t	Conversion	Grade
Zn	US$1.20/lb	1.67 lb	0.0454%/lb	0.076%
Pb	US$1.00/lb	2.00 lb	0.0454%/lb	0.091%
Cu	US$2.50/lb	0.80 lb	0.0454%/lb	0.036%
Ag	US$16/oz	0.125 oz	31.10 g/oz	3.89 gpt
Au	US$1,200/oz	0.002 oz	31.10 g/oz	0.052 gpt

Lines representing the blank values versus previous sample values of 0.2%, 0.5%, and 1.0% are also shown on the charts for reference.

Duplicate Charts: The charts plot analyses of the duplicate versus the previous sample in the sample batch, with below-detection values were set to half of the detection limit. Quarter-core duplicates were replaced by pulp duplicates part way through the project to conserve material for later analytical or metallurgical work. The +10% and -10% lines are shown on the charts for reference.

Same-Lab Check Charts: The charts plot check versus the original Actlabs analyses for a batch of pulps selected from the drilling to date and submitted to Actlabs. Below-detection values were set to half of the detection limit. Lines representing +10% and -10% are shown on the charts for reference.

Outside-Lab Check Charts: The charts plot check versus original Actlabs analyses for a batch of pulps selected from the drilling to date and submitted to AGAT. Below-detection values were set to half of the detection limit. Lines representing +10% and -10% are shown on the charts for reference.

12.2.2 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) EVALUATION

Zinc (Zn) (Figure 12.4): Most Zn standard analyses fall well within ±10% and ±3σ of the certified reference values. Two OREAS 623 (1.03 ± 0.04% Zn) samples returned -3.8σ and -3.3σ analyses, but the standard generally provides below certificate results.

An OREAS 623 standard (E5407686, PM-18-031, Actlabs report A18-18236, finalised 2019-Jan-10) returned a value of 0.41% Zn, which is 60% or 15.4σ low. Neither this sample nor adjacent samples have values matching a standard and so a sample swap is unlikely.

Several blank samples returned significant Zn (up to 0.32%), several of which represent more than US$2/t. Three samples have results indicating >1% contamination from the preceding samples, indicating very poor cleaning practices at the samples preparation facility. A check analysis of the same pulp as one of these three samples reproduced the analysis at the outside lab.

The duplicate and check sample analyses suggest good reproducibility, although AGAT returned Zn values about 4% below those of Actlabs, on average.

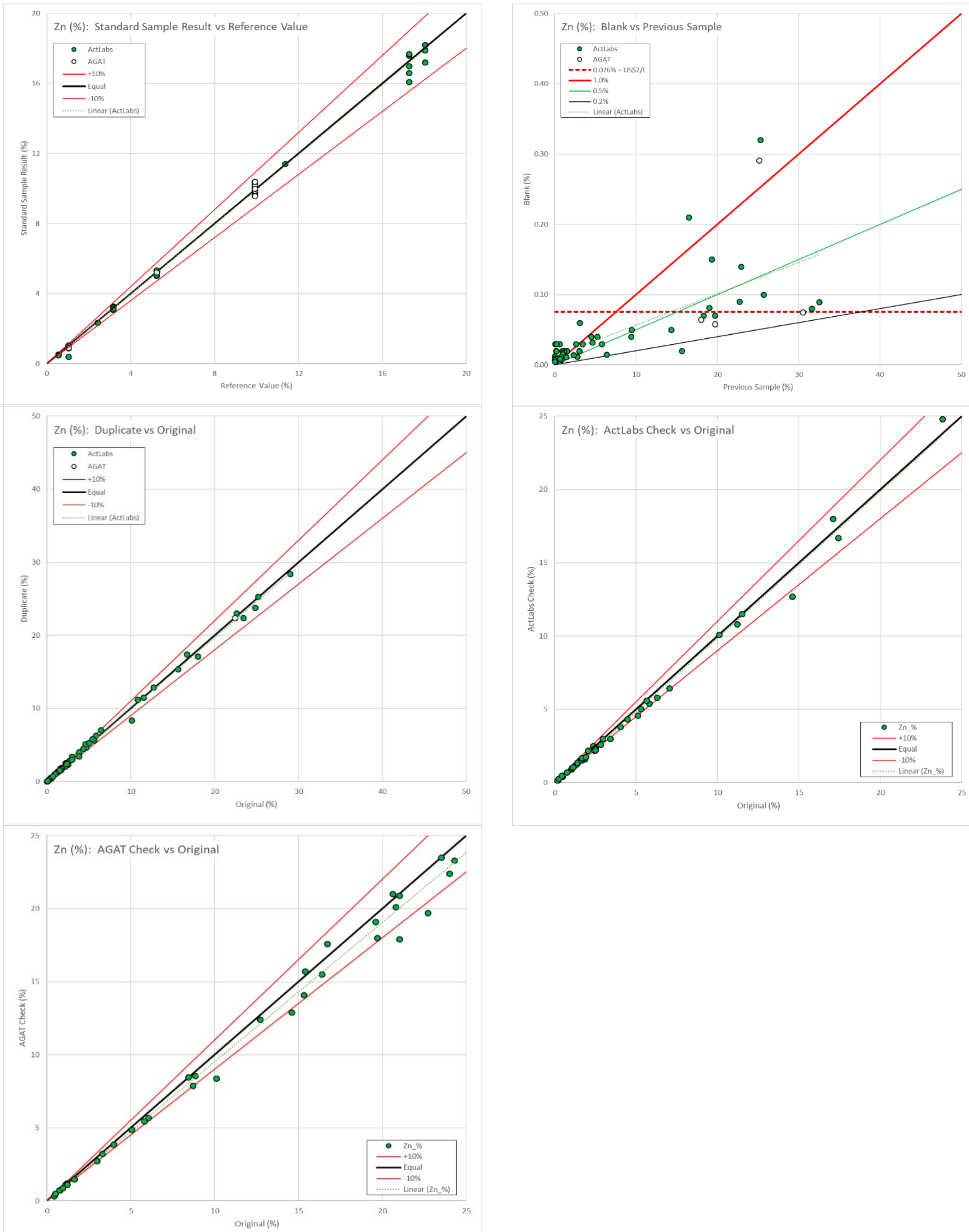

Figure 12.4 Zn QA/QC control charts

Lead (Pb) (Figure 12.5): The Pb control sample results share the problems of the Zn results, although less pronounced. Only one blank result corresponded to more than US$2/t in Pb values. AGAT returned Pb values about 5% below those of Actlabs, on average.

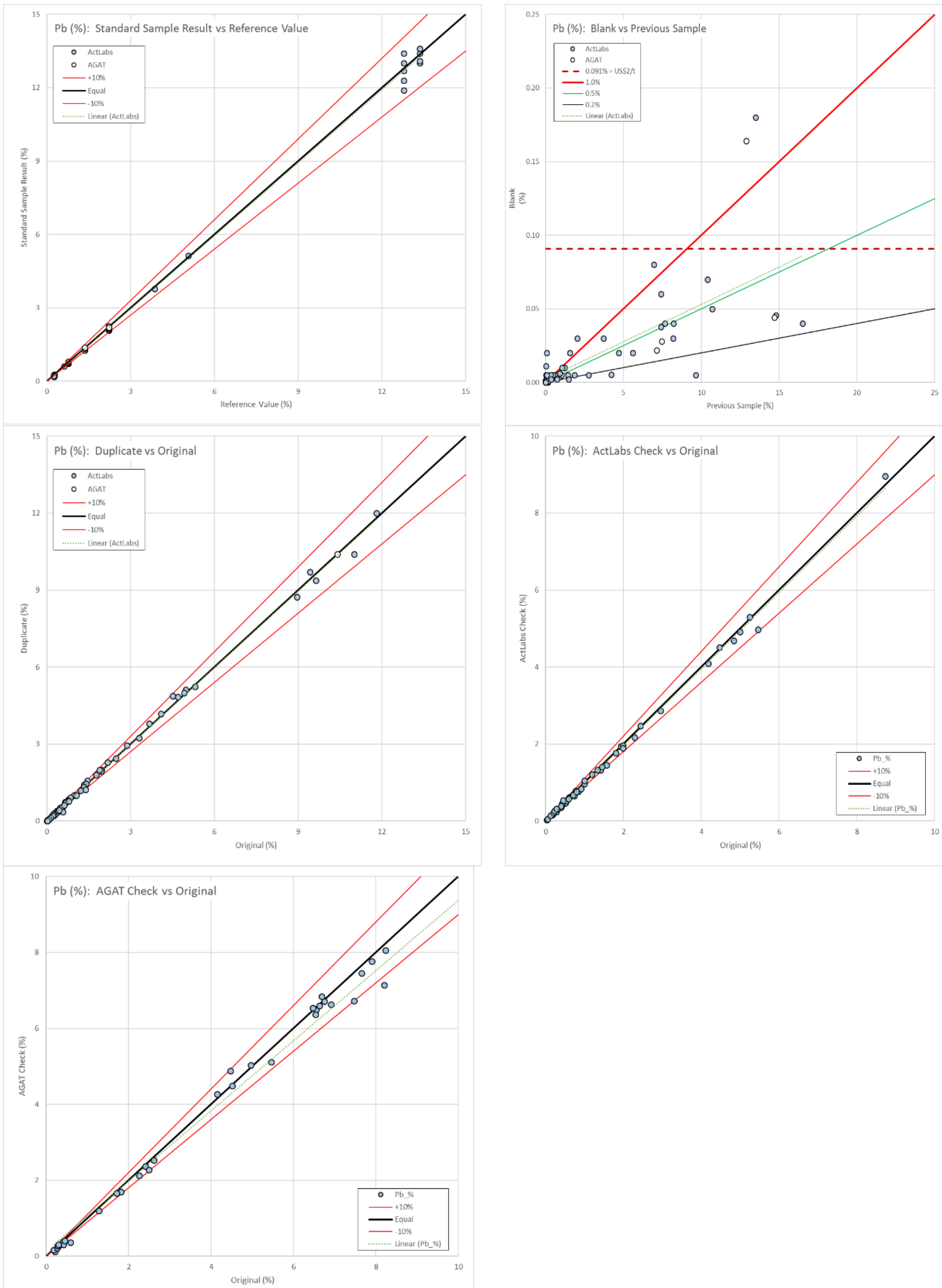

Figure 12.5 Pb QA/QC control charts

Copper (Cu) (Figure 12.6): Again, the Cu control sample results share the problems of the Zn results, although less pronounced. No blank results corresponded to more than US$2/t in contained Cu, although a significant number of the blank sample results were above 1% of the previous sample results. AGAT returned Cu values similar to those of Actlabs.

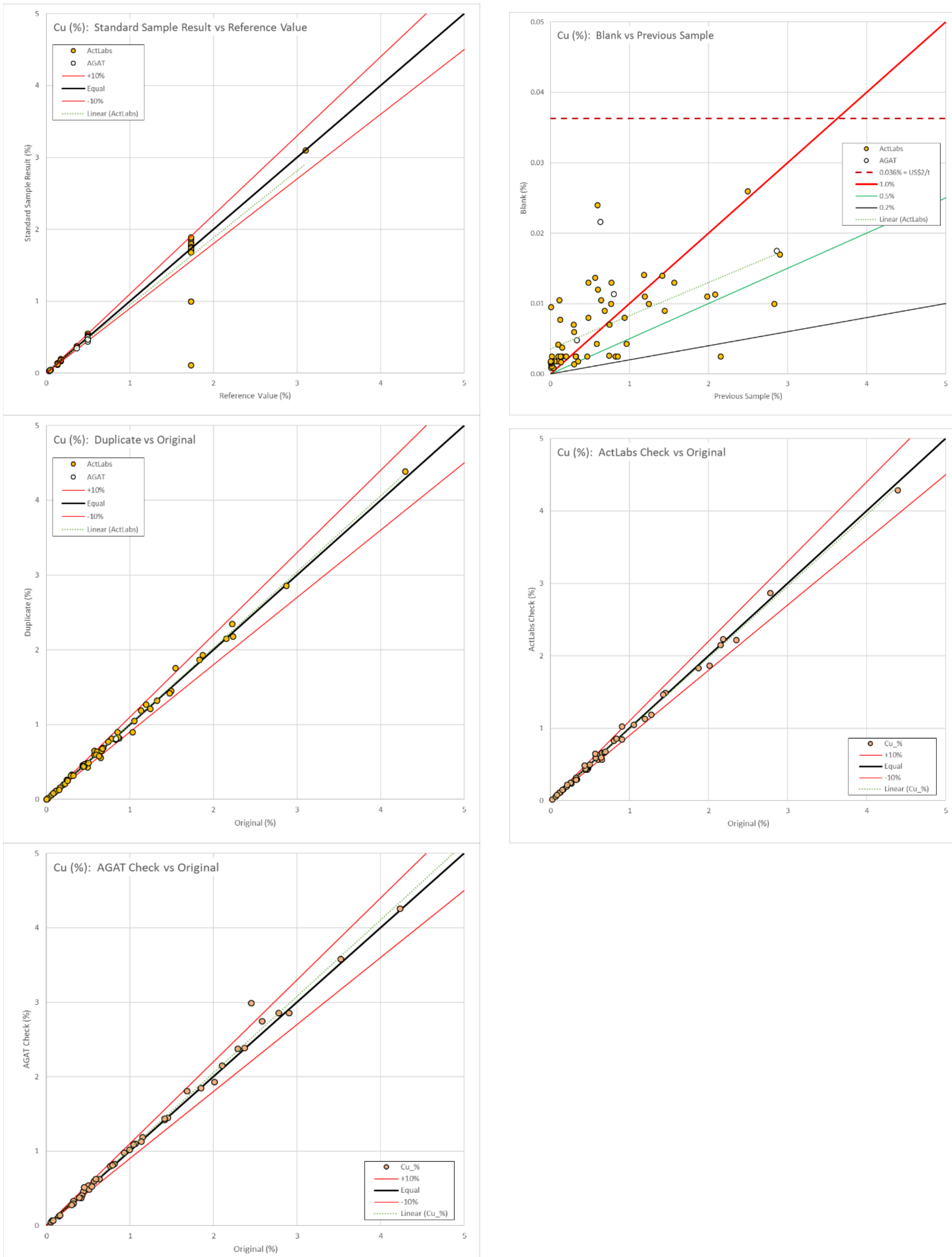

Figure 12.6 Cu QA/QC control charts

Silver (Ag) (Figure 12.7): Nugget effects are likely responsible for the increased scatter of the precious metal control charts relative to the base metal charts.

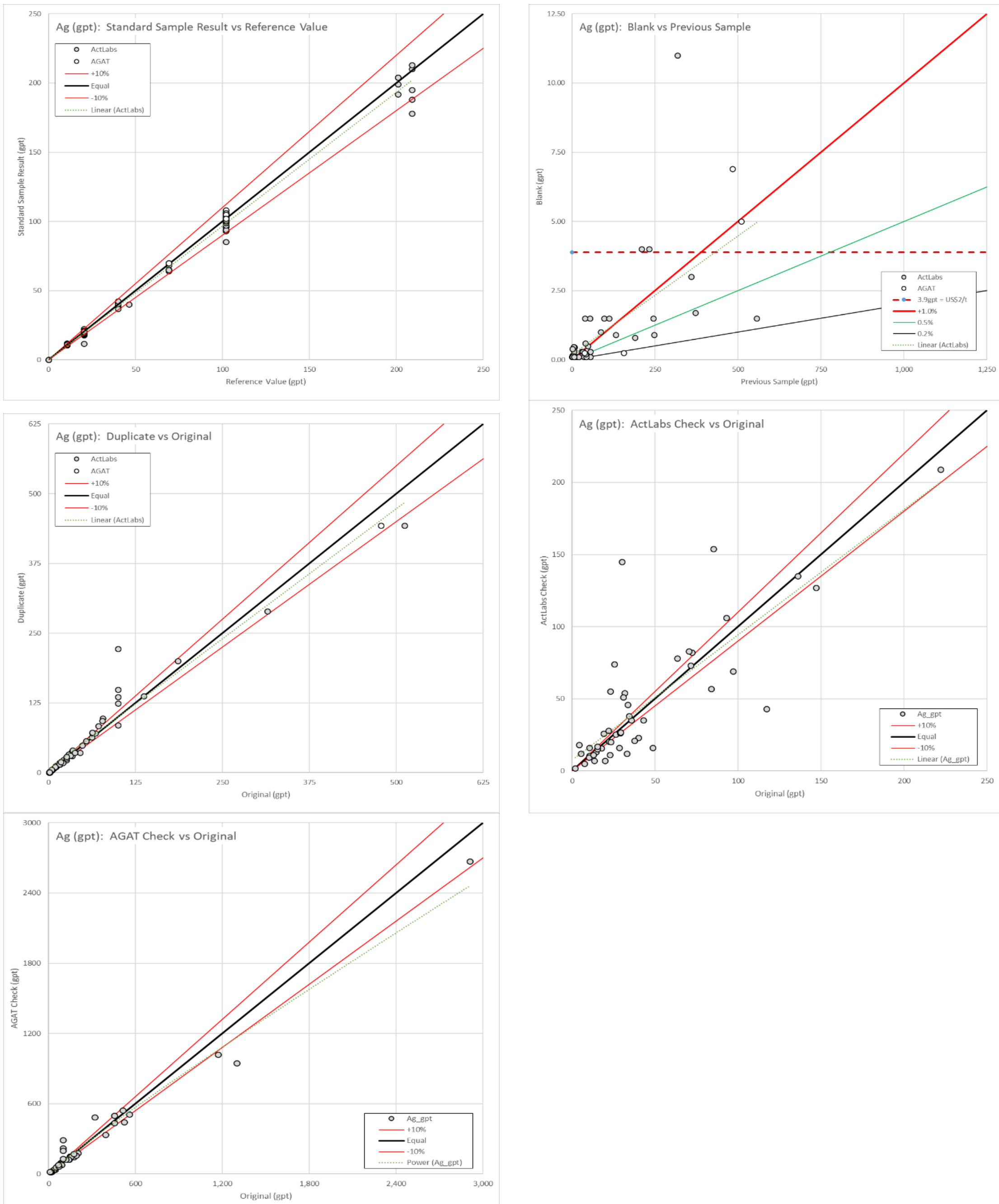

Figure 12.7 Ag QA/QC control charts

Both labs tend to be a bit low on high-grade Ag standards and a few blanks represent more than US$2/t in contained Ag. The duplicate Ag correlate fairly well, with the worst deviations from original values that are capped at the 100 gpt upper detection limit because no over-grade analyses were run. Oddly, the Actlabs check analyses show poorer correlation than those run at AGAT.

Gold (Au) (Figure 12.8): As with Ag, the higher-grade Au standards ran a bit low, on average. Blanks, duplicates and both sets of check analyses show considerable scatter.

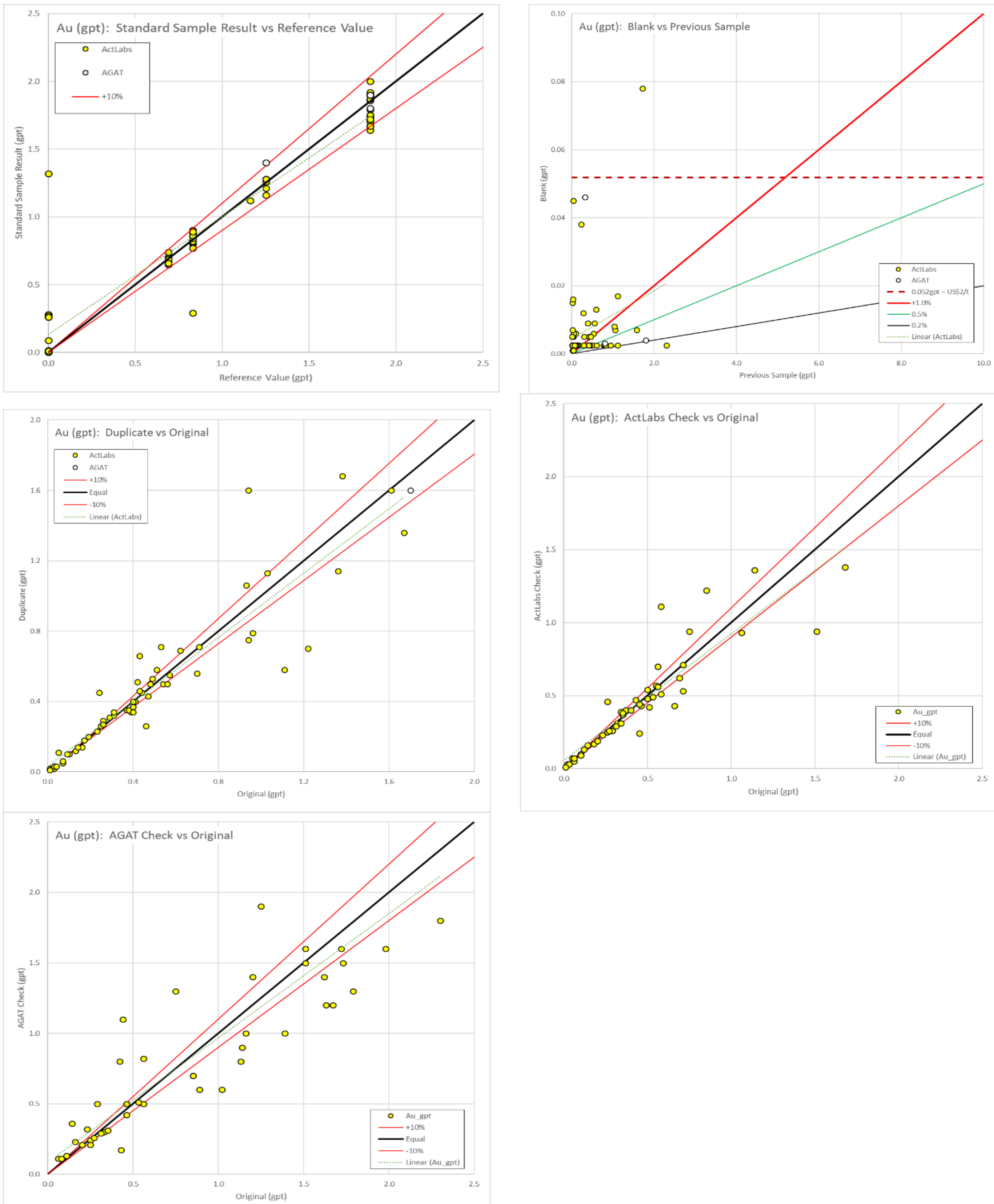

Figure 12.8 Au QA/QC control charts

The standards utilised in the drilling program include OREAS 133b, 134a, 134b, 630, 132b, 620, 621, 622 and 623. The standard certificates for such samples are included in Appendix 2.0 at the back of this report.

12.2.3 Comparison of Originals and AGAT Check Sample Composites

The check samples sent to AGAT include six mineralised intervals analysed at different times throughout the program. A comparison of the calculated composites for the original and check analyses (Table 12.2) indicates an about 5% lower ZnEq (and the related dollar value) for the check samples, with no trend through time.

Table 12.2
Original versus Outside-lab Check Composites

Hole-ID	From	To	Len	Samples	Lab	$/t	Zn eq	Zn %	Pb %	Cu %	Ag gpt	Au gpt	Date
PM-18-004	172.10	180.90	8.80	11	ActLabs	$629	23.40	12.64	4.68	1.36	133.45	1.23	2018-Feb-28
					AGAT	$596	22.16	11.85	4.67	1.41	123.82	0.98	2019-Jan-25
					Change	-$33	-1.24	-0.79	-0.01	0.05	-9.63	-0.25	
					Percent	-5.3%	-5.3%	-6.3%	-0.2%	3.7%	-7.2%	-20.3%	
PM-18-005	307.90	309.90	2.00	2	ActLabs	$100	3.74	1.03	0.40	0.60	19.90	0.55	2018-Feb-28
					AGAT	$93	3.47	0.92	0.24	0.62	20.50	0.50	2019-Jan-25
					Change	-$7	-0.27	-0.11	-0.16	0.02	0.60	-0.05	
					Percent	-7.1%	-7.2%	-10.7%	-40.0%	3.3%	3.0%	-9.1%	
PM-18-020	194.60	197.80	3.20	4	ActLabs	$669	24.88	13.17	5.35	1.70	124.82	1.14	2018-Apr-27
					AGAT	$651	24.21	12.70	5.29	1.81	117.50	0.97	2019-Jan-25
					Change	-$18	-0.67	-0.47	-0.06	0.11	-7.32	-0.17	
					Percent	-2.7%	-2.7%	-3.6%	-1.1%	6.5%	-5.9%	-14.9%	
PM-18-021	357.20	360.20	3.00	3	ActLabs	$330	12.29	8.23	2.96	0.44	23.00	0.30	2018-Jun-19
					AGAT	$297	11.03	7.19	2.55	0.46	25.33	0.31	2019-Jan-25
					Change	-$34	-1.26	-1.04	-0.41	0.02	2.33	0.01	
					Percent	-10.2%	-10.3%	-12.6%	-13.9%	4.5%	10.1%	3.3%	
PM-18-022	662.20	666.90	4.70	6	ActLabs	$1,067	39.71	23.98	9.97	0.88	199.66	1.61	2018-Jul-07
					AGAT	$1,077	40.06	23.23	9.42	0.91	291.00	1.41	2019-Jan-25
					Change	$9	0.35	-0.75	-0.55	0.03	91.34	-0.20	
					Percent	0.9%	0.9%	-3.1%	-5.5%	3.4%	45.7%	-12.4%	
PM-18-031	733.90	738.00	4.10	12	ActLabs	$1,065	39.63	16.61	8.42	1.91	612.39	0.52	2018-Nov-21
					AGAT	$1,018	37.86	15.89	7.83	1.92	556.15	0.84	2019-Jan-25
					Change	-$48	-1.77	-0.72	-0.59	0.01	-56.24	0.32	
					Percent	-4.5%	-4.5%	-4.3%	-7.0%	0.5%	-9.2%	61.5%	

In general, the quality control analyses are more accurate and reproducible for the base metals (Zn, Cu, and Pb) than for the precious metals (Au and Ag). This reflects the lower abundances of the precious metals and analytical difficulties, particularly for Ag.

The analyses for standard samples are acceptable with the exception of analyses of standard OREAS 623 that commonly returned lower values. The cause of this is not known.

Many of the blank sample analyses indicate more than 0.5% contamination from preceding samples with some in excess of 1% contamination. This suggests poor cleaning procedures at the preparation laboratory.

The duplicate and check analyses correlate adequately. It is the opinion of the authors that the quality control results are generally good, and therefore, the analytical data is reliable.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In 1984, Getty contracted A.H. Ross & Associates to complete a metallurgical test work program at Lakefield Research of Canada Limited (Lakefield). Lakefield developed an ore treatment process and established information on likely product composition, plant tailings, and water characteristics. Based on the Lakefield work, a process flow sheet and material balance were determined (Bosch and Grimes, 1984).

A composite sample was submitted for study based on three locked-cycle flotation tests. It is not known how representative this sample was to the various types and styles of mineralisation and the mineral deposit as a whole. The grade of the composite sample, the head grade for the study, was (Bosch and Grimes, 1984):

Copper	–	1.32%
Lead	–	4.29%
Zinc	–	9.72%
Gold	–	0.022 opt
Silver	–	2.66 opt

The sample was subjected to conventional grinding involving primary crushing, followed by grinding with a rod mill, followed by further grinding in a ball mill, with final output being 80% -400 mesh. The output was reclassified using a cyclone with oversize going back to the grinding circuit. The cyclone slurry, with about 33% solids, was passed directly to the flotation circuit. It was found that a sequential flotation of the Cu, Pb, and Zn minerals was better than a bulk Cu-Pb flotation (Bosch and Grimes, 1984). It is not known to what extent there are any processing factors or deleterious elements that could have a significant effect on potential economic extraction.

The flotation test resulted in the following recoveries (Bosch and Grimes, 1984):

	Cu Con.	**Pb Con.**	**Zn Con.**
Copper	**77.4%**	1.6%	11.2%
Lead	3.8%	**77.5%**	6.5%
Zinc	1.2%	4.8%	**87.7%**
Gold	13.3%	20.4%	12.5%
Silver	27.3%	39.6%	11.1%

It should be noted that the above mineral processing and metallurgical test work comprises historical work and requires verification and updating, given that technology in this field has improved in the last 35 years.

14.0 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

The authors were retained by AMPL to update the Pickett Mountain Project Deposit Resources in accordance with the guidelines of NI 43-101 and CIM standards. This resource estimate was undertaken by Finley Bakker, P. Geo. of Campbell River, British Columbia. The effective date of this resource estimate is January 7, 2019 and is based on the drill results received during the 2018 program as well as the historical drill results.

14.2 DATABASE

The database used data initially verified in "National Instrument 43-101 Technical Report – Pickett Mountain Project," Penobscot County, Maine, USA, located at: 68.468°W Longitude 46.134°N Latitude – Prepared for Wolfden Resources Corporation, by Alan Aubut, P.Geo., April 02, 2018.

The database was updated and verified by Jerry Grant, P.Geo. and included the results from 2018 diamond drill program, a total of 34 holes or intersections. Only a few holes drilled after November 15, 2018 (after hole PM-18-029A) were not included in the resource estimate.

A total of 148 diamond drill holes made up the database and included 2,550 samples. Of these samples, approximately 940 samples were used in the resource calculation. These samples constituted 104 intervals over 4 lens codes (wireframes).

14.3 DATA VERIFICATION

As due diligence had been undertaken in a previous NI 43-101 Technical Report, titled "National Instrument 43-101 Technical Report Pickett Mountain Project," Penobscot County Maine, USA, located at: 68.468°W Longitude 46.134°N Latitude – Prepared for Wolfden Resources Corporation by Alan Aubut, P.Geo., April 02, 2018, its data was assumed correct. The author had no reason not to rely on the information that they may have referenced. However, spot checks of historical data were still undertaken. No serious errors or omissions were found.

Information added to the database was verified by Don Hoy, P.Geo., Andre Labonte, and Jerry Grant, P.Geo. and was further confirmed by the authors.

Sample analyses were undertaken by ACTIVATION LABORATORIES LTD., 41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5 Telephone: +1.905.648-9611 or +1.888.228.5227; Fax: +1.905.648.9613 Activation Laboratories Ltd. (Act labs) is ISO 17025 accredited and/or certified to 9001: 2008.

- Code 1A2-Au – Fire Assay AA
- Code 1E-Ag Aqua Regia ICP (AQUAGEO)
- Code 8-Peroxide ICP Sodium Peroxide Fusion ICP
- Check assays were undertaken at Act Labs in Kamloops.

Analyte Symbol	Au	Ag	Cu	Pb	Zn	Au	Ag
Unit Symbol	ppb	ppm	%	%	%	g/tonne	g/tonne
Lower Limit	5	0.2	0.005	0.01	0.01	0.03	3
Method Code	FA-AA	AR-ICP	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2	FA-GRA	FA-GRA

- Code 1A2-Kamloops Au – Fire Assay AA
- Code 1A3-Ag-Kamloops Au – Ag-Fire Assay Gravimetric (QOP Fire Assay Thunder Bay)
- Code 1E3-Kamloops Aqua Regia ICP (AQUAGEO)
- Code 8-Peroxide ICP-Kamloops Sodium Peroxide Fusion ICP

The location of the recent diamond drill holes was verified by Jerry Grant, as he was on site during the drill program. All data was collected in NAD-83 format.

14.4 DOMAIN INTERPOLATION

The various domains were interpreted based on mineralogy, lithology, and grade. It was felt by the authors that the 3D Block Model would resolve any grade continuity issues as part of the interpolation.

Wireframe models were created by Andre Labonte using Gems™ 3D modeling software.

These wireframes were then imported into Hexagon™/MineSight™ and validated.

It was ensured that there was no overlapping of lenses. Any overlaps, based on block size, were trimmed using MineSight™ software to negate any double reporting of tonnes (Figure 14.1, Figure 14.2, and Figure 14.3).

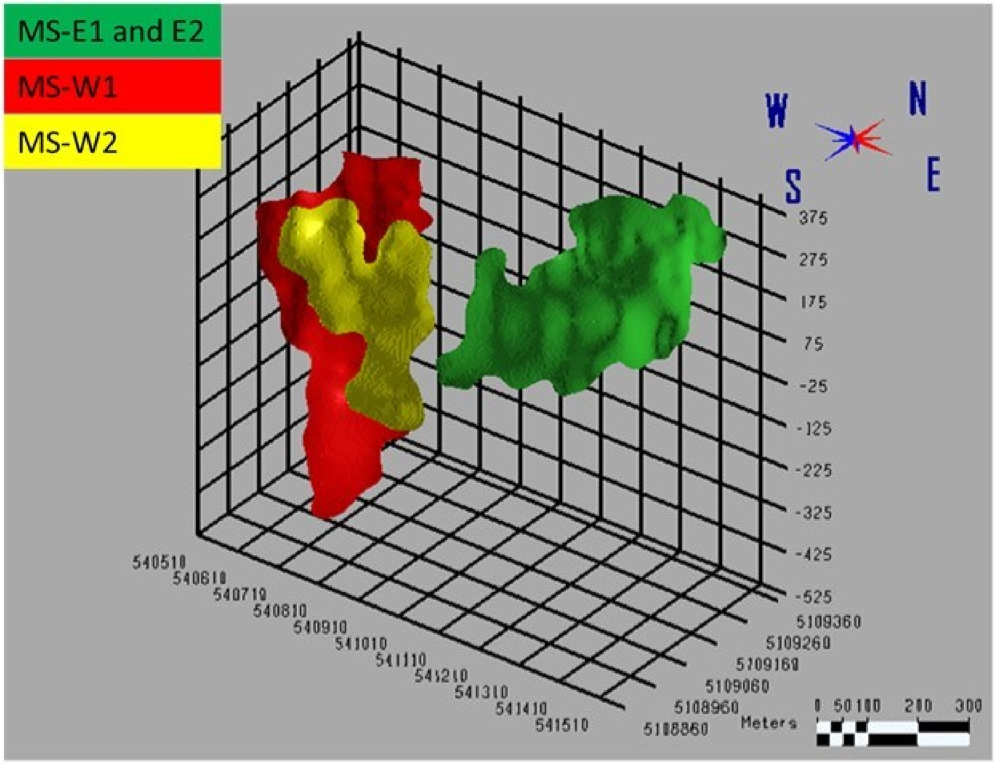

Figure 14.1 Wireframes

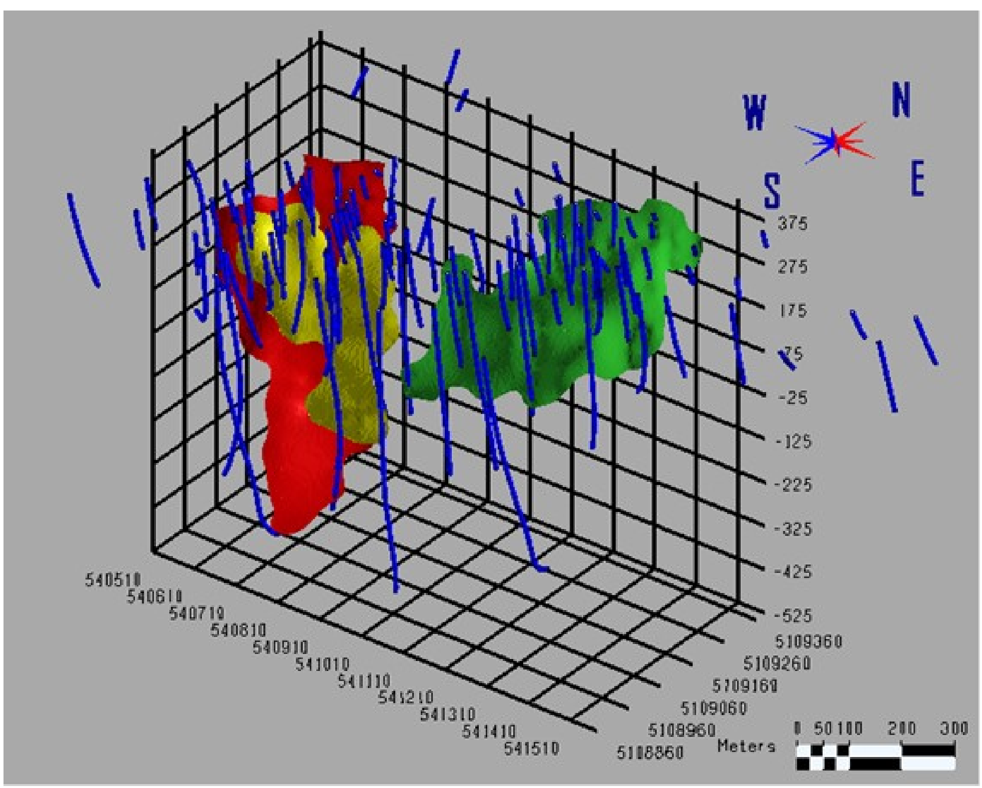

Figure 14.2 Pre-2018 diamond drilling

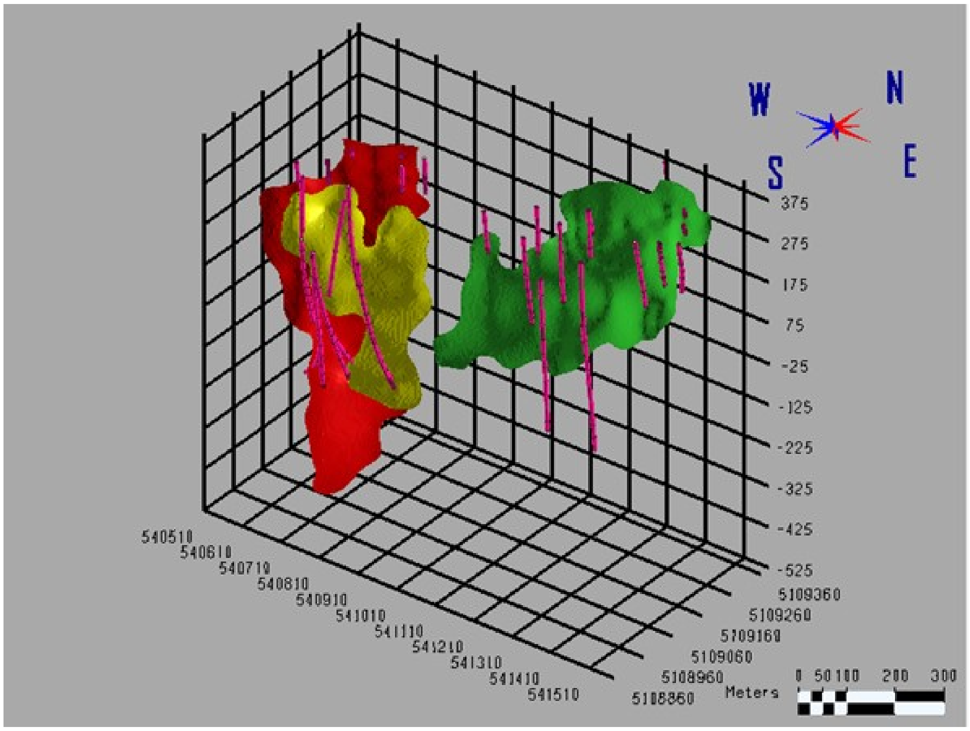

Figure 14.3 2017/2018 showing 2018 diamond drilling

14.5 LENS/ROCK CODE

The original work centered on 4 lens codes. However, two of these were combined after density was applied, such that only three wireframe lenses were used in the estimate.

- MS-E1 and MS-E2
- MS-W1
- MS-W2

14.6 COMPOSITES

Two sets of composites were created for calculating purposes.

1) **Composite 1** – composited metal grades over the entire lens code. This was done to ensure that the entire interval used in the calculation could be put into an Excel™ spreadsheet and compared to the block model. Calculations were limited by lens code (LENS). These intervals are reported in Table 14.4, below.

2) **Composite 2** – composited metal grades were limited to lens code but assigned a maximum of 1 metre. Calculations were limited by lens code (LENS). These composites were used in the grade interpolation.

14.7 GRADE CAPPING

Grade-capping was not performed, as it was noted that the uniformity of grade was reasonably consistent and without any significant outliers in the assay results.

14.8 VARIOGRAPHY

A series of variograms were created using Hexagon™ program, MSDA; this allowed a series of 3D variograms to be created based on lens code.

These 3D variograms were imported into MineSight™.

Surprisingly, the zinc variogram shows the weakest continuity with the weakest orientation of only 21 metres. As such, 25 metres was chosen as the distance from the diamond drill hole for the Indicated Resource (Figure 14.4 , Figure 14.5, and Figure 14.6).

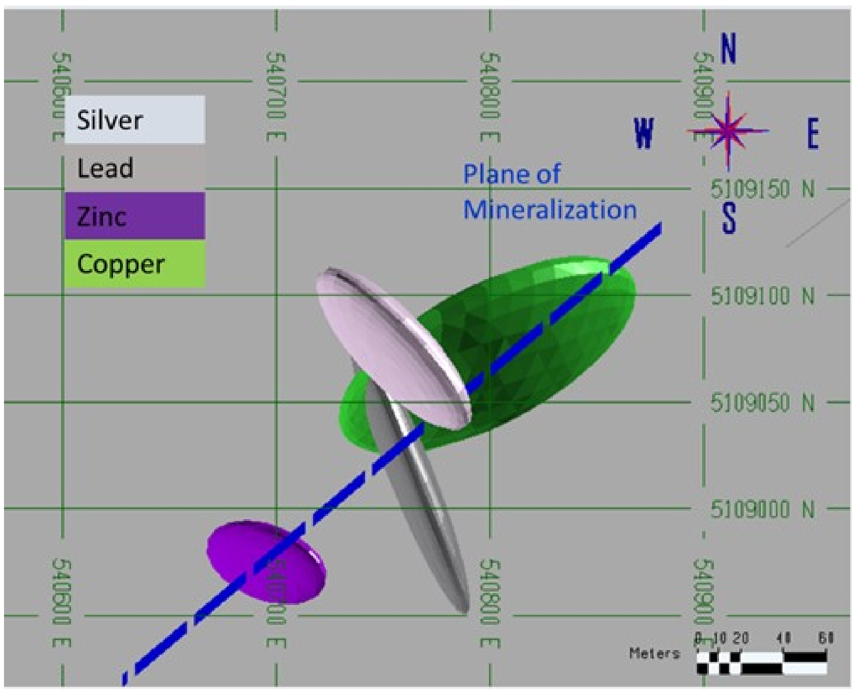

Figure 14.4 3D variogram of metals looking down

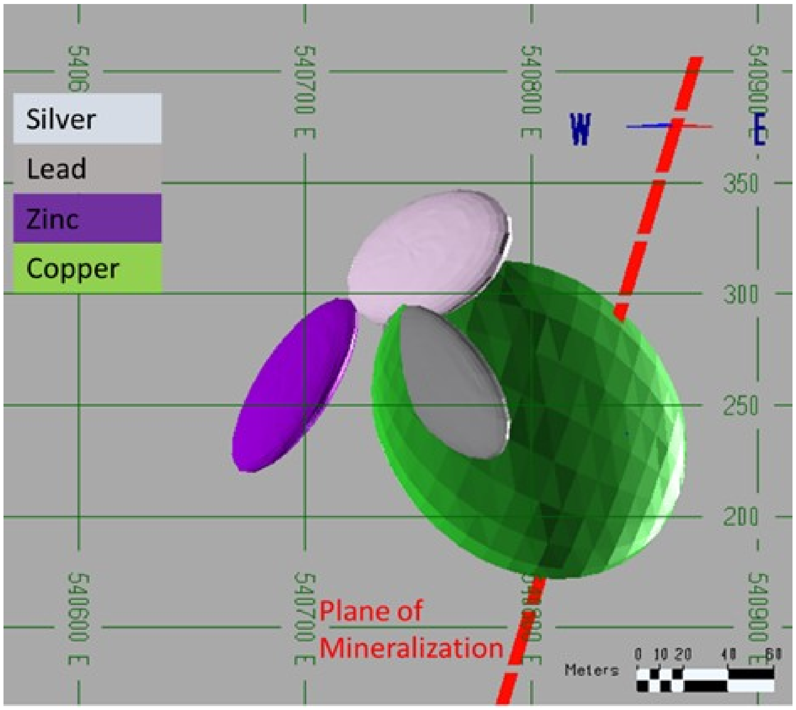

Figure 14.5 3D variogram of metals looking north

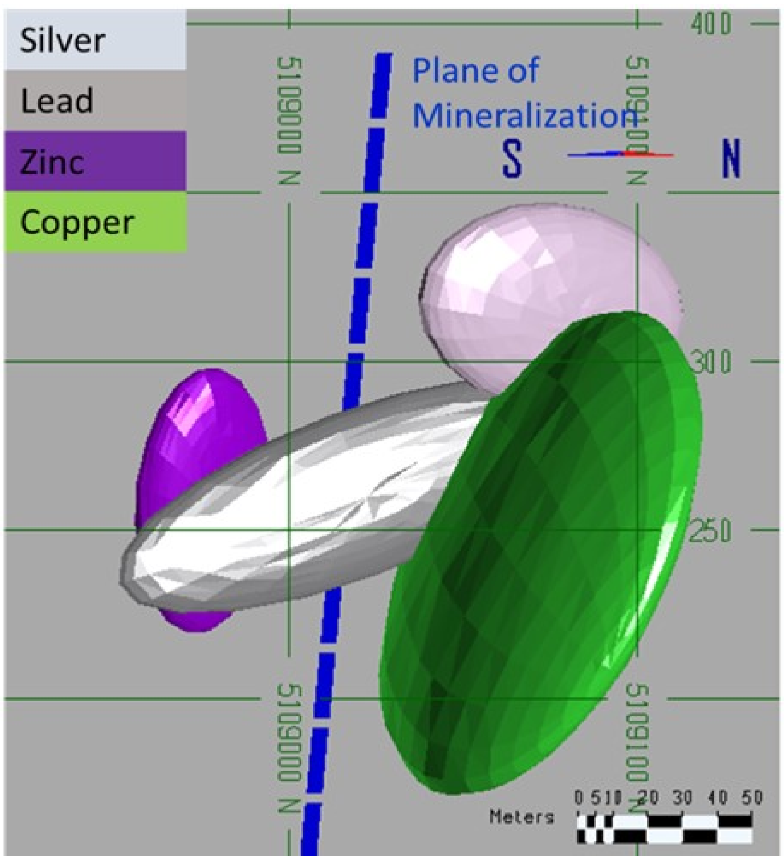

Figure 14.6 3D variogram of metals looking west

14.8.1 DISCUSSION OF VARIOGRAMS

Several discrete populations are evident. Pb and Ag seem to have a strong correlation. Cu has the greatest continuity and Zn shows a somewhat strange orientation. The apparent weakest correlation of zinc may be due to it having the greatest extremes in grade.

It should be noted that variograms are used to predict that the grade will continue over a certain length. The continuity of the lens is predicted by geological modeling. Hence, Zn, which has the greatest fluctuations in grade, shows the smallest continuity over distance.

However, it was noted that while composites of 1 metre were used in the model, sample intervals were often as much as 3 metres, meaning that when composites were created, there were now 3 identical composites down the length of the diamond drill core. This would/could obviously create variograms that, in reality, were only mimicking diamond drill holes and had less to do with the integrity of the data.

As a result, not much credence was given to the variograms and the authors were, therefore, more comfortable with an IDW^2 model.

It should be noted that the geologists working on the 2018 drill program were very confident in intersecting the lenses at distances of 50 metres to 70 metres when targeting an intersection within the model envelope. This was, in itself, a practical assessment of the variography, as opposed to interpretation of the data.

14.9 BULK DENSITY

The specific gravities used in the model were updated based on a total of 253 measured specific gravities within the mineralised lenses. These densities were loaded into the model based on sample ID. Averages were then calculated for each of the 4 mineralised zones. Where no information was present, average densities were loaded. The average for the 4 zones and waste was:

- Waste = 2.95
- MS-E1 = 4.06
- MS-E2 = 4.14
- MS-W1 = 3.89
- MS-W2 = 4.04

In the case of MS-E1 and MS-E2, the average densities per lens type was still applied in the assay file, in spite of the geometry being combined.

14.10 BLOCK MODEL

A 3D block model was built with the following parameters.

```
(452)   3 = TYPE OF COORDINATES= Metric

(455)   1 = TYPE OF MINE MODEL = "3-D"

(476)     = TYPE OF  PROJECT   = METL

(21) XMIN = EASTING AT WEST MATRIX LIMIT    540510.00
(22) XMAX = EASTING AT EAST MATRIX LIMIT    541575.00
(23)  DX  = MATRIX BLOCK WIDTH ON EASTING        5.00
(24)  NX  = NO. OF MINE MODEL COLUMNS E-W      213.00


(25) YMIN = NORTHING AT SOUTH MATRIX LIMIT 5108860.00
(26) YMAX = NORTHING AT NORTH MATRIX LIMIT 5109390.00
(27)  DY  = MATRIX BLOCK WIDTH ON NORTHING       5.00
(28)  NY  = NO. OF MINE MODEL  ROWS  N-S       106.00


(29) ZMIN = TOE ELEVATION OF  LOWEST LEVEL    -525.00
(30) ZMAX = CREST  ELEV.  OF HIGHEST LEVEL     380.00
(31)  DZ  = MATRIX ELEVATION BLOCK HEIGHT        5.00
(32)  NZ  = NO. OF MINE MODEL BENCHES          181.00
```

14.11 RESOURCE CLASSIFICATION

The resources were based on the distance from a diamond drill hole and by a ZnEq cut-off. The mineralised wireframes were created based on mineralogy. The Indicated Resource was based on a cut-off of 9% ZnEq and a maximum distance of 25 metres to a drill hole. The 25 metres was based on maximum continuity indicated by the variograms. Because of the relatively small distance used to calculate Indicated, a simple one hole minimum was used. Using a two-hole minimum was not recommended. Visual inspection of the wireframes suggests a much stronger correlation between assays than the variograms suggest.

For the Inferred Resource, a minimum of 25 metres and a maximum of 200 metres were used (Figure 14.7, Figure 14.8, and Figure 14.9).

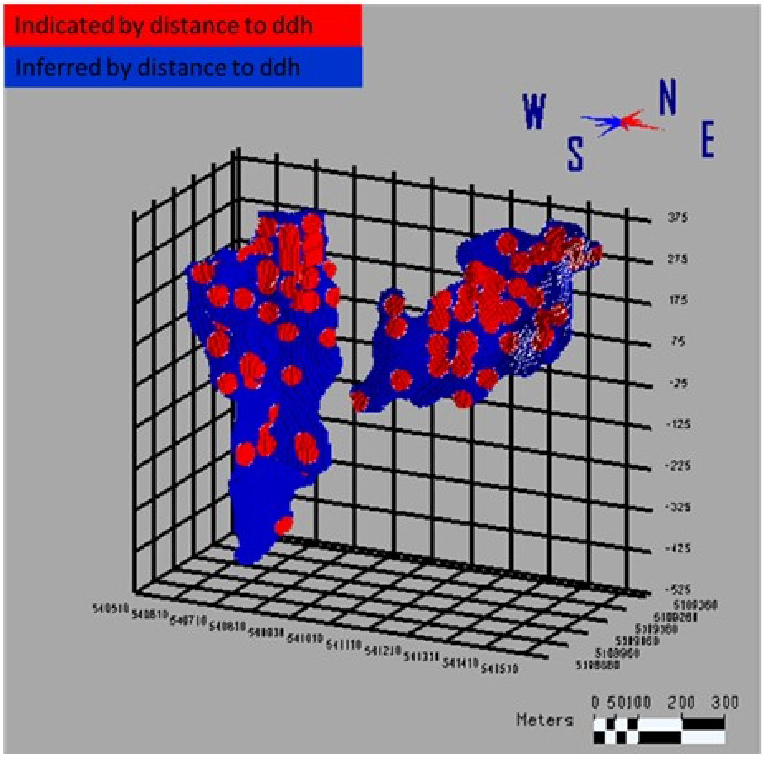

Figure 14.7 Mineralisation, as defined from distance to diamond drill hole

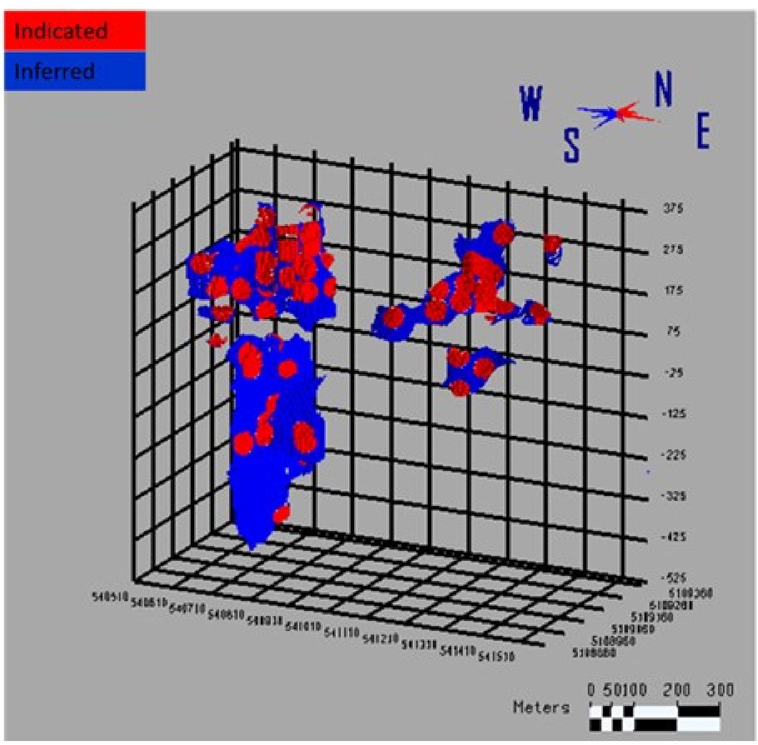

Figure 14.8 Area in blue shows Inferred Resource, red shows Indicated Resource; both categories trimmed to 9% ZnEq

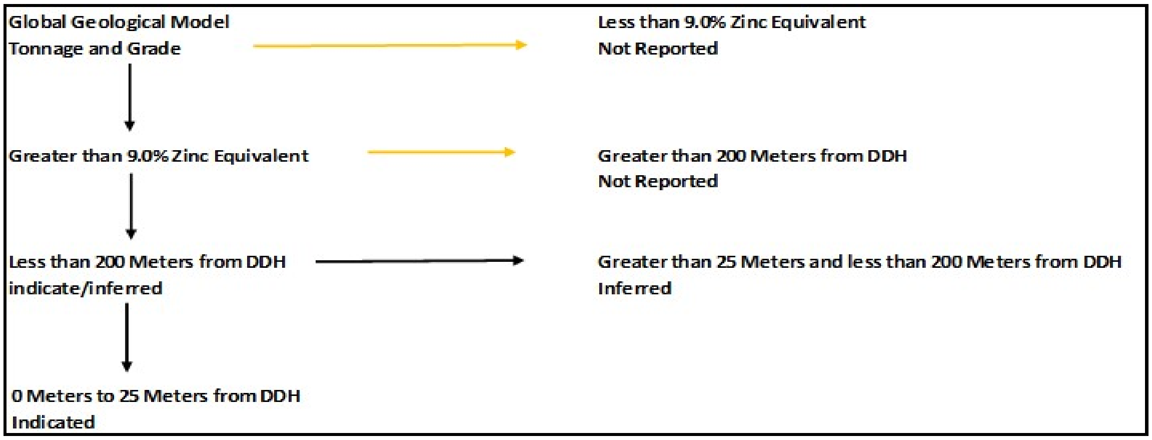

Figure 14.9 Flow chart of Resource classification

The Indicated was calculated as being a maximum of 25 metres from a diamond drill hole and meeting a single hole minimum. In addition, it had to meet a minimum grade of 9% ZnEq.

A no hole minimum and a minimum of 25 metres and a maximum distance of 200 metres were used for Inferred. In addition, it had to meet a minimum grade of 9% ZnEq.

14.12 RESOURCE ESTIMATE

A number of potential cut-off grades in ZnEq were calculated. Results are given in Table 14.1, Table 14.2, and Table 14.3. The tonnage and grade are robust over the intervals chosen. However, a 9% ZnEq was chosen as the cut-off grade for the resources in order to be able to compare the updated resource to the historical non-compliant estimates performed by Getty and Chevron in the 1980s (Figure 14.10 and Figure 14.11).

TABLE 14.1
MINERAL RESOURCE STATEMENT – JANUARY 7, 2019

Category	Tonnes	% Zn	% Pb	% Cu	g/t Ag	g/t Au	Density	% ZnEq
Indicated	2,050,000	9.88	3.93	1.38	101.58	0.92	3.99	19.32
Inferred	2,030,000	10.98	4.35	1.20	111.45	0.92	4.00	20.61

TABLE 14.2
SENSITIVITY OF INDICATED RESOURCE TO CUT-OFF GRADES – JANUARY 7, 2019
(BASED ON < 25 METRES FROM DIAMOND DRILL HOLES)

% ZnEq Cut-off Grade	Tonnes	% Zn	% Pb	% Cu	g/t Ag	g/t Au	Density	% ZnEq
3% ZnEq	3,970,000	6.03	2.38	1.02	65.39	0.68	4.02	12.39
5% ZnEq	2,820,000	7.89	3.12	1.21	83.61	0.81	4.00	15.79
7% ZnEq	2,320,000	9.11	3.62	1.32	95.04	0.88	3.98	17.99
9% ZnEq	2,050,000	9.88	3.93	1.38	101.58	0.92	3.99	19.32
11% ZnEq	1,770,000	10.77	4.29	1.41	109.32	0.96	4.00	20.79

Table 14.3 **Sensitivity of Inferred Resource to Cut-off Grades – January 7, 2019** **(Based on > 25 metres and < 200 metres from Diamond Drill Holes)**								
% ZnEq Cut-off Grade	**Tonnes**	**% Zn**	**% Pb**	**% Cu**	**g/t Ag**	**g/t Au**	**Density**	**% ZnEq**
3% ZnEq	4,020,000	6.59	2.58	0.94	69.91	0.68	4.03	13.03
5% ZnEq	2,980,000	8.35	3.29	1.06	87.12	0.79	4.01	16.14
7% ZnEq	2,450,000	9.67	3.83	1.15	99.99	0.86	4.00	18.43
9% ZnEq	2,030,000	10.98	4.35	1.20	111.45	0.92	4.00	20.61
11% ZnEq	1,740,000	12.06	4.77	1.24	121.42	0.97	4.00	22.39

Cut-off Grade Chosen

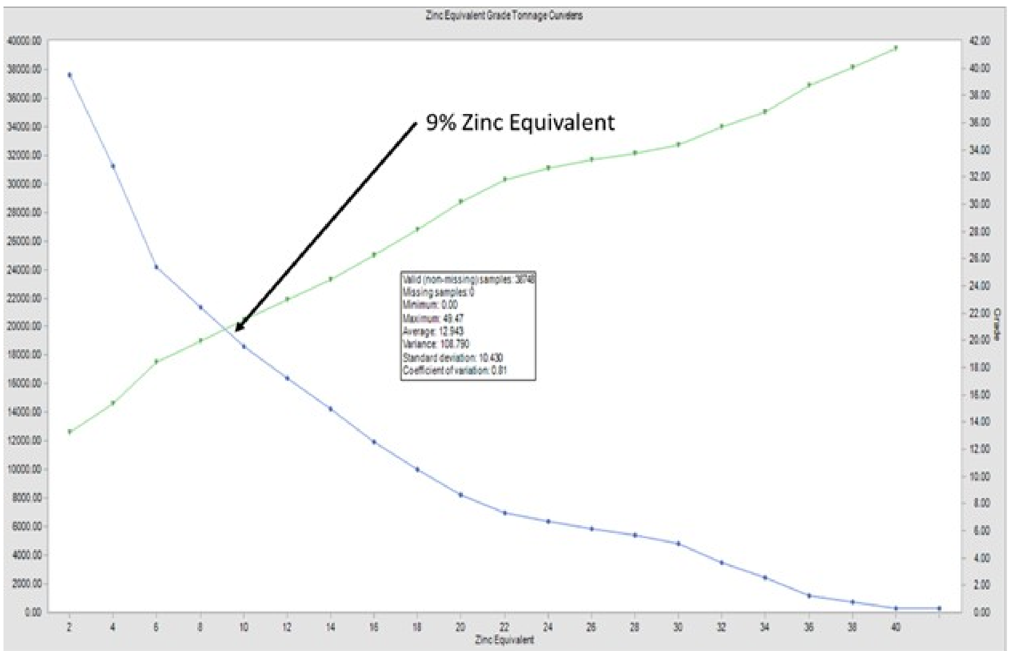

Figure 14.10 ZnEq tonnage curve limited to mineralised lenses

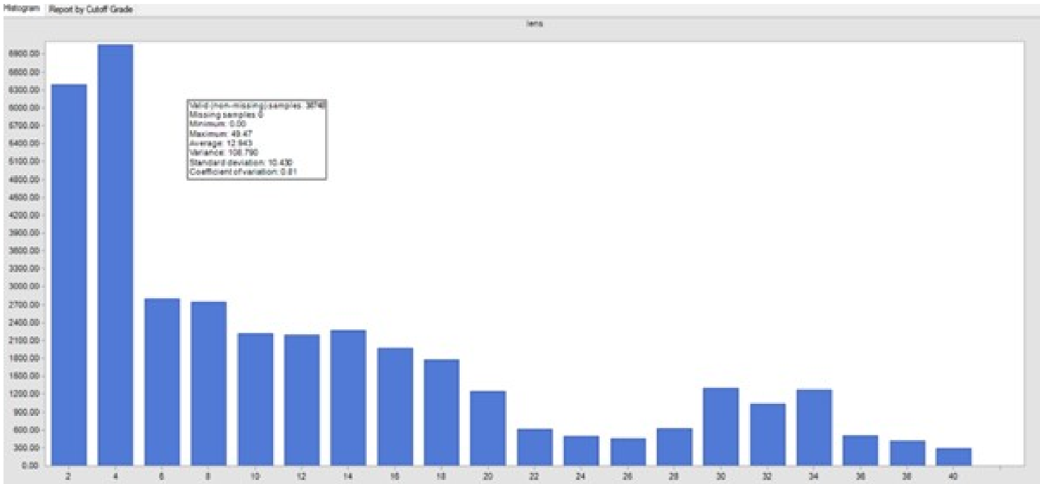

Figure 14.11 Zinc equivalent tonnage curve limited to mineralised lenses

The histogram above also indicates that a cut-off between 6% to 9% ZnEq would ensure that a bell curve would capture the bulk of the tonnes. It does not, however, show a sharp inflection point, which would ease the determination of a cut-off (Table 14.4).

TABLE 14.4
ZNEQ CUT-OFFS LIMITED TO MINERALISED LENSES

Zinc Equivalent Cutoffs						
Class	Cutoff >=	Cutoff <	Samples	Average	Metal (units)	%Total
1	0.0	5.12	382	2.634	1006.2	9.1179
2	5.12	9.65	148	6.7652	1001.2	9.0732
3	9.65	13.7	86	11.712	1007.2	9.1273
4	13.7	16.98	66	15.209	1003.8	9.0963
5	16.98	20.6	54	18.82	1016.3	9.2094
6	20.6	24.65	44	22.732	1000.2	9.0638
7	24.65	28.5	38	26.574	1009.8	9.1508
8	28.5	33.04	33	30.773	1015.5	9.2025
9	33.04	36.71	29	34.451	999.09	9.0536
10	36.71	42.5	27	38.663	1043.9	9.4596
11	42.5	51.91	20	46.6	932.0	8.4457
Total:			927	11.904	11035.1	100.0

Table 14.4 also shows that while there are a considerable number of assays that fall below the 9% ZnEq, the total contained metal units do not exhibit much variation between cut-offs. Nonetheless, based on visual examination of the model, it was the opinion of the authors that a 9% ZnEq cut-off was appropriate until such time that detailed mining options become available and additional infill diamond drilling and associated geological interpretations are carried out.

It is apparent that there appears to be a natural break in ZnEq grades at approximately 9% (Figure 14.12).

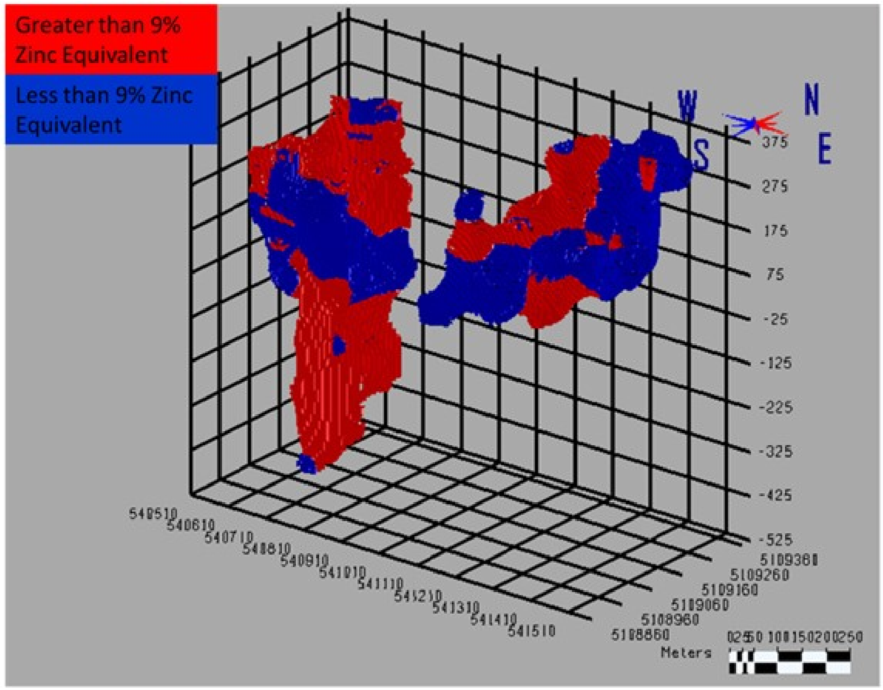

Figure 14.12 Indicated (Red) and Inferred (blue) domains superimposed on the entire geological model

14.13 CALCULATION OF CUT-OFF

Both a Gross ZnEq cut-off and an NSR were calculated. A generic NSR was calculated using the following parameters.

A 9% ZnEq was then calculated based on values in Table 14.5 and lacking any recent metallurgical testing, an assumed conservative similar recovery of all metals (75%) was used. Historical metallurgical testing indicated 88% for Zn, 78% for Pb, and 77% for Cu.

TABLE 14.5
METAL PRICES
(IN US$)

assumptions	US$/Pound/oz
Zn	$1.20/pound
Cu	$2.50/pound
Pb	$1.00/pound
Ag	$16.00/troy ounce
Au	$1200/troy ounce

Assuming an overall recovery (milling and smelting) of 75%, a 9% ZnEq equates to a $178 NSR cut-off. This is not meant as a precise number but more as an aid in determining cut-off (Table 14.6).

TABLE 14.6
CALCULATION OF NSR/ZNEQ CUT-OFF

US$/Pound	$ 1.20
9 % zinc = pounds/tonne	198
75 % recovery = pounds zinc	149
value in US$	$ 178

The 9% ZnEq was based on both economics as well as a tonnage grade curve and indicated that a significant portion of the tonnes and grade would be captured at this cut-off (Table 14.7, Table 14.8, Table 14.9, and Table 14.10).

TABLE 14.7
INDICATED RESOURCES

INDICATED MINERAL RESOURCE									
	ZNEQ CUTOFF	Tonnes	% Zn	% Cu	% Pb	g/t Au	g/t Ag	Den	%ZNEQ
LENS E1 + E2	9%	890,000	8.27	1.10	3.24	0.87	75.64	4.07	16.00
LENS WEST 1	9%	990,000	11.60	1.60	4.60	0.99	128.39	3.92	22.68
LENS WEST 2	9%	170,000	8.30	1.51	3.59	0.75	81.41	4.03	17.11
9% Zinc Equiva >=	9%	2,050,000	9.88	1.38	3.93	0.92	101.58	3.99	19.32

Tonnes may not add due to rounding
The resource for the Pickett Mountain Project zinc deposit was estimated based on metal prices of US$1.20/lb Zn, $2.50/lb Cu, $1.00/lb Pb, $16.00/oz Ag, and $1,200/oz/Au, and equates to an NSR cut-off of $178/tonne or a 9% ZnEq cut-off based on the above metal prices. An average recovery of 75% for all metals for underground mining and milling was utilised to report the resource

TABLE 14.8
INFERRED RESOURCES

INFERRED MINERAL RESOURCE									
	ZNEQ CUTOFF	Tonnes	% Zn	% Cu	% Pb	g/t Au	g/t Ag	Den	%ZNEQ
LENS E1 + E2	9%	670,000	6.87	1.00	2.69	0.82	67.44	4.07	13.68
LENS WEST 1	9%	1,120,000	14.23	1.28	5.58	1.04	146.32	3.95	25.87
LENS WEST 2	9%	240,000	7.26	1.42	3.20	0.68	71.05	4.01	15.27
9% Zinc Equiva >=	9%	2,030,000	10.98	1.20	4.35	0.92	111.45	4.00	20.61

Tonnes may not add due to rounding
The resource for the Pickett Mountain Project zinc deposit was estimated based on metal prices of US $1.20/lb Zn, $2.50/lb Cu, $1.00/lb Pb, $16.00/oz Ag, and $1,200/oz/Au, this equates to an NSR cut-off of $178/tonne or a 9% ZnEq cut-off based on the above metal prices. An average recovery of 75% for all metals for underground mining and milling was utilised to report the resource.

TABLE 14.9
SHOWING REPRESENTATIVE RECOVERED VALUE OF INDICATED RESOURCE

Indicated Mineral Resource						
Price					Approx.NSR	% payable
Assumption	US$/Pound	US$/gm	US$/%	input file	US$ /tonne	metal
Zn	$ 1.20		$ 26.45	9.88	$ 196	51%
Cu	$ 2.50		$ 55.12	1.38	$ 57	15%
Pb	$ 1.00		$ 22.05	3.93	$ 65	17%
Ag	$ 16.00	$ 0.51		101.59	$ 39	10%
Au	$ 1,200.00	$ 38.58		0.92	$ 27	7%
					$ 383	100%

TABLE 14.10
SHOWING REPRESENTATIVE RECOVERED VALUE OF INFERRED RESOURCE

Inferred Mineral Resource						
Price					Approx.NSR	% payable
Assumption	US$/Pound	US$/gm	US$/%	input file	US$ /tonne	metal
Zn	$ 1.20		$ 26.45	10.98	$ 218	53%
Cu	$ 2.50		$ 55.12	1.20	$ 50	12%
Pb	$ 1.00		$ 22.05	4.35	$ 72	18%
Ag	$ 16.00	$ 0.51		111.45	$ 43	11%
Au	$ 1,200.00	$ 38.58		0.92	$ 27	7%
					$ 409	100%

NSR values given are only an estimate using an overall 75% recovery of all metals. This is less than the historical metallurgical work undertaken in 1984 and is considered to be conservative. While a recovery of 75% for gold may be optimistic, on average it only contributes 7% to the value of the Mineral Resource so any discrepancies would be minor (Table 14.11).

TABLE 14.11
METALLURGICAL RECOVERIES
(1984 BY GETTY AT LAKEFIELD)

The flotation test resulted in the following recoveries (Bosch and Grimes, 1984):

		Cu Con.	Pb Con.	Zn Con
Copper	-	**77.4%**	1.6%	11.2%
Lead	-	3.8%	**77.5%**	6.5%
Zinc	-	1.2%	4.8%	**87.7%**
Gold	-	13.3%	20.4%	12.5%
Silver	-	27.3%	39.6%	11.1%

14.14 CONFIRMATION OF ESTIMATE

The accuracy of the model reporting was verified in four ways:

1) Pitres (Hexagon™/MineSight™) was used to calculate the resource tonnage and grade.

2) UG1res (Hexagon™/MineSight™) was then used to compare the resource estimate to the Pitres resource tonnage and grade. As expected, the numbers were identical.

3) The 3D block model data was exported into Excel™ and the resource tonnage and grade results independently verified the data as reported by Hexagon™/MineSight™ was correct. The global tonnage was within 3 tonnes.

4) Andre Labonte calculated a gross tonnage and grade in Gems™ and this was compared to MineSight™. Using a 0.5% Zn cut-off, his global tonnage was within 1% of MineSight™ and the variance for global contained metals ranged from 3% for base metals to a maximum of 5% for precious metals.

14.15 DISCUSSION OF RESULTS

An historical resource estimate was undertaken using the "Contour Plotting System" for Getty in 1983. Using an average density factor of 8.25 cubic feet per ton, the estimated resource was 3.15 million tons with an average grade of 9.66% Zn, 4.30% Pb, 1.24% Cu, 0.029 opt Au, and 2.96 opt Ag (Laverty, 1983; Riddell, 1983). The conversion from imperial to metric is given below in Table 14.12.

TABLE 14.12
HISTORICAL 1983 NON-43-101 COMPLIANT RESOURCE

Historical non 43-101 compliant Resource Estimate							
	Tons	% Zn	% Cu	% Pb	oz/t Au	oz/t Ag	Tonnage Factor
Getty 1983 Imperial	3,150,000	9.66	1.24	4.30	0.03	2.96	8.25
	Tonnes	% Zn	% Cu	% Pb	g/t Au	g/t Ag	Den
Getty 1983 Metric	2,857,050	9.66	1.24	4.30	0.99	102.16	3.89

This historical resource does not use the classification terms "Inferred Mineral Resource," "Indicated Mineral Resource," and "Measured Mineral Resource" that have the meanings ascribed to them by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as amended (Table 14.13).

TABLE 14.13
MINERAL RESOURCE SUMMARY – JANUARY 7, 2019

Total Resources	Tonnes	% Zn	% Cu	% Pb	g/t Au	g/t Ag	Den	%ZNEQ
Indicated Mineral Resource	2,050,000	9.88	1.38	3.93	0.92	101.58	3.99	19.32
Inferred Mineral Resource	2,030,000	10.98	1.20	4.35	0.92	111.45	4.00	20.61

While a direct comparison of tonnage and grade is not possible, it is apparent that regardless of the methodology employed to calculate the resource, the system is robust enough to support multiple methods of calculating resources. The apparent increase in tonnage is at least partially due to the 2018 diamond drill program that extended the deposits to depth. The historical resource was noted to occur only to a depth of 400 metres. The updated estimate goes to a vertical depth of +800 metres in the West Lens (Table 14.14 and Table 14.15).

TABLE 14.14

LIST OF SIGNIFICANT INTERSECTIONS USED TO CALCULATE THE MINERAL RESOURCE

HOLE-ID	EAST	NORTH	ELEV.	LNGTH	ZN	CU	PB	AU	AG	DEN
1	541,355	5,109,333	322	6.71	2.04	0.71	0.72	0.19	28.80	4.14
2	541,362	5,109,314	295	12.80	4.96	0.90	1.85	0.62	49.02	4.14
8	541,246	5,109,299	299	3.65	5.46	1.22	1.97	1.10	45.49	4.06
9	541,326	5,109,306	286	7.92	2.00	0.29	0.27	0.73	19.39	4.14
10	541,373	5,109,289	218	1.22	2.18	0.81	0.59	0.17	42.51	4.14
11	541,476	5,109,300	305	4.41	2.14	0.42	0.56	0.41	30.38	4.14
13	541,327	5,109,280	189	2.90	2.49	0.68	0.52	0.54	54.86	4.14
23	540,719	5,109,002	218	1.30	8.07	1.58	5.00	0.86	101.95	4.04
23	540,716	5,109,006	212	3.40	6.31	2.12	3.22	0.71	65.29	3.89
25	540,745	5,108,964	127	0.61	0.60	0.50	0.23	0.33	14.09	4.04
25	540,742	5,108,970	122	6.92	1.35	0.72	0.33	0.23	10.75	3.89
28	540,813	5,109,059	202	10.07	15.89	1.42	7.40	1.84	180.93	3.89
29	540,623	5,108,925	135	0.61	2.58	0.19	0.96	0.25	6.32	3.89
30	540,809	5,109,035	81	1.65	0.89	0.35	0.40	0.27	21.60	3.89
33	540,892	5,109,111	241	1.56	6.66	0.44	4.77	0.50	90.77	3.89
34	541,138	5,109,166	140	14.06	8.67	0.82	3.27	0.99	78.52	4.06
35	540,920	5,109,074	187	4.45	12.65	0.85	5.58	0.82	86.61	4.04
36	541,054	5,109,112	125	6.33	6.11	1.07	2.46	0.72	63.58	4.06
37	541,140	5,109,154	78	21.96	1.64	0.72	0.69	0.74	51.27	4.06
38	540,911	5,109,057	90	3.98	2.26	0.73	0.88	0.44	32.34	4.04
39	541,235	5,109,229	126	32.18	2.31	0.85	0.89	0.41	22.43	4.06
40	541,082	5,109,080	11	3.24	1.52	0.76	0.58	-	-	4.06
44	541,282	5,109,238	79	25.75	0.94	0.53	0.51	0.22	8.49	4.06
46	541,236	5,109,259	212	10.06	8.85	0.73	3.38	0.66	79.71	4.06
47	541,184	5,109,221	190	6.41	17.08	1.02	6.42	1.40	128.89	4.06
49	541,178	5,109,263	305	0.36	0.18	0.10	0.14	0.11	0.14	4.06
52	540,805	5,109,058	327	13.97	3.97	0.91	1.69	0.49	33.27	3.89
53	540,841	5,109,078	231	13.90	18.60	1.63	10.21	1.62	229.78	3.89
54	540,748	5,109,040	294	8.37	7.76	1.23	2.27	0.71	44.23	3.89
55	540,714	5,108,931	-9	5.17	0.99	0.56	0.33	0.18	8.97	3.89
56	541,222	5,109,117	-30	1.95	12.00	0.67	4.08	1.30	96.41	4.06
57	540,848	5,109,091	298	14.58	11.05	1.54	5.91	0.92	145.72	3.89
58	540,868	5,109,041	181	5.82	8.09	2.40	3.31	1.12	123.63	4.04
58	540,855	5,109,075	122	14.54	2.97	0.94	1.30	0.44	78.28	3.89
59	540,766	5,109,034	212	14.47	6.16	1.58	2.75	0.62	88.43	4.04
59	540,764	5,109,039	184	17.71	14.99	3.14	7.80	1.19	150.73	3.89
60	541,285	5,109,293	262	1.82	0.79	0.75	0.28	0.17	5.14	4.06
62	540,682	5,108,947	195	5.80	1.47	0.94	0.50	0.72	20.52	4.04
62	540,680	5,108,952	183	7.32	8.59	1.09	4.55	0.87	76.67	3.89
63	541,237	5,109,282	265	0.19	5.30	0.54	2.40	0.45	30.17	4.06
64	541,193	5,109,240	238	12.76	8.24	1.36	3.71	0.78	83.84	4.06
65	540,996	5,109,027	-40	3.29	0.77	0.32	0.26	0.53	4.86	4.06
67	541,230	5,109,234	146	81.46	5.68	1.00	2.55	0.54	42.09	4.06
68	540,807	5,109,058	308	20.87	7.79	1.13	2.59	0.52	44.74	3.89
69	540,808	5,109,056	276	30.32	8.40	1.16	3.55	0.95	107.33	3.89
70	541,368	5,109,231	92	41.75	1.49	0.58	0.49	0.41	17.27	4.14
72	540,793	5,109,031	-101	3.92	18.08	0.56	8.53	1.13	209.86	3.89
74	540,680	5,108,954	248	3.34	13.55	1.95	5.12	0.98	167.98	3.89
76	540,643	5,108,945	243	5.41	1.66	2.88	0.57	0.36	38.22	3.89

TABLE 14.14
LIST OF SIGNIFICANT INTERSECTIONS USED TO CALCULATE THE MINERAL RESOURCE
(CONTINUED)

HOLE-ID	EAST	NORTH	ELEV.	LNGTH	ZN	CU	PB	AU	AG	DEN
78	541,356	5,109,270	136	23.05	5.01	1.10	2.00	0.62	48.85	4.14
80	540,845	5,109,024	186	6.24	8.15	1.64	3.90	1.00	110.32	4.04
80	540,826	5,109,060	132	9.60	1.61	0.58	1.09	0.44	14.74	3.89
81	541,272	5,109,252	150	25.48	3.10	0.77	1.20	0.51	31.53	4.06
82	540,724	5,108,986	182	3.14	0.94	0.91	0.32	0.46	26.51	4.04
82	540,719	5,108,994	173	4.90	7.23	2.64	2.85	0.95	115.16	3.89
83	541,285	5,109,275	208	5.48	3.13	0.43	1.24	0.33	29.39	4.06
85	540,759	5,108,978	18	1.66	1.42	0.19	0.69	0.20	6.13	4.04
85	540,752	5,108,984	- 2	12.71	8.81	1.88	4.04	1.02	92.78	3.89
86	540,765	5,109,031	247	2.59	11.19	1.28	3.86	1.03	85.12	4.04
86	540,761	5,109,039	237	8.00	3.04	2.24	1.11	0.57	35.79	3.89
87	540,865	5,109,042	236	12.10	5.53	1.28	2.35	0.56	56.91	4.04
87	540,852	5,109,074	187	5.73	15.50	2.25	6.00	0.87	191.16	3.89
90	540,805	5,109,047	- 377	1.91	25.27	0.88	10.21	0.86	140.84	3.89
91	540,832	5,109,023	- 1	2.10	1.00	1.65	0.37	0.38	9.26	4.04
91	540,823	5,109,033	- 15	2.61	8.28	1.46	3.00	1.45	70.80	3.89
92	541,187	5,109,196	158	4.19	8.40	0.87	3.29	0.81	76.59	4.06
93	541,201	5,109,157	41	13.66	3.94	0.85	1.46	1.11	72.91	4.06
94	540,683	5,108,941	79	15.82	2.72	1.09	1.09	0.73	44.61	3.89
90A	540,808	5,109,049	- 312	1.37	12.50	0.77	4.75	0.79	93.24	3.89
98A	540,733	5,108,954	- 446	1.40	1.58	0.10	0.01	0.10	1.30	3.89
PM-17-001	540,853	5,109,090	309	7.95	8.06	1.56	3.92	0.87	105.89	3.56
PM-17-002	540,854	5,109,086	273	9.89	16.31	1.73	7.09	1.42	185.64	3.89
PM-18-003	541,229	5,109,235	180	9.71	9.51	1.06	3.45	0.77	60.82	4.07
PM-18-004	541,218	5,109,257	223	10.28	11.40	1.28	4.20	1.00	120.25	4.06
PM-18-005	541,203	5,109,178	76	45.80	1.30	0.59	0.51	0.43	24.03	4.06
PM-18-006A	541,368	5,109,244	96	52.40	1.33	0.50	0.48	0.30	18.63	4.14
PM-18-007	540,778	5,109,011	149	1.79	0.63	0.34	0.15	0.14	9.00	4.04
PM-18-007	540,767	5,109,028	112	31.49	4.62	1.01	1.73	0.63	63.50	4.15
PM-18-008	540,794	5,109,012	60	1.00	0.94	0.72	0.35	0.17	17.25	4.04
PM-18-008	540,792	5,109,016	49	2.41	16.79	0.37	3.99	0.53	68.43	3.89
PM-18-009	540,747	5,108,975	32	6.80	0.79	0.54	0.25	0.24	16.99	4.35
PM-18-009	540,744	5,108,978	24	3.50	10.38	1.28	4.07	0.59	84.28	4.32
PM-18-010	540,720	5,109,012	279	3.29	5.35	0.51	1.74	0.31	41.77	3.42
PM-18-011	540,756	5,109,047	342	3.00	4.22	2.60	1.42	0.54	34.26	3.89
PM-18-012	540,844	5,109,097	345	11.40	3.84	0.87	1.51	0.31	36.35	3.27
PM-18-013	541,406	5,109,325	305	9.40	2.41	0.76	0.84	0.42	32.21	4.16
PM-18-014	541,430	5,109,295	285	5.00	1.70	0.47	0.55	0.28	24.65	4.14
PM-18-015	541,391	5,109,274	155	16.50	1.10	0.53	0.42	0.27	18.59	4.14
PM-18-018	540,679	5,108,961	293	0.50	11.70	2.25	8.31	0.46	100.00	3.89
PM-18-019	541,038	5,109,137	168	2.90	0.40	0.28	0.08	0.05	3.88	4.06
PM-18-020	541,141	5,109,173	188	3.20	13.32	1.75	5.37	1.14	126.36	3.94
PM-18-021	541,149	5,109,142	32	21.00	2.09	0.35	0.72	0.31	15.47	4.22
PM-18-022	540,770	5,109,011	- 171	1.50	-	0.54	-	0.58	29.00	3.47
PM-18-022	540,768	5,109,015	- 176	4.71	23.85	0.88	9.86	1.53	262.52	4.44
PM-18-022A	540,775	5,109,023	- 143	5.90	23.95	0.95	10.21	1.35	324.08	3.89
PM-18-023	540,855	5,109,057	- 193	5.92	7.41	1.38	3.20	0.74	63.39	3.97
PM-18-023	540,841	5,109,094	- 238	2.40	20.76	1.37	3.83	1.07	108.07	4.13
PM-18-023A	540,846	5,109,058	- 171	6.00	10.20	1.28	4.69	0.49	52.95	4.04
PM-18-023A	540,836	5,109,084	- 197	3.29	15.83	0.70	7.78	0.93	167.93	3.89
PM-18-027	540,691	5,108,958	139	24.41	3.50	0.76	1.47	0.30	52.41	3.89
PM-18-028	541,259	5,109,171	14	3.41	19.15	0.60	7.37	1.16	151.11	4.06
PM-18-029	540,739	5,108,969	- 186	10.55	19.32	1.24	7.24	1.28	206.37	3.89

TABLE 14.15
LIST OF DIAMOND DRILL COLLARS FROM 2018 DIAMOND DRILLING

HOLE-ID	EAST	NORTH	ELEV	AZ		DIP	DEPTH
PM-17-001	540,887	5,109,039	372	327	-	46	168
PM-17-002	540,887	5,109,039	372	327	-	61	180
PM-18-003	541,280	5,109,160	356	327	-	64	234
PM-18-004	541,280	5,109,160	356	327	-	50	204
PM-18-005	541,264	5,109,082	355	327	-	68	354
PM-18-006	541,424	5,109,130	348	333	-	63	33
PM-18-006A	541,424	5,109,130	348	333	-	63	336
PM-18-007	540,845	5,108,913	372	327	-	62	465
PM-18-008	540,845	5,108,913	372	327	-	69	496
PM-18-009	540,869	5,108,866	367	313	-	61	447
PM-18-010	540,760	5,108,953	382	327	-	55	198
PM-18-011	540,778	5,109,012	383	327	-	45	107
PM-18-012	540,861	5,109,071	375	327	-	45	99
PM-18-013	541,431	5,109,287	349	327	-	45	120
PM-18-014	541,464	5,109,241	348	327	-	45	171
PM-18-015	541,465	5,109,157	348	327	-	55	312
PM-18-016	541,501	5,109,176	349	327	-	55	312
PM-18-017	540,906	5,109,092	372	327	-	69	120
PM-18-018	540,714	5,108,908	383	327	-	55	192
PM-18-019	541,114	5,109,021	360	327	-	55	298
PM-18-020	541,193	5,109,097	361	327	-	63	237
PM-18-021	541,233	5,108,999	352	327	-	63	420
PM-18-022	540,939	5,108,666	362	329	-	58	759
PM-18-022A	540,939	5,108,666	362	329	-	58	699
PM-18-023	541,020	5,108,714	350	327	-	58	801
PM-18-023A	541,020	5,108,714	350	327	-	58	750
PM-18-025	541,304	5,109,390	365	327	-	50	258
PM-18-027	540,759	5,108,870	382	322	-	65	336
PM-18-028	541,380	5,109,002	346	326	-	60	498
PM-18-029	540,939	5,108,668	370	326	-	62	771
PM-18-006	541,424	5,109,130	348	333	-	62	33
PM-18-026	540,889	5,108,694	370	326	-	57	585
PM-18-029A	540,939	5,108,668	370	326	-	62	714
PM-18-030	541,380	5,109,002	346	326	-	74	651
PM-18-031	541,348	5,108,907	340	326	-	70	537

It is the opinion of the authors that continued expansion and infill diamond drilling will have significant potential to expand and certainly upgrade the resource.

Figure 14.13 and Figure 14.14 show the ZnEq grade shells for the lenses of the deposits. Additional drilling and modeling may allow material that is less than 9% ZnEq to be upgraded. In addition, metallurgical work and developing mining costs for the deposit may allow the inclusion of lower grade material in the resource.

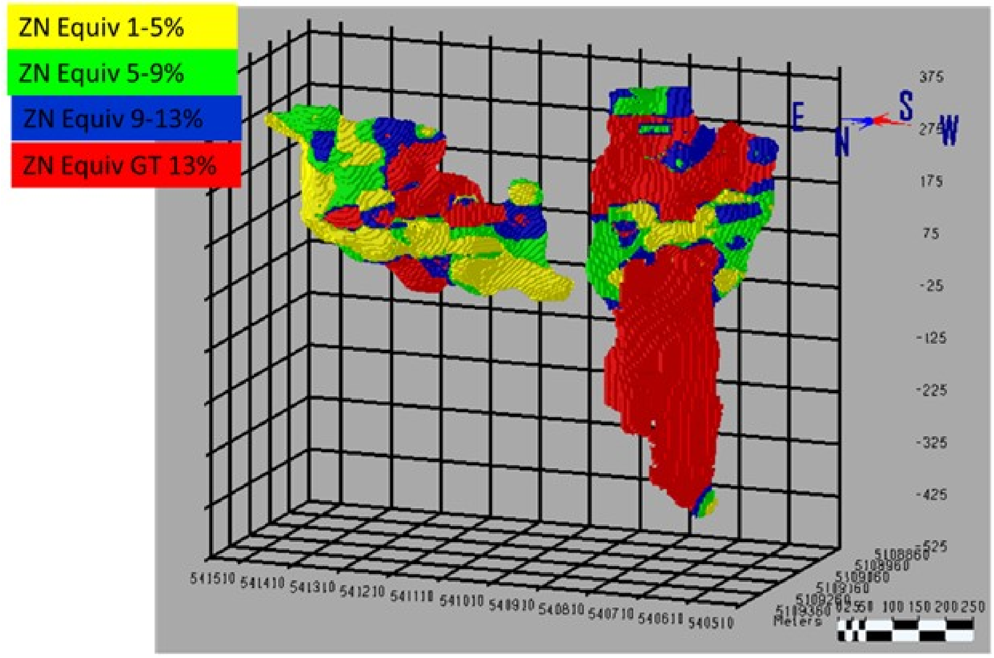

Figure 14.13 Grade shells of lenses – footwall view looking southeast

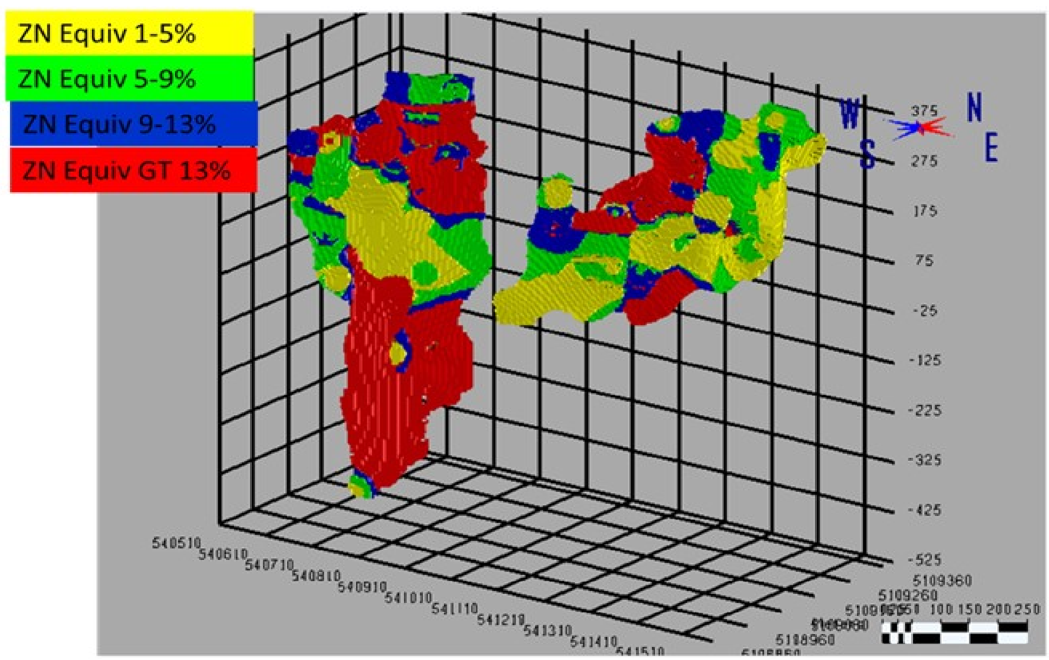

Figure 14.14 Grade shells of lenses – hanging wall view looking northwest

A series of grade shells were created for the West and East mineralised zones (lenses). This was undertaken to confirm the continuity of the mineralised zones as well as for future diamond drill and exploration targets.

To the knowledge of the authors, there are no known environmental, legal, title, taxation, socio-economic, marketing, or political factors that could materially affect the Mineral Resource estimate.

In conclusion, it is the opinion of the authors that the Pickett Mountain deposit, as currently defined to a depth of 875 metres, has significant infill and expansion opportunities. The local exploration target expansion range is 8 to 10 million tonnes grading 12% to 20% ZnEq, based on the current geological model, without the addition of other lenses. This target size is derived from the interpretation of the drilling, geological structure, geology, and surface sampling carried out on the Property to date. The potential quantity and grade of the target is conceptual in nature. There has been insufficient exploration of this target to define a Mineral Resource and it is uncertain if further local exploration will result in this target being delineated as a Mineral Resource.

15.0 Mineral Reserve Estimates

There has not yet been any Mineral Reserve estimation done.

16.0 MINING METHODS

As no mining study has yet been done on the Property, no mining method has been selected.

17.0 RECOVERY METHODS

This is summarized under Section 13.0 – Mineral Processing and Metallurgical Testing.

18.0 PROJECT INFRASTRUCTURE

There is currently no project infrastructure in place.

19.0 MARKET STUDIES AND CONTRACTS

There has been no market studies done and no sales contracts signed.

20.0 Environmental Studies, Permitting, and Social or Community Impact

The Maine Metallic Mineral Mining Act (Act) provides the framework for all metallic mining activity within the state. This current statute became effective on June 1, 2014. In June 2017, the legislature passed an Amendment Bill, LD 820, to the Act that provides additional provisions and restrictions. Provisional rules under the Maine Department of Environmental Protection (MDEP) stipulate detailed requirements for the mining permit process. However, the current provisional rules that have been developed by MDEP will need to be revised to reflect new provisions in the Act from LD 820 before they are effective.

The intent of the 2014 law was to streamline the existing permitting system and incorporate many of the permitting requirements under one regulatory agency, the MDEP. Under the Act, permits that were previously required under state law are no longer required in that provisions are covered directly in the new metallic mining permit program.

The requirements from the recently enacted legislation (Bill L.D. 820) effectively require best-in-class environmental protection technologies and practices, as well as unusually onerous financial assurance provisions for site closure. Wolfden is currently determining the process to be followed under these provisions.

The mine permitting process is a two-staged process, whereby the Company is required to apply to re-zone from an unorganized territory to organized territory and upon approval, can apply for a mining permit. The timeline for re-zoning is expected to be one to one and a half years and an additional two years for the mine permitting process. The Company expects to proceed through this process sequentially.

Given that there has not been any other mining or mining exploration companies who have applied or been granted a mining permit under the new legislation, it is premature to predict the risks associated with this process. Until such time that the Project has received re-zoning approval, there will remain some uncertainty that the Project will be permitted for a mining operation.

21.0 CAPITAL AND OPERATING COSTS

To date no pre-feasibility or feasibility study has been completed; thus, there are no current estimates of capital and operating costs.

22.0 ECONOMIC ANALYSIS

There has not yet been any economic analysis done.

23.0 ADJACENT PROPERTIES

There are no contiguous adjacent properties.

24.0 Other Relevant Data and Information

To the best of the authors' knowledge, there is no other relevant data, additional information, or explanation necessary to make the Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

In conclusion, it is the opinion of the authors that the Pickett Mountain deposit, as currently defined to a depth of 875 metres, has significant infill and expansion opportunities. The local exploration target expansion range is 8 to 10 million tonnes grading 12% to 20% ZnEq, based on the current geological model, without the addition of other lenses. This target size is derived from the interpretation of the drilling, geological structure, geology, and surface sampling carried out on the Property to date. The potential quantity and grade of the target is conceptual in nature. There has been insufficient exploration of this target to define a Mineral Resource and it is uncertain if further local exploration will result in this target being delineated as a Mineral Resource.

It is the opinion of the authors that there does not appear to be any material risks to the Mineral Resource estimate. The grade is very robust, the deposit displays continuity in drilling completed to date, and the polymetallic nature of the deposit renders it resilient to metal price fluctuations.

It is the opinion of the authors that the Pickett Mountain Property has significant exploration potential and further work is recommended.

26.0 Recommendations

Based on the positive results of the 2018 diamond drilling program, the resulting updated resource estimate, new geological theories and geophysical targets identified by the airborne and ground surveys, additional work is warranted and recommended as follows:

- To upgrade the Inferred Mineral Resource, a limited infill drill program with a 25 metre by 25 metre pattern is required to confirm if the current 50 metre by 50 metre drill pattern is sufficient.
- Complete down-hole EM surveying of several completed drill holes in order to test for the potential to expand mineralisation outside of the current modeled lenses. Drill test the higher priority down-hole plate conductors.
- Drill untested areas immediately adjacent to the modeled Inferred Resource domains in order to test for potential expansion, continuity, and grades of the mineralised lens.
- Drill untested, higher priority regional geophysical anomalies after further ground trothing and verification.
- Collection of a representative metallurgical sample from drill core rejects for further testing and more advanced studies. As part of the metallurgical testing, investigate various pre-concentration techniques that could be assessed in future studies.

Following completion of the metallurgical test work, commission an engineering study to do a basic mine design and a Preliminary Economic Assessment of the resource. The geometry of the resource appears amenable to bulk mining techniques. These should be investigated to determine the most cost effective mining methods and processing techniques.

The estimated cost to complete the recommended program is C$4,050,000 and is tabulated below (Table 26.1).

Table 26.1
Proposed Budget

ITEM	COST
Diamond Drilling (15,000 metres @ $180/metre all inclusive)	$2,700,000
Geophysics (borehole EM as well as ground EM & other surveys)	$350,000
Geology (mapping, prospecting, analyses & reporting)	$350,000
Metallurgical Testing (to include QEMSCAN mineralogical work)	$200,000
Baseline Environmental Work	$250,000
Preliminary Economic Assessment (mine design, first order economics)	$200,000
Total (Canadian Dollars)	**$4,050,000**

27.0 References

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CERTIFICATE OF QUALIFICATIONS

I, Finley J. Bakker, P. Geo., as an author of the technical report entitled, “National Instrument 43-101 Technical Report, Pickett Mountain Project Resource Estimation Report,” Penobscot County, Maine, USA (the “**Technical Report**”), with an effective date of January 7, 2019, prepared for Wolfden Resources Corporation, with mailing address 1100 Russell Street, Unit 5, Thunder Bay, Ontario, P7B 5N2, Canada, hereby certify that:

1) I am a Professional Geoscientist and Consultant, residing at 4798 Andy Road, Campbell River, British Columbia, V9H 1C6, Canada.
2) I graduated with a BSc. Honours in Geology from McMaster University in 1979.
3) I am a member of the Association of Professional Engineers and Geoscientists of British Columbia APEGBC (1991) (registration No. 18639).
4) I have worked as a geologist for a total of 39 years since my graduation from university.
5) I have read the definition of “qualified person” as set out in National Instrument 43-101 (“**NI 43-101**”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I am a “qualified person” for the purposes of NI 43-101.
6) My relevant experience for the purpose of the Technical Report is:
   a) Chief Geologist at four mines;
   b) I have held the positions of Senior Resource Geologist, Exploration Manager, and Superintendent of Technical Services;
   c) I have undertaken Resource calculations for 38 years;
   d) I have worked on a number of deposit types including VMS, skarn, epigenetic and porphyry deposits and have specifically worked at and on Massive Sulphide deposits for 26 years;
   e) I have been involved with commodities including copper, lead, zinc, gold, silver, REE, tungsten and iron, and molybdenum; and
   f) I have used MineSight/Compass/Hexagon software used in calculating the Mineral Resource for 30 years.
7) I am responsible for the preparation of Sections 1.0, 14.0, 24.0, and 25.0 of the technical report titled “National Instrument 43-101 Technical Report, Pickett Mountain Project Resource Estimation Report,” Penobscot County, Maine, USA.
8) I have had no prior involvement with the property that is the subject of the Technical Report and have not completed a personal inspection of the property that is the subject of the Technical Report.
9) At the effective date of the Technical Report, 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.
10) I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
11) I have read NI 43-101 and Form 43-101F1 and the Technical Report, and the Technical Report has been prepared in compliance with that instrument and form.

12) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public Company files on their websites accessible by the public, of the Technical Report.

Dated this 7th day of January 2019

//signed Finley Bakker

Finley J. Bakker, P.Geo.

CERTIFICATE OF QUALIFICATIONS

I, Jerome Walton Grant, M.Sc., P. Geo, a consulting geologist with residence and business address at Box 627, Durham, Ontario, N0G 1R0, Canada do hereby certify that:

1) I have practiced my profession as a geologist in the private sector since 1981 in the gold and base-metal sectors of the mineral exploration industry.
2) I completed Geological Engineering, Mineral Exploration Option degree at Queen's University, Kingston, Ontario in 1985 and a Master of Science degree in geology at Queen's University in 1995.
3) I am a Professional Geoscientist – a Practicing Member of the Association of Professional Geoscientists of Ontario (APGO).
4) Over my career I have conducted GIS compilation, geological mapping, surface sampling and diamond drill programs at numerous locations in Canada and beyond, including VMS exploration at Kidd Creek and Hackett River.
5) I have read the definition of "qualified person" set out in National Instrument 43-101 ("**NI 43-101**") and certify that, by reason of my education, experience and affiliation with a professional association, I am a "qualified person" for the purposes of NI 43-101.
6) This certificate applies to the technical report titled "National Instrument 43-101 Technical Report, Pickett Mountain Project Resource Estimation Report," Penobscot County, Maine, USA, located at: 68.468°W Longitude 46.134°N Latitude (the "**Technical Report**") with an effective date of January 7, 2019.
7) I am responsible for the preparation of Sections 8.0 to 13.0 of the Technical Report.
8) As of the effective date of the Technical Report, 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.
9) I conducted a personal inspection and worked on the Pickett Mountain Property for 6 weeks ending November 29, 2018, mapping and compiling geological, geochemical, geophysical, and the drill hole database.
10) I have had no prior involvement with the property that is the subject of the Technical Report.
11) I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
12) I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101. There were no circumstances that were or could be seen to interfere with my judgement in preparing the Technical Report.
13) I have read NI 43-101, Form 43-101F1 and the Technical Report, and the Technical Report has been prepared in compliance with that instrument and that form.
14) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated in Durham, Ontario this 7th day of January 2019

//signed Jerry Grant, M.Sc., P. Geo.

Jerry Grant, M.Sc., P. Geo.

CERTIFICATE OF QUALIFICATIONS

I, Brian LeBlanc, B.Sc., P. Eng., residing at 781 Community Hall Road, Thunder Bay, Ontario, Canada, do hereby certify that:

1) I am President and a Principal of A – Z Mining Professionals Limited.
2) This certificate applies to the technical report titled "National Instrument 43-101 Technical Report, Pickett Mountain Project Resource Estimation Report," Penobscot County, Maine, USA, located at: 68.468°W Longitude 46.134°N Latitude (the "**Technical Report"**), and it is effective January 9, 2019.
3) I am a graduate of the Haileybury School of Mines as a Mining Technician (1981). I have also obtained a Bachelor of Science degree in Mining Engineering from Michigan Technological University (1986).
4) I am licensed by the Professional Engineers Ontario (License No. 90427972).
5) I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("**NI 43-101**") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I am a "qualified person" for the purposes of NI 43-101.
6) My relevant experience for the purpose of the Technical Report is:
   a) Extensive and progressively more senior engineering and operational duties at base metals, gold and nickel mining operations and development projects.
   b) 12 years of experience directing and overseeing several scoping level, pre-feasibility level and feasibility level studies for mines and mining companies.
   c) Mill Operator – Giant Yellowknife Mines, 1974 – 1975
   d) Crusher Operator/Screening Plant Operator/Loadout Operator/Surveyor – Steep Rock Iron Mines Ltd., 1976 - 1979
   e) Mine Planner/Chief Surveyor – Nanisivik Mines Ltd., 1981 - 1984
   f) Mining Engineer/Underground Supervisor/Mine General Foreman/Technical Services Superintendent/Mine Superintendent – Williams Mine, 1986 - 2003
   g) Manager of Mining – Kinross' Kubaka Mine (Russia), 2003 - 2004
   h) Technical Services Superintendent – Lac Des Isles Mines, 2004 - 2006
   i) Project Superintendent – Redpath Indonesia, 2006 - 2007
   j) Project Manager for Ontario – North American Palladium Ltd., 2007 - 2010
   k) General Manager/Vice President/President – NordPro Mine and Project Management Services Ltd, 2010 - 2014
   l) President, A – Z Mining Professionals Limited, February 2014 to Present
7) I assisted in preparation of the Technical Report and Peer Review for Sections 1.0 to 7.0, 13.0, 15.0 to 23.0, and 26.0 of the Technical Report. I co-authored and am responsible for Sections 1.0 to 7.0, 15.0 to 23.0, and 26.0 of the Technical Report.
8) I have not completed a personal inspection of the Property that is the subject of the Technical Report.
9) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed in order to make the Technical Report not misleading.
10) I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
11) I have not had prior involvement with the Property that is the subject of the Technical Report.

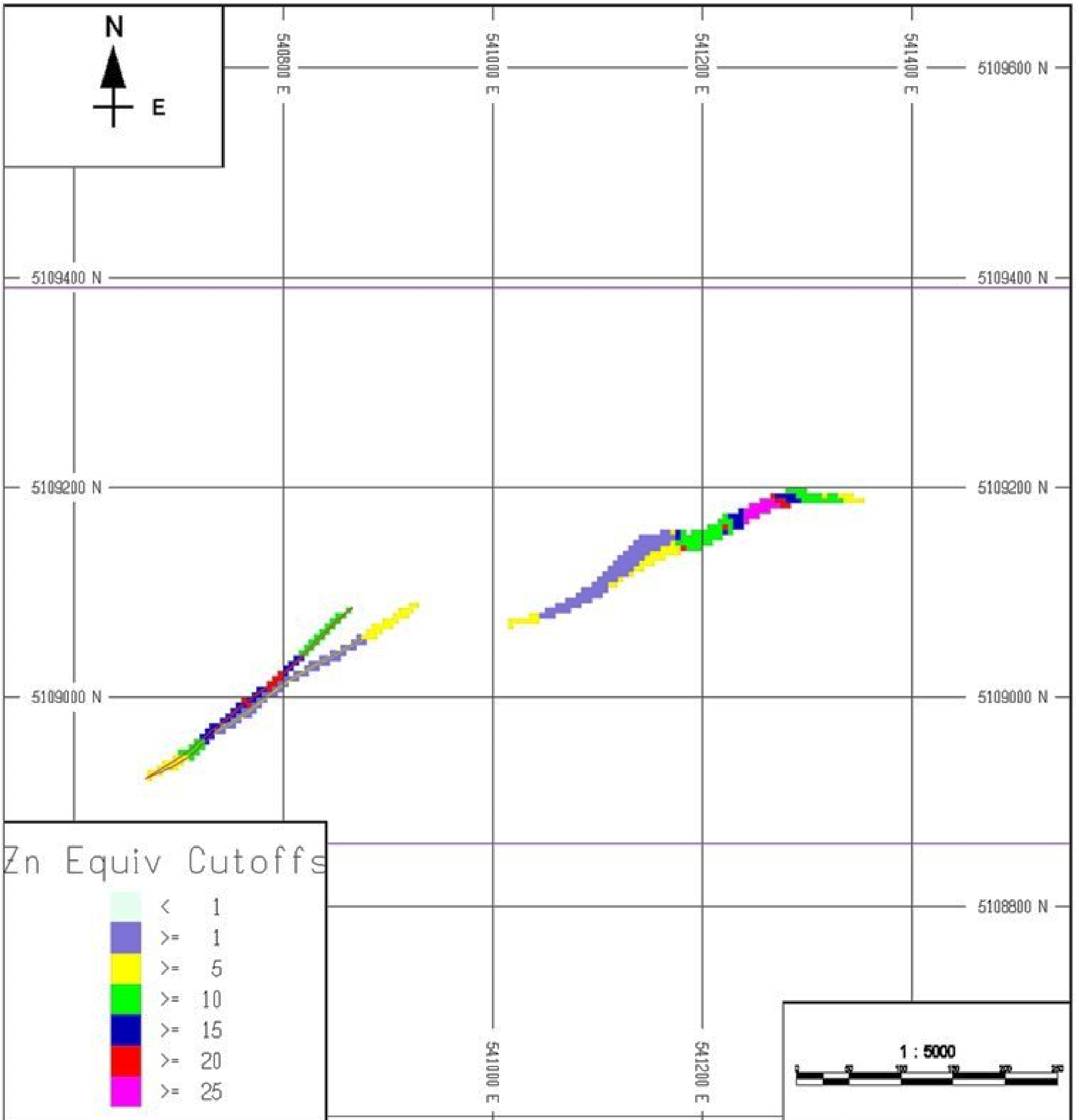
12) I have read NI 43-101, Form 43-101F1 and the Technical Report, and the Technical Report has been prepared in compliance therewith.

Dated in Thunder Bay Ontario this 7th day of January 2019

//signed Brian LeBlanc, B.Sc., P. Eng.

Brian LeBlanc, B.Sc., P. Eng.

APPENDIX 1.0
ZINC EQUIVALENT GRADE SHELLS BY ELEVATION IN PLAN VIEW



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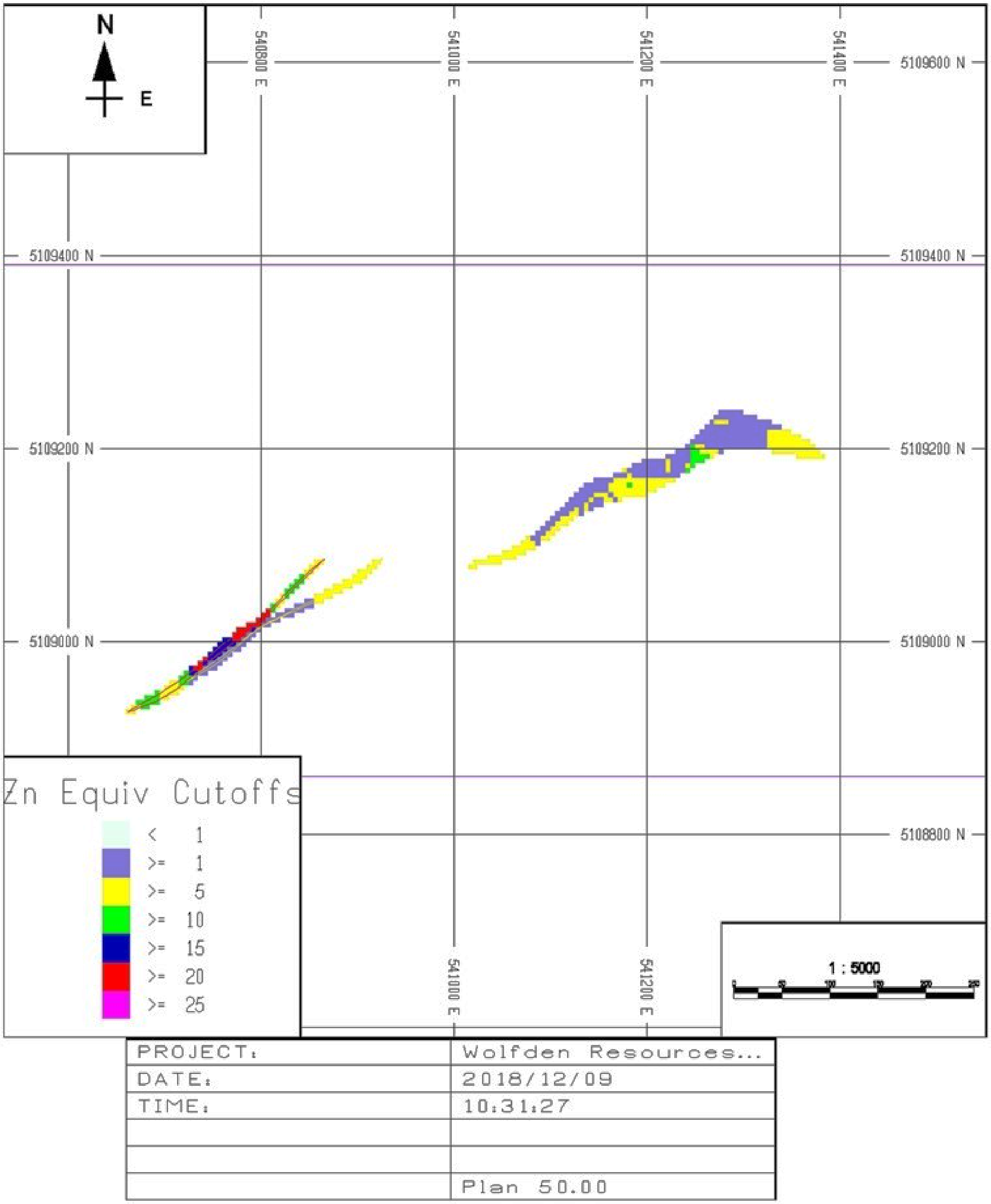
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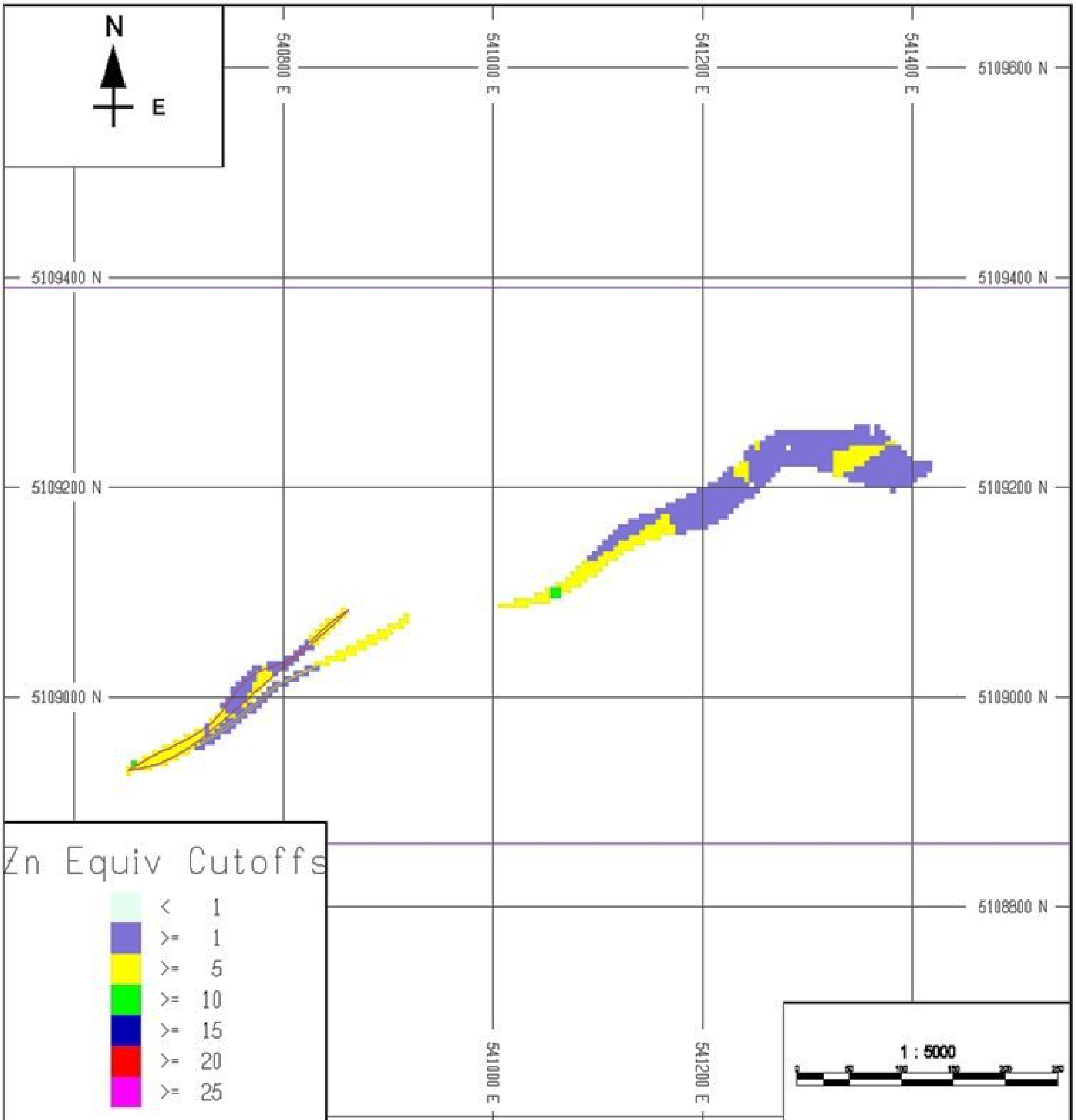

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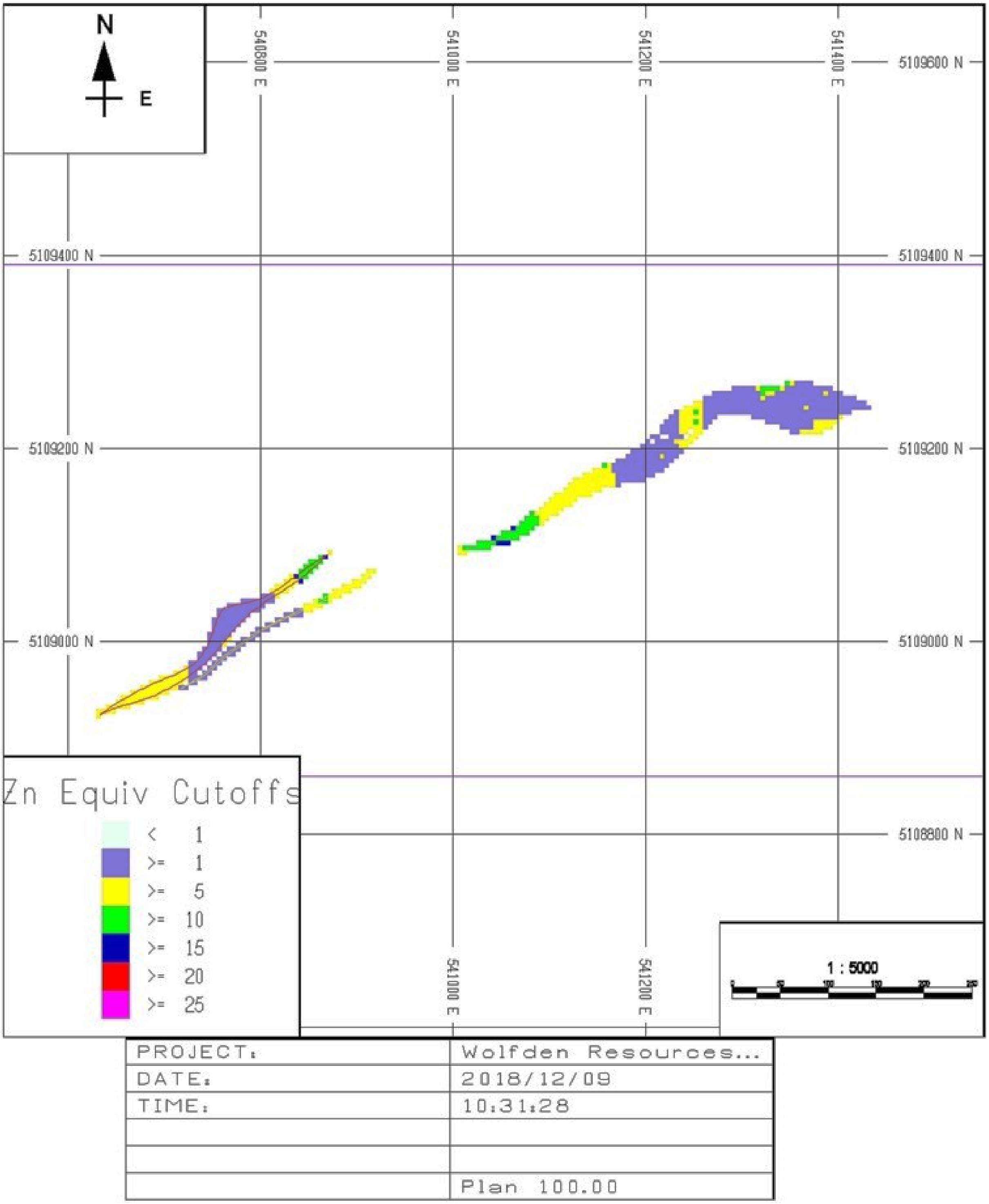
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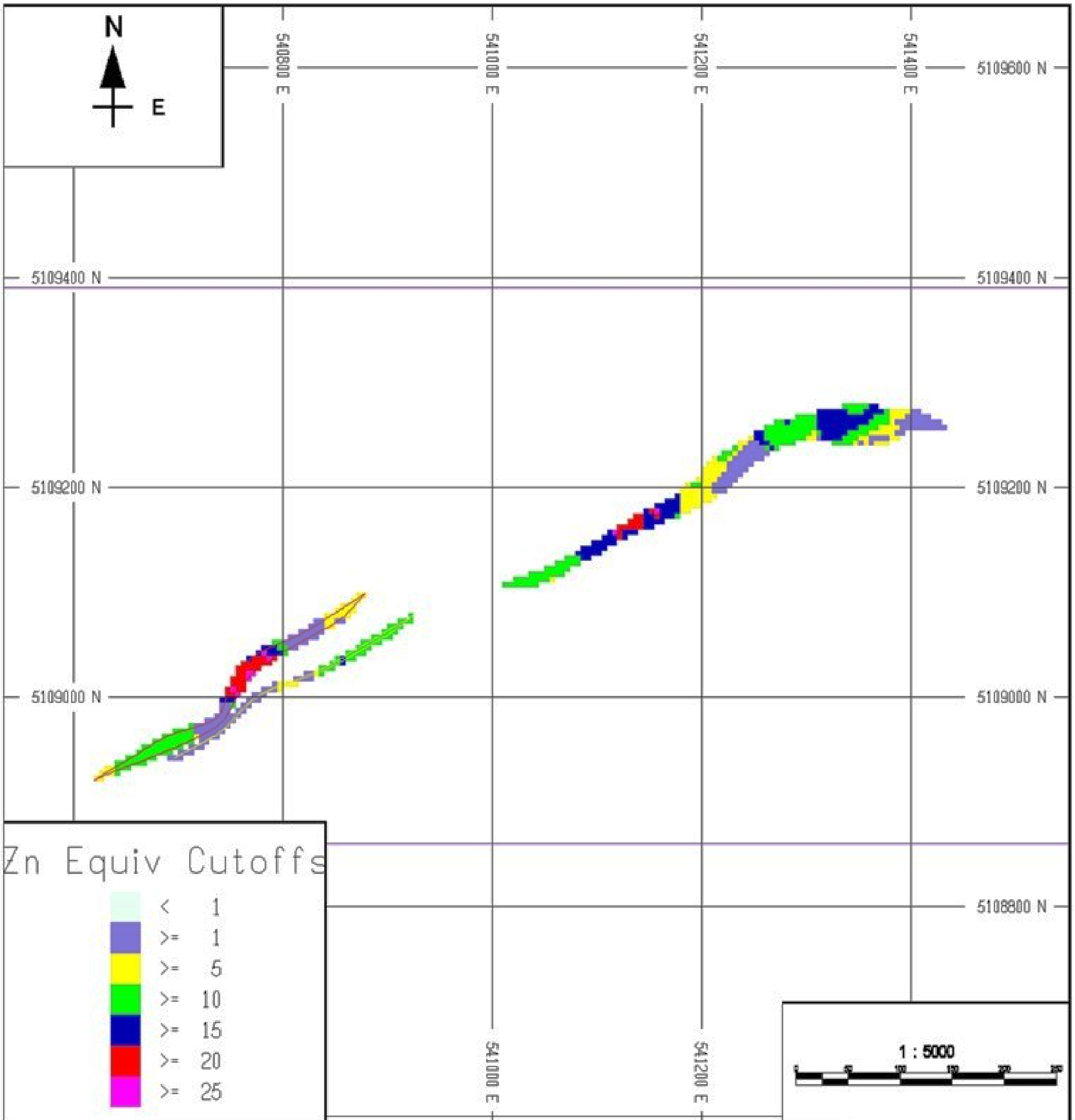

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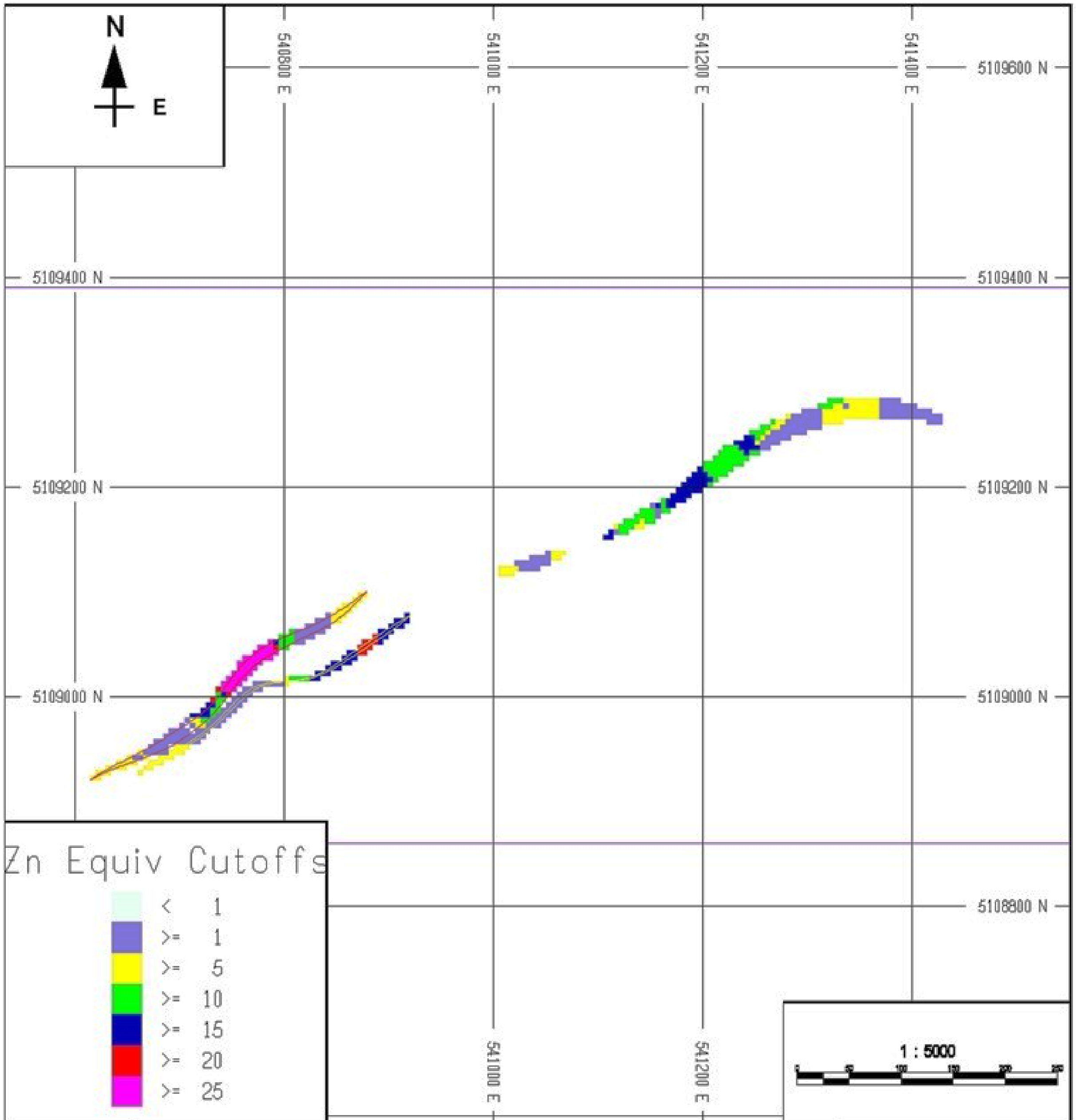

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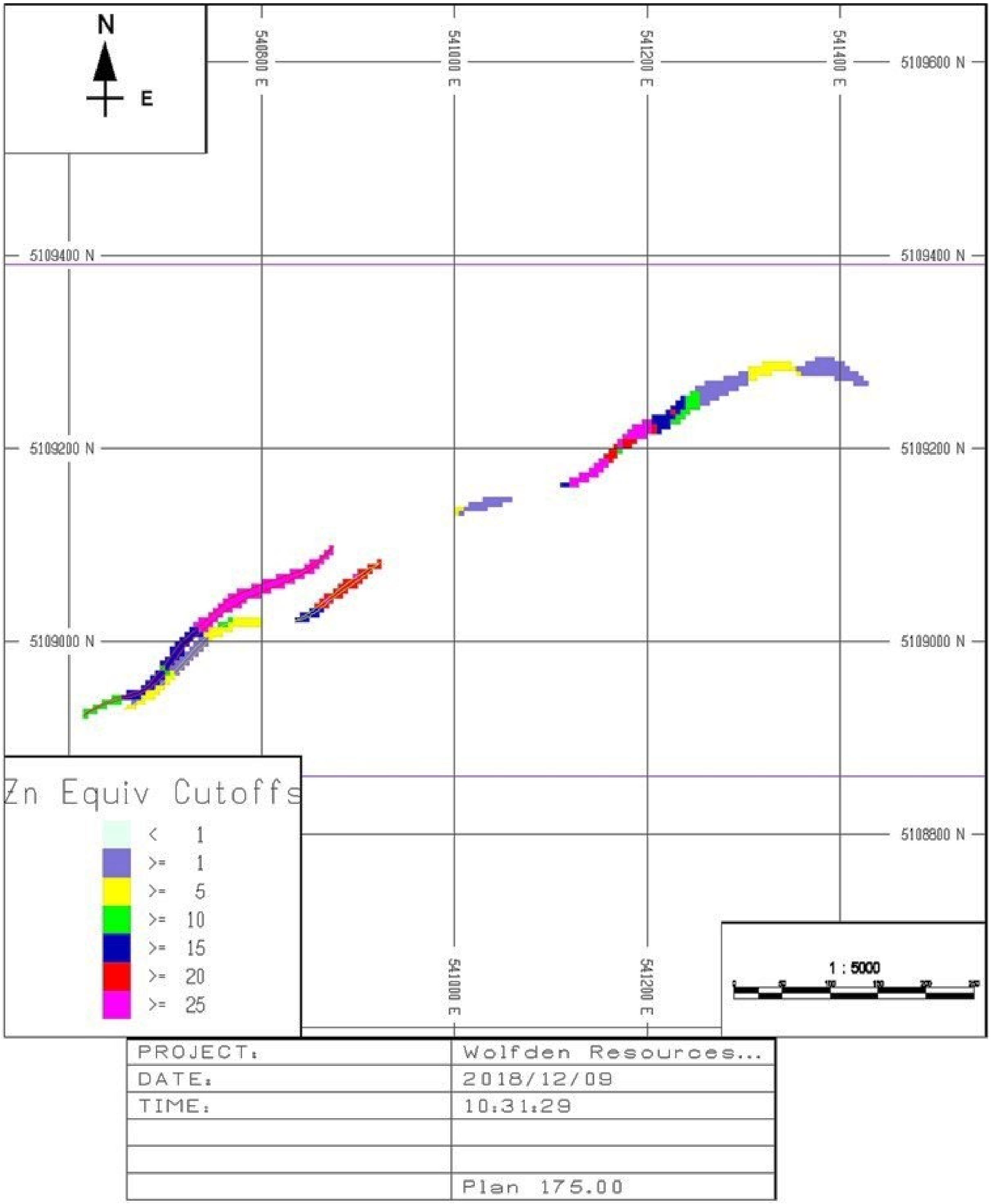
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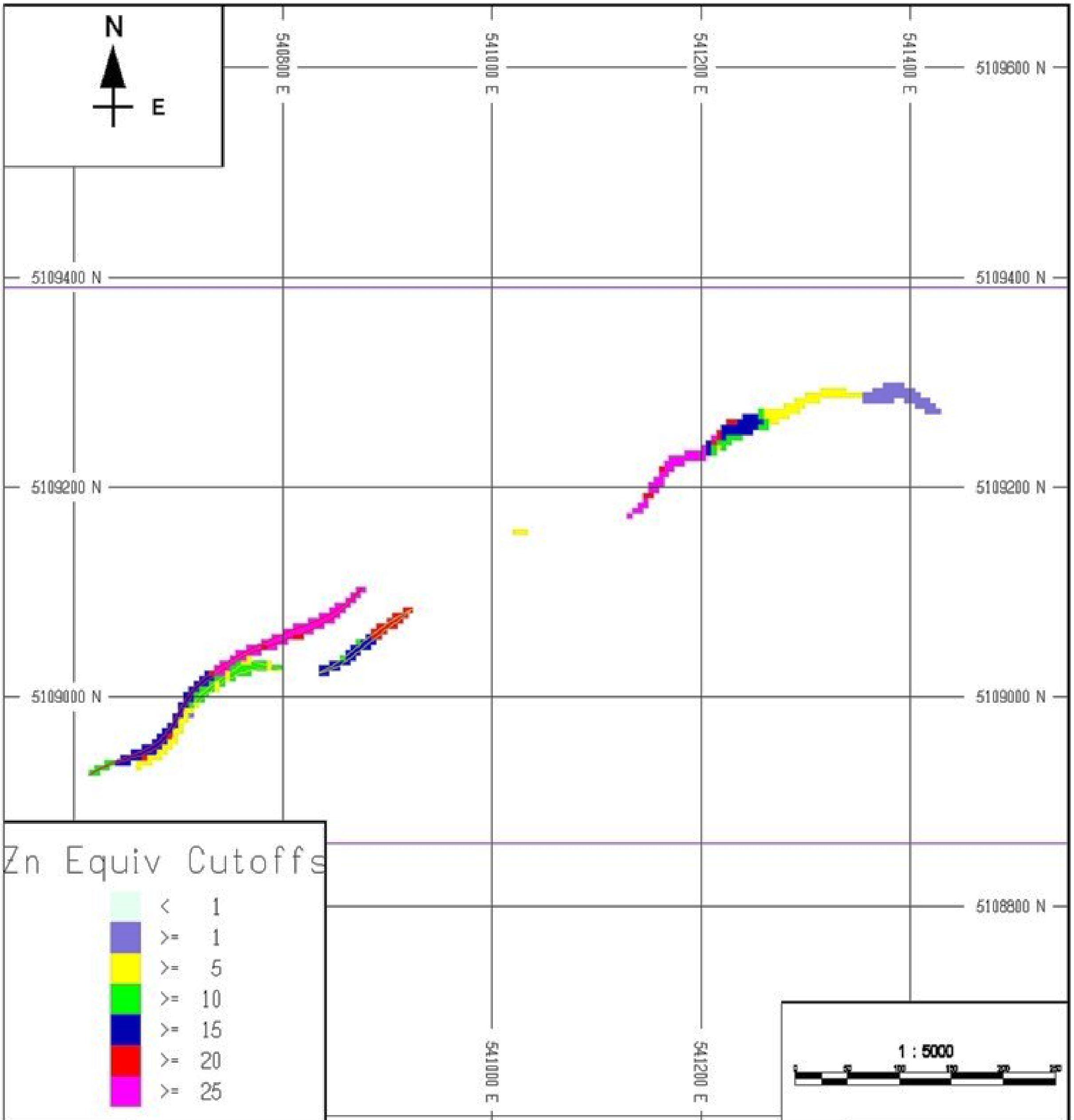

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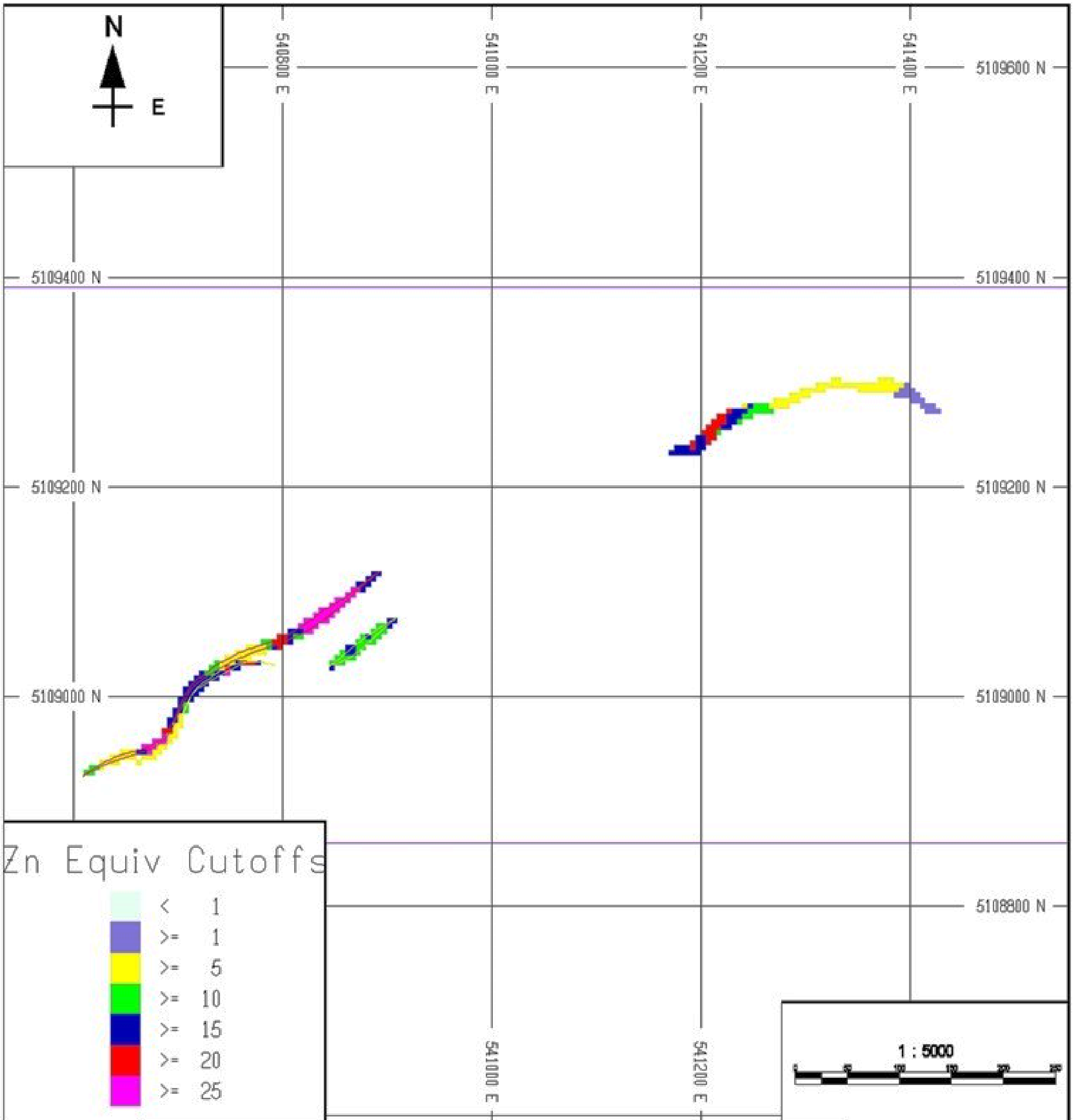

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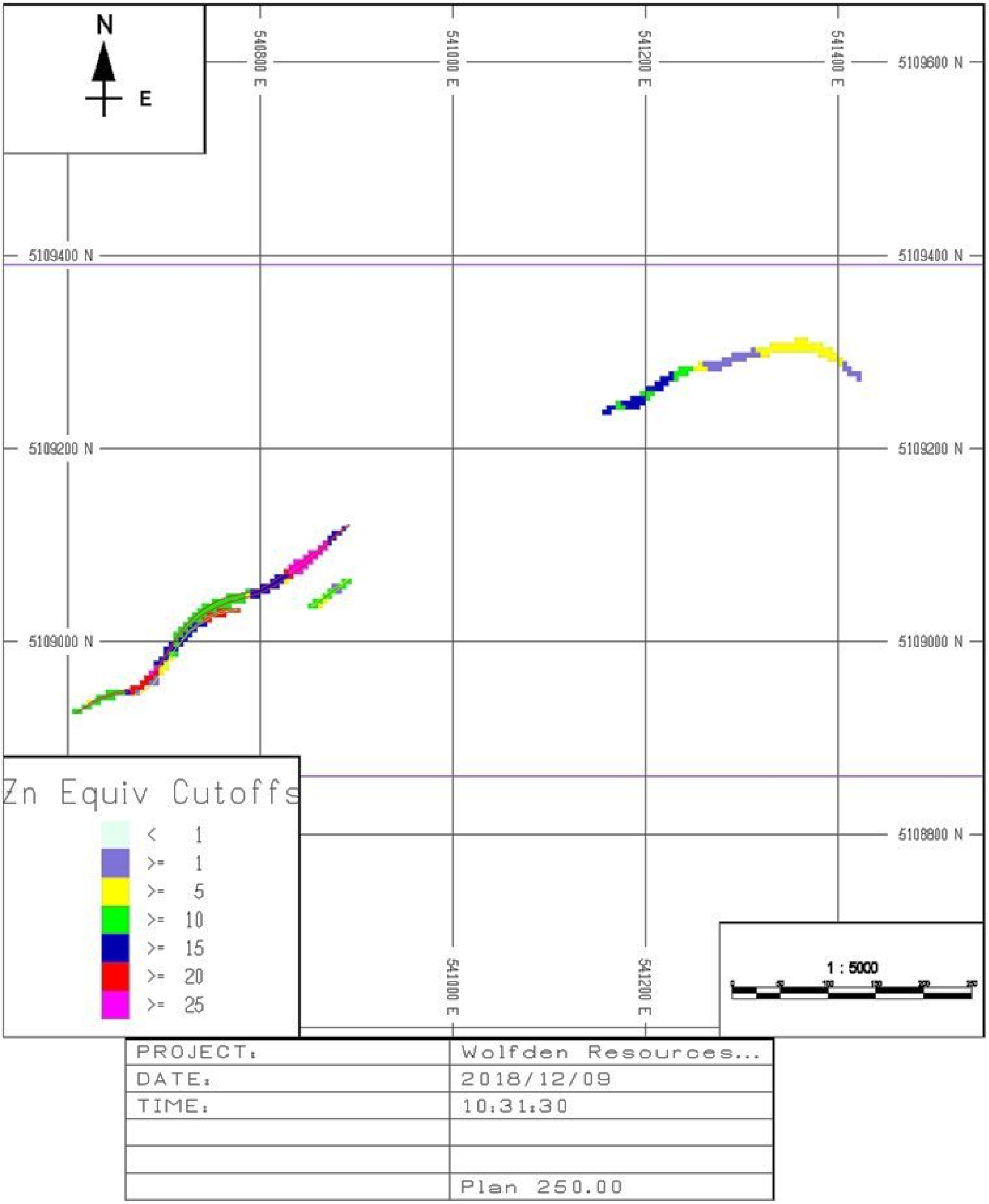
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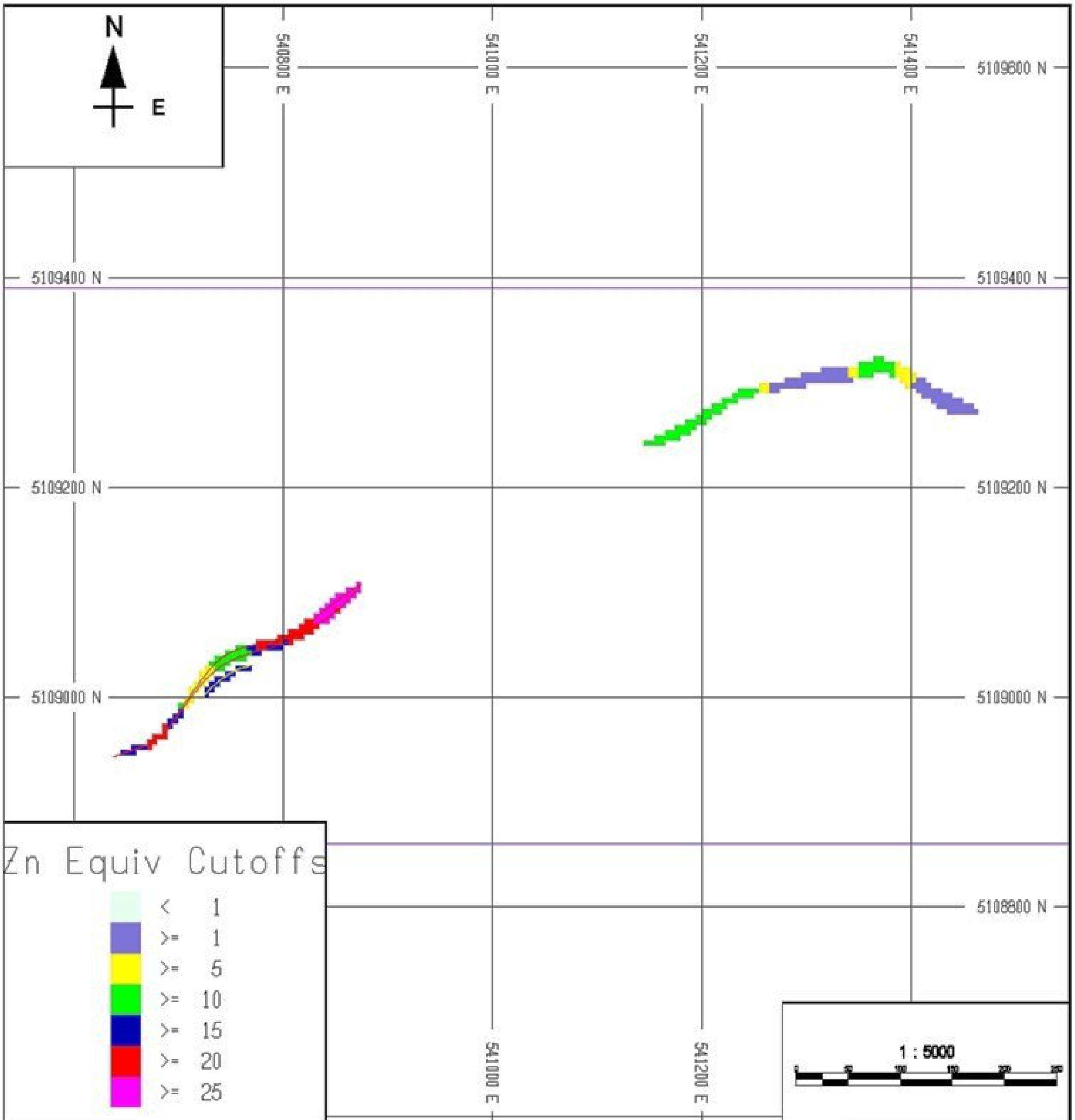

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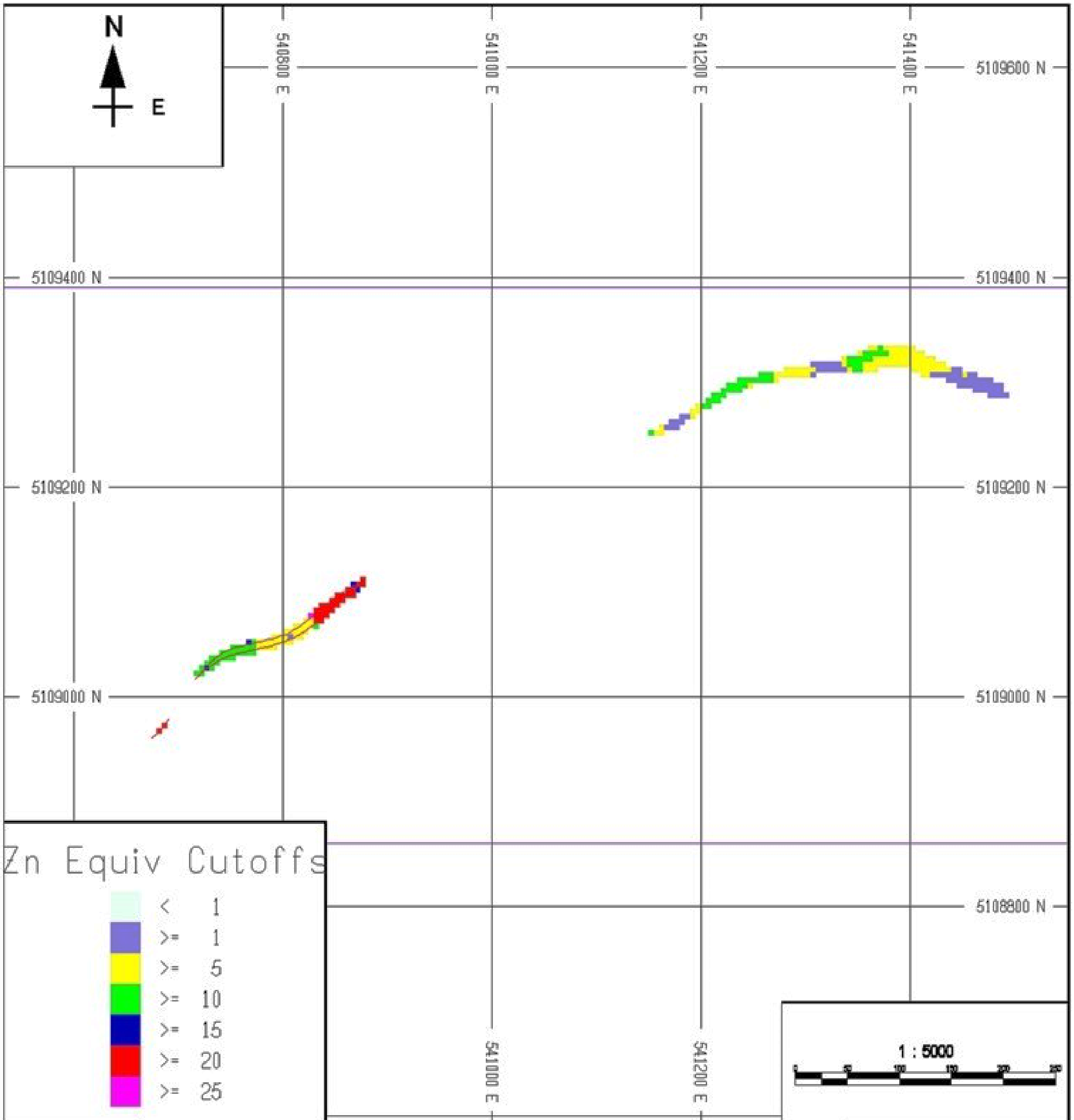

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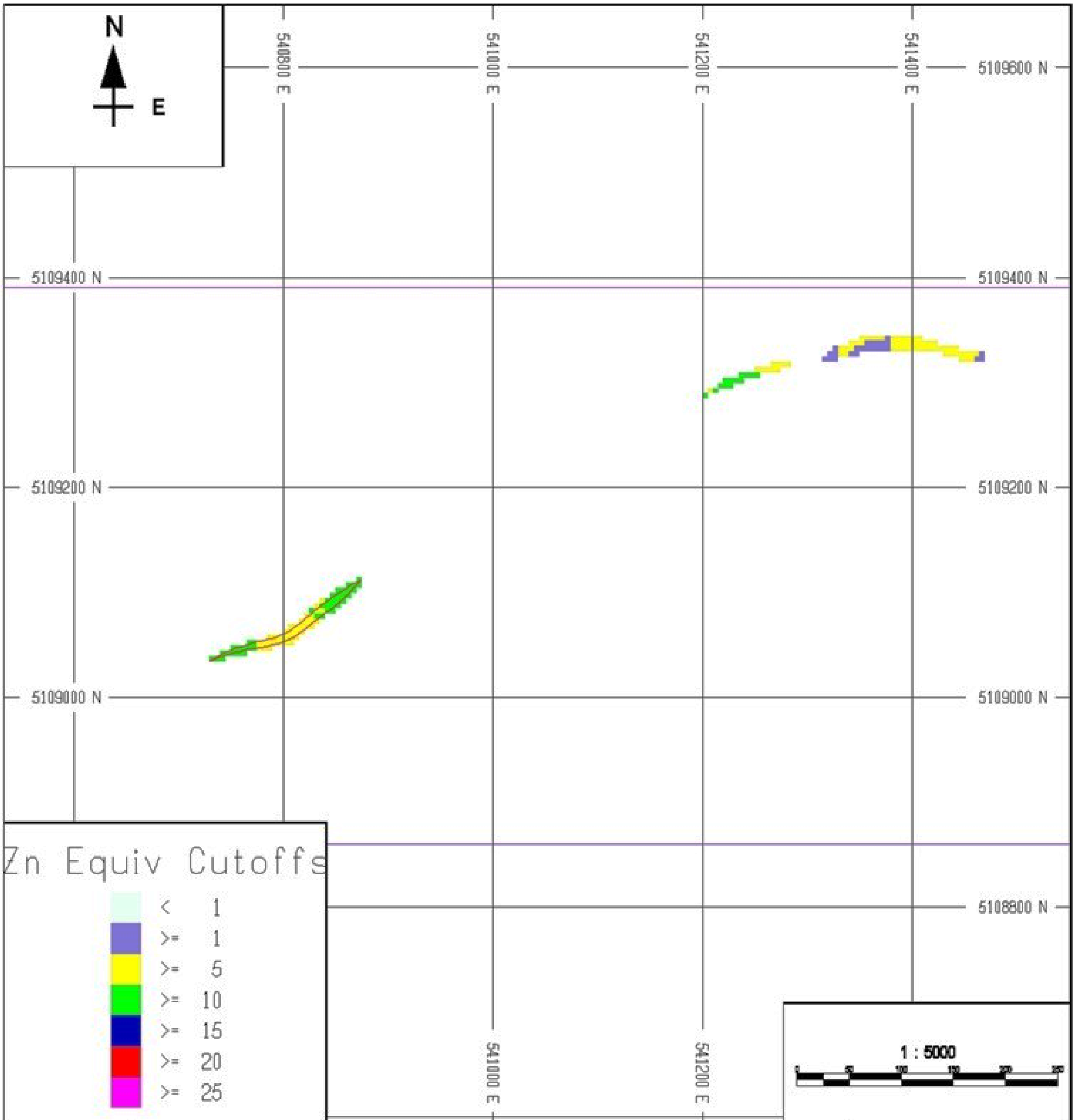

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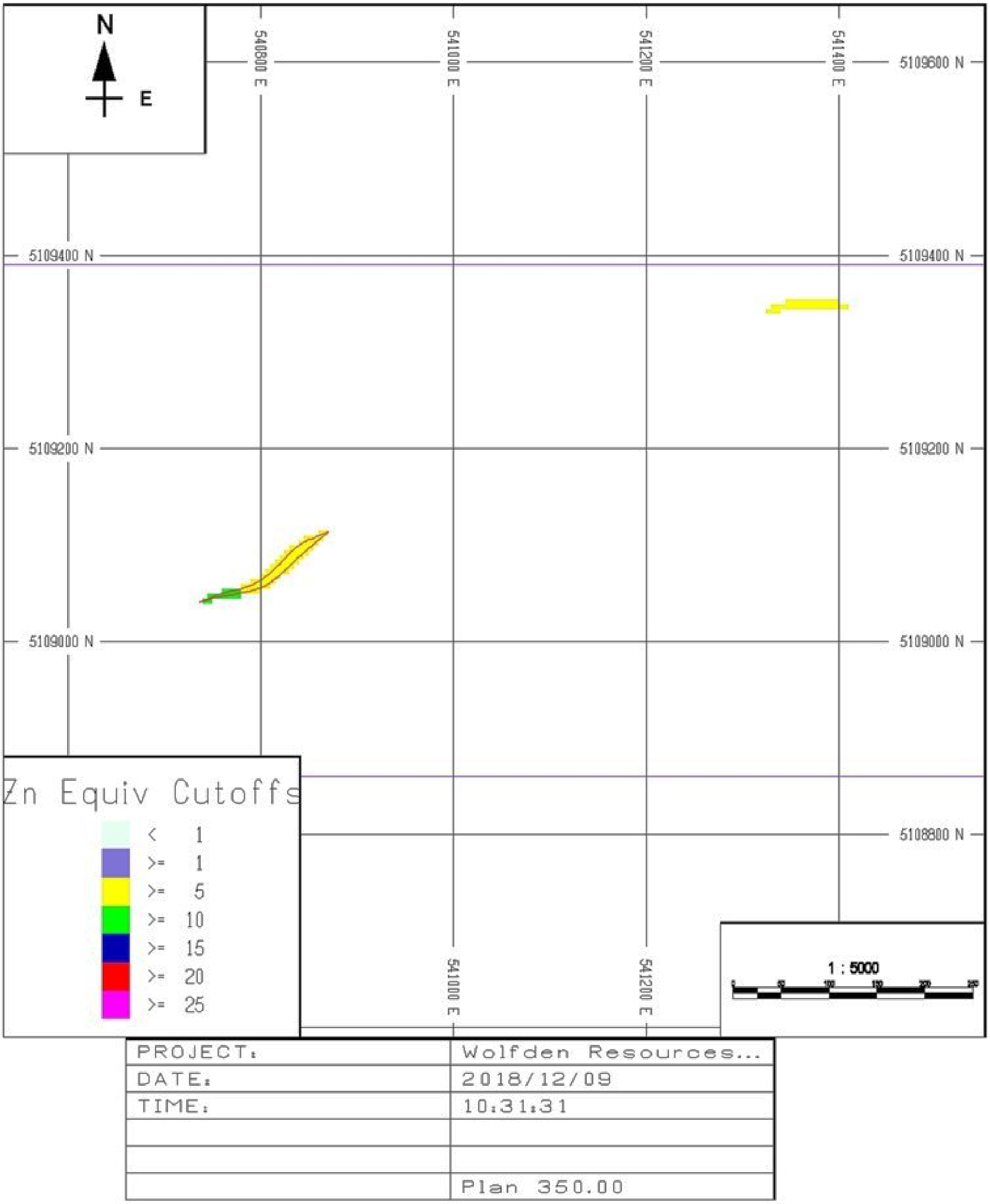
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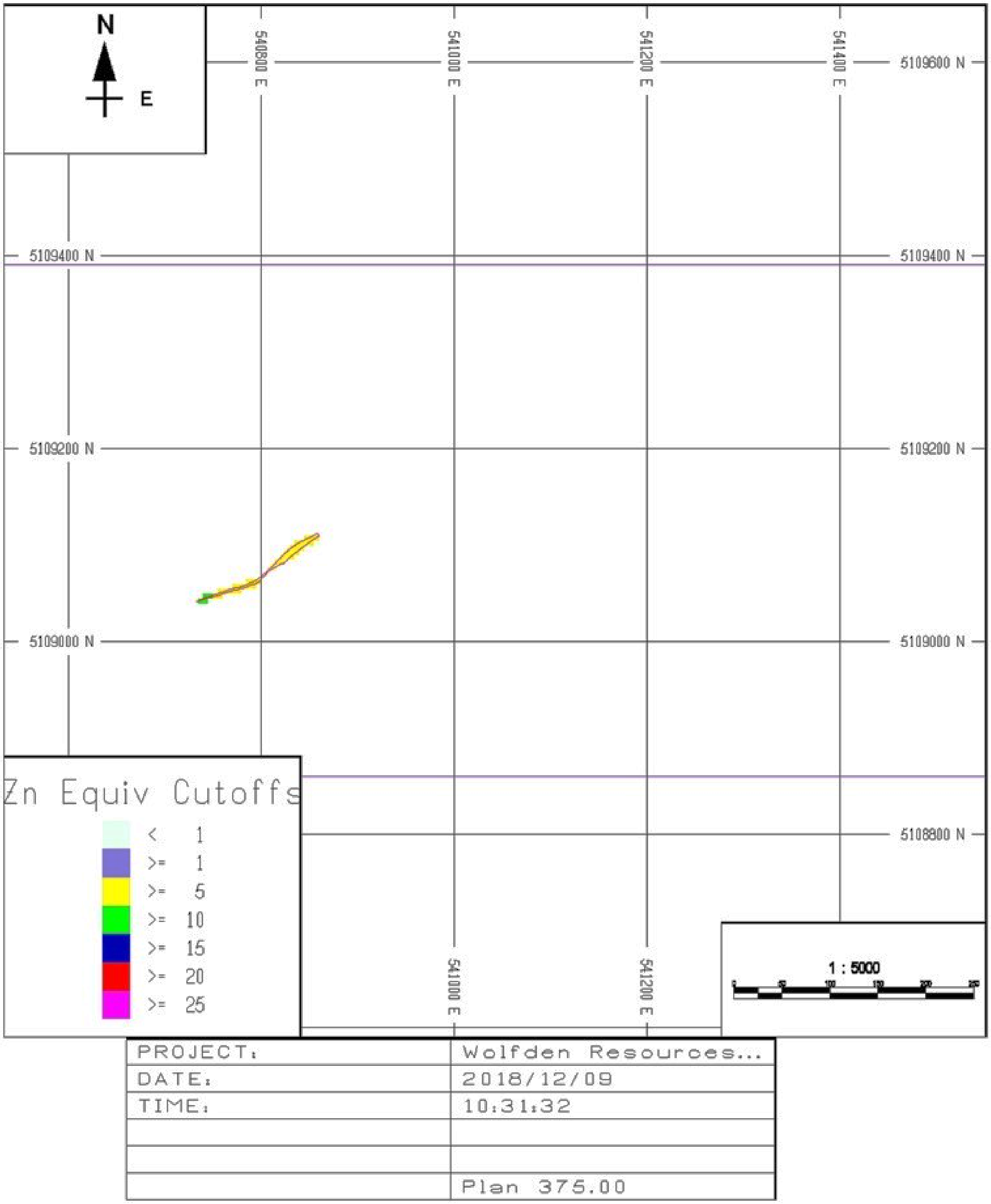
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APPENDIX 2.0
STANDARD CERTIFICATES

ORE RESEARCH & EXPLORATION

ORE RESEARCH & EXPLORATION P/L ABN 28 006 859 856
37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

Zn-Pb-Ag REFERENCE MATERIAL

OREAS 133b

Summary Statistics for Key Analytes (see Table 1 for additional certified values).

Constituent (ppm)	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
4-Acid Digestion						
Ag, Silver (ppm)	104	2	103	106	102	106
Pb, Lead (wt.%)	5.06	0.098	5.00	5.12	4.98	5.15
Zn, Zinc (wt.%)	11.35	0.347	11.15	11.54	11.11	11.58

Please note: intervals may appear asymmetric due to rounding.

JAS-ANZ

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Project: COA-596-OREAS133b

Printed: 15-April-2016

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37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 Fx 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

Zn-Pb-Ag REFERENCE MATERIAL

OREAS 134a

Summary Statistics for Key Analytes (see Table 1 for additional certified values).

Constituent (ppm)	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
4-Acid Digestion						
Ag, Silver (ppm)	201	7	196	205	197	205
Pb, Lead (wt.%)	12.79	0.766	12.34	13.23	12.49	13.08
Zn, Zinc (wt.%)	17.27	0.553	16.95	17.59	16.97	17.57

Please note: intervals may appear asymmetric due to rounding.

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ORE RESEARCH & EXPLORATION P/L ABN 28 006 859 856
37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 fx 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

Zn-Pb-Ag REFERENCE MATERIAL

OREAS 134b

Summary Statistics for Key Analytes (see Table 1 for additional certified values).

Constituent (ppm)	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
4-Acid Digestion						
Ag, Silver (ppm)	209	9	204	213	203	214
Pb, Lead (wt.%)	13.36	0.743	12.91	13.80	13.11	13.60
Zn, Zinc (wt.%)	18.03	0.755	17.58	18.48	17.75	18.30

Please note: intervals may appear asymmetric due to rounding.

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37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

ZINC TAILINGS
CERTIFIED REFERENCE MATERIAL
OREAS 630

Summary Statistics for Key Analytes.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Fire Assay						
Au, Gold (ppm)	0.259	0.007	0.255	0.262	0.249	0.268
4-Acid Digestion						
Ag, Silver (ppm)	10.5	0.37	10.1	10.8	10.1	10.9
Cu, Copper (ppm)	384	16	374	394	376	393
Pb, Lead (wt.%)	0.272	0.019	0.257	0.286	0.263	0.280
Zn, Zinc (wt.%)	0.540	0.026	0.523	0.556	0.530	0.550

Note: intervals may appear asymmetric due to rounding.

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ORE RESEARCH & EXPLORATION PTY LTD
6 – 8 Gatwick Road, Bayswater North, Vic 3153 AUSTRALIA
Telephone: 61-3-9729 0333 Facsimile: 61-3-9729 4777

CERTIFICATE OF ANALYSIS FOR

OREAS 132b
Zn-Pb-Ag REFERENCE MATERIAL

SUMMARY STATISTICS

Constituent	Recommended Values			
	Fusion	4 Acid	Aqua Regia	Leco
Silver, Ag (ppm)	61	60.7	60.3	-
Aluminium oxide, Al_2O_3 (wt.%)	7.47	7.64	1.76	-
Arsenic, As (ppm)	155	149	146	-
Barium, Ba (ppm)	890	594	118	-
Calcium oxide, CaO (wt.%)	7.21	6.90	6.83	-
Cadmium, Cd (ppm)	174	165	163	-
Cobalt, Co (ppm)	43	44.1	42.1	-
Copper, Cu (ppm)	467	477	488	-
Iron, Fe (wt.%)	7.81	7.71	7.65	-
Magnesium oxide, MgO (wt.%)	4.80	4.75	4.50	-
Lead, Pb (wt.%)	3.88	3.86	3.86	-
Sulphur, S (wt.%)	8.02	8.34	8.19	8.23
Antimony, Sb (ppm)	51	52.5	40.7	-
Silica dioxide, SiO_2 (wt.%)	38.11	-	-	-
Zinc, Zn (wt.%)	5.19	5.25	5.13	-

Prepared by:
Ore Research & Exploration Pty Ltd
April 2008

REPORT 08/596D_Revised

ORE RESEARCH & EXPLORATION

ORE RESEARCH & EXPLORATION P/L ABN 28 006 859 856
37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 Fx 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

VOLCANIC HOSTED MASSIVE SULPHIDE Zn-Pb-Cu-Ag-Au ORE CERTIFIED REFERENCE MATERIAL

OREAS 620

Summary Statistics for Key Analytes (additional certified values below).

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Fire Assay						
Au, Gold (ppm)	0.685	0.021	0.676	0.693	0.673*	0.697*
Infrared Combustion						
S, Sulphur (wt.%)	2.52	0.075	2.48	2.55	2.48	2.55
4-Acid Digestion						
Ag, Silver (ppm)	38.5	1.53	37.8	39.2	37.7	39.3
Cu, Copper (wt.%)	0.173	0.004	0.172	0.175	0.171	0.176
Pb, Lead (wt.%)	0.774	0.022	0.765	0.783	0.762	0.786
Zn, Zinc (wt.%)	3.15	0.097	3.11	3.19	3.09	3.21

Template: BUP-70-10-01.docx - 1.0 (Aprv:[1.0] on:[5-Feb-2015]) Project: COA-988-OREAS620	Printed: 13-Feb-2015

ORE RESEARCH & EXPLORATION

ORE RESEARCH & EXPLORATION P/L ABN 28 006 859 856
37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 Fx 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

VOLCANIC HOSTED MASSIVE SULPHIDE Zn-Pb-Cu-Ag-Au ORE CERTIFIED REFERENCE MATERIAL

OREAS 621

Summary Statistics for Key Analytes (additional certified values below).

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Fire Assay						
Au, Gold (ppm)	1.25	0.042	1.23	1.27	1.23*	1.27*
Infrared Combustion						
S, Sulphur (wt.%)	4.54	0.086	4.50	4.57	4.47	4.60
4-Acid Digestion						
Ag, Silver (ppm)	69	2.7	68	70	67	71
Cu, Copper (wt.%)	0.363	0.008	0.360	0.366	0.357	0.369
Pb, Lead (wt.%)	1.36	0.039	1.34	1.37	1.33	1.38
Zn, Zinc (wt.%)	5.22	0.139	5.17	5.27	5.13	5.31

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37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 Fx 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

VOLCANIC HOSTED MASSIVE SULPHIDE Zn-Pb-Cu-Ag-Au ORE CERTIFIED REFERENCE MATERIAL

OREAS 622

Summary Statistics for Key Analytes (additional certified values below).

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Fire Assay						
Au, Gold (ppm)	1.85	0.066	1.82	1.88	1.83*	1.87*
Infrared Combustion						
S, Sulphur (wt.%)	7.95	0.147	7.89	8.00	7.86	8.04
4-Acid Digestion						
Ag, Silver (ppm)	102	3.3	101	104	100	104
Cu, Copper (wt.%)	0.486	0.008	0.483	0.489	0.475	0.496
Pb, Lead (wt.%)	2.21	0.067	2.19	2.24	2.17	2.26
Zn, Zinc (wt.%)	10.24	0.182	10.17	10.30	10.06	10.42

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ORE RESEARCH & EXPLORATION P/L ABN 28 006 859 856
37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 Fx 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

VOLCANIC HOSTED MASSIVE SULPHIDE Zn-Pb-Cu-Ag-Au ORE CERTIFIED REFERENCE MATERIAL

OREAS 623

Summary Statistics for Key Analytes (additional certified values below).

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Fire Assay						
Au, Gold (ppm)	0.827	0.039	0.811	0.842	0.814*	0.839*
Infrared Combustion						
S, Sulphur (wt.%)	9.07	0.180	9.00	9.14	8.93	9.20
4-Acid Digestion						
Ag, Silver (ppm)	20.4	1.06	19.9	20.9	19.6	21.2
Cu, Copper (wt.%)	1.73	0.064	1.72	1.75	1.67	1.80
Pb, Lead (wt.%)	0.250	0.007	0.247	0.252	0.243	0.256
Zn, Zinc (wt.%)	1.03	0.030	1.02	1.04	1.00	1.05

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