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**UPDATED MINERAL RESOURCE ESTIMATE
TECHNICAL REPORT**

**FOR THE
TERRONERA PROJECT
JALISCO STATE
MEXICO**

**Between 20°39'45" and 21°02'30" N Latitude and
Between 104°35'00" and 104°51'00" W Longitude**

**FOR
ENDEAVOUR SILVER CORP.**

**NI 43-101 & 43-101F1
TECHNICAL REPORT**

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TABLE OF CONTENTS

1.0	SUMMARY	1
1.1	Introduction.....	1
1.2	Location and Property Description	2
1.3	Ownership	2
1.4	History.....	3
1.5	Geology and Mineralization	3
1.6	Exploration.....	3
1.7	2013 Mineral Resource Estimate	4
1.8	2015 Mineral Resource Estimate	4
1.9	2017 Mineral Resource and Mineral Reserve Estimates	5
1.10	August 2018 Mineral Resource and Mineral Reserve Estimates.....	5
1.11	2019 Mineral Resource Estimate	5
1.11.1	Cut-Off Grade	5
1.12	Mineral Processing and Metallurgical Testing	6
1.13	Environmental Studies, Permitting, and Social Impact	7
1.14	Conclusions and Recommendations	7
2.0	INTRODUCTION AND TERMS OF REFERENCE	8
2.1	Terms of Reference.....	8
2.2	Sources of Information	8
2.3	Qualified Persons	8
2.4	Units and Currency	9
3.0	RELIANCE ON OTHER EXPERTS	13
4.0	PROPERTY DESCRIPTION AND LOCATION	14
4.1	Location	14
4.2	Property Description and Tenure	15
4.3	Ownership and Property Description.....	18
4.4	Mexican Regulations for Mineral Concessions	19
4.5	Licenses, Permits and Environment.....	20
5.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY	22
5.1	Accessibility and Local Resources	22
5.2	Physiography and Climate	22
5.3	Infrastructure	22
6.0	HISTORY	24
6.1	San SebastiAn Del Oeste Mining District	24
6.2	Previous Mineral Resource Estimates	25
6.3	Past Production	26
7.0	GEOLOGICAL SETTING AND MINERALIZATION	27
7.1	Regional Geology	27
7.2	Property Geology	28
7.3	Deposit Geology	30
7.4	Structure	30
7.5	Mineralization and Alteration	30
8.0	DEPOSIT TYPES	31

9.0	EXPLORATION.....	33
9.1	2010 to 2016 Exploration Programs	33
9.2	2017 Exploration Program	34
9.3	Terronera NW	39
9.4	Quiteria West	41
9.5	Los Espinos-La Guardarraya	41
9.6	El Jabalí.....	43
9.7	El Fraile.....	47
9.8	Vista Hermosa.....	48
9.9	La Escondida.....	49
9.10	El Armadillo.....	50
9.11	La Atrevida	51
9.12	Santana.....	52
9.13	Peña Gorda.....	55
9.14	San Joaquin	56
10.0	DRILLING.....	58
10.1	2011-2016 Drilling.....	58
10.2	2011 Drilling Program	58
10.3	2012 Drilling Program	59
10.4	2013 Drilling Program	59
10.5	2014 Drilling program	60
10.6	2015 Drilling Program	60
10.7	2016 Drilling Program	61
10.8	2017 Drilling Program	61
10.9	2018 Drilling Program	68
	10.9.1 Terronera.....	68
	10.9.2 La Luz	77
10.10	2019 Drilling Program	77
11.0	SAMPLE PREPARATION, ANALYSIS AND SECURITY	78
11.1	Quality Assurance/Quality Control Program.....	79
11.2	Performance of Certified Reference Materials	81
	11.2.1 Re-Assays	86
11.3	Duplicate Samples	87
11.4	Performance of Blank Material.....	89
	11.4.1 Re-Assays	91
11.5	Check Assays.....	93
12.0	DATA VERIFICATION	95
12.1	Database Verification.....	95
12.2	P&E Current Site Visits and Independent Sampling	95
13.0	MINERAL PROCESSING AND METALLURGICAL TESTING	100
13.1	Base Case Flotation Comparison	100
13.2	Flash Flotation with Re grind Circuit	102
13.3	Metallurgical Study.....	102
13.4	Metallurgical Testing.....	103
	13.4.1 Sample Characterization	103
	13.4.2 Base Case: Second Cleaner Concentrate Flotation	104
13.5	Mineralogy	105

13.6	Comminution Testing	105
13.7	Grind Calibration and Rougher Flotation	106
13.8	Processing Options.....	107
13.9	Gravity Concentration.....	107
13.10	Process Mass Balance	107
13.11	Conclusions.....	107
13.12	Recommendations.....	108
14.0	MINERAL RESOURCE ESTIMATES	109
14.1	Terronera Deposit Mineral Resource Estimate.....	109
14.1.1	Introduction.....	109
14.1.2	Database.....	109
14.1.3	Data Verification.....	110
14.1.4	Domain Interpretation.....	111
14.1.5	Model Rock Code Determination	111
14.1.6	Compositing.....	112
14.1.7	Grade Capping	113
14.1.8	Semi-Variography.....	115
14.1.9	Bulk Density	115
14.1.10	Block Modeling	115
14.1.11	Mineral Resource Classification.....	116
14.1.12	Mineral Resource Estimate Cut-Off	117
14.1.13	Mineral Resource Estimate	117
14.1.14	Confirmation of Estimate.....	119
14.2	La Luz Deposit Mineral Resource Estimate	123
14.2.1	Introduction.....	123
14.2.2	Database.....	123
14.2.3	Data Verification.....	123
14.2.4	Domain Interpretation.....	124
14.2.5	Model Rock Code Determination	124
14.2.6	Compositing.....	124
14.2.7	Grade Capping	126
14.2.8	Semi-Variography.....	126
14.2.9	Bulk Density	126
14.2.10	Block Modelling.....	126
14.2.11	Mineral Resource Classification.....	128
14.2.12	Mineral Resource Estimate Cut-Off	128
14.2.13	La Luz Mineral Resource Estimate.....	128
14.2.14	Confirmation of Estimate.....	130
15.0	MINERAL RESERVE ESTIMATES.....	136
16.0	MINING METHODS	137
17.0	RECOVERY METHODS.....	138
18.0	PROJECT INFRASTRUCTURE	139
19.0	MARKET STUDIES AND CONTRACTS.....	140
20.0	ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL IMPACTS	141
20.1	Terronera Project Surface Facilities Layout	141
20.2	Environmental Liability	141

20.3	Environmental Permitting Basis	142
20.4	Existing Site Conditions	148
20.4.1	Baseline Studies	148
20.4.2	Topography	148
20.4.3	Meteorology – Air Quality.....	149
20.4.4	Soil	149
20.4.5	Geotechnical and Seismic Studies	149
20.4.6	Hydrology	150
20.4.7	Watershed – Surface Hydrology	150
20.4.8	Sub-Surface Hydrology	151
20.4.9	Land Use	151
20.4.10	Vegetation and Ecosystems	151
20.4.11	Environmental Monitoring Program.....	152
20.5	Socio-Economic and Community Relations	152
20.6	Cultural and Historical Resource Studies	153
20.7	Archeological Artifacts and Studies	153
20.8	Reclamation and Closure Activities.....	153
21.0	CAPITAL AND OPERATING COSTS	154
22.0	ECONOMIC ANALYSIS	155
23.0	ADJACENT PROPERTIES	156
23.1	Comments on Section 23	157
24.0	OTHER RELEVANT DATA AND INFORMATION	158
24.1	Introduction.....	158
24.2	2018 Mineral Reserve Estimate.....	159
24.3	Mining Methods.....	159
24.4	Recovery Methods	159
24.5	Environmental Studies, Permitting, and Social Impact	160
24.6	Capital and Operating Costs	161
24.7	Economic Analysis	161
24.8	Conclusions and Recommendations	163
24.8.1	Environmental.....	164
24.8.2	Further Studies.....	164
25.0	INTERPRETATION AND CONCLUSIONS.....	165
26.0	RECOMMENDATIONS.....	166
27.0	REFERENCES	167
28.0	CERTIFICATES.....	168
APPENDIX A	SURFACE DRILL HOLE PLAN.....	173
APPENDIX B	3-D DOMAINS AND WIREFRAMES.....	176
APPENDIX C	LOG NORMAL HISTOGRAMS	178
APPENDIX D	VARIOGRAMS.....	183
APPENDIX E	AGEQ BLOCK MODEL VERTICAL CROSS SECTIONS AND PLANS	190
APPENDIX F	CLASSIFICATION BLOCK MODEL CROSS SECTIONS AND PLANS	206

LIST OF TABLES

Table 1.1	Summary of the Updated Terronera Mineral Resource Estimate at a Cut-Off Grade of 150 g/t AgEq ⁽¹⁻⁵⁾	5
Table 1.2	La Luz Mineral Resource Estimate at a Cut-Off Grade of 150 g/t AgEq ⁽¹⁻⁵⁾	6
Table 2.1	Qualified Persons	9
Table 2.2	Terminology and Abbreviations	10
Table 4.1	Concessions and Taxes on Each Concession	18
Table 4.2	Summary of Endeavour Silver's Surface Access Rights	20
Table 6.1	Summary of Historic Exploration on the San Sebastian Property	24
Table 10.1	Terronera Project Surface Drilling in 2017	62
Table 10.2	2017 Drill Hole Summary for the La Luz Surface Drilling Program	64
Table 10.3	Surface Drill Hole Significant Assay Summary for Mineral Intercepts in the La Luz Vein Area	65
Table 10.4	Terronera Surface Drilling in 2018	68
Table 10.5	2018 Drill Hole Summary for the Terronera Surface Drilling Program	68
Table 10.6	2018 Drill Hole Summary for the Terronera Surface Drilling Program	71
Table 11.1	Summary of Control Samples Used for the 2018 Surface Exploration Program	80
Table 11.2	Summary of the Reference Standard Material Samples Used During the Terronera Surface Diamond Drilling Program	81
Table 11.3	Performance Limits for Standards Used at the Terronera Project	82
Table 11.4	Company Protocol for Monitoring Standard Performance	82
Table 11.5	Summary of Analysis of Reference Standards	83
Table 11.6	Comparative Table of Original vs. Re-assay Values	86
Table 11.7	Comparative Table of Original vs. Re-assay Values	92
Table 13.1	Comparison of Processing Options	101
Table 13.2	Metallurgical Data Developed by ALS	102
Table 13.3	Head Analyses of Composite Sample TR2015-1	104
Table 13.4	Base Case Flow Sheet	104
Table 13.5	Samples Characterization and Head Assay, Fire Assay, and Whole Rock Analysis (%)	105
Table 13.6	Bond Ball Mill Work Index Test Results	106
Table 13.7	Comminution Testing Results	106
Table 14.1	Terronera Drill Hole Database Summary	110
Table 14.2	Model Rock Code Description and Volume	111
Table 14.3	Basic Statistics of all Constrained Assays and Sample Length	112
Table 14.4	Composite Summary Statistics	112
Table 14.5	Silver Grade Capping Values	114
Table 14.6	Gold Grade Capping Values	114
Table 14.7	Terronera Block Model Definition	115
Table 14.8	Gold and Silver Block Model Interpolation Parameters	116
Table 14.9	Terronera Mineral Resource Estimate at a Cut-Off Grade of 150 g/t AgEq ⁽¹⁻⁵⁾	118
Table 14.10	Terronera Sensitivity of Mineral Resource Estimate to AgEq Cut-Off	118
Table 14.11	Average Grade Comparison of Composites with Block Model	119
Table 14.12	Volumetric Comparison of Block Model with Geometric Wireframes	119
Table 14.13	La Luz Model Rock Code Description and Volume	124
Table 14.14	Basic Statistics of All Constrained Assays and Sample Length	125
Table 14.15	Composite Summary Statistics	125

Table 14.16	Grade Capping Values	126
Table 14.17	La Luz Block Model Definition.....	127
Table 14.18	Gold and Silver Block Model Interpolation Parameters.....	127
Table 14.19	La Luz Mineral Resource Estimate at a Cut-Off Grade of 150 g/t AgEq ⁽¹⁻⁵⁾	129
Table 14.20	La Luz Sensitivity of Mineral Resource Estimate to AgEq Cut-Off.....	129
Table 14.21	Average Grade Comparison of Composites with Block Model	131
Table 14.22	Volumetric Comparison of Block Model with Geometric Wireframes	131
Table 20.1	Environmental Permits required for the Terronera Project	144
Table 20.2	Return Period Storm Event Precipitation.....	150
Table 24.1	Terronera and La Luz Probable Mineral Reserve Estimate ⁽¹⁾	159
Table 24.2	Base Case After-Tax NPV and IRR Sensitivities.....	162

LIST OF FIGURES

Figure 4.1	Terronera Project Location Map	14
Figure 4.2	Terronera Project Concessions Map.....	17
Figure 5.1	View of Topography Surrounding the Town of San Sebastián.....	23
Figure 7.1	Geology of the San Sebastián del Oeste Area	28
Figure 7.2	Terronera Property Geology Showing Mineralized Veins	29
Figure 8.1	Alteration and Mineralization Distributions within a Low Sulphidation Epithermal Vein System.....	32
Figure 9.1	Silver Results in the Terronera North, Quiteria West, Los Espinos- Guardarraya, and El Jabalí Areas	35
Figure 9.2	Silver Results in El Padre, La Madre, La Luz, Quiteria West, Democrata and El Fraile Area	36
Figure 9.3	Silver Results in the Democrata, El Fraile, La Escondida, Vista Hermosa, El Armadillo, La Atrevida, Miguel, Lorenzana, Terronera and Zavala Areas	37
Figure 9.4	Silver Results in the Santa Ana Area	38
Figure 9.5	Silver Results in the Peña Gorda and Los Tablones.....	39
Figure 9.6	Terronera NW Vein Outcrop Photographs.....	40
Figure 9.7	Terronera NW Vein Photograph	41
Figure 9.8	Los Espinos Vein Photographs with FeO, MnO and Some Sporadic Oxidized Pyrite.....	42
Figure 9.9	Los Espinos Vein Photograph with FeO, MnO and Sporadic Oxidized Pyrite..	43
Figure 9.10	El Jabalí Surface Map and Photographs Showing the General Zone Trend	44
Figure 9.11	Isovalue Diagrams Showing the Trends of the Silver and Lead Anomalies with the Northwest Trend.....	45
Figure 9.12	Isovalue Diagrams Showing the Trends of the Zinc and Copper Anomalies with the Northwest Trend.....	46
Figure 9.13	El Fraile Vein Photographs Looking Northwest	47
Figure 9.14	Mine Working Over the Vista Hermosa Vein, Photographs.....	49
Figure 9.15	El Nero Mine Photograph.....	50
Figure 9.16	El Armadillo Vein Photographs with Sulphides Inside the Vein	51
Figure 9.17	Quartz Veinlet Photographs 10 cm Wide Veinlet, with Moderate FeO, Weak Selective Argillization, Small Fragments of Rhyolite.....	52
Figure 9.18	Quartz Vein Photographs	53
Figure 9.19	Trench Photographs.....	54
Figure 9.20	Panoramic View of the Santana Vein Trace.....	54
Figure 9.21	Peña Gorda Vein Photographs with Outcrops.....	56
Figure 9.22	Outcrop of the Los Tablones Vein (Quartz Vein)	57
Figure 10.1	Terronera Surface Map Showing 2017 Completed Drill Holes	63
Figure 10.2	Drill Intersections – La Luz Vein Longitudinal Projection.....	67
Figure 10.3	Terronera Surface Map Showing Completed 2018 Drill Holes	70
Figure 10.4	2018 Drill Intersections – Terronera Vein Longitudinal Projection	76
Figure 11.1	Flowsheet for Core Sampling, Preparation and Analysis.....	80
Figure 11.2	Control Chart for Gold Assays from the CRM Sample EDR-41	84
Figure 11.3	Control Chart for Silver Assays from the CRM Sample EDR-41.....	84
Figure 11.4	Control Chart for Gold Assays from the CRM Sample EDR-44	85
Figure 11.5	Control Chart for Silver Assays from the CRM Sample EDR-44.....	85
Figure 11.6	Performance of Re-assayed ALS Samples for Gold	87

Figure 11.7	Performance of Crushed Field Duplicates for Gold	88
Figure 11.8	Performance of Crushed Field Duplicates for Silver	88
Figure 11.9	Control Chart for Gold Blank Samples	90
Figure 11.10	Control Chart for Silver Blank Samples.....	90
Figure 11.11	Performance of Re-assayed ALS Samples for Silver.....	91
Figure 11.12	Performance of SGS Check Assays for Gold.....	94
Figure 11.13	Performance of SGS Check Assays for Silver	94
Figure 12.1	Results of La Luz Verification Sampling for Gold by P&E – January 2018	96
Figure 12.2	Results of La Luz Verification Sampling for Silver by P&E – January 2018 ...	97
Figure 12.3	Results of Terronera Verification Sampling for Gold by P&E – January 2018.	97
Figure 12.4	Results of Terronera Verification Sampling for Silver by P&E – January 2018	98
Figure 12.5	Results of Terronera Verification Sampling for Gold by P&E – October 2018	98
Figure 12.6	Results of Terronera Verification Sampling for Silver by P&E – October 2018	99
Figure 14.1	Terronera Silver Grade Swath Easting Plot.....	120
Figure 14.2	Silver Grade Swath Northing Plot.....	121
Figure 14.3	Silver Grade Swath Elevation Plot	121
Figure 14.4	Silver Grade-Tonne Curve of Terronera Vein by ID ³ and NN Interpolation...	122
Figure 14.5	La Luz Silver Grade Swath Easting Plot.....	132
Figure 14.6	Silver Grade Swath Northing Plot.....	132
Figure 14.7	Silver Grade Swath Elevation Plot	133
Figure 14.8	Gold Grade Swath Easting Plot.....	133
Figure 14.9	Gold Grade Swath Northing Plot	134
Figure 14.10	Gold Grade Swath Elevation Plot.....	134
Figure 14.11	Silver Grade and Tonnage Comparisons for ID ³ and NN Interpolation.....	135
Figure 14.12	Gold Grade and Tonnage Comparisons for ID ³ and NN Interpolation	135
Figure 20.1	Map of Proposed Future Mine Surface Facilities Layout	141
Figure 20.2	Environmental Permitting Steps for Mining Projects in Mexico	143
Figure 20.3	Map of the Mondeño Tailings Storage Area Monitoring Well Locations	152
Figure 23.1	Minera Cimarron’s Santa Quiteria Mine Photograph	156

1.0 SUMMARY

1.1 INTRODUCTION

Endeavour Silver Corp. (Endeavour Silver) commissioned P&E Mining Consultants Inc. to prepare an Updated Mineral Resource Estimate Technical Report for the Terronera Project compliant with Canadian Securities Administrators (CSA) National Instrument 43-101 (NI 43-101). Since the issuance of the Updated Preliminary Feasibility Study (UPFS) for the Terronera Project on September 17, 2018, Endeavour Silver has carried out further Mineral Resource drilling on the Terronera Vein. Endeavour Silver determined that the resulting material changes to the Project justified the preparation of an Updated Mineral Resource Estimate Technical Report.

Endeavour Silver is a mid-tier silver mining company engaged in the exploration, development, and production of mineral properties in Mexico. Endeavour Silver is focused on growing its production, Mineral Resources, and Mineral Reserves in Mexico. Since start-up in 2004, Endeavour Silver has posted numerous consecutive years of growth of its silver mining operations. Endeavour Silver owns and operates the Guanaceví Mine located in the northwestern Durango State, and the El Cubo and Bolañitos Mines, both located near the city of Guanajuato in Guanajuato State, Mexico. In July, 2018 Endeavour Silver was in the process of commissioning the operations at its El Compas Mine in Zacatecas, Mexico.

This Technical Report follows the format and guidelines of Form 43-101F1, Technical Report for National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101), and its Companion Policy 43-101 CP, as amended by the CSA.

This Technical Report has an effective date of February 1, 2019. The Mineral Resource Estimate reported in this Technical Report complies with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards and definitions, as required under NI 43-101 regulations.

In this Technical Report, the term San Sebastián Property refers to the entire area covered by the mineral concessions, while the term Terronera Project (the Project) refers to an area within the mineral concession and separate surface lands on which the current exploration programs and Mineral Resource Estimate are located

This Technical Report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals, and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a very small margin of error. The Qualified Persons responsible for this Technical Report do not consider such minor errors to be material to the calculations presented herein.

The conclusions and recommendations in this Technical Report reflect the Qualified Person's best independent judgment in light of the information available at the time of writing.

Summarized briefly below is key information in the Technical Report, including property description and ownership, geology and mineralization, the status of exploration and development, Mineral Resource Estimate, metallurgical testing, environmental and conclusions and recommendations of the Qualified Persons.

1.2 LOCATION AND PROPERTY DESCRIPTION

San Sebastian del Oeste (San Sebastián) is an historic silver and gold mining district located in southwestern Jalisco State, approximately 155 km southwest of Guadalajara and 40 km northeast of Puerto Vallarta, accessible by paved and gravel roads. One small, high-grade, underground silver-gold mine, La Quiteria (130 tonnes per day (tpd)), continues to operate in the district. The San Sebastián Properties acquired by Endeavour Silver surround the La Quiteria Mine and represent a new, district-scale, silver-gold exploration opportunity for the Company.

1.3 OWNERSHIP

In February, 2010, Endeavour Silver acquired an option to purchase the San Sebastián silver-gold Properties in Jalisco State from Industrias Minera México S.A. de C.V. (IMMSA), also known as Grupo Mexico, one of the largest mining companies in Mexico.

Endeavour Silver holds the Terronera Project through its 100% owned Mexican subsidiary, Endeavour Gold Corporation S.A. de C.V. (Endeavour Gold). Endeavour Gold holds the Project through its 100% owned subsidiaries Terronera Precious Metals S.A. de C.V. (TPM) and Minera Plata Adelante S.A. de C.V. (Minera Plata).

At present, the Terronera Project is comprised of 24 mineral concessions totalling 17,369 hectares (ha) and certain surface lands upon which future mining surface operations, mineral processing, and tailings and waste rock storage are proposed to occur. The core group of 10 concessions totalling 3,388 ha was owned by IMMSA. These concessions cover the main area of the known mining district. In 2013, Endeavour Silver completed the acquisition of a 100% interest in the San Sebastián Properties from IMMSA. IMMSA retained a 2% NSR royalty on mineral production from the properties.

In 2012, Endeavour Silver also filed and received title for two concessions (San Sebastián 10 Fracc. 1 and Fracc. 2) totalling 2,078 ha. Additionally, in 2013, Endeavour Silver filed a total of seven concessions (San Sebastian 12, San Sebastian 13, San Sebastian 14, San Sebastian 15, San Sebastian 16, San Sebastian 17 and San Sebastian 18) totalling 4,163 ha. To date, five of these concessions have been titled, with the exception of San Sebastian 15 and San Sebastian 16, which were filed again on November and August of 2018 respectively.

In 2015, Endeavour Silver acquired an option to purchase a group of properties (Los Pinos Fracc. I, Los Pinos Fracc. II and La Fundición 2 Fracc. I, totalling 8,373 ha), surrounding the San Sebastián silver-gold Properties, from Agregados Mineros de Occidente S.A. de C.V. (AGREMIN). In addition, in 2017 Endeavour Silver also acquired from AGREMIN another option to purchase the La Única Fracc. II (3,538 ha) concession. These Properties and Agreement were transferred by AGREMIN to its related Company named Compañía Plata San Sebastian S.A. de C.V. On December 2018, the option agreement for La Fundición 2 Fracc. I

(Title 228866) and La Única Fracc. II (Title 225185) concessions, was terminated. The cancellation is currently in process.

At the end of 2017, Endeavour Silver acquired a total of three concessions at the southern boundary of the San Sebastian Properties which were called Cerro Gordo 1 (499.7 ha), Cerro Gordo 2 (500 ha) and Cerro Gordo 3 (400 ha). Two of these concessions have been titled, with the exception of Cerro Gordo 3 (filed again in June of 2018). In early 2018, Endeavour Silver filed and received title for two more concessions in the area: Cerro Gordo 4 (400 ha) and Cerro Gordo 5 (399 ha).

In August of 2018, Endeavour Silver acquired an exploration and option agreement covering the property named La Unica Fracc. I (2157 ha) from Compañía Plata San Sebastian S.A. de C.V.

The annual 2019 concession tax for all the San Sebastian Properties was MXP 4,138,726 which is equal to US \$206,936 (at an exchange rate of 20 MXP to US\$1.00 dollar).

1.4 HISTORY

Although the San Sebastián silver and gold mines were first discovered in 1542, and there were several periods of small-scale mining over the last 450 years, the only significant modern exploration in the district was carried out by IMMSA in the late 1980s and early 1990s.

As is the case with many mines in Mexico which were owned by individuals or corporations, the historical production records have not survived the revolutions, passing of the individual owners, closing of the mines, corporate failure, or government seizure of assets. Therefore, the exact San Sebastián area silver production is unknown.

1.5 GEOLOGY AND MINERALIZATION

The San Sebastián Properties cover a classic, low sulphidation, epithermal vein system in four mineralized vein sub-districts named Los Reyes, Santiago de Los Pinos, San Sebastián and Real de Oxtotipan. Each sub-district consists of a cluster of quartz (calcite, barite) veins mineralized with sulphide minerals (pyrite, argentite, galena and sphalerite). Each vein cluster spans approximately 3 km x 3 km in area. In total, more than 50 small mines were developed historically on at least 20 separate veins.

The San Sebastián veins tend to be large and can host high grade silver-gold mineralized deposits. For example, the La Quiteria Vein ranges up to 15 m thick, and the Santa Quiteria Mine averages about 280 g/t silver (Ag) and 0.5 g/t gold (Au) over a 3 m to 4 m width. This high grade mineralized zone appears to extend into the San Sebastián Properties both along strike and immediately down dip.

1.6 EXPLORATION

In 2010, Endeavour Silver commenced exploration activities on the Terronera Project and in 2011 the first drilling campaign was conducted at the Real Alto (Real, Animas-Los Negros,

Escurana and Tajo veins) and Quiteria West Targets. In 2012, the surface drilling program continued at Real Alto and a single deep drill hole was drilled at Quiteria West.

The first Endeavour Silver drilling program over the Terronera Vein was conducted from early 2012 to the end of 2016; the structure has been tested with 149 drill holes totalling 43,526 m. Additionally, seven drill holes were completed at the Terronera North area (2,783 m).

In 2016, exploration activities focused on the definition and evaluation of new drilling targets around the Terronera Project and near the proposed future mine operations. Nine drilling targets were tested, including the discovery of the La Luz Vein.

Between 2011 and 2016, Endeavour Silver had drilled 70,885 m in 248 diamond drill holes over the entire Terronera Project. Holes were drilled from surface and 22,351 samples have been collected and submitted for analysis.

During 2017, a total of 12,252 m was drilled in 47 drill holes, with the objective to add Mineral Resources to the Terronera Project. This drilling was mainly conducted at the La Luz Deposit. To date a total of 41 drill holes have been completed over that structure totalling 9,796 m. Eight other structures were also tested: El Muro, Los Espinos, Los Reyes, El Fraile, Vista Hermosa, La Escondida, La Atrevida and Quiteria West. The 2017 drilling program included 2,308 assay samples.

During 2018, a total of 18,774 m was drilled in 39 surface diamond drill holes to further delineate the Terronera Vein, including 3,007 samples collected and submitted for analysis

In late 2018, Endeavour Silver engaged Knight Piésold Ltd. (“KP”) to provide geomechanical and hydrogeological support for the proposed underground mine for the La Luz Vein of the Terronera Project. The investigation program consisted of geomechanical drill holes with core orientation and detailed geomechanical logging, a hydrogeological packer testing at approximately 30 m downhole intervals, and a nested vibrating wire piezometer installation. Two drill holes were completed by the end of 2018, totalling 405 m. One drill hole was still pending completion for early 2019. The analysis of this recent work is currently in progress.

1.7 2013 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimate discussed in the Technical Report Audit of the Mineral Resource Estimate for the San Sebastian Project dated March 27, 2014 was estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on November 27, 2010. The effective date of that Mineral Resource Estimate is December 31, 2013.

1.8 2015 MINERAL RESOURCE ESTIMATE

In 2015, P&E updated the Terronera Project Mineral Resource Estimate. As of April 30, 2015, the Terronera Vein was estimated to contain Indicated Mineral Resources of 2.9 Mt at 211 g/t Ag and 1.65 g/t Au and Inferred Resources of 1.2 Mt at 218 g/t Ag and 1.39 g/t Au. The cut-off

grade was 100 g/t AuEq, using a 70:1 ratio based on prices of US \$18/oz silver and US \$1,250/oz gold.

1.9 2017 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The Mineral Resource and Mineral Reserve Estimates presented in the initial PFS were estimated using the CIM Definition Standards for Mineral Resources and Mineral Reserves adopted by CIM Council on May 10, 2014. The effective date of the Mineral Resource and Mineral Reserve Estimates is April 3, 2017. As of May 11, 2017, the Terronera Vein was estimated to contain Indicated Mineral Resources of 3,959,000 t at 232 g/t Ag and 2.18 g/t Au and Inferred Mineral Resources of 720,000 t at 309 g/t Ag and 1.48 g/t Au. The cut-off grade was 150 g/t AgEq, using a 70:1 ratio based on US \$18/oz silver and US \$1,225/oz gold

1.10 AUGUST 2018 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The Mineral Resource and Mineral Reserve Estimates presented in the Updated Preliminary Feasibility Study were estimated using the CIM Definition Standards for Mineral Resources and Mineral Reserves adopted by CIM Council on May 10, 2014. The effective date of the Mineral Resource and Mineral Reserve Estimates is August 1, 2018. As of August 7, 2018, the Terronera Vein was estimated to contain Indicated Mineral Resources of 4,363,000 t at 239 g/t Ag and 2.53 g/t Au and Inferred Mineral Resources of 1,073,000 t at 252g/t Ag and 2.38 g/t Au. The cut-off grade was 150 g/t AgEq, using a 75:1 ratio based on US \$17/oz silver and US \$1275/oz gold.

1.11 2019 MINERAL RESOURCE ESTIMATE

The Mineral Resource Estimate presented in this Updated Mineral Resource Estimate Technical Report was estimated using the CIM Definition Standards for Mineral Resources and Mineral Reserves adopted by CIM Council on May 10, 2014. The effective date of the Mineral Resource Estimate is February 1, 2019.

1.11.1 Cut-Off Grade

The cut-off grade selected for the 2019 Mineral Resource Estimate was 150 g/t silver equivalent (AgEq). See Section 14.12 for AgEq cut-off details based on metal prices of US \$17.50/oz silver and US \$1,275/oz gold and is presented in Table 1.1.

TABLE 1.1 SUMMARY OF THE UPDATED TERRONERA MINERAL RESOURCE ESTIMATE AT A CUT-OFF GRADE OF 150 G/T AGEQ⁽¹⁻⁵⁾							
Classification	Tonnage (kt)	Ag (g/t)	Contained Ag (koz)	Au (g/t)	Contained Au (koz)	AgEq (g/t)	Contained AgEq (koz)
Indicated	5,275	227.2	38,537	2.35	398	403.4	68,416
Inferred	1,022	212.2	6,970	1.70	56	339.8	11,161

1. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
3. The Mineral Resources in this report were estimated using the CIM Definition Standards for Mineral Resources and Mineral Reserves.
4. $\text{AgEq g/t} = \text{Ag g/t} + (\text{Au g/t} \times 75)$
5. Historical mined areas were depleted from the Terronera Vein wireframe and Mineral resource model.

A summary of the La Luz Mineral Resource Estimate at a cut-off grade of 150 g/t AgEq is presented in Table 1.2.

TABLE 1.2 LA LUZ MINERAL RESOURCE ESTIMATE AT A CUT-OFF GRADE OF 150 G/T AGEQ⁽¹⁻⁵⁾							
Classification	Tonnage (kt)	Ag (g/t)	Contained Ag (koz)	Au (g/t)	Contained Au (koz)	AgEq (g/t)	Contained AgEq (koz)
Indicated	126	192	779	13.60	55	1,212	4,904
Inferred	58	145	269	12.15	23	1,060	1,994

1. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
3. The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
4. $\text{AgEq g/t} = \text{Ag g/t} + (\text{Au g/t} \times 70)$

1.12 MINERAL PROCESSING AND METALLURGICAL TESTING

ALS Metallurgy (ALS) conducted locked and open cycle flotation tests for the Terronera Project at its metallurgical testing facility in Kamloops, B.C. The primary objectives of the test program were to enhance the levels of precious metal recovery and improve final concentrate grades.

The open cycle flotation data developed by ALS indicate that at a relatively coarse primary grind size, a medium grade gold and silver bearing second cleaner concentrate may be produced. The process flow sheet includes a two stage crushing circuit followed by closed circuit grinding to achieve a flotation feed grind size of 80% passing 150 mesh (100 microns). Flash flotation inclusion in the grinding circuit improves the levels of recovery. A regrind circuit provides improved liberation of precious metals mineralization and higher final concentrate grade. The Project will produce a high grade concentrate with the expected overall recoveries of

- Gold 80.4% and Silver 84.6%.

Further studies are recommended to upgrade the process plant feed, lower the grinding costs, and increase process recoveries.

1.13 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT

The Company submitted a Manifest of Environmental Impact (MIA) to the Mexico environmental permitting authority known as SEMARNAT (Secretaria de Medio Ambiente y Recursos Naturales) in December, 2013.

A SEMARNAT permit for the Terronera Project was issued in October, 2014 for a 500 tpd project with tailings reporting to a traditional slurry deposit.

In February, 2017 a modified MIA application was issued by SEMARNAT to expand the proposed process rate to up to 1,500 tpd and to establish a future proposed tailings facility to store filtered dry tailings.

The Terronera Mine Project is designed to comply with the environmental regulations and standards in place in México. The proposed future mining infrastructure and supporting facilities are designed to minimize the impact to the natural environment.

Mexican law requires that an environmental monitoring program of surface and ground water, creek sediments, soil, air, vegetation and wildlife conditions be implemented. The current SEMARNAT regulatory objective is to limit transmission of contaminants such that pre-mining environmental conditions are maintained downstream of the permitted mine perimeter. This program will be required before and during proposed future mining operations and after mine closure.

1.14 CONCLUSIONS AND RECOMMENDATIONS

The Terronera and La Luz Mineral Resource Estimates presented herein conform to the current CIM Definition Standards for Mineral Resources and Mineral Reserves, as required under NI 43-101 “Standards of Disclosure for Mineral Projects.” The estimation approach and methodology used is reasonable and appropriate based on the data available.

The Terronera Project is subject to technical, legal, environmental, and political risks that are similar to the risks faced by Endeavour Silver on its other current operations in Mexico. The Qualified Persons named in this Technical Report consider these risks to be manageable and should not have an adverse effect on the continued development of the Terronera Project.

Given the risk-mitigating features of the Terronera Project and the positive results of this Updated Mineral Resource Estimate, the Qualified Persons recommended that Endeavour Silver budget the following:

- | | |
|---|----------------|
| • Geology and vein targeting | US\$ 200,000. |
| • 2 nd Updated Pre-Feasibility Study | US\$1,200,000. |

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

Endeavour Silver Corp. (Endeavour Silver) is a mid-tier silver mining company engaged in the exploration, development, and production of mineral properties in Mexico. Endeavour Silver is focused on growing its production capacity and Mineral Resources and Mineral Reserves in Mexico. Since start-up in 2004, Endeavour Silver has posted fourteen consecutive years of growth of its silver mining operations. In addition to the San Sebastián Property, Endeavour Silver owns and operates the Guanaceví Mine located in the northwestern Durango State, the El Cubo and Bolañitos Mines, both located near the city of Guanajuato in Guanajuato State, and the El Compas Mine located in Zacatecas State.

Endeavour Silver commissioned P&E Mining Consultants Inc. (P&E) to prepare a Technical Report that updates the Mineral Resource Estimate for the Terronera Project compliant with Canadian Securities Administrators (CSA) National Instrument 43-101 (NI 43-101).

The Project was formerly known as the San Sebastián Project, however, in March, 2015, Endeavour Silver formally changed the Project name to the Terronera Project. The term San Sebastián Property, in this Technical Report, refers to the entire area covered by the mineral concessions, while the term Terronera Project refers to the area within the mineral concessions on which the current exploration program and the proposed future mining operation and associated surface infrastructure will be located.

2.2 SOURCES OF INFORMATION

The following sources of information and data were used in preparing this Technical Report:

- Personal inspections of the Terronera site and surrounding area.
- Technical information provided by Endeavour Silver.
- Information provided by other experts with specific knowledge in their fields as described in Section 3 Reliance on Other Experts.
- Additional information obtained from public domain sources.
- Additional reports relevant to the study are listed in Section 27 References.

2.3 QUALIFIED PERSONS

The Qualified Persons responsible for this Technical Report and the dates of their visits to the Terronera Project site and surrounding area are summarized in Table 2.1.

TABLE 2.1 QUALIFIED PERSONS				
Qualified Person Name	Certification	Company	Dates of Site Visit	Section Responsibility
Eugenio Iasillo	P.E.	Process Engineering LLC	Sept 11–12, 2014 and Nov 10, 2016	Section 13
Eugene Puritch	P.Eng. F.E.C., CET	P&E Mining Consultants Inc.	Sept 11, 2014	Co-author section 14, Author Section 15 to 19, 21 and 22
Yungang Wu	P.Geo.	P&E Mining Consultants Inc.	None	Co-author section 14
David Burga	P.Geo.	P&E Mining Consultants Inc.	Sept 11, 2014, Oct 7, 2014, June 14, 2016, Jan 9 & Oct 16, 2018	Section 1 to 12, 23 to 27
Humberto Preciado	P.E.	Wood	December 11 to 14, 2015	Section 20

2.4 UNITS AND CURRENCY

All currency amounts are stated in US dollars or Mexican pesos (MXP). The exchange rate as of this Technical Report effective date of February 1, 2019 was approximately US\$1.00 equal to MXP 20.0.

Quantities are generally stated in Système International d'Unités (SI) units, the standard Canadian and international practice, including metric tons (tonnes, t) and kilograms (kg) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, grams (g) and grams per metric tonne (g/t) for gold and silver grades (g/t Au, g/t Ag). Wherever applicable, any Imperial units of measure encountered have been converted to SI units for reporting consistency. Precious metal grades may be expressed in parts per million (ppm) and their quantities may also be reported in troy ounces (oz), a common practice in the mining industry. Base metal grades may be expressed as a percentage (%). Table 2.2 provides a list of the abbreviations used throughout this Technical Report.

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Name / Meaning
\$	dollar
%	percent
\$M	dollars, millions
>	greater than
<	less than
°	degrees
°C	degrees celsius
1/d ³	inverse distance cubed
AA	atomic adsorption
AAS	atomic absorption spectrometry
Ag	silver
AgEq	silver equivalent
AGREMIN	Agregados Mineros de Occidente S.A. de C.V.
ALS	ALS Metallurgy or ALS-Chemex or ALS Minerals or ALS laboratory
Ai	bond abrasion index
Au	gold
BWi	bond ball mill work index
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CFE	Commission Federal de Electricidad or Comisión Federal de Electricidad
CL	control limit
cm	centimetres
CRM or standards	certified reference material or standard reference material
CSA	Canadian Securities Administrators
Cu	copper
CUS	change of soils use
CWi	bond impact work index testing
DGM	Dirección General de Minas
DTU	Unified Technical Document
EIS	Environmental Impact Statement
Endeavour Silver	Endeavour Silver Corporation
Energold	Energold Drilling Corp.
Energold Mexico	Energold de Mexico, S.A. de C.V.
ETJ	Technical Economic Justification Study
g	grams
g/t	grams/tonne
H	height
ha	hectares
HIG	high intensity grind
HPGR	high pressure grinding rolls

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Name / Meaning
ICP	inductively coupled plasma
ID	inverse distance
IMMSA	Industrias Minera México S.A. de C.V.
IRR	internal rate of return
kg	kilograms
koz	thousands of ounces
KP	Knight Piésold Ltd.
kt	thousands of tonnes
kWh/t	kilowatt hours/tonne
l	litres
Layne	Layne de Mexico, S.A. de C.V.
Layne Christensen	Layne Christensen Company
LL	lower control limit
LOM	life-of-mine
m	metres
max.	maximum
mean	arithmetic average of group of samples
mg	milligrams
MIA	Manifestación de Impacto Ambiental or Manifest of Environmental Impact
MIA-P	Manifestación de Impacto Ambiental, particular modality
min.	minimum
Minera Cimarron	Minera Cimarron S.A. de C.V.
Minera Plata	Minera Plata Adelante S.A. de C.V.
mm	millimetres
MPA	Minera Plata Adelante S.A. de C.V.
Mt	million tonnes
MXP	Mexican pesos
N/A or n/a	not available/applicable
NE	northeast
NI 43-101	National Instrument 43-101
NN	nearest neighbor
No.	number
NPV	net present value
NSR	net smelter return
NW	northwest
oz	Troy ounces
Pb	lead
PFS	preliminary feasibility study
ppb	parts per billion
ppm	parts per million (= g/t)

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Name / Meaning
QA	quality assurance
QC	quality control
QMS	quality management system
RWi	bond rod mill work index
San Sebastián	San Sebastian del Oeste
SD	Standard Deviation
SE	southeast
SEDENA	Secretaria de Seguridad Nacional
SEMARNAT	Secretaria Medio Ambiente y Recursos Naturales
SFA	Smith Foster & Associates Inc.
SGS	SGS de México
SOPs	standard operating procedures
SPT	standard penetration testing
standards	standard reference material
SW	southwest
t	tonnes
tpd	tonnes per day
TPM	Terronera Precious Metals S.A. de C.V.
TSF	tailings storage facility
UL	upper control limit
UPFS	updated preliminary feasibility study
US\$	United States dollars
UTM	Universal Transverse Mercator grid system
V	vertical
VTR	vertical intensity grind
WGS 84	World Geodetic System 1984
Zn	zinc

3.0 RELIANCE ON OTHER EXPERTS

This Technical Report relies on reports and statements from legal and technical experts who are not Qualified Persons as defined by NI 43-101. The Qualified Persons responsible for the preparation of this Technical Report have reviewed the information and conclusions provided and have determined that they conform to industry standards, are professionally sound, and are acceptable for use in this Technical Report.

The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to the authors of this Technical Report up to and including the effective date of this Technical Report;
- Assumptions, conditions, and qualifications as set forth in this Technical Report;
- Data, reports, and other information supplied by Endeavour Silver and other third party sources;
- Ing. José Luis Razura González in the process of achieving the October, 2014 SEMARNAT 500 tpd MIA permit for the Project; and,
- The statements and representations of Ing. Roberto Trujillo for the February, 2017 1,500 tpd amended MIA permit.
-

The Qualified Persons, while taking full responsibility for the contents of this Technical Report, recognize the support of:

- Endeavour Silver's staff in Mexico including: Henry Cari, Manager, Projects and Luis Castro, VP Exploration.

None of the authors of this Technical Report has researched or verified the property title or mineral or land access rights for the Terronera Property and the authors of this Technical Report express no opinion as to the legal status of property ownership and rights as disclosed in Section 4 of this Technical Report. However, the authors have received a review of the mineral concession titles by the legal firm of Bufete Gonzales Olguin, Attorneys at Law, Mexico City, dated February 12, 2019, verifying the accuracy of the land title which supports Section 4.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Terronera Project is located in the northwestern portion of Jalisco State, near its border with the State of Nayarit, Mexico as shown in Figure 4.1. The Project is near the town of San Sebastián del Oeste, which also gives its name to the municipality and mining district which surrounds it.

The Project is situated between latitude 20° 39' 45" and 21° 02' 30" north and longitude 104° 35' 00" and 104° 51' 00" west which is between WGS 84, UTM coordinates 514,860 and 524,860 east and 2,303,715 and 2,289,120 north in Zone 13Q.

FIGURE 4.1 TERRONERA PROJECT LOCATION MAP



Source: www.endeavoursilver.com

Coordinate system: WGS 84 / UTM Zone 13Q

4.2 PROPERTY DESCRIPTION AND TENURE

In February, 2010, Endeavour Silver acquired an option to purchase the San Sebastián silver-gold Properties in Jalisco State from Industrias Minera México S.A. de C.V. (IMMSA), also known as Grupo Mexico, one of the largest mining companies in Mexico.

Endeavour Silver holds the Project through its 100% owned Mexican subsidiary, Endeavour Gold Corporation S.A. de C.V. (Endeavour Gold). Endeavour Gold holds the Project through its 100% owned subsidiaries Terronera Precious Metals S.A. de C.V. (TPM) and Minera Plata Adelante S.A. de C.V. (MPA).

The Project is comprised of 24 mineral concessions (Table 4.1), totalling 17,369 ha; see Figure 4.2 for a concession map of the Terronera Project.

The core group of ten concessions was owned by IMMSA, totalling 3,388 ha. These concessions cover the main area of the known mining district. In 2013, Endeavour Silver completed the acquisition of a 100% interest in the San Sebastián Properties from IMMSA. IMMSA retains a 2% NSR royalty on mineral production from the properties.

In 2012, Endeavour Silver also filed and received title for two concessions (San Sebastián 10 Fracc. 1 and Fracc. 2) totalling 2,078 ha.

Additionally, in 2013, Endeavour Silver filed a total of seven concessions (San Sebastian 12, San Sebastian 13, San Sebastian 14, San Sebastian 15, San Sebastian 16, San Sebastian 17 and San Sebastian 18) totalling 4,163 ha. To date, five of these concessions have been titled, with the exception of San Sebastian 15 and San Sebastian 16, which were filed again on November and August of 2018 respectively.

In 2015, Endeavour Silver acquired an option to purchase a group of properties (Los Pinos Fracc. I, Los Pinos Fracc. II and La Fundisión 2 Fracc. I, totalling 8,373 ha), surrounding the San Sebastián silver-gold Properties, from Agregados Mineros de Occidente S.A. de C.V. (AGREMIN). In addition, in 2017 Endeavour Silver also acquired from AGREMIN another option to purchase the La Única Fracc. II (3,538 ha) concession. These Properties and Agreement were transferred by AGREMIN to its related Company named Compañía Plata San Sebastian S.A. de C.V. On December 2018 Endeavour Silver terminated the option agreement for La Fundisión 2 Fracc. I (Title 228866) and La Única Fracc. II (Title 225185) concessions and cancellation is currently in process.

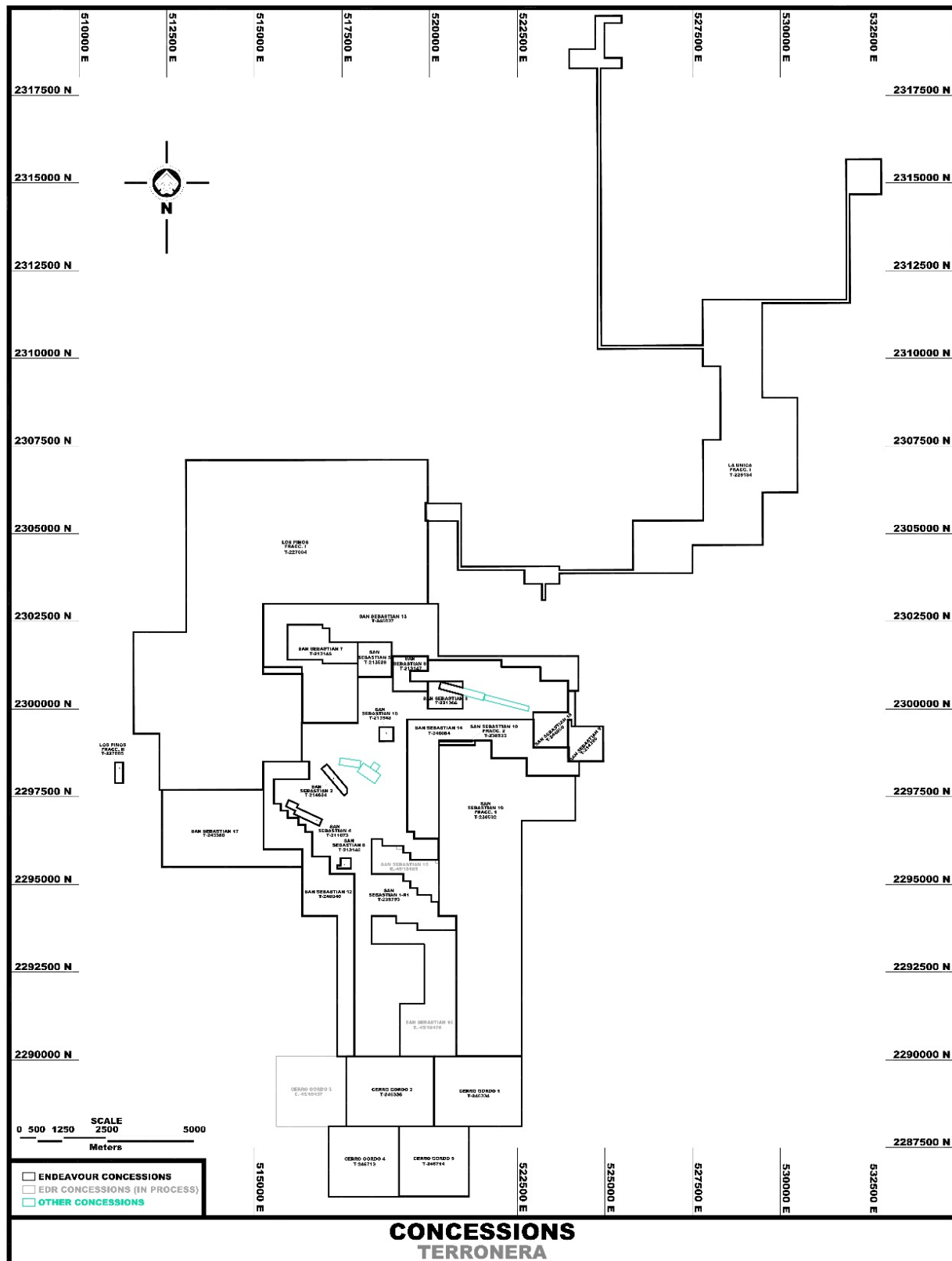
At the end of 2017, Endeavour Silver filed a total of three concessions at the southern boundary of the San Sebastian Properties, these concessions were called Cerro Gordo 1 (499.7 ha), Cerro Gordo 2 (500 ha) and Cerro Gordo 3 (400 ha). Two of these concessions have been titled, with the exception of Cerro Gordo 3 (filed again in June of 2018). In early 2018, Endeavour Silver filed and received title for two more concessions in the area: Cerro Gordo 4 (400 ha) and Cerro Gordo 5 (399 ha).

In August of 2018, Endeavour Silver acquired an exploration and option agreement covering the property named La Unica Fracc. I (2157 ha) from Compañía Plata San Sebastian S.A. de C.V.

The annual 2019 concession tax for all the San Sebastian Properties was MXP 4,138,726 which is equal to US \$206,936 (at an exchange rate of 20 MXP to US\$1.00 dollar).

The Endeavour Silver concessions surround mining concessions owned by Minera Cimarron S.A. de C.V. (Minera Cimarron), a private Mexican Company. These concessions cover the active La Quiteria Mine, and the historic Los Reyes and San Andres mines. These concessions are shown on Figure 4.2.

FIGURE 4.2 TERRONERA PROJECT CONCESSIONS MAP



Source: www.endeavoursilver.com

Coordinate system: WGS 84 / UTM Zone 13Q

4.3 OWNERSHIP AND PROPERTY DESCRIPTION

A list of concessions and the taxes owed on each concession is presented in Table 4.1.

TABLE 4.1 CONCESSIONS AND TAXES ON EACH CONCESSION					
Concession Name	Title Number	Term of Mineral Concession	Hectares	2019 Annual Taxes (MXP)	
				1 st Half	2 nd Half
San Sebastián 4	211073	31/03/00 to 30/03/50	22	\$3,821	\$3,821
San Sebastián 7	213145	30/03/01 to 29/03/51	166	\$28,829	\$28,829
San Sebastián 6	213146	30/03/01 to 29/03/51	9.8129	\$1,704	\$1,704
San Sebastián 8	213147	30/03/01 to 29/03/51	84.8769	\$14,740	\$14,740
San Sebastián 5	213528	18/05/01 to 17/05/51	95.0600	\$16,509	\$16,509
San Sebastián 10	213548	18/05/01 to 17/05/51	16	\$2,779	\$2,779
San Sebastián 9	214286	06/09/01 to 05/09/51	101.8378	\$17,686	\$17,686
San Sebastián 2	214634	26/10/01 to 25/10/51	19.5887	\$3,402	\$3,402
San Sebastián 3	221366	03/02/04 to 02/02/54	63.8380	\$11,087	\$11,087
San Sebastián 1 R-1	235753	24/02/10 to 08/07/55	2808.8716	\$487,811	\$487,811
San Sebastian 10 Fracc. 1	238532	23/09/11 to 22/09/61	2075.2311	\$204,786	\$204,786
San Sebastian 10 Fracc. 2	238533	23/09/11 to 22/09/61	2.9233	\$288	\$288
San Sebastian 17	243380	12/09/14 to 11/09/64	693	\$17,007	\$17,007
San Sebastian 18	244668	17/11/15 to 16/11/65	118.1621	\$2,900	\$2,900
San Sebastian 12	246040	20/12/17 to 19/12/67	650	\$7,708	\$7,708
San Sebastian 13	246037	20/12/17 to 19/12/67	1,022.6114	\$12,126	\$12,126
San Sebastian 14	246084	20/12/17 to 19/12/67	627.0893	\$7,436	\$7,436
Cerro Gordo 1	246334	11/05/18 to 10/05/68	499.7041	\$3,969	\$3,969

TABLE 4.1 CONCESSIONS AND TAXES ON EACH CONCESSION					
Concession Name	Title Number	Term of Mineral Concession	Hectares	2019 Annual Taxes (MXP)	
				1 st Half	2 nd Half
Cerro Gordo 2	246335	11/05/18 to 10/05/68	500	\$3,971	\$3,971
Cerro Gordo 4	246713	31/10/18 to 30/10/68	400	\$3,177	\$3,177
Cerro Gordo 5	246714	31/10/18 to 30/10/68	399.5386	\$3,173	\$3,173
Los Pinos Fracc. I	227004	11/04/06 to 10/04/56	4,821.6775	\$837,371	\$837,371
Los Pinos Fracc. II	227005	11/04/06 to 10/04/56	14.0093	\$2,433	\$2,433
La Unica Fracc. I	225184	02/08/05 to 01/08/55	2157.2787	\$374,650	\$374,650
Total			17,369.1113	\$2,069,363	\$2,069,363

4.4 MEXICAN REGULATIONS FOR MINERAL CONCESSIONS

In Mexico, exploitation concessions are valid for 50 years and are extendable provided that the application is made within the five-year period prior to the expiry of the concession and the bi-annual fee and work requirements are in good standing. All new concessions must have their boundaries orientated astronomically north-south and east-west and the lengths of the sides must be one hundred metres or multiples thereof, except where these conditions cannot be satisfied if they border on other mineral concessions. The locations of the concessions are determined on the basis of a fixed point on the land, called the starting point, which is either linked to the perimeter of the concession or located thereupon. Prior to being granted a concession, the company must present a topographic survey to the Dirección General de Minas (DGM) within 60 days of staking. Once this is completed, the DGM will usually grant the concession.

Prior to December 21, 2005, exploration concessions were granted for a period of six years in Mexico and at the end of the six years they could be converted to exploitation concessions. However, as of December 21, 2005 (by means of an amendment made on April 28, 2005 to the Mexican mining law) there is now only one type of mining concession. Therefore, as of the date of the amendment (April, 2005), there is no distinction between exploration and exploitation concessions on all new titles granted. All concessions are now granted for a 50 year period provided that the concessions are kept in good standing. For the concessions to remain in good standing a bi-annual fee must be paid (January and July) to the Mexican government and two reports must be filed in January and May of each year which covers the production and work completed on the property between January and December of the preceding year.

4.5 LICENSES, PERMITS AND ENVIRONMENT

In addition to the mineral rights, Endeavour Silver has agreements with various private ranch owners and three local Ejidos (San Sebastián del Oeste, Santa Ana and Santiago de Los Pinos) that provide access for exploration purposes. Table 4.2 summarizes the surface access rights as at December 31, 2017.

TABLE 4.2 SUMMARY OF ENDEAVOUR SILVER'S SURFACE ACCESS RIGHTS			
Owner	Activity	Validity	Term
Ejido Santiago de Los Pinos (Exploration)	Exploration	3 Years	15/01/2019 - 2022
Ejido San Felipe de Hajar (Exploration)	Exploration	5 Years	15/01/2019 - 2024
Ejido San Sebastian (Exploration & Operations)	Exploration & Operations	25 Years	05/09/2016 - 2041
Ejido Santiago de Los Pinos (La Terronera Mine Area)	Mine Operations	25 Years	07/07/2014 - 2039
Ejido Santiago de Los Pinos (El Portezuelo)	Mine Operations	25 Years	07/07/2014 - 2039
Ejido Santiago de Los Pinos (El Mondeño)	Mine Operations	25 Years	27/04/2015 - 2040
Ejido Santiago de Los Pinos (Antenas; Telecomunicaciones)	Mine Operations	15 Years	09/08/2016 - 2031
Felipe Santana García de Alba (Telecomunicaciones)	Mine Operations	3 Years	15/07/2016 - 2019

In January, 2011, Endeavour Silver received approval of its Manifestación de Impacto Ambiental (MIA) for Exploration activities, the Mexican equivalent of an Environmental Impact Statement (EIS), from the Secretaria Medio Ambiente y Recursos Naturales (SEMARNAT). This permit grants Endeavour Silver the right to conduct its surface exploration activities in accordance with all the Mexican environmental regulations. In the third Quarter of 2013, an extension of this permit was requested, and by the end of that year it was renewed for 2 more years.

In October, 2014, Endeavour Silver also received approval of its Manifestación de Impacto Ambiental, particular modality (MIA-P) for Exploitation activities for a 500 tpd project with tailings reporting to a traditional slurry deposit, from the Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT). This permit grants Endeavour Silver the right to develop workings and activities related to mineral exploitation in accordance with all the Mexican environmental regulations. The permit was granted for 20 years.

A MIA modification was issued February 23, 2017 for an amended 1,500 tpd future proposed project with dry stack or filtered tailings. An application for a 1,500 tpd project is currently pending submittal to SEMARNAT.

A permit will be solicited for the handling, storage and use of explosives at the Terronera Project. SEDENA (Secretaria de Seguridad Nacional) is one of three review/issuing agencies for these permits, which must comply with the Federal Law for Firearms and Explosives. The other two reviewing agencies are the State of Durango and the local municipality. There are two distinct permits involved in these permissions:

- Explosives,
- Detonators and storage.

There are regulations controlling the separation of explosives from other facilities and detonator storage. Suppliers for explosives must be authorized by SEDENA, and the handlers and mining company users of explosives must be trained in their use.

Endeavour Silver is currently working under existing Mexican environmental laws. In the past, environmentalists have tried to convert the San Sebastián del Oeste (Terronera Project) area into a protected natural area. To date, the local community has not allowed this to happen, since they are more in favour of resource development and the potential economic benefit, especially employment.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY AND LOCAL RESOURCES

The Terronera Project is approximately 160 km due west of Guadalajara in Jalisco State and 50 km northeast of Puerto Vallarta. Road access to Terronera is via paved roads. From Guadalajara, travel by road is via Federal Highway No. 70 that passes through the town of Mascota, about 210 km west of Guadalajara, and then another 55 km to San Sebastián del Oeste. Highway 70 continues to Puerto Vallarta on the Pacific coast. Good gravel roads exist on the Property itself and year-round access is possible with some difficulties experienced during the rainy season.

Recent road improvements have reduced the road transit time from Puerto Vallarta to San Sebastián del Oeste to less than two hours. San Sebastián del Oeste is also served by a paved airfield in excellent condition.

National and international access to Puerto Vallarta and Guadalajara is quite good, with numerous daily flights from major cities in Mexico, the United States and Canada, giving many options for travelling to and from the Project.

The municipality of San Sebastián del Oeste has a population of approximately 5,600 persons with less than 1,000 living in the town of the same name. The town of San Sebastián del Oeste is well maintained and tourism is the principal industry with several hotels and restaurants. It receives regular tourist visits from nearby Puerto Vallarta.

5.2 PHYSIOGRAPHY AND CLIMATE

The town of San Sebastián del Oeste is at an elevation of 1,480 m above sea level. The surrounding area is mountainous and heavily forested, mainly with pine trees. The surrounding valleys are occupied by cattle ranches, corn fields and coffee plantations. Figure 5.1 shows a view of the topography surrounding the Terronera Project.

The weather is predominantly humid in the winter and dry and warm during the spring. The mean annual temperature is 18°C, with a maximum of 25.6°C and a minimum of 11.7°C. The wettest months are June through September.

5.3 INFRASTRUCTURE

Most of the labour and small equipment required for the exploration programs can be found in the Municipality of San Sebastián del Oeste. Supplies are usually purchased in Puerto Vallarta, Mascota, or Guadalajara.

Power supply to the Terronera Project is provided by the national grid operated by the Comisión Federal de Electricidad (CFE).

FIGURE 5.1 **VIEW OF TOPOGRAPHY SURROUNDING THE TOWN OF SAN SEBASTIÁN**



Source: www.endeavoursilver.com

6.0 HISTORY

6.1 SAN SEBASTIAN DEL OESTE MINING DISTRICT

The following section is summarized from Lewis and Murahwi (2013) and Munroe (2014). San Sebastián del Oeste is a silver and gold mining town founded in 1605 during the Spanish colonial period. By 1785, more than 25 mines and a number of smelters had been established in the district and, during the peak mining period, the area was considered one of the principal sources of gold, silver and copper for New Spain. The main mines in the district included Real de Oxtotipan, Los Reyes, Santa Gertrudis, Terronera and La Quiteria. As of 2013, the La Quiteria Mine was still active and mined by Minera Cimarrón S.A. de C.V., a private mining company.

San Sebastián del Oeste was declared a city in 1812 and reached a peak population of more than 20,000 persons by 1900. At one time, it was the provincial capital and one of the more important gold and silver mining centres of Mexico. The prosperity of the city declined after the revolution of 1910.

The mines were, in part, responsible for the founding of the city of Puerto Vallarta that supplied those mines with salt. The salt was taken by mules to San Sebastián del Oeste and other mines in the high sierras for use in the metal smelting process. The silver and gold from the mines was sent, again by mule train, through Guadalajara and Mexico City to Veracruz, where it was sent to Spain.

Historic exploration performed on the San Sebastian Property is summarized in Table 6.1.

TABLE 6.1 SUMMARY OF HISTORIC EXPLORATION ON THE SAN SEBASTIAN PROPERTY (NOVEMBER 1901)		
Year	Company	Exploration
1921	Various Unknown	After the Mexican Revolution, intermittent small scale mining took place in the areas of Santiago de Los Pinos, Los Reyes and Navidad. All of these areas are currently inactive.
1979	Consejo de Recursos Minerales	Regional and local semi-detailed mapping and exploration activity.
1985	Compañía Minera Bolaños, S.A.	Prospecting activities in the areas of Los Reyes and Santiago de Los Pinos. This work eventually ended and many of the concessions were allowed to elapse.
Late 1980s	IMMSA	Begins explorian Sebastián del Oeste district.
1992-1995	IMMSA	Detailed geological mapping and sampling of outcropping structures including the La

TABLE 6.1 SUMMARY OF HISTORIC EXPLORATION ON THE SAN SEBASTIAN PROPERTY (NOVEMBER 1901)		
Year	Company	Exploration
		Quiteria, San Augustin and Los Reyes veins, as well as other veins of secondary importance. IMMSA assayed more than 200 rock samples from many of the old mines.
1995-2010	IMMSA	An initial program of 17 widely-spaced diamond drill holes was completed, mainly at the Terronera Vein. Drilling succeeded in intersecting widespread silver-gold mineralization generally ranging up to 1 g/t gold and from 50 to 150 g/t silver over 2 to 6 m widths. Drilling was suspended and quantification of mineral resources was not undertaken.
2010	Endeavour Silver / IMMSA	Endeavour Silver acquires option to purchase San Sebastián properties from IMMSA.

6.2 PREVIOUS MINERAL RESOURCE ESTIMATES

Lewis and Murahwi (2013) of Micon conducted an audit of Endeavour Silver's Mineral Resource Estimates at the Terronera Project (then called the San Sebastián Project) including the Animas-Los Negros, El Tajo, Real and Terronera Veins. As of December 15, 2012, the estimate for the San Sebastian Project comprised Indicated Mineral Resources totalling 1,835,000 t at a grade of 193 g/t Ag and 1.17 g/t Au and Inferred Mineral Resources of 3,095,000 t at a grade of 196 g/t Ag and 1.39 g/t Au. The Terronera Vein is the largest component of the estimate and was estimated to contain Indicated Mineral Resources of 1,528,000 t at 192 g/t Ag and 1.30 g/t Au and Inferred Mineral Resources of 2,741,000 t at 194 g/t Ag and 1.50 g/t Au. The San Sebastian estimate utilized a 2-D polygonal estimation method for the Animas-Los Negros, El Tajo, and Real veins and 3-D block modelling for the Terronera Vein. Samples were capped at 524 g/t Ag and 2.38 g/t Au for the Animas-Los Negros, El Tajo, and Real Veins and 1,970 g/t Ag and 7.96 g/t Au for the Terronera Vein. The estimate utilized a bulk density of 2.5 t/m³ for all veins and a cut-off grade of 100 g/t AgEq based on metal prices of US\$31/oz Ag and US\$1,550/oz Au.

Munroe (2014) updated the San Sebastian Project Mineral Resource Estimate with additional drilling data. As of December 31, 2013, Munroe (2014) estimated the San Sebastian Project including the Animas-Los Negros, El Tajo, Real and Terronera Veins to contain Indicated Mineral Resources totalling 2,476,000 t at a grade of 229 g/t Ag and 1.08 g/t Au and Inferred Mineral Resources of 2,376,000 t at a grade of 175 g/t Ag and 1.66 g/t Au. The Terronera Vein was estimated to contain Indicated Mineral Resources of 2,169,000 t at 233 g/t Ag and 1.16 g/t Au and Inferred Mineral Resources of 2,022,000 t at 169 g/t Ag and 1.86 g/t Au. Munroe's parameters were similar to those reported for Lewis and Murahwi (2013), except that the sample

capping values were increased in the Terronera Vein to 2,070 g/t Ag and 7.96 g/t Au and the cut-off grade of 100 g/t AgEq was based on metal prices of US\$24.20/oz for Ag and US\$1,452/oz for Au.

The reader is cautioned that P&E has not verified the Lewis and Murahwi (2013) and Munroe (2014) Mineral Resource Estimates relating to the Terronera Project (formerly known as the San Sebastian Project).

In 2015, P&E updated the Terronera Project Mineral Resource Estimate. As of April 30, 2015, the Terronera Vein was estimated to contain Indicated Mineral Resources of 2.9 Mt at 211 g/t Ag and 1.65 g/t Au and Inferred Resources of 1.2 Mt at 218 g/t Ag and 1.39 g/t Au. The cut-off grade was 100 g/t AuEq, using a 70:1 ratio based on prices of US \$18/oz silver and US \$1,250/oz gold.

In 2017, P&E updated the Terronera Project Mineral Resource Estimate. As of May 11, 2017, the Terronera Vein was estimated to contain Indicated Mineral Resources of 3,959,000 t at 232 g/t Ag and 2.18 g/t Au and Inferred Mineral Resources of 720,000 t at 309 g/t Ag and 1.48 g/t Au. The cut-off grade was 150 g/t AgEq, using a 70:1 ratio based on US \$18/oz silver and US \$1,225/oz gold.

In August 2018, P&E updated the Terronera Project Mineral Resource Estimate again. As of August 7, 2018, the Terronera Vein was estimated to contain Indicated Mineral Resources of 4,363,000 t at 239 g/t Ag and 2.53 g/t Au and Inferred Mineral Resources of 1,073,000 t at 252g/t Ag and 2.38 g/t Au. The cut-off grade was 150 g/t AgEq, using a 75:1 ratio based on US \$17/oz silver and US \$1275/oz gold.

The February 2019 Mineral Resource Estimates reported in Section 14 of this Technical Report supersede all prior Mineral Resource Estimates.

An Initial Pre-Feasibility study was published on the Terronera Project in April, 2017 resulting in a Probable Mineral Reserve of 4,061,000 t at 207 g/t Ag and 1.95 g/t Au. The financial model generated a post-tax 21.2% IRR, 4.3 year payback and an NPV⁵ of \$78.1M.

An Updated Pre-Feasibility study was published on the Terronera Project in September, 2018 resulting in a Probable Mineral Reserve of 4,701,000 t at 224 g/t Ag and 2.28 g/t Au. The financial model generated a post-tax 23.5% IRR, 5.4 year payback and an NPV⁵ of \$117.8M.

6.3 PAST PRODUCTION

There has reportedly been significant historical production from the San Sebastian del Oeste region spanning the period from 1566 when the Villa de San Sebastian was founded through to the early 20th century. The amount of silver production, however, is unknown since historical production records have not survived the revolutions, passing of the individual owners, closing of the mines, corporate failure, or government seizure of assets (Lewis and Murahwi (2013), Munroe (2014)).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

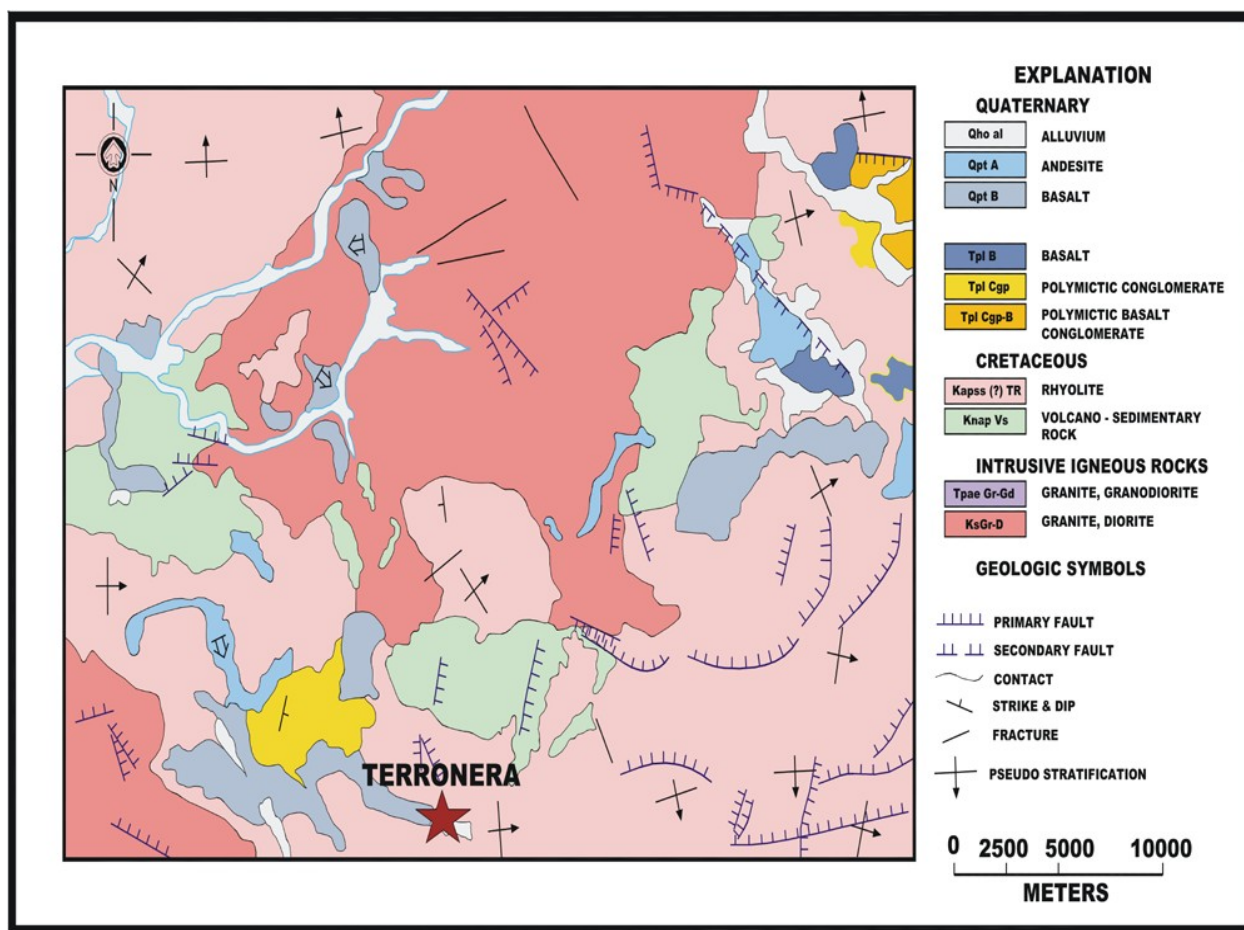
The following section is summarized from Lewis and Mulahwi (2013) and Munroe (2014). The mining district of San Sebastián del Oeste, shown in Figure 7.1, is situated at the southern end of the Sierra Madre Occidental metallogenic province, a north-northwesterly trending volcanic belt of mainly Tertiary age. This volcanic belt is more than 1,200 km long and 200 to 300 km wide, and hosts the majority of Mexico's gold and silver deposits. The volcanic belt is one of the world's largest epithermal precious metal systems.

The oldest rocks in the southern part of the Sierra Madre Occidental are late-Cretaceous to early-Tertiary calc-alkaline, granodiorite to granite batholiths that intrude coeval volcano-sedimentary units of late Eocene to Miocene age.

The Terronera Project lies within the structurally and tectonically complex Jalisco Block at the western end of the younger (early Miocene to late Pliocene) Trans-Mexican Volcanic Belt. Country rocks within the Jalisco Block include Cretaceous silicic ash flows and marine sedimentary rocks deposited between 45 and 115 Ma that are intruded by Cretaceous to Tertiary granite, diorite and granodiorite of the Puerto Vallarta Batholith (Lewis and Murahwi (2013) and references therein). The volcanic rocks of the San Sebastián cinder cone field, are dated at 0.48 to 0.26 Ma, and are characterized by distinct, high potassium, alkalic compositions and were extruded within the Tepic-Zacoalco Graben which bounds the andesitic stratovolcanoes located to the north and northeast.

The area has been affected by a strong tectonic activity during the Cretaceous to Recent. This activity has resulted in regional northwest-southeast striking transcurrent faults associated with movements of the northern portion of the Jalisco Block.

FIGURE 7.1 GEOLOGY OF THE SAN SEBASTIÁN DEL OESTE AREA



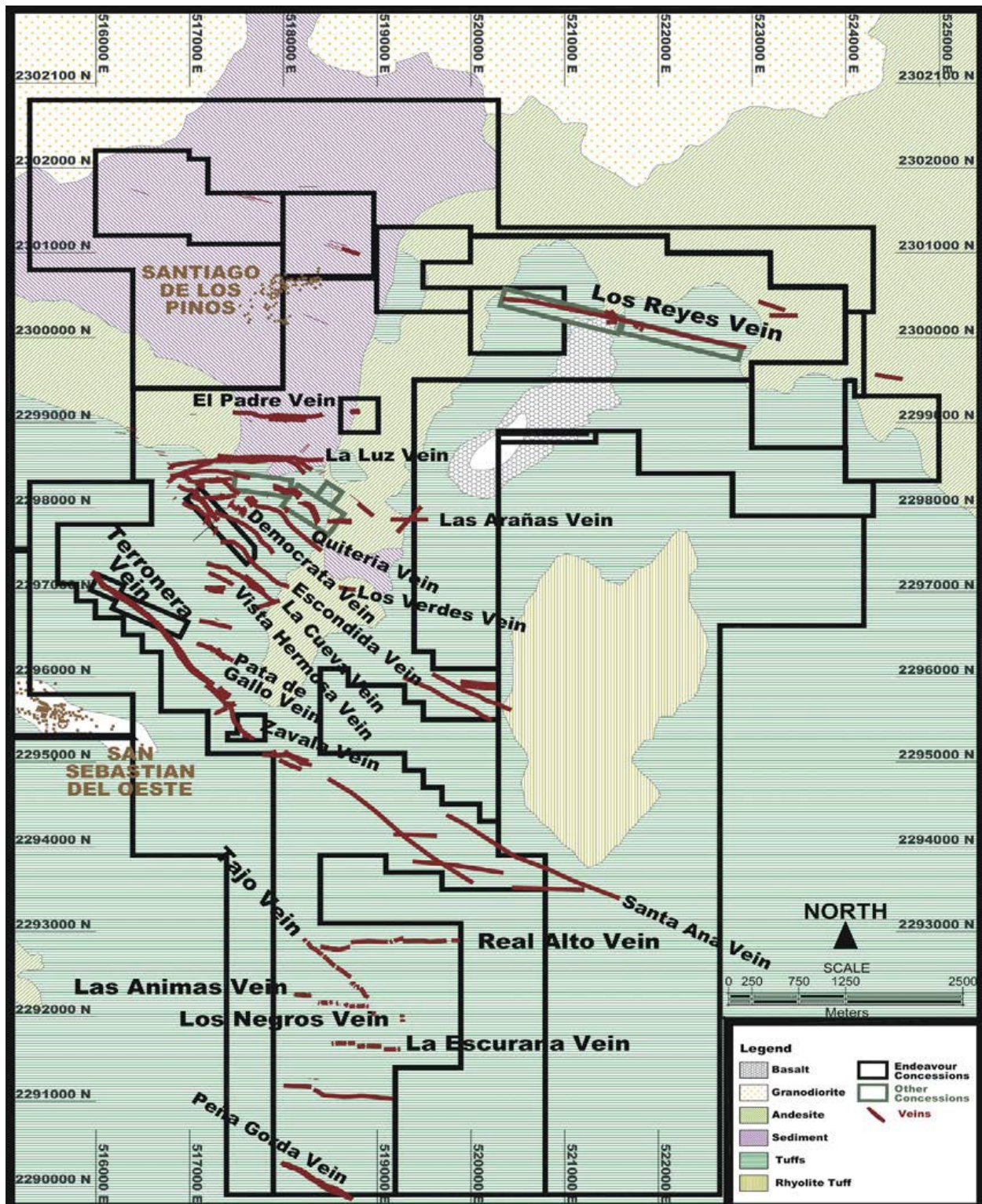
Source: Lewis and Murahwi (2013)

7.2 PROPERTY GEOLOGY

The following section is summarized from Lewis and Murahwi (2013) and Munroe (2014). The San Sebastián del Oeste area and the Terronera Project is underlain by an intermediate to felsic volcanic and volcanoclastic sequence which is correlated with the middle to lower Cretaceous, Lower Volcanic Group of the Sierra Madre Occidental geological province. This volcano-sedimentary sequence consists of mainly shale, sandstone and narrow calcareous-clayey interbeds overlain by tuffs, volcanic breccias and lava flows of mainly andesitic composition. The volcano-sedimentary units outcrop in north-central part of the district. Further to the north, granitic to granodioritic intrusives are present.

The sedimentary basin most likely developed along with a volcanic arc which was later intruded by granitic granodiorite intrusions. This magmatism gave rise to andesite flows and pyroclastic eruptions followed by deposition of the rhyolite flows, volcanic breccias, pyroclastic dacites, and basalt which are host to the epithermal veins in the district. A later volcanic event, attributable to the formation of the Trans Mexican Volcanic Belt, gave rise to volcanic rocks of mafic alkaline composition. The geology of the Property is shown in Figure 7.2.

FIGURE 7.2 TERRONERA PROPERTY GEOLOGY SHOWING MINERALIZED VEINS



Source: Endeavour Silver (2015)

Coordinate system: WGS 84 / UTM Zone 13Q

7.3 DEPOSIT GEOLOGY

As documented in Section 14.0, the silver-gold with associated base metal mineralization in the Terronera epithermal veins occurs in structurally controlled quartz and quartz breccia veins. The principal Terronera Vein has been traced by drilling for 1.5 km on strike and from surface to the maximum depth of drilling at 546 m as shown in Figure 7.2. The Terronera Vein strikes at approximately 145° and dips 80° east. The true width of the principal Terronera Vein ranges from 1.5 m to 15 m and averages 3.9 m. In addition to the main Terronera Vein, there are additional hanging wall and footwall veins. The veins are primarily hosted in volcanic flows, pyroclastic and epiclastic rocks and associated shales and their metamorphic counterparts (Lewis and Mulahwi (2013), Munroe (2014)).

7.4 STRUCTURE

The more important mineralized veins in the San Sebastián del Oeste district are controlled by west-northwest to northwest striking structures related to a transcurrent fault system. An extensive, second order, east-west structural trend is related to extension caused by sinistral movement on the primary structures.

7.5 MINERALIZATION AND ALTERATION

The following section is primarily summarized from Lewis and Mulahwi (2013) and Munroe (2014). In the San Sebastián del Oeste district, silver and gold mineralization represents the upper portion of an epithermal vein system. Illite, sericite and adularia are characteristic alteration assemblages that typically occur in the veins and in the vein wall rocks. In areas of higher elevation, where limited mining has occurred, such as the El Hundido and Real de Oxtotipan mines, the quartz is amorphous and milky white in colour, indicative of a low temperature environment.

Metallic minerals include galena, argentite, and sphalerite associated with gangue constituents of quartz, calcite and pyrite. Munroe (2014) reports that elevated Ag and Au values from 2011 sampling of underground workings in the Terronera Vein were primarily obtained from crystalline quartz veins, drusy in places, with limonite and manganese oxides lining boxworks after sulphides and fine-grained disseminated pyrite and traces of dark grey sulphides, probably silver sulphides.

Geologic information and field observations indicate that the hydrothermal system at the Terronera Vein is preserved over an elevation difference of 600m. Regionally, the known deposits contain polymetallic sulphide mineralization in wide vein structures. The veins at higher elevations may represent the tops of ore shoots containing significant silver and gold mineralization at depth.

8.0 DEPOSIT TYPES

As documented by Lewis and Murahwi (2013) and Munroe (2014), the San Sebastián del Oeste silver-gold district comprises classic, high grade silver- gold, epithermal vein deposits, characterized by low-sulphidation mineralization and adularia-sericite alteration. The veins are typical of most other epithermal silver-gold vein deposits in Mexico in that they are primarily hosted in volcanic flows, pyroclastic and epiclastic rocks, or sedimentary sequences of mainly shale and their metamorphic counterparts.

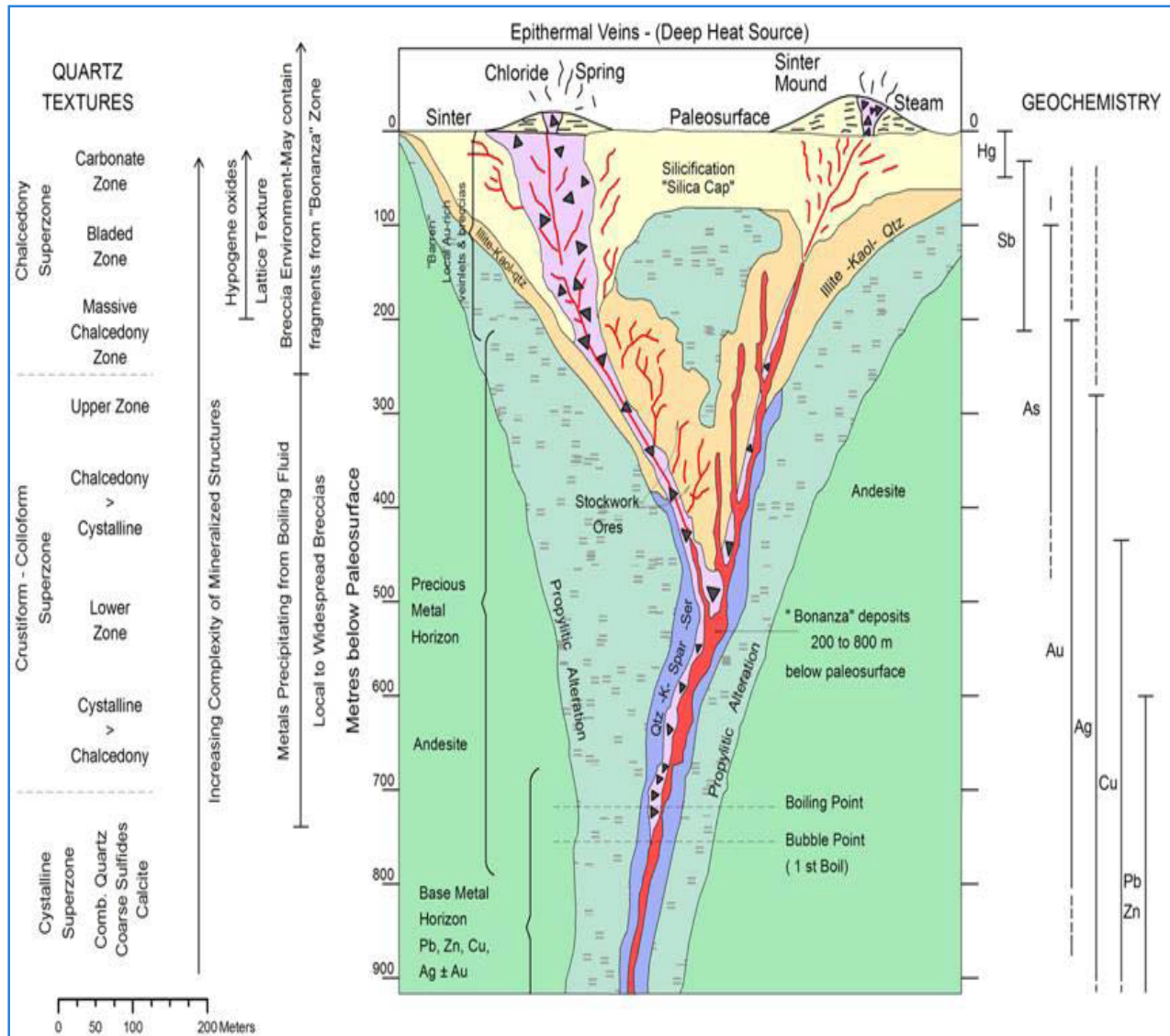
Low-sulphidation epithermal veins in Mexico typically have a well-defined, subhorizontal ore horizon about 300 m to 500 m in vertical extent where the bonanza grade mineralization shoots have been deposited due to boiling of the hydrothermal fluids. Neither the top nor the bottom of the mineralized horizons at the Terronera Project has yet been established precisely.

Low-sulphidation deposits are formed by the circulation of hydrothermal solutions that are near neutral in pH, resulting in very little acidic alteration with the host rock units. The characteristic alteration assemblages include illite, sericite, and adularia that are typically hosted by either the veins themselves or in the vein wall rocks. The hydrothermal fluid can either travel along discrete fractures where it may create vein deposits or it can travel through permeable lithology such as a poorly welded ignimbrite flow, where it may deposit its load of precious metals in a disseminated deposit. In general terms, this style of mineralization is found at some distance from the heat source.

Figure 8.1 illustrates the spatial distribution of the alteration and veining found in a hypothetical low-sulphidation hydrothermal system.

FIGURE 8.1

ALTERATION AND MINERALIZATION DISTRIBUTIONS WITHIN A LOW SULPHIDATION EPITHERMAL VEIN SYSTEM



Source: Lewis and Murahwi (2013)

9.0 EXPLORATION

9.1 2010 TO 2016 EXPLORATION PROGRAMS

In 2010, Endeavour Silver commenced exploration activities on the Terronera Project. Initial work included data compilation, field mapping, and sampling. Surface mapping was completed on the Real Alto in the southern part of the Project. A total of 1,004 rock and soil samples were collected in 2010, mainly from the historic mines in the San Sebastián del Oeste district. A soil geochemistry survey was conducted over the Real Alto zone to delineate potentially buried veins in the area and to map and sample any veins exposed on surface. A total of 735 soil samples were collected in the Real Alto area.

In 2011, geological mapping, rock chip sampling, topographic surveying were conducted. Mapping and sampling of structures in the Santiago de Los Pinos area, including El Alcribil, El Orconcito, El Padre, El Izote, La Plomosa, Tierras, Coloradas, Los Cuates, La Yesquilla, and La Ermita Areas, were conducted. In early 2011, mapping and sampling was also carried out on the Terronera Vein near the town of San Sebastián del Oeste. In late 2011, mapping and sampling was conducted in the La Luz area and the Los Reyes area. A total of 301 rock samples were collected in 2011.

Early 2012, exploration activities focused on surface sampling at the Quiteria West (Los Leones and La Cueva), Terronera and La Zavala areas, a total of 24 rock samples were collected.

In 2013, Endeavour Silver conducted geological mapping, trenching and sampling at the Terronera Project. Mapping mainly focused on the projection south of the Terronera Vein, La Zavala Vein, the Quiteria West structures and some samples were collected at the extension east of the Real Vein at the Real Alto area. A total of 350 rock samples were collected. The trenching program included 129 rock samples in 24 trenches constructed at the Terronera and La Zavala areas.

In 2014, geological mapping, trenching and sampling was conducted by Endeavour Silver at the Terronera Project. Exploration activities mainly conducted at the Quiteria West and Terronera NW areas, including sampling at the Terronera, Lupillo, El Salto and La Cascada Mines located over the Terronera Vein and the Resoyadero, La Tapada 2, Otates, Tajo los Cables, El Toro, ZP3, Copales, Mina 03, Mina 04 and Cotete areas/mines at the Quiteria

A West Vein trenching program was also conducted over the projection of the Quiteria West (east and west parts) and Terronera (northwest part) Veins. The program included a total of 1,091 rock samples in both underground, surface and the trenching program. Regional geological mapping around the Terronera Project was undertaken.

In 2015, Endeavour Silver conducted geological mapping, trenching and a soil geochemical survey at the Terronera Project. Mapping included the Terronera North, La Zavala, El Fraile, El Padre, SE part of Quiteria-Democrata and La Ermita areas. The trenching program was conducted over the Democrata and La Luz veins. The soil geochemical survey was conducted with the objective of trying to locate the possible east extension of the Democrata and Quiteria veins, while simultaneously conducting geological mapping over the area. The sampling

program included 2,170 rock samples (107 in the trenching program) and 425 soil/rock samples within the soil geochemistry grid. Additionally, regional exploration continued in concessions located around the Terronera Project.

Endeavour Silver conducted a surface exploration program in 2016. Several thousand samples were collected and analysis revealed the vein system to extend over a 7 km x 7 km area and identified nine additional veins in the northern half of the Property. A soil geochemistry grid (810 samples collected) was conducted at the Las Coloradas area with the objective to try to define possible buried structures in areas with extensive vegetation.

9.2 2017 EXPLORATION PROGRAM

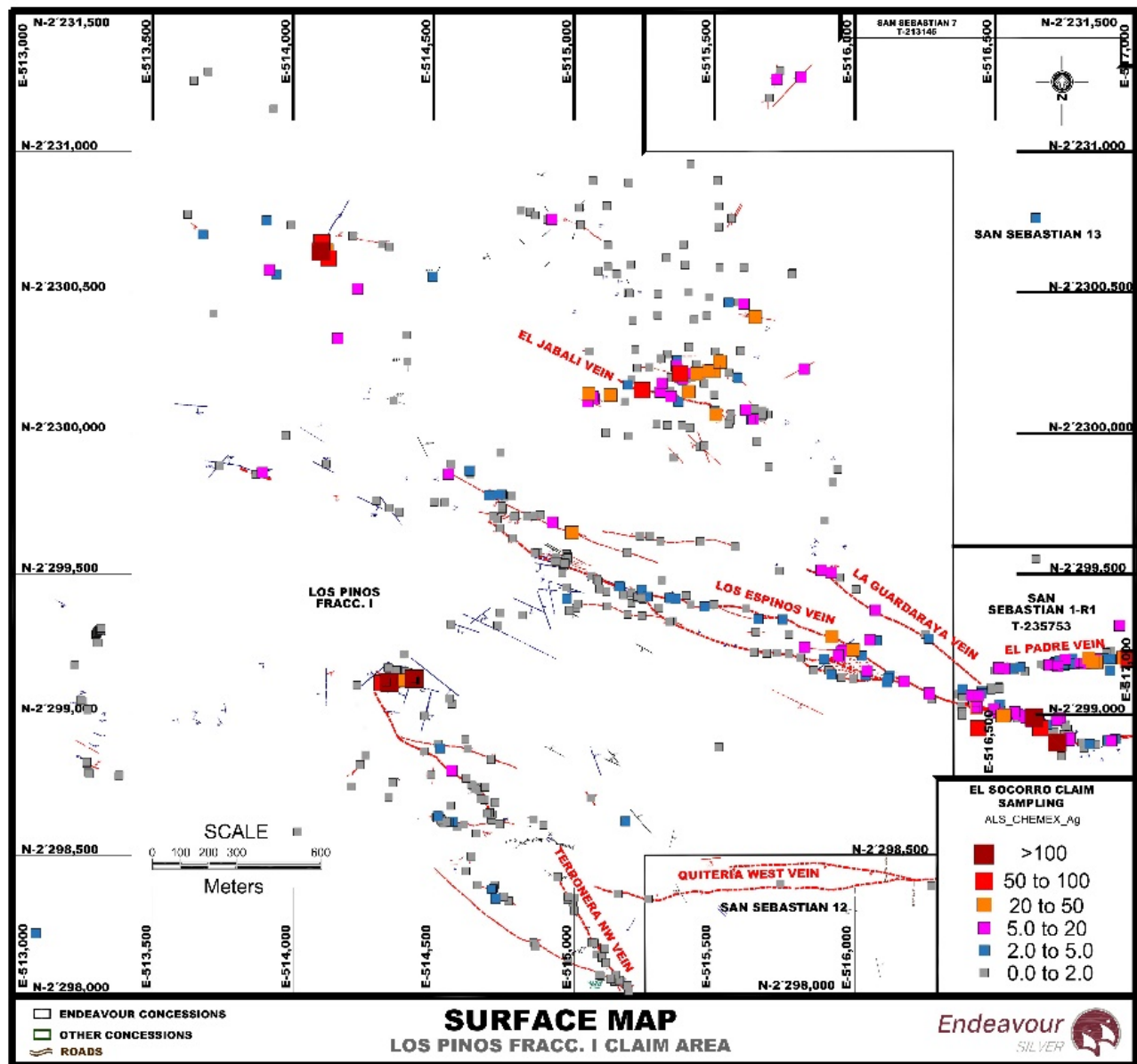
In 2017, geological mapping, trenching and sampling was conducted at the Terronera Project with the objective of determining the importance of structures located within the Endeavour Silver concessions in order to be considered drilling targets. The analyzed structures include: Terronera NW, Quiteria West, Los Espinos-Guardarraya, El Jabalí, El Fraile, Vista Hermosa, La Escondida, El Armadillo, La Atrevida, Miguel, Santana, Peña Gorda and Los Tablones.

The Regional Exploration Program continued, with the objective of defining possible targets of interest around the Endeavour Silver concessions.

During the sampling exploration program a total of 1,244 rock samples and additional 308 rock samples in the trenching programs were collected from Terronera NW, Los Espinos NW, El Fraile, Vista Hermosa, La Escondida, El Armadillo, La Atrevida, and Miguel.

Figures 9.1 through to Figure 9.5 show silver values of surface rock samples collected at the Terronera Project.

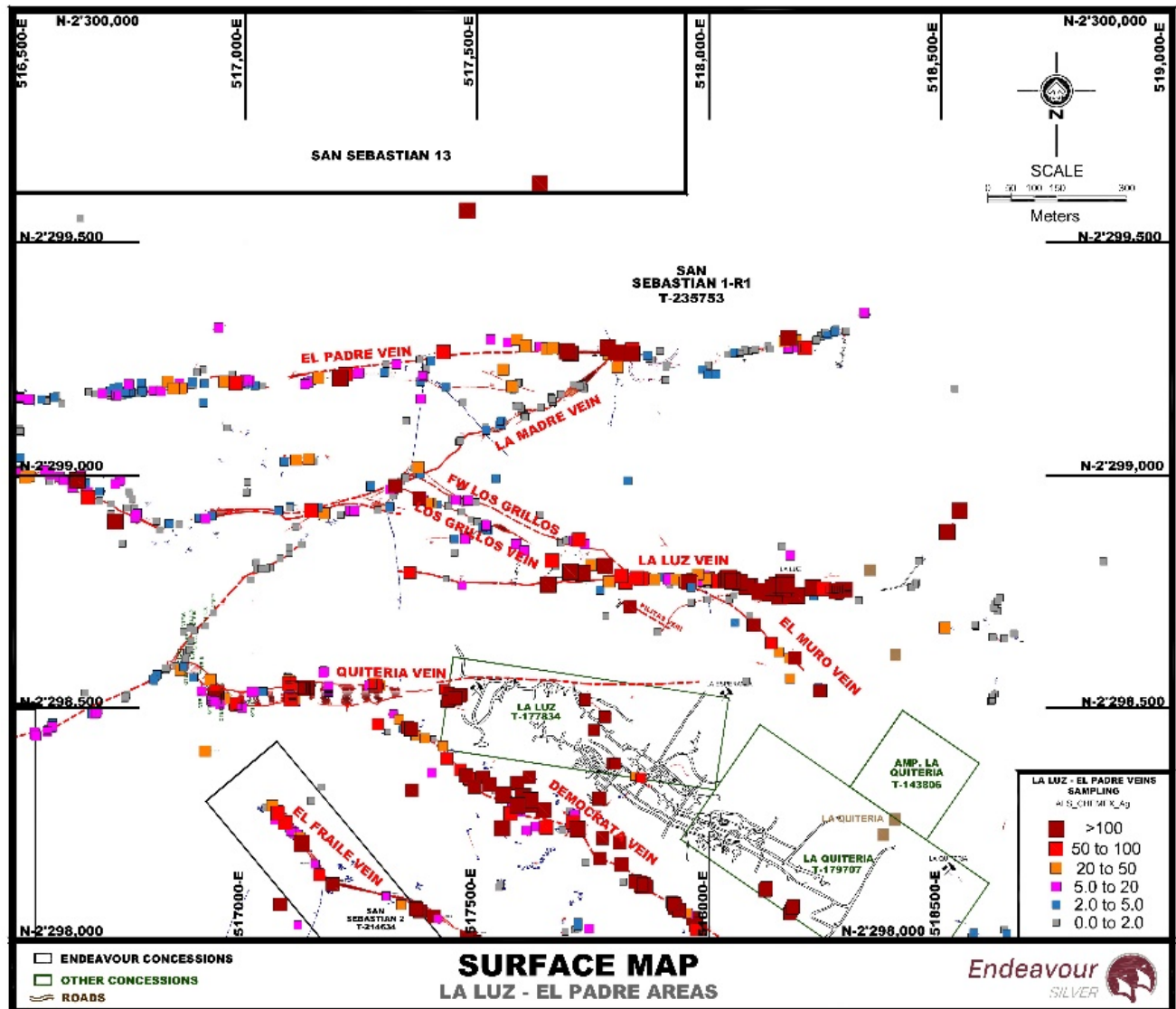
FIGURE 9.1 SILVER RESULTS IN THE TERRONERA NORTH, QUITERIA WEST, LOS ESPINOS-GUARDARRAYA, AND EL JABALÍ AREAS



Source: Endeavour Silver (2017)

Coordinate system: WGS 84 / UTM Zone 13Q

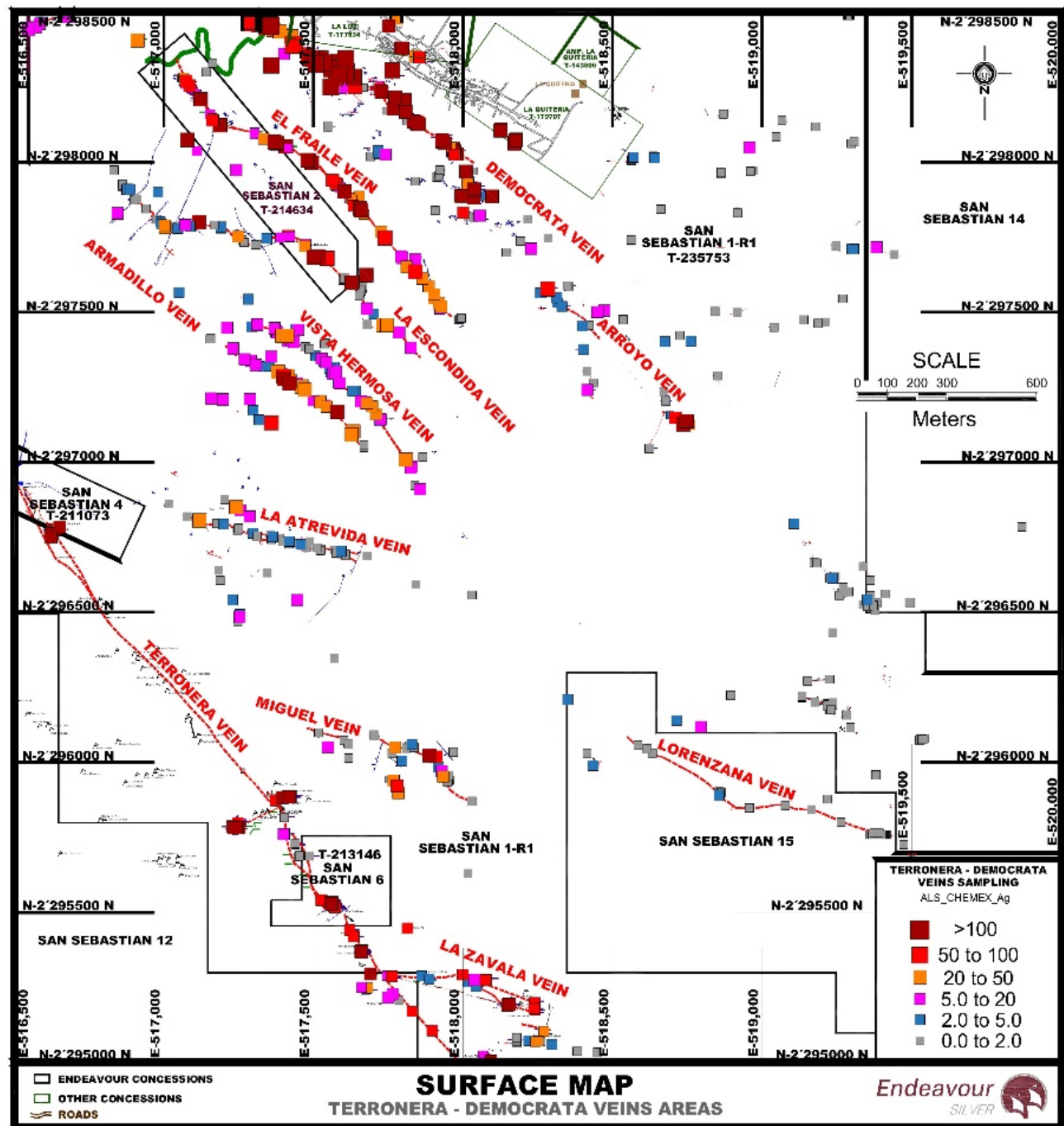
FIGURE 9.2 SILVER RESULTS IN EL PADRE, LA MADRE, LA LUZ, QUITERIA WEST, DEMOCRATA AND EL FRAILE AREA



Source: Endeavour Silver (2017)

Coordinate system: WGS 84 / UTM Zone 13Q

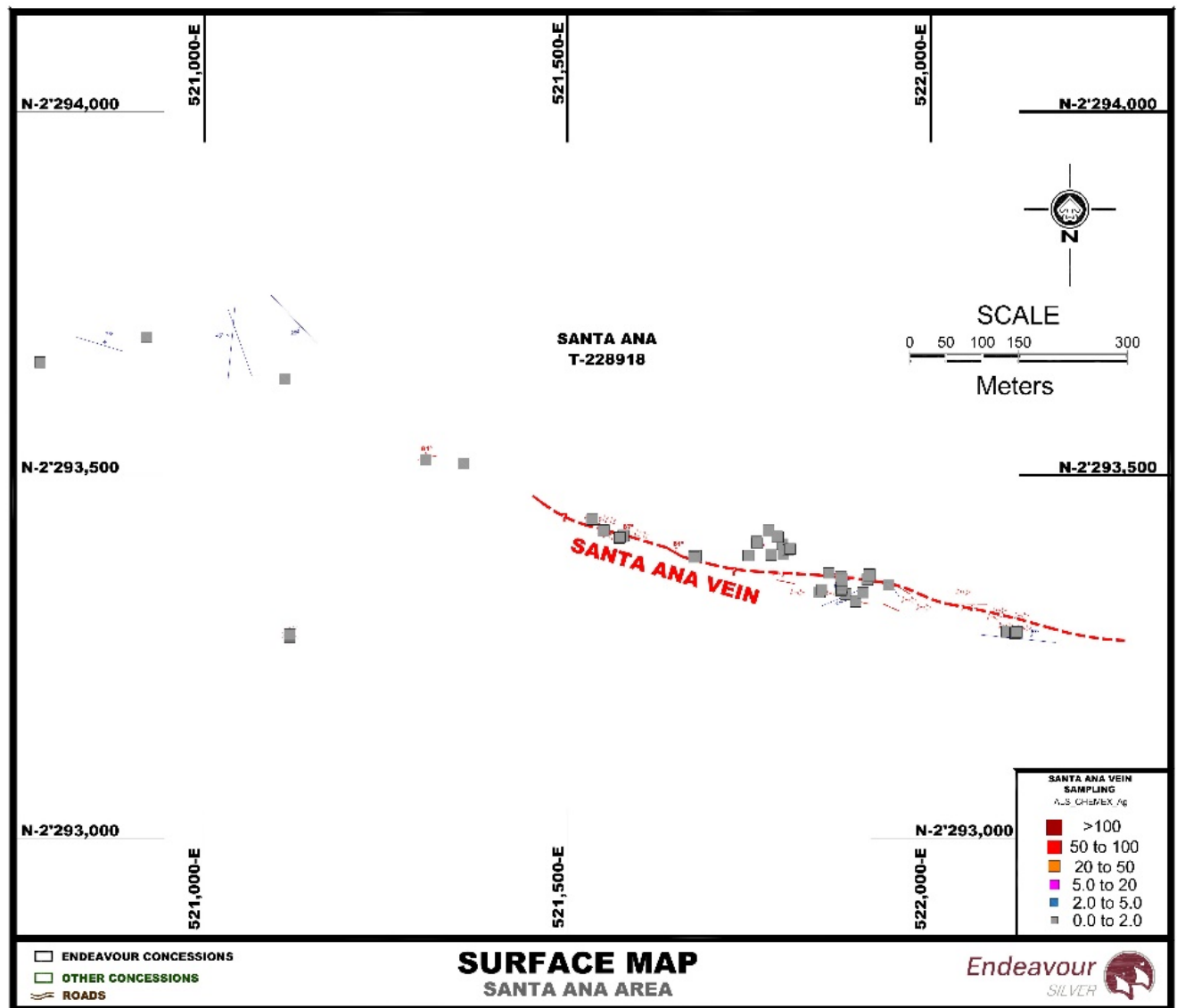
FIGURE 9.3 SILVER RESULTS IN THE DEMOCRATA, EL FRAILE, LA ESCONDIDA, VISTA HERMOSA, EL ARMADILLO, LA ATREVIDA, MIGUEL, LORENZANA, TERRONERA AND ZAVALA AREAS



Source: Endeavour Silver (2017)

Coordinate system: WGS 84 / UTM Zone 13Q

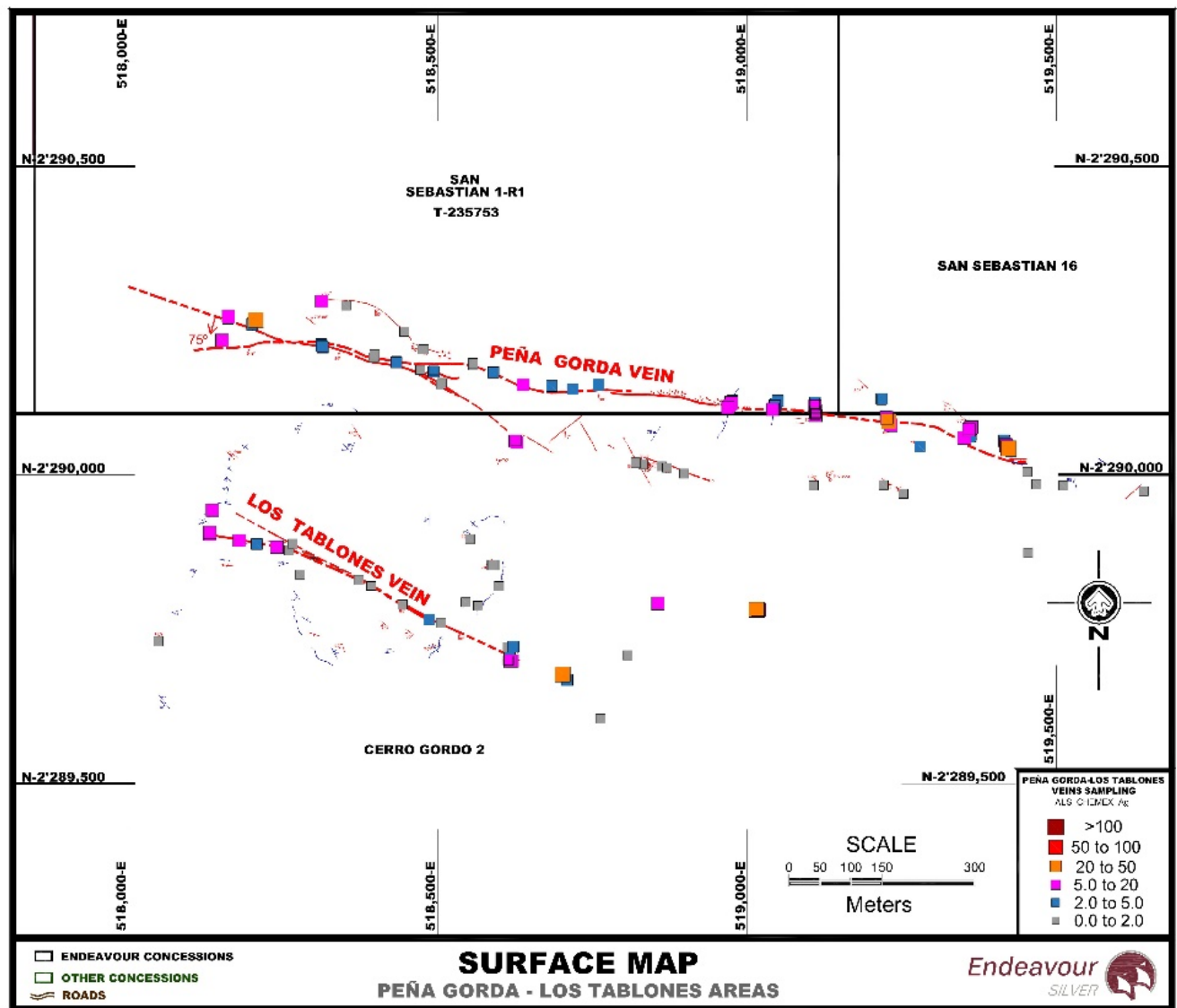
FIGURE 9.4 SILVER RESULTS IN THE SANTA ANA AREA



Source: Endeavour Silver (2017)

Coordinate system: WGS 84 / UTM Zone 13Q

FIGURE 9.5 SILVER RESULTS IN THE PEÑA GORDA AND LOS TABLONES



Source: Endeavour Silver (2017)

Coordinate system: WGS 84 / UTM Zone 13Q

9.3 TERRONERA NW

At the northwest end of the Terronera Vein there are intermittent outcrops for approximately 800 m, Figures 9.6 and 9.7, which suggests an irregular structure displaced by a fault, both laterally and vertically, with width varying from 0.3 to 0.7 m. The general trend of the structure is N50°W dipping 70° to the northeast and consisting of white quartz, with moderate amounts of FeO and traces of MnO, with isolated anomalous values.

A trenching program (3 trenches) was also conducted in the area. The results for both gold and silver were low overall.

FIGURE 9.6

**TERRONERA NW VEIN OUTCROP PHOTOGRAPHS
SHOWING MASSIVE, WHITE QUARTZ WITH VALUES OF 1.0 PPM AG**



**FIGURE 9.7 TERRONERA NW VEIN PHOTOGRAPH
SHOWING THE VERTICAL DISPLACEMENT OF THE VEIN BY FAULTING**



9.4 QUITERIA WEST

Exploration activities in 2017 at the Quiteria West area mainly consisted in detailed mapping in order to elaborate a drilling proposal.

In general, the vein is comprised by white to gray quartz with traces of disseminated sulphides with 1,300 m strike length and variable width (from 0.5 m up to 2.0 m), with preferential trend east-west, dipping 60° southwards.

Along the structure are located several mine workings with minor development, such as: Las Arañas, El Zancudo, La Cacariza; which contain textures that correspond to medium to low temperatures, which reflects the non-economical values of the collected samples.

The previous registered values indicate ranges from 0.005 to 0.044 ppm Au and 0.5 to 27 ppm Ag. Even though the results are low, it's recommended to conduct another exploration drilling campaign for a definitive conclusion of the zone.

9.5 LOS ESPINOS-LA GUARDARRAYA

Geological mapping and sampling, conducted at the northwest to western end of the Los Espinos Vein, was conducted with the objective of verifying the continuity of the structure. In addition, reconnaissance mapping was conducted at the east end, with the objective of defining a possible association with the La Luz system.

The Los Espinos Vein is located north of the Quiteria West Vein, inside the Los Pinos Fracc. 1 Endeavour Silver Concession, with approximately 1.1 km of strike length and is a massive, white quartz vein with dendritic Mn and FeO zones in fractures, Figures 9.8 and 9.9.

Two sub-parallel veins with opposite dips were located in the area. The structure is very fractured with traces of sulphides, and zones with abundant float.

The general trend is N75°-80°W, dipping 75° southwest and locally with 70° northeast (possible components).

The registered values range from 0.005 to 0.118 ppm Au and 0.2 to 32.2 ppm Ag. The width of the structure varies from 1 to 20 m, and is located in the contact zone between the rhyolitic rocks and the volcano-sedimentary sequence.

FIGURE 9.8 **LOS ESPINOS VEIN PHOTOGRAPHS WITH FeO, MnO AND SOME SPORADIC OXIDIZED PYRITE**



FIGURE 9.9 LOS ESPINOS VEIN PHOTOGRAPH WITH FeO , MnO AND SPORADIC OXIDIZED PYRITE



9.6 EL JABALÍ

The El Jabalí area is located at the northeast of the Los Espinos-La Guardarraya veins, within the Los Pinos Fracc. 1 Endeavour Silver Concession, Figure 9.10.

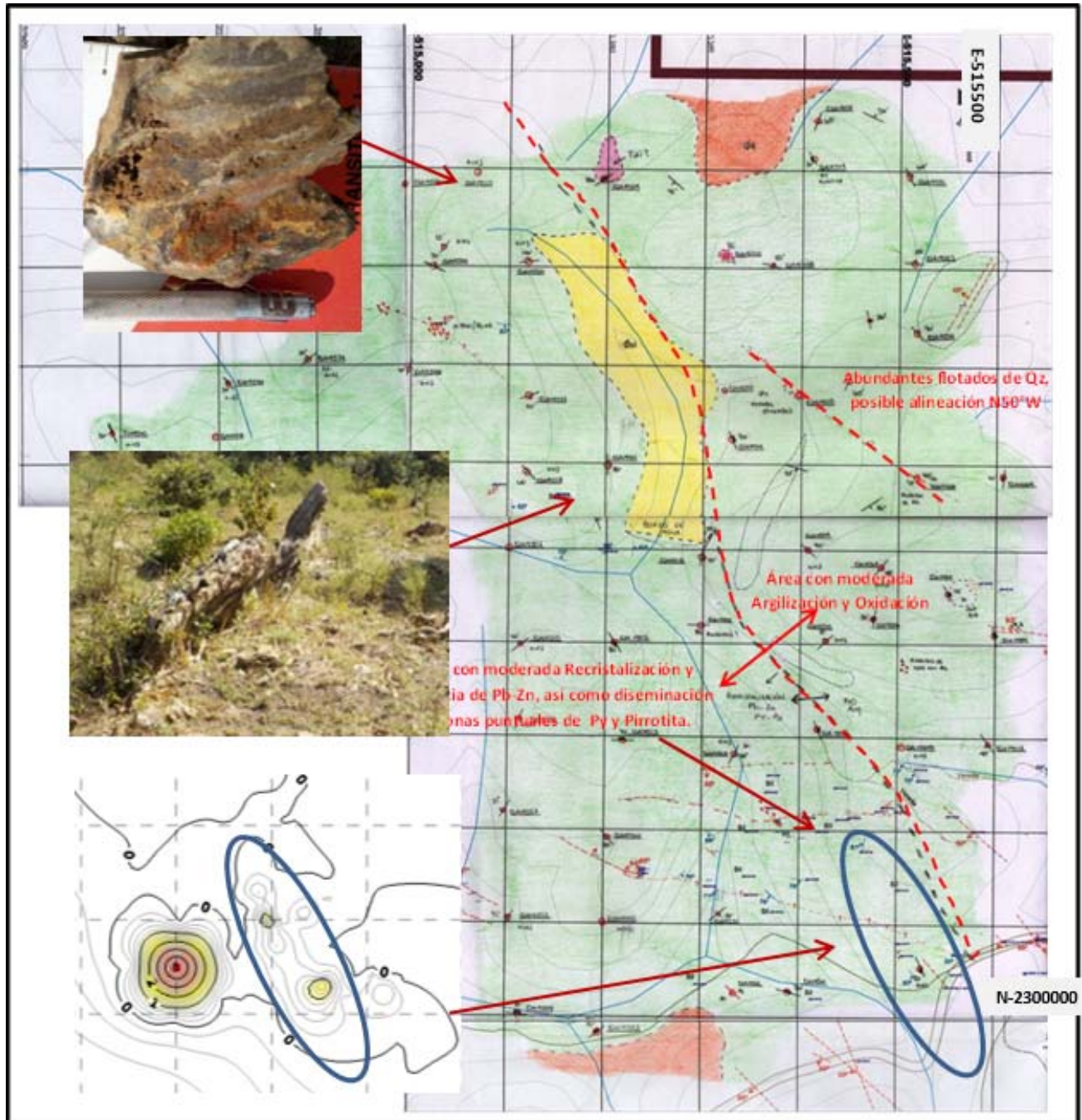
An analysis of the complete sampling program was conducted at El Jabalí, which consisted of a 30% systematic sampling, and 70% random.

Some isovalue diagrams were elaborated for the main elements lead (Pb), silver (Ag), copper (Cu) and zinc (Zn) (Figures 9.11 and 9.12). The diagrams clearly show a general northwest trend, additionally the anomalies are observed closed with elongation at northwest.

A small zone with values of Pb-Zn-Cu-Ag was defined through analysis, which opens the possibility for a deep drilling campaign in order to define the geometry.

The average values ranges from 96 ppm Ag, 2.6% Pb, 2.8% Zn and 1,350 ppm Cu.

FIGURE 9.10 EL JABALÍ SURFACE MAP AND PHOTOGRAPHS SHOWING THE GENERAL ZONE TREND



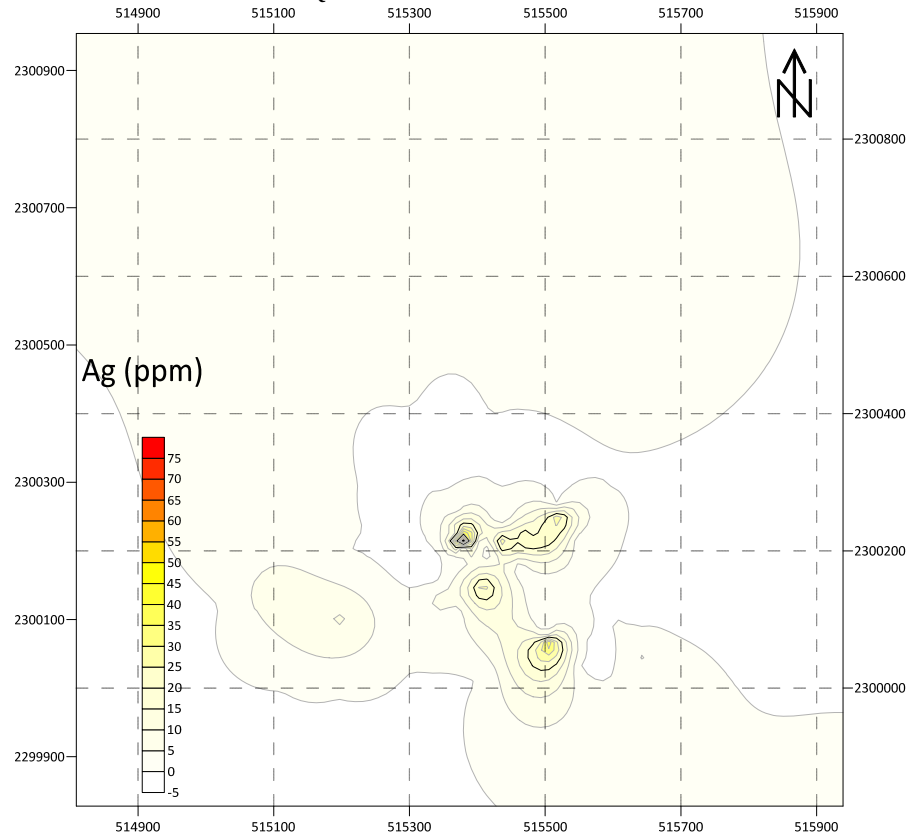
Source: Endeavour Silver (2017)

Coordinate system: WGS 84 / UTM Zone 13Q

FIGURE 9.11 ISOVALUE DIAGRAMS SHOWING THE TRENDS OF THE SILVER AND LEAD ANOMALIES WITH THE NORTHWEST TREND

SILVER

Coordinate system: WGS 84 / UTM Zone 13Q



LEAD

Coordinate system: WGS 84 / UTM Zone 13Q

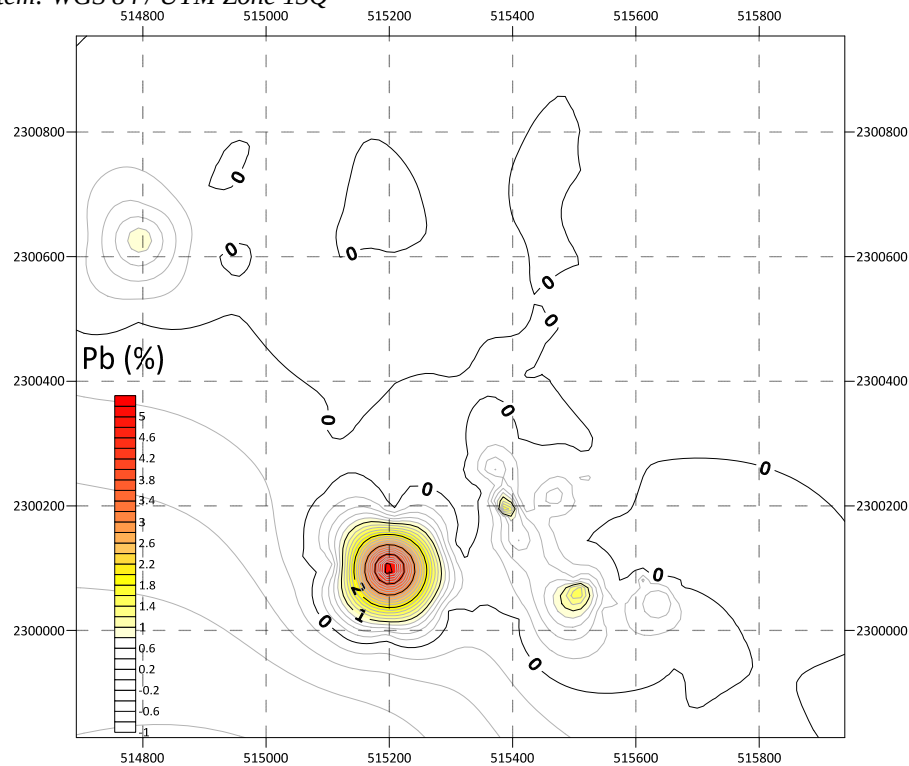
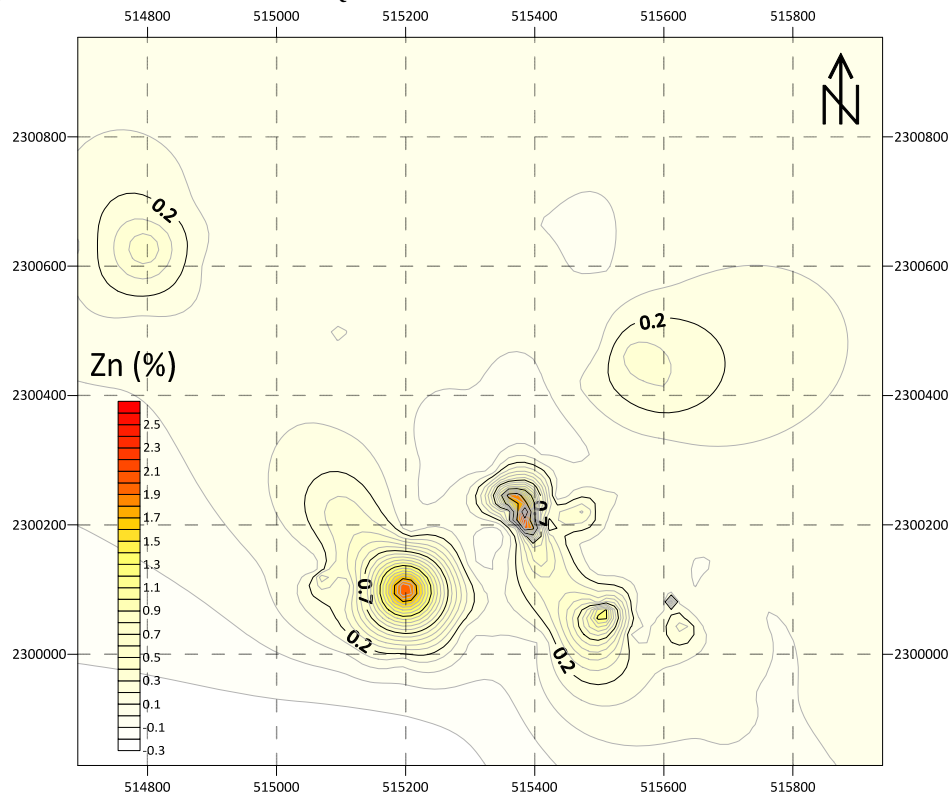


FIGURE 9.12 ISOVALUE DIAGRAMS SHOWING THE TRENDS OF THE ZINC AND COPPER ANOMALIES WITH THE NORTHWEST TREND

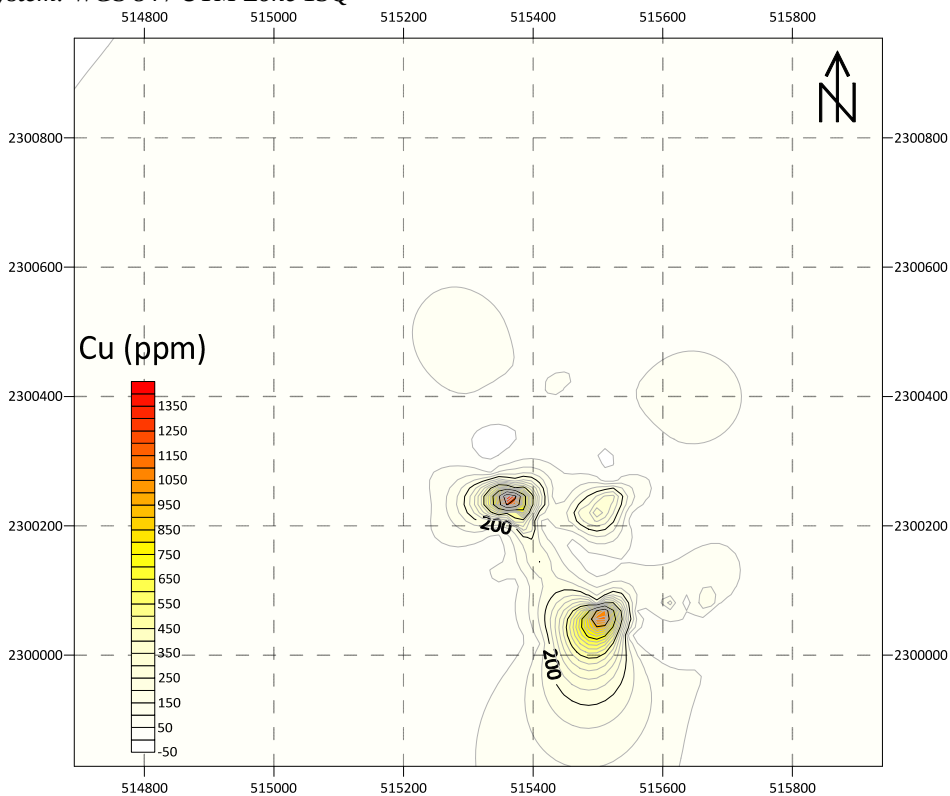
ZINC

Coordinate system: WGS 84 / UTM Zone 13Q



COPPER

Coordinate system: WGS 84 / UTM Zone 13Q



9.7 EL FRAILE

The El Fraile Vein is located in the San Sebastian 2 and San Sebastian 1-R-1 Endeavour Silver concessions, the structure generally trends SE60°NW, dipping 65° southwest. The approximate strike length of the structure is 1.0 km with variable width from 0.6 m to 2.5 m.

The structure is white to crystalline quartz, partially grayish (by content of fine sulphides), with moderate Mn content and druses in open spaces with association Limonite + Hematite, Figure 9.13. The host rock is a sequence of andesites (Kma) and rhyolites (Kmr). In 2017, a total of 8 trenches were developed over the structure.

Gold values ranged from 0.008 to 2.25 ppm Au and silver from 0.5 to 945 ppm Ag.

FIGURE 9.13 EL FRAILE VEIN PHOTOGRAPHS LOOKING NORTHWEST



Figure 9.13 is looking northwest at the El Fraile Vein, showing white to crystalline quartz, with druses in open spaces, weak content of oxides (limonites), sporadic and isolated druses filled with Mn (left); and looking to the northwest, the vein is marked in red line. Samples were taken at the footwall of the vein, there were moderate veinlets of white to crystalline quartz, partial druses filled with Mn limonites; mine working were buried by accumulates, andesitic blocks and in dashed orange line fragments of vein (right).

9.8 VISTA HERMOSA

The Vista Hermosa structure is located at the hanging wall of the Terronera system, inside the San Sebastian 1-R-1 Endeavour Silver Concession, with an inferred strike length of 965 m, a general trend of NW60°SE, dipping from 55° to 70° southwest. The vein outcrops at the southwest end, with a width of up to 3 m.

A secondary parallel structure was located in the area, which consisted of silicified rhyolitic tuff, with abundant veinlets of white to crystalline quartz and considerable hematite, filling fractures, sporadic oxidized pyrite and traces of MnO.

Two historic mine workings were located in the area, the first one is northwest of the vein and consists of a small adit over the vein and is 2.8 m deep. The second mine working is located to the southeast of the vein, and consisted of an adit 7.30 m long by 1.30 m width and 0.80 m high, with the mine following the trend of the vein, Figure 9.14.

In the area, five trenches were constructed with the objective to define the continuity of the structure.

The gold values range from 0.005 to 1.72 ppm Au and silver values range from 0.2 to 45.9 ppm Ag.

FIGURE 9.14 MINE WORKING OVER THE VISTA HERMOSA VEIN, PHOTOGRAPHS WITH WHITE AND CRYSTALLINE QUARTZ, 0.90 m WIDE VEIN



9.9 LA ESCONDIDA

The structure identified as La Escondida is located inside the San Sebastian 1-R-1 Endeavour Silver Concession, hosted at the northwest end in rhyolite (Kmr), at the southeast end in both andesite (Kma) and (Kmr). It is observed as a milky quartz, with moderate MnO + Limonite filling.

Four mine workings, approximately 2 to 8 m deep with a general trend of SE60°SW and dipping 40° to 50° southwest, are located over the length of the structure. Figure 9.15 shows one mine working, the El Negro Mine.

The excavations indicate that the behavior of the vein is irregular due to pronounced inflections near faults and/or when it is manifested in the creeks. Partially, sub-parallel veins are located with irregular widths (from 0.15 m to 0.50 m), where the projection joins the main structure at depth.

The La Escondida Vein has an inferred strike length of 900 m, with 0.30 m to 1.0 m width. 12 trenches were constructed over the structure in the area. In the area the values of gold vary from 0.005 to 1.49 ppm Au and silver from 0.2 to 152 ppm Ag.

**FIGURE 9.15 EL ÑERO MINE PHOTOGRAPH
1 M WIDE VEIN**



Figure 9.15 shows the El Ñero Mine, the vein is observed with 1.0 m width, trending SE70°NW / 46° southwest, hosted in andesite (Kma), the mine working with around 8 m in length (left); and a photograph showing the vein at the northwest part, with 1.20 m width, near the main road, trend NW50°SE / 70° southwest (left).

9.10 EL ARMADILLO

The El Armadillo structure is parallel to the Vista Hermosa Vein and is located to the southwest. The El Armadillo Vein consisted of a monomictic breccia/vein, oxidized, clast of rhyolite (Kmr) with up to 3 cm, cemented by white to crystalline quartz, with grayish zones (possible sulphides), the host rock is rhyolite (Kmr), see Figure 9.16. The average trend is NW70°SE, dipping 65° southwest, with a width between 0.6 m to 2.4 m. The structure has been mapped for 225 m. At the northwest end the structure is interrupted at the contact with the andesitic unit (Kma). Observed alteration in the area includes oxidation and argillization.

A total of six trenches were constructed over the projection of the Armadillo Vein, most of them at the southeast end of the vein. A historic mine was located in the area with a 2 m deep working, 0.6 m high and 0.9 m wide.

The values of the rock samples collected in the area ranged from 0.005 to 0.884 ppm Au and 0.2 to 223 ppm Ag.

FIGURE 9.16 EL ARMADILLO VEIN PHOTOGRAPHS WITH SULPHIDES INSIDE THE VEIN



9.11 LA ATREVIDA

The La Atrevida Vein is located at the north end of the Terronera Vein and south of Quiteria, inside the San Sebastian 1-R-1 Endeavour Silver Concession. The structure consisted of

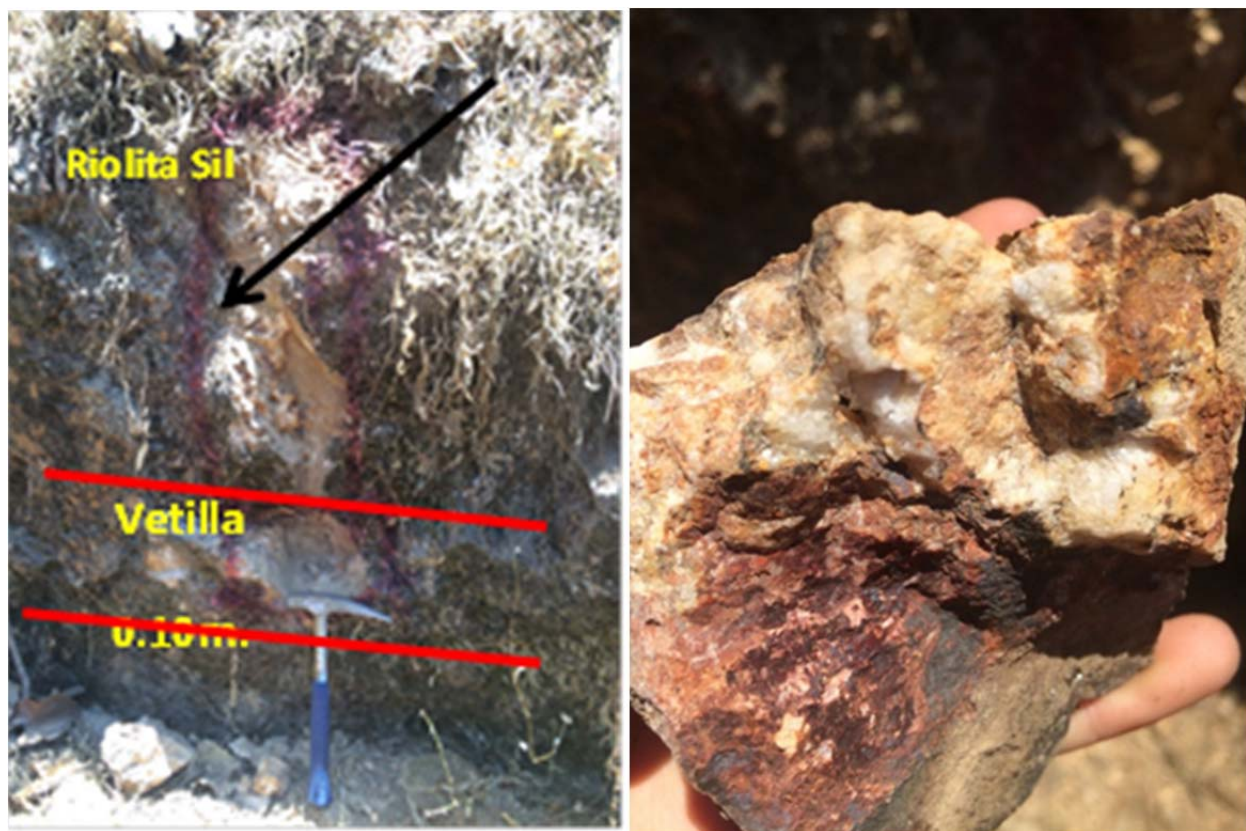
crystalline quartz, saccaroidal texture, brecciated zones, moderate FeO, mainly limonite and hematite, selective argillization, Figure 9.17. There were two detachments at the hanging wall and footwall of the structure, zones with veinlets of quartz. The general trend is S75°-80°E with 75° to the southwest. The approximate strike length is 550 m, variable width from 0.30 to 3.0 m.

The host rock is rhyolite (Kmr) and at the northwest part is located the contact with andesites.

A trenching program was conducted in the area (6 trenches).

The reflected values range from 0.005 to 0.715 ppm Au and 0.2 to 30.9 ppm Ag.

FIGURE 9.17 QUARTZ VEINLET PHOTOGRAPHS 10 CM WIDE VEINLET, WITH MODERATE FeO, WEAK SELECTIVE ARGILLIZATION, SMALL FRAGMENTS OF RHYOLITE



9.12 SANTANA

The structure identified as Santana outcrops over the road to the town of Santana, the structure is of interest due to the apparent continuity at the southeast end of the Terronera Vein. The area consisted of a wide zone of oxidation (strong) FeO (limonite, hematite, and possible jarosite), moderate to strong argillization, and host the quartz structure, the quartz is observed to be crystalline and minor white, re-worked and fractured, Figures 9.18 to 9.20. Some parts are replaced by silica, with a general trend of N70°W, dipping 80° northeast.

Over the creek a strongly silicified structure was observed with crystalline quartz and minor quartz + moderate FeO, with fine disseminated pyrite.

The inferred strike length of the structure is 600 m, with variable width from 0.3 to 1.0 m (width of the alteration zone).

At the northwest part, the structure does not outcrop, however, there are alteration zones featuring FeO and argillization, and minor micro-veinlets in andesites.

At the southeast end intermittent zones were observed with strong alteration of FeO (limonite, hematite and possible jarosite), moderate to strong argillization, within the alteration there is a veinlet system of quartz (crystalline and minor white), and zones with strong silicification, minor selective pyrite (traces). The host rock is andesite.

In the outcropping zones the structure is presented with up to 1 m width, and in the projection zones a halo of alteration is observed of FeO, argillization, silicification and veinlets zones. The trend of the alteration is approximately NW70°SE.

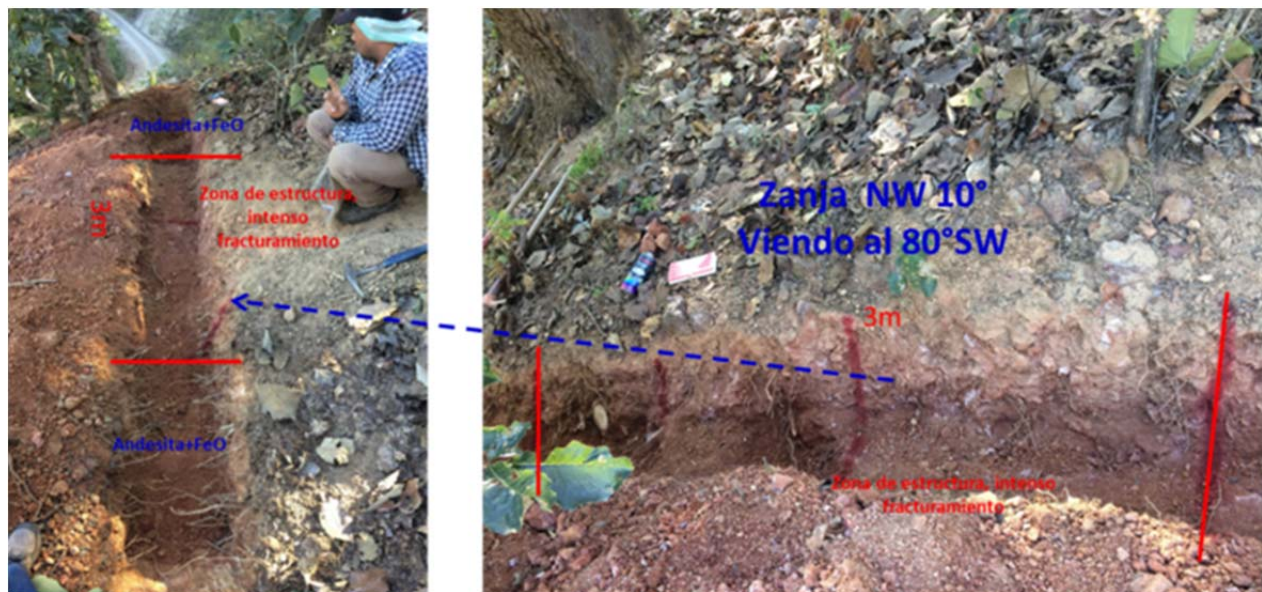
The gold and silver values in the collected rock samples are low (0.005 to 0.019 ppm Au and 0.2 to 1.8 ppm Ag), which lowers the viability of the target. However, the area it is still considered as an exploration objective in order to try to define a potential hidden structure, due to the manifestation of argillic and oxidation alterations (moderate to strong) are constant along the trend.

FIGURE 9.18 QUARTZ VEIN PHOTOGRAPHS



Figure 9.18 photographs show a quartz-crystalline vein with abundant FeO (hematite>limonite) that contain minor fragments of silicified rock, with veinlets of quartz, and moderate argillization; at the hanging wall and footwall zones are veinlets of quartz, oxidation and strong silicification.

FIGURE 9.19 TRENCH PHOTOGRAPHS



Trench photographs, Figure 9.19, show quartz-crystalline vein with abundant FeO (hematite>limonite) that contain minor fragments of silicified rock, with veinlets of quartz, moderate argillization, and intense fracturing.

FIGURE 9.20 PANORAMIC VIEW OF THE SANTANA VEIN TRACE WITH EVIDENCE OF QUARTZ VEINLETS AND FeO



9.13 PEÑA GORDA

The vein identified as Peña Gorda is located south of the Real Alto area, at the southern part of the San Sebastian 1-R-1 Endeavour Silver Concession and the recently filed Cerro Gordo 2 Endeavour Silver Concession. The structure corresponds to the east-west system, with a general trend N80°W, with 85° southwest, traced for around 1.4 km, the width up to 10 m. The structure consisted of white to crystalline quartz, with oxidation and MnO, traces of pyrite (partially oxidized) in boxwork zones, with no visible sulphides, Figure 9.21.

In general, the host rock is of rhyolitic composition, crowned by rhyolitic agglomerate with traces of FeO.

The surface sampling program showed anomalous values of gold, associated to areas with moderate oxidation in fractures. The results range from 0.005 to 0.512 ppm Au and from 0.2 to 37.2 ppm Ag.

Based on the field and sampling activities it is considered a target, even though the values are not attractive, due to its vicinity to the El Tajo, Los Negros and Real Veins, which have been partially evaluated with important zones of Ag-Pb-Zn in the northwest system (Tajo).

**FIGURE 9.21 PEÑA GORDA VEIN PHOTOGRAPHS WITH OUTCROPS
FOR APPROXIMATELY 1.4 KM**

PEÑA GORDA VEIN



PEÑA GORDA VEIN OUTCROPS



9.14 SAN JOAQUIN

The San Joaquin general structural model corresponds to the east-west system. The structure consisted of a tubular body of quartz (white, massive), at some parts with weak saccaroidal

texture, druses and minor blade type, with a general trend of N65°W, dipping 80° to the southwest, with slight inflection towards the west in the northwest area, Figure 9.22.

The width of the structure varies from 0.35 m in the southeast up to 4 m in the central area, the behavior in the west area is as an outcrop of rhyolite with a stockwork of quartz, gradually decreasing until it practically disappears inside the mapped area. The vein is hosted in a rhyolitic rock (practically fresh and hydrothermally unaltered, except for a weak and sporadic veinlets at the hanging wall of the main structure).

Rock samples collected over vein and host rock to know the mineralogical behavior along the vein. The results show values from 0.006 to 0.324 ppm Au and 0.2 to 28.8 ppm Ag. Moreover, like Peña Gorda, the observed anomalous values are auriferous.

FIGURE 9.22 OUTCROP OF THE LOS TABLONES VEIN (QUARTZ VEIN)



10.0 DRILLING

10.1 2011-2016 DRILLING

The drill programs conducted by Endeavour Silver between 2011 and 2018 are summarized in this Technical Report section.

10.2 2011 DRILLING PROGRAM

In 2011, Endeavour Silver commenced a surface diamond drilling program on prospective targets within the Terronera Project. Exploration drilling focused on two main areas: 1) The Real el Alto area, exploring the Animas-Los Negros, El Tajo and Real Veins; and 2) The Central area, exploring the extension of the Quiteria Vein, west of the La Quiteria Mine.

By mid-December, 2011, the Endeavour Silver had completed 7,688.25 m of drilling in 36 surface diamond drill holes on the Terronera Project. A total of 2,980 diamond drill core samples were analyzed.

Drilling identified the Animas-Los Negros Vein in the Real el Alto area (Figure 10.1), which was found to be one vein, offset by faulting. The vein is principally hosted in rhyolite and is comprised of quartz with abundant manganese oxides (pyrolusite), minor pyrite and traces of disseminated dark grey and blue sulphides. Highlights include:

- 132 g/t Ag and 1.02 g/t Au over a 3.2 m true width in hole LN07-1;
- 144 g/t Ag and 1.21 g/t Au over a 3.6 m true width in hole LN08-1; and
- 258 g/t Ag and 0.61 g/t Au over a 4.5 m true width was returned for hole LN09-1.

The 2011 drill program also outlined new Mineral Resources on the El Tajo Vein area. El Tajo is believed to be either a brecciated quartz +/- calcite vein or a stockwork zone with weak to moderate veinlets and disseminations of fine pyrite and traces of galena and possible silver sulphides (possibly argentite). Drilling highlights in the El Tajo Vein include:

- 107 g/t Ag and 0.10 g/t Au over 1.6 m true width within hole TA03-1; and
- 169 g/t Ag and 0.63 g/t Au over a 3.0 m true width in hole TA04-1.

New Mineral Resources were also outlined on the Real Vein, which is located to the northeast of the Animas-Los Negros and El Tajo Veins. The most significant intercept for the Real Vein was in hole RE04-1 which returned:

- 320 g/t Ag and 0.74 g/t Au over a true width of 2.6 m.

Drill holes were also advanced on the La Escurana and La Luz Veins, but did not return significant gold or silver mineralization.

10.3 2012 DRILLING PROGRAM

In 2012, Endeavour Silver continued its diamond drilling program on the Terronera Property to expand Mineral Resources defined in the 2011 drill program. Exploration drilling focused on two main areas: 1) The Real el Alto area, exploring the Animas-Los Negros and Real Veins; and 2) The Central area, exploring the extension of the Quiteria Vein, west of the La Quiteria Mine, and the Terronera Vein. Endeavour Silver completed 13,237.10 m of drilling in 32 diamond drill holes on the Terronera Property. A total of 3,118 samples were collected for analysis.

Drill holes advanced on the Animas-Los Negros Vein were successful in intercepting the mineralized zone at depth. These drill holes also passed through the La Escurana Vein in the upper part of each drill hole. The Escurana Vein is located in the southernmost part of the Real el Alto area. Two holes were advanced on the Real Vein but did not return significant intersections. Only one hole was drilled on the Quiteria Vein in the La Luz area. The only intersection of note was:

- 15 g/t Ag and 0.02 g/t Au over 5.2 m in hole QT05-2.

The 2012 drill program discovered a new, high grade, silver-gold mineralized zone in the Terronera Vein. The Terronera Vein mainly consists of brecciated to massive quartz +/- calcite, locally banded and sugary-textured. Sulphide content is typically <1% and predominately fine-grained pyrite.

Drilling highlights in the Terronera Vein include:

- 1,489 g/t Ag and 0.85 g/t Au over a 5.66 m true width in hole TR02-1; and
- 500 g/t Ag and 1.15 g/t Au over an 11.48 m true width in hole TR12-1.
- Hole TR09-1 yielded:
 - o 650 g/t Ag and 1.17 g/t Au over a 5.50 m true width; and
 - o 519 g/t Ag and 0.47 g/t Au over a 9.02 m true width.

10.4 2013 DRILLING PROGRAM

In 2013, Endeavour Silver continued its diamond drilling program on the Terronera Property to expand Mineral Resources defined in the 2012 drill program. Drilling in 2013 focused on the Terronera Vein area.

Endeavour Silver completed 8,573.5 m of drilling in 30 drill holes in 2013. The 2013 program was successful in expanding and connecting the two high grade silver-gold mineralized zones, the Central Area and the El Hundido areas, in the Terronera Vein.

Drilling highlights from the Terronera Vein include:

- 122 g/t Ag and 2.00 g/t Au over a 5.90 m true width in hole TR02-5;
- 507 g/t Ag and 1.36 g/t Au over a 6.66 m true width in hole TR03-1;
- 915 g/t Ag and 2.33 g/t Au over a 2.47 m true width in hole TR03-5
 - o including 5,580 g/t Ag and 15.85 g/t Au over a 0.27 m true width;

- 646 g/t Ag and 1.11 g/t Au over a 5.03 m true width in hole TR07.5-1
 - o including 1,650 g/t Ag and 1.82 g/t Au over a 1.04 m true width; and
- 583 g/t Ag and 0.79 g/t Au over an 8.41 m true width in hole TR08.5-1
 - o including 4,420 g/t Ag and 2.46 g/t Au over a 0.47 m true width.

10.5 2014 DRILLING PROGRAM

In 2014, Endeavour Silver continued its drilling program on the Terronera Property. Endeavour Silver's objective for the drilling campaign was to continue defining the mineralized body and to expand upon Mineral Resources identified in the 2012-2013 drill programs. Endeavour Silver was successful in meeting its objectives for the 2014 drilling program.

As at September 2014, Endeavour Silver completed a total of 8,204.20 m in 27 surface diamond drill holes at the Terronera Project. A total of 2,470 samples were collected and submitted for assays.

The 2014 exploration drilling program was conducted with the objective to continue defining the high grade silver-gold mineralized body between sections TR-4S through TR-41, primarily on the Central Area (between sections TR-07 through TR-23).

Drilling highlights for Terronera Vein included:

- 499 g/t Ag & 1.4 g/t Au over 2.6 m true width in hole TR07-3,
 - o including 1,660 g/t Ag & 1.3 g/t Au over 0.2 m true width;
- 345 g/t Ag & 0.8 g/t Au over 6.3 m true width in hole TR14-3,
 - o including 1,440 g/t Ag & 1.0 g/t Au over 0.5 m true width;
- 301 g/t Ag & 0.7 g/t Au over 6.7 m true width in hole TR15-2,
 - o including 1,250 g/t Ag & 1.4 g/t Au over 0.4 m true width;
- 788 g/t Ag & 0.8 g/t Au over 3.8 m true width in hole TR17-2,
 - o including 3,620 g/t Ag & 2.0 g/t Au over 0.7 m true width;
- 106 g/t Ag & 5.5 g/t Au over 3.2 m true width in hole TR20-1;
- 272 g/t Ag & 8.5 g/t Au over 3.0 m true width in hole TR20-2;
- 105 g/t Ag & 5.0 g/t Au over 2.6 m true width in hole TR21-1;
- 121 g/t Ag & 3.3 g/t Au over 16.0 m true width in hole TR23-1.

Also significant results were returned for Hanging Wall Terronera Vein 1:

- 101 g/t Ag & 4.3 g/t Au over 8.2 m true width in hole TR21-1;
- 114 g/t Ag & 3.9 g/t Au over 4.1 m true width in hole TR22-2;
- 107 g/t Ag & 1.9 g/t Au over 7.9 m true width in hole TR23-1.

10.6 2015 DRILLING PROGRAM

In 2015, Endeavour Silver continued its drilling program on the Terronera Property. Endeavour Silver's objective for the drilling campaign was to continue defining the mineralized body and to expand upon Mineral Resources identified in the 2012-2014 drill programs. Endeavour Silver was successful in meeting its objectives for the 2015 drilling program.

Endeavour Silver completed a total of 6,133 m in 27 surface diamond drill holes at the Terronera Project in 2015. A total of 3,756 samples were collected and submitted for assays.

Drilling highlights for the Terronera Vein include:

- 1,371 g/t Ag and 1.10 g/t Au (1,448 g/t AgEq) over 6.6 m true width,
 - o including 5,420 g/t Ag, and
- 5.12 g/t Au (5,778 g/t AgEq) over 0.3 m true width in hole TR 10-4;
- 508 g/t Ag and 3.25 g/t Au (735 g/t AgEq) over 8.2 m true width,
 - o including 6,600 g/t Ag and 22.10 g/t Au (8,147 g/t Ag Eq) over 0.23 m true width in hole TR18-5.

10.7 2016 DRILLING PROGRAM

In 2016, Endeavour Silver continued its drilling program on the Terronera Property in 2016. The aim of the 2016 drilling program was to continue infill drilling within the Terronera Vein system and conducted exploration drilling on the La Luz Vein, located about 2,200 m northeast of the Terronera Vein.

Endeavour Silver completed a total of 5,670 m in 19 surface diamond drill holes at the Terronera Project in 2016. A total of 1,805 samples were collected and submitted for assays.

Drilling highlights for Terronera Vein include:

- 717 g/t Ag and 2.94 g/t Au (923 g/t AgEq) over 6.56 m true width,
 - o including 4,860 g/t Ag and 2.99 g/t Au (5,069 g/t AgEq) over 0.39 m true width in hole TR10.5-1; and
- 226 g/t Ag and 5.0 g/t Au (576 g/t AgEq) over 6.74 m true width,
 - o including 527 g/t Ag and 169 g/t Au (1,710 g/t AgEq) over 0.7 m true width in hole TR09-06.

Drilling on the La Luz Vein outlined a west plunging mineralized zone over 300 m by 250 m deep starting approximately 100 m below surface and still open to surface and to depth. Highlights include:

- 408 g/t Ag and 58.6 g/t Au (4,512 g/t AgEq) over 1.14 m true width,
 - o including 1,365 g/t Ag and 238.0 g/t Au (18,025 g/t AgEq) over 0.9 m true width in hole LL-02.

10.8 2017 DRILLING PROGRAM

In 2017, Endeavour Silver drilling programs focused on the definition of potential economical mineralization in several structures located in the northwest and east-west systems of the Terronera Project.

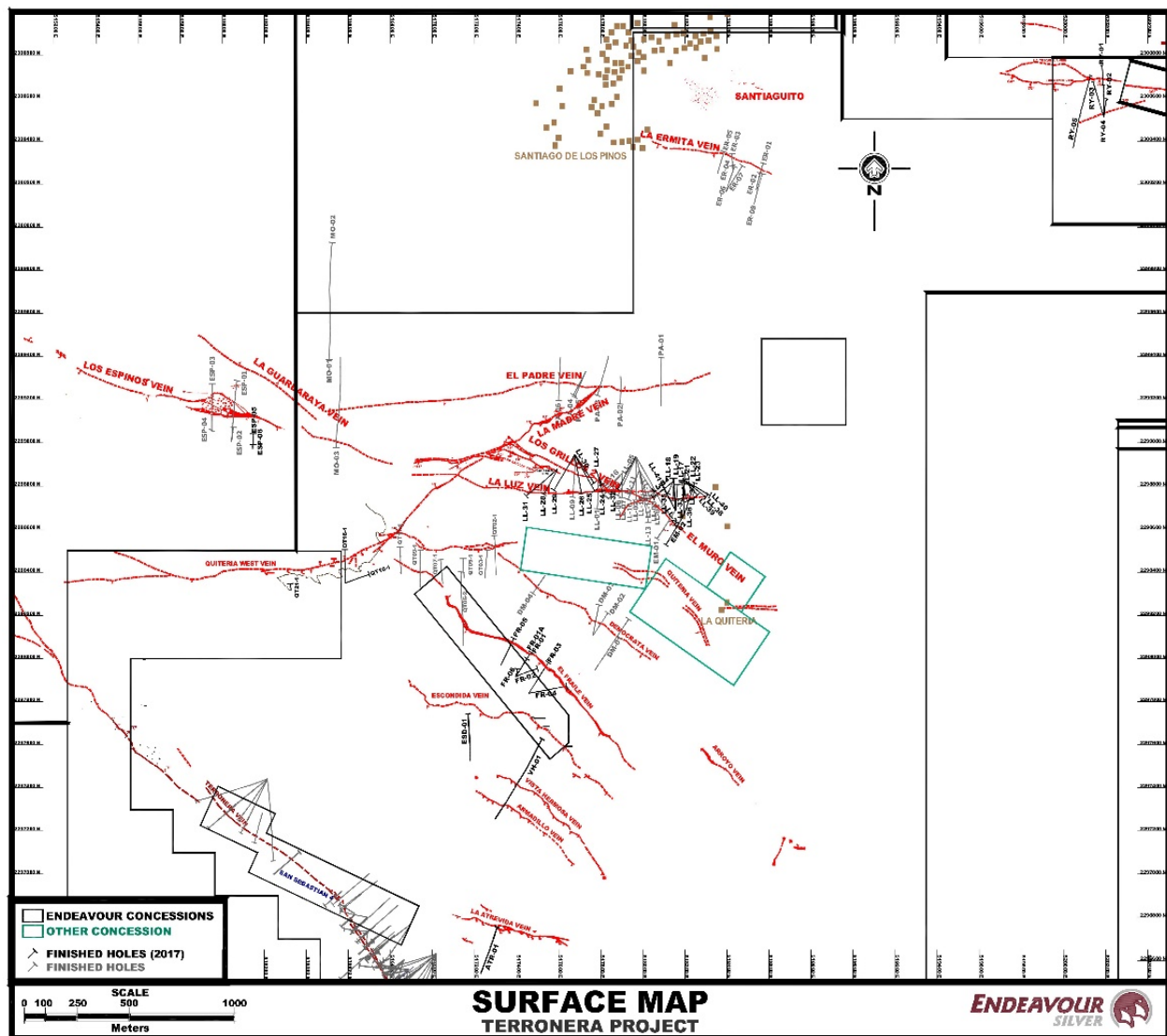
The drilling program included a total of 12,252 m drilled in 47 surface diamond drill holes, mainly conducted at La Luz. Eight other structures were tested (El Muro, Los Espinos, Los

Reyes, El Fraile, Vista Hermosa, La Escondida, La Atrevida and Quiteria West). The 2017 drilling program included 2,308 samples.

Surface drilling conducted during 2017 is summarized in Table 10.1 and shown on the map in Figure 10.1.

TABLE 10.1 TERRONERA PROJECT SURFACE DRILLING IN 2017			
Project Area	No. of Holes	Total Length (m)	No. of Samples Taken
La Luz	25	5,760	1031
El Muro	1	226	52
Los Espinos	2	436	169
Los Reyes	6	1,957	646
El Fraile	7	1,749	164
Vista Hermosa	1	642	78
La Escondida	1	360	37
La Atrevida	1	340	11
Quiteria West	3	782	120
Total	47	12,252	2,308

FIGURE 10.1 TERRONERA SURFACE MAP SHOWING 2017 COMPLETED DRILL HOLES



Note: Completed drill hole are shown in black

Source: Endeavour Silver (2017)

Coordinate system: WGS 84 / UTM Zone 13Q

Surface diamond drilling was conducted by Energold de Mexico, S.A. de C.V. (Energold Mexico) a wholly-owned subsidiary of the Energold Drilling Corp. (Energold) based in Vancouver, British Columbia, Canada, using two man-portable drill rigs. Energold Mexico and Energold do not hold any interest in Endeavour Silver and are independent of the company.

Except for La Luz, the results of the drilling campaigns in the eight other structures were not significant. However, there are still possibilities to locate mineralization at the southeast part of Terronera, deep Quiteria, northwest part of Los Espinos, the new discoveries of Peña Gorda-Los Tablones and over structures at the Real Alto area.

In 2017, follow-up surface diamond drilling resumed on the La Luz Vein area, totalling 25 drill holes with 5,760 m drilled (Table 10.2).

TABLE 10.2 2017 DRILL HOLE SUMMARY FOR THE LA LUZ SURFACE DRILLING PROGRAM						
Drill Hole No.	Azimuth	Dip	Core Diameter	Total Depth (m)	Start Date	Finish Date
LL-17	355 °	-45 °	HTW	169.25	16/01/2017	20/01/2017
LL-18	356 °	-56 °	HTW	254.65	21/01/2017	26/01/2017
LL-19	356 °	-61 °	HTW/NTW	277.55	26/01/2017	31/01/2017
LL-20	333 °	-48 °	HTW	205.85	01/02/2017	04/02/2017
LL-21	0 °	-45 °	HTW	212.15	05/02/2017	10/02/2017
LL-22	0 °	-53 °	HQ/NQ	326.35	10/02/2017	18/02/2017
LL-23	19 °	45 °	HQ	217.55	25/02/2017	02/03/2017
LL-24	165 °	-69 °	HQ	197.00	03/03/2017	08/03/2017
LL-25	151 °	-53 °	HTW	311.10	08/03/2017	15/03/2017
LL-26	170 °	-64 °	HTW/NTW	340.05	16/03/2017	30/03/2017
LL-27	158 °	-75 °	HQ	305.00	30/03/2017	06/04/2017
LL-28	208 °	-49 °	HTW	216.55	08/04/2017	11/04/2017
LL-29	209 °	-56 °	HQ/NTW	323.30	21/05/2017	27/05/2017
LL-30	144 °	-61 °	HQ/NTW	312.10	27/05/2017	02/06/2017
LL-31	229 °	-62 °	HQ	374.60	03/06/2017	09/06/2017
LL-32	209 °	-46 °	HQ/NTW	250.10	09/06/2017	15/06/2017
LL-33	180 °	-45 °	HQ	118.95	16/06/2017	18/06/2017
LL-34	230 °	-45 °	HTW	163.15	19/06/2017	22/06/2017
LL-35	206 °	-61 °	HQ	130.30	23/06/2017	25/06/2017
LL-36	127 °	-45 °	HQ	91.50	26/06/2017	28/06/2017
LL-37	177 °	-54 °	HQ	111.30	28/06/2017	30/06/2017
LL-38	127 °	-45 °	HQ	176.00	01/07/2017	04/07/2017
LL-39	137 °	-62 °	HQ	193.65	05/07/2017	08/07/2017
LL-40	120 °	-52 °	HQ	227.20	09/07/2017	15/07/2017
LL-41	332 °	-57 °	HQ	254.65	16/07/2017	22/07/2017
Total (25 drill holes)				5,759.85		

The ultimate objective of the La Luz drilling program conducted in 2017 was to add Mineral Resources to the Terronera Project by defining the high-grade silver-gold mineralized body discovered in 2016, which was expanded to over 600 m long by 250 m deep starting approximately 100 m below surface and still open to surface and to depth. The La Luz Vein mainly consists of quartz (banded, massive and brecciated), white and amethyst quartz, gray silica, traces of chlorite, greenish clays, microveinlets of calcite, selective argillization, strong silicification, FeO in fractures, weak to moderate disseminated pyrite and sulphides of Ag in bands and disseminated. The host rock is a volcano-sedimentary sequence from the lower Cretaceous.

Drilling highlights for La Luz Vein include:

- 245 g/t Ag and 23.1 g/t Au (1,980 g/t AgEq) over 1.4 m true width in hole LL-17;
- 25 g/t Ag and 14.9 g/t Au (1,146 g/t AgEq) over 1.8 m true width in hole LL-18;
- 63 g/t Ag and 57.0 g/t Au (4,339 g/t AgEq) over 2.2 m true width in hole LL-21,
o including 340 g/t Ag and 320.0 g/t Au over 0.3 m true width;
- 45 g/t Ag and 16.2 g/t Au (1,262 g/t AgEq) over 1.7 m true width in hole LL-23;
- 384 g/t Ag and 20.3 g/t Au over 1.1 m true width in hole LL-35,
o including 2,600 g/t Ag and 123.5 g/t Au over 0.12 m true width; and
- 38 g/t Ag and 16.5 g/t Au (1,273 g/t AgEq) over 1.2 m true width in hole LL-36.

Also significant results were returned for the La Luz HW Vein including:

- 25 g/t Ag and 20.9 g/t Au (1,589 g/t AgEq) over 1.3 m true width in hole LL-23; and
- 12 g/t Ag and 7.6 g/t Au (580 g/t AgEq) over 1.2 m true width in hole LL-39.

Drilling results of La Luz Vein are summarized in Table 10.3 and the La Luz Vein intercepts are shown on the longitudinal projection in Figure 10.2.

TABLE 10.3 SURFACE DRILL HOLE SIGNIFICANT ASSAY SUMMARY FOR MINERAL INTERCEPTS IN THE LA LUZ VEIN AREA							
Drill Hole No.	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Ag (g/t)	Au (g/t)
LL-17	La Luz Vein	124.15	127.85	3.7	2.3	164	14.5
	La Luz Composite	124.55	126.85	2.3	1.4	245	23.1
	Including	124.55	125.40	0.9	0.5	212	47.5
LL-18	La Luz Vein	174.00	178.10	4.1	1.8	25	14.9
	Including	177.60	178.10	0.5	0.2	77	48.5
LL-20	La Luz Vein	168.00	172.30	4.3	2.1	39	4.8
	La Luz Composite	169.15	172.30	3.2	1.5	40	6.4
	Including	171.75	172.30	0.6	0.3	21	12.4
LL-21	La Luz Vein	172.70	174.15	1.5	0.9	137	127.5
	La Luz Composite	173.10	176.75	3.7	2.2	63	57.0
	Including	173.60	174.15	0.6	0.3	340	320.0
LL-23	La Luz Vein	144.75	147.90	3.2	2.0	39	13.9
	La Luz Composite	145.20	147.90	2.7	1.7	45	16.2
	Including	147.05	147.40	0.3	0.2	171	45.2
	Hw La Luz	154.50	156.20	1.7	1.0	31	26.2

TABLE 10.3
SURFACE DRILL HOLE SIGNIFICANT ASSAY SUMMARY FOR MINERAL INTERCEPTS
IN THE LA LUZ VEIN AREA

Drill Hole No.	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Ag (g/t)	Au (g/t)
	Vein						
	Hw La Luz Composite	154.50	156.70	2.2	1.3	25	20.9
	Including	154.50	155.05	0.6	0.3	44	31.6
	La Luz Vein	215.90	216.65	0.8	0.5	1114	0.6
LL-25	La Luz Composite	214.65	216.65	2.0	1.4	419	0.2
	Including	216.20	216.65	0.5	0.3	1830	1.1
	La Luz Vein	173.35	175.60	2.3	1.2	71	2.0
LL-27	Including	173.35	174.30	1.0	0.5	128	4.7
	La Luz Vein	196.30	197.85	1.5	1.1	91	2.7
LL-32	Including	197.00	197.85	0.8	0.6	95	4.7
	La Luz Vein	106.65	107.05	0.4	0.2	1699	90.5
LL-35	La Luz Composite	105.20	107.05	1.8	1.1	384	20.3
	Including	106.65	106.85	0.2	0.1	2600	123.5
	La Luz Vein	57.40	58.15	0.8	0.6	57	2.5
LL-36	La Luz Composite	57.40	58.75	1.4	1.2	38	16.5
	Including	58.15	58.75	0.6	0.5	14	34.0
	Hw La Luz Vein	146.05	146.40	0.3	0.2	25	26.9
LL-39	Hw La Luz Composite	146.05	148.45	2.4	1.2	12	7.6
	Including	146.05	146.40	0.3	0.2	25	26.9
	La Luz Vein	162.05	163.15	1.1	0.5	6	3.2
	La Luz Composite	161.80	164.00	2.2	1.1	4	1.6
	Including	162.05	162.35	0.3	0.1	12	8.4

[illegible]

Coordinate system: WGS 84 / UTM Zone 13Q

10.9 2018 DRILLING PROGRAM

In 2018, Endeavour Silver resumed its drilling program over the Terronera Vein. In addition, at the end of the year, surface diamond drilling was conducted with associated geomechanical and hydrogeological support at the La Luz Vein area.

10.9.1 Terronera

In 2018, Endeavour Silver conducted an infill surface drilling program over the Terronera Vein, with the objective of filling gaps to upgrade Inferred Mineral Resources to Indicated Mineral Resources and to expand the Inferred Mineral Resources at depth. Mineralization in the Terronera Vein has been intersected over 1,400 m long by 500 m deep, and it remains open at depth.

The 2018 drilling program included a total of 18,774 m drilled in 39 surface diamond drill holes (Figure 10.3), including 3,007 samples collected and submitted for analysis (Table 10.4). The information of these holes is summarized in Table 10.5.

TABLE 10.4 TERRONERA SURFACE DRILLING IN 2018			
Project Area	Number of Holes	Total Length (m)	Number of Samples Taken
Terronera	39	18,774	3,007
Total	39	18,774	3,007

TABLE 10.5 2018 DRILL HOLE SUMMARY FOR THE TERRONERA SURFACE DRILLING PROGRAM						
Drill Hole No.	Azimuth	Dip	Core Diameter	Total Depth (m)	Start Date	Finish Date
TR7S-1	224 °	-65 °	HQ	766.15	17/03/2018	10/04/2018
TR11-4	229 °	-63 °	HQ	632.35	25/03/2018	11/04/2018
TR11-5	226 °	-59 °	HQ	608.25	11/04/2018	26/04/2018
TR10-5	229 °	-57 °	HQ	522.65	29/04/2018	11/05/2018
TR10-6	229 °	-64 °	HQ	577.50	11/05/2018	23/05/2018
TR14-8	233 °	-73 °	HQ	406.65	23/04/2018	02/05/2018
TR15-7	263 °	-65 °	HQ	391.30	02/05/2018	10/05/2018
TR13-6	197 °	-74 °	HQ	437.80	10/05/2018	19/05/2018
TR08-6	226 °	-66 °	HQ/NQ	391.90	25/04/2018	04/05/2018
TR07-4	207 °	-66 °	HQ/NQ	395.00	05/05/2018	15/05/2018
TR5S-2	249 °	-55 °	HQ/NQ	570.50	01/05/2018 / 15/05/2018	14/05/2018 / 27/05/2018
TR7S-2	225 °	-46 °	HQ	498.50	31/05/2018	14/06/2018

TABLE 10.5
2018 DRILL HOLE SUMMARY FOR THE TERRONERA SURFACE DRILLING PROGRAM

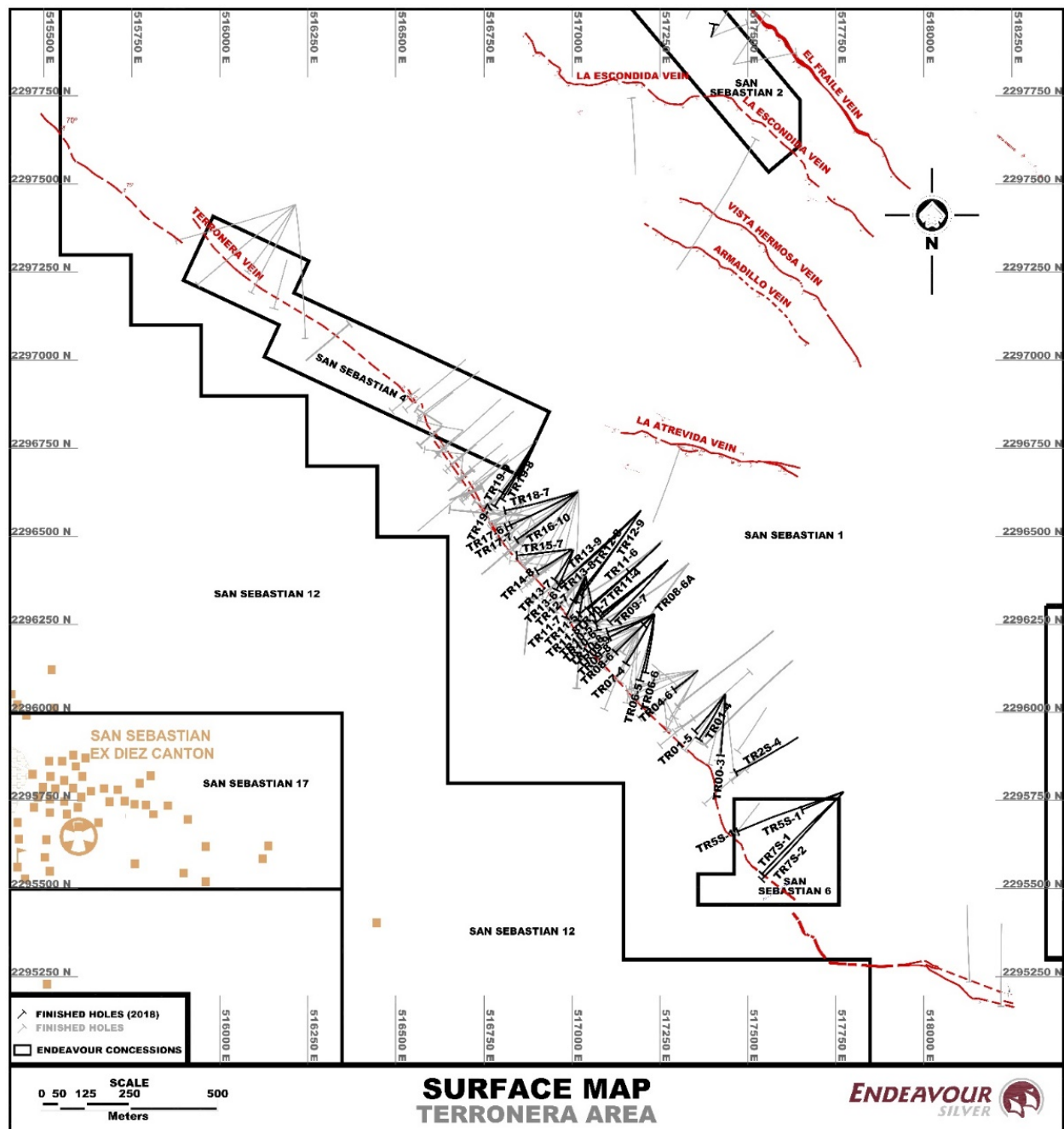
Drill Hole No.	Azimuth	Dip	Core Diameter	Total Depth (m)	Start Date	Finish Date
TR10-7	229 °	-68 °	HQ	649.35	23/05/2018	06/06/2018
TR09-7	221 °	-66 °	HQ	609.55	06/06/2018	19/06/2018
TR13-7	208 °	-78 °	HQ	489.00	19/05/2018	31/05/2018
TR12-7	199 °	-80 °	HQ	452.35	01/06/2018	10/06/2018
TR17-6	241 °	-55 °	HQ	401.35	10/06/2018	19/06/2018
TR06-5	189 °	-62 °	HQ/NQ	405.65	16/05/2018	29/05/2018
TR06-6	185 °	-67 °	HQ/NQ	410.20	30/05/2018	10/06/2018
TR09-8	244 °	-68 °	HQ/NQ	394.95	11/06/2018	20/06/2018
TR2S-4	239 °	-65 °	HQ	533.00	16/06/2018	07/07/2018
TR11-7	204 °	-69 °	HQ	351.90	11/07/2018	21/07/2018
TR12-8	213 °	-58 °	HQ	571.35	20/06/2018	04/07/2018
TR12-9	214 °	-62 °	HQ	629.85	05/07/2018	19/07/2018
TR17-7	241 °	-61 °	HQ	435.65	19/06/2018	29/06/2018
TR18-7	254 °	-60 °	HQ	434.10	29/06/2018	10/07/2018
TR16-10	223 °	-61 °	HQ	432.35	11/07/2018	21/07/2018
TR09-9	245 °	-73 °	HQ/NQ	434.60	21/06/2018	30/06/2018
TR01-4	204 °	-66 °	HQ/NQ	353.80	04/07/2018	14/07/2018
TR00-3	183 °	-65 °	HQ/NQ	419.35	15/07/2018	27/07/2018
TR19-7	210 °	-55 °	HQ	375.85	22/07/2018	31/07/2018
TR11-8	186 °	-73 °	HQ	423.00	21/07/2018	02/08/2018
TR13-8	226 °	-59 °	HQ	610.75	19/07/2018	04/08/2018
TR01-5	213 °	-70 °	HQ/NQ	390.40	28/07/2018	07/08/2018
TR19-8	207 °	-63 °	HQ	411.15	31/07/2018	10/08/2018
TR10-8	166 °	-69 °	HQ	427.00	02/08/2018	12/08/2018
TR13-9	224 °	-63 °	HQ	658.10	04/08/2018	18/08/2018
TR19-9	207 °	-68 °	HQ	463.05	10/08/2018	21/08/2018
TR04-6	227 °	-78 °	HQ	407.45	10/08/2018	26/08/2018
Total (39 drill holes)				18,773.65		

Surface diamond drilling conducted by Energold de Mexico, S.A. de C.V. (Energold Mexico) and Layne de Mexico, S.A. de C.V. (Layne).

Energold de Mexico, S.A. de C.V. (Energold Mexico), a wholly-owned subsidiary of the Energold Drilling Corp. (Energold) based in Vancouver, British Columbia, Canada, used two drill rigs (one man-portable drill rig). Energold Mexico and Energold do not hold any interest in Endeavour Silver and are independent of the company.

Layne de Mexico, S.A. de C.V. (Layne), a wholly-owned subsidiary of the USA-based Layne Christensen Company (Layne Christensen), used two drill rigs. Neither Layne nor Layne Christensen held an interest in Endeavour Silver and both are independent of the Company.

FIGURE 10.3 TERRONERA SURFACE MAP SHOWING COMPLETED 2018 DRILL HOLES



Note: Completed drill hole are shown in black

Source: Endeavour Silver (2018)

Coordinate system: WGS 84 / UTM Zone 13Q

Drilling at Terronera fulfilled the objective by intercepting high silver and gold grades and proving continuity of the mineralization along strike and to depth.

Drilling highlights for the Terronera Vein include:

- 782 g/t Ag and 0.9 g/t Au (847 g/t AgEq) over 3.3 m true width in hole TR10-8,
o including 9,810 g/t Ag and 8.75 g/t Au over 0.12 m true width;
- 618 g/t Ag and 3.2 g/t Au (861 g/t AgEq) over 21.2 m true width in hole TR11-4,
o including 4,090 g/t Ag and 4.9 g/t Au over 0.2 m true width;
- 507 g/t Ag and 2.6 g/t Au (699 g/t AgEq) over 6.0 m true width in hole TR11-5,
o including 3,370 g/t Ag and 5.4 g/t Au over 0.4 m true width;
- 783 g/t Ag and 1.2 g/t Au (874 g/t AgEq) over 5.3 m true width in hole TR11-7,
o including 3,880 g/t Ag and 2.6 g/t Au over 0.3 m true width;
- 524 g/t Ag and 0.7 g/t Au (575 g/t AgEq) over 4.2 m true width in hole TR11-8;
- 197 g/t Ag; and 2.4 g/t Au (378 g/t AgEq) over 9.8 m true width in hole TR12-8,
o including 3,420 g/t Ag and 6.6 g/t Au over 0.2 m true width;
- 129 g/t Ag and 4.8 g/t Au (488 g/t AgEq) over 4.4 m true width in hole TR13-7;
- 185 g/t Ag and 7.15 g/t Au (721 g/t AgEq) over 5.6 m true width in hole TR13-9; and
- 129 g/t Ag and 2.8 g/t Au (340 g/t AgEq) over 7.2 m true width in hole TR14-8.

Also significant results returned for the Terronera FW Vein:

- 1,297 g/t Ag and 0.9 g/t Au over 6.1 m true width in hole TR11-8,
o including 6,660 g/t Ag and 1.8 g/t Au over 0.5 m true width; and
- 169 g/t Ag and 4.75 g/t Au over 7.7 m true width in hole TR12-7.

Drilling results of Terronera Vein are summarized in Table 10.6 and the Terronera Vein intercepts are shown on the longitudinal projection in Figure 10.4.

TABLE 10.6 2018 DRILL HOLE SUMMARY FOR THE TERRONERA SURFACE DRILLING PROGRAM							
Drill Hole No.	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Ag (g/t)	Au (g/t)
TR2S-4	Terronera	451.75	453.40	1.6	0.8	1	0.01
	Terronera Composite	450.95	453.40	2.4	1.2	2	0.02
	Including	450.95	451.75	0.8	0.4	3	0.03
TR5S-2	Terronera	505.05	505.70	0.6	0.5	0.2	<0.005
	Terronera Composite	505.05	506.50	1.4	1.0	0.2	0.01
	Including	505.05	505.70	0.6	0.5	0.2	<0.005
TR7S-1	Terronera	558.85	559.25	0.4	0.2	<0.2	0.01
	Terronera Composite	557.55	559.25	1.7	1.0	0.2	0.01
	Including	558.85	559.25	0.4	0.2	<0.2	0.01
TR7S-2	Terronera	409.00	409.20	0.2	0.2	0.4	0.01
	Terronera Composite	409.00	410.25	1.3	1.0	0.3	0.01
	Including	409.00	409.20	0.2	0.2	0.4	0.01
TR00-3	Terronera	369.15	370.60	1.5	0.6	11	0.63

TABLE 10.6
2018 DRILL HOLE SUMMARY FOR THE TERRONERA SURFACE DRILLING PROGRAM

Drill Hole No.	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Ag (g/t)	Au (g/t)
	Terronera Composite	367.80	370.60	2.8	1.2	6	0.34
	Including	369.15	369.65	0.5	0.2	22	1.12
TR01-4	Terronera	303.40	307.20	3.8	2.3	147	1.41
	Including	303.40	304.30	0.9	0.6	379	0.74
TR01-5	Terronera	327.85	332.10	4.3	2.3	40	0.87
	Terronera Composite	328.55	330.90	2.3	1.2	51	1.32
	Including	329.40	330.15	0.8	0.4	74	2.61
TR04-6	Terronera	334.20	335.80	1.6	1.0	179	4.42
	Terronera Composite	331.45	335.80	4.4	2.8	149	3.39
	Including	334.20	334.45	0.3	0.2	209	5.08
TR06-5	Terronera	329.40	332.00	2.6	2.0	25	1.33
	Terronera Composite	330.20	331.70	1.5	1.2	26	1.90
	Including	330.90	331.70	0.8	0.6	34	2.54
TR06-6	Terronera	349.70	350.75	1.1	0.6	15	0.58
	Terronera Composite	348.50	350.75	2.3	1.4	11	0.36
	Including	349.70	350.00	0.3	0.2	9	0.98
TR07-4	Terronera	352.60	354.20	1.6	1.2	10	0.16
	Including	352.60	353.60	1.0	0.7	8	0.22
TR08-6	Terronera	342.10	345.95	3.8	2.5	49	2.02
	Terronera Composite	342.30	346.65	4.3	2.8	54	1.99
	Including	342.30	342.80	0.5	0.3	127	4.33
TR09-7	Terronera	556.60	561.50	4.9	2.9	95	3.01
	Terronera Composite	556.60	563.00	6.4	3.9	86	2.64
	Including	557.35	557.75	0.4	0.2	275	4.49
TR09-8	Terronera	344.75	350.85	6.1	3.5	93	0.67
	Terronera Composite	345.40	350.40	5.0	2.9	112	0.81
	Including	345.80	346.50	0.7	0.4	136	4.21
TR09-9	Terronera	366.25	372.20	5.9	3.4	136	2.13
	Including	371.40	372.20	0.8	0.5	189	5.86
TR10-5	Terronera	475.15	476.90	1.8	1.3	467	1.27
	Including	476.40	476.90	0.5	0.4	888	0.99
	FWTRV	501.50	501.75	0.3	0.2	21	0.19
	FWTRV Composite	501.50	502.75	1.3	1.0	14	0.16
	Including	501.50	501.75	0.3	0.2	21	0.19
TR10-6	Terronera	531.50	540.60	9.1	5.5	116	2.30
	Terronera Composite	535.00	538.75	3.8	2.3	222	4.82
	Including	538.00	538.75	0.8	0.5	410	6.67
	FWTRV	551.55	552.65	1.1	0.8	12	0.39

TABLE 10.6
2018 DRILL HOLE SUMMARY FOR THE TERRONERA SURFACE DRILLING PROGRAM

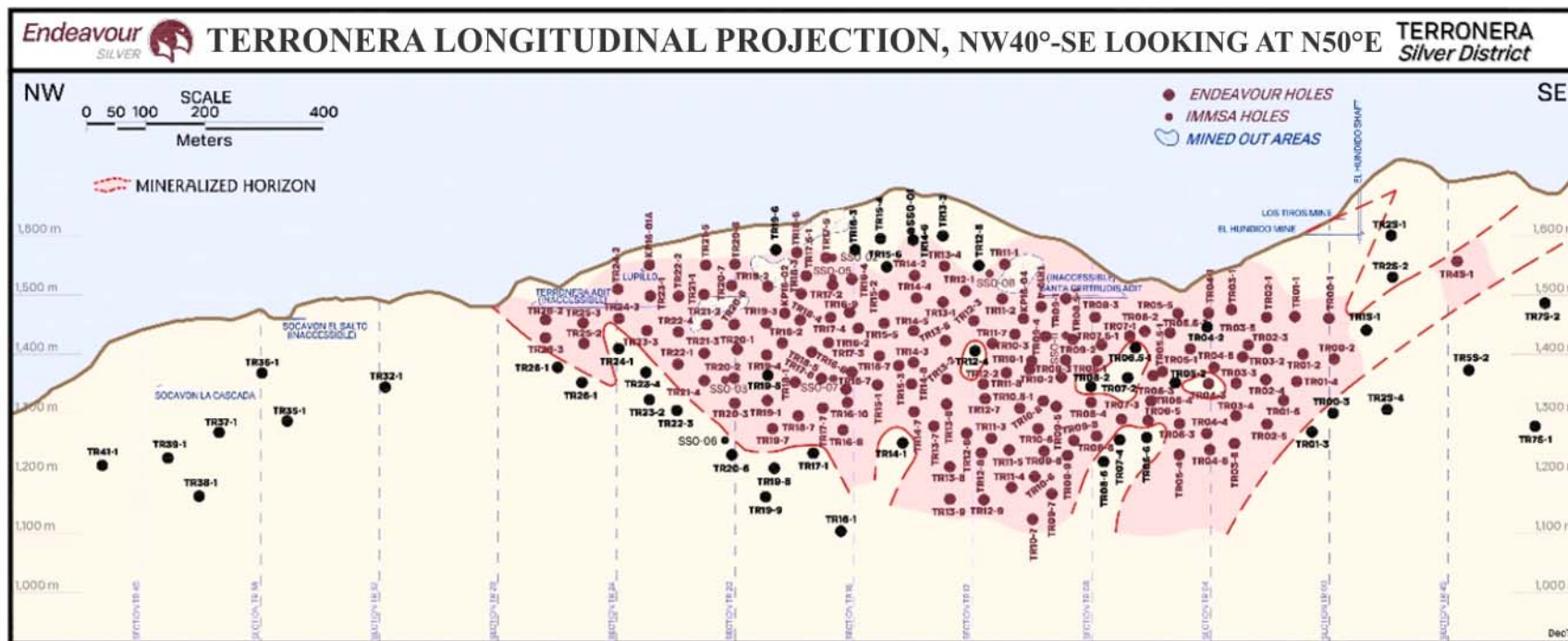
Drill Hole No.	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Ag (g/t)	Au (g/t)
	FWTRV Composite	551.25	552.65	1.4	1.0	10	0.31
	Including	551.55	551.75	0.2	0.1	36	1.24
TR10-7	Terronera	593.45	601.70	8.3	4.1	52	0.87
	Terronera Composite	595.05	597.15	2.1	1.1	94	2.70
	Including	595.05	595.80	0.8	0.4	149	4.57
TR10-8	Terronera	390.20	395.80	5.6	2.3	973	1.08
	Terronera Composite	387.75	395.80	8.1	3.3	782	0.87
	Including	393.00	393.30	0.3	0.1	9810	8.75
TR11-4	Terronera	550.90	583.20	32.3	19.4	607	3.38
	Terronera Composite	546.40	581.70	35.3	21.2	618	3.24
	Including	548.65	548.90	0.3	0.2	4090	4.88
TR11-5	Terronera	514.20	521.25	7.0	5.3	563	2.64
	Terronera Composite	513.25	521.25	8.0	6.0	507	2.56
	Including	515.05	515.60	0.6	0.4	3370	5.44
	FWTRV	523.70	525.60	1.9	1.5	181	7.13
	Including	523.70	524.05	0.3	0.3	279	9.23
TR11-7	Terronera	282.20	292.75	10.6	6.1	693	1.12
	Terronera Composite	283.45	292.75	9.3	5.3	783	1.22
	Including	290.40	290.85	0.5	0.3	3880	2.58
	FWTRV Projection	346.15	347.40	1.3	0.5	10	0.10
TR11-8	Terronera	332.50	337.95	5.4	3.0	648	0.87
	Terronera Composite	331.00	338.65	7.6	4.2	524	0.69
	Including	335.75	336.65	0.9	0.5	1175	1.12
	Fw Terronera (FWTRV)	351.40	361.95	10.6	6.1	1297	0.93
	Including	351.90	352.70	0.8	0.5	6660	1.77
TR12-7	Terronera	358.75	373.15	14.4	3.7	63	2.52
	Terronera Composite	359.75	373.95	14.2	3.7	65	2.60
	Including	368.10	368.50	0.4	0.1	114	3.53
	FWTRV	410.85	426.10	15.3	7.4	141	4.93
	FWTRV Composite	412.85	428.80	16.0	7.7	169	4.75
	Including	419.45	420.35	0.9	0.4	604	21.80
TR12-8	Terronera	527.80	544.15	16.4	10.9	180	2.20
	Terronera Composite	527.80	542.40	14.6	9.8	197	2.41
	Including	540.75	541.10	0.4	0.2	3420	6.57
	FWTRV	544.50	546.30	1.8	1.4	47	0.32
	FWTRV Composite	544.15	546.00	1.9	1.4	44	1.14
	Including	544.15	544.50	0.4	0.3	10	4.47

TABLE 10.6 2018 DRILL HOLE SUMMARY FOR THE TERRONERA SURFACE DRILLING PROGRAM							
Drill Hole No.	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Ag (g/t)	Au (g/t)
TR12-9	Terronera	594.50	600.10	5.6	3.7	102	4.54
	Including	596.80	597.60	0.8	0.5	225	11.75
TR13-6	Terronera	358.00	360.70	2.7	1.6	120	4.22
	Including	359.75	360.70	0.9	0.6	185	5.95
	FWTRV	399.00	399.35	0.4	0.2	3	0.07
	FWTRV Composite	399.00	400.75	1.8	1.0	3	0.07
	Including	399.35	400.75	1.4	0.8	4	0.08
TR13-7	Terronera	385.75	395.35	9.6	4.4	129	4.79
	Including	392.65	393.65	1.0	0.5	264	9.95
	FWTRV	430.20	431.45	1.3	0.6	54	2.89
	FWTRV Composite	429.00	431.20	2.2	1.1	35	2.05
	Including	430.40	431.20	0.8	0.4	64	4.19
TR13-8	Terronera	545.10	553.35	8.3	5.5	106	3.55
	Terronera Composite	541.40	553.35	12.0	8.0	85	2.99
	Including	544.30	544.50	0.2	0.1	32	9.61
	FWTRV	558.35	559.80	1.4	1.1	156	2.54
	Including	558.95	559.80	0.8	0.6	183	3.61
TR13-9	Terronera	589.15	599.30	10.2	6.1	160	6.56
	Terronera Composite	587.95	597.25	9.3	5.6	185	7.15
	Including	592.35	592.90	0.5	0.3	573	29.30
TR14-8	Terronera	317.25	325.85	8.6	7.2	129	2.81
	Including	323.85	324.15	0.3	0.1	473	13.60
	Cavity	325.85	330.45	4.6	2.1	Cavity	
	Terronera (Fw)	330.45	333.15	2.7	1.2	241	0.70
	Including	330.45	330.95	0.5	0.2	928	2.87
	FWTRV Projection	366.80	372.00	5.2	2.2	55	0.11
	FWTRV Proj Composite	370.55	373.25	2.7	1.1	106	0.26
	Including	370.55	371.25	0.7	0.3	213	0.37
	Including	370.55	371.25	0.7	0.3	213	0.37
TR15-7	Terronera	291.75	301.00	9.3	5.3	127	1.37
	Terronera Composite	290.95	301.00	10.1	5.7	128	1.29
	Including	294.65	295.25	0.6	0.3	164	8.71
	FWTRV	350.05	350.65	0.6	0.3	167	0.56
	FWTRV Composite	349.20	351.35	2.2	1.2	50	0.16
	Including	350.05	350.65	0.6	0.3	167	0.56
TR16-10	Terronera	379.50	383.20	3.7	2.6	142	3.90
	Terronera Composite	379.10	383.20	4.1	2.9	134	3.59
	Including	379.90	380.70	0.8	0.6	267	9.50

TABLE 10.6 2018 DRILL HOLE SUMMARY FOR THE TERRONERA SURFACE DRILLING PROGRAM							
Drill Hole No.	Structure	Mineralized Interval				Assay Results	
		From (m)	To (m)	Core Length (m)	True Width (m)	Ag (g/t)	Au (g/t)
TR17-6	Terronera	351.55	357.90	6.3	4.4	134	3.19
	Terronera Composite	351.00	357.65	6.6	4.6	131	3.12
	Including	356.60	356.85	0.3	0.2	368	12.65
TR17-7	Terronera	388.70	394.55	5.9	3.9	136	3.82
	Terronera Composite	388.70	392.75	4.1	2.7	188	5.32
	Including	389.20	389.85	0.7	0.4	321	12.50
TR18-7	Terronera	400.60	413.40	12.8	8.1	82	1.98
	Terronera Composite	400.60	411.65	11.1	7.0	93	2.26
	Including	410.75	411.15	0.4	0.3	389	17.25
TR19-7	Hw Terronera Vein (HWTRV1)	274.10	276.55	2.4	1.8	340	13.19
	Including	275.25	275.95	0.7	0.5	820	32.00
	Terronera	321.70	325.15	3.4	2.5	89	1.69
	Terronera Composite	322.50	324.40	1.9	1.4	156	2.95
	Including	324.00	324.40	0.4	0.3	219	3.97
TR19-8	Terronera	371.35	377.15	5.8	3.8	16	0.08
	Terronera Composite	375.15	376.85	1.7	1.1	32	0.06
	Including	375.15	375.55	0.4	0.3	72	0.11
TR19-9	Terronera	407.50	409.15	1.6	1.0	8	0.04
	Including	407.50	408.15	0.6	0.4	15	0.07

Note: HW = hanging wall, FW = footwall,
FWTRV = footwall Terronera Vein
HWTRV1 = hanging wall Terronera Vein 1

FIGURE 10.4 2018 DRILL INTERSECTIONS – TERRONERA VEIN LONGITUDINAL PROJECTION



Source: www.endeavoursilver.com

Coordinate system: WGS 84 / UTM Zone 13Q

10.9.2 La Luz

In 2018, Endeavour Silver engaged Knight Piésold Ltd. (KP) to provide geomechanical and hydrogeological support for the proposed underground mine at the La Luz Vein of the Terronera Project.

The investigation program consists of geomechanical drill holes with core orientation and detailed geomechanical logging, a hydrogeological packer testing at approximately 30 m intervals, and a nested vibrating wire piezometer installation.

Two drill holes completed by the end of the year, totalling 405 m. It is still pending to complete one more drill hole in early 2019.

The results of this work are still in process.

10.10 2019 DRILLING PROGRAM

For 2019, a small US\$200,000 drilling program has been planned to continue defining targets on the Terronera Property, focused in the Real Alto area, where more than 12 veins have been identified to date, with no known history of modern exploration. The ultimate objective is to define drilling targets with potential to contain economical mineralization in the area.

Regional Exploration focused on property investigation in a radius of 50 km around the Terronera Project, looking for growth opportunities for Endeavour Silver.

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Prior to 2014, drill core samples were taken by lithological and geological markers and zones with different drill recoveries were mixed. In this way, if a zone with lower core recovery had a higher grade and was mixed with a lower grade zone with higher core recovery, the overall value of the sample would be diluted and not representative of the Ag and Au grades of the vein. Likewise, the reverse could be true and a low-grade vein could be given a higher value due to core recovery issues.

Since September, 2014 sampling has coincided with core recovery. In this way, losses of drill core are considered at the sample level. This ensures that values in areas with low drill core recovery do not artificially affect (either positively or negatively) the gold and silver values of the zone. This Project has core recovery issues in certain locations. This procedure was implemented in the newest round of drilling from September, 2014 onwards.

Endeavour Silver established the following procedures for sample preparation, analyses, and security at the Terronera Project from 2012 to the present.

Drilling is subject to daily scrutiny and coordination by Endeavour Silver's geologists. On the drill site, the full drill core boxes are collected daily and brought to the core storage building where the core is laid out, measured, logged for geotechnical and geological data, and marked for sampling.

Depending on the competency of the core, it is either cut in half with a diamond bladed saw or split with a pneumatic core splitter.

The core storage facilities at Terronera have been moved from the town of San Sebastian to a permanent structure located at the town of Santiago de Los Pinos on the Property that is more secluded and well protected.

All of Endeavour Silver's samples of rock and drill core are bagged and tagged at the Terronera Project warehouse and shipped to the ALS-Chemex (ALS) preparation facility in Guadalajara, Mexico. After preparation, the samples are shipped to the ALS laboratory in Vancouver, Canada, for analysis.

Upon arrival at the ALS preparation facility, all of the samples are logged into the laboratory's tracking system (LOG-22). Then the entire sample is weighed, dried if necessary, and fine crushed to better than 70% passing 2 mm (-10 mesh). The sample is then split through a riffle splitter and a 250 g sub-sample is taken and pulverized to 85% passing 75 microns (-200 mesh). The analytical procedure for the gold mineralization is fire assay followed by an atomic adsorption (AA) analysis. A 30 g nominal pulp sample weight is used. The detection range for the gold assay is 0.005 to 10 ppm.

The analytical procedure for the silver mineralization is an aqua regia digestion followed by an ICP-AES analysis. The detection range for the silver assay is 0.2 ppm to 100 ppm.

These analytical methods are optimized for low detection limits. The analytical procedure for high-grade gold and silver mineralization is fire assay followed by a gravimetric finish. A 30 g

nominal pulp sample weight is used. The detection ranges are 0.5 to 1,000 ppm for the gold assay and 5 to 10,000 ppm for the silver assay.

ALS Minerals (ALS) has developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards.

The QMS operates under global and regional Quality Control (QC) teams responsible for the execution and monitoring of the Quality Assurance (QA) and Quality Control programs in each department, on a regular basis. Audited both internally and by outside parties, these programs include, but are not limited to, proficiency testing of a variety of parameters, ensuring that all key methods have standard operating procedures (SOPs) that are in place and being followed properly, and ensuring that quality control standards are producing consistent results.

ALS maintains ISO registrations and accreditations. ISO registration and accreditation provides independent verification that a QMS is in operation at the location in question. ALS has developed and implemented strategically designed processes and a global quality management system that meets all requirements of International Standards ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

11.1 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

A QA/QC program of blanks, duplicates, reference standards and check assays has been instituted by Endeavour Silver to monitor the integrity of assay results. Drilling on the Terronera Project included a QA/QC program.

For each batch of approximately 20 samples, control samples are inserted into the sample stream. Each batch of 20 samples includes one blank, one duplicate and one standard reference control sample. Check assaying is also conducted on the samples at a frequency of approximately 5%. Discrepancies and inconsistencies in the blank and duplicate data are resolved by re-assaying either the pulp or reject or both.

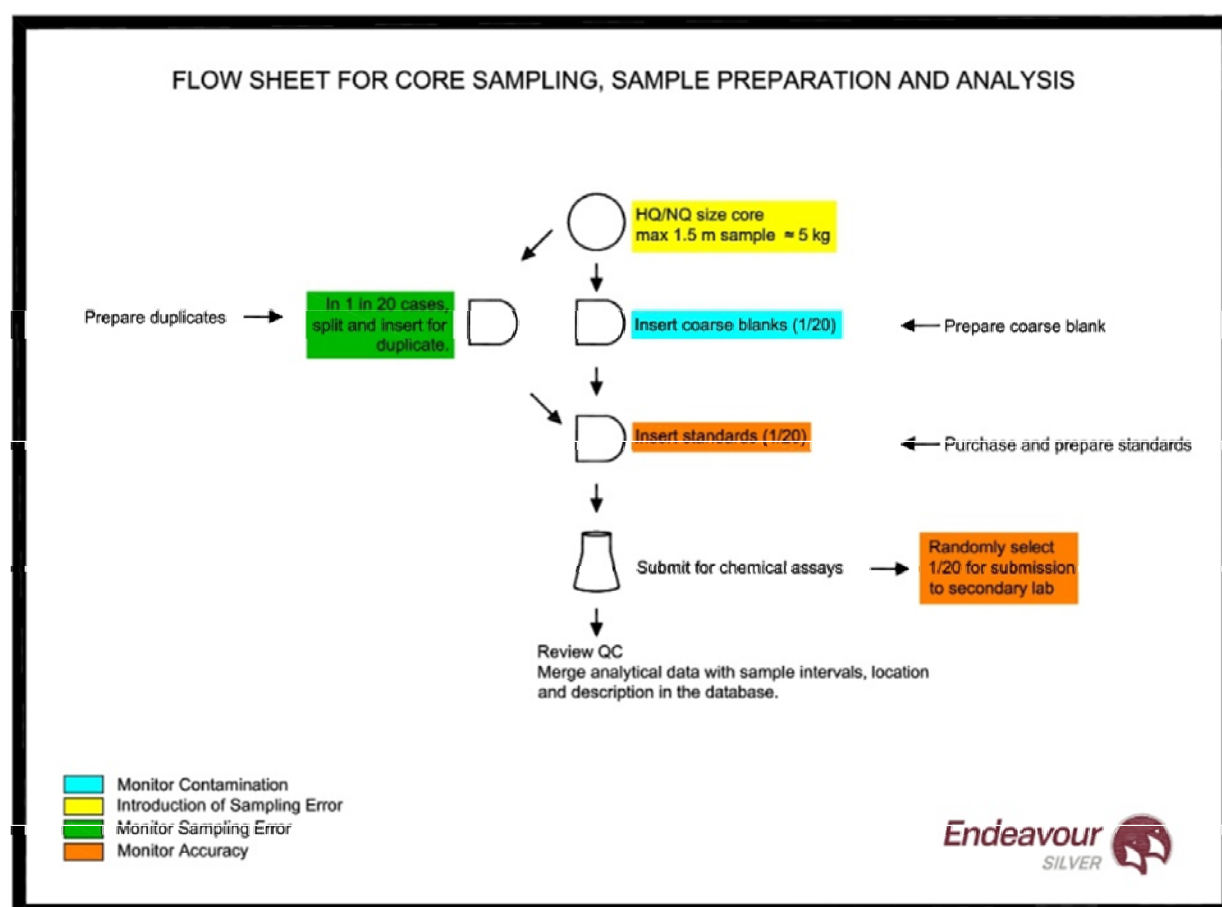
A total of 3,007 samples, including control samples, were submitted during Endeavour Silver's surface drilling program at Terronera from March 2018 through August 2018, as shown in Table 11.1.

A total of 148 pulps were also submitted for check assaying.

TABLE 11.1 SUMMARY OF CONTROL SAMPLES USED FOR THE 2018 SURFACE EXPLORATION PROGRAM		
Control Sample	No. of Samples	% of Samples
Standards (CRM)	150	5.0%
Duplicates	139	4.6%
Blanks	154	5.1%
Normal	2,564	85.3%
Total	3,007	100.0%
Check Assays	148	4.9%

Endeavour Silver's sampling process, including handling of samples, preparation and analysis, is shown in Figure 11.1.

FIGURE 11.1 FLOWSHEET FOR CORE SAMPLING, PREPARATION AND ANALYSIS



Source: Endeavour Silver (2017)

11.2 PERFORMANCE OF CERTIFIED REFERENCE MATERIALS

Endeavour Silver uses commercial certified reference material (“CRM” or “standards”) to monitor the accuracy of the laboratory. The CRM’s were purchased from an internationally-recognized company, CDN Resource Laboratories Ltd., of Langley, B.C., Canada. Each CRM sample was prepared by the vendor at its own laboratories and shipped directly to Endeavour Silver along with a certificate of analysis for each standard purchased

In 2018, a total of 150 CRM samples were submitted at an average frequency of 1 for each batch of 20 samples. The standard reference samples were ticketed with pre-assigned numbers to avoid inadvertently using numbers that were being used during logging.

Three different standards were submitted and analyzed for gold and silver as summarized in Table 11.2.

TABLE 11.2 SUMMARY OF THE REFERENCE STANDARD MATERIAL SAMPLES USED DURING THE TERRONERA SURFACE DIAMOND DRILLING PROGRAM						
Endeavour Silver Reference No.	CDN Reference No.	Reference Source	Control Limits			
			Certified Mean Value Au (g/t)	Certified Mean Value Ag (g/t)	Re- calculated Mean Value Au (g/t)	Re- calculated Mean Value Ag (g/t)
EDR-41	CDN-GS-2Q	CDN Resource Lab	2.37	73	2.43	74.92
EDR-44	CDN-ME- 1407	CDN Resource Lab	2.12	245	2.14	240.81

Endeavour Silver was originally monitoring the standards by utilizing the certified mean and standard deviation values resulting from the round robin assaying undertaken during the certification process for each of the CRMs. In 2013, Endeavour Silver decided to modify the protocol for monitoring the standards by utilizing the available ALS laboratory data to improve the control limits for the CRMs.

For each of the three standards used with greater than 25 sample results from the primary lab (ALS) they recalibrated the mean and standard deviation using available data. This is an acceptable practice implemented by some Companies to strengthen the control limits (CL) utilized in an ongoing QC program, with a larger dataset being more reliable than the smaller number of round robin results used to calculate certified values.

For graphical analysis, results for the standards were scrutinized relative to the mean or control limit (CL), and a lower control limit (LL) and an upper control limit (UL), as shown in Table 11.3.

TABLE 11.3 PERFORMANCE LIMITS FOR STANDARDS USED AT THE TERRONERA PROJECT	
Limit	Value
UL (upper control limit)	Plus 2 standard deviations from the mean
CL (control limit)	Recommended or calculated value (mean) of standard reference material)
LL (lower control limit)	Minus 2 standard deviations from the mean

Endeavour Silver's general rules for the Standard Samples and the required actions are described in Table 11.4.

TABLE 11.4 COMPANY PROTOCOL FOR MONITORING STANDARD PERFORMANCE			
Standard Assay Value	Status	Mineralized Zone	Action
< 2 SD	Acceptable	N/A	No action required
< 2 - 3 SD from CL (single result; not consecutive)	Acceptable	N/A	No action required
< 2 - 3 SD (Two or more consecutive Samples)	Warning	Yes	Re-analyse samples
		No	No action required
> 3 SD (single result; not consecutive)	Warning	Yes	Re-analyse samples
		No	No action required
> 3 SD (consecutive samples)	Failure	N/A	Re-analyse samples

Note: SD = Standard Deviation
NA = Not Applicable

Results of each standard are reviewed separately. Table 11.5 summarizes the analysis of the behaviour of these materials and the taken actions.

Exception for the cases mentioned in Table 11.5, most values for gold and silver were found to be within the control limits, and the results are considered satisfactory. The mean of the ALS assays agrees well with the mean value of the standard.

TABLE 11.5 SUMMARY OF ANALYSIS OF REFERENCE STANDARDS			
Reference Standard	Element	Observations	Comments
EDR-41	Au	One sample (SDH26477) between plus two to three standard deviations from CL, not consecutive.	No action required
		One sample (SDH26596) greater than 3 standard deviations, not consecutive, mineralized zone.	Batch Re-Assayed
	Ag	One sample (SDH27365) between plus two to three standard deviations, not consecutive.	No action required
EDR-44	Au	Within established limits.	No action required
	Ag	Two samples (SDH24970 & SDH26930) between plus two to three standard deviations, not consecutive.	No action required

Graphs of the results for each of the CRM's are presented in Figure 11.2 through Figure 11.5. The green line represents the mean and the red lines represent +/-2 standard deviations from the mean.

FIGURE 11.2 CONTROL CHART FOR GOLD ASSAYS FROM THE CRM SAMPLE EDR-41

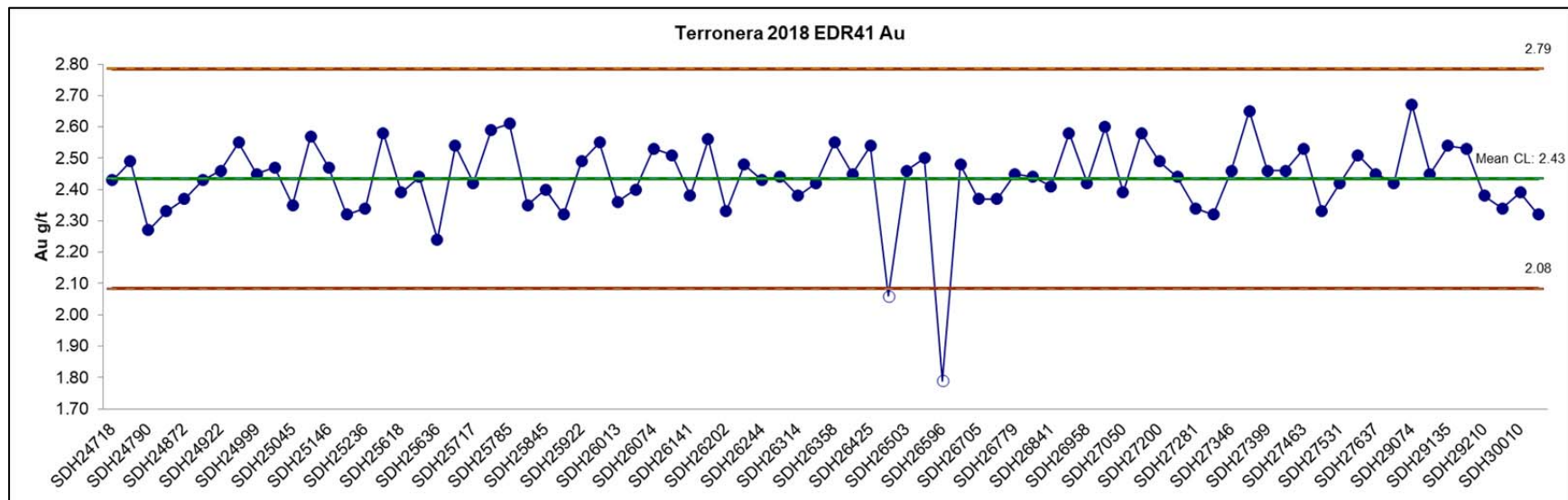


FIGURE 11.3 CONTROL CHART FOR SILVER ASSAYS FROM THE CRM SAMPLE EDR-41

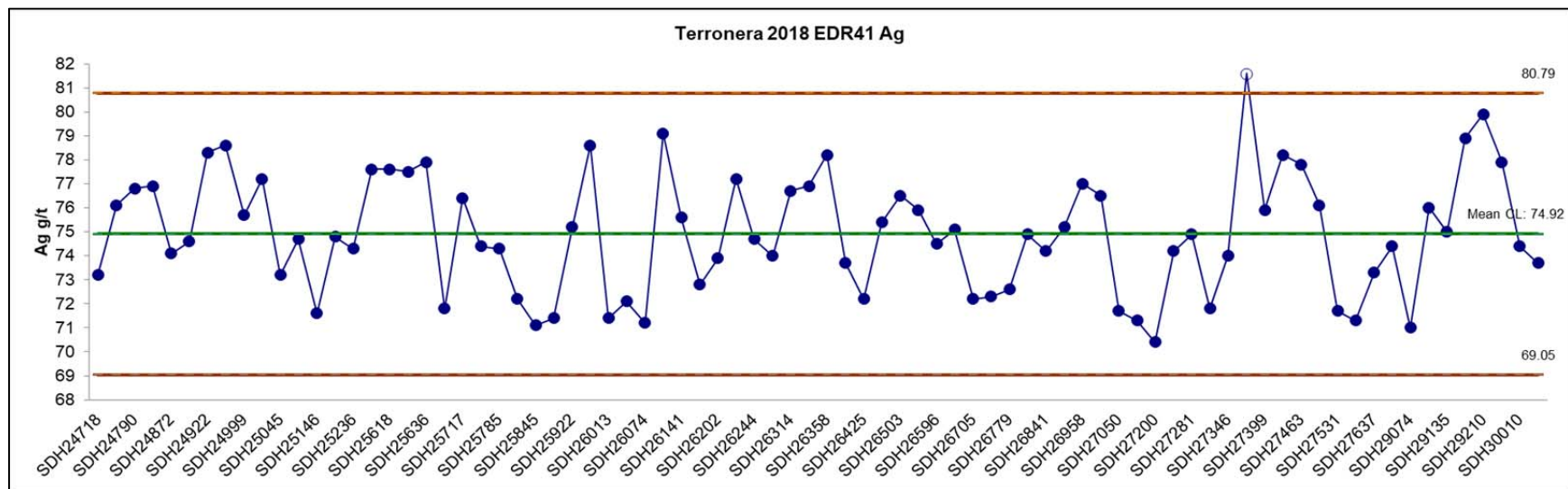


FIGURE 11.4 CONTROL CHART FOR GOLD ASSAYS FROM THE CRM SAMPLE EDR-44

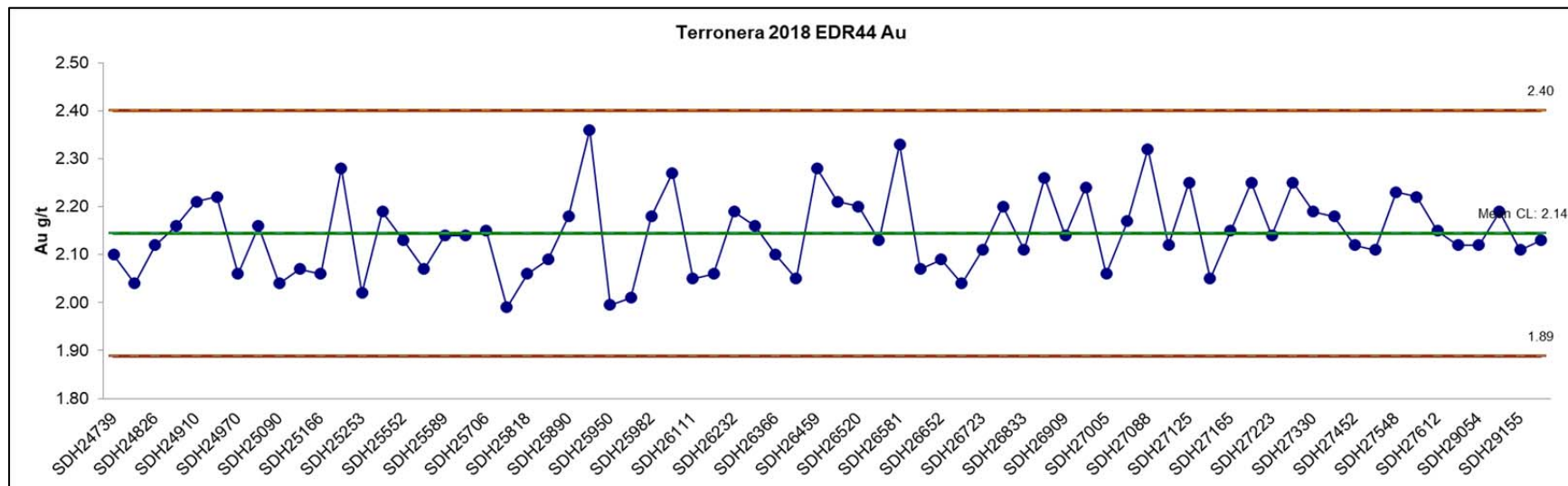
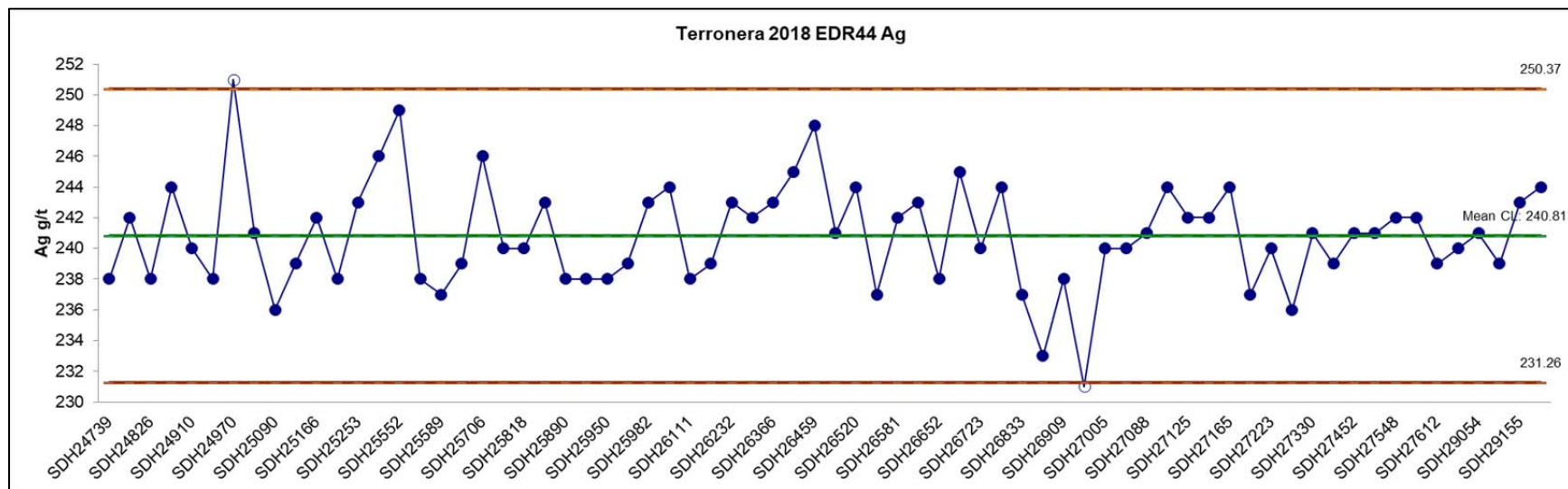


FIGURE 11.5 CONTROL CHART FOR SILVER ASSAYS FROM THE CRM SAMPLE EDR-44



11.2.1 Re-Assays

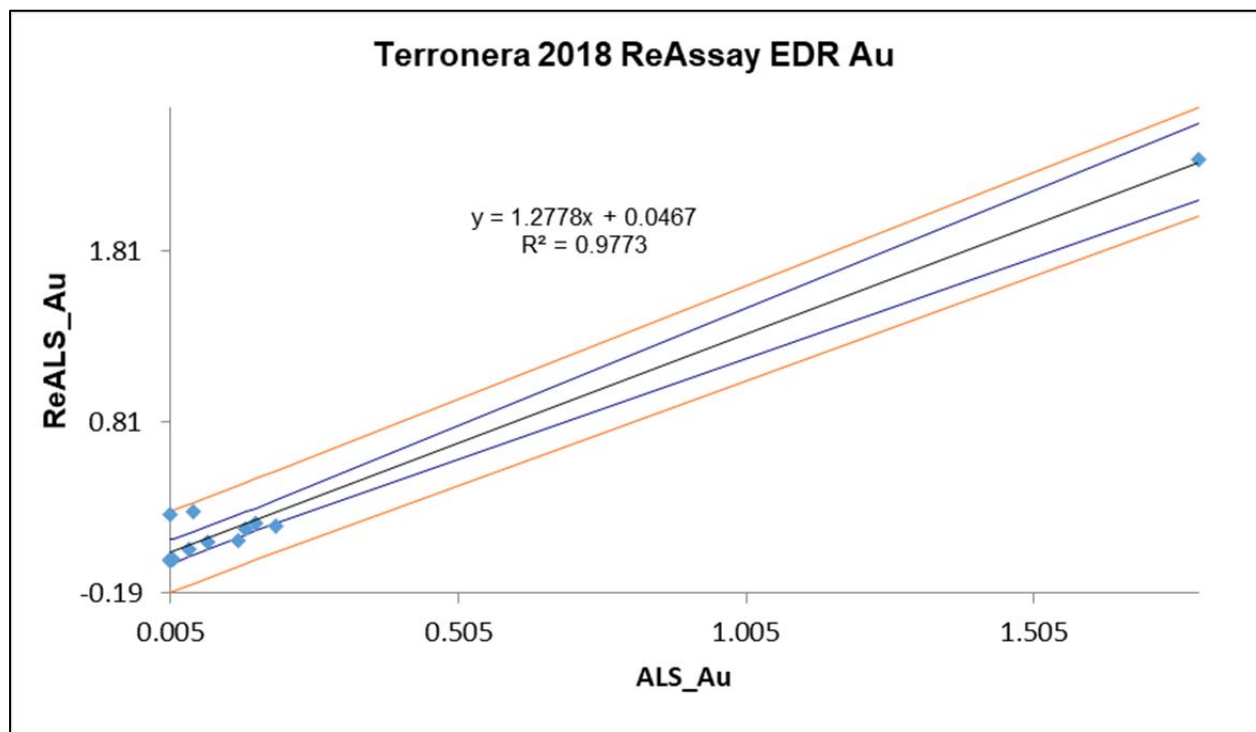
A batch of 12 samples was re-analyzed at ALS due to an EDR-41 standard sample (SDH26596) greater than 3 standard deviations from the CL, within a mineralized zone.

Table 11.6 lists the original vs. re-assayed values of the re-analyzed batch from hole TR15-7 and Figure 11.6 demonstrates a scatter diagram of the original versus re-analyzed results for gold.

Table 11.6 shows similar results between the original and re-assayed samples and the scatter diagram demonstrates a high correlation coefficient (0.98), indicating that the original results are reliable.

TABLE 11.6 COMPARATIVE TABLE OF ORIGINAL VS. RE-ASSAY VALUES					
Sample	ALS Au (g/t)	ALS Ag (g/t)	Re-assay ALS Au (g/t)	Re-assay ALS Ag (g/t)	Control Sample
SDH26591	0.12	1.7	0.12	1.7	
SDH26592	<0.005	<0.2	<0.005	<0.2	
SDH26593	0.14	6.0	0.19	6.4	
SDH26594	<0.005	16.1	0.27	16.5	
SDH26595	0.15	3.5	0.22	3.4	
SDH26596	1.79	74.5	2.35	72.4	EDR-41
SDH26597	0.04	10.9	0.29	11.3	
SDH26598	0.07	1.7	0.11	1.7	
SDH26599	0.04	1.1	0.07	1.4	
SDH26600	0.01	0.8	0.01	0.7	
SDH26601	0.01	0.9	0.01	0.8	
SDH26602	0.19	71.0	0.20	66.3	

FIGURE 11.6 PERFORMANCE OF RE-ASSAYED ALS SAMPLES FOR GOLD



11.3 DUPLICATE SAMPLES

Crushed field duplicate samples were used to monitor the potential mixing up of samples and precision of the data. Duplicate core samples were prepared by Endeavour Silver personnel at the core storage facility at the Terronera Project.

Preparation involved the random selection of a sample interval to be duplicated and, at the time of sampling, this interval was sawn in half using a saw or manual cutter. One half of this interval was then selected for sampling and was crushed manually with the use of a hammer. The crushed sample was then mixed and divided by hand into two samples.

The original and duplicate samples were tagged with consecutive sample numbers and sent to the laboratory as separate samples. Duplicate samples were collected at a rate of 1 in 20 samples.

A total of 139 duplicate samples were taken, representing 4.6% of the total samples.

For the duplicate samples, graphical analysis shows good correlation coefficient for gold (>0.88) and excellent correlation coefficient for silver (>0.99). The results of the duplicate sampling are shown graphically in Figure 11.7 and Figure 11.8.

FIGURE 11.7 PERFORMANCE OF CRUSHED FIELD DUPLICATES FOR GOLD

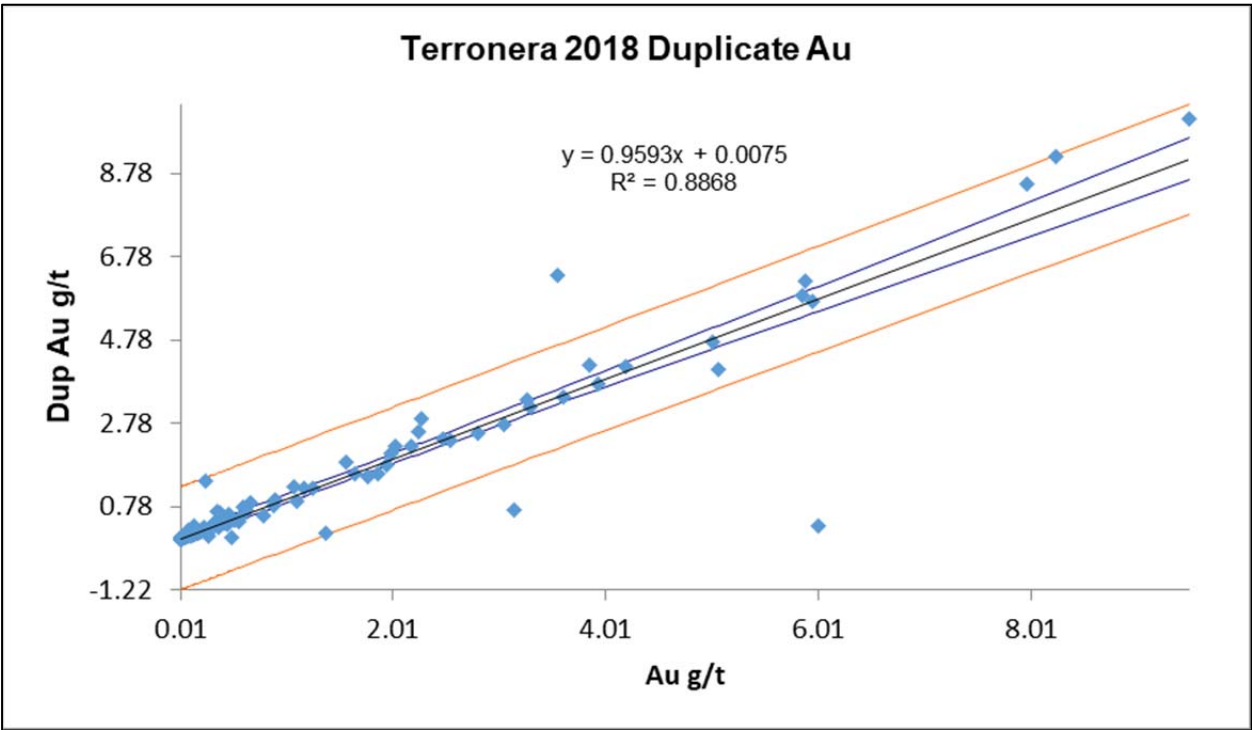
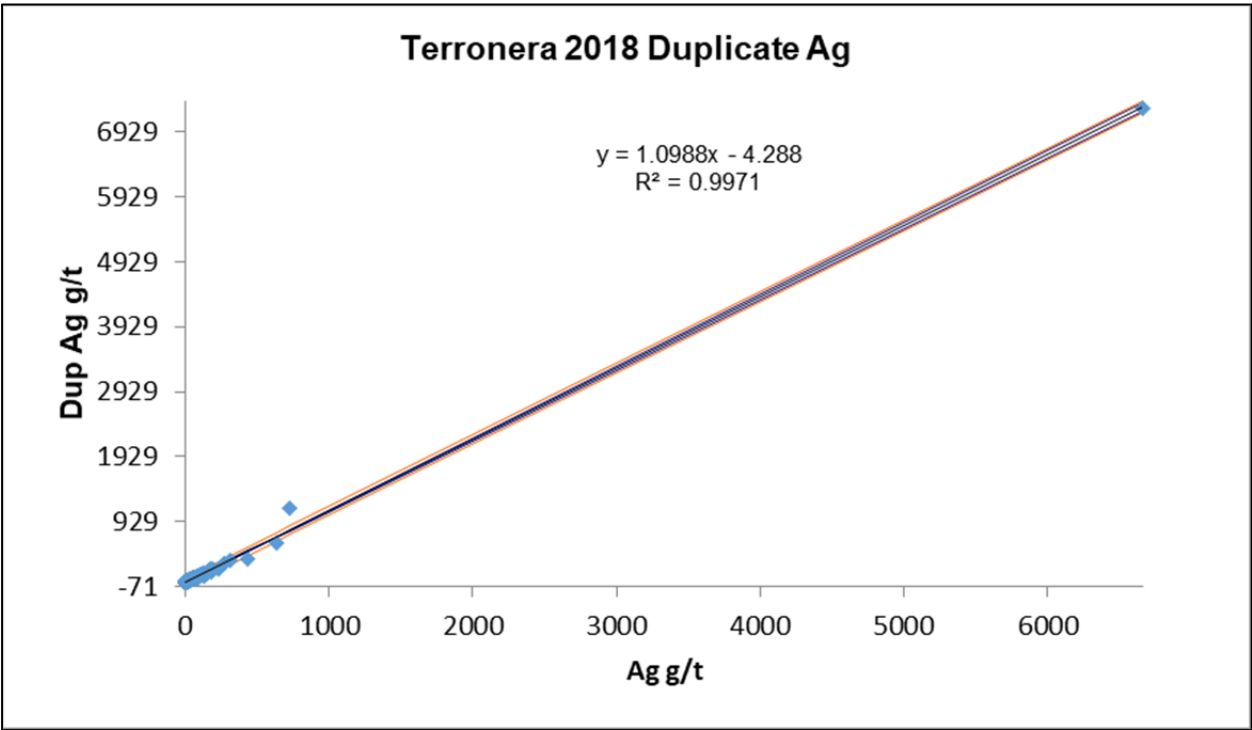


FIGURE 11.8 PERFORMANCE OF CRUSHED FIELD DUPLICATES FOR SILVER



11.4 PERFORMANCE OF BLANK MATERIAL

Blank samples were inserted to monitor possible contamination during the preparation process and analysis of the samples in the laboratory. The blank material used for Endeavour Silver's drilling program at the Terronera Project come from a non-mineralized rhyolite quarry located on the road from the town of La Estancia to the town of Santiago de Los Pinos. The results of previous sampling show that the values are below the detection limit (<0.005 ppm Au and <0.2 ppm Ag) and thus adequate to be used in the exploration programs. Blank samples are inserted randomly into the sample batch and given unique sample numbers in sequence with the other samples before being shipped to the laboratory.

Blank samples were inserted at an average rate of approximately 1 in 20 samples, with a total of 154 blank samples (5.1%) submitted.

The tolerance limit for the blank samples is 10 times the lower detection limit for the corresponding assay method (gold= 0.05 ppm and silver = 2 ppm).

Results for the blank samples are presented in Figure 11.9 and Figure 11.10.

FIGURE 11.9 CONTROL CHART FOR GOLD BLANK SAMPLES

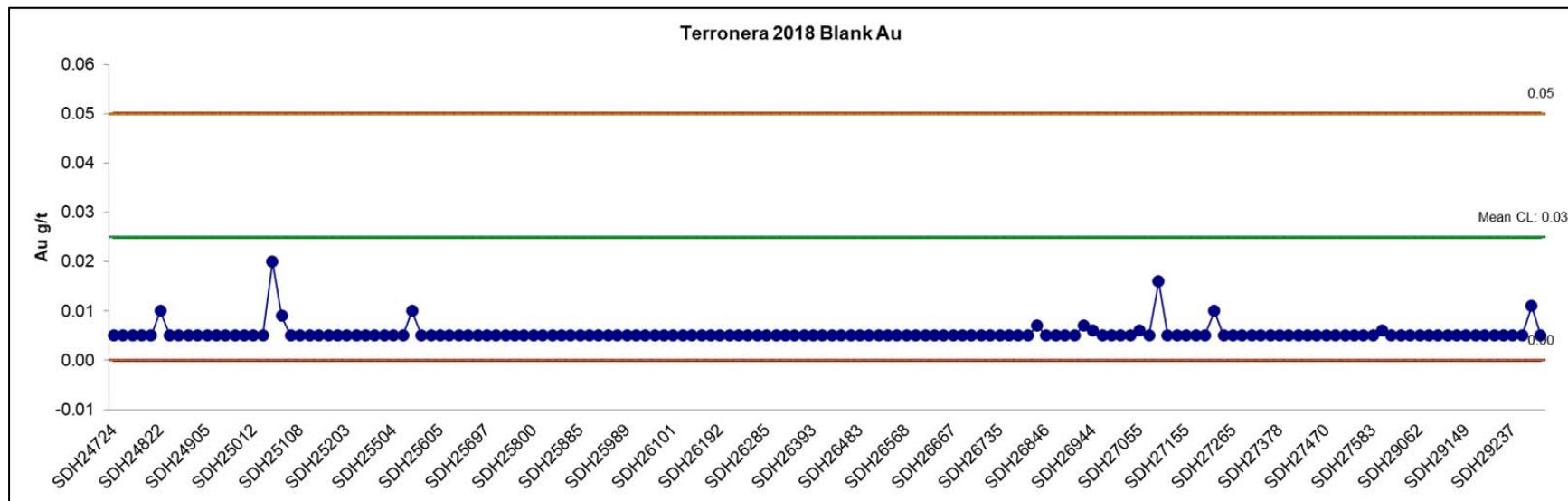
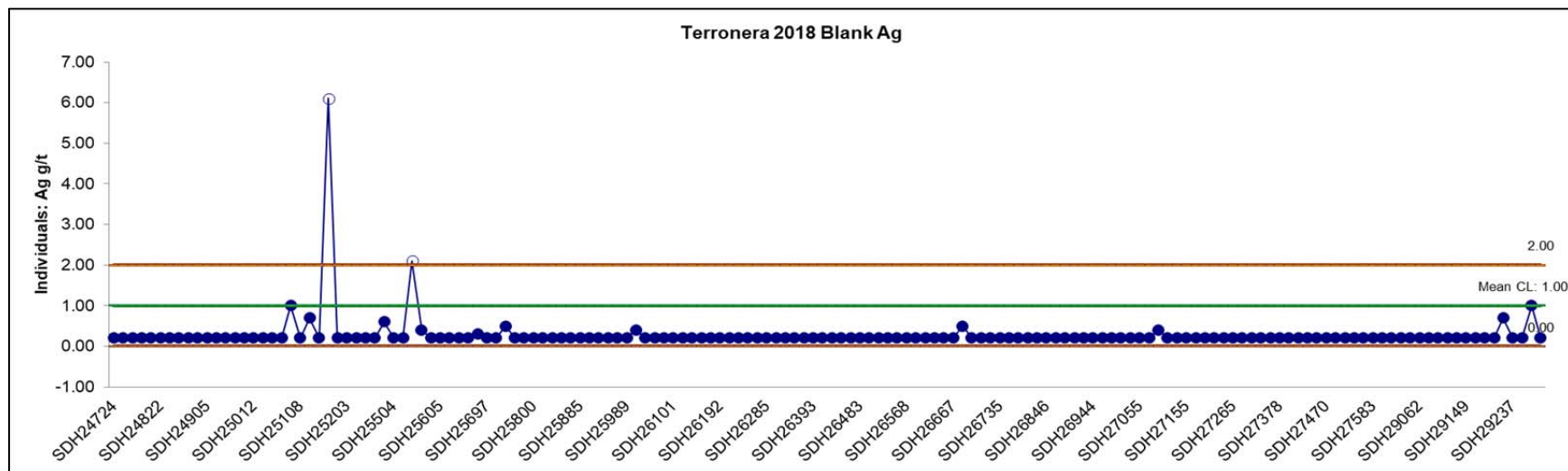


FIGURE 11.10 CONTROL CHART FOR SILVER BLANK SAMPLES



11.4.1 Re-Assays

For gold, no blank samples returned values above the detection limit and for silver only two samples (SDH25172 & SDH25546) were outside the tolerance limit. Two batches, totalling 42 samples, were re-analyzed and the results of the original vs. the re-assays show a high correlation coefficient (>0.99) which indicates that the original values are acceptable.

The scatter diagram of silver is shown in Figure 11.11 and Table 11.7 show the original vs. re-assays values of the re-analysed batches (Holes TR11-4 and TR11-8).

Due to only two samples being outside the recommended value and the results of the reanalysis being positive, it is considered that the assay results for the drilling programs are free of any significant contamination.

FIGURE 11.11 PERFORMANCE OF RE-ASSAYED ALS SAMPLES FOR SILVER

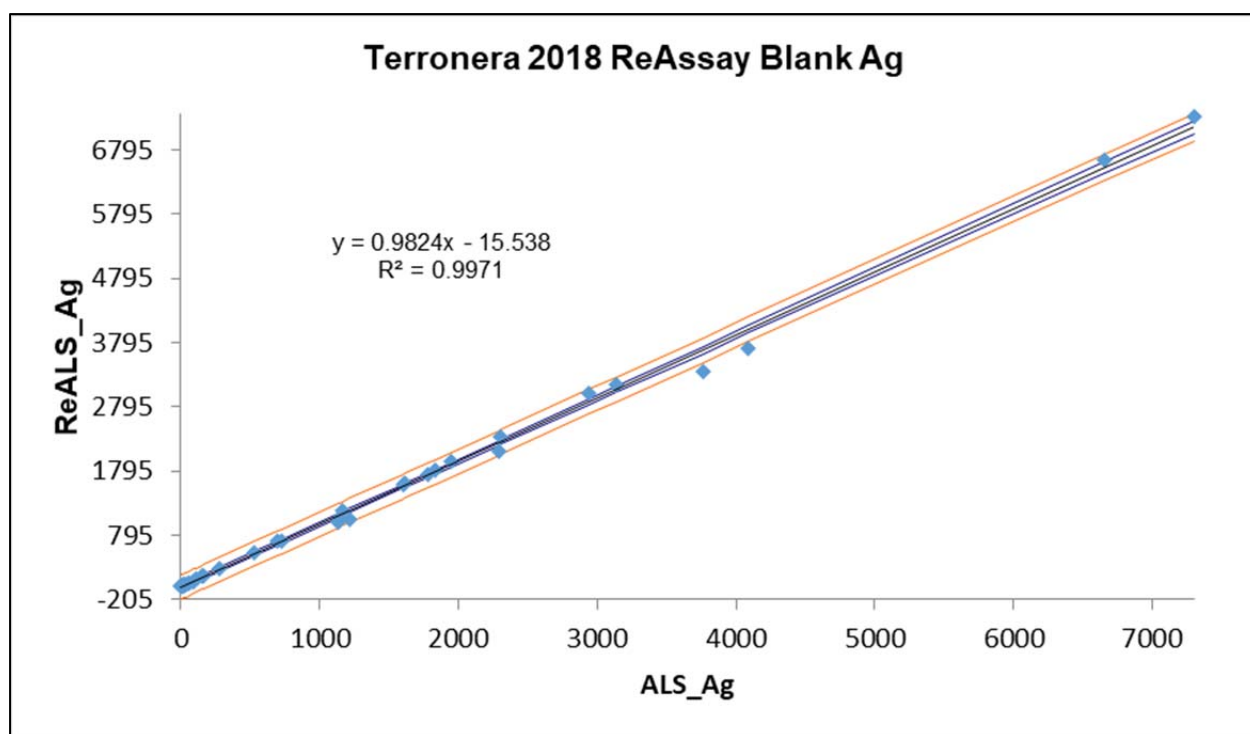


TABLE 11.7
COMPARATIVE TABLE OF ORIGINAL VS. RE-ASSAY VALUES

Sample Number	ALS Au (g/t)	ALS Ag (g/t)	Re-assay ALS Au (g/t)	Re-assay ALS Ag (g/t)	Control Sample
SDH25155	1.62	1,615	1.79	1,605	
SDH25156	1.62	1,945	1.70	1,935	
SDH25157	1.77	6,660	3.23	6,650	
SDH25158	1.51	7,300	3.07	7,330	
SDH25159	2.21	2,300	2.19	2,320	
SDH25160	0.12	153	0.13	157	
SDH25161	0.06	92	0.06	79	
SDH25162	0.21	162	0.23	167	
SDH25163	1.75	1,600	1.74	1,575	
SDH25164	1.27	1,170	1.29	1,165	
SDH25165	0.59	527	0.58	524	
SDH25167	2.30	1,830	2.44	1,810	
SDH25168	0.02	15	0.03	14	
SDH25169	1.31	1,780	1.34	1,730	
SDH25170	0.50	275	0.49	262	
SDH25171	0.54	701	0.56	700	
SDH25172	<0.005	6	<0.005	4	BLANK
SDH25173	0.06	35	0.06	30	
SDH25174	0.02	10	0.02	9	
SDH25175	0.04	15	0.04	12	
SDH25176	0.05	13	0.05	12	
SDH25177	0.04	9	0.05	9	
SDH25178	<0.005	<0.2	<0.005	<0.2	
SDH25179	0.03	15	0.03	8	
SDH25180	0.04	16	0.04	17	
SDH25181	0.02	14	0.03	13	
SDH25182	0.08	57	0.08	58	
SDH25183	0.08	59	0.07	46	
SDH25184	0.03	3	0.03	3	
SDH25539	0.27	112	0.25	117	
SDH25540	3.55	725	3.54	693	
SDH25541	6.33	1,140	5.93	1,055	
SDH25542	4.88	4,090	4.66	3,700	
SDH25543	0.30	94	0.17	74	
SDH25544	0.10	24	0.07	22	

TABLE 11.7 COMPARATIVE TABLE OF ORIGINAL VS. RE-ASSAY VALUES					
Sample Number	ALS Au (g/t)	ALS Ag (g/t)	Re-assay ALS Au (g/t)	Re-assay ALS Ag (g/t)	Control Sample
SDH25545	3.18	1,130	3.87	999	
SDH25546	0.01	2	<0.005	1	BLANK
SDH25547	7.12	3,140	6.22	3,140	
SDH25548	11.20	2,940	9.60	3,000	
SDH25549	3.38	1,220	2.81	1,040	
SDH25550	5.69	3,760	4.86	3,340	
SDH25551	4.64	2,290	4.22	2,100	

11.5 CHECK ASSAYS

Endeavour Silver routinely conducts check analyses at a secondary laboratory to evaluate the accuracy of the primary laboratory.

Random pulps were selected from original core samples and sent to a second laboratory to verify the original assays and monitor any possible deviation due to sample handling and laboratory procedures.

For 2018 Endeavour Silver used the SGS de México (SGS) laboratory in Durango, Mexico, for check analyses.

A total of 148 pulps were sent to the third-party laboratory (SGS) for check analysis equating to approximately 4.9% of the total samples taken during the drilling program.

Correlation coefficients are high, at >0.95 for both gold and silver, showing excellent overall agreement between the original ALS Minerals assay and the SGS check assay.

The results of the check sampling program are shown by way of scatter diagrams in Figure 11.12 and Figure 11.13.

FIGURE 11.12 PERFORMANCE OF SGS CHECK ASSAYS FOR GOLD

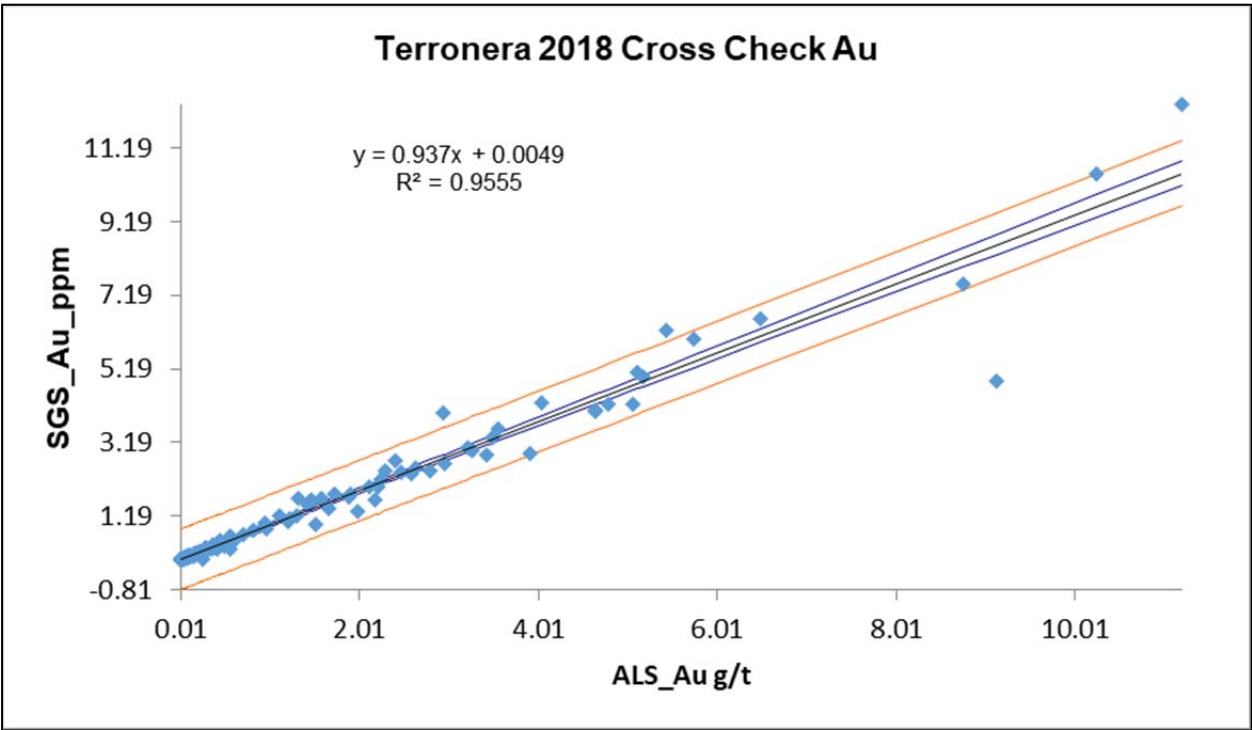
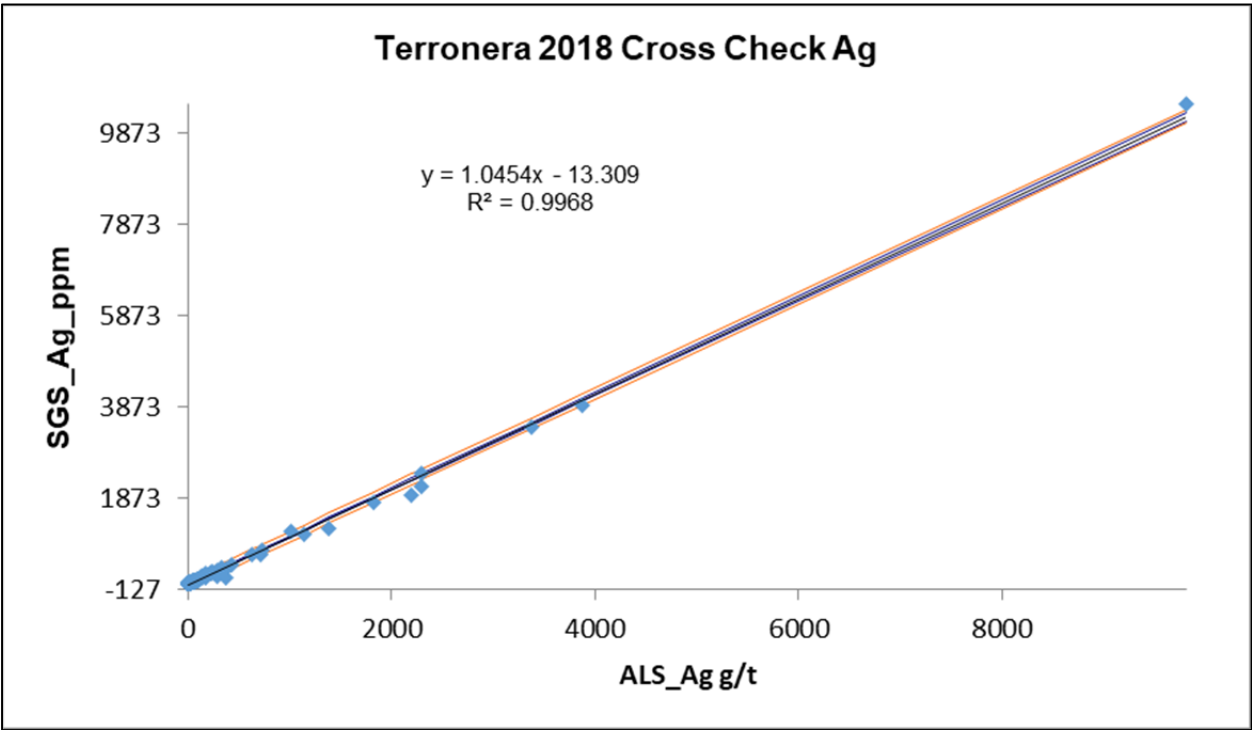


FIGURE 11.13 PERFORMANCE OF SGS CHECK ASSAYS FOR SILVER



12.0 DATA VERIFICATION

12.1 DATABASE VERIFICATION

P&E conducted verification of the drill hole assay database by comparison of the database entries with the assay certificates, which were sent to P&E in digital format directly from the ALS.

Assay data from June 2016 through August 2018 were verified for the Terronera Project. For the La Luz Deposit, 97.5% (1,435 out of 1,472) of the constrained drilling assay data were checked for both Au and Ag, against the ALS laboratory certificates. No errors were identified in the database. For the Terronera Deposit, 97.4% (3,128 out of 3,213) of the constrained drilling assay data for the holes drilled since 2016 were checked for both Au and Ag, against the ALS laboratory certificates. No errors were identified in the database.

12.2 P&E CURRENT SITE VISITS AND INDEPENDENT SAMPLING

The Terronera Project site was most recently visited by Mr. David Burga, P.Geo., on January 8th and 9th, and October 16th and 17th, 2018 for the purposes of completing due diligence sampling. During the site visit, Mr. Burga viewed access to the Property, drill hole collar locations, geology and topography, as well as took several GPS readings to confirm the location of the baseline grid intersections and locate several drill hole collars.

For the January, 2018 trip, Mr. Burga collected twelve core samples from 10 drill holes from the La Luz Vein area, and three core samples from two drill holes from the Terronera Vein area. For the October, 2018 trip, Mr. Burga collected 10 core samples from nine drill holes from the Terronera Vein area.

Drill core is stored at a company warehouse on the site where verification samples were collected by cutting the split core for each sample interval selected by Mr. Burga. One half of the resulting $\frac{1}{4}$ core sample was placed into a plastic bag into which the blank sample tag was placed. The remaining $\frac{1}{4}$ -core was returned to the core box. The samples were bagged and taken directly by Mr. Burga to a DHL courier office in Puerto Vallarta for shipping to ALS in Hermosillo, Mexico, where they were received and weighed before being sent to ALS in North Vancouver for sample preparation and analysis.

Samples at ALS were analyzed for gold by fire assay with AAS finish and for silver by aqua regia digestion with an ICP-AES finish. Silver samples returning assay values greater than 100 g/t Ag were further analyzed by fire assay with gravimetric finish. All samples were analyzed at ALS to determine the bulk density.

ALS has developed and implemented strategically designed processes and a global quality management system that meets all requirements of International Standards ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

The ALS quality program includes quality control steps through sample preparation and analysis, inter-laboratory test programs, and regular internal audits. It is an integral part of day-to-day activities, involves all levels of ALS staff and is monitored at top management levels.

Results of the January, 2018 Property site visit verification samples for gold and silver are presented in Figures 12.1 through 12.4. Results from the October, 2018 Property site visit verification samples for gold and silver are presented in Figures 12.5 and 12.6.

FIGURE 12.1 RESULTS OF LA LUZ VERIFICATION SAMPLING FOR GOLD BY P&E – JANUARY 2018

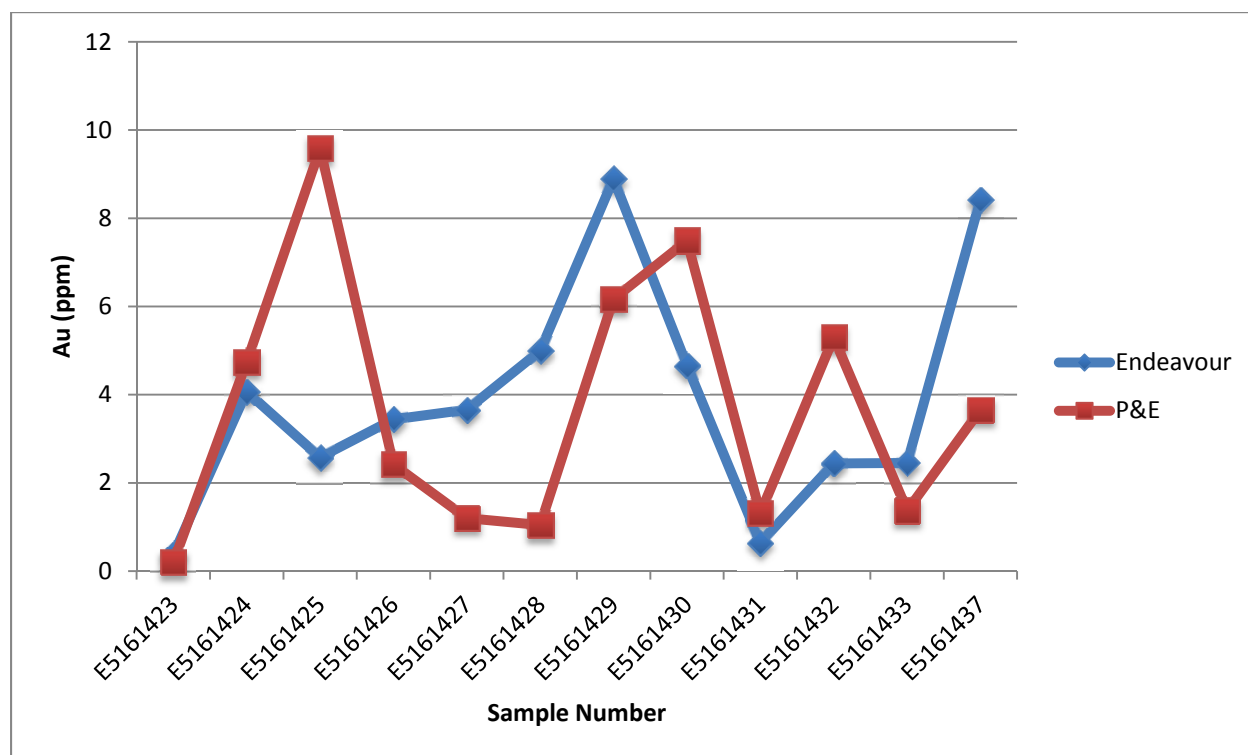


FIGURE 12.2 RESULTS OF LA LUZ VERIFICATION SAMPLING FOR SILVER BY P&E – JANUARY 2018

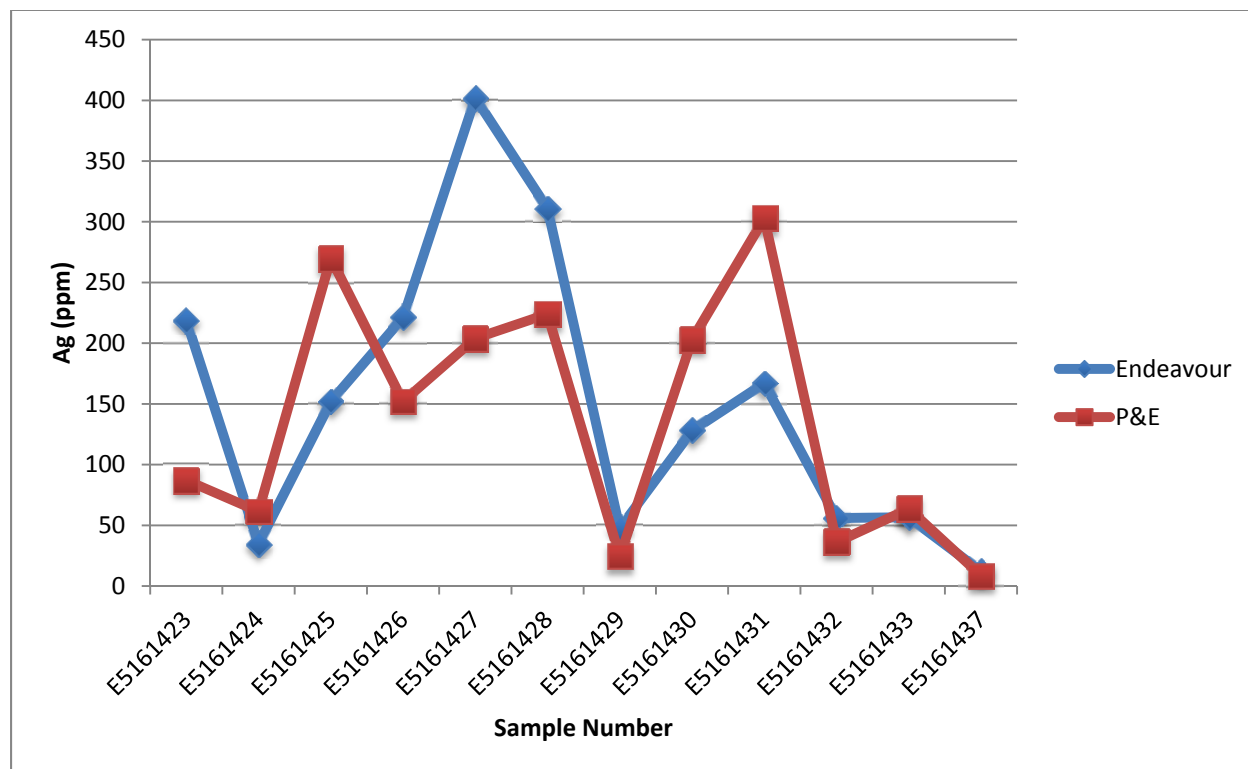


FIGURE 12.3 RESULTS OF TERRONERA VERIFICATION SAMPLING FOR GOLD BY P&E – JANUARY 2018

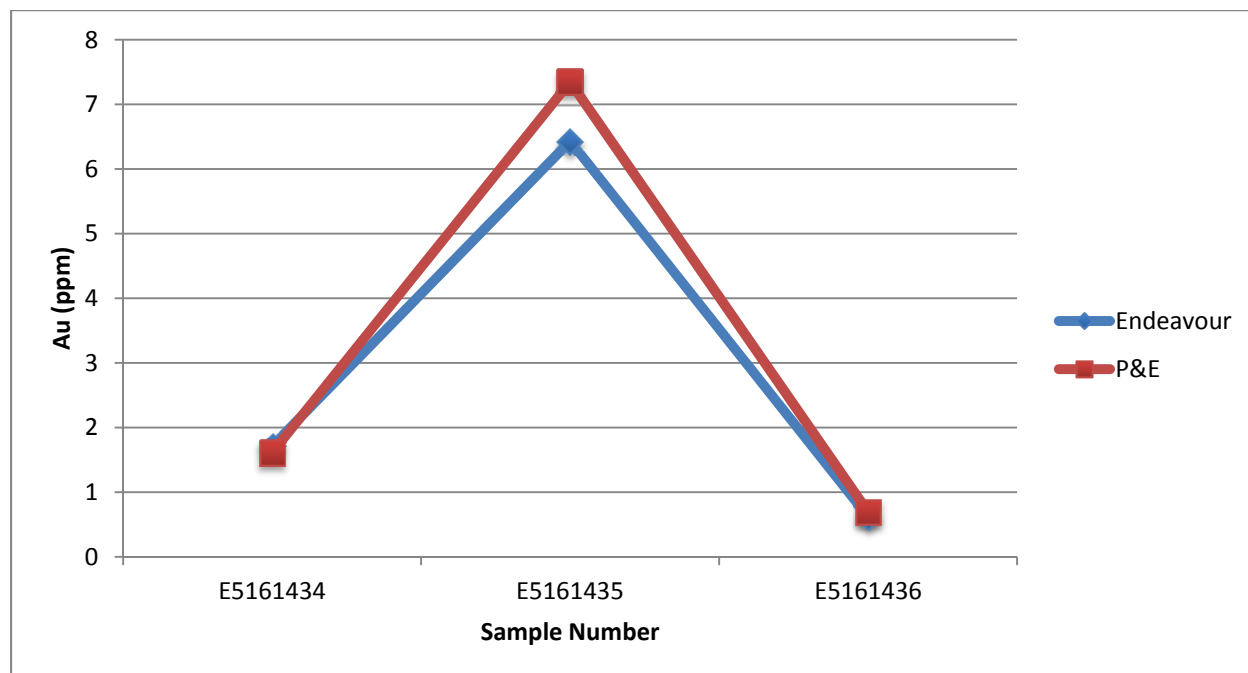


FIGURE 12.4 RESULTS OF TERRONERA VERIFICATION SAMPLING FOR SILVER BY P&E – JANUARY 2018

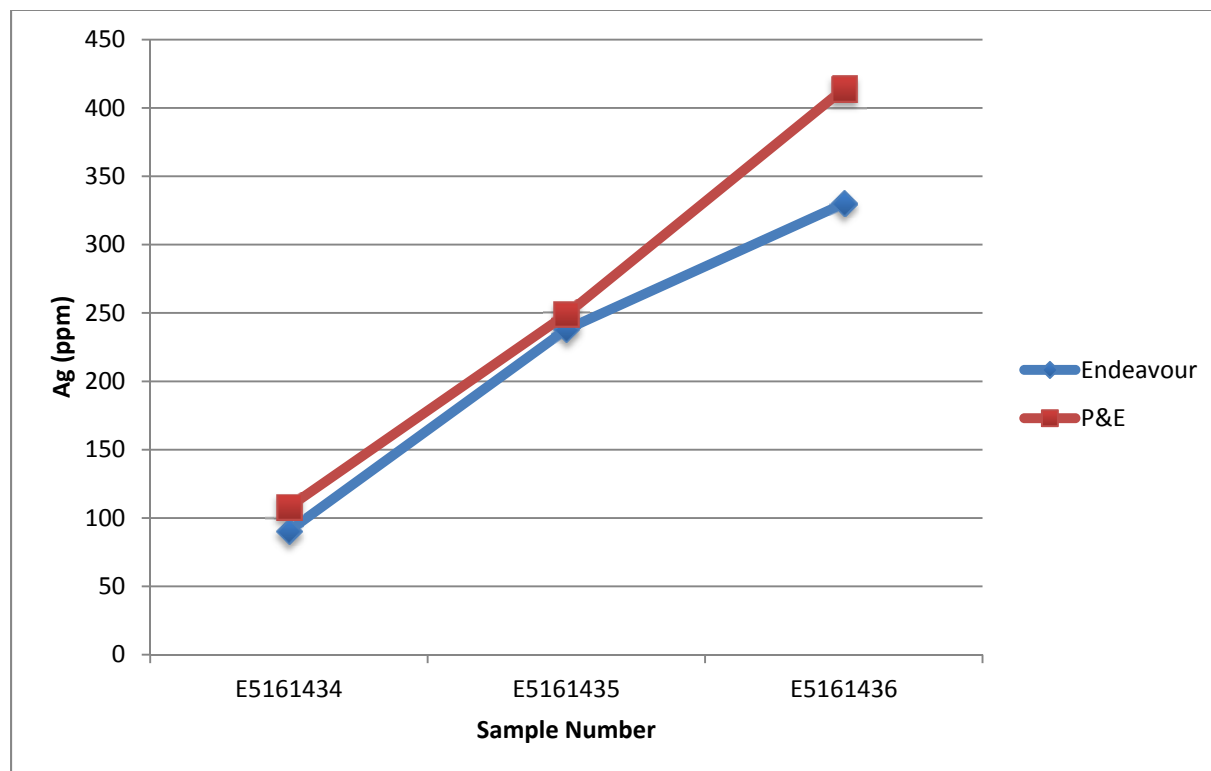


FIGURE 12.5 RESULTS OF TERRONERA VERIFICATION SAMPLING FOR GOLD BY P&E – OCTOBER 2018

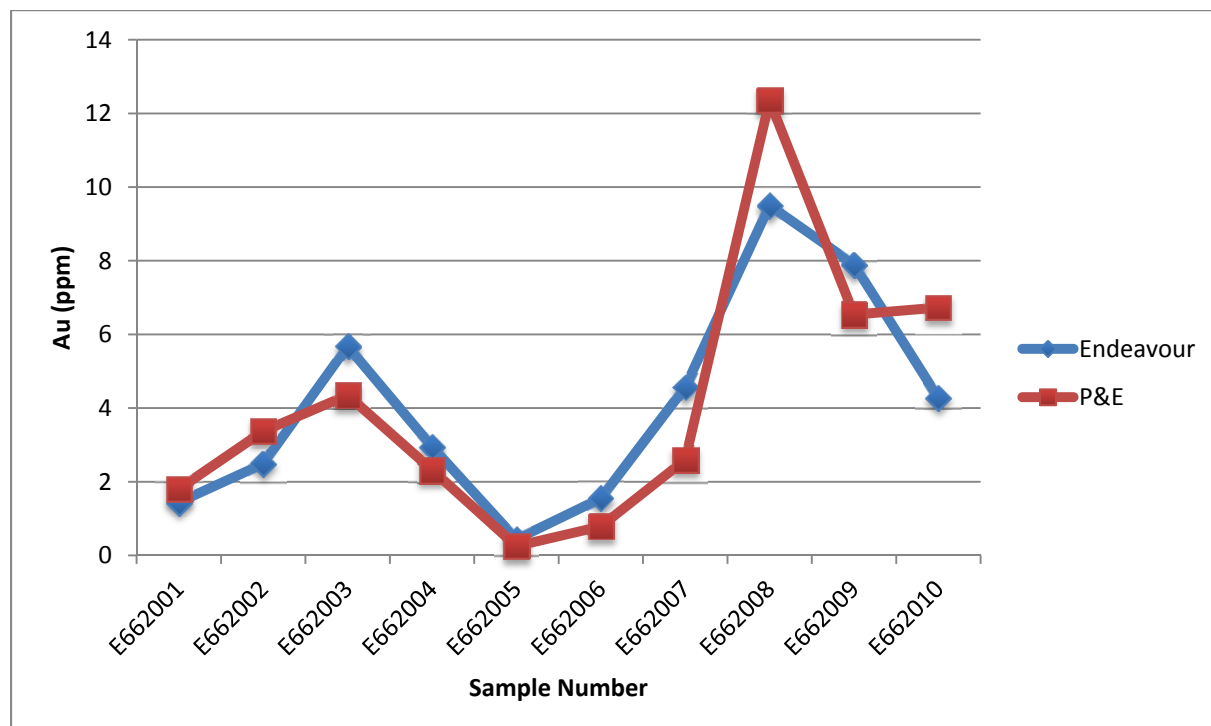
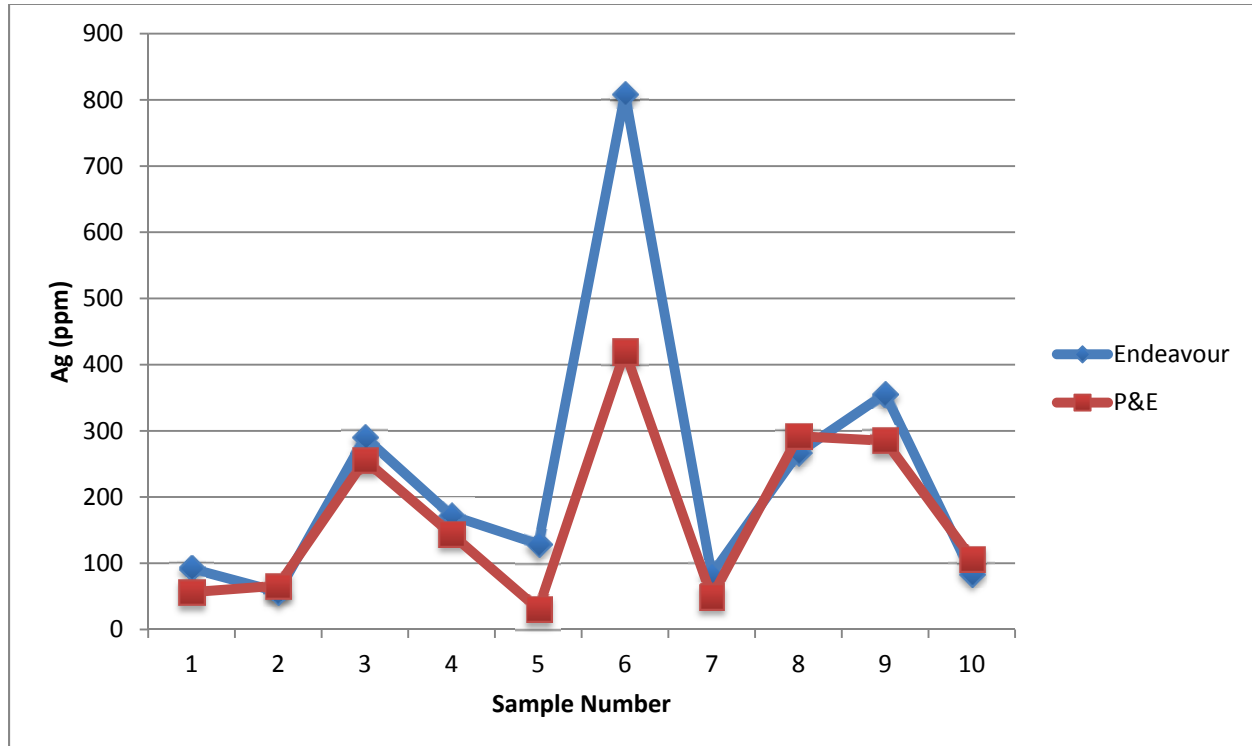


FIGURE 12.6 RESULTS OF TERRONERA VERIFICATION SAMPLING FOR SILVER BY P&E – OCTOBER 2018



P&E considers there to be good correlation between the majority of P&E's independent verification samples analyzed by ALS and the original analyses in the Terronera and La Luz database. Grade variation is evident in some samples, however, the authors consider the due diligence results to be acceptable.

Based upon the evaluation of the QA/QC program undertaken by Endeavour Silver and P&E's due diligence sampling, it is P&E's opinion that the results are acceptable for use in the current Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

ALS Metallurgy conducted locked and open cycle flotation testing for the Terronera Project at its metallurgical testing facility in Kamloops, B.C. The primary objectives of the test program were to enhance the levels of precious metal recovery and improve final concentrate grade.

The open cycle flotation data developed by ALS indicate that at a relatively coarse primary grind size, a medium grade gold and silver bearing second cleaner concentrate may be produced. The process flow sheet includes a two stage crushing circuit followed by closed circuit grinding to achieve a flotation feed grind size of 80% passing 150 mesh (100 microns). Flash flotation inclusion in the grinding circuit improves the levels of recovery. A regrind circuit provides improved liberation of precious metals mineralization and higher final concentrate grade.

The following processing steps are recommended for Terronera:

- Coarse ore storage yard (12,000 tonnes storage capacity).
- Stock pile (2,000 tonnes capacity).
- Crushing plant (two stage - closed circuit - 1,500 tpd capacity).
- Fine ore storage lines A and B.
- Primary grinding lines A and B (750 tpd capacity each).
- Flotation stages lines A and B (750 tpd capacity each).
- Flash flotation.
- Rougher and scavenger.
- Two-stage cleaning.
- Final concentrate sedimentation and filtration (1,500 tpd capacity).
- Final concentrate storage and shipping (1,500 tpd capacity).
- Tailings sedimentation (1,500 tpd capacity).
- Reclaimed and fresh water systems.
- Dry tailings filter plant.
- Dry stack tailings storage facility (TSF).

13.1 BASE CASE FLOTATION COMPARISON

Inclusion of Flash flotation technology allowed for enhanced precious metal recovery for Terronera. The precious metal recoveries outlined in Table 13.1 are based on metallurgical data developed by ALS. The metallurgical testing was conducted on an average grade Master Composite 1 deemed representative of Terronera Vein material.

It is estimated that 80.4% gold and 84.6% silver recoveries will be achieved in the beneficiation plant at Terronera. These levels of recovery are approximately 2% lower for both gold and silver when compared to the levels of recovery obtained by ALS. A lower precious metal recovery was applied to consider industrial size equipment and other factors including the following:

- Bench scale flotation test results used in the grind size versus recovery evaluation were developed using open cycle flotation testing.

- The Master Composite 1 used in the metallurgical evaluation was higher in grade than the average grade of the deposit at Terronera.
- A single flotation test (KM5462-07) was conducted in open cycle to simulate the process conditions that provided the best levels of precious metal recovery.

Table 13.1 provides a comparison between conventional flotation test results and the calculated overall levels of recovery.

TABLE 13.1 COMPARISON OF PROCESSING OPTIONS		
Processing Option	Overall Estimated Recovery (%)	
	Au	Ag
Flash Flotation with Regrind Circuit	80.38	84.55
Conventional Flotation No Regrind	67.50	80.70

A significant improvement in precious metal recovery was realized with flash flotation and regrind circuits when compared to the conventional base case without regrind.

Overall precious metal recoveries and concentrate grade were estimated based on steady state mass balance calculations. Assumptions made in this evaluation are outlined below:

- 2% lower gold and silver recoveries. The recoveries shown in Table 13.1 have had this discount applied.
- The average estimated grade used for mass balance purposes was 1.90 g/t Au and 205 g/t Ag.
- Recycle streams were considered for final concentrate grade estimation.

The calculated final concentrate grade was 6,966 g/t Ag and 61.34 g/t Au.

The recommended flow sheet provides an improved level of precious metal recovery and lower capital and operating costs as follows:

- A two-stage crushing circuit.
- A coarser primary grind size of 100 microns.
- Higher flotation recovery using Flash flotation.
- Improved final concentrate grade with a regrind circuit.

13.2 FLASH FLOTATION WITH REGRIND CIRCUIT

The following comments are provided with regard to the metallurgical data developed by ALS and shown in Table 13.2:

- A single open cycle test was conducted in open cycle simulating a 100 micron primary grind size.
- Approximately 50 and 60% Au and Ag recoveries respectively are obtained in the Flash flotation stage.
- Overall recovery is the sum of the precious metal reporting to the final products in the Flash and second cleaner flotation concentrates.

TABLE 13.2					
METALLURGICAL DATA DEVELOPED BY ALS					
Metallurgical Product	Weight (%)	Distribution (%)		Assay (g/t)	
		Au	Ag	Au	Ag
Flash + Cleaner concentrates	2.3	82.30	86.60	76.20	12,813
Cleaner tail	3.30	2.90	4.10	1.83	420
Rougher tail	94.40	14.80	9.30	0.33	33
Calculated head	100.00	100.00	100.00	2.10	336

The following should be noted with regard to the metallurgical data tabulated above:

- The overall gold recovery was 82.3%.
- The overall silver recovery was 86.6%.
- The Flash and cleaner concentrates combined represent approximately 2.3% of the original feed to flotation.

Trace elements detected in the ICP scan conducted in the final concentrate product indicate that deleterious elements identified include arsenic (As), cadmium (Cd), chromium (Cr), mercury (Hg) and Antimony (Sb). The analytical data indicate that one of the most abundant elements is iron. The sulphur flotation mass balance calculations provide indications that a significant portion of the sulphur is present as sulphide. These findings are corroborated by the mineralogical examination of the flotation tailings sample and the flotation tests results which indicate the presence of pyrite.

13.3 METALLURGICAL STUDY

Over the last four years, metallurgical testing has been conducted at several metallurgical laboratories for development of the data in support of various levels of studies of the Terronera Project. The main objectives of these studies were to assess the impact of precious metal grade and grind size upon flotation recovery. In addition, the characteristics of the flotation concentrate produced were evaluated with respect to precious metal and impurities content. Additional studies included as part of the metallurgical investigation are outlined below:

- Comminution Study.
- Solid – Liquid Separation Study.
- High Pressure Grinding Rolls (“HPGR”) testing.
- Mineralogical Examination (Quemscan & petrographic analysis).

In addition to the above listed evaluations the samples under study were analyzed by ICP (Inductively Coupled Plasma) scan and metallic gold as well as silver and cyanide soluble gold / silver.

13.4 METALLURGICAL TESTING

The metallurgical test program included comprehensive evaluation of the flotation parameters for one composite representing an average grade of the deposit as well as of three composite samples representing low, medium and high-grade materials identified in the deposit. Each composite sample was subjected to rougher flotation testing at three different grind sizes including 80% passing 150, 200 and 270 mesh (Tyler). Precious metals and metal sulfides mineralization flotation characteristics were evaluated to develop the levels of gold and silver recoveries that could be achieved at different grinds.

13.4.1 Sample Characterization

A number of composite samples were evaluated for a metallurgical response to a flotation process. An additional sample was submitted for comminution and abrasion testing. The samples identification is as follows:

- | | |
|---------------|---------------------|
| • TR2015 – 1 | AVERAGE GRADE |
| • TR2016 – 03 | LOW GRADE |
| • TR2016 – 01 | MEDIUM GRADE |
| • TR2016 – 02 | HIGH GRADE |
| • TERRONERA | COMMINUTION TESTING |

The analytical data developed on the Terronera composite average grade sample are outlined in Table 13.3.

TABLE 13.3 HEAD ANALYSES OF COMPOSITE SAMPLE TR2015-1	
Element (units)	Assay
Gold (g/t Au)	1.124
Silver (g/t Ag)	225.0
Cyanide solution gold (g/t Au)	0.92
Cyanide solution silver (g/t Ag)	201.0
Iron (mg/kg Fe)	9440
Mercury (mg/kg Hg)	0.11
Sulphide (S%)	0.23
Sulphate (S%)	0.16
Total sulphur (S%)	0.39

The feed grade was 1.12 g/t Au and 225 g/t Ag. Approximately 81.9% of the gold and 89.3% of the silver present in the sample was cyanide soluble. The total sulphur assayed 0.39% with slightly more than half of the total coming from sulphide sulphur.

13.4.2 Base Case: Second Cleaner Concentrate Flotation

It is estimated that the second cleaner concentrate will contain approximately 68% of the gold and 80% of the silver contained in the feed to flotation as shown in Table 13.4 Base Case Flow Sheet.

TABLE 13.4 BASE CASE FLOW SHEET					
Metallurgical Product	Weight (%)	Distribution (%)		Assay (g/t)	
		Au	Ag	Au	Ag
Cleaner concentrate	1.50	67.50	80.70	54.90	14,625
Cleaner Scavenger tail	2.30	8.30	7.10	4.36	837
Rougher tail	96.20	24.20	12.20	0.30	34
Combined final tail	98.50	32.50	19.30	0.40	53
Calculated head	100.00	100.00	100.00	1.19	267

Approximately 20 kg of each of the three samples (representing various grades) were procured for evaluation. The samples were labeled TR2016-01 (Mid Grade), TR2016-02 (High Grade), and TR2016-03 (Low Grade). The material was crushed to P100 passing 6 mesh, blended, and split into 1 kg charges. A representative sample was pulverized and submitted for head analyses. The results are shown in Table 13.5.

TABLE 13.5
SAMPLES CHARACTERIZATION AND HEAD ASSAY, FIRE ASSAY,
AND WHOLE ROCK ANALYSIS (%)

Ore Grade	Sample	Head Assays						
		Au (g/t)	Ag (g/t)	SiO2 (%)	CaO (%)	Fe2O3 (%)	Total S (%)	Sulfide (%)
Low (LG)	TR2016-03	0.967	115.7	89.2	4.6	1.08	0.45	0.18
Medium (MG)	TR2016-01	2.014	241.4	84.8	5.6	1.13	0.24	0.05
High (HG)	TR2016-02	3.734	881.3	92	1.13	1.49	0.99	0.57

The composite samples provided by Endeavour Silver are deemed representative of materials with various precious metal grades present at Terronera:

- The whole rock analyses showed some variability.
- The low and medium grade composites showed lower quartz contents when compared to the high-grade composite.
- Differences are observed in the calcium oxide and sulphide contents as well.
- Iron content is higher in the high-grade composite.
- Higher levels of iron and sulphide provide an indication of presence of pyrite in the high-grade composite.

13.5 MINERALOGY

The analytical and mineralogical data indicate that the rock matrix is comprised mainly of quartz. The vein material tested had a specific gravity of 2.65. This correlates well with the mineralogy results.

13.6 COMMINATION TESTING

A Bond Ball Mill Work Index (“BWi”) was determined for four samples from various areas of the deposit for variability testing. The samples were designated as 501, 502, 503 and 504. Each sample was tested at a closed size of 100 mesh. In addition, the Bond Ball mill work index was determined for the original composite TR 2015-1 sample at a closed size of 100 and 200 mesh. The BWi results are summarized in Table 13.6.

TABLE 13.6	
BOND BALL MILL WORK INDEX TEST RESULTS	
Sample	BWi @100 mesh (kWh/t)
501	15.82
502	16.98
503	16.73
504	17.65
TR 2015-1	17.36
Sample	BWi @200 mesh (kWh/t)
TR 2015-1	17.28

Samples were submitted to Hazen Research for additional comminution testing. The samples were subjected to SMC testing, Bond rod mill work index (RWi), Bond abrasion index (Ai), and Bond impact work index testing (CWi). The results are summarized in Table 13.7.

TABLE 13.7			
COMMINUTION TESTING RESULTS			
RWi (kWh/t)	Ai (g)	CWi (kWh/t)	SCSE (kWh/t)
17.2	1.0916	8.3	9.85

Note: SCSE = standard circuit specific energy

Based on the results obtained the material would be classified as hard and highly abrasive. These grindability test results correlate well with previous data developed for materials from Terronera.

13.7 GRIND CALIBRATION AND ROUGHER FLOTATION

Test charges from each sample were ground in a laboratory rod mill at 60% solids to establish a correlation between grind time and particle size distribution. Three targeted 80% passing particle size distributions were specified 150, 200 and 270 mesh Tyler.

Rougher flotation tests were conducted in duplicate on each of the three TRPM composite samples at each of the target grind sizes.

In the latest series of flotation tests at ALS, the only collector used was potassium amyl xanthate (PAX). For all other tests, the following flotation reagents dosages and conditions were applied for flotation:

- 86 g/t of AP-3418A added in the grind and flotation stages.
- 28 g/t of A-241 added in the grind.
- 107 g/t of copper sulphate (CuSO₄) added in the grind.
- 33 g/t of F-65 added in the condition and flotation.

- 30% pulp density.
- Natural pH using tap water.

13.8 PROCESSING OPTIONS

The processing options to be considered for Terronera for optimization of consumables and energy requirements include the following:

- Application of HPGR technology coupled with fine grinding using vertical and high intensity grind (“VTR” and “HIG”) grinding equipment.
- Ore sorting.

13.9 GRAVITY CONCENTRATION

Small quantities of metallic gold and silver were indicated by metallic assay conducted on the composite samples at various grades. Inclusion of a gravity concentration circuit is not supported by the metallic assay data developed in this evaluation. However, higher grade zones should be analyzed for metallic gold and silver content to address the possibility of presence of coarse precious metal in higher grade zones in the deposit.

13.10 PROCESS MASS BALANCE

To develop projected levels of precious metal recovery for the Project, a metallurgical simulation model of the beneficiation plant was constructed. A steady state mass balance was calculated for the entire process including the flotation circuit.

13.11 CONCLUSIONS

Using the metallurgical data developed by ALS, the expected levels of recovery for gold and silver are 80.38 and 84.55%, respectively. These levels of recovery may be achieved at grind of 80% passing 150 mesh.

A cleaner (higher grade) concentrate may be produced at a finer grind. A finer grind is achieved in the regrind circuit.

Optimization of the grinding circuit configuration may be necessary in order to achieve the fine grind required to enhance precious metal recovery.

Precious metal recovery is sensitive to grind size. Gold recovery appears to be more sensitive to grind size than silver.

Precious metals appear to be associated with sulphide mineralization present. Pyrite may be recovered at a relatively coarse grind of 100 mesh.

The Terronera Low, Medium, and High-grade composites evaluated had a similar response to the flotation parameters evaluated. Precious metals recoveries were similar.

13.12 RECOMMENDATIONS

Definition of the most cost-effective process for Terronera will depend on implementation of technology that provides a lower consumables requirement and energy efficient equipment.

Optimization of flotation efficiency will require further evaluation of reagents and locked cycle flotation testwork.

It is recommended that further flotation testwork be conducted on samples that represent the grade and ore horizons identified in the deposit.

The following recommendations are presented for consideration in the process design criteria for development of the Terronera Project:

- The lowest energy requirement for size reduction could be provided by inclusion of an HPGR crusher as the tertiary crusher. High Intensity (HIG) and Vertical (VTR) re-grind mills coupled with HPGR will result in energy savings.
- Flotation of a Flash (bulk concentrate) at a coarse grind will enhance precious metal recovery. The bulk concentrate was not subjected to fine grinding. Flash flotation concentrate had a high grade and was combined with the final concentrate without re-grind or further cleaning.
- A coarser grind for flotation will result in improved levels of recovery and enhanced stability for the TSF.
- Higher grade zones should be analyzed for metallic gold and silver content to address the possibility of presence of coarse precious metal.
- Ore sorting techniques should be evaluated to upgrade the process plant feed. This will result in a lower plant throughput while maintaining the level of precious metal production.
- Optimization of the grinding circuit is recommended to lower operating costs associated with grinding.
- In metallurgical testing regrind size prior to cleaning was in a 20 micron range. This will be difficult to achieve in actual practice. Further testing should be conducted for optimization of the grind size.

14.0 MINERAL RESOURCE ESTIMATES

The Terronera and La Luz deposits are discussed separately regarding their Mineral Resource Estimates.

14.1 TERRONERA DEPOSIT MINERAL RESOURCE ESTIMATE

14.1.1 Introduction

This Technical Report section is to update the Mineral Resource Estimate on the Preliminary Feasibility Study for the Terronera Deposit of Endeavour Silver, dated September 18, 2018. The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 and has been estimated in conformity with generally accepted CIM "Estimation of Mineral Resources and Mineral Reserves Best Practices" guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral Resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent Mineral Resource Estimates.

This Mineral Resource Estimate was undertaken by Yungang Wu, P.Geo., and Eugene Puritch, P.Eng., FEC, CET of P&E Mining Consultants Inc., Brampton, Ontario, both independent Qualified Persons in terms of NI 43-101, from information and data supplied by Endeavour Silver. The effective date of this Mineral Resource Estimate is February 1, 2019.

14.1.2 Database

All drilling and assay data were provided in the form of Excel data files by Endeavour Silver. The Gems database for this Mineral Resource Estimate, constructed by P&E, consisted of 195 drill holes totalling 65,083 m and 36 channel samples totalling 77.25 m, of which 39 drill holes totalling 18,774 m were drilled in 2018 (Table 14.1). A drill hole plan is shown in Appendix A.

TABLE 14.1 TERRONERA DRILL HOLE DATABASE SUMMARY				
Drilling Year	No. of Drill Holes	Drilling (m)	No. of Samples	Notes
2018	39	18,773.65	2,545	Used for this Mineral Resource update
2017	18	7,817.05	1,184	Used for Mineral Resource Estimate dated August 7, 2018
2011-2016	138	38,492.25	12,943	Used for Mineral Resource Estimate dated August 7, 2018
Total	195	65,082.95	16,672	Used for this Mineral Resource Estimate
Channel Samples	36	77.25	63	Used for Mineral Resource Estimate dated August 7, 2018

The assay table of the Mineral Resource Estimate database contained a total of 16,672 assays for Au, Ag, Cu, Pb, Zn, etc. from drill holes and 63 assays from channel samples. The Au and Ag assays were factored downward by core recovery and were marked as Au_REC and Ag_REC in the database which was utilized for the Mineral Resource Estimate.

All drill hole survey and assay values are expressed in metric units, while grid coordinates are in the WGS84, Zone 13Q UTM geodetic reference system.

14.1.3 Data Verification

P&E carried out data verification for silver and gold assays contained in the Mineral Resource wireframes against laboratory certificates that were obtained directly from ALS Chemex laboratory in Hermosillo, Mexico. Over 95% were checked with no errors were found.

Endeavour Silver adjusted downward 1,720 raw Ag and Au assays for core recovery, of which 415 of these assays were used for the Mineral Resource Estimate. For example, if core recovery was 92%, the Ag and Au assay values were reduced to 92% of the original analytical value. The adjusted values are recorded in the database as “Ag_REC” and “Au_REC” and these values were used for the Mineral Resource Estimate. P&E’s site visit confirmed that core recovery was generally very good, the vein was very competent and recovery was over 90% for the core examined. The oxidation level was generally low and the mineralization appeared unleached. P&E agrees with Endeavour Silver that the use of “recoverable” grades is a conservative approach.

In addition to the data verification reported above, P&E reviewed the QAQC for the Terronera Project analyses and concludes that the analyses are acceptable. In P&E’s opinion the drill hole and assay/analytical databases may be used for the estimation of Mineral Resources.

14.1.4 Domain Interpretation

A total of eight (8) mineralized vein wireframes were generated during of this Mineral Resource Estimate. A cut-off grade of 150 g/t silver equivalent (AgEq) was applied to the wireframes. The AgEq was calculated with a formula of $AgEq = Ag + (Au \times 75)$. The wireframes were created from successive polylines looking N40W (AZ 320) orientated on vertical cross-sections with a 25 m spacing. Minimum constrained sample length for interpretation was 2.0 m. In some cases, mineralization below the above mentioned 150 g/t AgEq cut-off was included for the purpose of maintaining zonal continuity and the minimum width. On each cross-section, polyline interpretations were digitized from drill hole to drill hole but not typically extended more than 25 m into untested territory. Historical mined out areas were depleted from the Terronera Vein with shapes of historical stopes provided by Endeavour Silver. P&E did not verify the shape of these stopes.

The resulting wireframe 3-D domains were used as hard boundaries during Mineral Resource grade estimation, for rock coding of the block model, statistical analysis and compositing limits. The 3-D domains are presented in Appendix B.

A topographic surface was provided by Endeavour Silver. The topographic surface was created using a satellite image which presented some discrepancies with the surveyed drill hole collars. The Mineral Resource Estimate influenced by these discrepancies is minor; however, it is recommended that Endeavour Silver should survey the topography of the Terronera Deposit in the future.

14.1.5 Model Rock Code Determination

A unique model rock code was assigned for blocks within each mineralized domain in the Mineral Resource Estimate model. The codes applied for the models are tabulated in Table 14.2.

TABLE 14.2		
MODEL ROCK CODE DESCRIPTION AND VOLUME		
Domains	Rock Type	Volume (m³)
Terronera Vein	100	2,415,651
HW1	200	348,691
HW2	300	145,444
HW3	400	18,007
HW4	500	30,127
HW5	600	68,139
HW6	700	35,860
FW	800	71,256
Air	0	
Waste	99	

Note: HW = hanging wall, FW = footwall

14.1.6 Compositing

The basic statistics of all constrained assays and sample length are presented in Table 14.3.

TABLE 14.3 BASIC STATISTICS OF ALL CONSTRAINED ASSAYS AND SAMPLE LENGTH					
Variable	Ag_REC	Ag	Au_REC	Au	Length (m)
Number of Samples	2,649	2,649	2,649	2,649	2,649
Minimum Value (g/t)	0.30	0.30	0.008	0.008	0.10
Maximum Value (g/t)	15,532.50	15,532.50	36.50	36.50	4.00
Mean (g/t)	275.05	289.39	2.11	2.23	0.71
Median (g/t)	81.80	90.00	0.93	1.03	0.60
Geometric Mean (g/t)	81.73	89.65	0.79	0.87	0.62
Variance	701,066.35	718,739.91	11.26	11.81	0.15
Standard Deviation (g/t)	837.30	847.79	3.36	3.44	0.39
Coefficient of Variation	3.04	2.93	1.59	1.54	0.54

Approximately 84% of the constrained sample lengths were 1 m or less, with an overall average of 0.71 m. To regularize the assay sampling intervals for grade interpolation, a 1.0 m compositing length was selected for the drill hole intervals that fell within the constraints of the above-mentioned domains. The composites were calculated for Ag and Au over 1.0 m lengths starting at the first point of intersection between assay data hole and hanging wall of the 3-D zonal constraint. The compositing process was halted upon exit from the footwall of the wireframe constraint. Un-assayed intervals and below detection limit assays were set to 0.001 g/t for all elements. Any composites that were less than 0.25 m in length were discarded so as not to introduce any short sample bias in the interpolation process. The constrained composite data were extracted to point files for a capping study. The composite statistics are summarized in Table 14.4.

TABLE 14.4 COMPOSITE SUMMARY STATISTICS				
Variable	Ag Composite	Au Composite	Ag Capped Composite	Au Capped Composite
Number of Samples	2,012	2,012	2,012	2,012
Minimum Value (g/t)	0.001	0.001	0.001	0.001
Maximum Value (g/t)	11,514.68	28.58	2,100.00	15.00
Mean (g/t)	236.85	1.91	201.72	1.87
Median (g/t)	85.99	0.98	85.99	0.98
Geometric Mean (g/t)	81.63	0.81	80.58	0.81
Variance	360,760.89	7.02	118,394.35	5.88
Standard Deviation (g/t)	600.63	2.65	344.08	2.42
Coefficient of Variation	2.54	1.39	1.71	1.29

14.1.7 Grade Capping

Grade capping was investigated on the 1.0 m composite values in the database within the constraining domains to ensure that the possible influence of erratic high values did not bias the database. Ag and Au composite Log-normal histograms were generated for each mineralized domain and the resulting graphs are exhibited in Appendix C. The Ag and Au grade capping values are detailed in Tables 14.5 and 14.6 respectively. The capped composites were utilized to develop variograms and for block model grade interpolation.

TABLE 14.5
SILVER GRADE CAPPING VALUES

Domains	Total No. of Composites	Capping Value Ag (g/t)	Total No. of Capped Composites	Mean		Coefficient of Variation		Capping Percentile
				Composites	Capped Composites	Composites	Capped Composites	
Terronera Vein	1,433	2,100	25	255.98	220.09	2.57	1.74	98.3%
HW1	259	1,000	3	156.32	143.40	1.85	1.32	98.8%
HW2	120	700	6	241.39	150.20	2.55	1.22	95.0%
HW3	15	600	2	316.39	243.24	1.16	0.89	86.7%
HW4	29	No Capping	0	106.32	106.32	1.25	1.25	100.0%
HW5	57	No Capping	0	141.35	141.35	1.17	1.17	100.0%
HW6	39	No Capping	0	50.09	50.09	0.88	0.88	100.0%
FW	61	1,300	2	368.24	286.41	1.91	1.23	96.7%

Note: HW = hanging wall, FW = footwall

TABLE 14.6
GOLD GRADE CAPPING VALUES

Domains	Total No. of Composites	Capping Value Au (g/t)	Total No. of Capped Composites	Mean		Coefficient of Variation		Capping Percentile
				Composites	Capped Composites	Composites	Capped Composites	
Terronera Vein	1,433	15	7	1.89	1.88	1.30	1.26	99.5%
HW1	259	15	3	1.96	1.84	1.74	1.46	98.8%
HW2	120	12	1	2.08	2.02	1.31	1.18	99.2%
HW3	15	No Capping	0	0.55	0.55	0.96	0.96	100.0%
HW4	29	No Capping	0	1.94	1.94	1.17	1.17	100.0%
HW5	57	10	1	1.65	1.54	1.86	1.68	98.2%
HW6	39	No Capping	0	2.54	2.54	0.86	0.86	100.0%
FW	61	12	1	1.77	1.67	1.81	1.65	98.4%

Note: HW = hanging wall, FW = footwall

14.1.8 Semi-Variography

A semi-variography study was performed as a guide to determining a grade interpolation search strategy. Omni, along strike, down dip and across dip semi-variograms were attempted for each domain using Ag and Au capped composites. Selected variograms are attached in Appendix D.

Continuity ellipses based on the observed ranges were subsequently generated and utilized as the basis for estimation search ranges, distance weighting calculations and Mineral Resource classification criteria. The anisotropy was modeled based on an average strike direction of 320°, -75° northeast down dip.

14.1.9 Bulk Density

A total of 2,756 bulk density measurements from 127 drill holes were provided by Endeavour Silver, of which 1,062 measurements were located within the mineralized veins. The vein constrained bulk density was averaged 2.59 t/m³ with range of 2.02 to 3.25 t/m³. The bulk density determination by Endeavour Silver was undertaken with water displacement on waxed drill core.

David Burga, P.Geo of P&E collected 15 samples during his site visits on June 14, 2016 and January 9, 2018. The samples were tested in AGAT Laboratories in Mississauga, and the average bulk density was 2.68 t/m³.

David Burga, P.Geo of P&E collected 10 samples on an October 16, 2018 site visit. The samples were tested in AGAT Laboratories in Mississauga, and the average bulk density was 2.68 t/m³.

14.1.10 Block Modeling

The Terronera Mineral Resource block model was constructed using Geovia Gems V6.8 modelling software and the block model origin and block size are tabulated in Table 14.7. The block model consists of separate models for estimated grade of Ag, Au and AgEq, rock type, volume percent, bulk density and classification attributes.

TABLE 14.7			
TERRONERA BLOCK MODEL DEFINITION			
Direction	Origin	No. of Blocks	Block Size (m)
X	516,355	400	4.0
Y	2,296,905	280	1.0
Z	1,760	168	4.0
Rotation	50° clockwise		

All blocks in the rock type block model were initially assigned a waste rock code of 99, corresponding to the surrounding country rocks. All mineralized domains were used to code all blocks within the rock type block model that contain 1% or greater volume within the domains. These blocks were assigned their appropriate individual rock codes as indicated in Table 14.2.

The topographic surfaces were subsequently utilized to assign rock code 0 for air, to all blocks 50% or greater above that surface.

A volume percent block model was set up to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining domains. As a result, the domain boundary was properly represented by the volume percent model ability to measure individual infinitely variable block inclusion percentages within that domain. The minimum percentage of the mineralized block was set to 1%.

The bulk density of each block in the mineralized domains was interpolated with the Inverse Distance Squared method using 2,756 bulk density measurements.

The Ag and Au grade were interpolated with Inverse Distance Cubed ($1/d^3$) using capped composites. Multiple passes were executed for the grade interpolation to progressively capture the sample points to avoid over smoothing and preserve local grade variability. Search ranges were based on the variograms and search directions which were aligned with the strike and dip directions of each mineralized domain accordingly. Grade blocks were interpolated using the parameters in Table 14.8.

TABLE 14.8 GOLD AND SILVER BLOCK MODEL INTERPOLATION PARAMETERS							
Element	Pass	Dip Range (m)	Strike Range (m)	Across Dip Range (m)	Max. No. of Samples per Hole	Min. No. of Samples	Max. No. of Samples
Ag	I	27	30	6	2	5	12
	II	45	50	10	2	3	12
	III	135	150	30	2	1	12
Au	I	20	25	5	2	5	12
	II	30	40	10	2	3	12
	III	135	150	30	2	1	12

The Ag equivalent (AgEq) values were derived using the formula:

$$\text{AgEq g/t} = \text{Ag g/t} + (\text{Au g/t} \times 75).$$

Selected vertical cross-sections and plans of the AgEq grade blocks are presented in Appendix E.

14.1.11 Mineral Resource Classification

In P&E's opinion, the drilling, assaying and exploration work of the Terronera Deposit supporting this Mineral Resource Estimate are sufficient to indicate a reasonable prospect of economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The Mineral Resource was classified as Indicated and Inferred based on the geological interpretation, semi-variogram performance and drill hole spacing. The Indicated Mineral Resource was classified for the blocks interpolated by the grade interpolation Pass I and II in the Table 14.8, which used at least three composites from a minimum of two drill holes, and Inferred

Mineral Resources were classified with Pass III for all remaining populated grade blocks within the mineralized domains. The classifications have been adjusted on a longitudinal projection to reasonably reflect the distribution of each classification. Selected classification block cross-sections and plans are attached in Appendix F.

14.1.12 Mineral Resource Estimate Cut-Off

The Mineral Resource Estimate was derived from applying a AgEq cut-off grade to the block model and reporting the resulting tonnes and grade for potentially mineable areas. The following calculation demonstrates the rationale supporting the AgEq cut-off grade that determines the underground potentially economic portions of the constrained mineralization.

Underground AgEq Cut-Off Grade Calculation

Au Price	US\$1,275/oz based on approx. 30 month trailing average at Oct 31/18
Ag Price	US\$17.50/oz based on approx. 30 month trailing average at Oct 31/18
AgEq Recovery	87%
Mining Cost	\$40.00/tonne mined
Process Cost	\$23/tonne processed
General & Administration	\$10/tonne processed
AgEq Refining \$/oz	US\$0.5
AgEq Smelter Payable	99%

Therefore, the AgEq cut-off grade for the underground Mineral Resource Estimate is calculated as follows:

Mining, Processing and G&A costs per ore tonne = (\$40 + \$23 + \$10) = \$73/tonne

$$[(\$73)/[(\$17.50-\$0.50)/31.1035 \times 87\% \text{ Recovery} \times 99\% \text{ Payable}]] = 155.3 \text{ g/t, Use 150 g/t}$$

14.1.13 Mineral Resource Estimate

P&E considers that the silver and gold mineralization of the Terronera Deposit is potentially amenable to underground extraction. The resulting Mineral Resource Estimate is tabulated in the Table 14.9.

TABLE 14.9
TERRONERA MINERAL RESOURCE ESTIMATE AT A CUT-OFF GRADE OF 150 g/T AGEq⁽¹⁻⁵⁾

Classification	Tonnage (kt)	Ag (g/t)	Contained Ag (koz)	Au (g/t)	Contained Au (koz)	AgEq (g/t)	Contained AgEq (koz)
Indicated	5,275	227.2	38,537	2.35	398	403.4	68,416
Inferred	1,022	212.2	6,970	1.70	56	339.8	11,161

1. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
3. The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
4. $\text{AgEq g/t} = \text{Ag g/t} + (\text{Au g/t} \times 75)$
5. Historically mined areas were depleted from the Terronera Vein wireframe.

Mineral Resources are sensitive to the selection of a reporting AgEq cut-off grade and are shown in Table 14.10.

TABLE 14.10
TERRONERA SENSITIVITY OF MINERAL RESOURCE ESTIMATE TO AGEq CUT-OFF

Classification	Cut-Off AgEq (g/t)	Tonnage (kt)	Ag (g/t)	Contained Ag (koz)	Au (g/t)	Contained Au (koz)	AgEq (g/t)	Contained AgEq (koz)
Indicated	1,000	223	1,075.3	7,716	3.92	28.1	1,369.3	9,826
	750	470	802.9	12,126	4.02	60.7	1,104.4	16,680
	500	1,183	517.1	19,671	3.78	144.0	800.9	30,468
	250	3,580	286.1	32,923	2.84	326.4	498.8	57,406
	200	4,490	250.7	36,194	2.57	370.5	443.2	63,977
	150	5,275	227.2	38,537	2.35	398.4	403.4	68,416
	100	5,898	210.3	39,874	2.18	414.2	374.1	70,937
	50	6,360	198.0	40,491	2.06	421.1	352.5	72,076
	0.01	6,533	193.3	40,595	2.01	422.1	344.0	72,256
Inferred	1,000	12	802.3	311	4.52	1.8	1,141.2	442
	750	54	634.8	1,104	3.65	6.4	908.6	1,581
	500	169	490.6	2,673	2.81	15.3	701.6	3,823
	250	581	274.3	5,126	2.34	43.7	449.7	8,406
	200	761	243.3	5,951	2.04	50.0	396.5	9,697
	150	1,022	212.2	6,970	1.70	55.9	339.8	11,161
	100	1,264	186.4	7,575	1.50	61.0	298.9	12,150
	50	1,381	174.3	7,739	1.41	62.7	280.1	12,440
	0.01	1,413	171.0	7,768	1.38	62.8	274.6	12,477

14.1.14 Confirmation of Estimate

The block model was validated using several industry standard methods including visual and statistical methods.

Visual examination of composite and block grades on successive plans and cross-sections on-screen in order to confirm that the block model correctly reflects the distribution of sample grades. The review of estimation parameters included:

- Number of composites used for estimation;
- Number of holes used for estimation;
- Mean Distance to sample used;
- Number of passes used to estimate grade;
- Mean value of the composites used.

A comparison of Ag and Au mean grades of composites with block model on a global basis is presented in Table 14.11.

TABLE 14.11 AVERAGE GRADE COMPARISON OF COMPOSITES WITH BLOCK MODEL		
Data Type	Ag (g/t)	Au (g/t)
Composites	236.9	1.91
Capped Composites	201.7	1.87
Block Model ID ³ *	189.3	1.90
Block Model NN**	189.6	1.92

* block model grade interpolated using Inverse Distance Cubed.

** block model grade interpolated using Nearest Neighbour.

The comparison above shows the average grades of the Ag and Au blocks in the block models to be somewhat lower than the average grades of capped composites used for grade estimation. This is probably due to the localized clustering were smoothed by the block modeling grade interpolation process. The block model grade will be more representative than the capped composites due to the block model's 3-D spatial distribution characteristics.

A volumetric comparison was performed with the block model volume versus the geometric calculated volume of the domain wireframes and the differences are shown in Table 14.12.

TABLE 14.12 VOLUMETRIC COMPARISON OF BLOCK MODEL WITH GEOMETRIC WIREFRAMES	
Geometric Volume of Wireframes	3,133,175 m ³
Block Model Volume	3,132,129 m ³
Difference %	0.03%

Ag local trends of the main Terronera Vein domain were evaluated by comparing the ID³ and NN estimate against Ag Composites and Capped Composites (Figures 14.1 to 14.3). As shown in Figures 14.2 and 14.3, the Ag grade interpolation with Inverse Distance Cubed and Nearest Neighbour agreed well.

FIGURE 14.1 TERRONERA SILVER GRADE SWATH EASTING PLOT

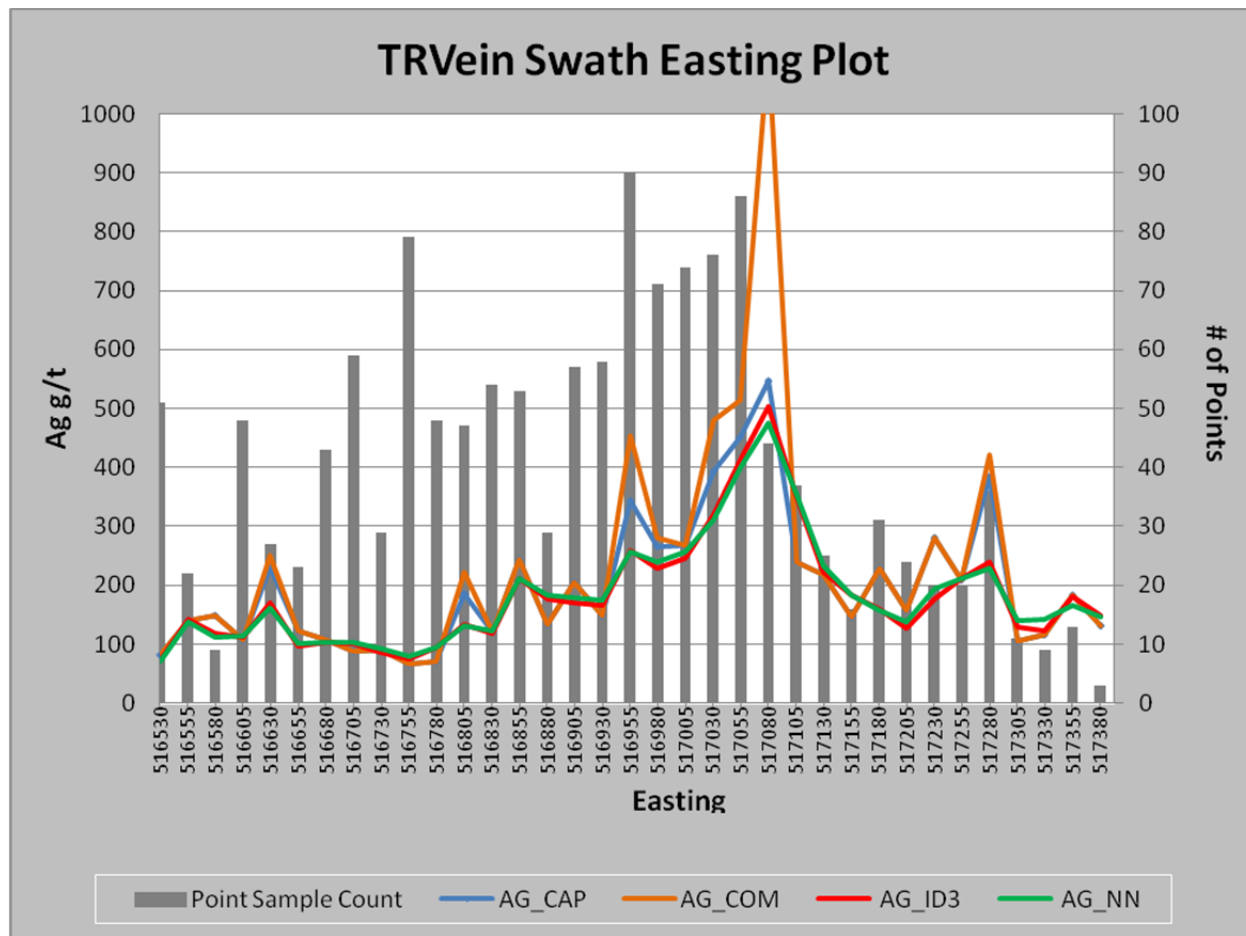


FIGURE 14.2 SILVER GRADE SWATH NORTHING PLOT

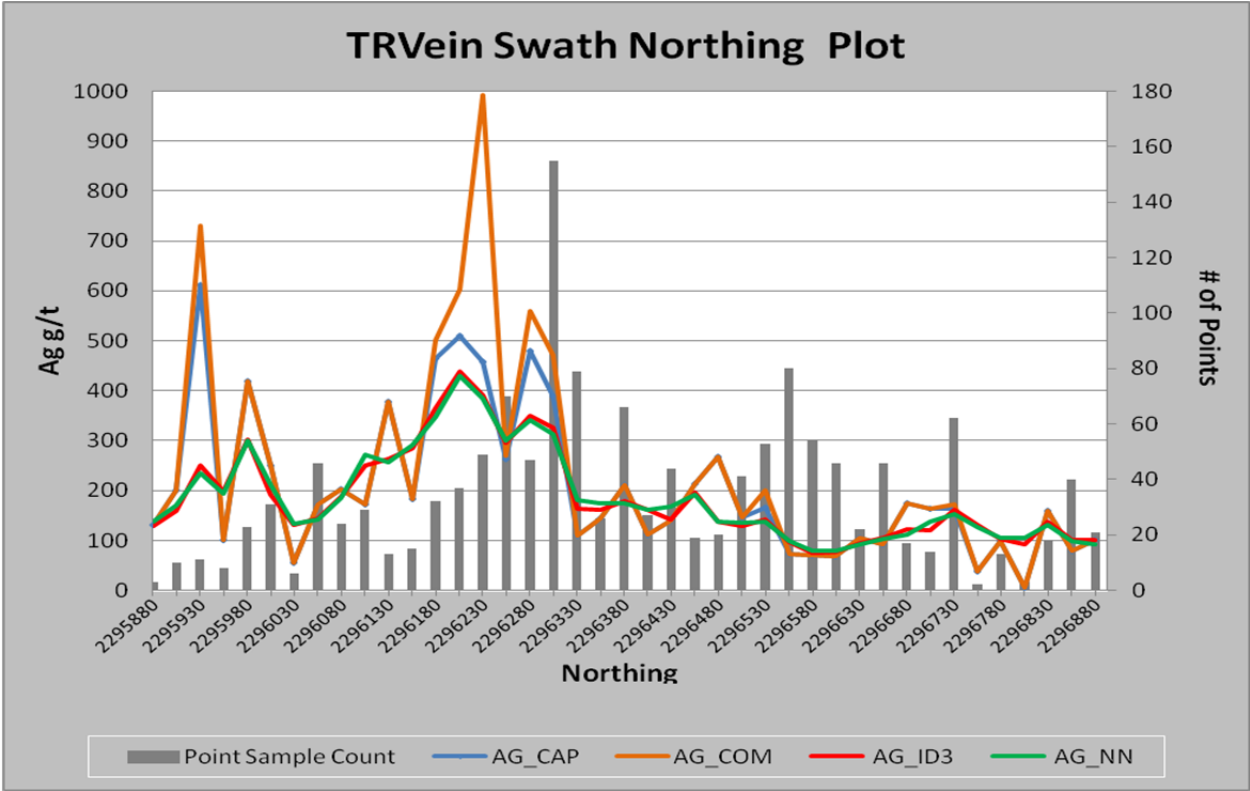
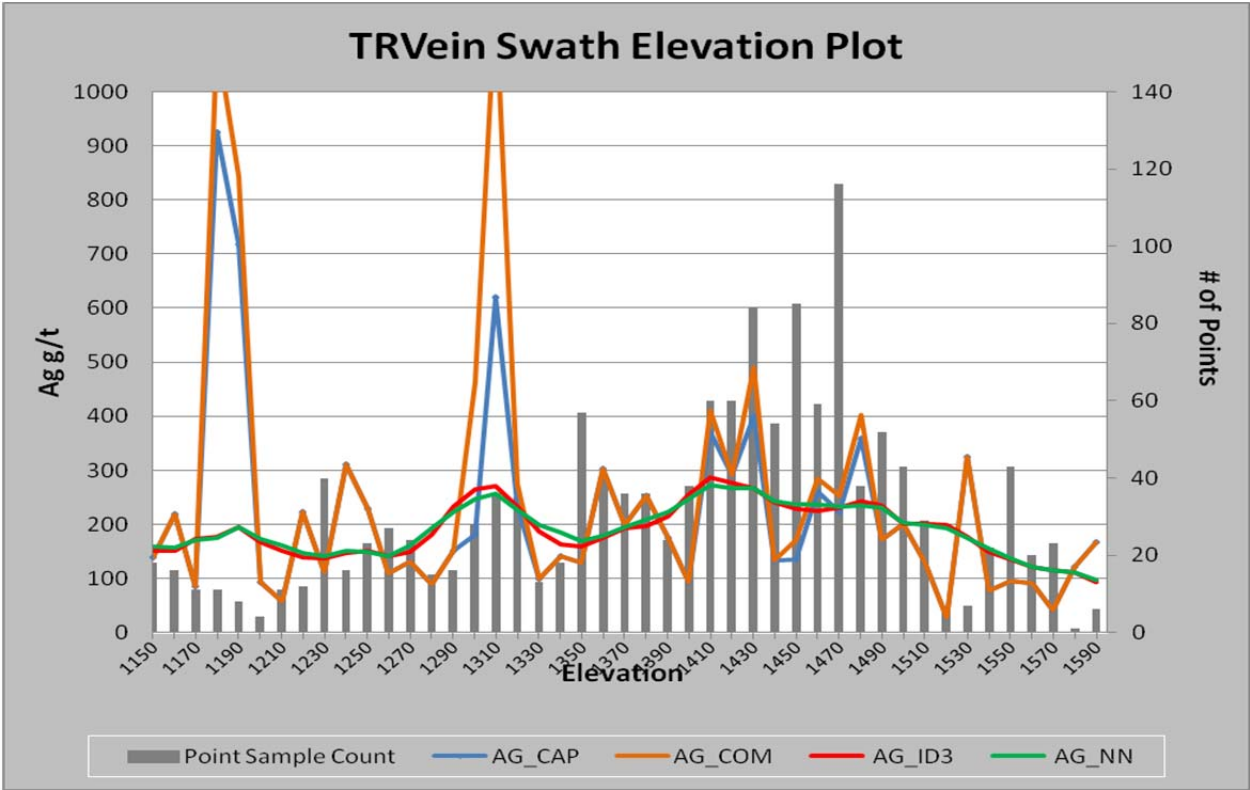
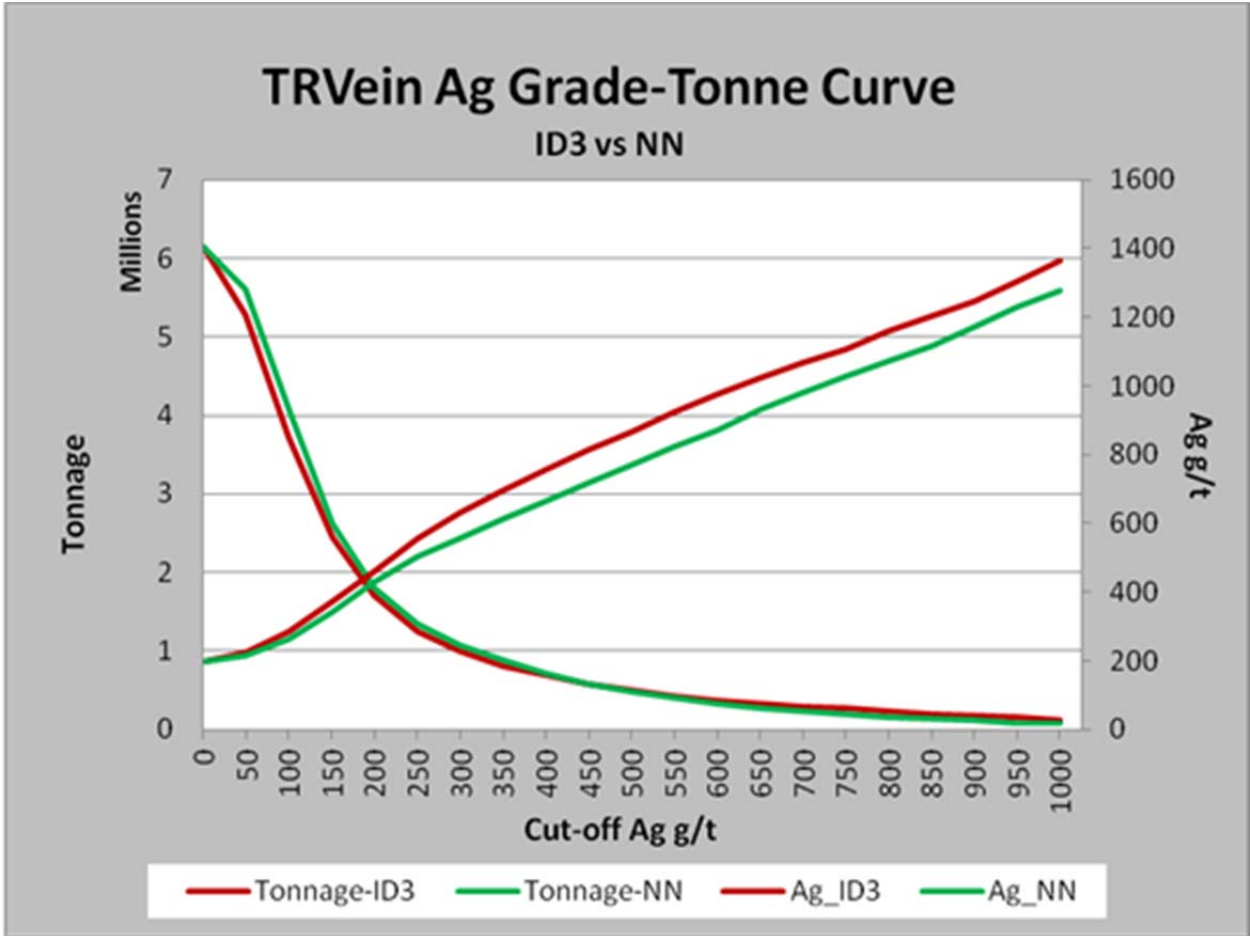


FIGURE 14.3 SILVER GRADE SWATH ELEVATION PLOT



A comparison of the grade-tonnage curve of the Ag grade model interpolated with Inverse Distance cubed ($1/d^3$) and Nearest Neighbour (NN) on the main Terronera Vein wireframe is shown in Figure 14.4.

FIGURE 14.4 SILVER GRADE-TONNE CURVE OF TERRONERA VEIN BY ID³ AND NN INTERPOLATION



14.2 LA LUZ DEPOSIT MINERAL RESOURCE ESTIMATE

14.2.1 Introduction

This section summarizes the Mineral Resource Estimate on the La Luz Deposit. The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 and has been estimated in conformity with generally accepted CIM "Estimation of Mineral Resources and Mineral Reserves Best Practices" guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral Resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent Mineral Resource Estimates.

This Mineral Resource Estimate was undertaken by Yungang Wu, P.Geo., and Eugene Puritch, P.Eng., FEC, CET of P&E Mining Consultants Inc., Brampton, Ontario, both independent Qualified Persons in terms of NI43-101, from information and data supplied by Endeavour Silver. The effective date of this Mineral Resource Estimate is August 7, 2018.

14.2.2 Database

All drilling and assay data were provided in the form of Excel data files by Endeavour Silver. The Gems database for this Mineral Resource Estimate, constructed by P&E, consisted of 41 diamond drill holes, totalling 9,795.65 m, completed in 2016 and 2017. A drill hole plan is shown in Appendix A.

The database assay table contained a total of 1,472 samples that were analyzed for Au, Ag and 34 other elements. The Au and Ag assays were factored downward by core recovery and marked as Au_REC and Ag_REC in the database which was utilized for the Mineral Resource Estimate.

All drill hole survey and assay values are expressed in metric units, while grid coordinates are in the WGS84, Zone 13Q UTM geodetic reference system.

14.2.3 Data Verification

P&E carried out data verification for silver and gold assays contained in the Mineral Resource wireframes against laboratory certificates that were obtained directly from ALS Chemex laboratory in Hermosillo, Mexico. No errors were found.

A total 46 raw Ag and Au assays were adjusted for core recovery, of which 4 assays used for the Mineral Resource Estimate. If the core recovery was 92%, for example, Ag and Au assay values were reduced to 92% of the original analytical value. The adjusted values are recorded in the database as "Ag_REC" and "Au_REC" and these values were used for the Mineral Resource Estimate. P&E's site visit confirmed that core recovery was generally very good, the vein was very competent and recovery was over 90% for the core examined. The oxidation level was

generally low and the mineralization appeared unleached. P&E agrees with Endeavour Silver that the use of “recoverable” grades is a conservative approach.

In addition to the data verification reported above, P&E reviewed the QAQC for the Terronera Project analyses and concludes that the analyses are acceptable. In P&E’s opinion the drill hole and assay/analytical databases may be used for the estimation of Mineral Resources.

14.2.4 Domain Interpretation

Two mineralized veins were generated during the course of this Mineral Resource Estimate. A cut-off grade of 150 g/t silver equivalence (AgEq) was applied to the wireframes. The AgEq was calculated with a formula of $AgEq = Ag + (Au \times 75)$. The wireframes were created from successive polylines on west facing vertical cross-sections with 50 m spacing. In some cases mineralization below the above mentioned 150 g/t AgEq cut-offs was included for the purpose of maintaining zonal continuity. On each cross-section, polyline interpretations were digitized from drill hole to drill hole but not typically extended more than 25 metres into untested territory. Minimum constrained sample length for interpretation was 0.9 m.

A topographic surface was provided by Endeavour Silver.

The resulting domains were used as hard boundaries during Mineral Resource Estimation, for rock coding, statistical analysis and compositing limits. The 3-D domains are presented in Appendix B.

14.2.5 Model Rock Code Determination

A unique model code was assigned for each mineralized domain in the Mineral Resource model. The codes applied for the models are tabulated in Table 14.13.

TABLE 14.13 LA LUZ MODEL ROCK CODE DESCRIPTION AND VOLUME		
Domains	Rock Type	Volume (m ³)
La Luz Vein	1,000	71,601
La Luz HW	2,000	4,132
Air	0	
Waste	99	

Note: HW = Hanging Wall

14.2.6 Compositing

The basic statistics of all constrained assays and sample length are shown in Table 14.14.

TABLE 14.14 BASIC STATISTICS OF ALL CONSTRAINED ASSAYS AND SAMPLE LENGTH			
Variable	Ag	Au	Length (m)
Number of Samples	96.00	96.00	96.00
Minimum Value (g/t)	0.90	0.01	0.15
Maximum Value (g/t)	2,600.00	320.00	1.50
Mean (g/t)	180.82	15.99	0.58
Median (g/t)	37.25	4.67	0.55
Variance	150,234.16	1,835.74	0.07
Standard Deviation (g/t)	387.60	42.85	0.26
Coefficient of Variation	2.14	2.68	0.45

Approximately 98% of the constrained sample lengths were 1 m or less, with an overall average of 0.58 m. In order to regularize the assay sampling intervals for grade interpolation, a 1.0 m compositing length was selected for the drill hole intervals that fell within the constraints of the above-mentioned domains. The composites were calculated for Ag and Au over 1.0 m lengths starting at the first point of intersection between assay data hole and hanging wall of the 3-D zonal constraint. The compositing process was halted upon exit from the footwall of the aforementioned constraint. Un-assayed intervals and below detection limit assays were set to 0.001 g/t for both Au and Ag. Any composites that were less than 0.25 m in length were discarded so as not to introduce any short sample bias in the interpolation process. The constrained composite data were extracted to point files for a capping study. The composite statistics are summarized in Table 14.15.

TABLE 14.15 COMPOSITE SUMMARY STATISTICS				
Variable	Ag Composite	Au Composite	Ag Capped Composite	Au Capped Composite
Number of Samples	63	63	63	63
Minimum Value (g/t)	1.15	0.01	1.15	0.01
Maximum Value (g/t)	1,510.63	168.73	1,000.00	90.00
Mean (g/t)	154.96	13.58	146.85	12.33
Median (g/t)	45.80	5.48	45.80	5.48
Geometric Mean (g/t)	50.35	3.27	50.02	3.24
Variance	66,346.86	645.10	48,443.70	354.18
Standard Deviation (g/t)	257.58	25.40	220.10	18.82
Coefficient of Variation	1.66	1.87	1.50	1.53

14.2.7 Grade Capping

Grade capping was investigated on the 1.0 m composite values in the database within the constraining domains to ensure that the possible influence of erratic high values did not bias the database. Ag and Au composite Log-normal histograms were generated for each mineralized domain and the resulting graphs are exhibited in Appendix C. The Ag and Au grade capping values are detailed in Table 14.16. The capped composites were utilized to develop variograms and for block model grade interpolation.

TABLE 14.16 GRADE CAPPING VALUES								
Element	Total No. of Comps	Cap Value (g/t)	No. of Capped Comps	Mean		Coefficient of Variation		Cap Percent
				Comps	Capped Comps	Comps	Capped Comps	
Au	63	90	1	13.58	12.33	1.87	1.53	98.4%
Ag	63	1,000	1	154.96	146.85	1.66	1.50	98.4%

Note: Comps = composite, Cap = capped, No. = number

14.2.8 Semi-Variography

A semi-variography study was performed as a guide to determining a grade interpolation search strategy. Omni, along strike, down dip and across dip semi-variograms were attempted using Ag and Au capped composites. Selected variograms are attached in Appendix D.

Continuity ellipses based on the observed ranges were subsequently generated and utilized as the basis for estimation search ranges, distance weighting calculations and Mineral Resource classification criteria. Anisotropy was modeled based on an average strike direction of 97°, -75° north-northeast down dip.

14.2.9 Bulk Density

424 bulk density measurements from 37 drill holes were provided by Endeavour Silver, of which 79 measurements were constrained within the mineralized veins with an average bulk density of 2.65 t/m³. Bulk density determination by Endeavour Silver was undertaken with water displacement on waxed drill core.

David Burga, P.Geo of P&E collected 12 samples in Jan 2018 during his site visit. The samples were tested in AGAT Laboratories in Mississauga, with an average bulk density of 2.62 t/m³.

14.2.10 Block Modelling

The La Luz Mineral Resource block model was constructed using Geovia Gems V6.8 modelling software and the block model origin and block size are tabulated in Table 14.17. The block model consists of separate models for estimated grade, rock type, volume percent, bulk density and classification attributes.

TABLE 14.17 LA LUZ BLOCK MODEL DEFINITION			
Direction	Origin	No. of Blocks	Block Size (m)
X	517,699.391	306	2
Y	2,298,795.037	186	0.5
Z	1,392	190	2
Rotation		7° clockwise	

All blocks in the rock type block model were initially assigned a waste rock code of 99, corresponding to the surrounding country rocks. All mineralized domains were used to code all blocks within the rock type block model that contain 1% or greater volume within the domains. These blocks were assigned their appropriate individual rock codes as indicated in Table 14.13. The topographic surfaces were subsequently utilized to assign rock code 0 for air, to all blocks 50% or greater above the surface.

A volume percent block model was set up to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining domains. As a result, the domain boundary was properly represented by the percent model ability to measure individual infinitely variable block inclusion percentages within that domain. The minimum percentage of the mineralized block was set to 1%.

The bulk density of each mineralized domain was interpolated with the NN method using 79 bulk density measurements.

The Ag and Au grade were interpolated with Inverse Distance Cubed ($1/D^3$) using capped composites. Multiple passes were executed for the grade interpolation to progressively capture the sample points in order to avoid over smoothing and preserve local grade variability. Search ranges were based on the variograms and search directions which were aligned with the strike and dip directions of each mineralized domain accordingly. Grade blocks were interpolated using the parameters in Table 14.18.

TABLE 14.18 GOLD AND SILVER BLOCK MODEL INTERPOLATION PARAMETERS							
Element	Pass	Dip Range (m)	Strike Range (m)	Across Dip Range (m)	Max. No. of Samples per Hole	Min. No. of Samples	Max. No. of Samples
Ag	I	45	45	10	2	3	12
	II	90	90	20	2	1	12
Au	I	40	40	10	2	3	12
	II	80	80	20	2	1	12

Selected cross-sections and plans of the Ag grade blocks are presented in Appendix E.

The Ag equivalence (AgEq) were manipulated using formula:
$$\text{AgEq g/t} = \text{Ag g/t} + (\text{Au g/t} * 75).$$

14.2.11 Mineral Resource Classification

In P&E's opinion, the drilling, assaying and exploration work of the La Luz Deposit supporting this Mineral Resource Estimate are sufficient to indicate a reasonable potential for economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The Mineral Resources were classified as Indicated and Inferred based on the geological interpretation, semi-variogram performance and drill hole spacing. The Indicated Mineral Resources were classified for the blocks interpolated by the grade interpolation Pass I in the Table 14.18, which used at least three composites from a minimum of two holes; and Inferred Mineral Resources were classified for all remaining grade populated blocks with Pass II within the mineralized domains. The classifications have been adjusted on long section to reasonably reflect the distribution of each classification. Selected classification block cross-sections and plans are attached in Appendix F.

14.2.12 Mineral Resource Estimate Cut-Off

The Mineral Resource Estimate was derived from applying a AgEq cut-off grade to the block model and reporting the resulting tonnes and grade for potentially mineable areas. The following calculation demonstrates the rationale supporting the AgEq cut-off grade that determines the underground potentially economic portions of the constrained mineralization.

Underground AgEq Cut-Off Grade Calculation:

Au Price	\$1,275/oz based on approx. two year average at June 30/18.
Ag Price	\$17/oz based on approx. two year average at June 30/18.
AgEq Recovery	87%.
Mining Cost	\$40/tonne mined.
Process Cost	\$23/tonne processed.
General & Administration	\$8/tonne processed.
AgEq Refining \$/oz	\$0.5.
AgEq Smelter Payable	99%.

Therefore, the AgEq cut-off grade for the underground Mineral Resource Estimate is calculated as follows:

Mining, Processing and G&A costs per ore tonne = (\$40 + \$23 + \$8) = \$71/tonne

$$[(\$71)/((\$17.00 - 0.50)/31.1035 \times 87\% \text{ Recovery} \times 99\% \text{ Payable})] = 155.4 \text{ g/t, Use } 150 \text{ g/t}$$

14.2.13 La Luz Mineral Resource Estimate

P&E considers that the silver and gold mineralization of La Luz Deposit is potentially amenable to underground extraction. The resulting Mineral Resource Estimate is tabulated in the Table 14.19.

TABLE 14.19 LA LUZ MINERAL RESOURCE ESTIMATE AT A CUT-OFF GRADE OF 150 G/T AGEQ ⁽¹⁻⁵⁾							
Classification	Tonnage (kt)	Ag (g/t)	Contained Ag (koz)	Au (g/t)	Contained Au (koz)	AgEq (g/t)	Contained AgEq (koz)
Indicated	126	192	779	13.60	55	1,212	4,904
Inferred	58	145	269	12.15	23	1,060	1,994

1. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
3. The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
4. $\text{AgEq g/t} = \text{Ag g/t} + (\text{Au g/t} \times 75)$.

Mineral Resources are sensitive to the selection of a reporting AgEq cut-off grade as demonstrated in Table 14.20.

TABLE 14.20 LA LUZ SENSITIVITY OF MINERAL RESOURCE ESTIMATE TO AGEQ CUT-OFF								
Classification	Cut-Off AgEq (g/t)	Tonnage (kt)	Ag (g/t)	Contained Ag (koz)	Au (g/t)	Contained Au (koz)	AgEq (g/t)	Contained AgEq (koz)
Indicated	1,000	51	311	512	26.45	43	2,295	3,737
	750	59	283	542	24.25	46	2,102	3,992
	500	75	243	582	20.85	50	1,807	4,332
	250	117	202	756	14.58	55	1,296	4,881
	225	120	198	766	14.19	55	1,262	4,891
	200	123	196	772	13.96	55	1,243	4,897
	190	123	195	773	13.88	55	1,236	4,898
	180	124	194	775	13.80	55	1,229	4,900
	170	125	193	777	13.72	55	1,222	4,902
	160	126	193	778	13.66	55	1,218	4,903
	150	126	192	779	13.60	55	1,212	4,904
	140	127	191	781	13.54	55	1,207	4,906
	130	128	191	782	13.47	55	1,201	4,907
	120	128	190	783	13.40	55	1,195	4,908
	110	129	189	785	13.33	55	1,189	4,910
	100	130	188	786	13.23	55	1,180	4,911
	50	134	183	792	12.82	55	1,145	4,917
	0.01	137	180	793	12.57	55	1,123	4,918

TABLE 14.20
LA LUZ SENSITIVITY OF MINERAL RESOURCE ESTIMATE TO AGEQ CUT-OFF

Classification	Cut-Off AgEq (g/t)	Tonnage (kt)	Ag (g/t)	Contained Ag (koz)	Au (g/t)	Contained Au (koz)	AgEq (g/t)	Contained AgEq (koz)
Inferred	1,000	21	146	99	25.87	18	2,086	1,449
	750	26	130	109	23.13	19	1,865	1,534
	500	29	131	122	21.42	20	1,738	1,622
	250	52	154	256	13.35	22	1,155	1,906
	225	53	151	259	12.99	22	1,125	1,909
	200	55	148	262	12.67	22	1,098	1,912
	190	55	148	263	12.59	22	1,092	1,913
	180	56	147	265	12.49	22	1,084	1,915
	170	56	147	266	12.37	22	1,075	1,916
	160	57	146	267	12.26	22	1,066	1,917
	150	58	145	269	12.15	23	1,060	1,994
	140	59	144	271	11.98	23	1,043	1,996
	130	59	143	272	11.85	23	1,032	1,997
	120	60	142	273	11.76	23	1,024	1,998
	110	60	142	274	11.69	23	1,019	1,999
	100	61	141	274	11.62	23	1,013	1,999
	50	62	138	276	11.37	23	991	2,001
	0.01	63	137	279	11.21	23	978	2,004

14.2.14 Confirmation of Estimate

The block model was validated using several industry standard methods including visual and statistical methods. Visual examination of composite and block grades on successive plans and sections on-screen to confirm that the block model correctly reflects the distribution of sample grades.

Review of estimation parameters include:

- Number of composites used for estimation;
- Number of holes used for estimation;
- Mean Distance to sample used;
- Number of passes used to estimate grade;
- Mean value of the composites used.

A comparison of Ag and Au mean grades of composites with block model is presenting in Table 14.21.

TABLE 14.21 AVERAGE GRADE COMPARISON OF COMPOSITES WITH BLOCK MODEL		
Data Type	Ag (g/t)	Au (g/t)
Composites	155	13.58
Capped Composites	147	12.33
Block Model ID ³ *	169	12.21
Block Model NN**	171	12.14

* block model grade interpolated using Inverse Distance Cubed.

** block model grade interpolated using Nearest Neighbour.

The comparison above shows the average grades of the Au blocks in the block models to be slightly lower while Ag grade higher than the average grades of capped composites used for grade estimation. This is probably due to the localized clustering were smoothed by the block modeling grade interpolation process. The block model grade will be more representative than the capped composites due to the block model's 3-D spatial distribution characteristics.

A volumetric comparison was performed with the block model volume versus the geometric calculated volume of the domain solids and the differences are detailed in Table 14.22.

TABLE 14.22 VOLUMETRIC COMPARISON OF BLOCK MODEL WITH GEOMETRIC WIREFRAMES	
Geometric Volume of Wireframes	75,733 m ³
Block Model Volume	75,701 m ³
Difference %	0.04%

Ag and Au local trends were evaluated by comparing the ID³ and NN estimate against their Composites and Capped Composites. As shown in Figures 14.5 through 14.10, both the Ag and Au grade interpolation with Inverse Distance Cubed and Nearest Neighbour agreed well.

FIGURE 14.5 LA LUZ SILVER GRADE SWATH EASTING PLOT

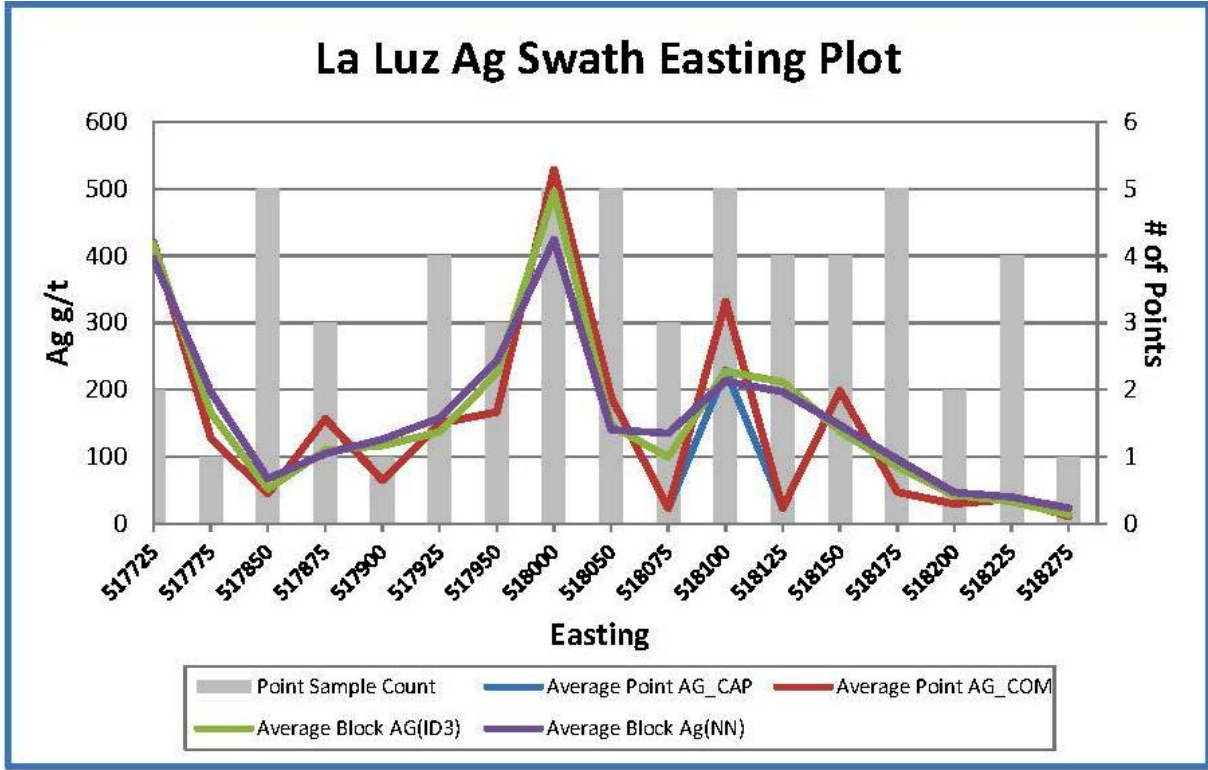


FIGURE 14.6 SILVER GRADE SWATH NORTHING PLOT

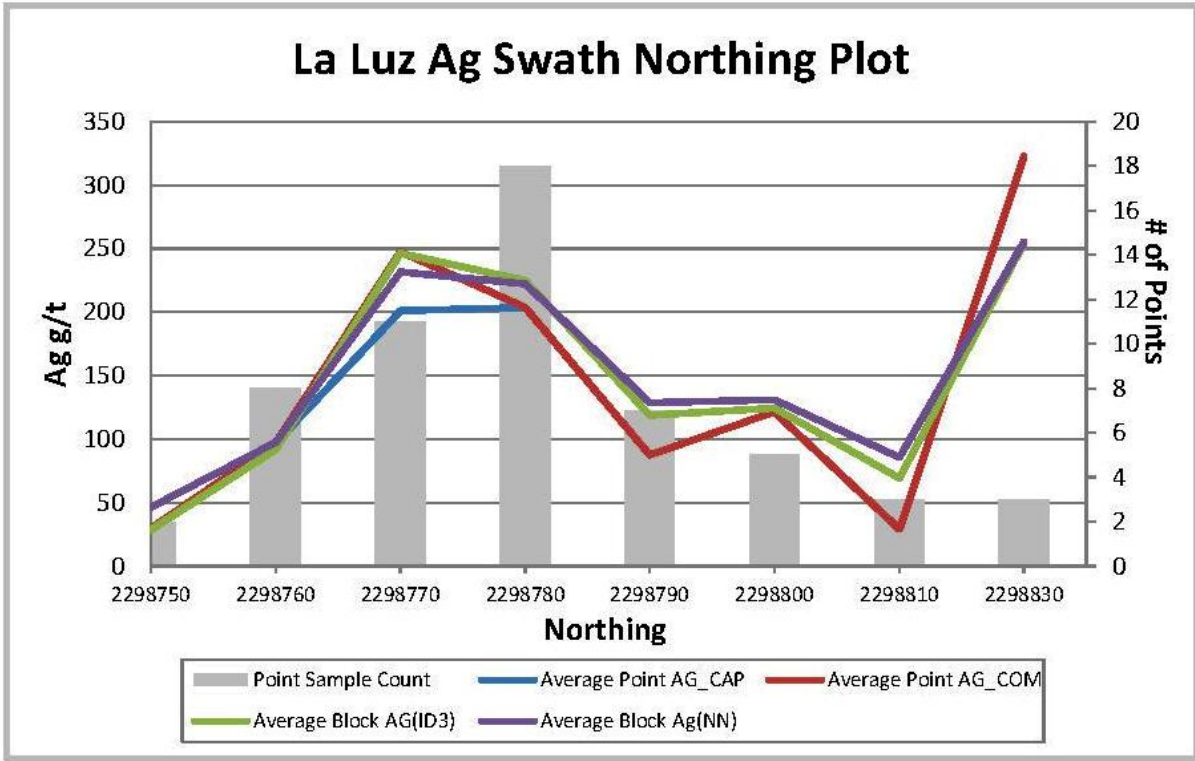


FIGURE 14.7 SILVER GRADE SWATH ELEVATION PLOT

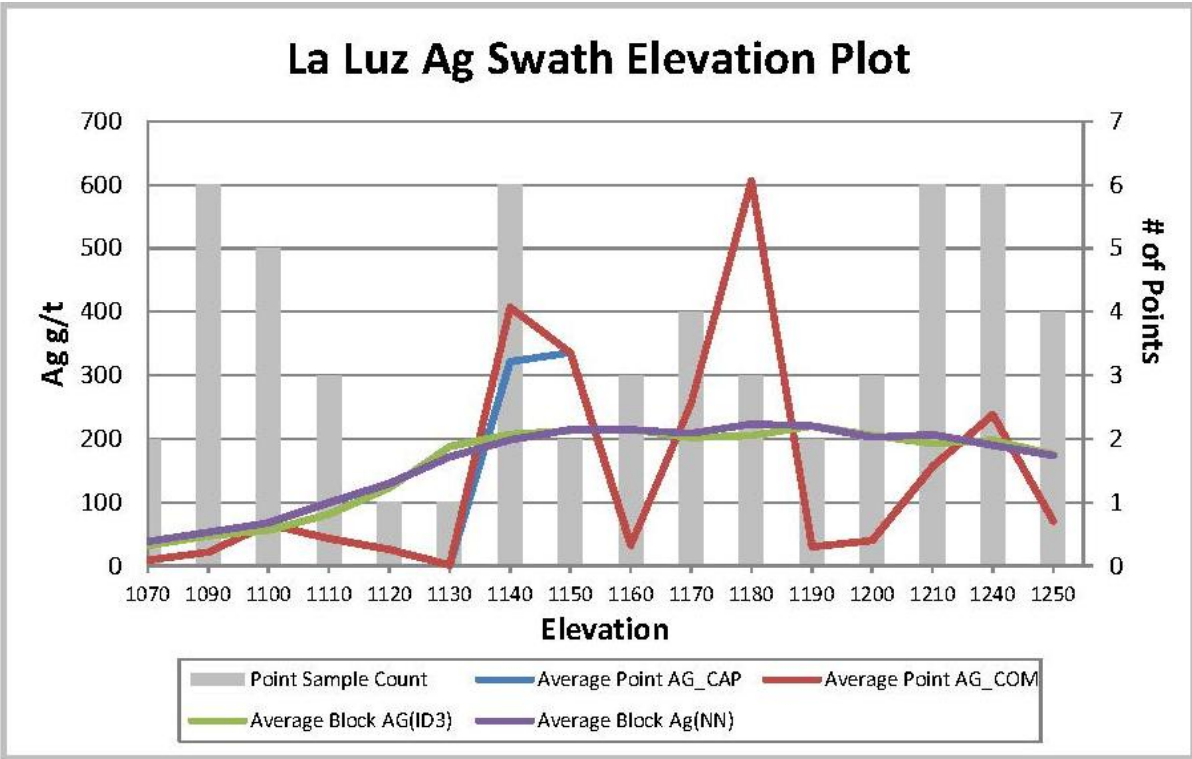


FIGURE 14.8 GOLD GRADE SWATH EASTING PLOT

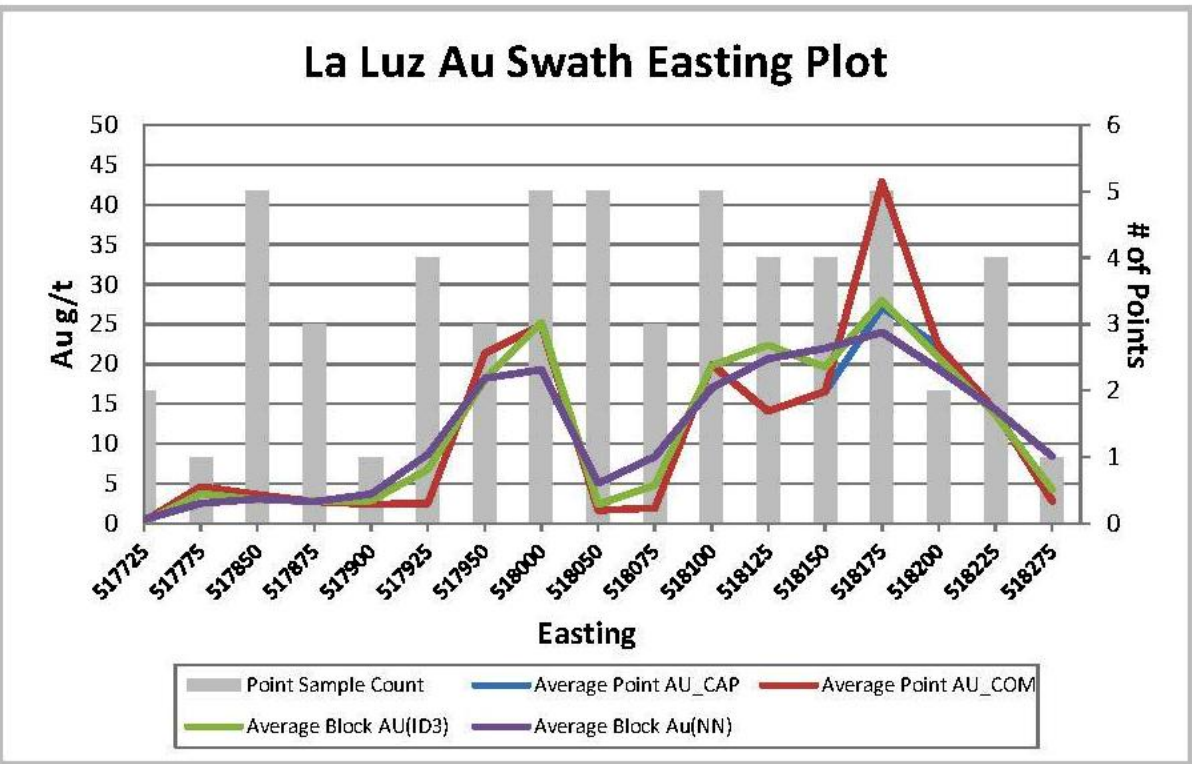


FIGURE 14.9 GOLD GRADE SWATH NORTHING PLOT

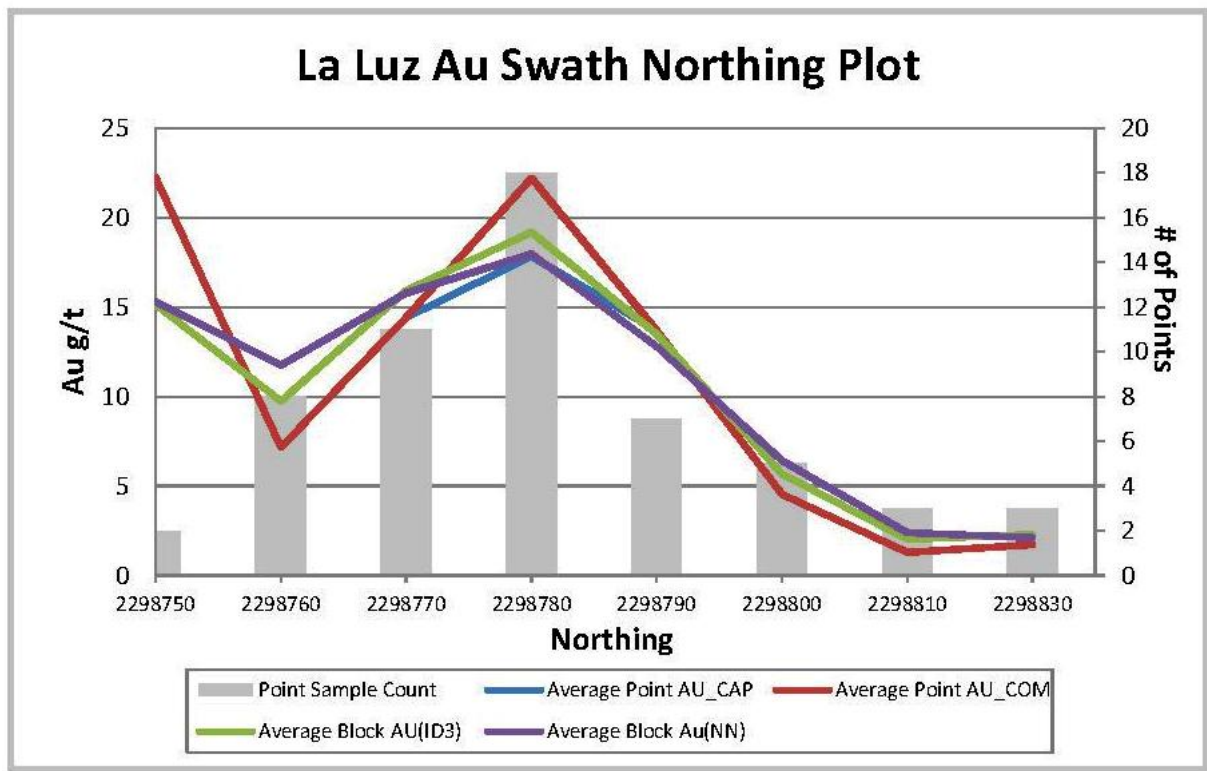
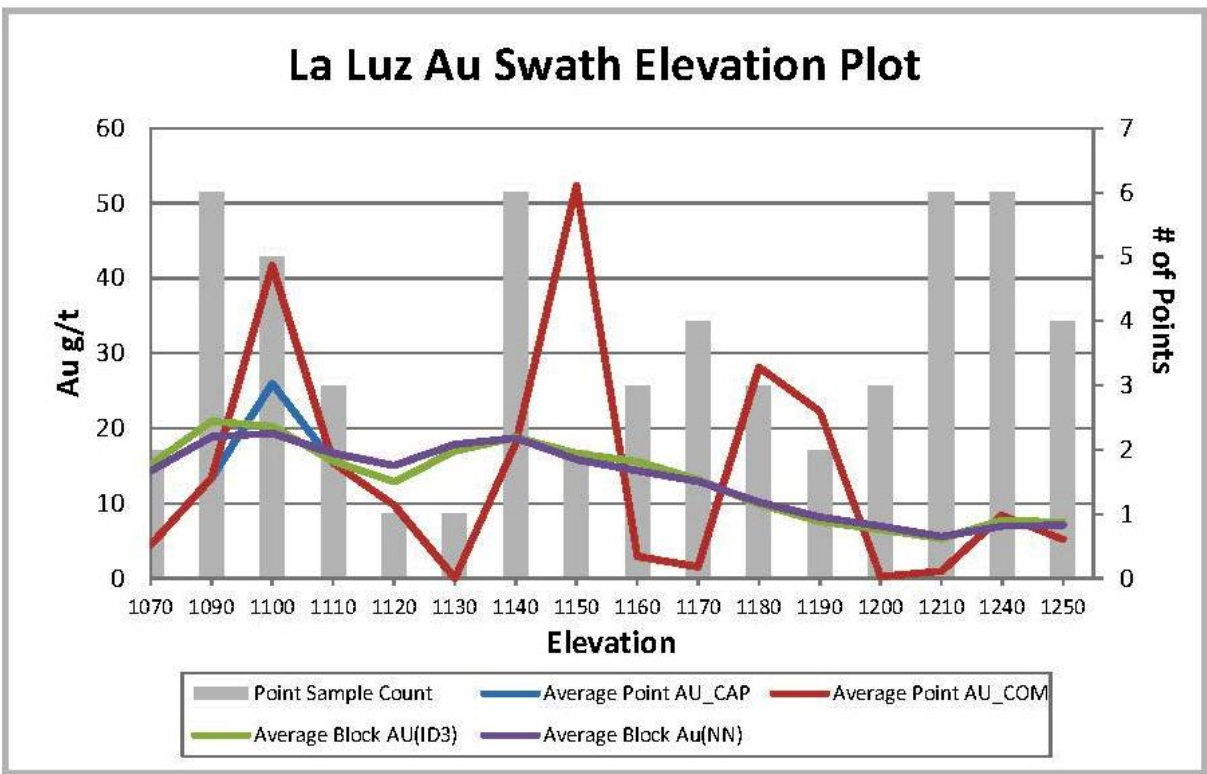


FIGURE 14.10 GOLD GRADE SWATH ELEVATION PLOT



A comparison of the grade-tonnage curve of the Ag and Au grade model interpolated with Inverse Distance cubed ($1/d^3$) and Nearest Neighbour (NN) on a global mineralization basis are presented in Figure 14.11 and 14.12 for Ag and Au respectively.

FIGURE 14.11 SILVER GRADE AND TONNAGE COMPARISONS FOR ID³ AND NN INTERPOLATION

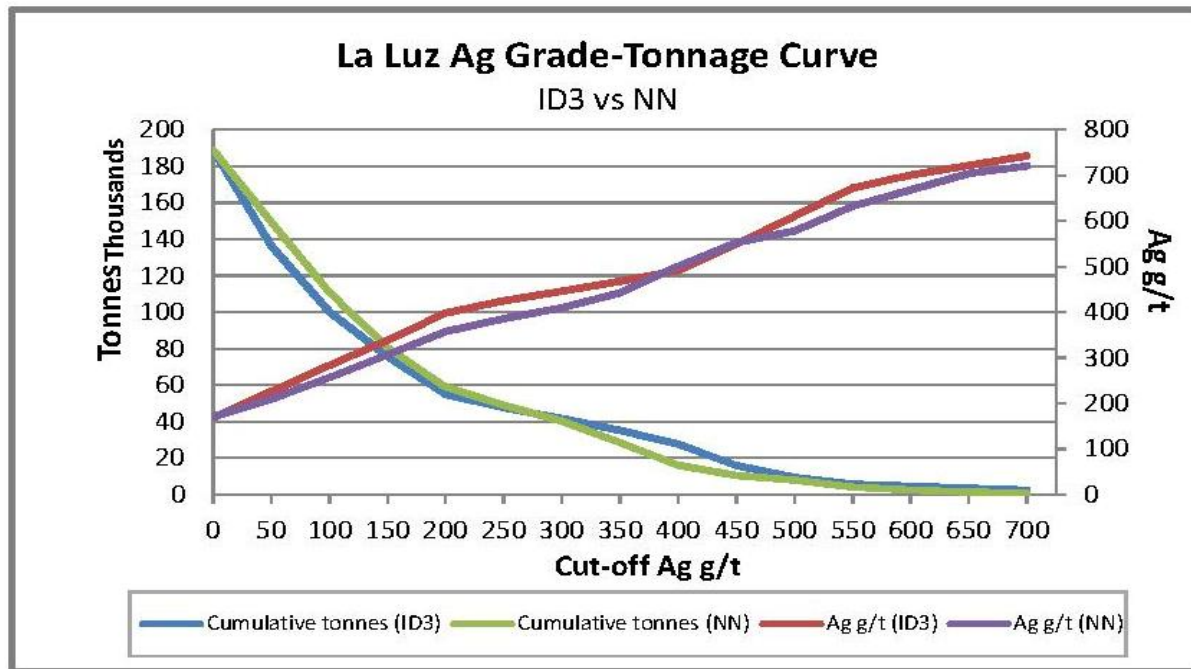
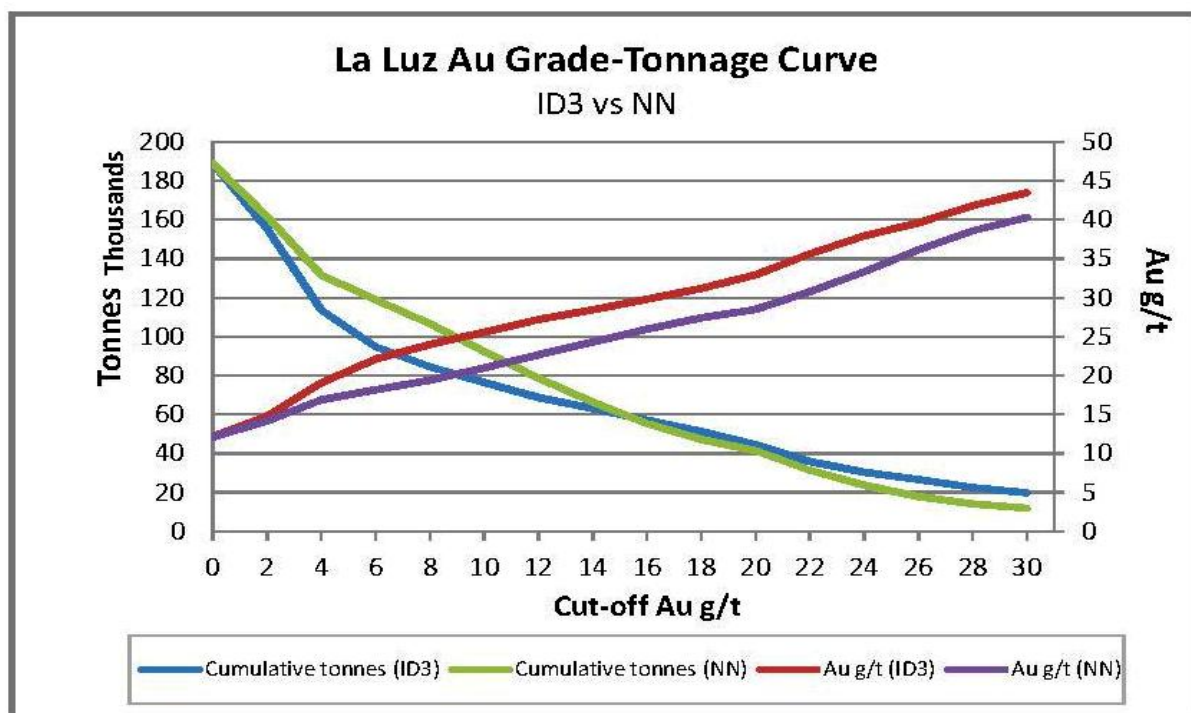


FIGURE 14.12 GOLD GRADE AND TONNAGE COMPARISONS FOR ID3 AND NN INTERPOLATION



15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Technical Report.

16.0 MINING METHODS

This section is not applicable to this Technical Report.

17.0 RECOVERY METHODS

This section is not applicable to this Technical Report.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable to this Technical Report.

19.0 MARKET STUDIES AND CONTRACTS

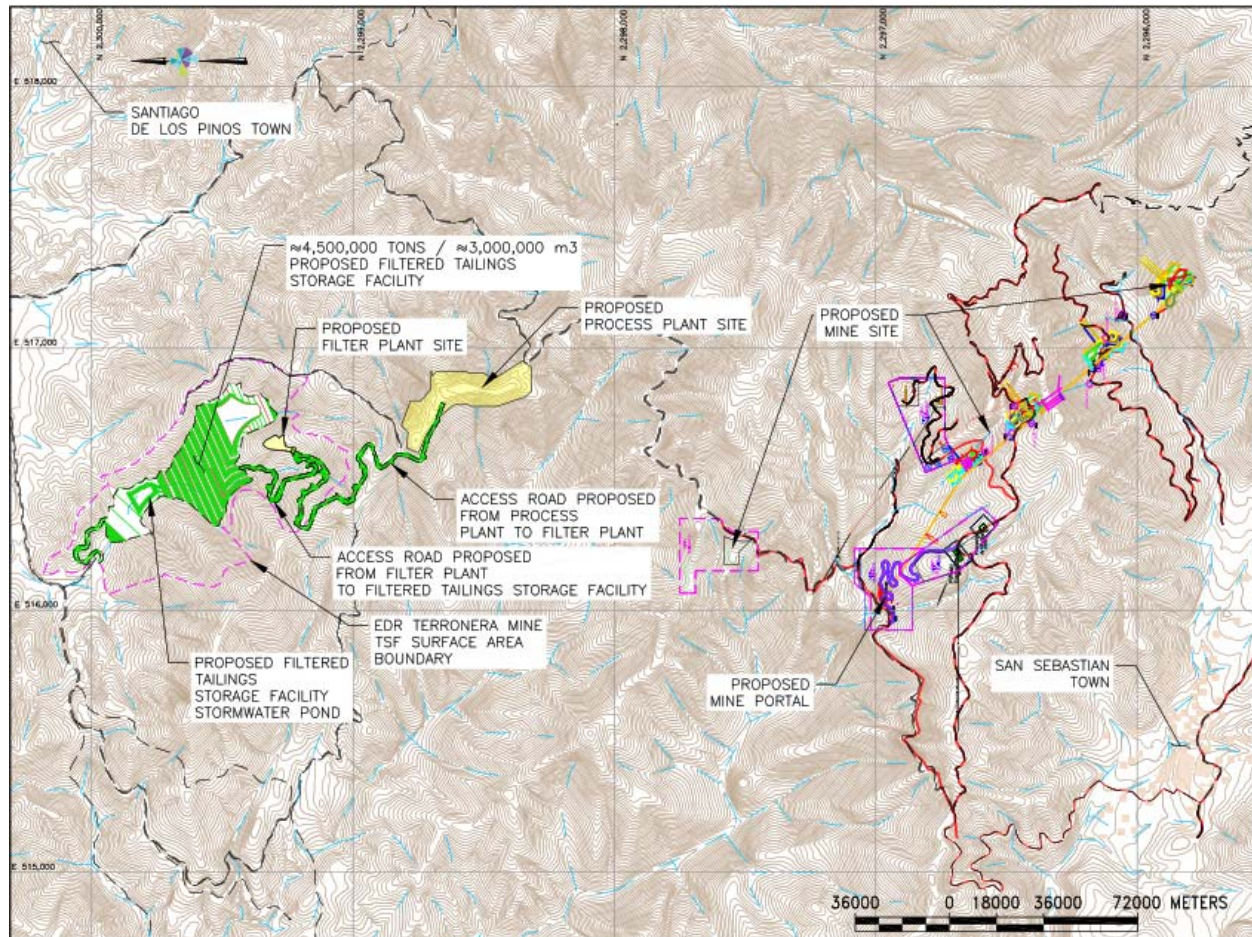
This section is not applicable to this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL IMPACTS

20.1 TERRONERA PROJECT SURFACE FACILITIES LAYOUT

Figure 20.1 illustrates the future proposed project surface facilities layout and the Terronera Project's location relative to the nearby communities of Santiago de Los Pinos and San Sebastian del Oeste.

FIGURE 20.1 MAP OF PROPOSED FUTURE MINE SURFACE FACILITIES LAYOUT



Source: Wood (2018)

Coordinate system: WGS 84 / UTM Zone 13Q

20.2 ENVIRONMENTAL LIABILITY

The Terronera Project, as a greenfields mine development, has the advantage of not inheriting latent environmental contamination issues. Current and past land use has been for agriculture, grazing and forestry purposes. Environmental disturbances for these historical uses have been road construction, cattle corrals, and other small farming structures.

Based on surface disturbance, other than the adits noted in Section 6, no historical mining activities appear to have occurred within the Project boundaries, however, there exist several currently active mining operations of limited scale in the Project vicinity.

20.3 ENVIRONMENTAL PERMITTING BASIS

The Terronera Project submitted, in December 2013, a Manifest of Environmental Impact (“MIA”), the Mexico Federal Government’s equivalent to a Canadian Environmental Assessment, to the Mexican environmental permitting authority known as SEMARNAT (Secretaria de Medio Ambiente y Recursos Naturales). A SEMARNAT permit for a 500 tpd Terronera Project was issued in October 2014. Prior to the December 2013 MIA application, Endeavour Silver was issued an exploration MIA and certain associated SEMARNAT permits specific to the exploration phase for the Project.

In February, 2017 a modified MIA application was issued by SEMARNAT to expand the proposed process rate to up to 1,500 tpd and to establish that the tailings storage facility would be developed as a filtered tailings storage facility.

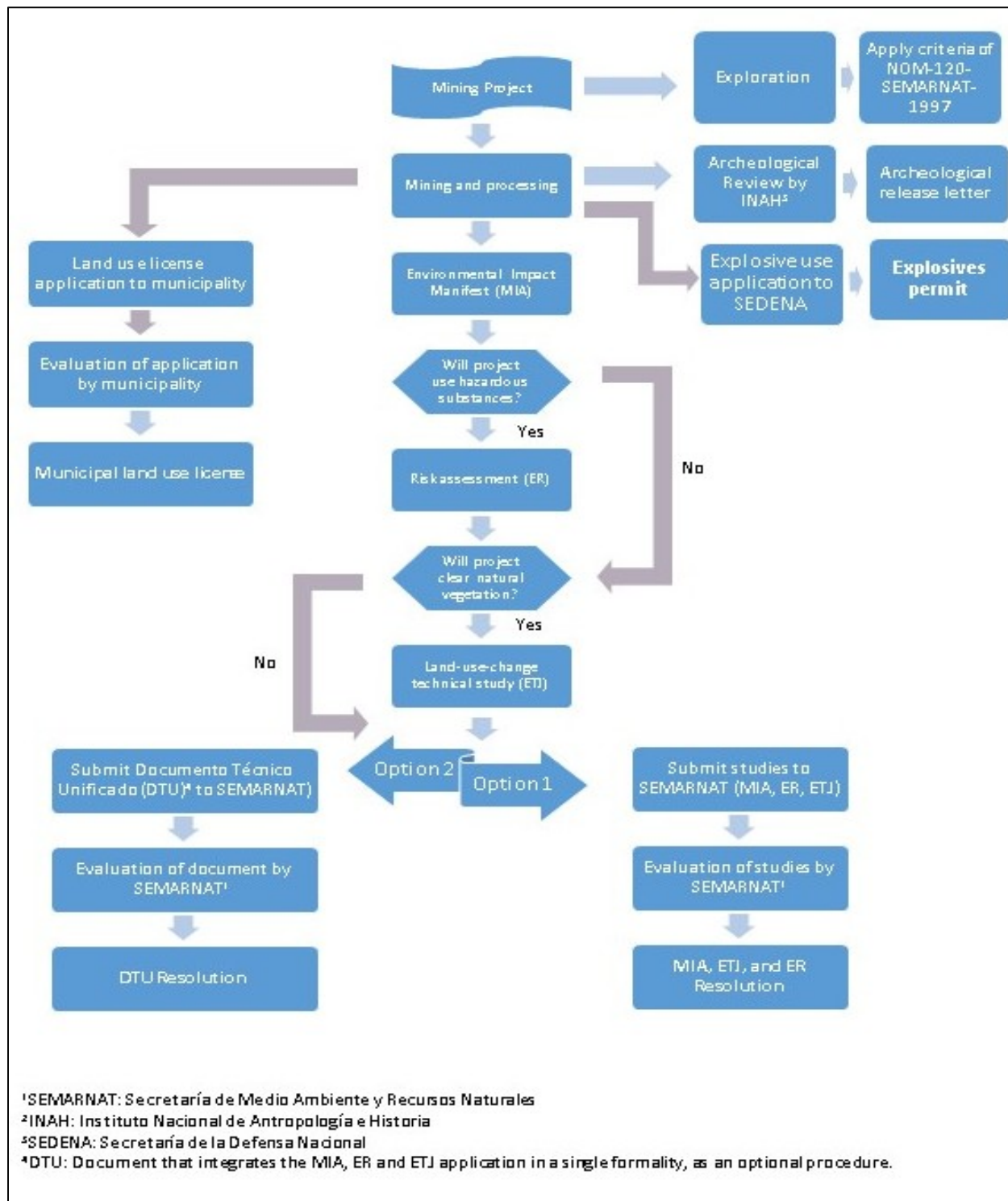
The Terronera Project process plant feed will be processed on site by flotation. The processing agents will not include cyanide and will be limited principally to agents such as coagulants, surfactants, and flocculants that facilitate the process of “floating” the silver and gold that are introduced to the process circuit in the processed material.

These flotation agents are typically relatively inert. The majority of reagent chemicals are captured in very fine (80% sub #200 gradation) tailings waste that is stored, and thus contained, within the filtered tailings storage facility (“TSF”). Any potential seepage from this and other storage facilities will be monitored and treated to achieve constant on-site reagent containment.

Tailings that do not include cyanide processed ore are covered by regulations that are unique and separate in the SEMARNAT permitting system from those for cyanide leaching ore processing. The flotation regulations are more appropriate for the hydrological, seismic, TSF geometry, and natural terrain conditions at the Terronera Project than the regulations applicable to mines that require cyanide process permits for their TSF entitlement requirements.

The flow chart for Mexico mine permitting is shown in Figure 20.2.

FIGURE 20.2 ENVIRONMENTAL PERMITTING STEPS FOR MINING PROJECTS IN MEXICO



Source: Endeavour Silver (2018)

The status of the Terronera Project as of August 7, 2018 per the Federal, State, and Regional/Municipal governing bodies in Mexico is as listed in Table 20.1.

TABLE 20.1
ENVIRONMENTAL PERMITS REQUIRED FOR THE TERRONERA PROJECT

Mining Stage	Agency / Permit	Submittal Documentation	Required per Endeavour Silver / Submittal Date if Issued	Comments Observations
Exploration	SEMARNAT / NORMA de Ley General	Exploration MIA	31 Oct. 2011	Permit Issued to Minera Plata Adelante - extended for 24 months on 20 January 2017
		Exploration ETJ	19 Jan. 2013	Permit Issued to Minera Plata Adelante for the Terronera Vein exploration – Diligence ongoing for additional exploration permissions for the La Luz and Espinos Veins.
Construction	Local Municipality: (Permit for Disposal of Non-hazardous Waste Residues)	Application	Yes	Will be requested from the local municipality after the precedent permits have been granted.
	SEMARNAT: (Land use License)	Application	n/a	
	INAH: (Archeological Clearance)	Survey	n/a	No evidence of archeological sites currently exists for Terronera Project.
	SEDENA, Local Municipality and State Governments: (Explosives Handling)	Application and Endorsement Letter – All submittals occur after SEMARNAT authorizations are issued.	Yes	The SEMARNAT Change of Land Use permit is issued prior to presentation of SEDENA (Federal), State, and Local applications.
	SEMARNAT: Environmental Impact Resolution for the Mining Project	Environmental Impact Manifesto (MIA)	Yes	500 tpd MIA submitted Dec 2013 and granted in Oct 2014. 1,500 tpd MIA modification was authorized by SEMARNAT on 23 Feb 2017. The

TABLE 20.1
ENVIRONMENTAL PERMITS REQUIRED FOR THE TERRONERA PROJECT

Mining Stage	Agency / Permit	Submittal Documentation	Required per Endeavour Silver / Submittal Date if Issued	Comments Observations
				1,000/2,000 tpd MIA modification has not been submitted for SEMARNAT review as of the date of this report.
	SEMARNAT: Permit to Change the Use of Land	Technical Economic Justification Study (ETJ) – aka Change of Soils Use (CUS)	Yes	ETJ for 1,500 tpd mine and plant (not including TSF installations) submitted to SEMARNAT on February 7 2017. The ETJ for 1,000/2,000 tpd has not been submitted for SEMARNAT review as of the date of this report.
	CONAGUA: Concession to Extract Underground Water	Not required by CONAGUA since process water source is from mining operations	n/a	Very likely that Terronera underground mine will generate 100% of process and makeup water demand. Filter plant in the Mondeño will also considerably reduce makeup water demand.
	CONAGUA: Concession to Occupy a Federal Riverbed Area	Various Documents	Yes. It has been confirmed that the TSF basin natural drainage flow exceeds the threshold of 2m width and 0.75m depth in a 5 year storm event.	The application is being processed by CONAGUA as of August 7, 2018.
	CONAGUA: Permit to Construct in	Application Form Supported by Technical	Yes	Application CNA 02-002 to construct the TSF in the Federal Zone has been submitted

TABLE 20.1
ENVIRONMENTAL PERMITS REQUIRED FOR THE TERRONERA PROJECT

Mining Stage	Agency / Permit	Submittal Documentation	Required per Endeavour Silver / Submittal Date if Issued	Comments Observations
	the Federal Zone	Documents.		to CONAGUA
	CONAGUA: Permit to Construct Hydraulic Infrastructure	n/a	n/a	Dry tailings storages typically avoid the hydraulic structure permit requirement
	SEMARNAT: Risk Analysis Study	Risk Analysis Study (ER)	Risk Analysis Study is typically not required when cyanide (NaCN) is not used in the processing circuit. Terronera will be a flotation circuit thus excluding the use of NaCN.	The risk level of the project will be assessed when the project is sufficiently advanced. The Risk Analysis Study will be advanced if required.
	SEMARNAT: Unified Technical Document	Unified Technical Document (DTU)	n/a	Once the MIA has been issued and the ETJ is in process the DTU is not typically required.
Operation	CONAGUA: Effluent Discharge Permit	Various Documents	Yes	Documents will be submitted to CONAGUA prior to Terronera operation activities.
	MUNICIPIAL: Sole Environmental License	Various Documents	Yes	Provides an Environmental registration number for the mine. Requested by Minera Plata Adelante prior to the time of mine startup.

TABLE 20.1
ENVIRONMENTAL PERMITS REQUIRED FOR THE TERRONERA PROJECT

Mining Stage	Agency / Permit	Submittal Documentation	Required per Endeavour Silver / Submittal Date if Issued	Comments Observations
	SEMARNAT: Accident Prevention Plan	Const. Phase Risk Analysis Covers this Requirement	Included in ER	Included in Risk Analysis Documentation (ER shown above)
	MUNICIPAL: Registration as Generator of Hazardous Wastes	Various Documents	Yes	This document will register prior to mine start-up the use of certain chemicals, oils, and slag materials.
	SEMARNAT: (mining residues mgmt. plan) NOM-157-SEMARNAT-2009	Management Plan that Complies with NOM-157	Yes	Management plan will be generated & submitted to SEMARNAT by Minera Plata Adelante per the requirements of NOM-157-SEMARNAT-2009
Closure	SEMARNAT: (Closure and Reclamation Plan)	Closure Plan that Complies with NOM141 Sect. 4.17	Yes	Plan should be submitted to SEMARNAT w/ 1,000/2,000 tpd MIA application, updated during the mine operation phase, and finalized prior to closure of mine.

Humberto Preciado, P.E., of Wood, has fully relied upon, and disclaims responsibility for, the expert statements and representations submitted to SEMARNAT by:

- Ing. José Luis Razura González in the process of achieving the October, 2014 SEMARNAT 500 tpd MIA permit for the Project, and,
- The statements and representations of Ing. Roberto Trujillo for the February, 2017 1,500 tpd amended MIA permit.

Wood has not performed independent investigations to verify the reliability of the representations of Ing. Razura, Ing. Trujillo, his respective consulting entities, or his associates.

The Trujillo study was submitted as MIA justification for the mine and process plant, and, as Wood is involved in only the tailings storage facility in the Mondeño area of the Project, Wood did not participate in the generation of or the environmental justification to regulatory authorities of the Trujillo study. Wood requested and received a copy of the Consultoría Forestal y Ambiental MIA report generated by Ing. Roberto Trujillo for the mine and plant components of the project in April, 2017.

20.4 EXISTING SITE CONDITIONS

20.4.1 Baseline Studies

To provide a basis upon which to gauge the potential environment impact of the proposed project, certain environmental baseline studies were performed prior to the issuance of the Preliminary Economic Assessment which was issued in April, 2015. The following baseline studies were performed by Endeavour Silver's two previously identified in-country permitting consultants:

- Meteorology, air quality, and climatology.
- Soil erosion and contamination.
- Surface and subsurface hydrological conditions and hydraulic forces on surface structures.
- Flora and fauna, cultural, historical, archeological resources, as applicable.

20.4.2 Topography

The Terronera Project is located in a mountainous region of Western Mexico with elevations ranging from sea level at the Pacific coast to 2,850 m in the highest elevation in the San Sebastian region of the Sierra Madre Occidental mountain range.

Elevations range from 1,160 m to 1,800 m within the Terronera Project footprint.

The initial topographical and geographical mapping basis for the development planning for the Terronera Project was captured by satellite photogrammetry on March 1, 2012 by Photosat Satellite and GIS Data Consultant of Vancouver, Canada. The topographic resolution for this

data generated one-metre contours. As the Project area has remained relatively undisturbed since the date of this satellite capture, the image and contour data remains current and relevant for the basis of this Technical Report.

20.4.3 Meteorology – Air Quality

The climate type reported for the Project site is subtropical with the rainy season occurring from June to September, with July typically being the wettest month. Data from the closest meteorological station (San Sebastián del Oeste), show the average annual precipitation as 1.35 m. The maximum mean air temperature is 25.6° C and the minimum mean is 11.7° C.

Prevailing winds in the area are from the southwest.

No existing data on air quality is available for the Project area. Existing unpaved road traffic may be the main source of dust but, in general, the area is considered to have good air quality as a rural and relatively undeveloped area.

20.4.4 Soil

The predominant type of soil in the Mondeño is known as regosol per the agricultural soils nomenclature. Soils of this type generally result from the relatively recent formation of non-alluvial substrates and are located in areas with strong erosion causing continuous soil creation from the weathering of the host rock.

The regosol soils in the Terronera area are of silt-clay texture of high plasticity (USCS type CH), clayey sands (SC), highly compressible silts (MH) and silty sands (SM) with a density range of 1,359 to 1,929 kg/m³ and an in-situ moisture range of 6% to 37% within the sampling from the seventeen open pit tests performed by Wood in the Mondeño basin.

20.4.5 Geotechnical and Seismic Studies

Geotechnical investigations including subsurface hollow stem auger drilling, standard penetration testing (SPT), and soil/core samples, test pits, and, as appropriate, permeability testing, occurred utilizing various drilling and coring subcontractors and were supervised and logged by Wood geotechnical engineers between December, 2015 and October, 2016 for the preliminary design phase for the tailings, soils, and waste rock storage facilities.

Wood generated, in November, 2014, and then updated in October, 2016, a Deterministic Seismic Hazard Assessment for the Terronera Project site. The report's findings identify the seismic influence of the Jalisco block and Rivera and Cocos tectonic plates at the tectonic subduction zone approximately 175 km west of the Project site along the margin of the Pacific coast. Three earthquakes of 8.0 Richter magnitude or greater have occurred within 320 km of the site since 1930. The deterministic weighted mean un-attenuated horizontal acceleration for the site was determined in the Wood study to be 0.48 g. For this reason, Wood has recommended that tailings be stored in a structurally placed and densified filtered tailings configuration that meets local and international static and seismic stability requirements.

20.4.6 Hydrology

According to the hydrological classification system used by the Mexico Federal water commission, CONAGUA, the Terronera Project area is located within the administrative hydrologic region #3, “Pacífico Norte”.

If the flow of stormwater, in the drainage area that the proposed mine facilities are located within can flow during a five-year return period intensity with a stream width of ≥ 2 m and a depth of ≥ 0.75 m then a permit to construct facilities in what is regarded as “Federal Waters”, or “Federal Zone” can be required by CONAGUA. The several principal drainages in the Mondeño have been determined by hydrologic and hydraulic analysis to exceed these CONAGUA Federal Zone flow thresholds.

Hidrologia e Hidraulica de Mexico generated, in May, 2016, a Precipitation Analysis Study for the Terronera Project. The study evaluated precipitation data from three meteorological data stations within 36 km of the Project, including the San Sebastian station about four km from the site. The return period data necessary for pending hydraulic sizing and design configuration of Terronera site drainage infrastructure is shown in Table 20.2.

TABLE 20.2	
RETURN PERIOD STORM EVENT PRECIPITATION	
Return Period Size	24 Hour Precipitation (mm)
2 years	79
5 years	103
10 years	120
20 years	138
50 years	157
100 years	171
500 years	205
1,000 years	221
5,000 years	260
10,000 years	277

20.4.7 Watershed – Surface Hydrology

The Terronera Project is located in the watershed Rio Ameca – Ixtapa. This watershed covers an area of 3,160 km². The watershed western boundary occurs at the Pacific Ocean. The sub-basin including the Terronera Project is the San Sebastian drainage which captures approximately 84,700 hectares of drainage area.

20.4.8 Sub-Surface Hydrology

The Terronera Project is located above the aquifer Mixtlán, specifically in the northwestern quadrant of the aquifer.

Endeavour Silver is anticipating that the Terronera Project will use excess water pumped from the mine tunnels and recovered from the tailings filter plant for 100% of the operations water demand. The beneficial use of processing ore using water from underground workings is established in Article 19 of Chapter 3 of the Mexican Mining Law.

Under water law in Mexico, mining process water cannot be returned to the surface or subsurface basins without treatment in accordance with SEMARNAT NOM-001, Limits of Contaminants in the Discharges of Wastewaters into the Mexican National Waters and Resources.

20.4.9 Land Use

The communities in the Project area have been organized since the early 1900s into various ejidos, or community groups, which distribute and share agricultural and other lands for the benefit of the ejido member families. The Terronera Project has completed negotiations with various ejido members for leased surface rights of certain parcels of land needed for the location of the tailings and waste rock storage facilities. The aggregate limit of these parcels is identified on Figure 20.1 as the dashed magenta line labeled as the TSF surface area boundary.

The predominant use of land at the project site is forestry, pasture land, and subsistence agriculture. The SEMARNAT default land use is known in Spanish as “forestal”, or forest in English.

A network of unpaved roads exists for transportation between communities and ranches. The Terronera Project has used these roads for exploration phase access. A portion of the Terronera construction phase work includes improving those portions of the main community road between Los Pinos and San Sebastian which the mine will utilize during the operations phase of the Project.

20.4.10 Vegetation and Ecosystems

A study area inventory was performed by Ing. Roberto Trujillo of the Consultoría Forestal y Ambiental of Durango, DGO, Mexico for the Terronera Project. The results are included in the MIA report submitted to SEMARNAT in February, 2017, for a 1,500 tpd Terronera mine and process plant.

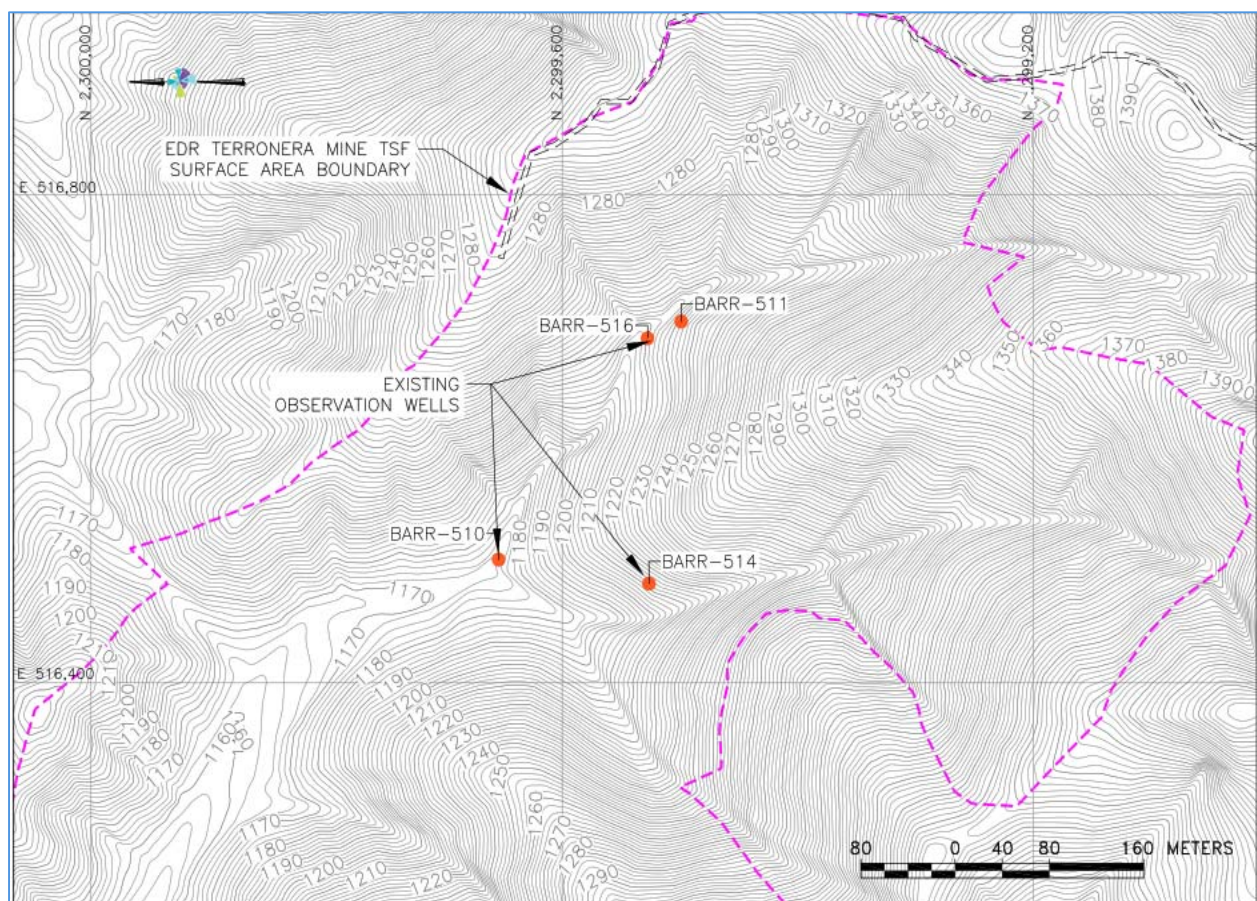
The Trujillo study identifies fauna and flora as a baseline condition for the Project area and recommends certain actions to minimize the environmental impact of the proposed Terronera Project.

20.4.11 Environmental Monitoring Program

The Terronera Project will be required to comply with the environmental regulations and standards in place in Mexico. The proposed future mining infrastructure and supporting facilities will need to be designed to minimize the impact to the natural environment.

Mexican law requires that an environmental program be implemented to monitor the surface and underground water, creek sediments, soil, air, vegetation and wildlife conditions. Wood has supported Endeavour Silver during the installation of four dual piezometer/water quality monitoring wells in the proposed future Mondeño basin as shown in Figure 20.3.

FIGURE 20.3 MAP OF THE MONDEÑO TAILINGS STORAGE AREA MONITORING WELL LOCATIONS



Source: Wood (2018)

Coordinate system: WGS 84 / UTM Zone 13Q

20.5 SOCIO-ECONOMIC AND COMMUNITY RELATIONS

The Project is near the communities of San Sebastian del Oeste, Santiago de Pinos, and Los Reyes. These three relatively typical Mexican “pueblos” belong to the municipality of San Sebastian del Oeste, Jalisco. Per the Federal Mexican census of 2010, this municipality has 5,755 inhabitants.

20.6 CULTURAL AND HISTORICAL RESOURCE STUDIES

According to the baseline cultural and historical resource studies, the Qualified Person is unaware of any cultural events or practices or any historical landmarks that would interfere with the development of the Terronera Project.

20.7 ARCHEOLOGICAL ARTIFACTS AND STUDIES

According to the baseline archaeological studies, the Qualified Person is unaware of any archaeological artifacts that would be impacted by the development of the Terronera Project.

20.8 RECLAMATION AND CLOSURE ACTIVITIES

A Terronera closure and reclamation plan will be included in an amended MIA permit application, and ETJ support documentation.

Every three years during the active mine operation, and no less than three years prior to the closure of the mine, an updated closure plan should be presented to SEMARNAT for the Terronera Project.

At the end of the future proposed mine life, Endeavour Silver shall perform restoration activities on impacted areas ensuring the stability of disturbed areas. These efforts should be started to the extent possible during project operations and be completed within two years after the end of the mine operations.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Technical Report.

22.0 ECONOMIC ANALYSIS

This section is not applicable to this Technical Report.

23.0 ADJACENT PROPERTIES

Minera Cimarron S.A. de C.V. (Minera Cimarron) is a small private mining company that operates the Quiteria Mine in the San Sebastián del Oeste area (Figure 23.1). Approximately 70 ha of mining claims are owned by the Company. These 70 ha include some recently acquired claims in the Los Reyes area which lies in an adjacent canyon to the north. The company has done only some minor sampling in the abandoned workings in Los Reyes but anticipates that, in the near future, it may be able to supplement production from this area.

FIGURE 23.1 MINERA CIMARRON'S SANTA QUITERIA MINE PHOTOGRAPH IN THE SAN SEBASTIÁN DEL OESTE AREA



Minera Cimarron is currently doing development work by means of an inclined ramp from surface. Most of the material that is processed is from this development work and a small portion comes from shrinkage mining. Minera Cimarron is also encountering some old mine workings at depth and along strike.

Drilling is done with jack-legs and loading and hauling are done mainly with 2 and 3.5 yd³ LHDs. Ore grades are reportedly approximately 275 g/t silver and 0.4 g/t gold. The company is currently processing approximately 300 tpd with 70% recovery and this is done with the following equipment: 1 jaw crusher; 1 Symon's 2 foot cone crusher; 1 Hardinge 8 feet x 48 inches; 200 HP ball mill; followed by a series of Wemco flotation cells. The concentrate is

dewatered with an Eimco drum filter and shipping on average, 25 t of concentrates to the Peñoles smelter in Torreón, Coahuila per month.

Future plans for the mine include further development toward the northwest on the vein structure, the continuation of an existing adit to shorten hauling distances, driving a new adit to access the vein structure at greater depth and, possibly, diamond drilling below the current levels to establish new resources.

Installations include an assay laboratory, a small repair shop for vehicles and diesel equipment, and a warehouse for parts and materials. The mine currently has about 35 workers. Most of the operating personnel come from Santiago de los Pinos which is 4 km away. More qualified employees come from mining districts throughout Mexico.

Accounting and purchasing are done in administrative offices in Guadalajara. The mine has several rented houses in the small towns of Santiago de Los Pinos and Minera Cimarron for its supervisors.

Also in the Municipality of San Sebastián del Oeste is the 5,080-ha Guijoso Property. It is located about 25 km northeast of San Sebastián del Oeste and approximately 5 km south of the town of San Felipe de Híjar. Intermittent small scale exploitation of veins has occurred in San Felipe de Híjar, similar to that in the San Sebastián del Oeste area.

The Guijoso Property is also located within the same belt of low sulphidation epithermal deposits which hosts the San Sebastián Veins. All mineralization at the Guijoso Project is associated with pervasive, vein and stockwork silicification and adjacent argillic alteration within rhyolite tuffs. Silicification has been recognized over an area approximately 6 km in length by 1.5 km in width.

23.1 COMMENTS ON SECTION 23

The Qualified Person has not verified the information regarding adjacent properties and has not visited or audited them. The values and the information on adjacent properties presented do not have any direct bearing on the Terronera Project and the reader should not infer or assume that the Terronera Project will have similar results.

24.0 OTHER RELEVANT DATA AND INFORMATION

This section is largely taken from the report titled “NI 43-101 AND NI 43-101F1 Technical Report Updated Mineral Resource Estimate and Updated Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico,” by Smith Foster and Associates. The report date is September 17, 2018, with an effective date of August 7, 2018. Certain subsections of Section 24 were eliminated if they were covered in other sections of this Technical Report.

24.1 INTRODUCTION

Endeavour Silver Corp. (Endeavour Silver) commissioned Smith Foster & Associates Inc. (SFA) to prepare an Updated Preliminary Feasibility Study (UPFS) for the Terronera Project compliant with Canadian Securities Administrators (CSA) National Instrument 43-101 (NI 43-101). Since the issuance of the Preliminary Feasibility Study (PFS) for the Terronera Project on April 3, 2017, Endeavour Silver has carried out further Mineral Resource drilling, tests, optimization studies, and analyses aimed at optimizing the performance and economics of the Project. Endeavour Silver determined that the resulting material changes to the Mineral Resource justified the preparation of a new Technical Report.

Endeavour Silver is a mid-tier silver mining Company engaged in the exploration, development, and production of mineral properties in Mexico. Endeavour Silver is focused on growing its production, Mineral Reserves, and Mineral Resources in Mexico. Endeavour Silver owns and operates the Guanaceví Mine located in the northwestern Durango State, and the El Cubo and Bolañitos Mines, both located near the city of Guanajuato in Guanajuato State, Mexico. In July, 2018 Endeavour Silver began commissioning operations at its El Compas Mine in Zacatecas, Mexico.

This report follows the format and guidelines of Form 43-101F1, Technical Report for National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101), and its Companion Policy 43-101 CP, as amended by the CSA and which came into force on June 30, 2011 and was unofficially amended on May 9, 2016.

This Technical Report has an effective date of August 7, 2018. The Mineral Resource and Mineral Reserve Estimates reported in this Technical Report comply with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards and Definitions, as required under NI 43-101 regulations.

In this Technical Report, the term San Sebastián Property refers to the entire area covered by the mineral concessions, while the term Terronera Project refers to the area within the mineral concession and separate surface lands on which the current exploration programs and proposed mining, processing, and tailings storage will be conducted.

This Technical Report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals, and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. The Qualified Persons responsible for this report do not consider such errors to be material to the calculations presented herein.

The conclusions and recommendations in this report reflect the Qualified Persons best independent judgment in light of the information available at the time of writing.

Summarized briefly below is key information in the Technical Report, including property description and ownership, geology and mineralization, the status of exploration and development, Mineral Resource and Mineral Reserve Estimates, mineral processing and metallurgical testing, environmental studies and permitting, capital and operating costs, economic analysis, and the Qualified Persons conclusions and recommendations.

24.2 2018 MINERAL RESERVE ESTIMATE

The Mineral Reserve Estimates presented in this UPFS were estimated using the CIM Definition Standards for Mineral Resources and Mineral Reserves adopted by CIM Council on May 10, 2014 and unofficially amended on May 9, 2016. The effective date of the Mineral Reserve Estimate is August 7, 2018.

A summary of the Terronera and La Luz Probable Mineral Reserve Estimate is given in Table 24.1.

TABLE 24.1 TERRONERA AND LA LUZ PROBABLE MINERAL RESERVE ESTIMATE⁽¹⁾							
Deposit	Tonnage (kt)	Au (g/t)	Ag (g/t)	AgEq (g/t)	Au (koz)	Ag (koz)	AgEq (koz)
Terronera	4,559	2.00	226	376	290	33,082	54,832
La Luz	142	11.40	158	1,013	52	721	4,621
Total	4,701	2.28	224	395	342	33,803	59,453

1. See Section 15.1 for Mineral Reserve cut-off details.

24.3 MINING METHODS

The underground mine operations at Terronera and La Luz will be accessed via main access ramps. In the case of Terronera, the ramp access will connect to a main haulage drift and in the case of La Luz it will connect approximately centrally to the deposit. Both deposits will be mined by cut-and-fill mining using trackless underground equipment, including scooptrams, haulage trucks, and electric-hydraulic drill jumbos for their primary ore production, and longhole mining for recovery of sill pillars.

24.4 RECOVERY METHODS

A beneficiation plant utilizing Flash flotation was selected for recovery of precious metals present in the Terronera Deposit.

The Terronera Project comprises the following processing circuits:

- Coarse ore storage yard (12,000 tonnes capacity)
- Stock pile (2,000 tonnes capacity)
- Crushing plant (two stage - closed circuit - 1,500 tpd capacity)
- Fine ore storage lines A and B.
- Primary grinding lines A and B (750 tpd capacity each)
- Flotation Stages lines A and B (750 tpd capacity each)
 - o Flash flotation
 - o Rougher & Scavenger
 - o Two stage cleaning
- Final Concentrate sedimentation and filtration (1,500 tpd capacity)
- Final Concentrate storage and shipping (1,500 tpd capacity)
- Tailings sedimentation (1,500 tpd capacity)
- Reclaimed and fresh water systems
- Dry tailings filter plant
- Dry stack tailings storage facility (TSF).

Power will be provided by on-site, natural gas-fired generators in Year 1 and 2 and by CFE via a new 115kV transmission line beginning Year 3.

Fresh water will be pumped from the underground mining operations to a fresh water tank and fed by gravity to the process plant, fire water system, potable water system, and water trucks.

24.5 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT

The Company submitted a Manifest of Environmental Impact (MIA) to the Mexico environmental permitting authority known as SEMARNAT (Secretaria de Medio Ambiente y Recursos Naturales) in December, 2013.

A SEMARNAT permit for the Terronera Project was issued in October, 2014 for a 500 tpd project with tailings reporting to a traditional slurry deposit.

In February, 2017 a modified MIA application was issued by SEMARNAT to expand the proposed process rate to up to 1,500 tpd and to establish the tailings storage facility to store filtered dry tailings.

The Terronera Mine Project is designed to comply with the environmental regulations and standards in place in México. The mining infrastructure and supporting facilities are designed to minimize the impact to the natural environment.

Mexican law requires that an environmental monitoring program of surface and ground water, creek sediments, soil, air, vegetation and wildlife conditions be implemented. The current SEMARNAT regulatory objective is to limit transmission of contaminants such that pre-mining environmental conditions are maintained downstream of the permitted mine perimeter. This program will be required before and during mining operations and after mine closure.

The Terronera Mine tailings storage facility (“TSF”) will be designed to store filtered tailings, or “drystack” tailings, to minimize downstream contamination risk and to maximize geotechnical stability in the seismically active coastal area of western Mexico. The Terronera TSF design accommodates approximately 3 million cubic metres of compacted tailings which provides a storage capacity for the life of the mine.

24.6 CAPITAL AND OPERATING COSTS

The Terronera Project has an estimated initial capital cost of \$75.8 million for the 750 tpd plant. The estimated capital cost to expand to 1,500 tpd in Year 3 is \$39.2 million for a total estimated capital cost of \$114.9 million.

Average operating costs over the 9.5 year life-of-mine (“LOM”) of \$46.08 per tonne for mining, \$19.58 per tonne for processing, and \$8.40 per tonne for General and Administration were developed and estimated from first principles using unit labour and materials costs from Endeavour Silver’s current operations in Mexico.

24.7 ECONOMIC ANALYSIS

This Technical Report contains forward-looking projections based on assumptions the Qualified Persons believe are reasonable. The projected mine production rates, development schedules, and estimates of future cash flows involve known and unknown risks, uncertainties, and other factors that may affect the actual results.

An economic analysis utilizing a pre-tax and after-tax cash flow financial model was prepared for the base case mine plan. The metal prices assumed in the base case are \$17/oz silver and \$1,275/oz gold.

Mexican tax policies for mining include an overriding royalty on gross revenues, after smelter deductions, of 0.5% applied to precious metal mines (gold, silver and platinum). A Special Mining Duty of 7.5% is levied on earnings before income tax and depreciation allowance. Corporate income taxes of 30% are applied to earnings after the usual allowable deductions for depreciation, loss carry-forwards etc. The Special Mining Duty and the overriding royalty are also deductible for the purpose of calculating corporate income tax. The financial model incorporates these taxes in computing the after-tax cash flow amounts, net present value (“NPV”), and internal rate of return (“IRR”).

The Terronera Project key financial indicators for the base case are as follows:

- After-tax rate of return 23.5%
- Project payback period 5.4 years
- After-Tax Net Present Value (5% discount) of \$117,818,000.

Under the base case assumptions, these key indicators describe a financially viable project which, as the sensitivity analysis summarized in Table 24.2 demonstrates, has considerable upside potential should metal prices improve or operating costs decrease.

TABLE 24.2 BASE CASE AFTER-TAX NPV AND IRR SENSITIVITIES									
Variance	Operating Costs			Initial Capital			Metal Prices		
	NPV (5%) (\$M)	IRR	Payback (years)	NPV (5%) (\$M)	IRR	Payback (years)	NPV (5%) (\$M)	IRR	Payback (years)
-20%	148.9	28.1%	5.0	132.5	28.6%	5.1	33.8	10.6%	7.2
-10%	133.4	25.8%	5.2	125.2	25.8%	5.2	76.1	17.3%	6.1
Base Case	117.8	23.5%	5.4	117.8	23.5%	5.4	117.8	23.5%	5.4
10%	99.7	20.6%	5.7	110.5	21.4%	5.6	154.7	28.4%	5.0
20%	81.3	17.7%	6.1	103.1	19.5%	5.8	191.6	33.2%	4.6

24.8 CONCLUSIONS AND RECOMMENDATIONS

The Terronera Mineral Resource and Mineral Reserve Estimates presented conform to the current CIM Definition Standards for Mineral Resources and Mineral Reserves, as required under NI 43-101 “Standards of Disclosure for Mineral Projects.” The estimation approach and methodology used is reasonable and appropriate based on the data available.

The Project is subject to technical, legal, environmental, and political risks that are similar to the risks faced by Endeavour Silver on its current operations in Mexico. The Qualified Persons consider these risks to be manageable and should not have an adverse effect on the continued development of the Terronera Project.

Based on a review of the Terronera Project and the encouraging results to date, it is recommended that Endeavour Silver:

- Continue exploratory drilling nearby mineralized bodies to extend the mine life.
- Investigate the inclusion of an HPGR crusher as the tertiary crusher to give the lowest energy requirement for size reduction. Estimated cost \$25,000.
- Higher grade zones should be analyzed for metallic gold and silver content to address the possibility of the presence of coarse precious metal.
- Evaluate ore sorting techniques to upgrade the process plant feed. Estimated cost \$5,000.
- Optimize the grinding circuit. Estimated cost \$35,000.
- Conduct more detailed analyses based on additional or updated data for the deposit in order to support the next stage of engineering. Additional data requirements include:
 - o Creating a 3-D lithological model. Estimated cost \$25,000.
 - o Creating a 3-D structural model. Estimated cost \$25,000.
- The rock mass characteristics in the immediate vicinity of the crown pillar and to the east of the Arroyo Fault zone should be better defined during the next phase of design or during the early stages of mining. Estimated cost \$75,000 plus drilling.
- Additional geomechanical logging should be completed to better define difference in structural trends around geomechanical drill hole KP16-02. Estimated cost \$25,000.
- Additional hydrogeological data should be collected if the Project economics or operating conditions are sensitive to the groundwater conditions and groundwater inflow estimate. For example, the completion of additional packer testing and the installation of additional vibrating wire piezometers could be used to refine the hydrogeological characterization and evaluate the potential for spatial variability. Estimated cost including 60l/sec pump station \$150,000.
- The groundwater pore pressure data from the vibrating wire piezometers should be recorded and reviewed on a regular basis. Estimated cost \$15,000.

- Update the geomechanical domain definition, stability analyses, recommendations, and groundwater inflow estimate to account for the results of the additional data inputs and any changes to underground mine plan. Any significant changes to the mine plan should be reviewed from a geomechanical perspective.
- Advance the current preliminary TSF area design, associated hauling accessways, and tailings delivery infrastructure to construction design level in conjunction with the feasibility level analysis. Estimated cost \$150,000.

24.8.1 Environmental

Wood Environment & Infrastructure Solutions, Inc. (formerly Amec Foster Wheeler Environment & Infrastructure Inc. referred throughout the document as Wood) recommends that, as the Terronera Project moves through its study and development process, timely applications that support the Proposed Development Schedule be submitted for all permits and approvals required in Mexico for mining developments as described in Section 20. Costs associated with these permits are included in the recommended budget referenced in the Section below.

24.8.2 Further Studies

Given the risk-mitigating features of the Terronera Project and the positive results of the economic analysis, the Qualified Persons consider the Project is ready to proceed to Feasibility Study or, if the Company is sufficiently confident, to development and production.

The recommended budget to prepare a Feasibility Study is \$1,200,000.

25.0 INTERPRETATION AND CONCLUSIONS

The Terronera Property is located in the Jalisco Province of Mexico. The Project is comprised of 24 claims that covers 17,369 ha.

The Project is near the town of San Sebastián del Oeste, which also gives its name to the municipality and mining district which surrounds it. The Property is easily accessible by four-wheel drive vehicles along paved highways and dirt roads and may be explored on a year round basis.

The San Sebastián Properties cover a classic, low sulphidation, epithermal vein system in four mineralized vein sub-districts named Los Reyes, Santiago de Los Pinos, San Sebastián and Real de Oxtotipan. Each sub-district consists of a cluster of quartz (calcite, barite) veins mineralized with sulphide minerals (pyrite, argentite, galena and sphalerite). Each vein cluster spans about 3 km by 3 km in area. In total, more than 50 small mines were developed historically on at least 20 separate veins. The San Sebastián veins tend to be large and can carry high grade silver-gold mineralized deposits. For example, the La Quiteria Vein ranges up to 15 m thick, and the Santa Quiteria Mine averages about 280 g/t silver and 0.5 g/t gold over a 3 m to 4 m width. This high grade mineralized zone appears to extend into the San Sebastián Properties both along strike and immediately down dip.

The Terronera and La Luz Mineral Resource Estimates presented herein conform to the current CIM Definition Standards for Mineral Resources and Mineral Reserves, as required under NI 43-101 “Standards of Disclosure for Mineral Projects.” The estimation approach and methodology used is reasonable and appropriate based on the data available.

The Terronera Project is subject to technical, legal, environmental, and political risks that are similar to the risks faced by Endeavour Silver on its other current operations in Mexico. The Qualified Persons named in this Technical Report consider these risks to be manageable and should not have an adverse effect on the continued development of the Terronera Project.

This Technical Report purpose is to provide an update to the Mineral Resource Estimate presented in the August 2018 Updated Pre-Feasibility Report.

It is concluded that the drilling assay database and QA/QC procedures are sufficient for current purposes.

26.0 RECOMMENDATIONS

Given the risk-mitigating features of the Terronera Project and the positive results of this Updated Mineral Resource Estimate, the Qualified Persons recommended that Endeavour Silver budget the following:

- Geology and vein targeting US\$ 200,000.
- 2nd Updated Pre-Feasibility Study US\$1,200,000.

27.0 REFERENCES

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28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

EUGENE PURITCH, P. ENG., FEC, CET

I, Eugene J. Puritch, P. Eng., FEC, CET, residing at 44 Turtlecreek Blvd., Brampton, ON, L6W 3X7, certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled "Updated Mineral Resource Estimate Technical Report for the Terronera Project, Jalisco State, Mexico", (the "Technical Report") with an effective date of Feb 1, 2019.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for Bachelor's Degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

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 fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

I have practiced my profession continuously since 1978. My summarized career experience is as follows:

- Mining Technologist - H.B.M. & S. and Inco Ltd., 1978-1980
- Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
- Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
- Self-Employed Mining Consultant – Timmins Area, 1987-1988
- Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
- Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
- President – P&E Mining Consultants Inc, 2004-Present

4. I have visited the Property that is the subject of this Technical Report on September 11, 2014.
5. I am responsible for authoring Sect 15 to 19, 21, 22 and co-authoring Sect 1, 14, 25, 26 of the Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a "Qualified Person" for the following Technical Reports titled: "NI 43-101 Technical Report Preliminary Economic Assessment for the Terronera Project, Jalisco State, Mexico" with an effective date of March 25, 2015; "NI 43-101 Technical Report Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico" with an effective date of April 3, 2017; and "NI 43-101 and NI 43-101F1 Technical Report Updated Mineral Resource Estimate and Updated Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico", with an effective date of August 7, 2018.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this 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.

Effective Date: February 1, 2019

Signing Date: February 22, 2019

{SIGNED AND SEALED}

[Eugene Puritch]

Eugene Puritch, P.Eng., FEC, CET

P&E Mining Consultants Inc.

Company Name, Project Name, Report No. 349

Page 168 of 221

CERTIFICATE OF QUALIFIED PERSON

DAVID BURGA, P.GEO.

I, David Burga, P. Geo., residing at 3884 Freeman Terrace, Mississauga, Ontario, do hereby certify that:

1. I am an independent geological consultant contracted by P & E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Updated Mineral Resource Estimate Technical Report for the Terronera Project, Jalisco State, Mexico”, (the “Technical Report”) with an effective date of February 1, 2019.
3. I am a graduate of the University of Toronto with a Bachelor of Science degree in Geological Sciences (1997). I have worked as a geologist for over 20 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Association of Professional Geoscientists of Ontario (License No 1836).

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 fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

- | | |
|--|--------------|
| • Exploration Geologist, Cameco Gold | 1997-1998 |
| • Field Geophysicist, Quantec Geoscience | 1998-1999 |
| • Geological Consultant, Andeburg Consulting Ltd. | 1999-2003 |
| • Geologist, Aeon Egmond Ltd. | 2003-2005 |
| • Project Manager, Jacques Whitford | 2005-2008 |
| • Exploration Manager – Chile, Red Metal Resources | 2008-2009 |
| • Consulting Geologist | 2009-Present |
4. I have visited the Property that is the subject of this Technical Report on September 11, 2014; October 7, 2014; June 14, 2016, January 9 and October 16, 2018.
 5. I am responsible for authoring Sections 2 to 12, 23, 24 and 27 and co-authoring Sections 1, 25 and 26 of the Technical Report.
 6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
 7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for the following Technical Reports titled: “NI 43-101 Technical Report Preliminary Economic Assessment for the Terronera Project, Jalisco State, Mexico” with an effective date of March 25, 2015; “NI 43-101 Technical Report Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico” with an effective date of April 3, 2017; and “NI 43-101 and NI 43-101F1 Technical Report Updated Mineral Resource Estimate and Updated Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico”, with an effective date of August 7, 2018.
 8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
 9. As of the date of this certificate, 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.

Effective Date: February 1, 2019

Signing Date: February 22, 2019

{SIGNED AND SEALED}

[David Burga]

David Burga, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

YUNGANG WU, P.GEO.

I, Yungang Wu, P. Geo., residing at 3246 Preserve Drive, Oakville, Ontario, L6M 0X3, do hereby certify that:

1. I am an independent consulting geologist contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Updated Mineral Resource Estimate Technical Report for the Terronera Project, Jalisco State, Mexico”, (the “Technical Report”) with an effective date of February 1, 2019.
3. I am a graduate of Jilin University, China, with a Master Degree in Mineral Deposits (1992). I am a geological consultant and a registered practising member of the Association of Professional Geoscientist of Ontario (Registration No. 1681).

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 fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is as follows:

- | | |
|---|-----------|
| • Geologist –Geology and Mineral Bureau, Liaoning Province, China | 1992-1993 |
| • Senior Geologist – Committee of Mineral Resources and Reserves of Liaoning, China | 1993-1998 |
| • VP – Institute of Mineral Resources and Land Planning, Liaoning, China | 1998-2001 |
| • Project Geologist–Exploration Division, De Beers Canada | 2003-2009 |
| • Mine Geologist – Victor Diamond Mine, De Beers Canada | 2009-2011 |
| • Resource Geologist– Coffey Mining Canada | 2011-2012 |
| • Consulting Geologist | Present |

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 1, 14, 25 and 26 of the Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for the following Technical Reports titled: “NI 43-101 Technical Report Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico” with an effective date of April 3, 2017; and “NI 43-101 and NI 43-101F1 Technical Report Updated Mineral Resource Estimate and Updated Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico”, with an effective date of August 7, 2018.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this 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.

Effective Date: February 1, 2019

Signing Date: February 22, 2019

{SIGNED AND SEALED}

[Yungang Wu]

Yungang Wu, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

EUGENIO IASILLO, P.E.

I, Eugenio Iasillo, P.E., residing at 3370 W. Crestone Court Tucson, Arizona 85742, USA, do hereby certify that:

1. I am currently Principal of Process Engineering LLC, 3370 W. Crestone Court, Tucson, Arizona 85742. Process Engineering LLC provides consulting services for mining project development and mineral processing plants design; development of metallurgical data, data analysis and development of plant design criteria; coordination of EPCM, plant commissioning and start up.
2. This certificate applies to the Technical Report titled "Updated Mineral Resource Estimate Technical Report for the Terronera Project, Jalisco State, Mexico", (the "Technical Report") with an effective date of February 1, 2019.
3. I am currently licensed as a Registered Professional Engineer in Arizona, USA, Arizona Certificate/Registration No. 28209, a Chemical Engineer in Mexico, my Professional Registration is CEDULA No. 486768.
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 fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
4. I have visited the Property that is the subject of this report on September 11 & 12, 2014 and November 10, 2016.
5. I am responsible for authoring Section 13 and co-authoring Sections 1, 25 and 26 of the Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a "Qualified Person" for the following Technical Reports titled: "NI 43-101 Technical Report Preliminary Economic Assessment for the Terronera Project, Jalisco State, Mexico" with an effective date of March 25, 2015; "NI 43-101 Technical Report Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico" with an effective date of April 3, 2017; and "NI 43-101 and NI 43-101F1 Technical Report Updated Mineral Resource Estimate and Updated Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico", with an effective date of August 7, 2018.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this 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.

Effective Date: February 1, 2019

Signing Date: February 22, 2019

{SIGNED AND SEALED}

[Eugenio Iasillo]

Eugenio Iasillo, P.E.

CERTIFICATE OF QUALIFIED PERSON

HUMBERTO F. PRECIADO, PH.D., P.E.

I, Humberto F. Preciado, Ph.D., P.E., do hereby certify that:

1. I am an employee of Wood Environment and Infrastructure Solutions, Inc., located at 2000 South Colorado Blvd., Denver, Colorado, 80222, USA.
2. This certificate applies to the Technical Report titled “Updated Mineral Resource Estimate Technical Report for the Terronera Project, Jalisco State, Mexico”, (the “Technical Report”) with an effective date of February 1, 2019.
3. I am a graduate of the University of British Columbia with a PhD in Civil Engineering. I have worked as a civil engineer for more than 20 years since obtaining my B.Sc. degree at Universidad Autonoma de Guadalajara in Mexico. I am a registered member in good standing of the Colorado State Board of Licensure for Professional Engineers under License #52648. I am also a member of the Society for Mining, Metallurgy & Exploration (SME).

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 fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is as follows:

- State Infrastructure Commission (CEI), Civil Engineer, Queretaro, Mexico, 1992 – 1999
- University of British Columbia, Department of Civil Engineering, PhD Student & Research Assistant, Vancouver, Canada, 1999-2005
- Western Technologies Inc., Geotechnical Engineer/ Project Mgr, Phoenix, AZ, USA, 2005 - 2010
- Western Technologies Inc., Director of Geotechnical Services, Phoenix, AZ, USA, 2010 - 2011
- Amec Foster Wheeler Peru S.A., Geotechnical Department Manager, Lima, Perú, 2012 - May 2015
- Amec Foster Wheeler, Senior Geotechnical Engineer, Denver CO, USA, June 2015 – March 2018
- Wood, Senior Associate Geotechnical Engineer, Denver CO, USA, April 2018 - Present

4. I have visited the Property that is the subject of this Technical Report on December 11 to 14, 2015.
5. I am responsible for authoring Section 20 and co-authoring Sections 1, 25 and 26 of the Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had prior involvement with the Project that is the subject of this Technical Report. I was a “Qualified Person” for a Technical Report titled “NI 43-101 and NI 43-101F1 Technical Report Updated Mineral Resource Estimate and Updated Preliminary Feasibility Study for the Terronera Project, Jalisco State, Mexico”, with an effective date of August 7, 2018.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this 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.

Effective Date: February 1, 2019

Signing Date: February 22, 2019

{SIGNED AND SEALED}

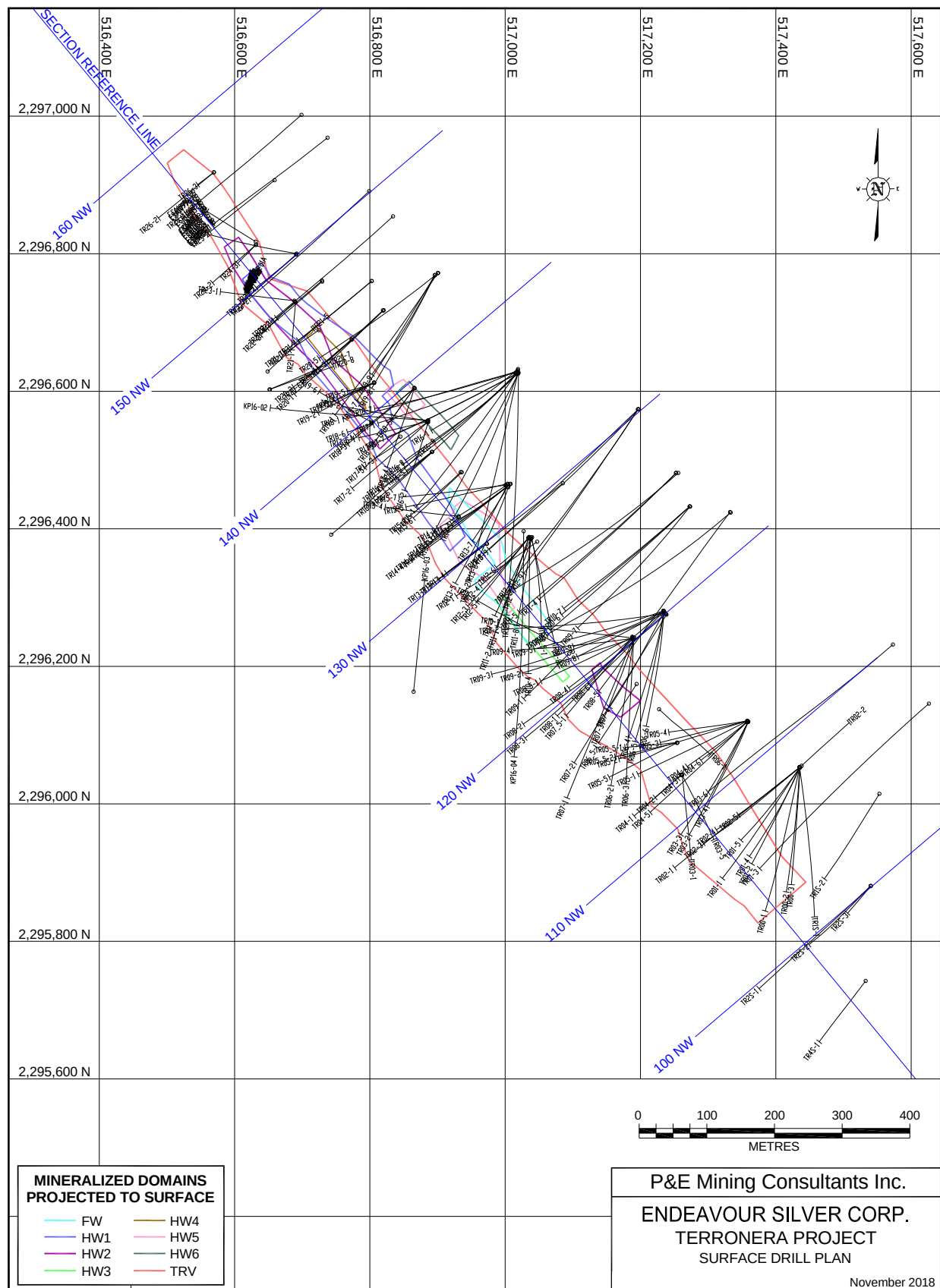
[Humberto Preciado]

Humberto Preciado, P.E.

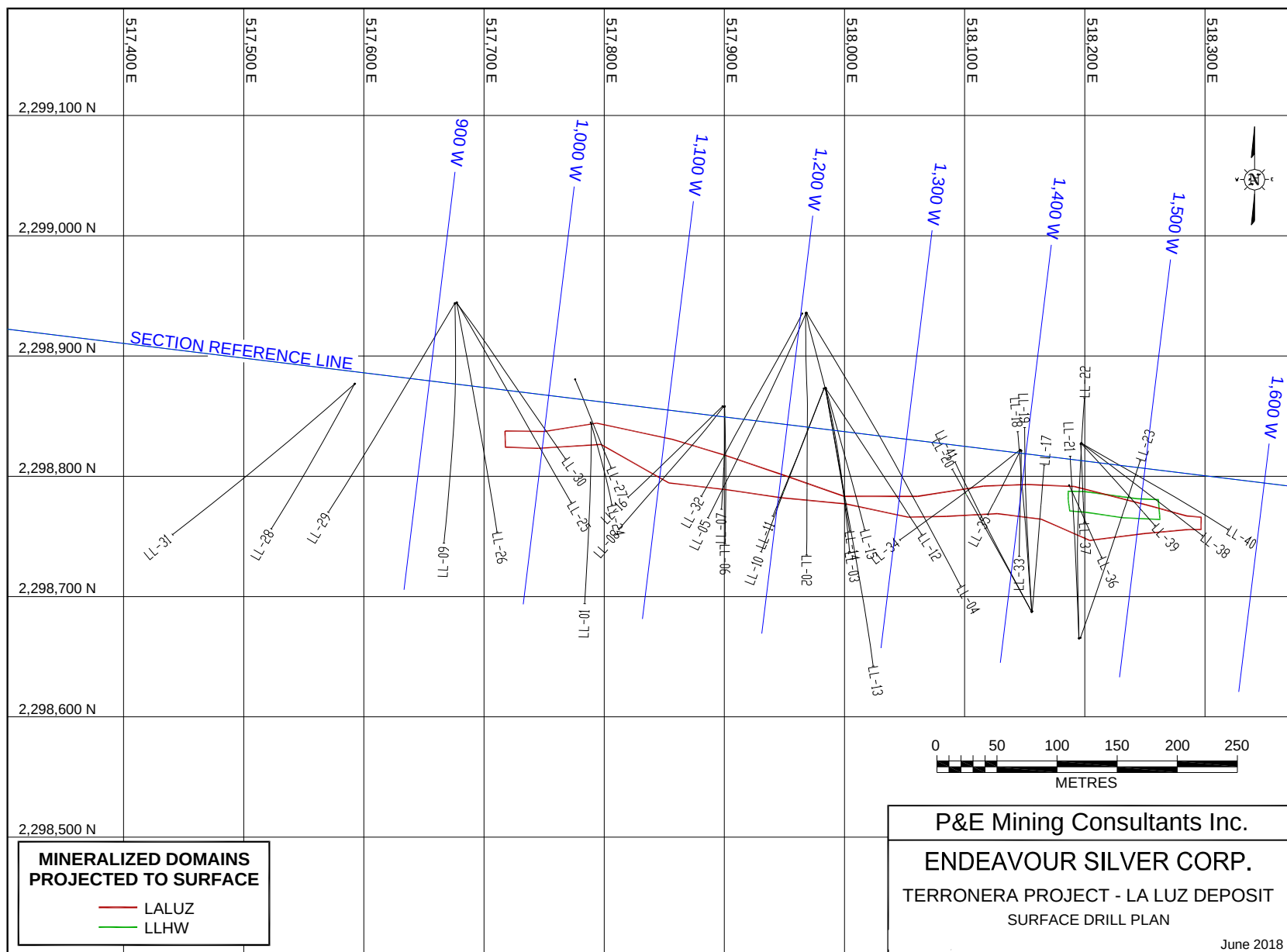
APPENDIX A SURFACE DRILL HOLE PLAN

The Terronera Deposit maps are shown first, followed by those for the La Luz Deposit.

The coordinate system for these maps is: WGS 84 / UTM Zone 13Q.

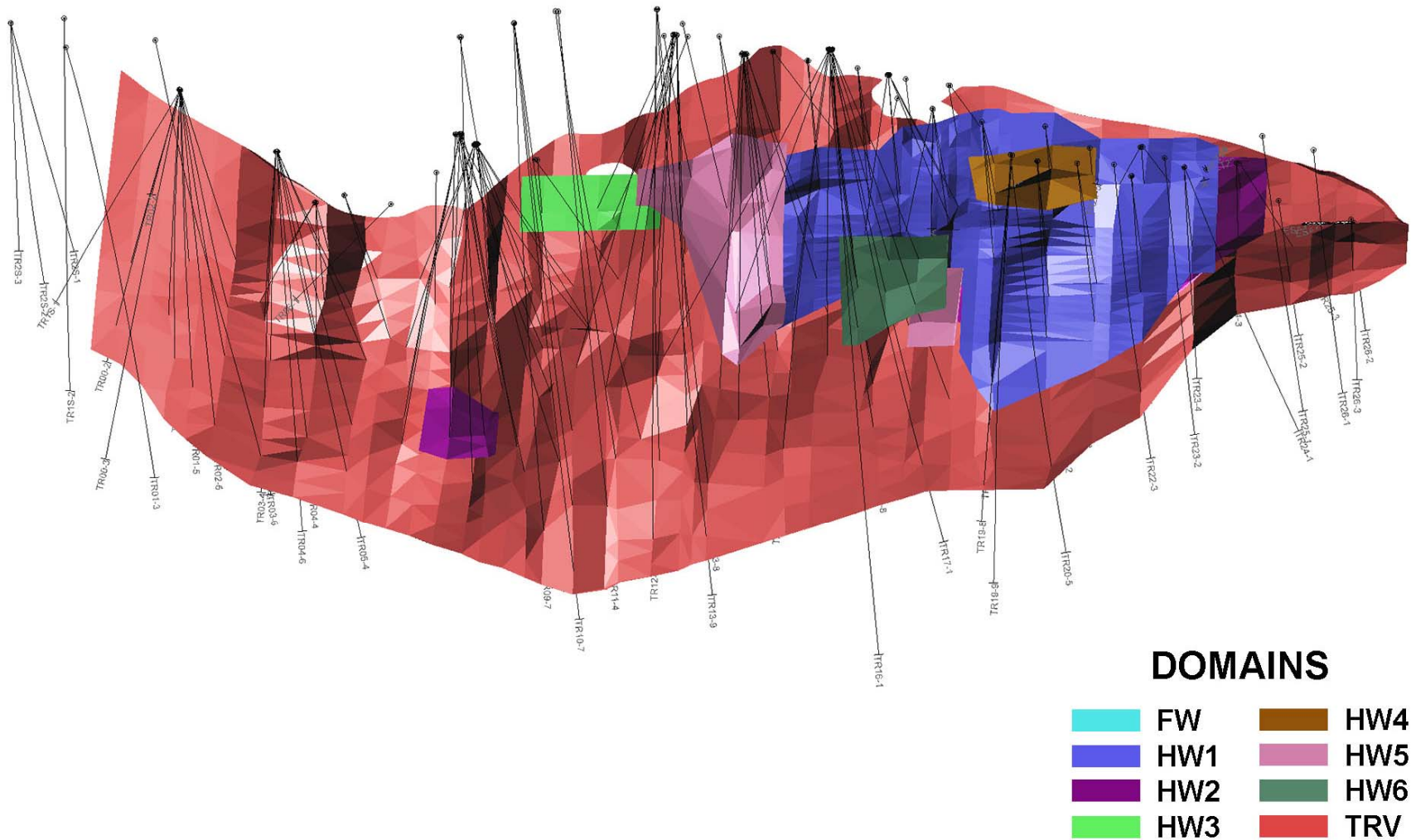


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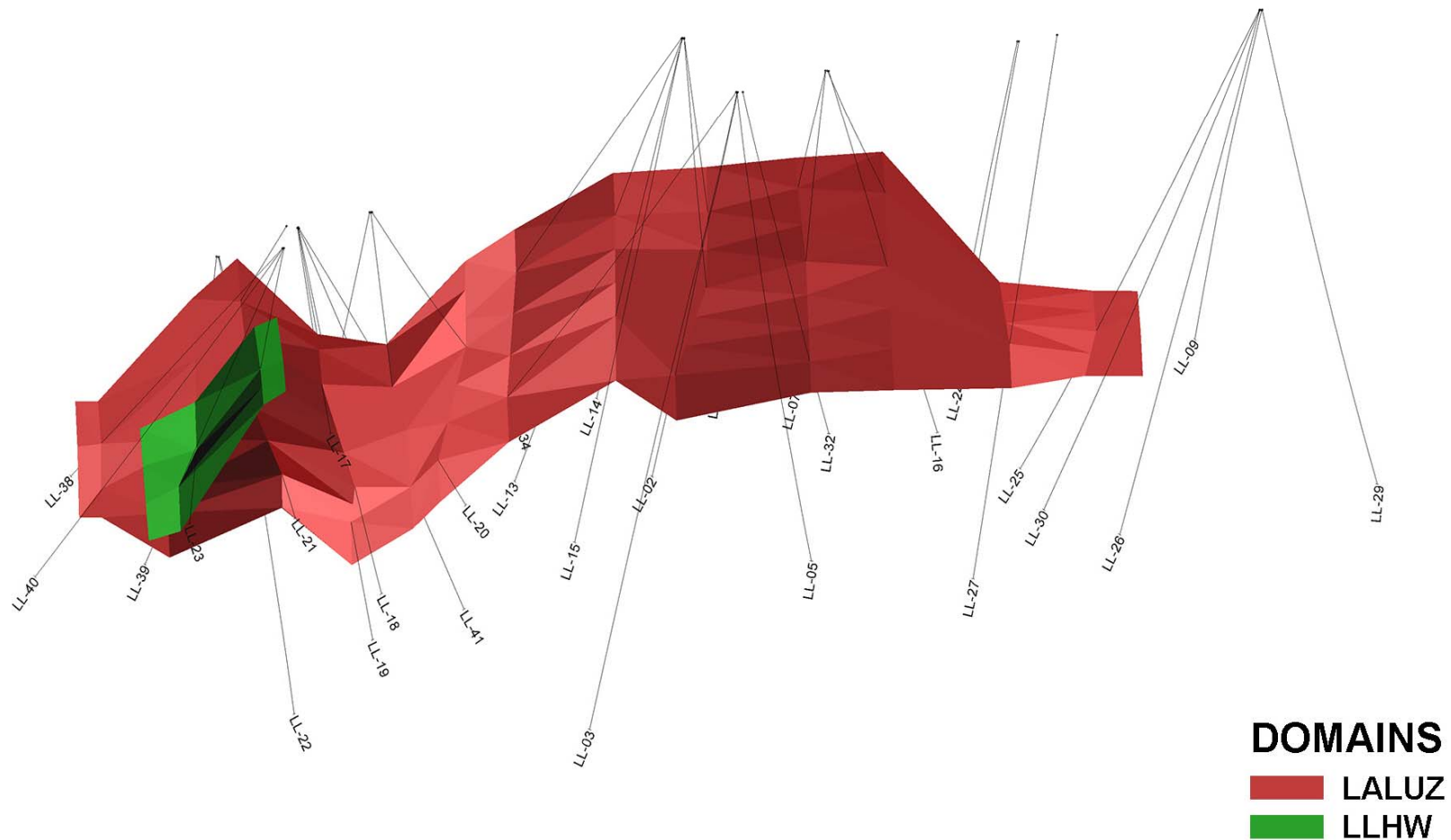
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TERRONERA PROJECT - 3D DOMAINS



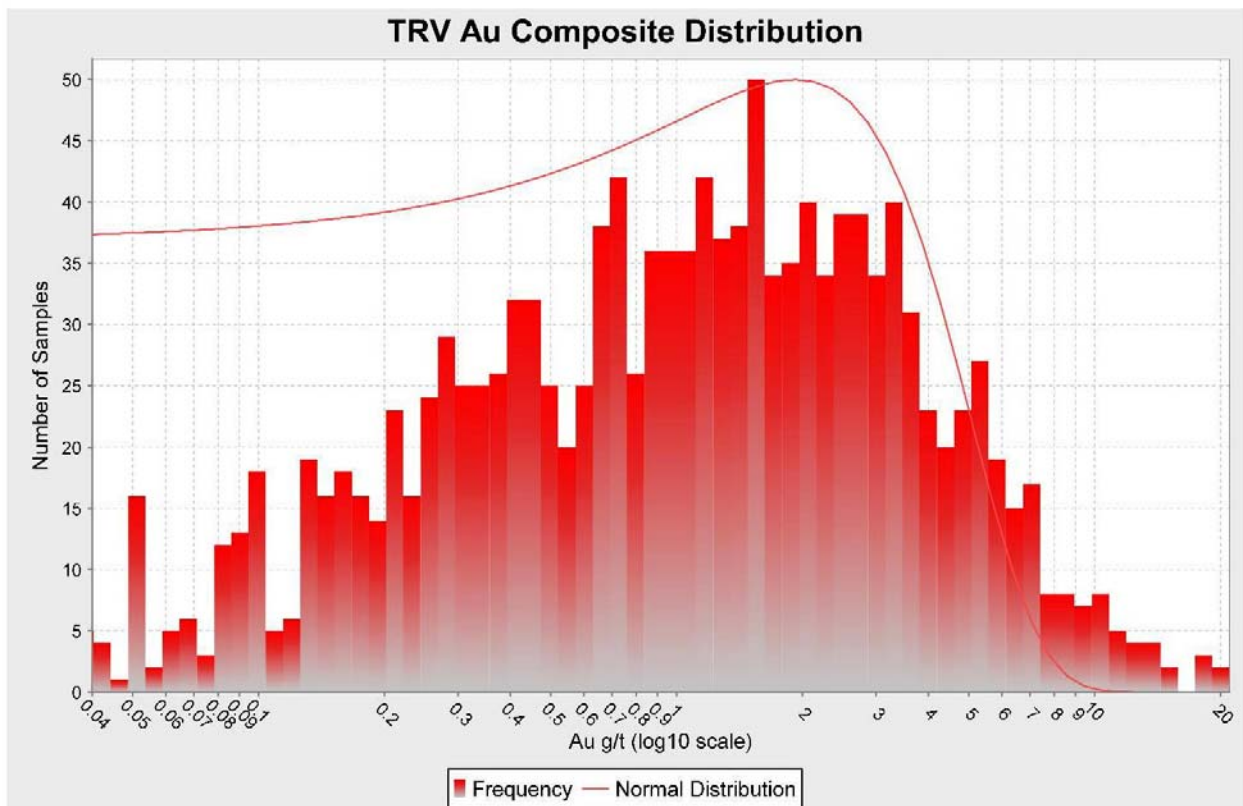
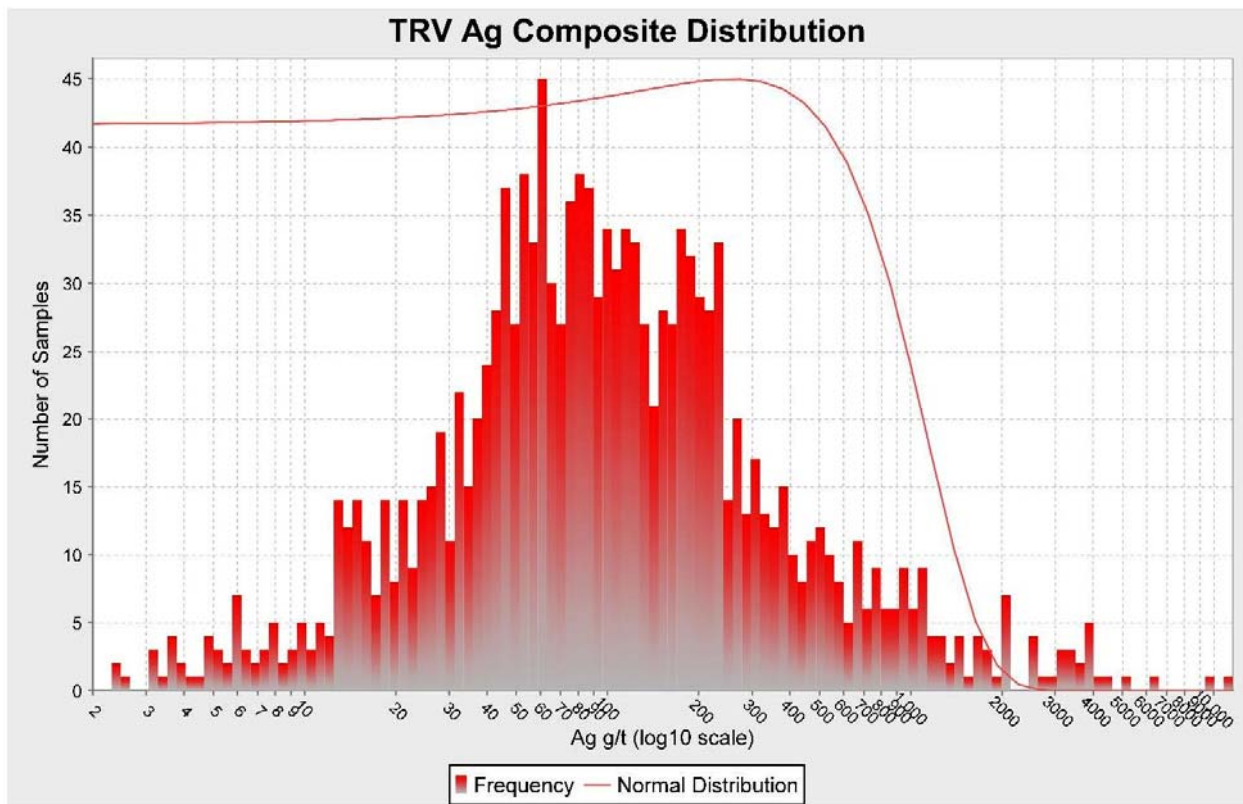
TERRONERA PROJECT - LA LUZ DEPOSIT

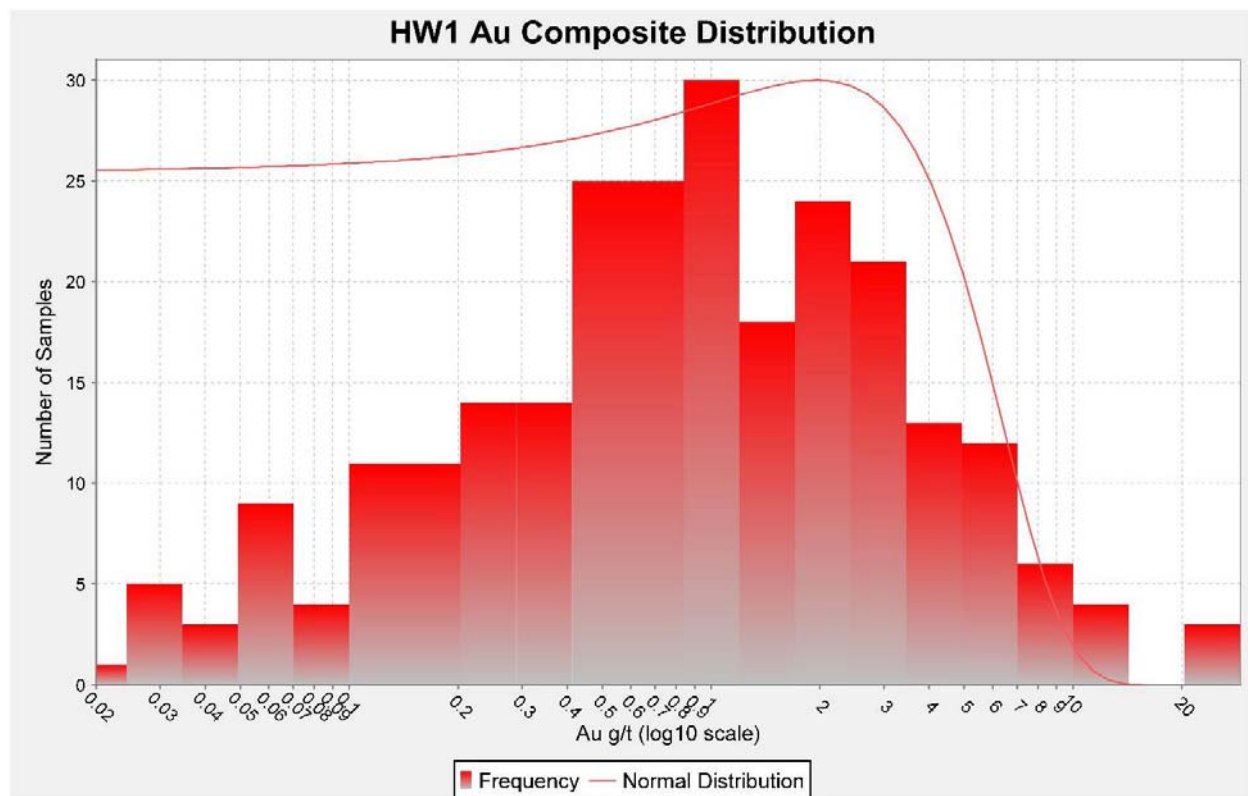
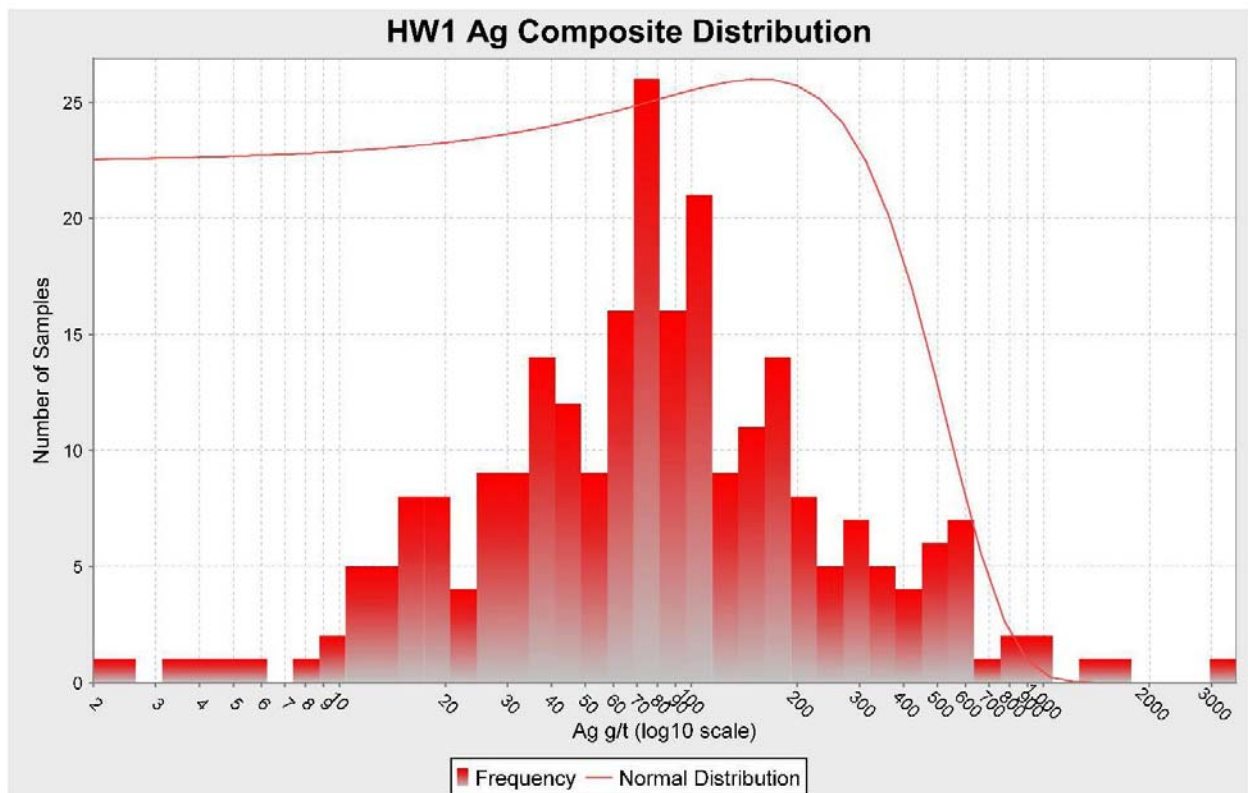
3D DOMAINS

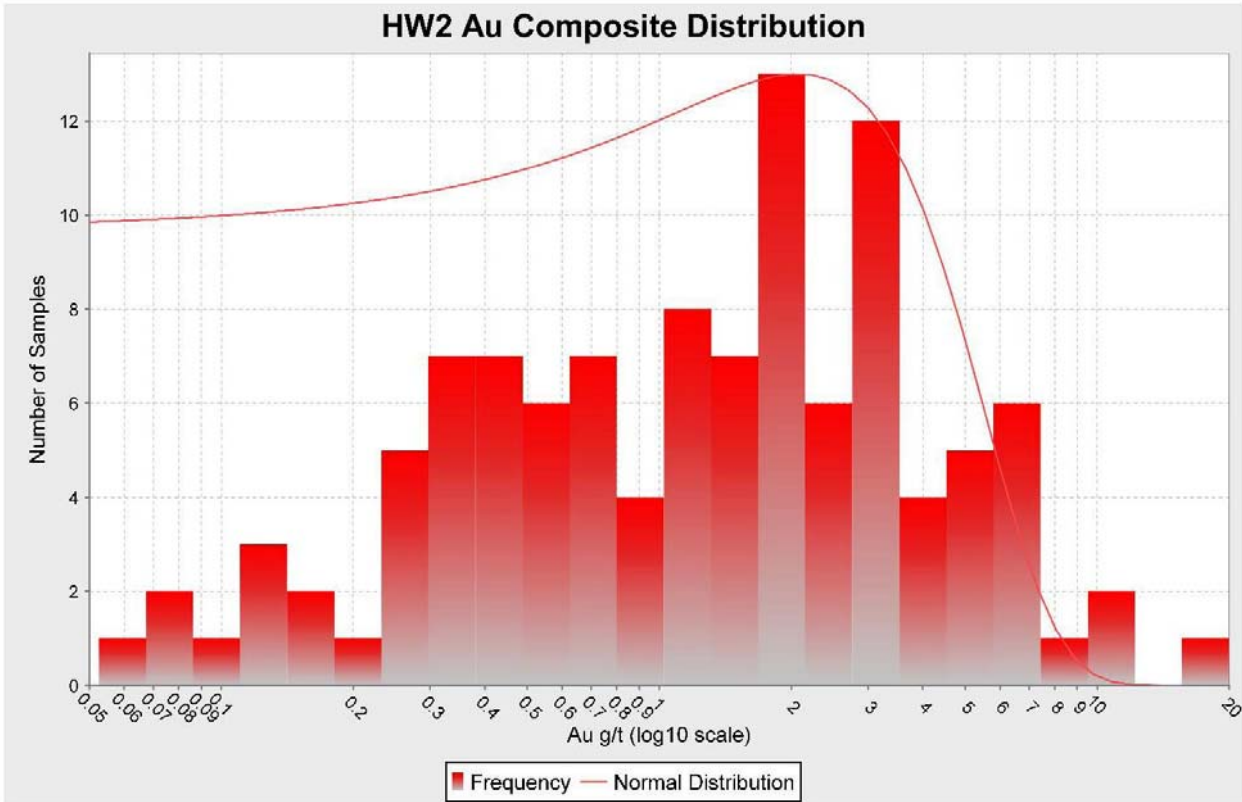
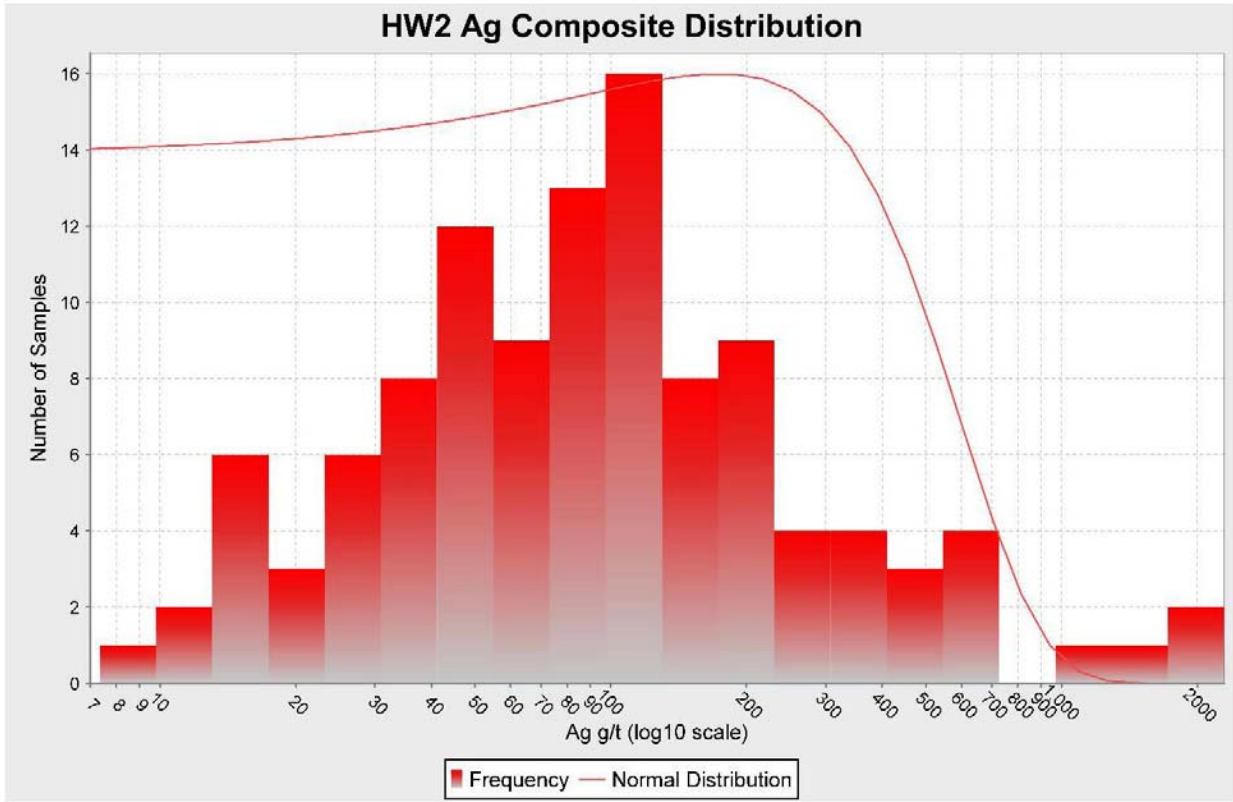


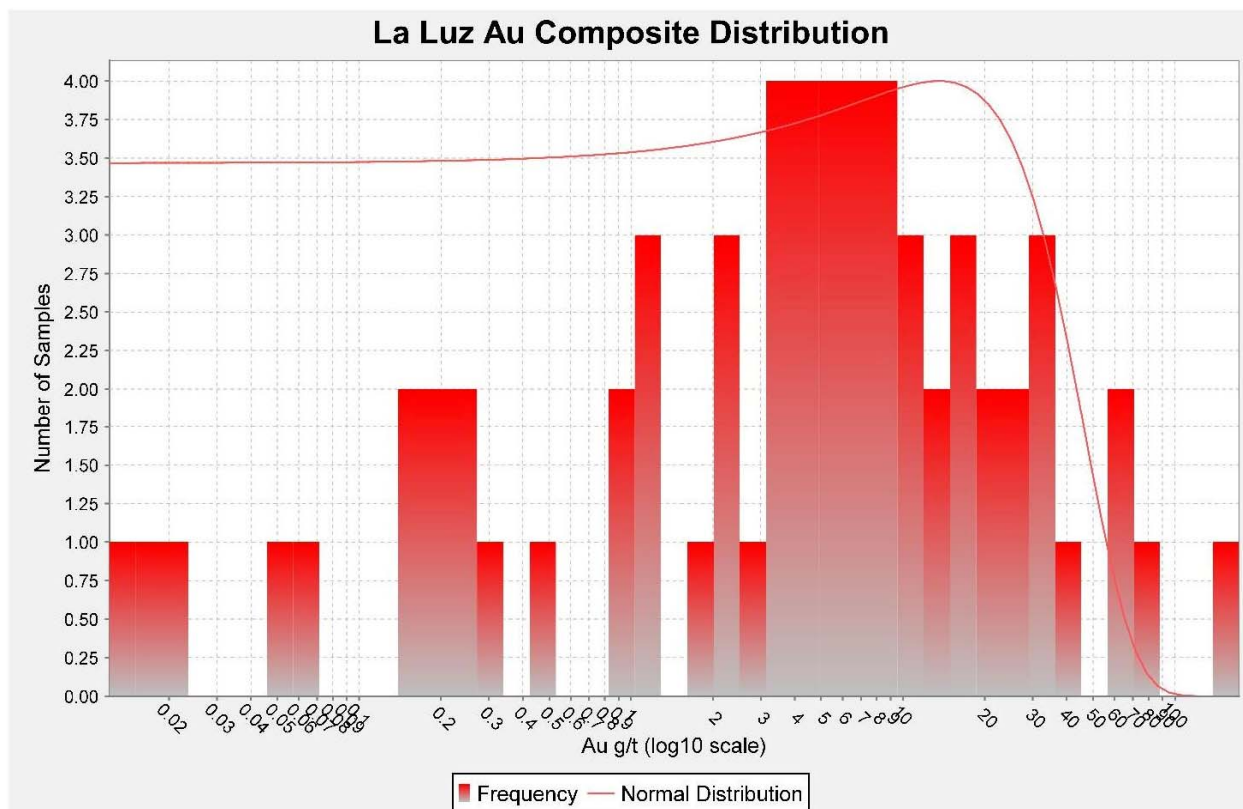
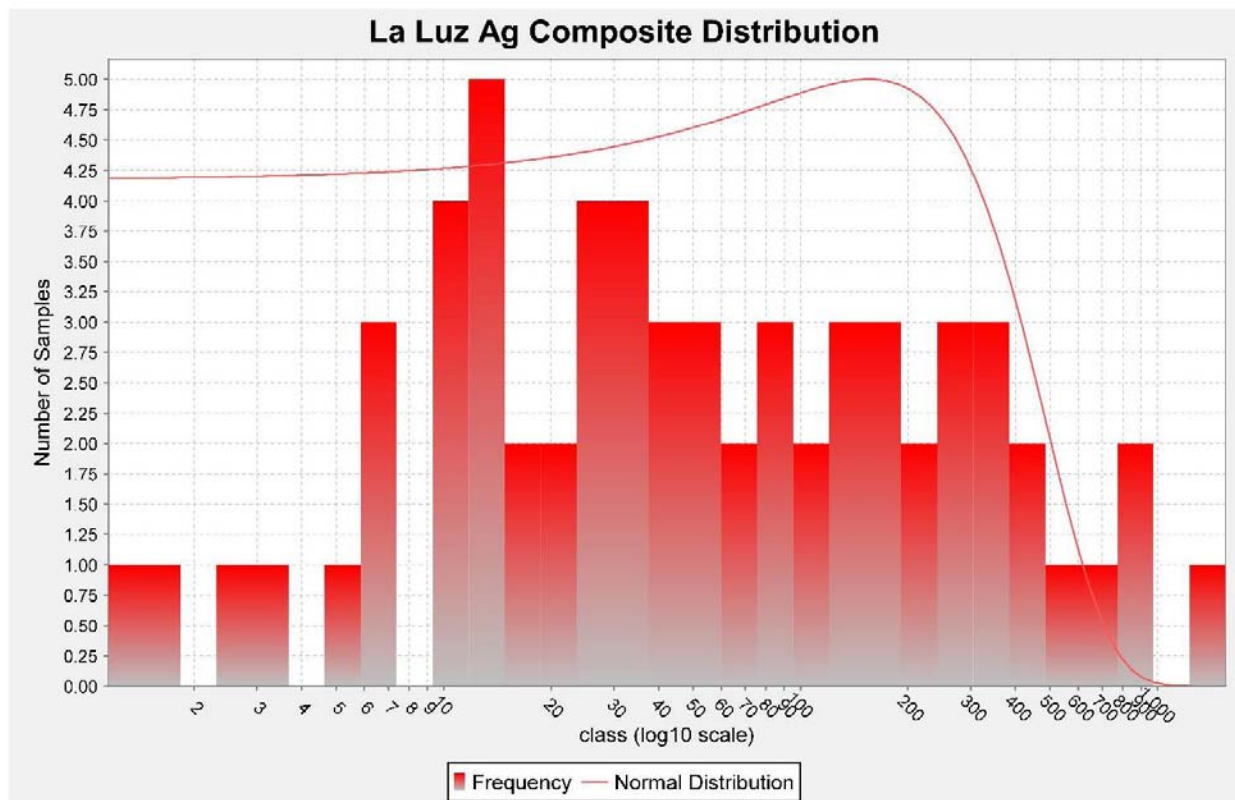
APPENDIX C LOG NORMAL HISTOGRAMS

The Terronera Deposit histograms are shown first, followed by those for the La Luz Deposit.



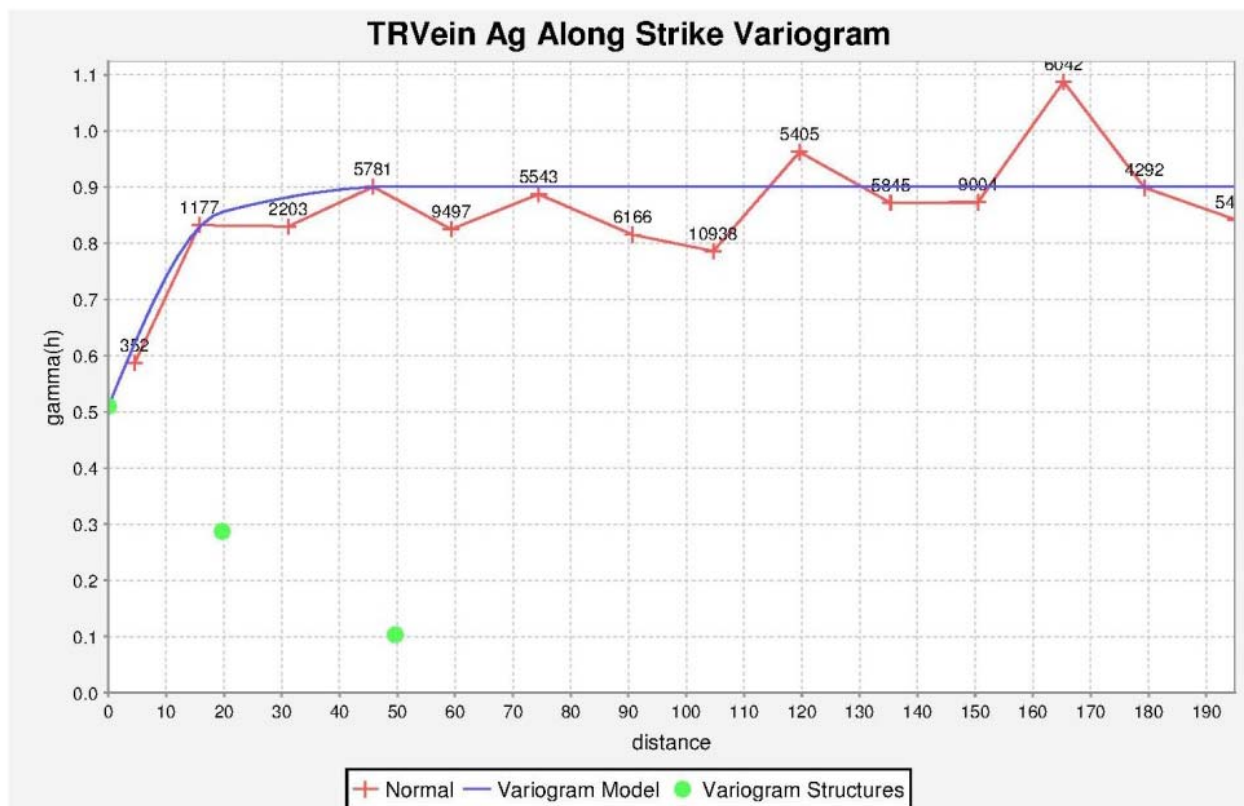
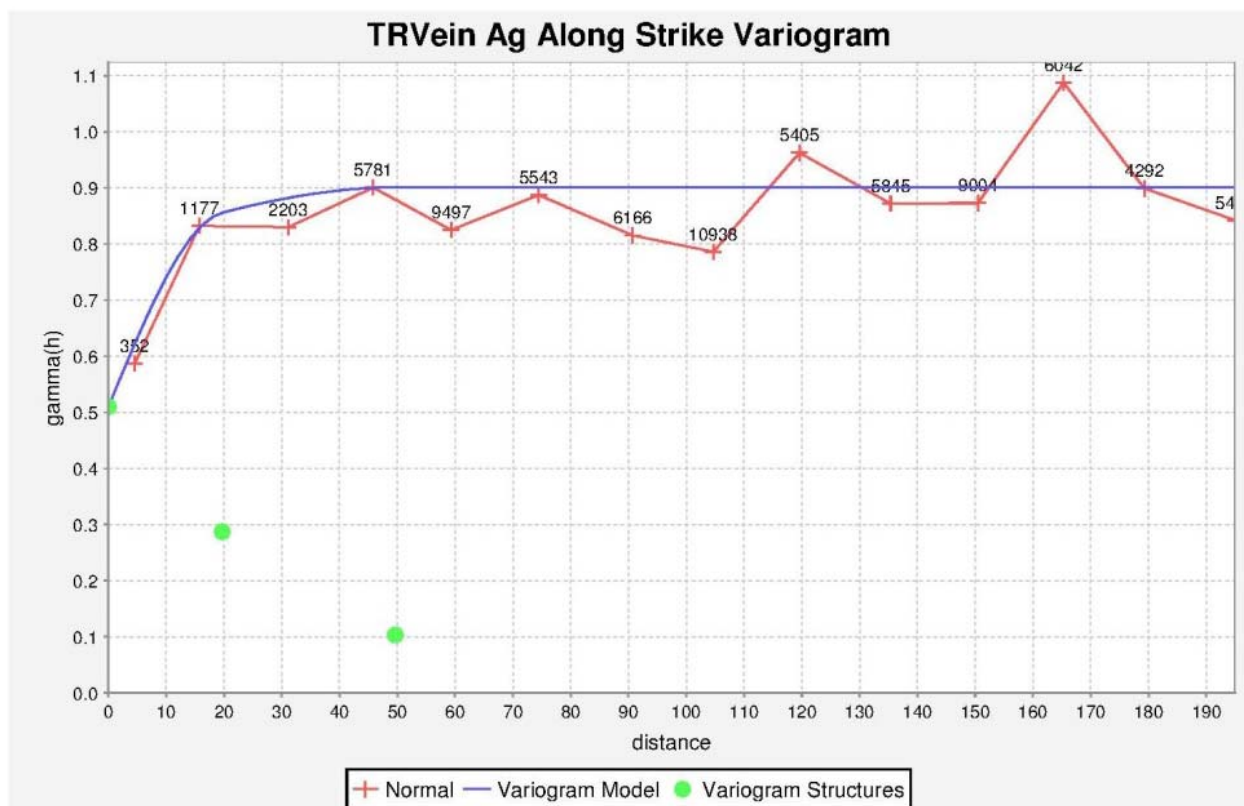


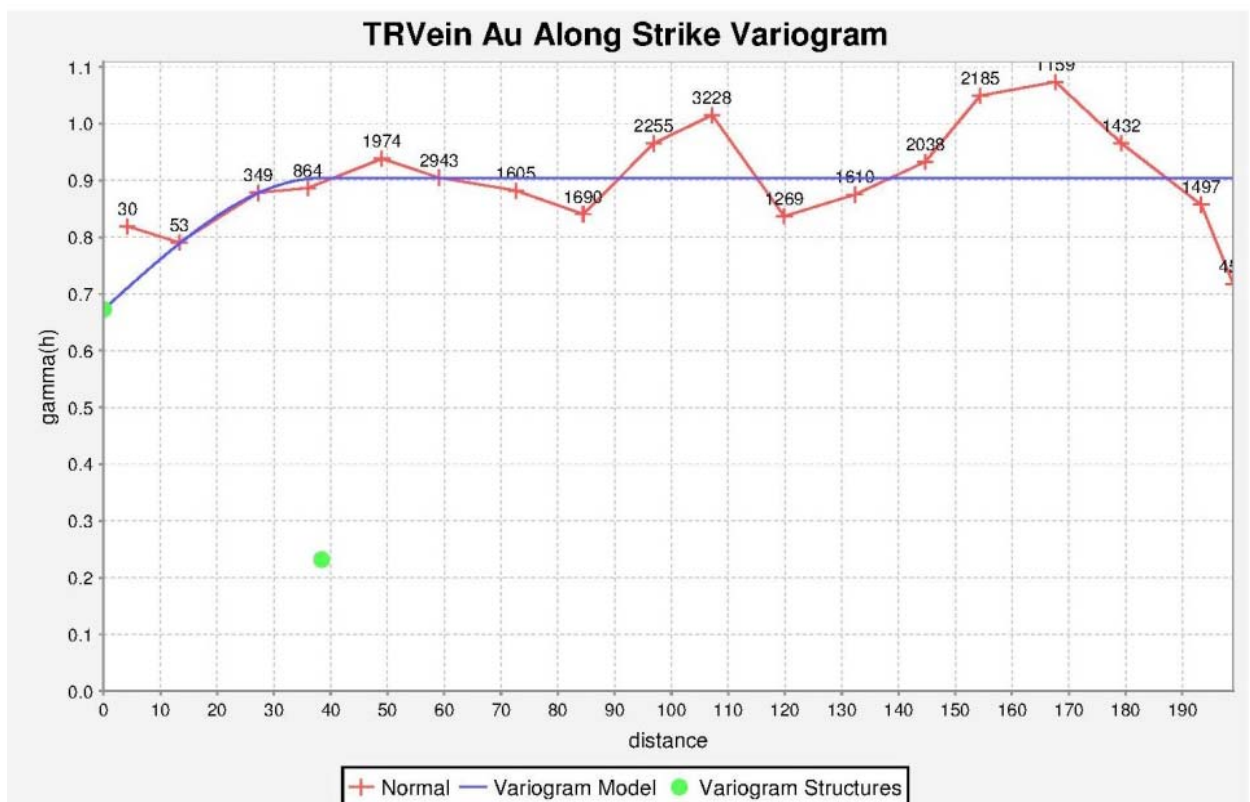
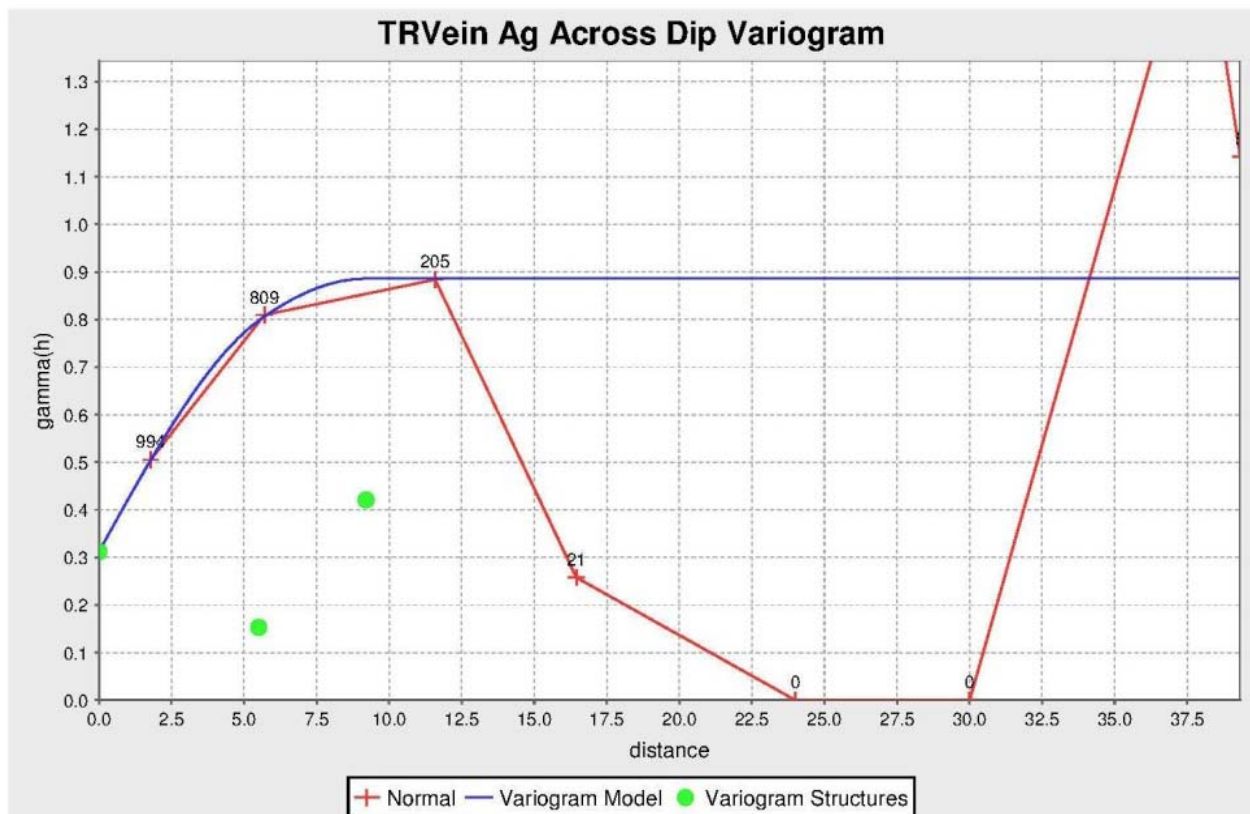


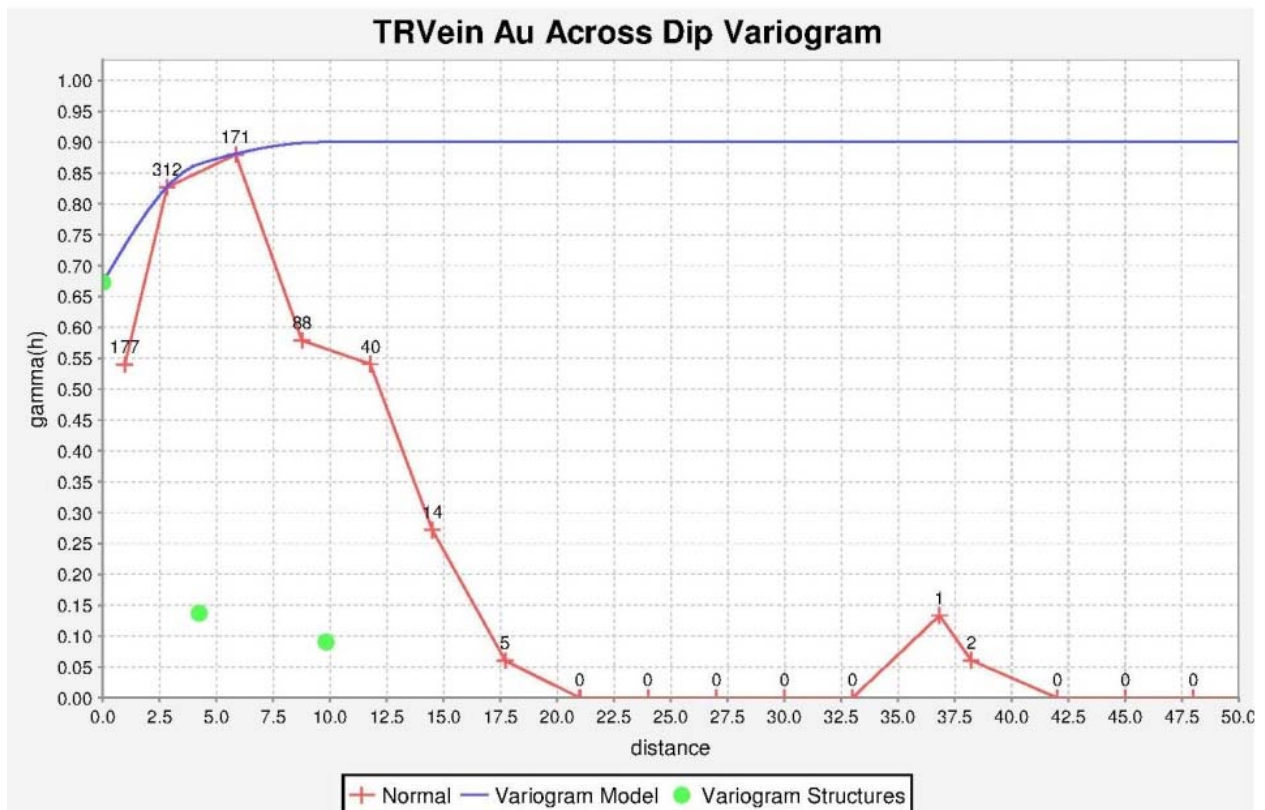
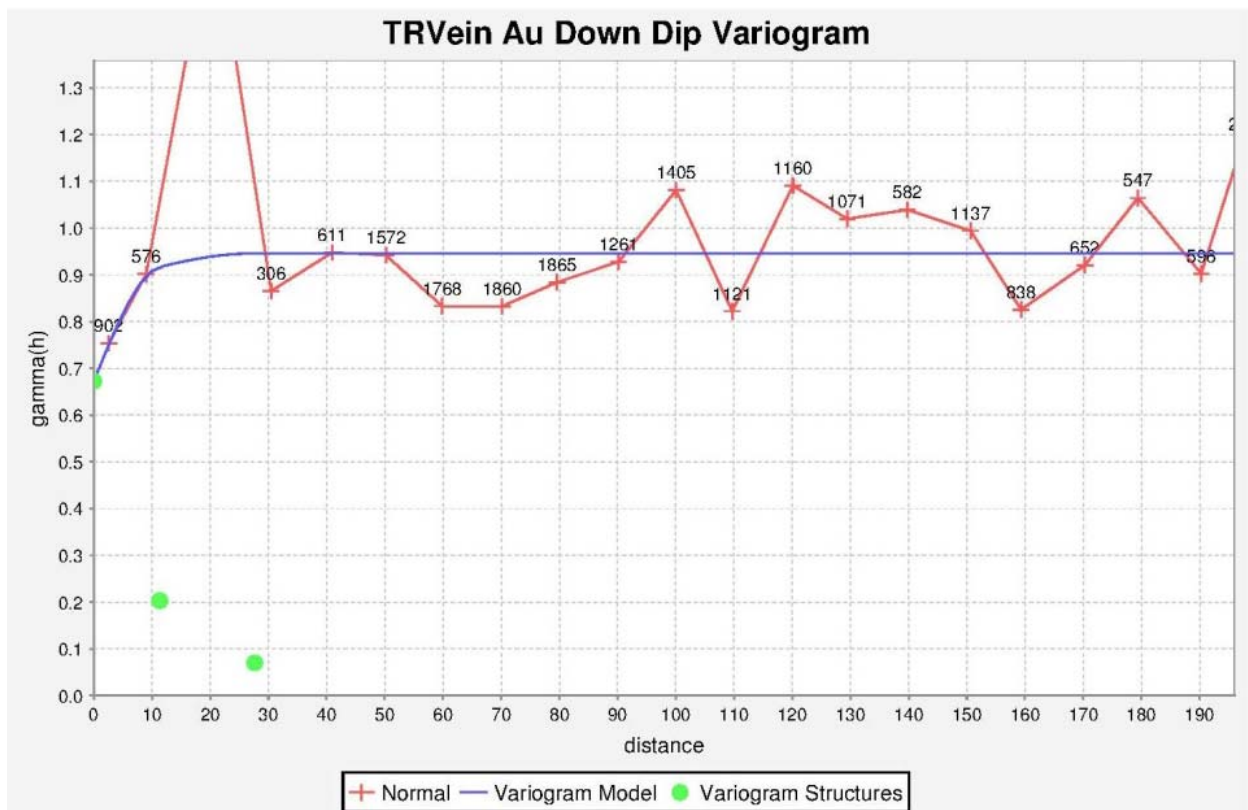


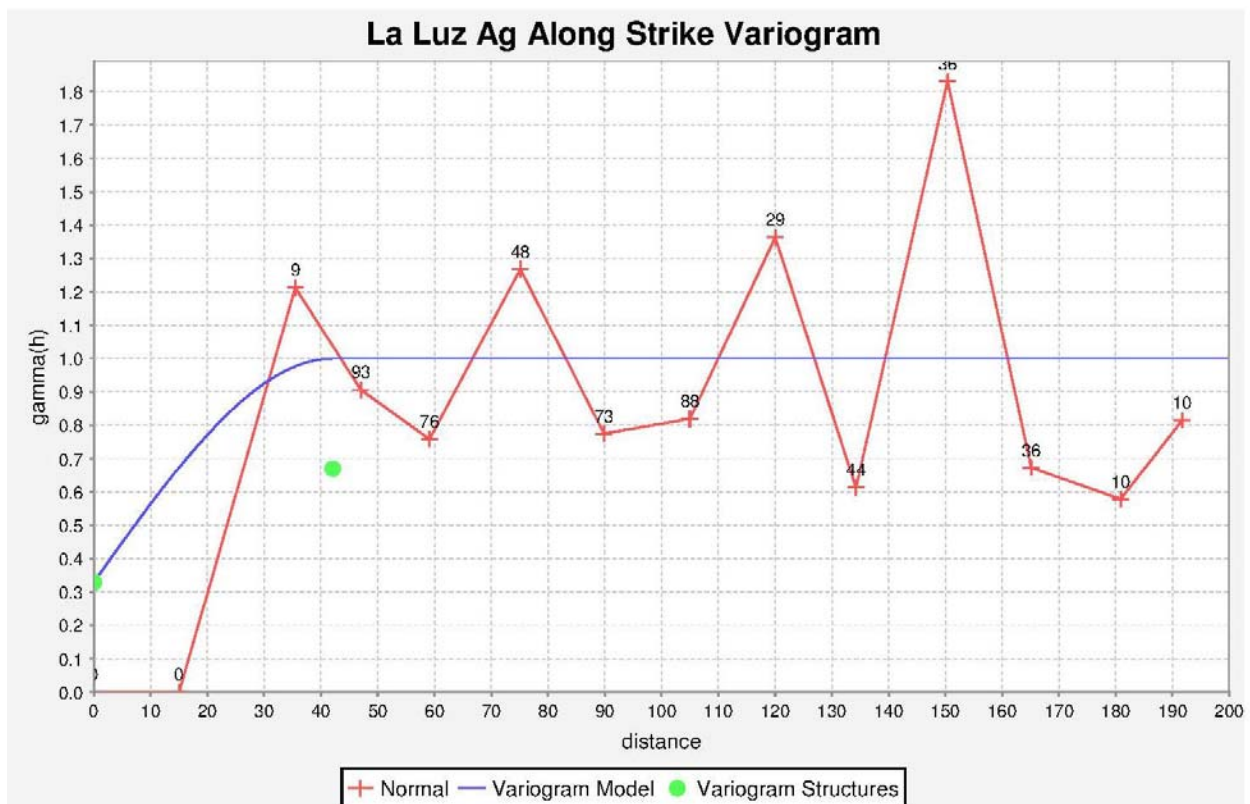
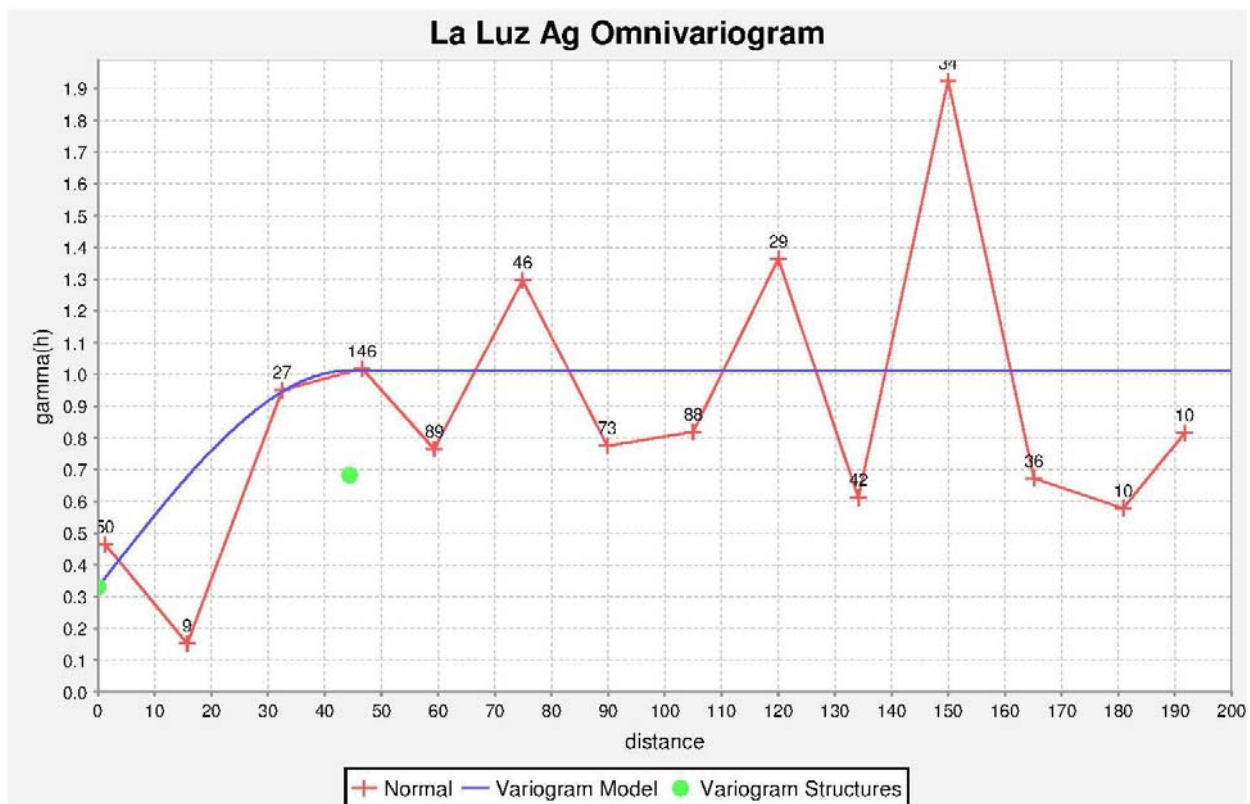
APPENDIX D VARIOGRAMS

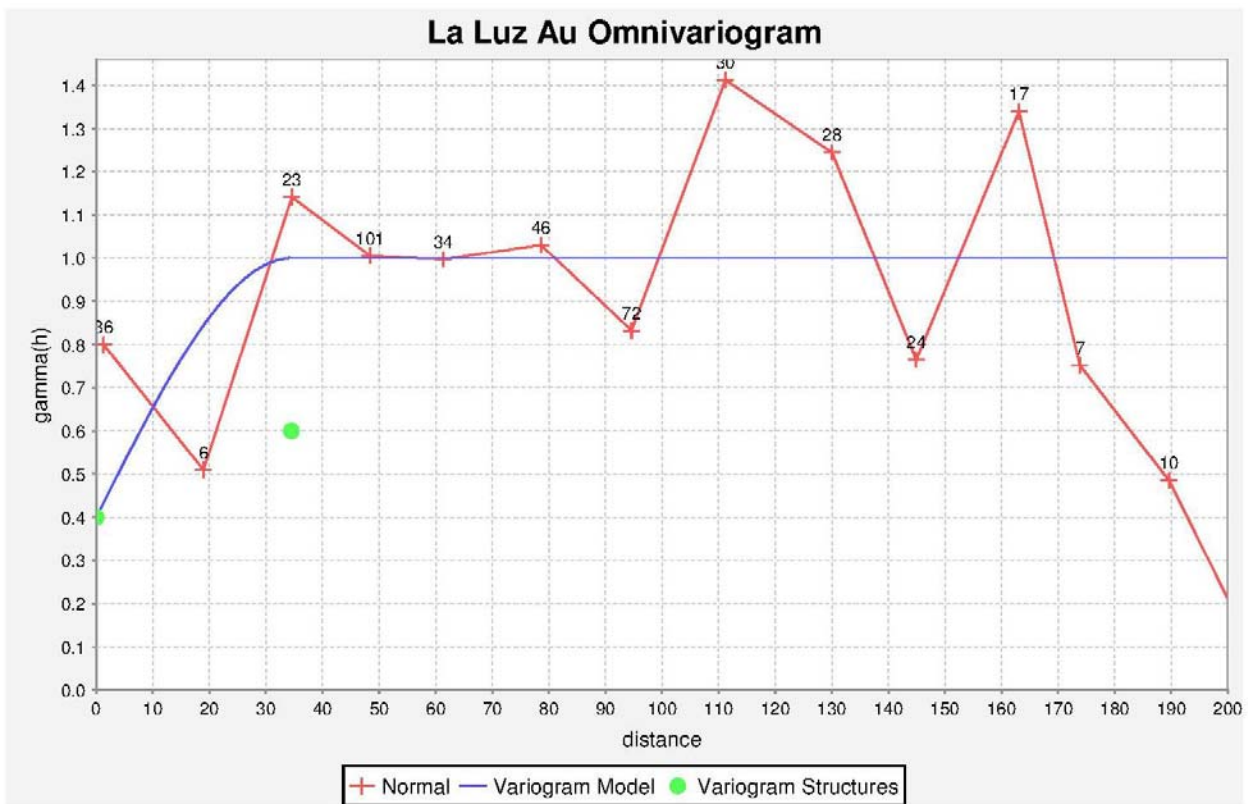
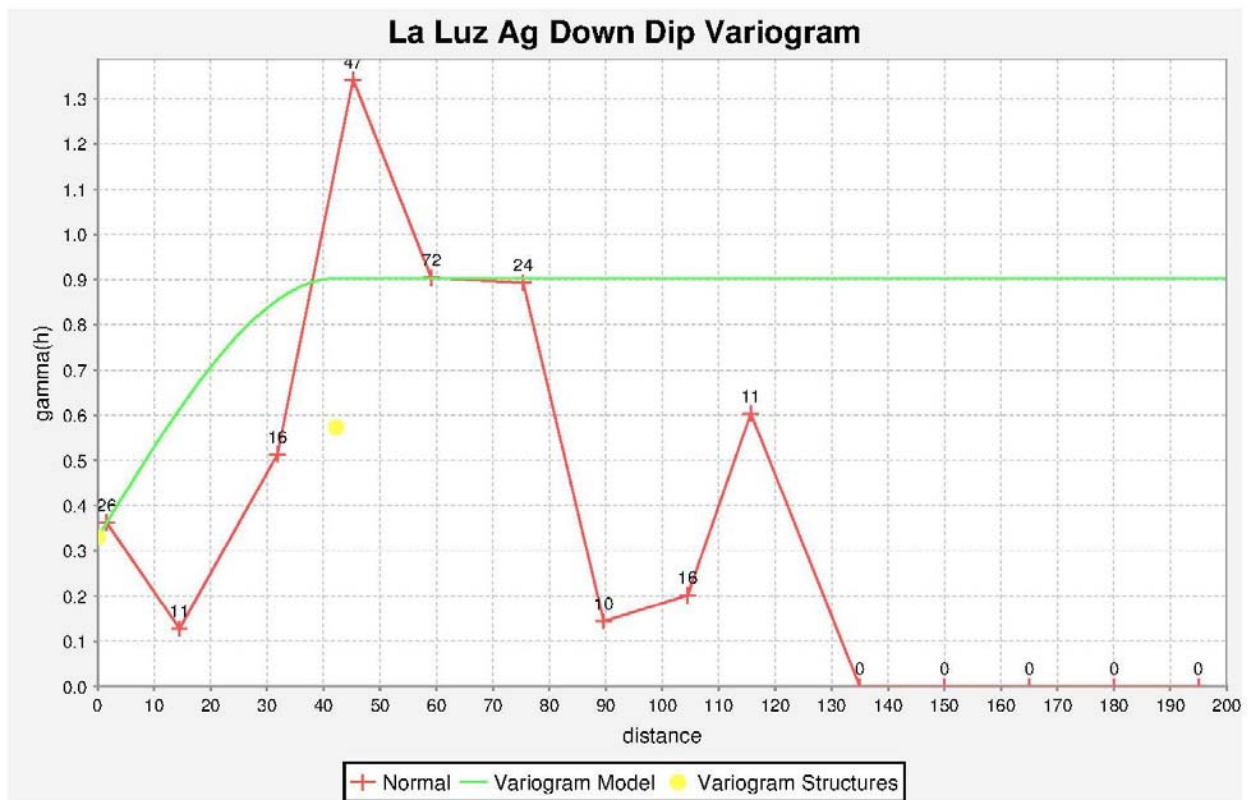
The Terronera Deposit variograms are shown first, followed by those for the La Luz Deposit.

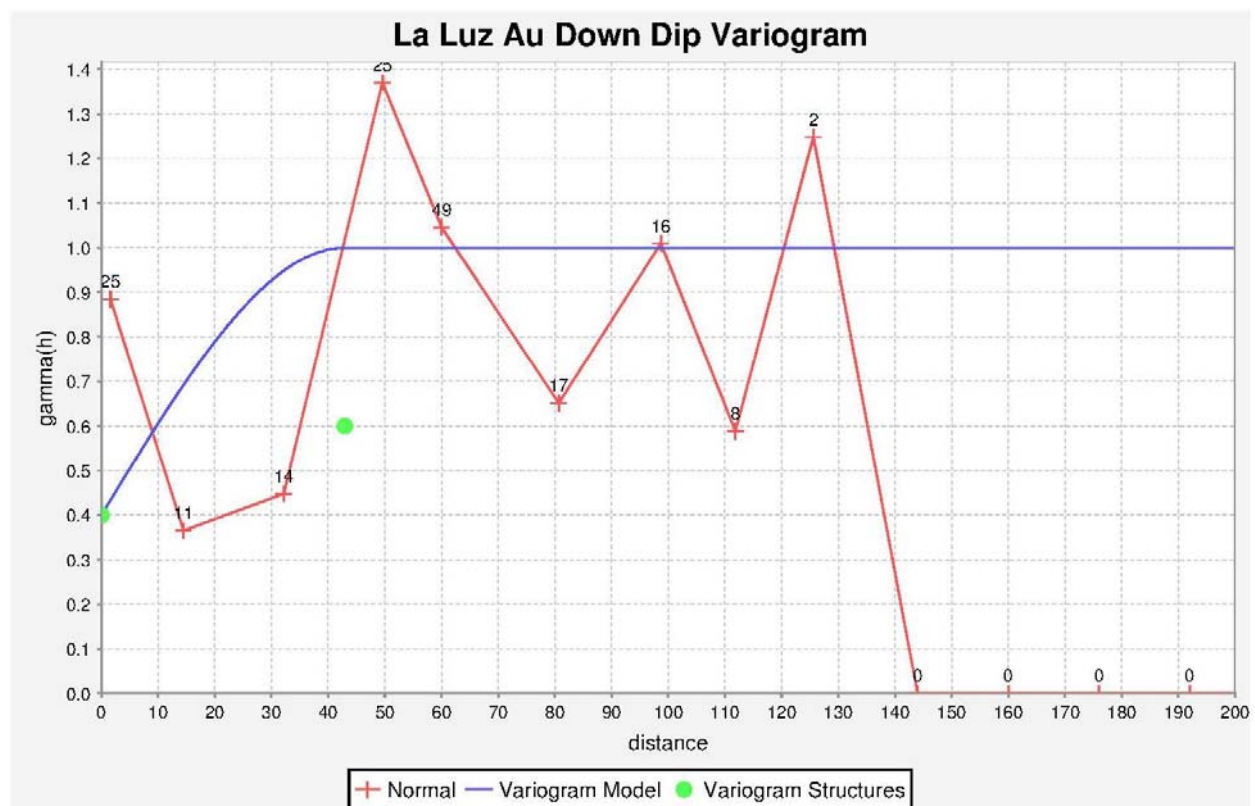
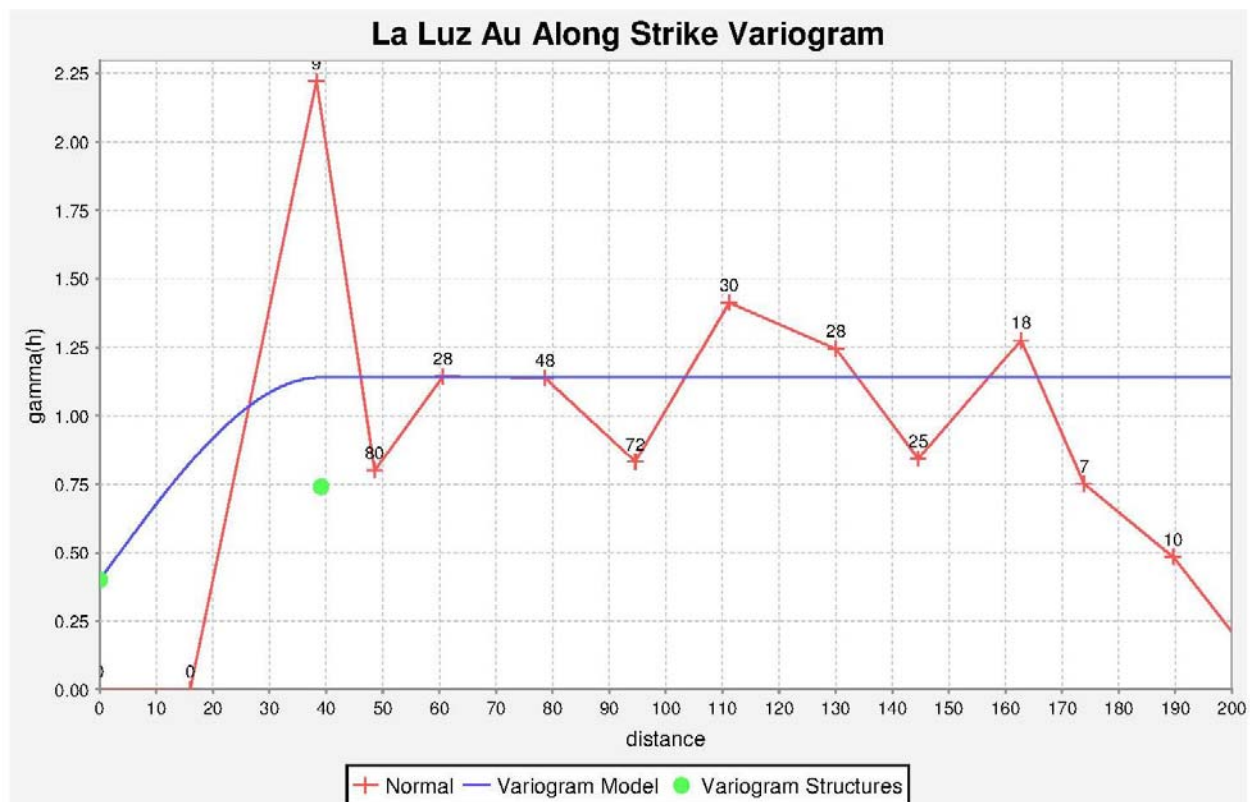








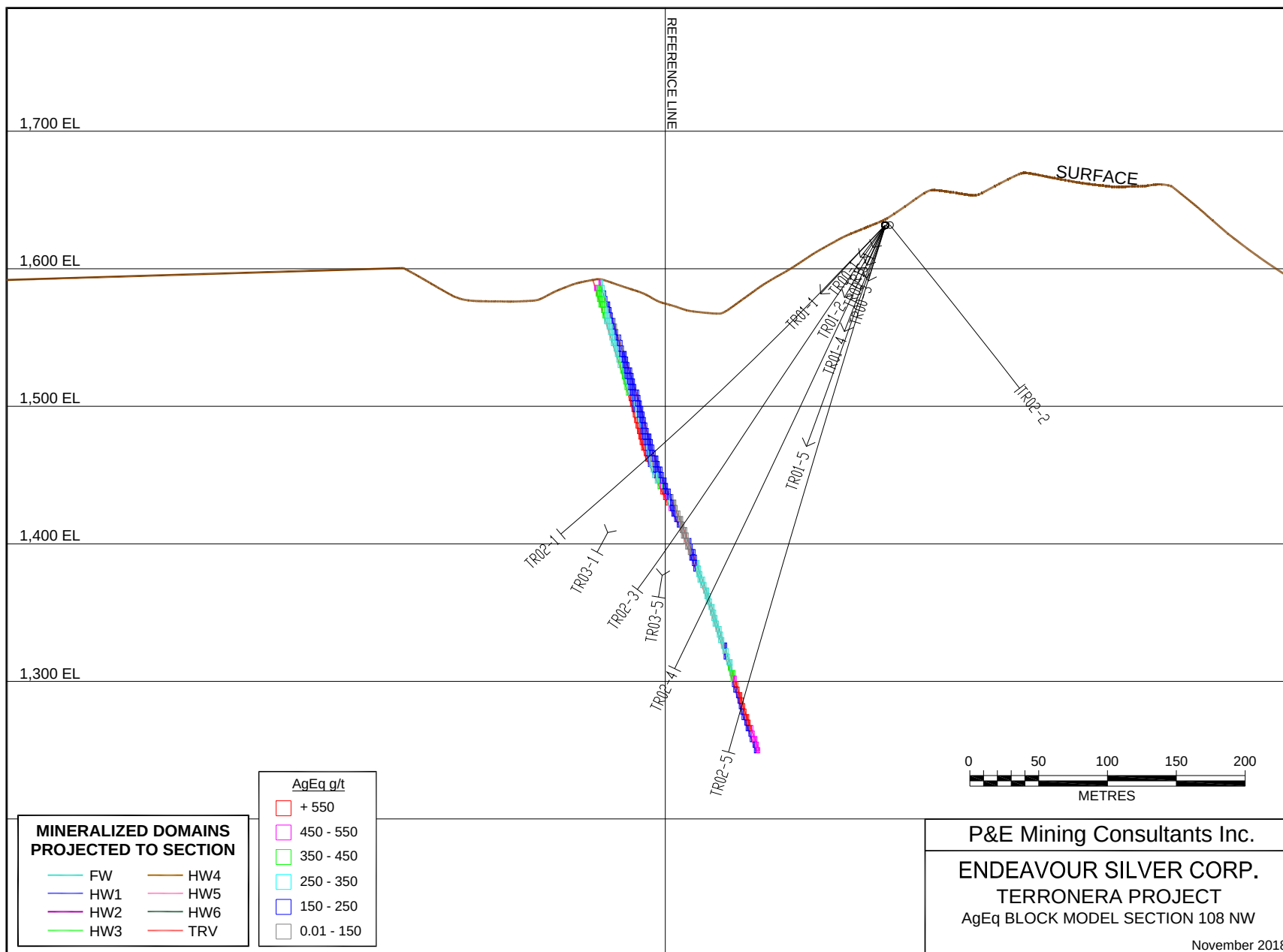


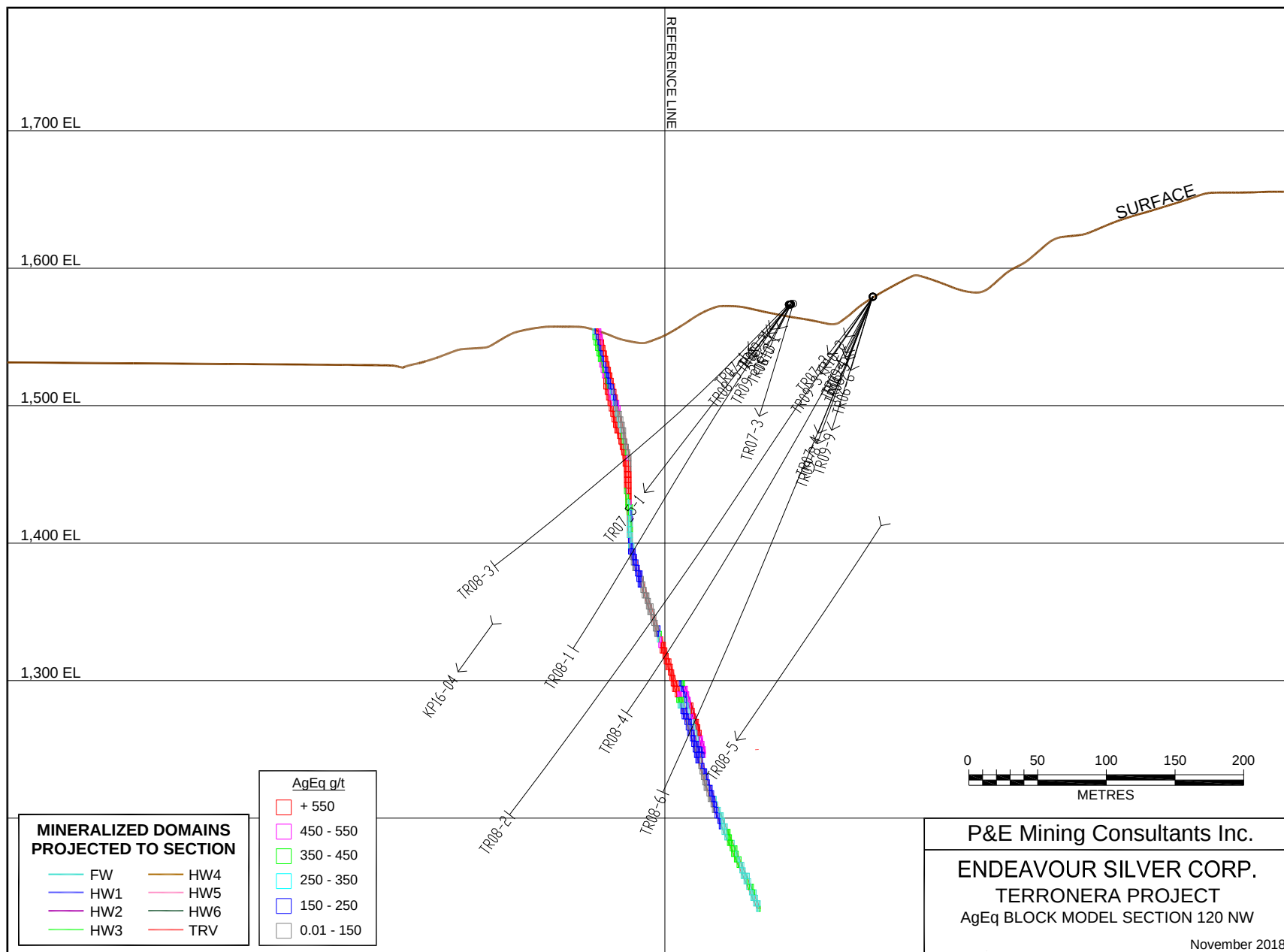


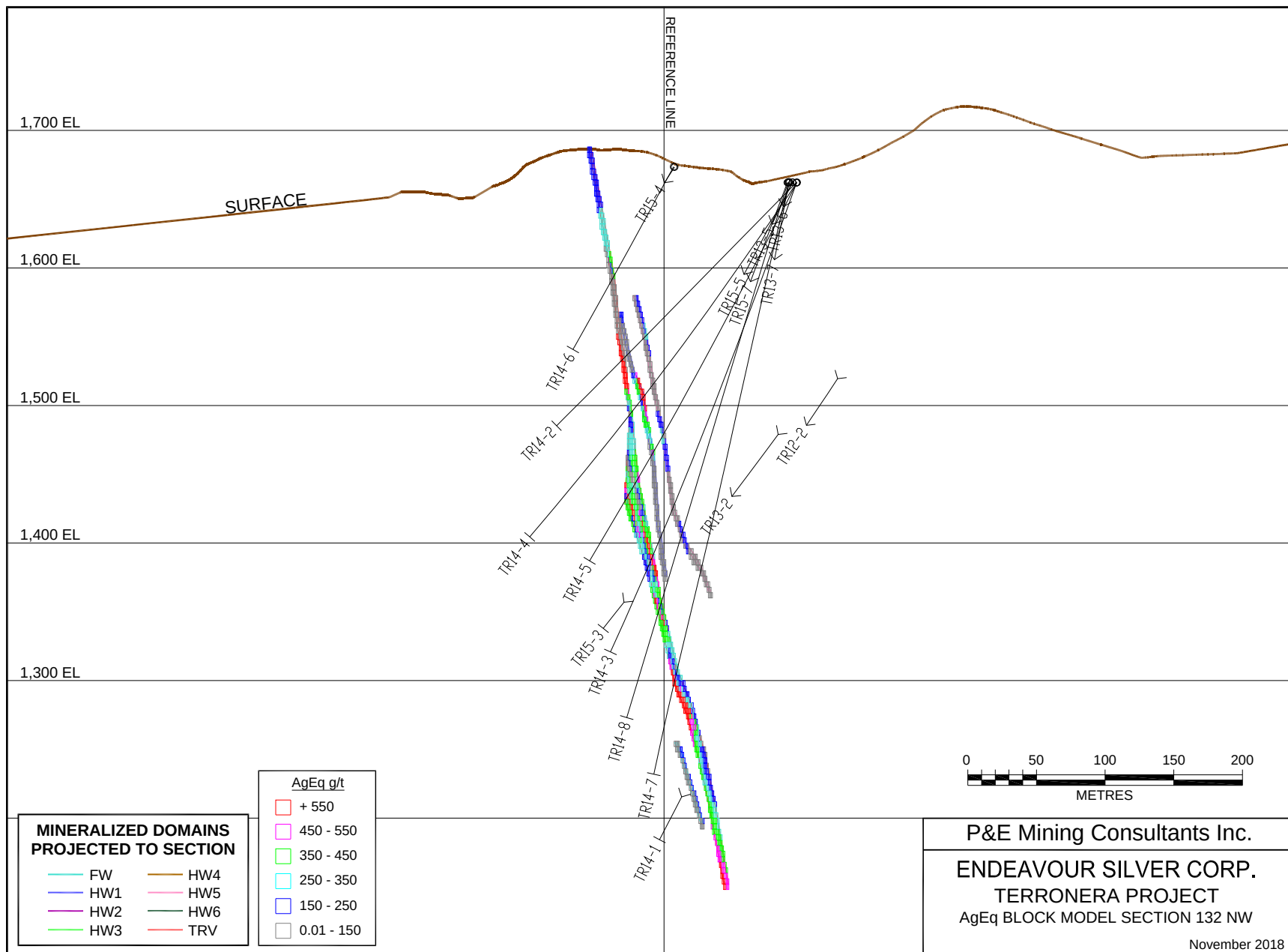
APPENDIX E AgEq BLOCK MODEL VERTICAL CROSS SECTIONS AND PLANS

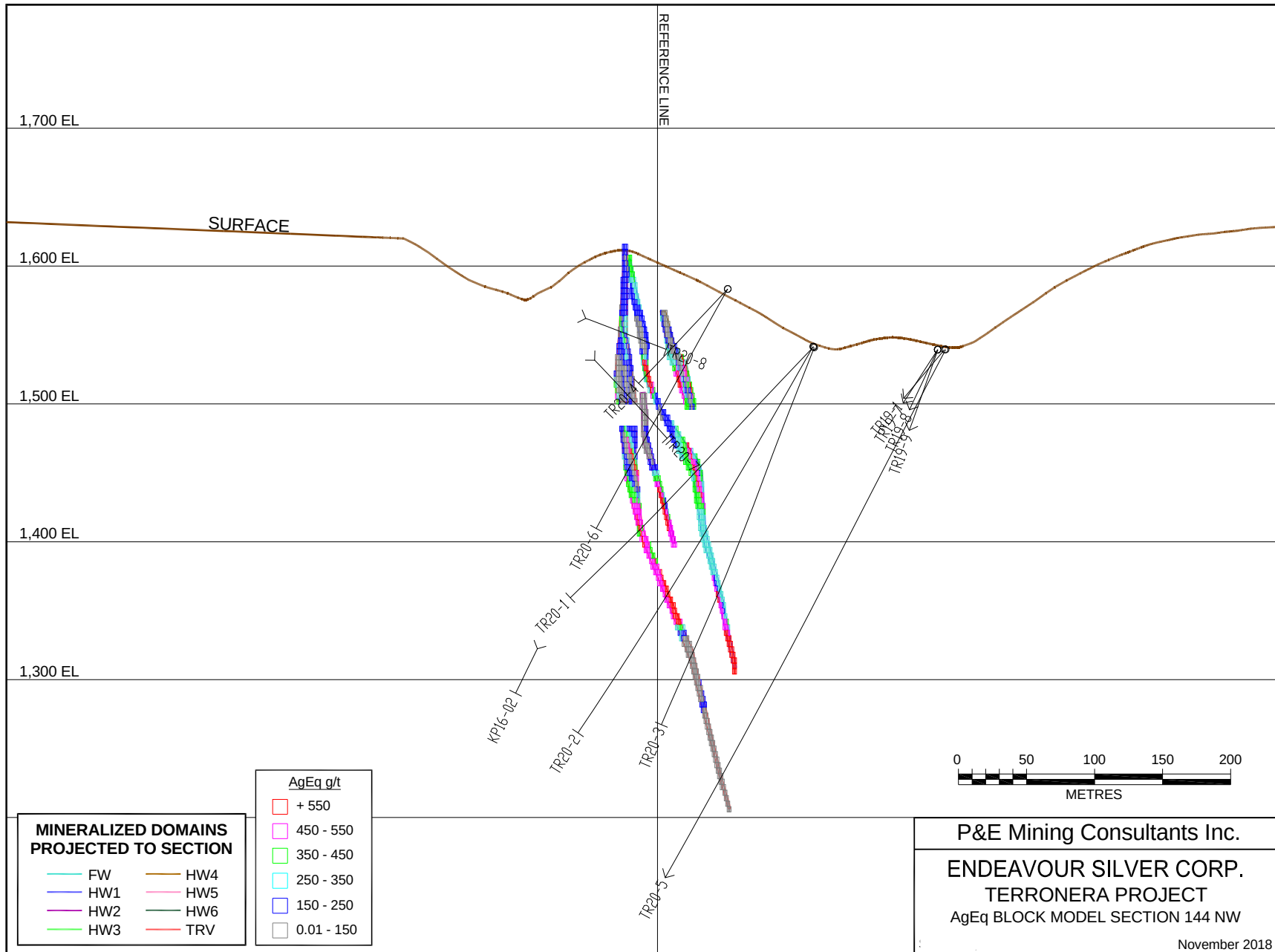
The Terronera Deposit AgEq block model vertical cross sections and plans are shown first, followed by those for the La Luz Deposit.

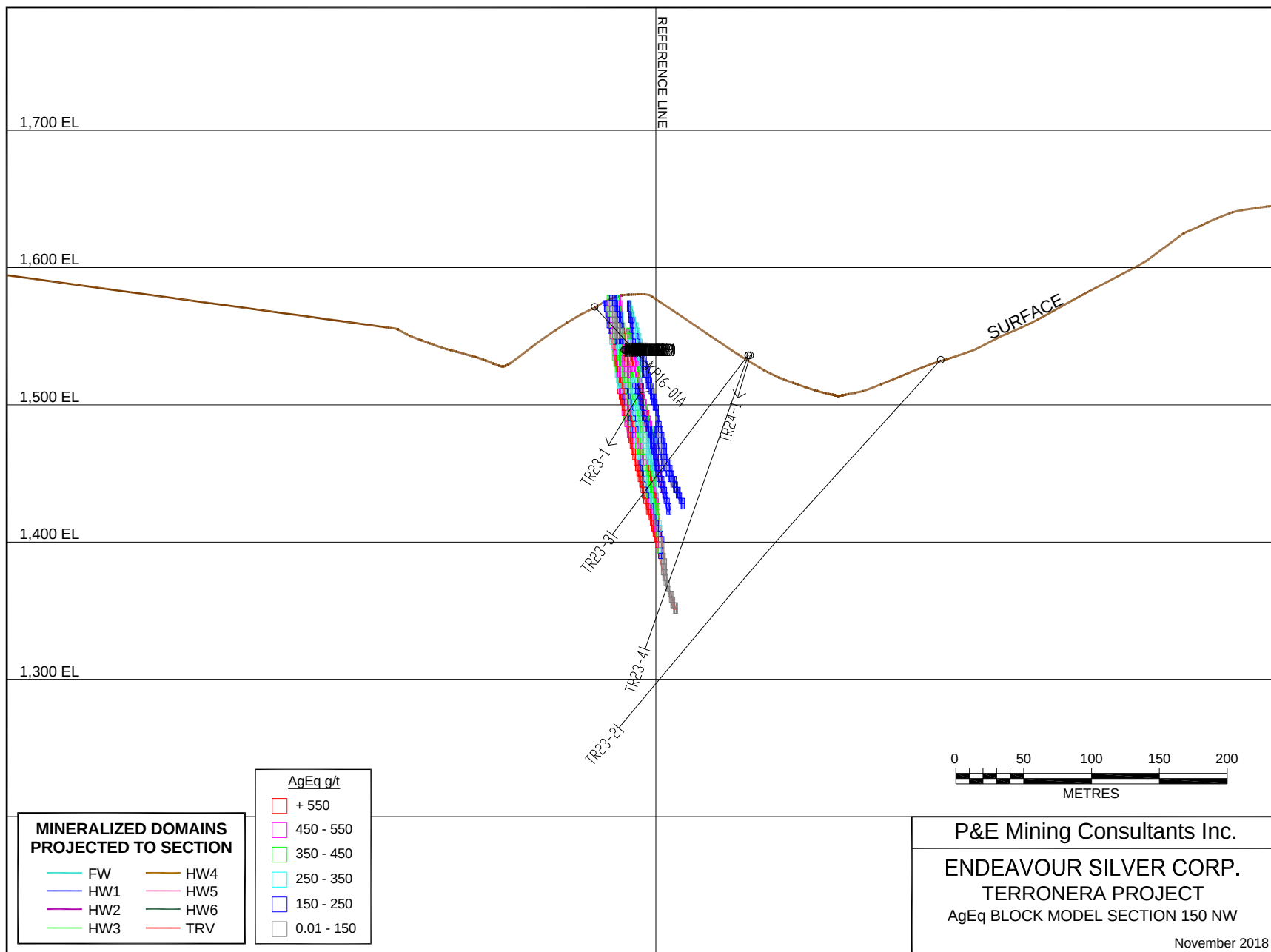
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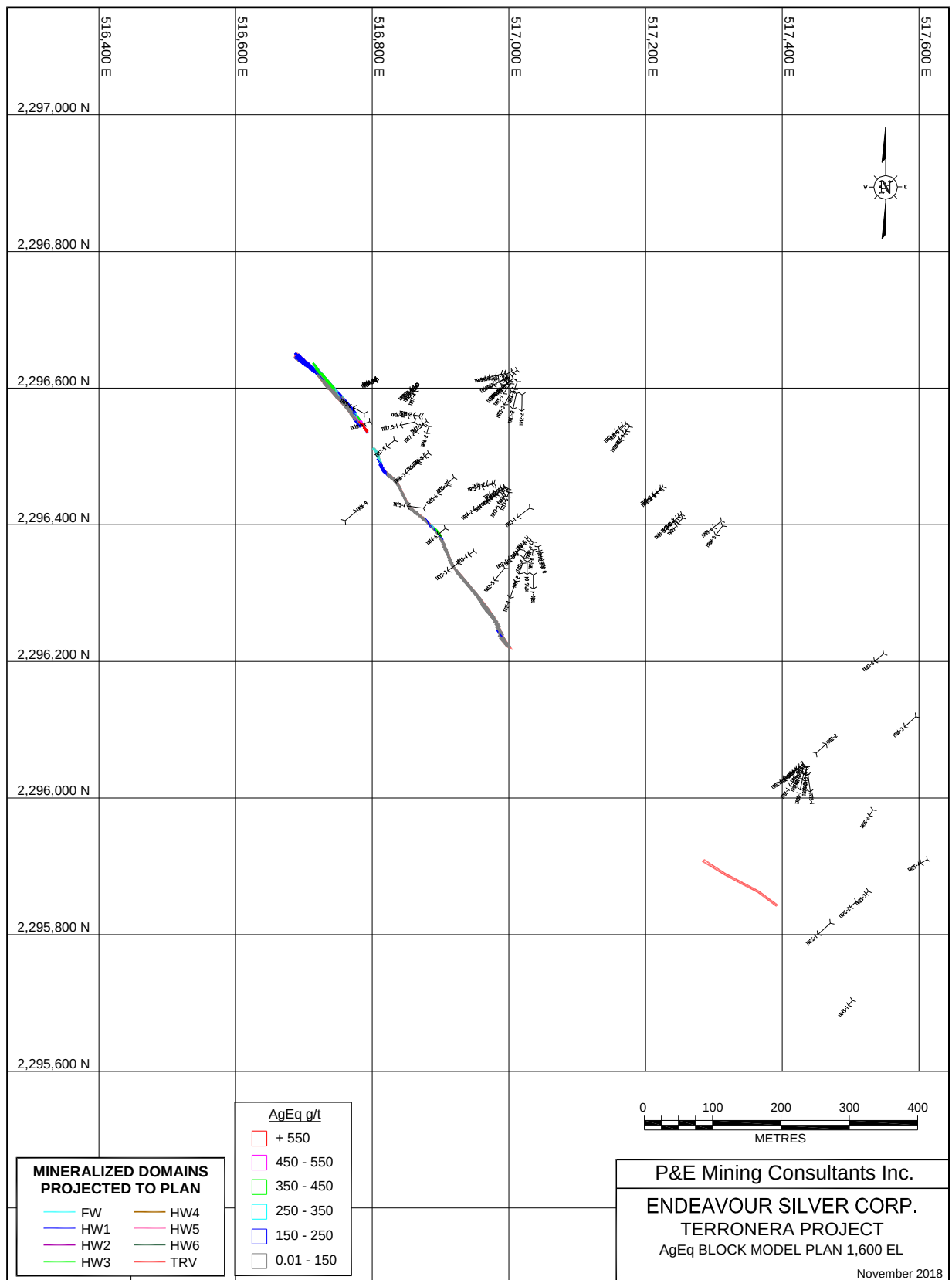




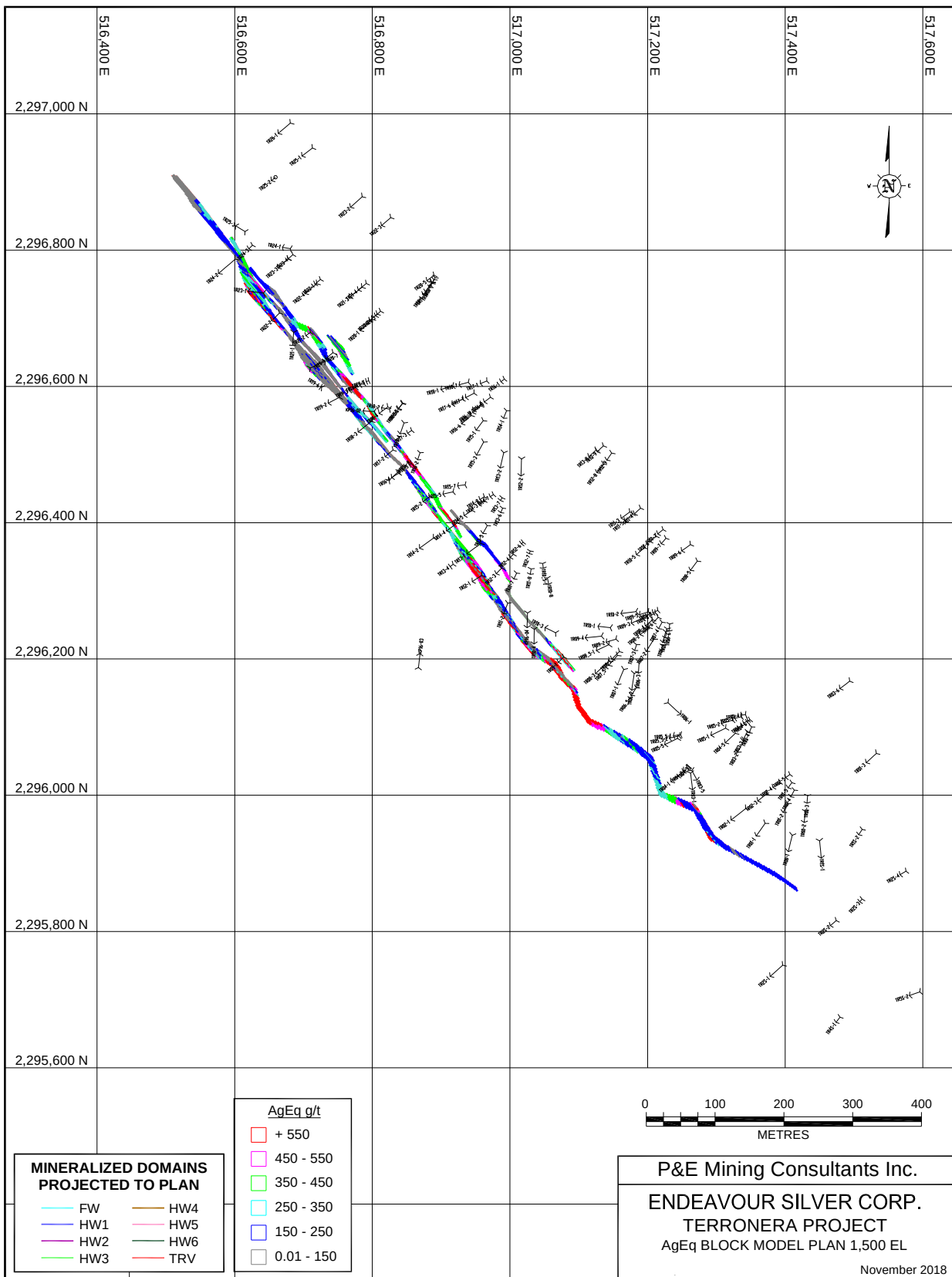




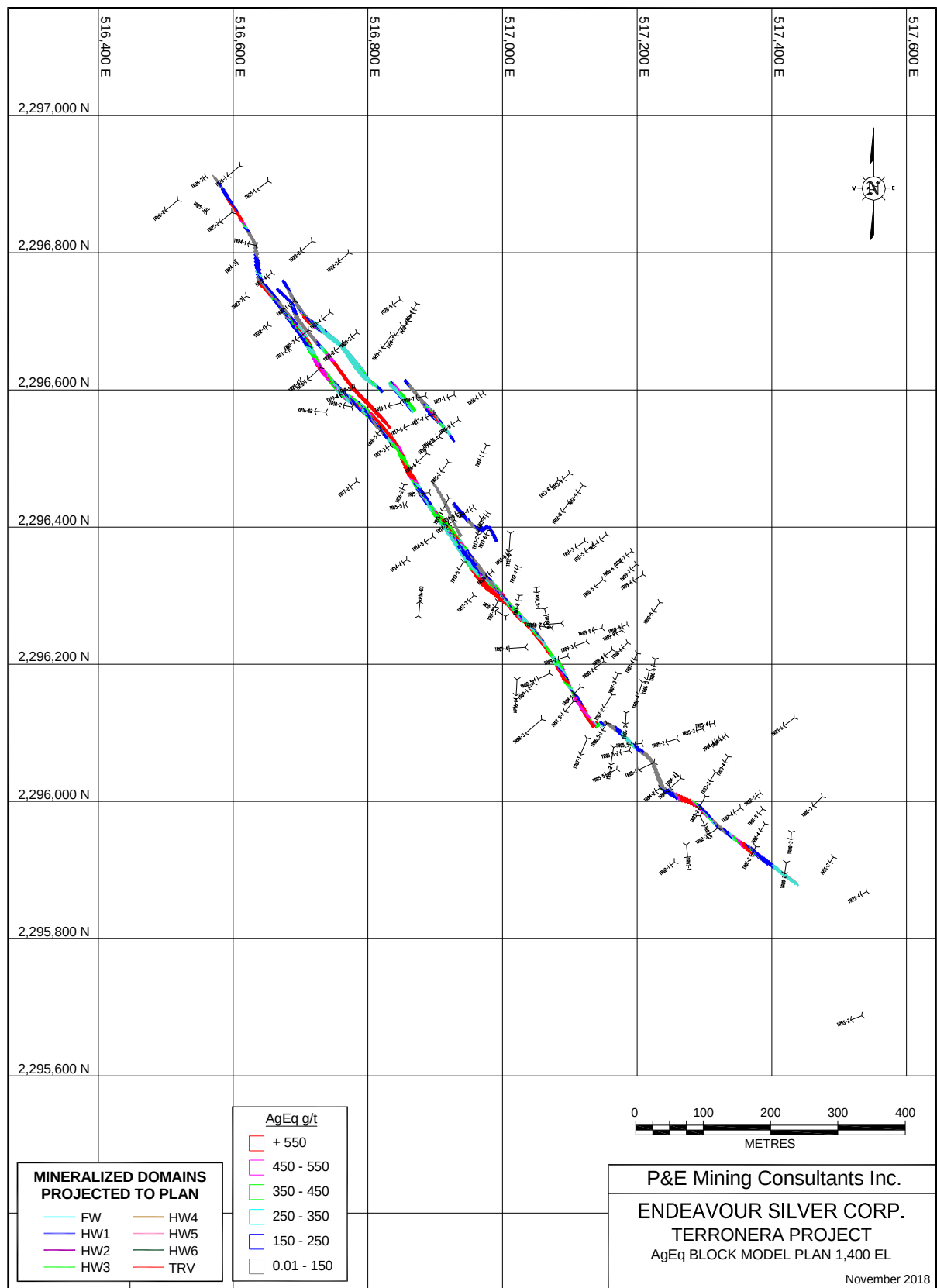




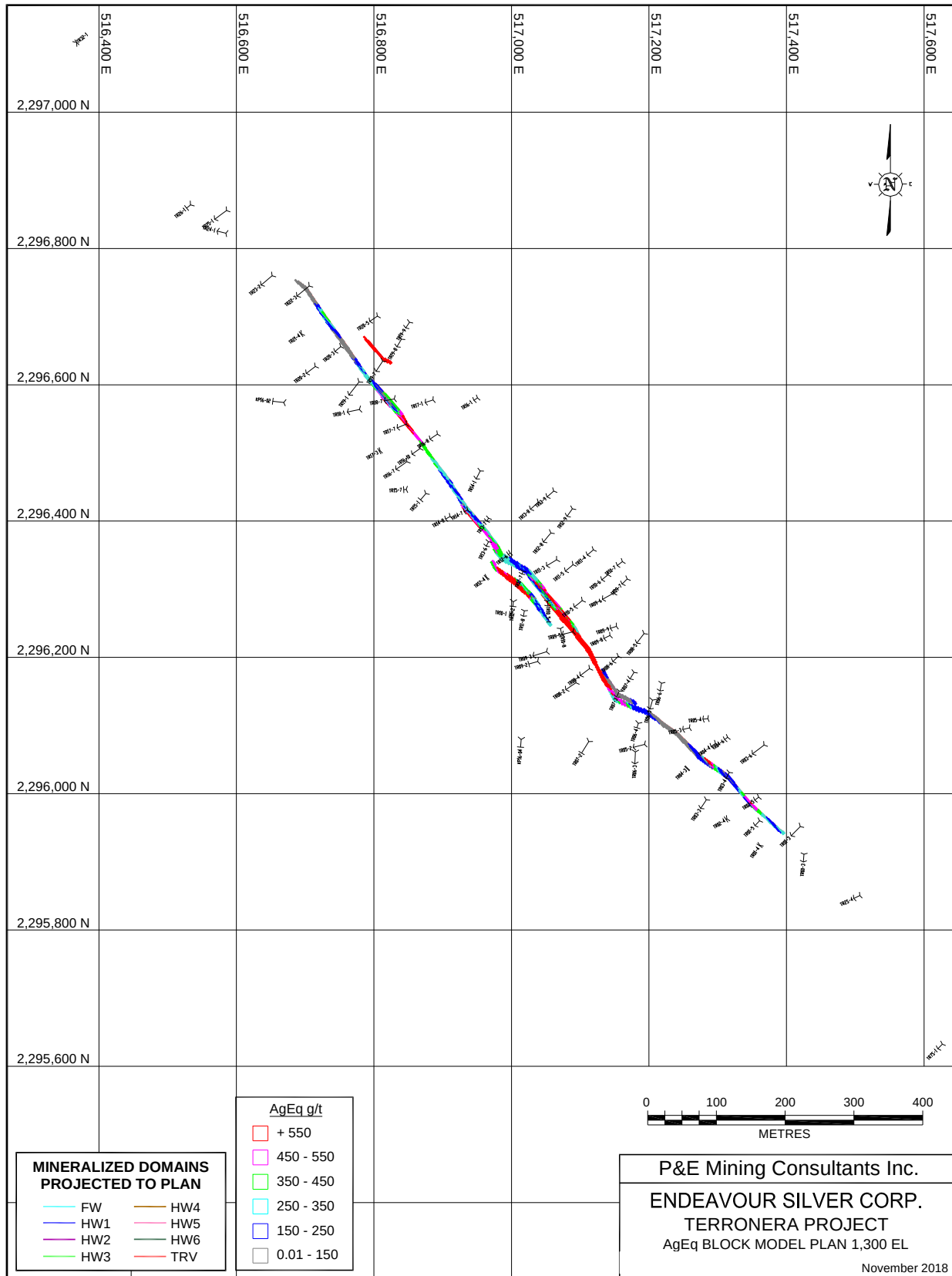
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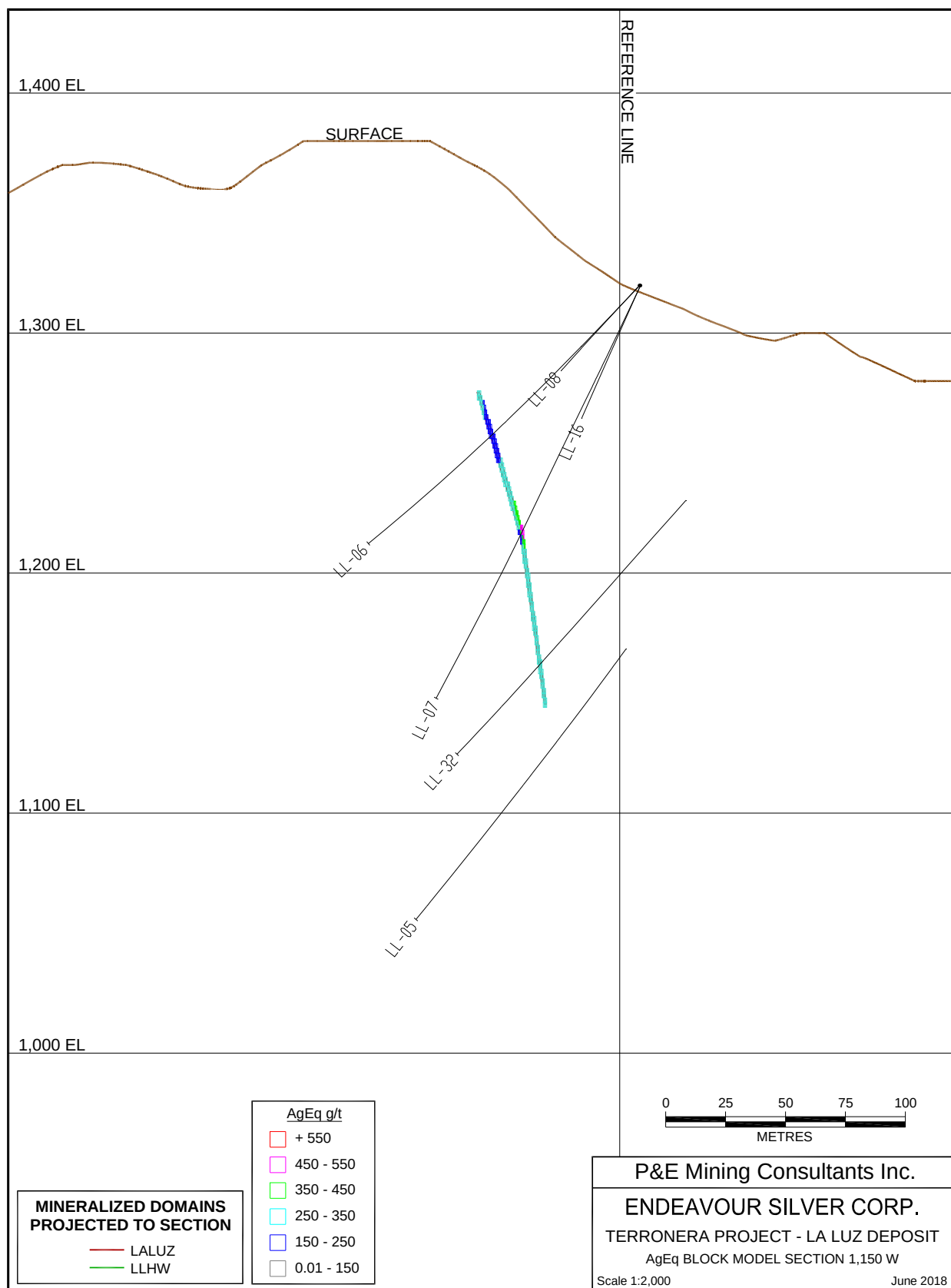
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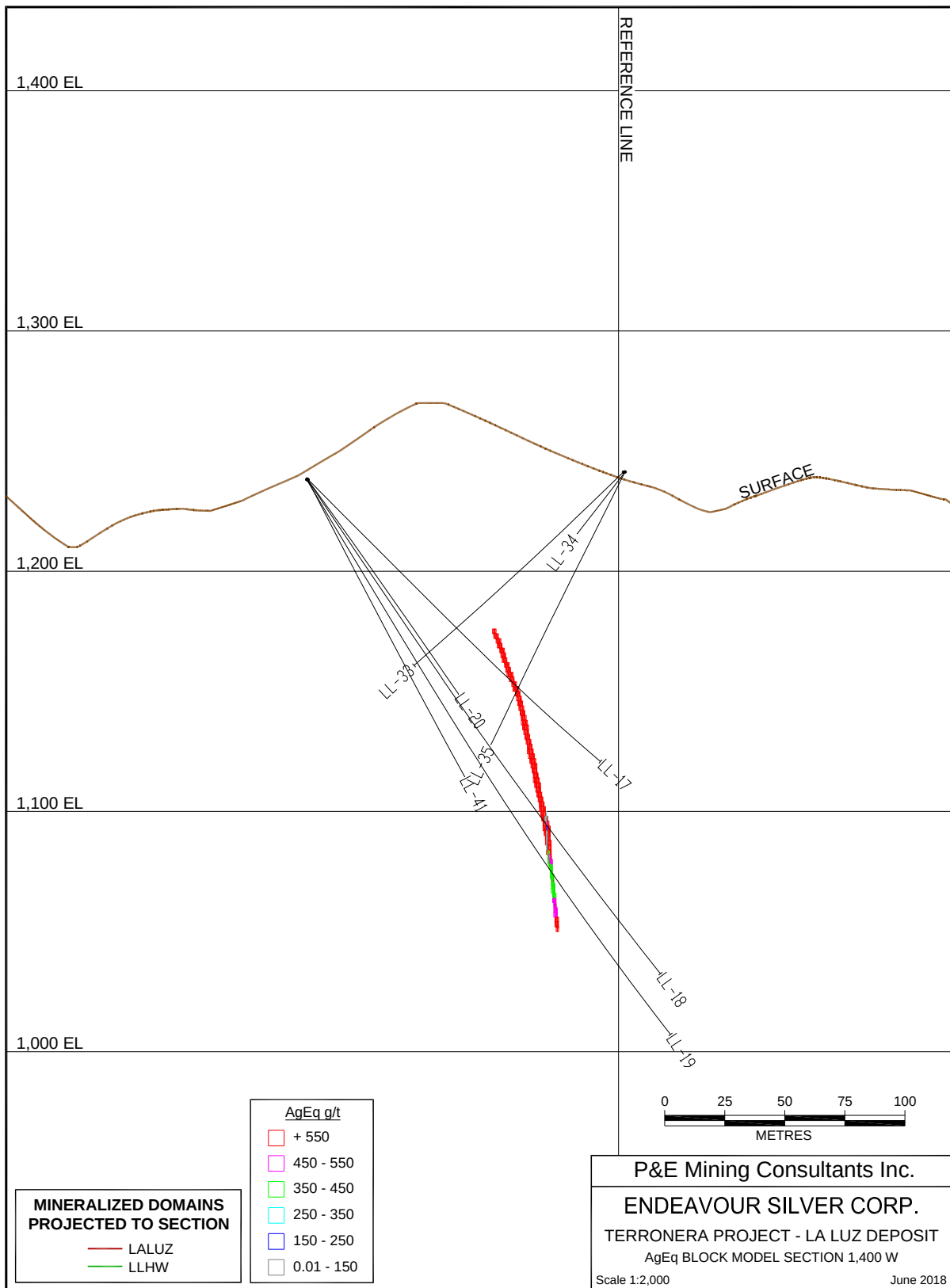


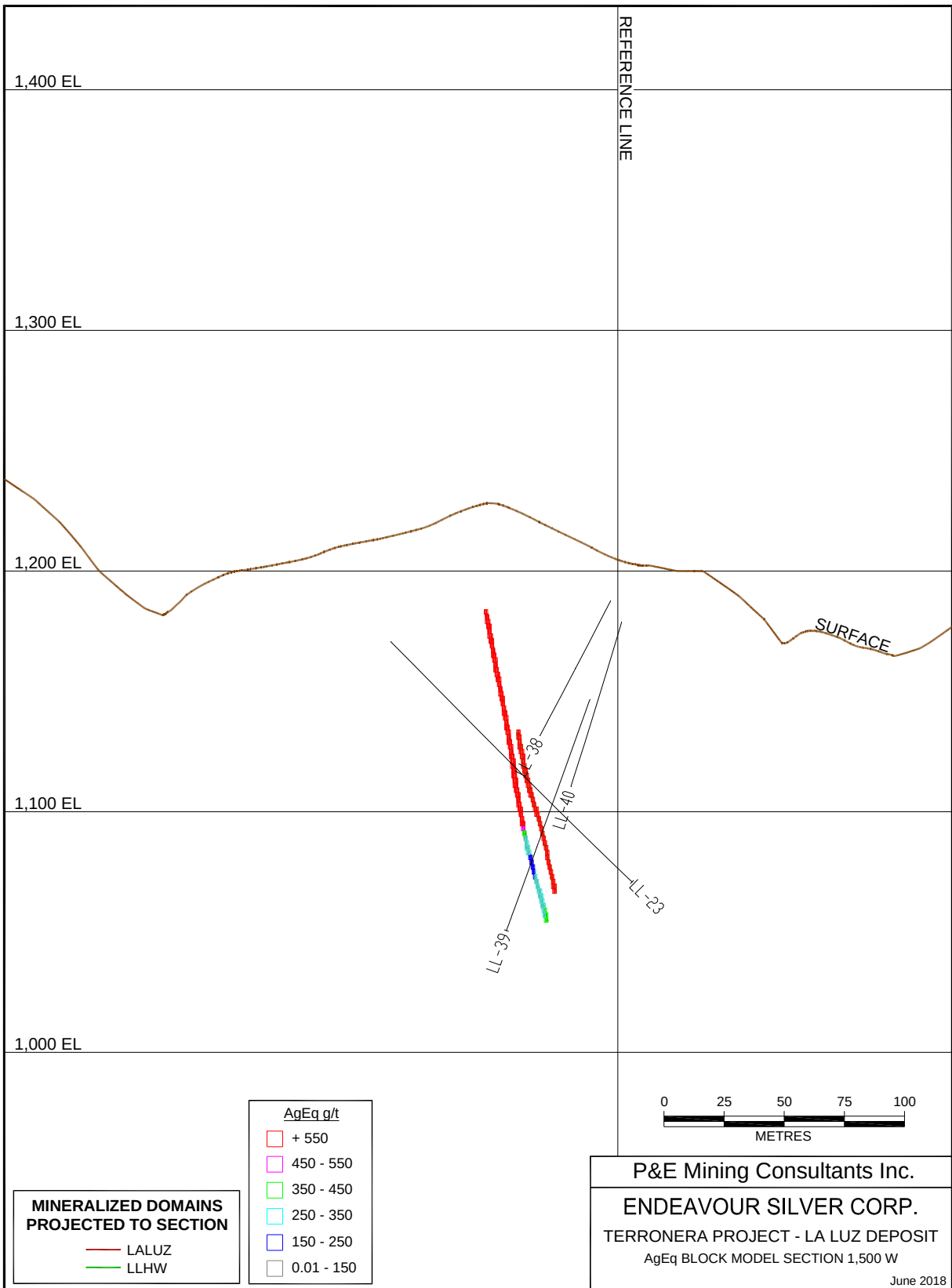
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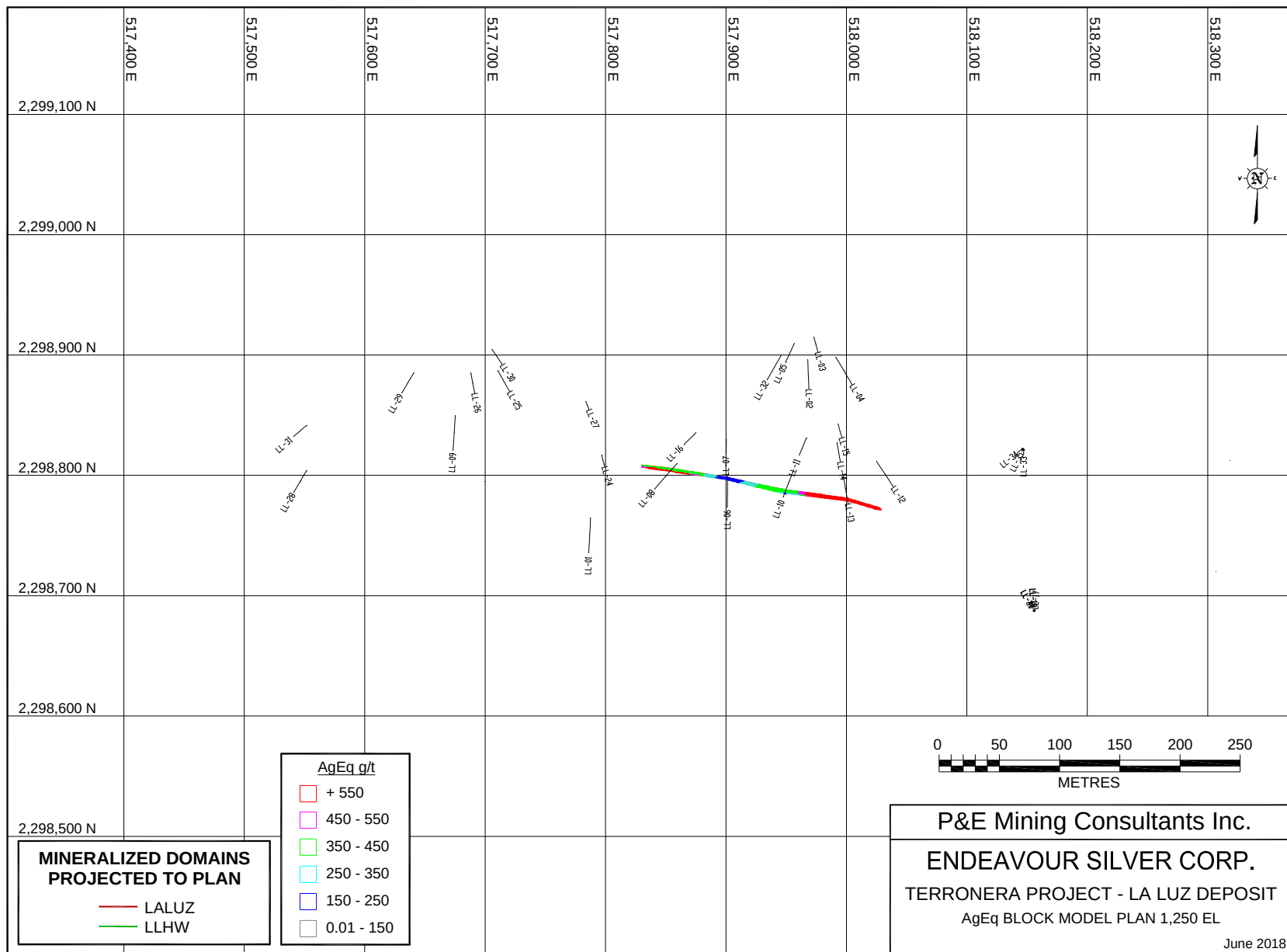


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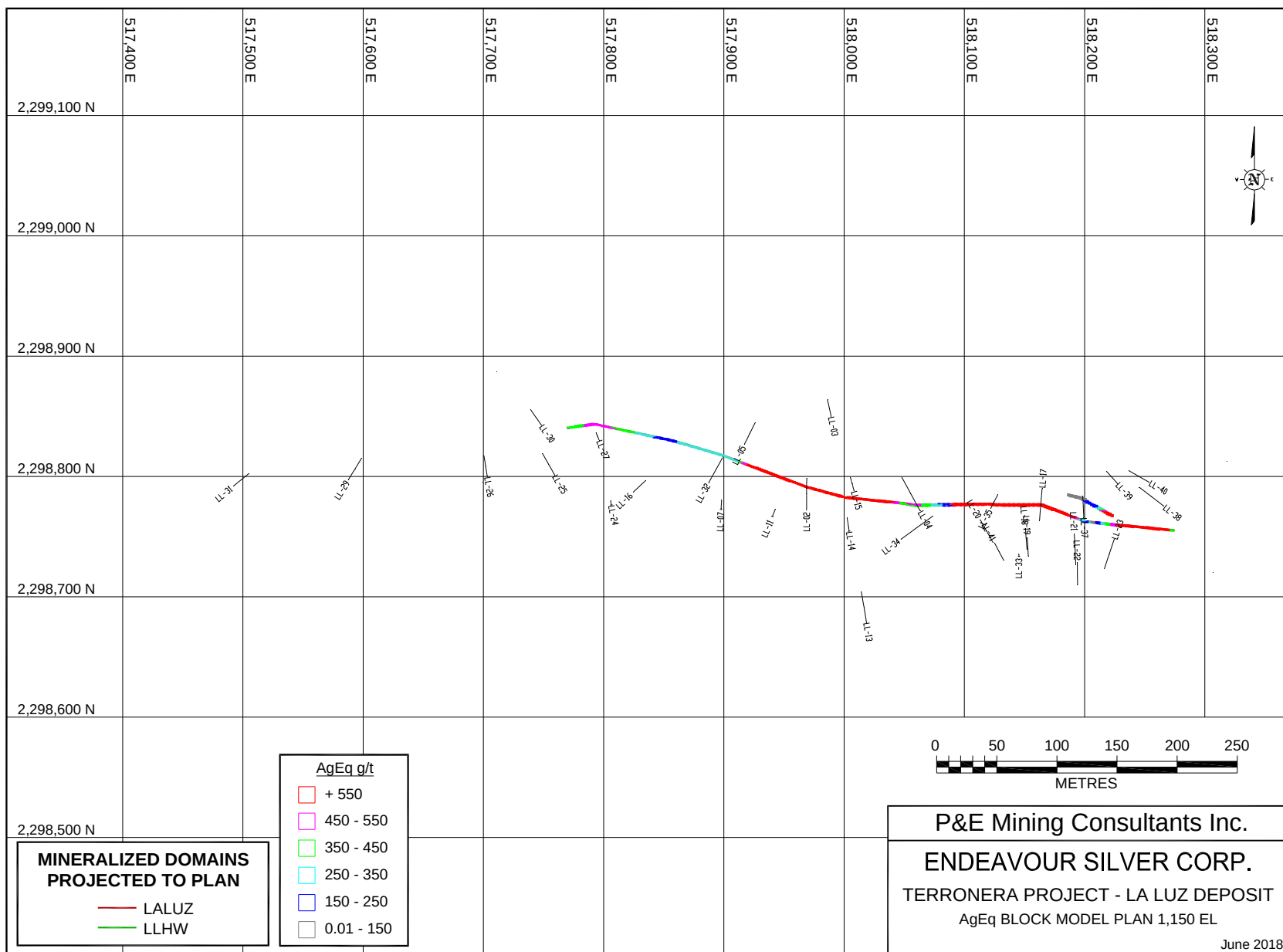




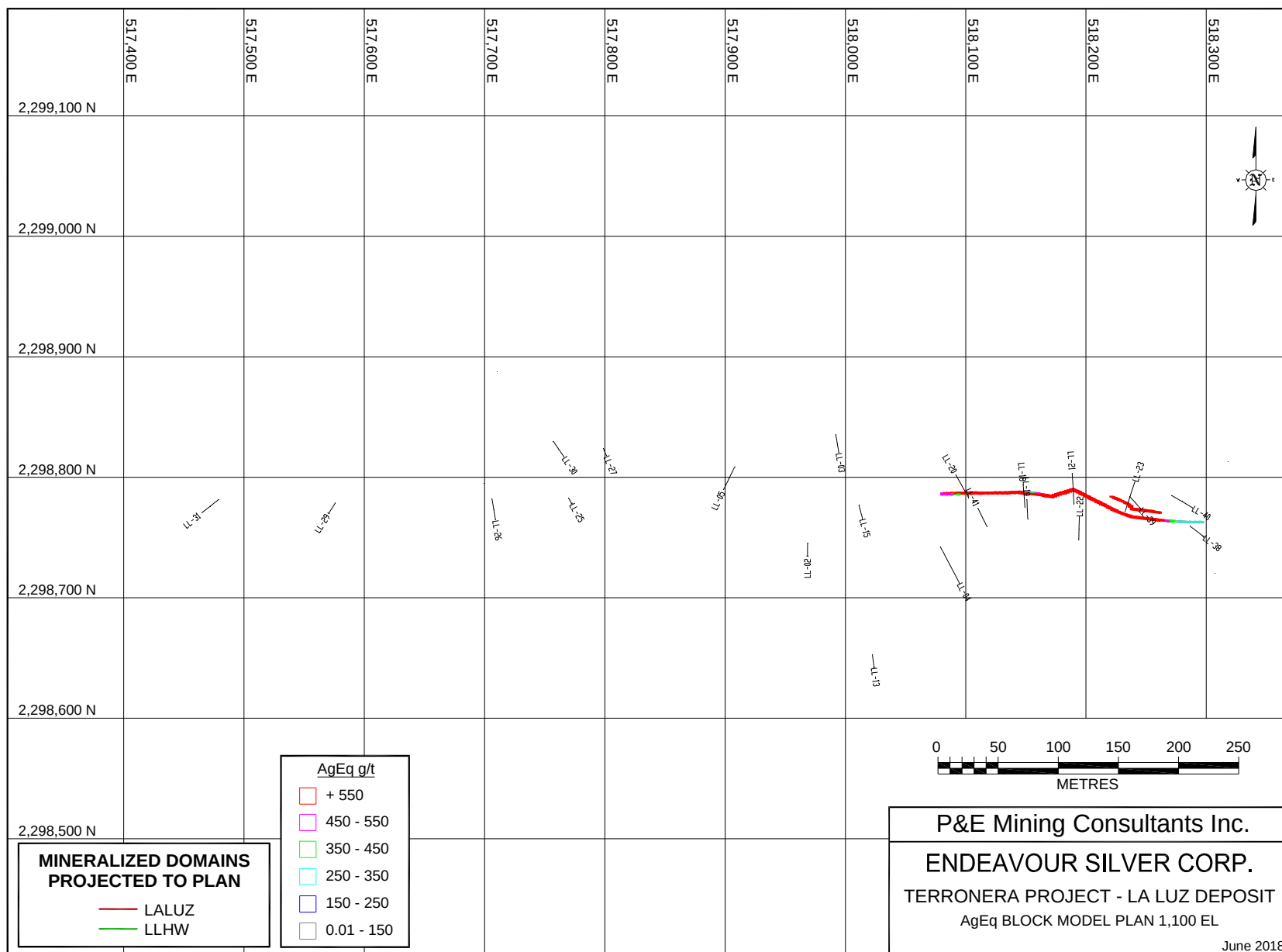




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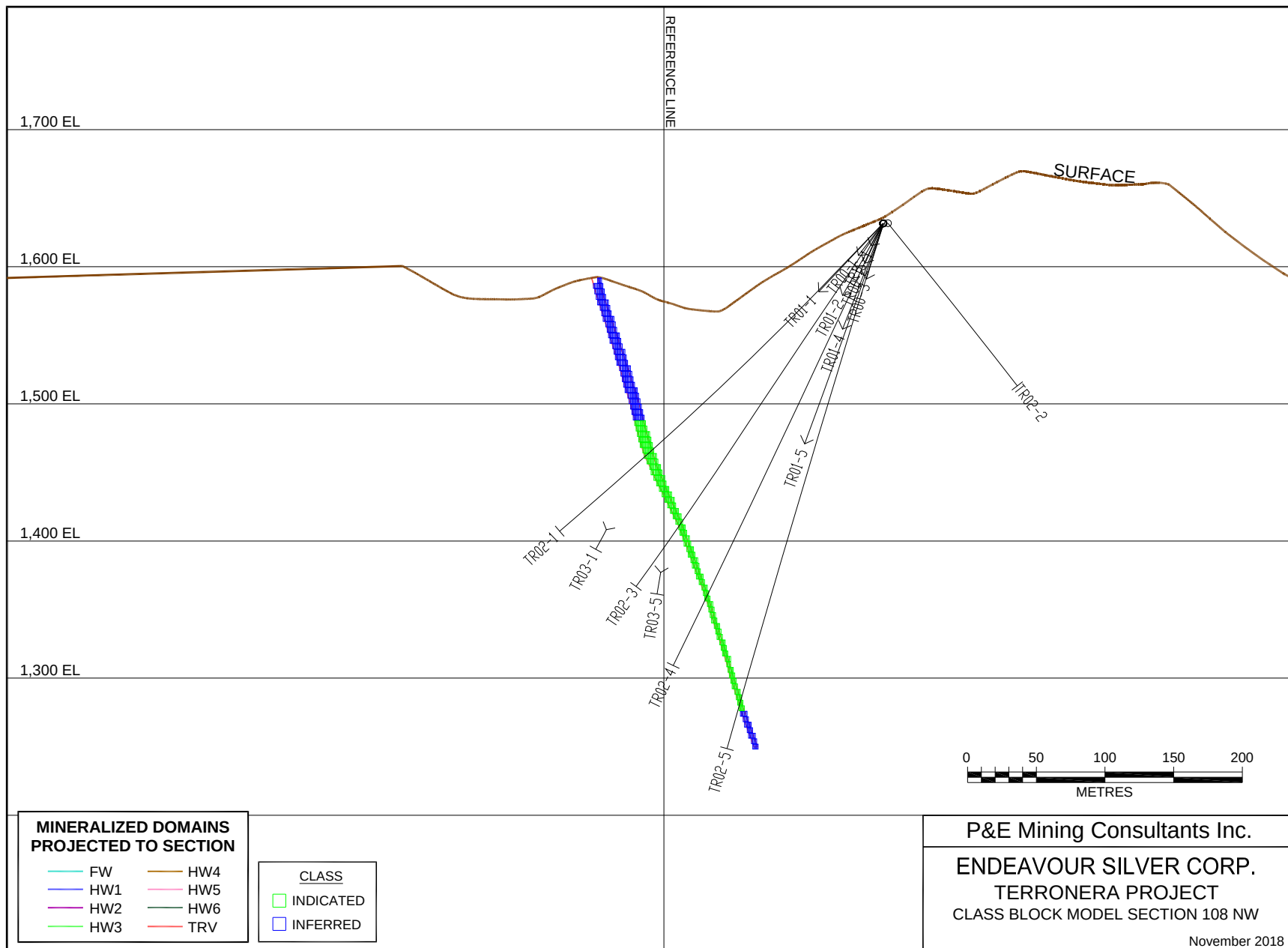


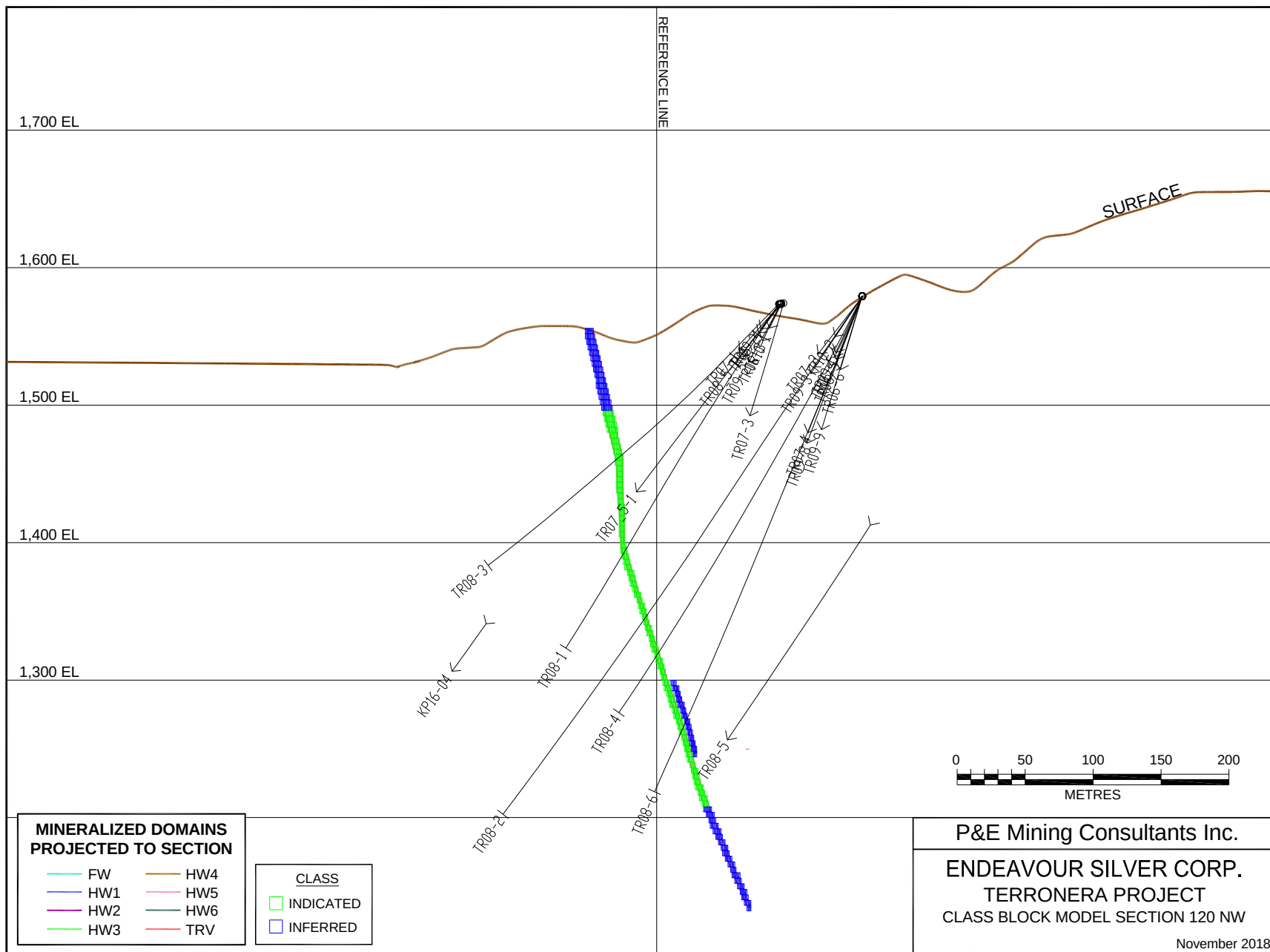
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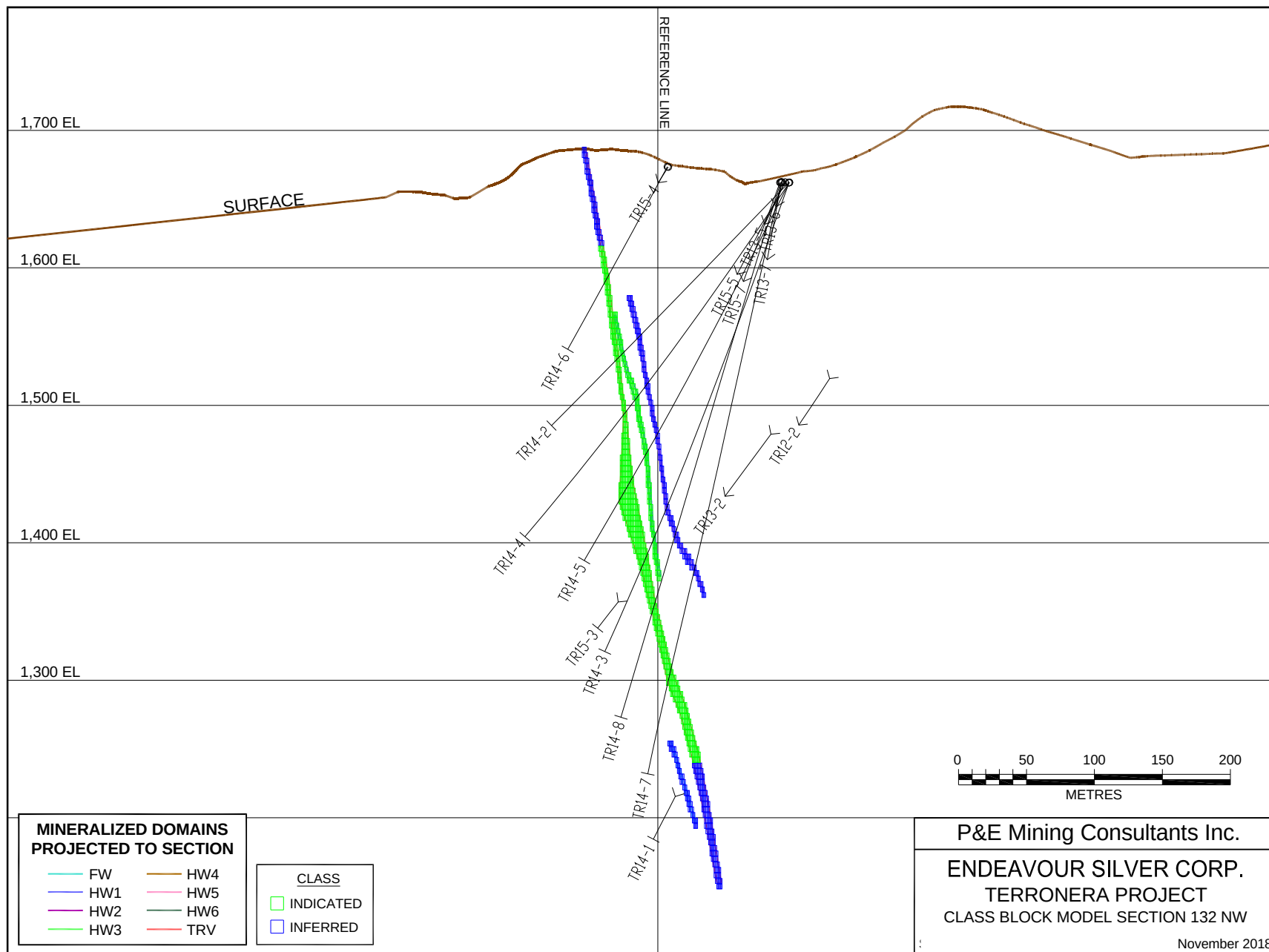
APPENDIX F CLASSIFICATION BLOCK MODEL CROSS SECTIONS AND PLANS

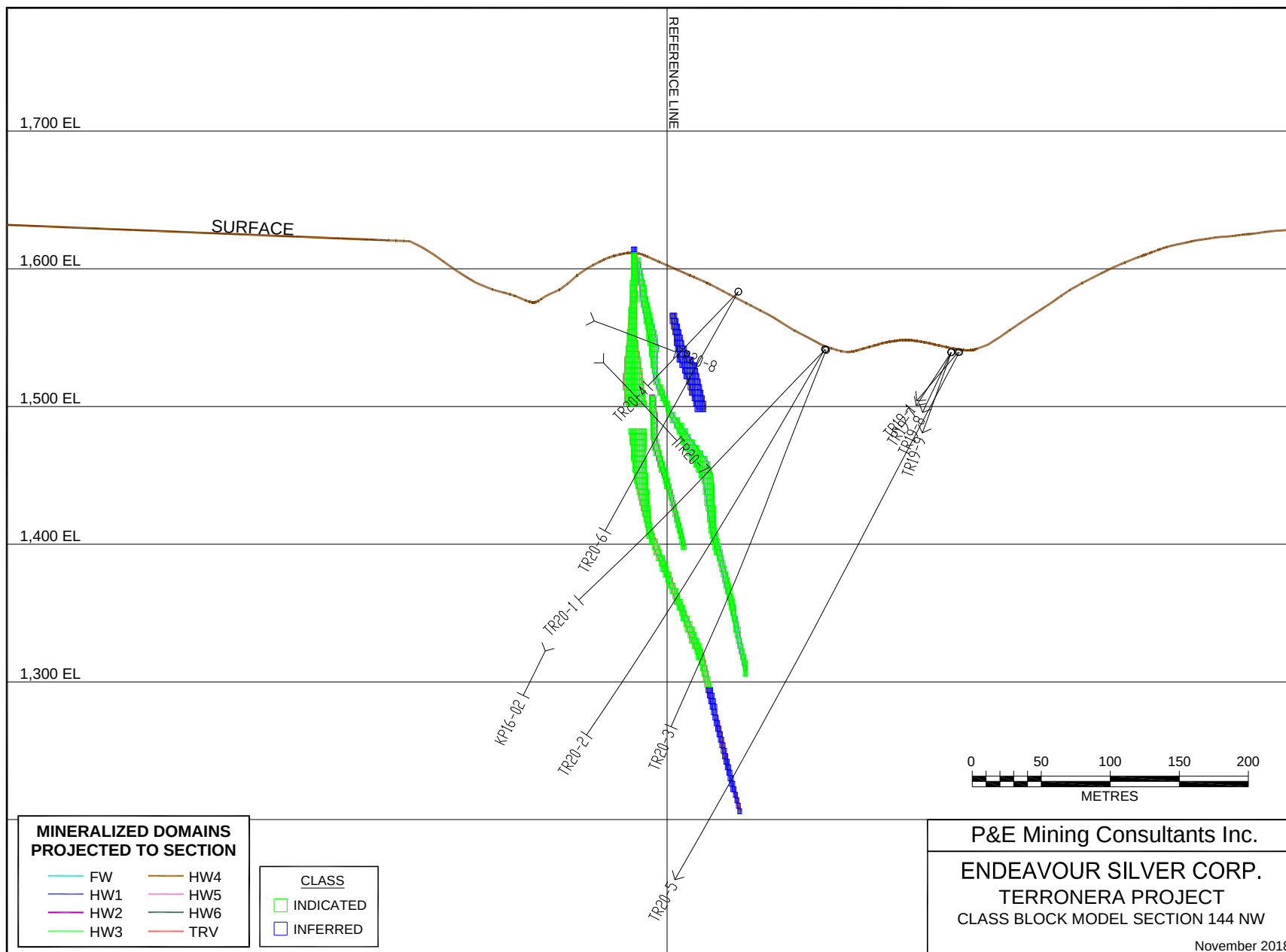
The Terronera Deposit classification block model cross sections and plans are shown first, followed by those for the La Luz Deposit.

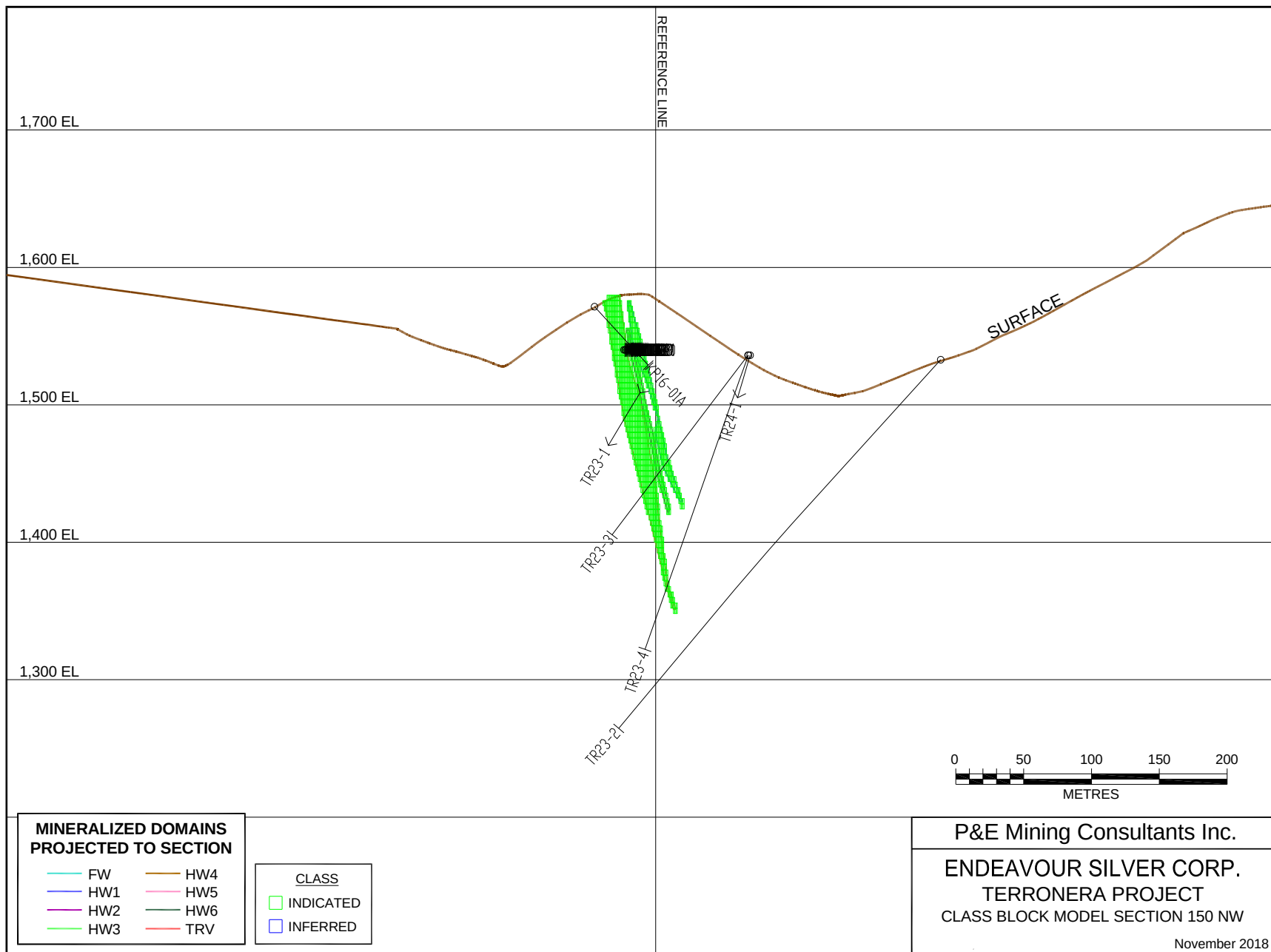
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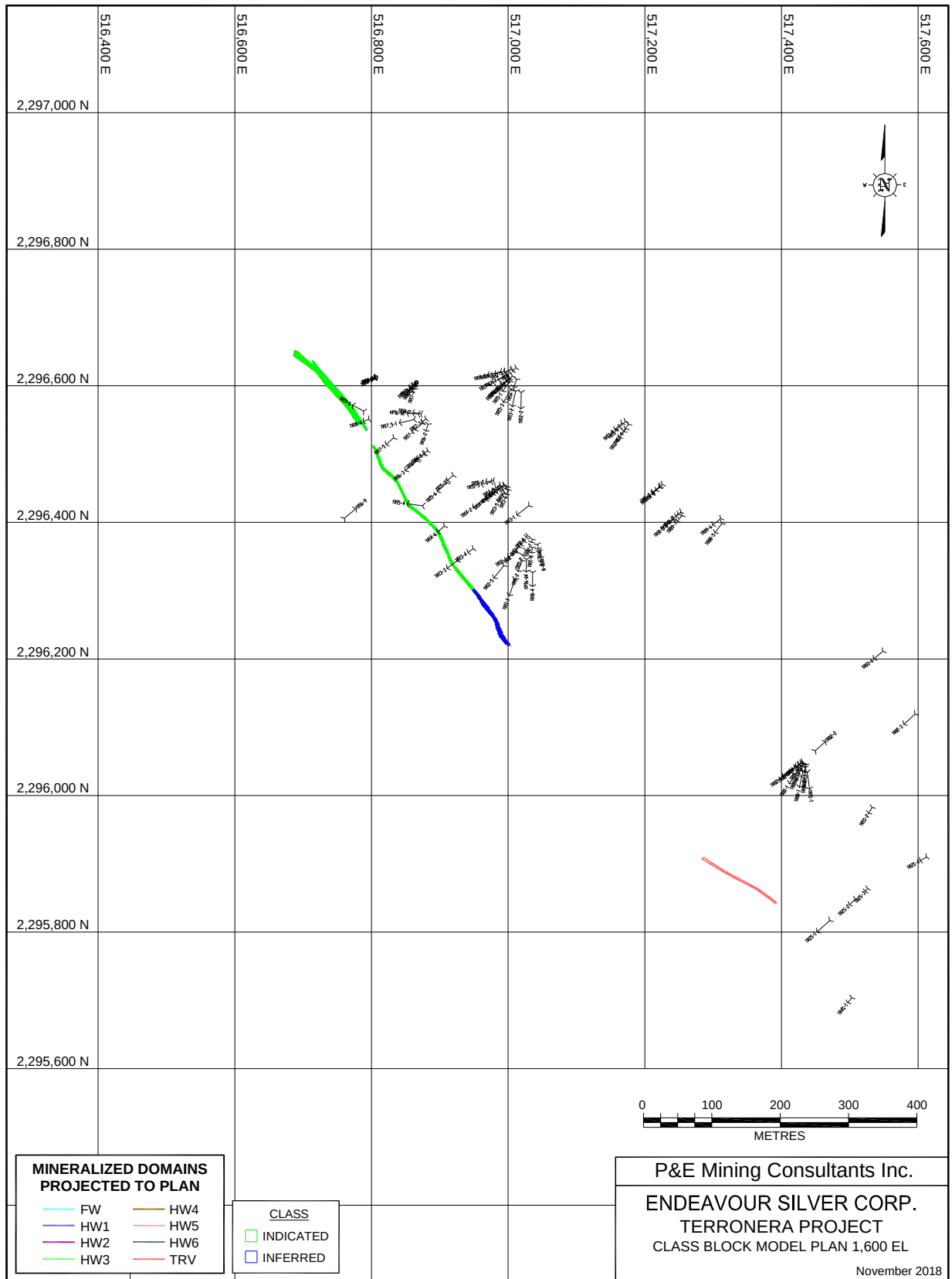




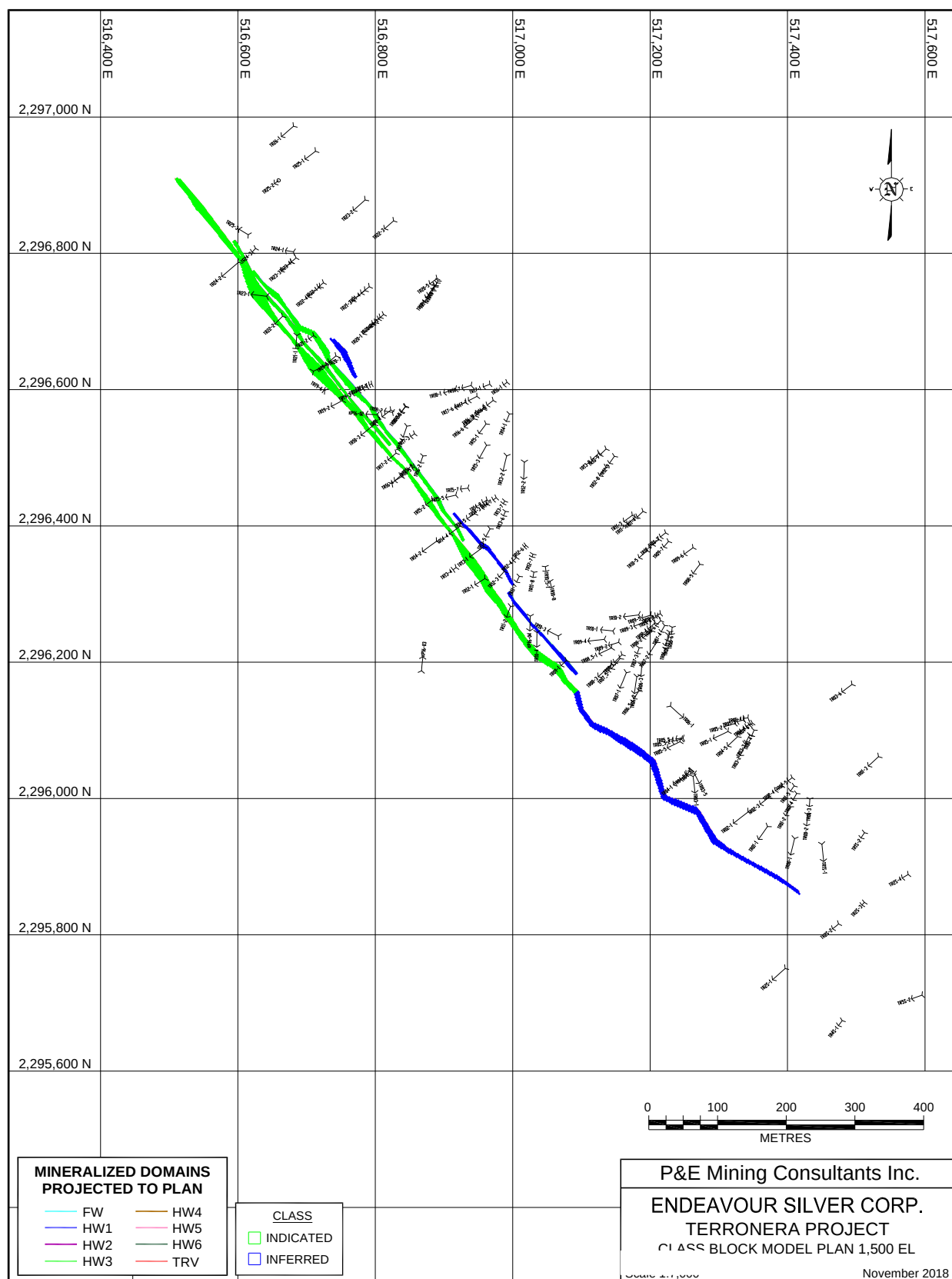




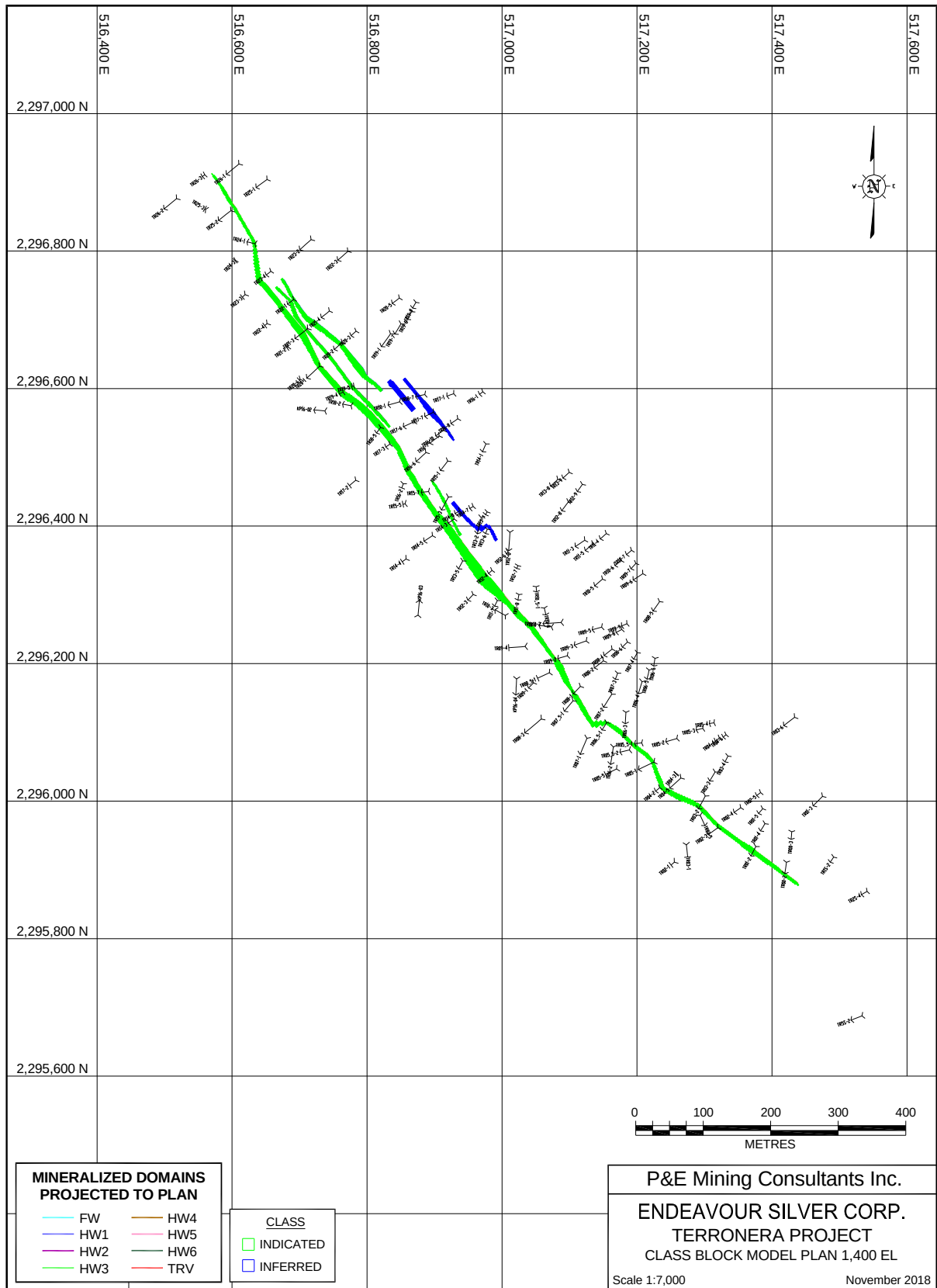




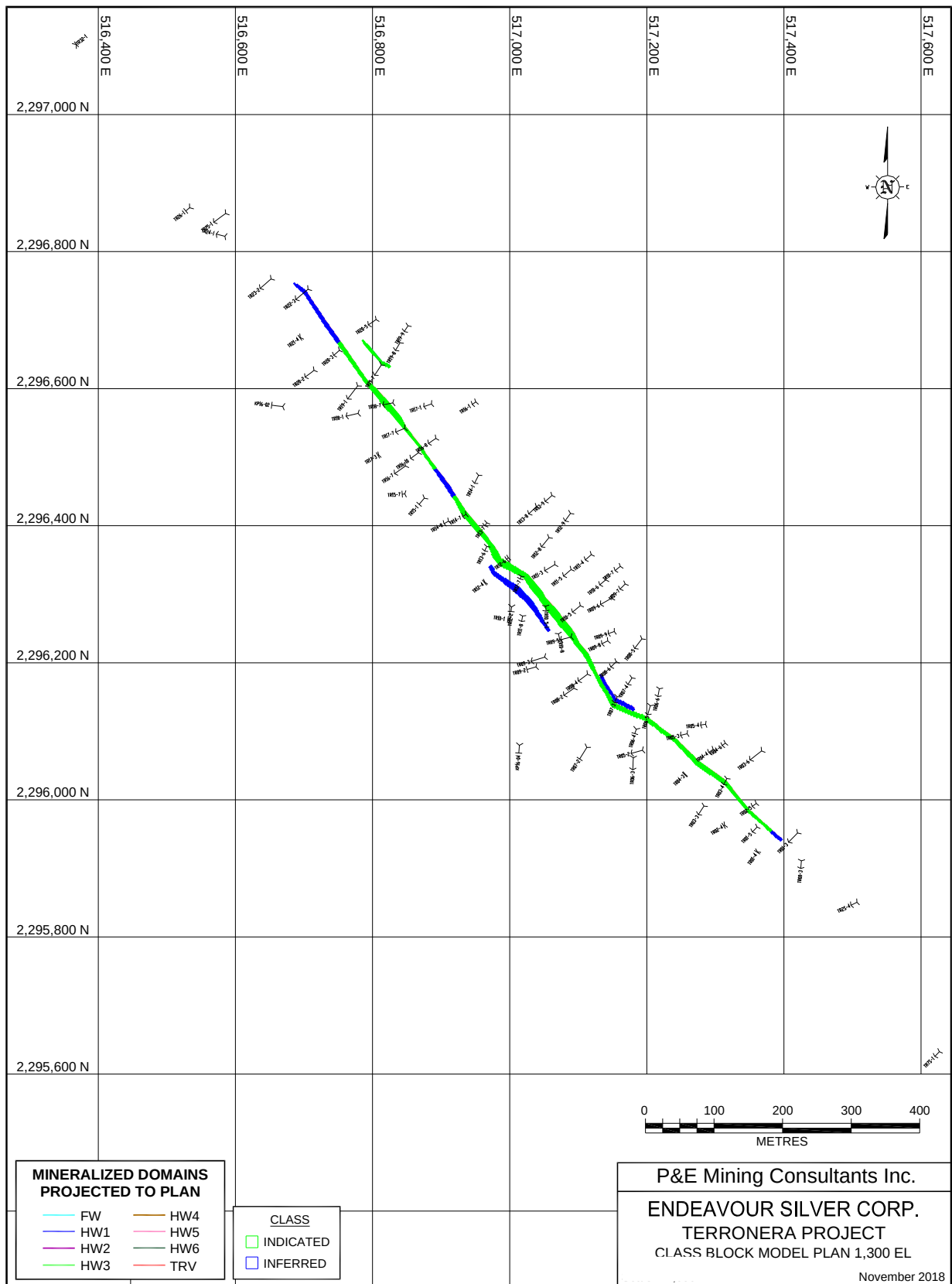
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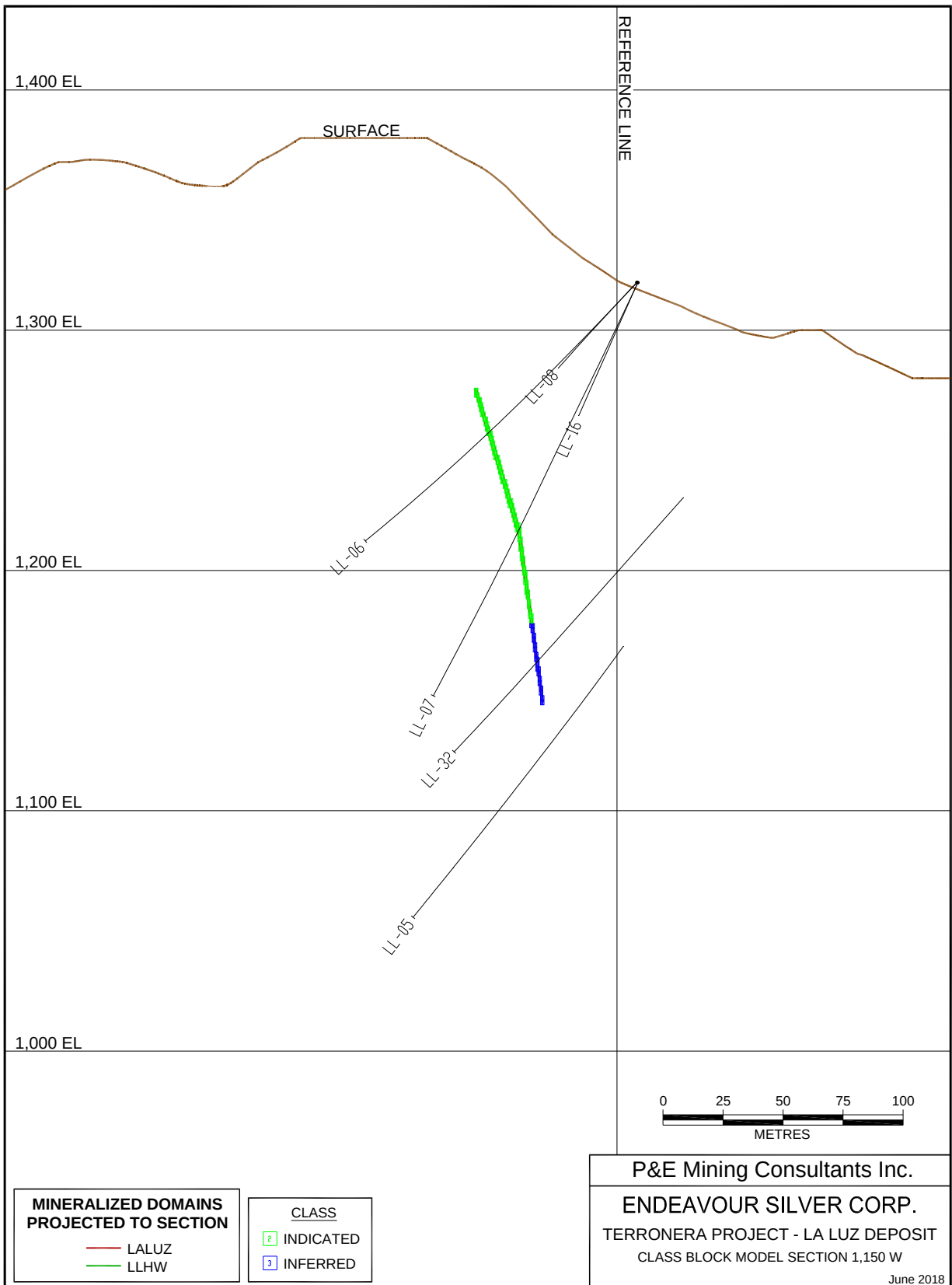
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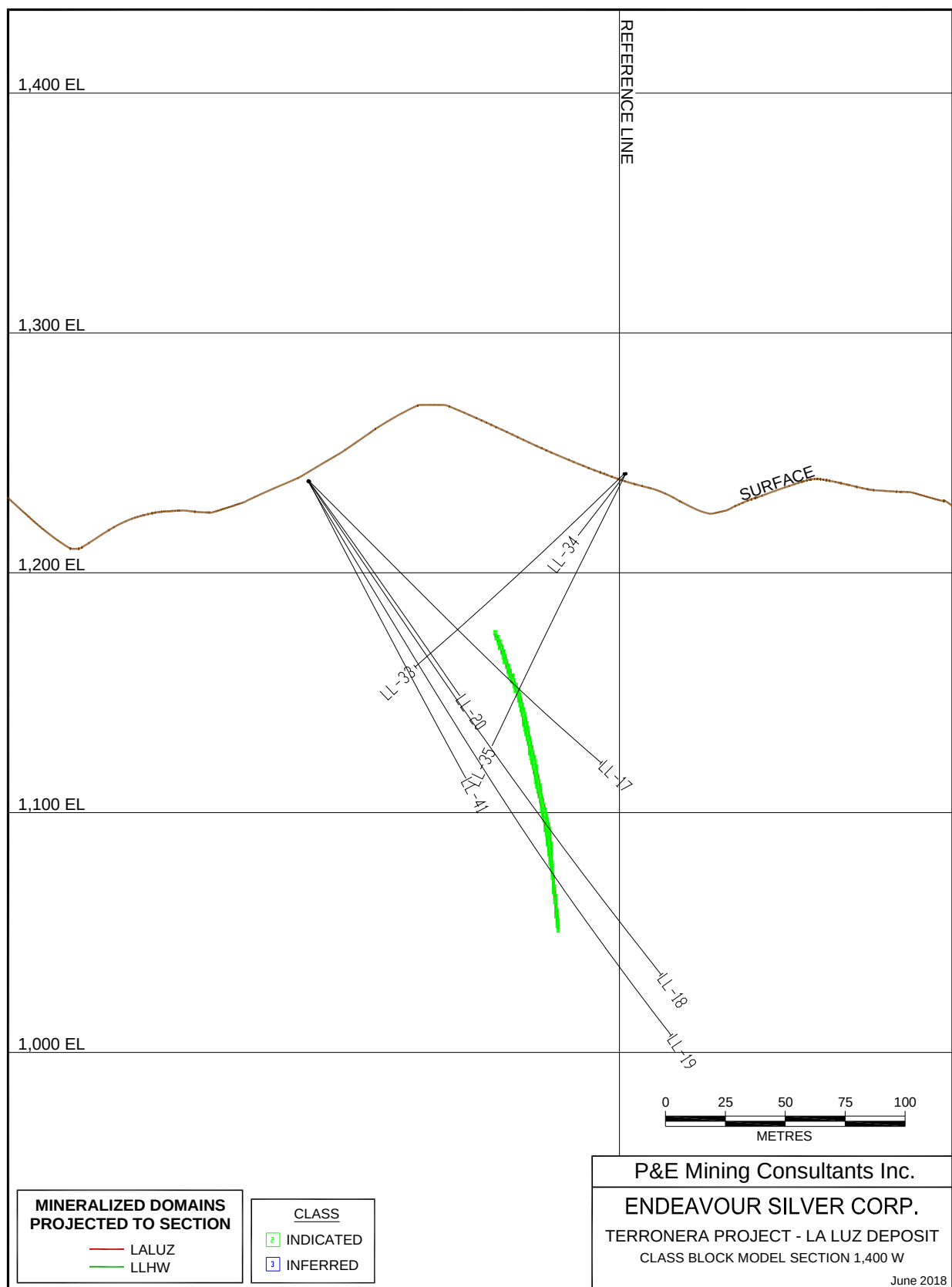


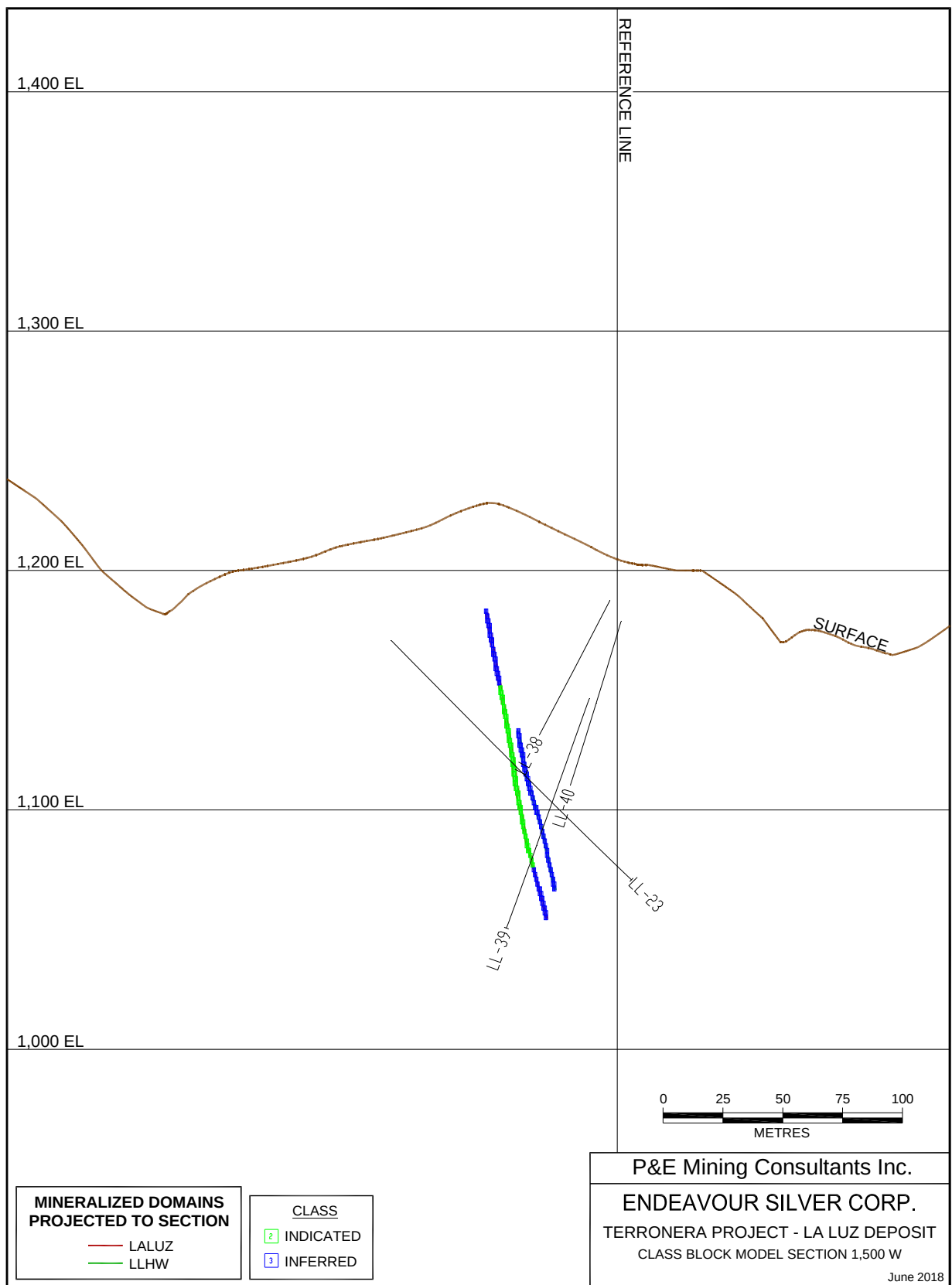
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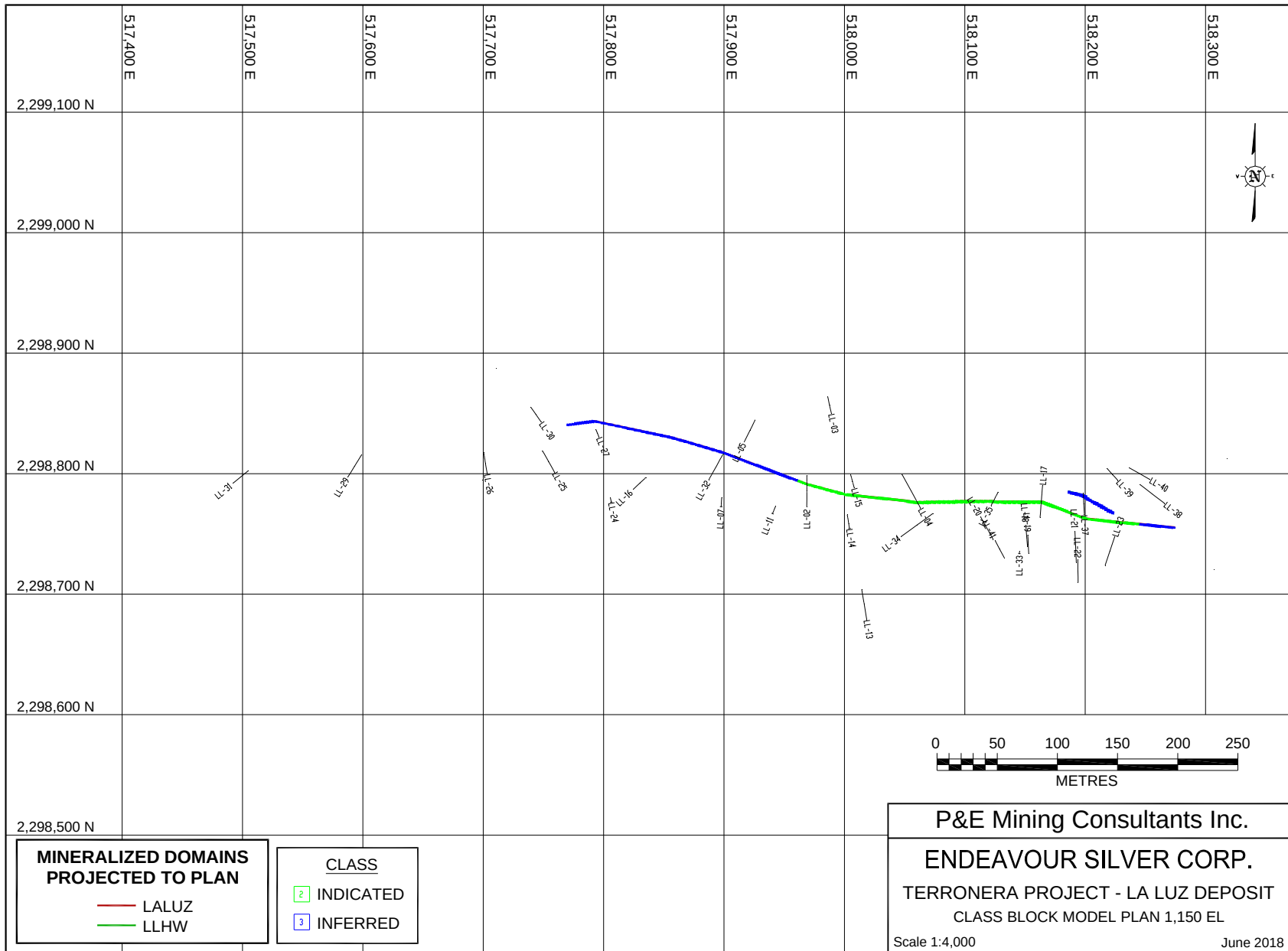


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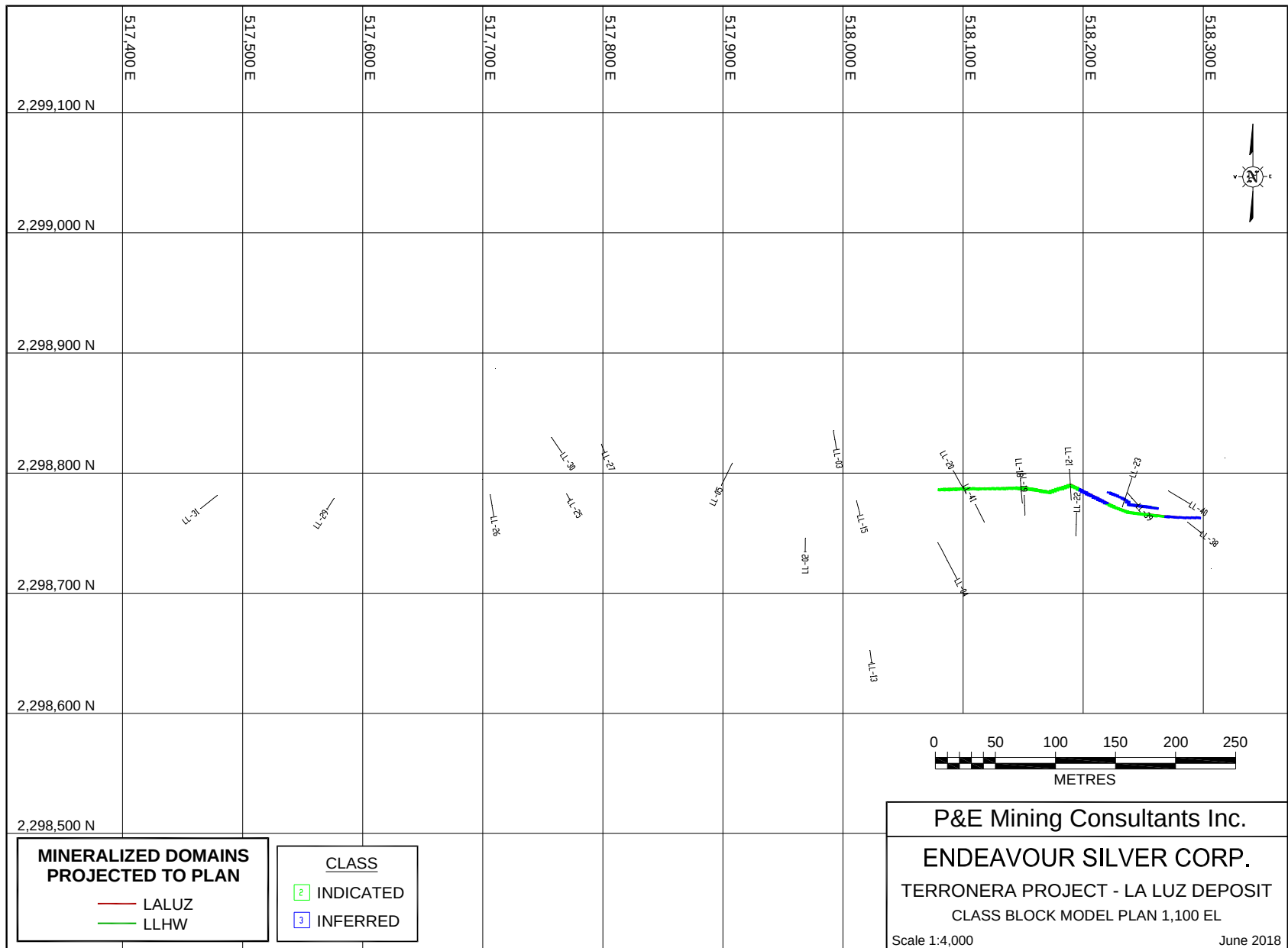








Coordinate system: WGS 84 / UTM Zone 13Q



Coordinate system: WGS 84 / UTM Zone 13Q