

**NI 43-101 TECHNICAL REPORT
PRELIMINARY ECONOMIC ASSESSMENT
FOR THE
EL COMPAS PROJECT
ZACATECAS STATE
MEXICO**

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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	2
1.5 GEOLOGY AND MINERALIZATION	3
1.6 EXPLORATION PROGRAM	3
1.7 MINERAL RESOURCE ESTIMATE	4
1.8 MINERAL PROCESSING AND METALLURGICAL TESTING	6
1.9 MINING METHODS	6
1.10 RECOVERY METHODS	7
1.11 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT	7
1.12 CAPITAL AND OPERATING COSTS	8
1.13 ECONOMIC ANALYSIS	9
1.14 CONCLUSIONS AND RECOMMENDATIONS	10
2.0 INTRODUCTION	12
2.1 ISSUER AND PURPOSE OF REPORT	12
2.2 SOURCES OF INFORMATION AND DATA	12
2.3 QUALIFIED PERSONS	13
2.4 UNITS AND CURRENCIES	14
3.0 RELIANCE ON OTHER EXPERTS	16
4.0 PROPERTY DESCRIPTION AND LOCATION	17
4.1 LOCATION	17
4.2 OWNERSHIP AND PROPERTY DESCRIPTION	17
4.3 CONCESSION MAP	19
4.4 MEXICAN REGULATIONS FOR MINERAL CONCESSIONS	19
4.5 ACCESS AND SURFACE RIGHTS	20
4.6 LICENCES, PERMITS AND ENVIRONMENT	20
5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY	21
5.1 ACCESSIBILITY AND LOCAL RESOURCES	21
5.2 PHYSIOGRAPHY AND CLIMATE	22
5.3 INFRASTRUCTURE	22
6.0 HISTORY	23
6.1 ZACATECAS MINING DISTRICT	23
6.2 HISTORICAL EXPLORATION AT EL COMPAS	24
6.3 PREVIOUS MINERAL RESOURCE ESTIMATES	25
6.4 PREVIOUS PRODUCTION	25
7.0 GEOLOGICAL SETTING AND MINERALIZATION	26
7.1 GEOLOGICAL SETTING	26
7.2 REGIONAL GEOLOGY	26

7.3	LOCAL GEOLOGY	30
7.4	ALTERATION	30
7.5	VEINS AND FAULTS	31
7.6	VEINS TEXTURE AND MINERALOGY	32
8.0	DEPOSIT TYPES	33
9.0	EXPLORATION	35
10.0	DRILLING	36
10.1	EARLY DRILL PROGRAMS	36
10.2	ORO SILVER DRILL PROGRAMS	37
10.3	SURVEY AND INVESTIGATION	40
10.4	INTERPRETATION	40
10.5	2016 ENDEAVOUR SILVER DRILLING PROGRAM	40
11.0	SAMPLE PREPARATION, ANALYSES AND SECURITY	44
11.1	MINERA HOCHSCHILD DRILLING	44
11.2	ORO SILVER CHANNEL SAMPLING	45
11.3	ORO SILVER DRILLING	46
11.4	ENDEAVOUR SILVER SAMPLING METHOD AND APPROACH	50
11.5	CORE DRILLING	50
11.6	SAMPLE PREPARATION AND SECURITY	51
12.0	DATA VERIFICATION	53
12.1	P&E SITE VISIT AND INDEPENDENT SAMPLING	53
12.2	QUALITY ASSURANCE AND QUALITY CONTROL	55
12.3	CONCLUSION	55
13.0	MINERAL PROCESSING AND METALLURGICAL TESTING	56
13.1	INTRODUCTION	56
13.2	SGS METALLURGICAL STUDIES (2007-2008)	56
13.3	TETRA TECH STUDY (2015)	58
13.4	ENDEAVOUR SILVER TESTWORK (2016-2017)	61
14.0	MINERAL RESOURCE ESTIMATE	66
14.1	INTRODUCTION	66
14.2	DATABASE	66
14.3	DATA VERIFICATION	67
14.4	DOMAIN INTERPRETATION	67
14.5	ROCK CODE DETERMINATION	68
14.6	GRADE CAPPING	68
14.7	COMPOSITING	71
14.8	SEMI-VARIOGRAPHY	72
14.9	BULK DENSITY	72
14.10	BLOCK MODELING	72
14.11	MINERAL RESOURCE ESTIMATE CLASSIFICATION	74
14.12	MINERAL RESOURCE ESTIMATE	74
14.13	MINERAL RESOURCE ESTIMATE STATEMENT	75
14.14	MINERAL RESOURCE ESTIMATE SENSITIVITY	76
14.15	CONFIRMATION OF MINERAL RESOURCE ESTIMATE	77

15.0	MINERAL RESERVE ESTIMATES.....	83
16.0	MINING METHODS.....	84
16.1	MINERAL RESOURCES CONSIDERED.....	84
16.2	DILUTED AND RECOVERED MINERALIZATION.....	85
16.3	MINE AND STOPE DEVELOPMENT.....	87
16.4	CAPTIVE CUT & FILL MINING METHOD.....	92
16.5	SCHEDULES.....	94
16.6	VENTILATION.....	96
17.0	RECOVERY METHODS.....	98
17.1	SUMMARY.....	98
17.2	PROCESS DESCRIPTION.....	98
17.3	ENERGY AND WATER REQUIREMENTS.....	103
17.4	BENEFICIATION PLANT PROCESS REAGENTS.....	104
18.0	PROJECT INFRASTRUCTURE.....	106
18.1	EXISTING INFRASTRUCTURE.....	106
18.2	INFRASTRUCTURE FOR PROJECT.....	109
19.0	MARKET STUDIES AND CONTRACTS.....	111
20.0	ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT.....	113
20.1	ENVIRONMENTAL PERMITTING.....	113
20.2	TOPOGRAPHY.....	114
20.3	SOIL.....	114
20.4	CLIMATE.....	114
20.5	FLORA AND FAUNA.....	115
20.6	GROUNDWATER.....	115
20.7	SOCIAL AND COMMUNITY ENGAGEMENT.....	116
20.8	TAILINGS STORAGE FACILITY (TSF).....	116
20.9	MINE CLOSURE.....	120
20.10	ENVIRONMENTAL PROGRAM.....	121
21.0	CAPITAL & OPERATING COSTS.....	122
21.1	CAPITAL COSTS.....	123
21.2	OPERATING COSTS.....	129
22.0	ECONOMIC ANALYSIS.....	137
22.1	INTRODUCTION.....	137
22.2	TECHNICAL AND FINANCIAL ASSUMPTIONS.....	138
22.3	ECONOMIC ANALYSIS SUMMARY.....	139
22.4	CASH FLOWS.....	140
22.5	TAXES AND TAX TREATMENT.....	143
22.6	SENSITIVITY ANALYSIS.....	143
23.0	ADJACENT PROPERTIES.....	145
24.0	OTHER RELEVANT DATA AND INFORMATION.....	146
24.1	PROJECT EXECUTION PLAN.....	146
24.2	CONSTRUCTION SCHEDULE.....	146

25.0	INTERPRETATION AND CONCLUSIONS	148
25.1	INTERPRETATION	148
25.2	CONCLUSIONS.....	150
26.0	RECOMMENDATIONS.....	152
26.1	MINERAL RESOURCES AND RESERVES	152
26.2	MINING METHODS	152
26.3	MINERAL PROCESSING AND METALLURGICAL TESTING.....	152
26.4	ENVIRONMENTAL	152
26.5	POTENTIAL DEVELOPMENT	152
27.0	REFERENCES	153
28.0	CERTIFICATES	155
APPENDIX A - DRILL HOLE PLAN		170
APPENDIX B - 3D DOMAINS		172
APPENDIX C - AU AND AG LOG-NORMAL HISTOGRAM		174
APPENDIX D - VARIOGRAMS.....		181
APPENDIX E- CROSS-SECTIONS & PLANS OF AU GRADE BLOCKS		185
APPENDIX F - CLASSIFICATION BLOCK CROSS-SECTIONS & PLANS.....		194

TABLES

TABLE 1.1	SUMMARY OF THE EL COMPAS MINERAL RESOURCE ESTIMATE AT A CUT-OFF GRADE OF 150 G/T AGEQ.....	5
TABLE 1.2	SUMMARY OF THE MINERALIZED MATERIAL TO BE MINED	7
TABLE 2.2.1	LIST OF ABBREVIATIONS	14
TABLE 10.1	SURFACE DRILL HOLE SIGNIFICANT ASSAY SUMMARY FOR MINERAL INTERCEPTS IN THE ANA CAMILA VEIN AREA .	41
TABLE 11.1	SUMMARY OF ANALYTICAL PROCEDURES.....	52
TABLE 13.1	SUMMARY OF METALLURGICAL TEST RESULTS.....	57
TABLE 13.2	COMPOSITE ASSAY RESULTS	59
TABLE 13.3	GRAVITY/FLOTATION CONDITIONS AND RESULTS	61
TABLE 13.4	GRAVITY AND FLOTATION OF GRAVITY TAILS RESULTS FOR VARYING GRIND SIZES.....	62
TABLE 13.5	FLOTATION TEST RESULTS INCLUDING GRAVITY FOR VARYING GRIND SIZES	63
TABLE 13.6	SUMMARY OF TEST RESULTS AT PRIMARY GRIND OF 200 MESH (TEST NO. 5)	65
TABLE 13.7	SUMMARY OF TEST RESULTS AT PRIMARY GRIND OF 270 MESH.....	65
TABLE 14.1	DRILL HOLE DATABASE SUMMARY.....	67
TABLE 14.2	ROCK CODE DESCRIPTION AND VOLUME.....	68
TABLE 14.3	AU GRADE CAPPING VALUES	69
TABLE 14.4	AG GRADE CAPPING VALUES	70
TABLE 14.5	BASIC STATISTICS OF ALL CONSTRAINED RAW ASSAYS AND CAPPED ASSAYS.....	70
TABLE 14.6	COMPOSITE SUMMARY STATISTICS	72
TABLE 14.7	BLOCK MODEL DEFINITION.....	73
TABLE 14.8	AU & AG BLOCK MODEL INTERPOLATION PARAMETERS	74

TABLE 14.9 MINERAL RESOURCE ESTIMATE STATEMENT AT CUT-OFF 150G/T AGEQ ^{(1) (2) (3) (4) (5)}	76
TABLE 14.10 SENSITIVITY TO RESOURCE ESTIMATE	77
TABLE 14.11 AVERAGE GRADE COMPARISON OF COMPOSITES WITH BLOCK MODEL	78
TABLE 14.12 VOLUME COMPARISON OF BLOCK MODEL VOLUME WITH GEOMETRIC SOLID VOLUME	79
TABLE 16.1 SUMMARY OF COMPAS AND ORITO VEIN RESOURCE @ 200 AGEQ G/T CUT-OFF	84
TABLE 16.2 AGEQ CUT-OFF PARAMETERS.....	85
TABLE 16.3 MINE DILUTION AND RECOVERY ESTIMATES.....	86
TABLE 16.4 DILUTED / RECOVERED POTENTIALLY MINEABLE MINERALIZATION.....	86
TABLE 16.5 SUMMARY OF LOM DEVELOPMENT (M).....	92
TABLE 16.6 SUMMARY OF COMPAS VEIN EARLIEST START MONTH.....	95
TABLE 16.7 MINE AND STOPE DEVELOPMENT SCHEDULE (M).....	95
TABLE 17.1 MAJOR EXISTING PLANT EQUIPMENT.....	100
TABLE 17.2 PROCESS DESIGN CRITERIA	101
TABLE 17.3 MAJOR PLANT EQUIPMENT AND ASSOCIATED POWER	104
TABLE 17.4 REAGENT CONSUMPTION PER TONNE OF MILL FEED	105
TABLE 19.1 ANNUAL HIGH, LOW, AND AVERAGE LONDON PM FIX FOR GOLD AND SILVER FROM 2000 TO 2016.....	111
TABLE 21.1 SUMMARY OF PRE-PRODUCTION MINE CAPITAL COSTS	124
TABLE 21.2 SITE INFRASTRUCTURE COSTS.....	125
TABLE 21.3 PROCESS PLANT UPGRADE COST ESTIMATE	126
TABLE 21.4 SUMMARY OF CAPITAL COSTS.....	127
TABLE 21.5 MINE CLOSURE COSTS.....	128
TABLE 21.6 SUSTAINING LIFE-OF-MINE CAPITAL COSTS FOR MINE	128
TABLE 21.7 SUMMARY OF SUSTAINING CAPITAL COSTS	129
TABLE 21.8 SUMMARY OF PROCESS PLANT OPERATING COSTS	130
TABLE 21.9 COMPAS VEIN CCF MINING COST @ 2.5M THICK STOPE.....	130
TABLE 21.10 ORITO VEIN CAPTIVE CUT-AND-FILL MINING COST.....	131
TABLE 21.11 INDIRECT LABOUR AND ELECTRIC POWER COST.....	131
TABLE 21.12 SUMMARY OF STOPE DEVELOPMENT COSTS.....	132
TABLE 21.13 SUMMARY OF THE COMPAS VEIN OPERATING COSTS.....	133
TABLE 21.14 SUMMARY OF THE ORITO VEIN OPERATING COSTS	134
TABLE 21.15 SUMMARY OF OPERATING COSTS	135
TABLE 22.1 BASE CASE FINANCIAL & TECHNICAL ASSUMPTIONS	139
TABLE 22.2 SUMMARY OF AFTER-TAX ECONOMIC ANALYSIS	140
TABLE 22.3 DISCOUNTED AFTER-TAX CASH FLOW MODEL.....	142
TABLE 22.4 BASE CASE AFTER-TAX NPV (US\$ MILLIONS) AND IRR SENSITIVITIES.....	143

FIGURES

FIGURE 4.1 LOCATION MAP 17

FIGURE 4.2 CONCESSION MAP 19

FIGURE 5.1 MINE AND PLANT SITES AND CONNECTING ROAD..... 21

FIGURE 6.1 MAP OF HISTORIC WORKINGS AND LOCAL GEOLOGY AT EL COMPAS 23

FIGURE 7.1 REGIONAL GEOLOGY..... 29

FIGURE 7.2 LOCAL GEOLOGY 31

FIGURE 8.1 EPITHERMAL DEPOSIT MODEL..... 33

FIGURE 10.1 SURFACE MAP SHOWING HISTORIC DRILL HOLES IN THE EL COMPAS AREA..... 39

FIGURE 10.2 SURFACE MAP SHOWING ENDEAVOUR DRILL HOLES - ANA CAMILA VEIN..... 42

FIGURE 10.3 LONGITUDINAL SECTION (LOOKING NORTHEAST) SHOWING THE INTERSECTION POINTS ON THE ANA CAMILA VEIN
..... 43

FIGURE 12.1 P&E SITE VISIT RESULTS FOR GOLD..... 54

FIGURE 12.2 P&E SITE VISIT RESULTS FOR SILVER..... 55

FIGURE 13.1 COMBINED GRAVITY AND FLOTATION PROCESS FLOWSHEET..... 60

FIGURE 13.2 TEST PROCESS FLOWSHEET 64

FIGURE 14.1 DISTRIBUTION OF CONSTRAINED SAMPLE LENGTH 71

FIGURE 14.2 COMPAS VEIN AU GRADE SWATH PLOT ALONG EASTING 79

FIGURE 14.3 COMPAS VEIN AU GRADE SWATH PLOT ALONG NORTHING 80

FIGURE 14.4 COMPAS VEIN AU GRADE SWATH PLOT ALONG ELEVATION..... 81

FIGURE 14.5 AU GRADE AND TONNAGE COMPARISONS OF ID3 AND NN INTERPOLATION..... 82

FIGURE 16.1 DRAWING NO. 1 ‘COMPAS AND ORITO ISOMETRIC DRAWING’ 88

FIGURE 16.2 DRAWING NO. 2 ‘COMPAS – LONGITUDINAL PROJECTION AND MINING SEQUENCE’ 89

FIGURE 16.3 DRAWING NO. 3 ‘ORITO - LONGITUDINAL PROJECTION AND MINING SEQUENCE’ 90

FIGURE 16.4 DRAWING NO. 4 ‘COMPAS AND ORITO COMPOSITE PLAN VIEW’ 91

FIGURE 16.5 DRAWING NO. 5 ‘MINING METHOD – TYPICAL CUT AND FILL’ 93

FIGURE 16.6 DRAWING NO. 6 ‘COMPAS & ORITO – VENTILATION FLOW ISOMETRIC DRAWING’ 97

FIGURE 17.1 PROCESS FLOWSHEET 99

FIGURE 18.1 AERIAL PHOTO OF LA PLATA SITE 106

FIGURE 18.2 UPGRADES REQUIRED TO SUPPLY PLANT AND MINE SITES WITH POWER FROM CFE..... 107

FIGURE 18.3 FLOTATION AREA 108

FIGURE 18.4 MINE PORTAL SITE IN QUARRY 109

FIGURE 20.1 TSF LAYOUT FOR YEAR 1 117

FIGURE 20.2 FINAL TSF LAYOUT 118

FIGURE 20.3 MAIN EMBANKMENT CROSS-SECTION 119

FIGURE 22.1 AFTER-TAX ANNUAL AND CUMULATIVE CASH FLOW 141

FIGURE 22.2 AFTER-TAX NPV SENSITIVITY GRAPH..... 144

FIGURE 24.1 CONSTRUCTION SCHEDULE..... 147

1.0 SUMMARY

1.1 Introduction

Endeavour Silver Corp. (Endeavour Silver) commissioned Smith Foster & Associates Inc. (SFA) to prepare a Preliminary Economic Assessment (PEA) for the El Compas Project compliant with Canadian Securities Administrators (CSA) National Instrument 43-101 (NI 43-101).

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 and Mineral Reserves and Mineral Resources 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 May, 2016 Endeavour Silver acquired Oro Silver Resources Ltd. which owned the El Compas gold-silver mine property and held a five-year renewable lease on the 500tpd La Plata mineral processing plant 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.

This report has an effective date of March 27, 2017. The Mineral Resource Estimate reported in this report complies with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards and definitions, as required under NI 43-101 regulations.

This 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 QP's do not consider such errors to be material to the calculations presented herein.

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

Summarized briefly below is key information in the 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 QP's conclusions and recommendations.

1.2 Location and Property Description

The 3,990 hectare El Compas property is located in the southern portion of the state of Zacatecas, Mexico. The El Compas Project comprises a mine site to the south of Zacatecas city and a plant site to the north of the city. The two sites are connected by 20km of gravel road and each site is close to paved roads that connect that site to Zacatecas city.

The state of Zacatecas constructed the La Plata processing plant in 2012/13 to service local small miners in the area. The plant operated for 13 months before closing in October, 2014. The plant is leased to Endeavour Silver on the basis it will accept up to 20% of the feed for the plant on a toll basis from local small miners.

1.3 Ownership

On May 30, 2016 Endeavour Silver completed the acquisition of Oro Silver Resources Ltd., a wholly-owned subsidiary of Canarc Resource Corporation (Canarc), which held the El Compas gold-silver mine property and a five-year renewable lease on the 500tpd La Plata mineral processing plant.

The project is comprised of 28 concessions fully permitted for mining. Of these, 22 concessions are subject to a 1.5% net smelter return royalty, while 6 concessions are subject to a 3.0% NSR royalty.

1.4 History

The mining district of Zacatecas was mined from 1570 to the start of the Mexican Revolution in 1910. Most of the mining in this period was by small-scale shaft excavations. Several mining companies explored the area from the mid -1990's to the present.

In 2005, Minera Hochschild de Mexico S.A. de C.V. (MHM) carried out an extensive exploration program focused mainly on the El Compas vein system.

The program identified numerous targets characterized by north and northwest trending mineralized veins and faults of which eight were tested by diamond drilling. A total of twenty holes totaling over 5,516m were drilled. Significant gold and silver grades were found at depth in many of the target structures, including 15.2 g/t Au and 155 g/t Ag over 1.05m from the El Compas 4 Vein, located 1.4km southeast of the El Compas Vein.

An initial Mineral Resource Estimate for the El Compas deposit was completed in 2011 by SRK Consulting and, in 2016, Mining Plus Canada Consulting Ltd. prepared an updated Mineral Resource Estimate for Canarc.

Local small miners supplied the La Plata processing plant with mill feed during the time it operated from September, 2013 to October, 2014. No details of the amounts mined or processed are on record.

1.5 Geology and Mineralization

The Zacatecas mining district is located at the transition of the Sierra Madre Occidental and Mesa Central physiographic provinces in north-central Mexico and is marked by the north-west striking Rio Santa Maria fault system. The district covers a belt of Tertiary aged epithermal vein deposits that contain silver, gold and base metals including copper, lead and zinc. The dominant structural features that localize mineralization are of Tertiary age, and are interpreted to be related to the development of a volcanic center with subsequent caldera development and north-westerly trending basin-and-range structures.

The veins at El Compas strike predominantly north and north-west and are hosted partly in volcanic and sedimentary rocks of the Chilitos formation and partly in overlying volcanic rocks of the La Virgen formation.

The Compas and Orito veins have the characteristics of a low sulfidation epithermal vein system. They occur in a region characterised by numerous, high silver-grade intermediate sulfidation epithermal vein systems.

1.6 Exploration Program

From the mid 1990's until the present a number of companies have explored the Orito district. District-wide surface exploration in 2005 by Minera Hochschild de Mexico S.A. de C.V. (MHM) identified numerous targets characterized by north and/or north-west trending mineralized veins and faults, eight of which were tested by diamond drilling. In total 5,516m of drilling in 20 NQ holes were

completed. Results of the drilling confirmed the presence of significant gold and silver grades at depth in a number of the target structures tested.

From November, 2007 to August, 2013, Oro Silver completed three phases of a diamond drill program. The objectives of this program were to expand the Compas and Orito Mineral Resource Estimates where they were still open, upgrade Inferred Mineral Resources to the Indicated Mineral Resource category by infill drilling, confirm the continuity of grade and thickness in areas of higher grade mineralization with close spaced drilling and, finally, to test the El Compas and other veins for higher grade gold and silver mineralization at significantly deeper levels than in the past.

The results from both MHM and Oro Silver drilling were utilized in the current Mineral Resource Estimate after drilling by Endeavour Silver verified the earlier drilling.

In late 2016, Endeavour Silver drilled 5,306m over 21 drill holes on the Ana Camila vein, a splay of the Orito vein located about 550m southeast of Orito. This drilling is exploratory in nature and Endeavour Silver has outlined a new high-grade, south plunging mineralized zone over 250m long by 100m deep, starting approximately 100m below surface and still open to surface and at depth and it has not been added to the Mineral Resource Estimate that is part of this 43-101 report.

1.7 Mineral Resource Estimate

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 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 this Mineral Resource Estimate is March 27, 2017.

The Mineral Resource Estimate was derived from applying a 150 g/t AgEq cut-off grade to the block model and reporting the resulting tonnes and grade for potentially mineable areas.

1.7.1 Mineral Resource Cut-off Grade

The cut-off grade selected by Endeavour Silver for reporting the Mineral Resource Estimate is 150 g/t silver equivalent (AgEq), using a 70:1 Au to Ag ratio based on prices of US \$18/oz silver and US \$1,225/oz gold, with no base metal credits applied.

A summary of the Mineral Resource at a cut-off grade of 150 g/t AgEq is given in Table 1.1. Cut-off details are available in Section 14.12

Table 1.1 Summary of the El Compas Mineral Resource Estimate at a Cut-off Grade of 150 g/t AgEq

Classification	Tonnes (000s)	Ag gpt	Au gpt	AgEq gpt	Ag oz (000s)	Au oz (000s)	AgEq oz (000s)
Indicated	148.4	104	7.31	616	495	34.9	2,939
Inferred	216.8	76	5.38	453	527	37.5	3,158

- (1) CIM definitions were followed for Mineral Resource Estimates
- (2) Mineral Resources are estimated by conventional 3D block modeling based on wire-framing at a 150 g/t AgEq cut-off grade and inverse distance cubed grade interpolation.
- (3) AgEq is calculated using the formula: $AgEq = Ag\ g/t + (70 * Au\ g/t)$.
- (4) For the purpose of Mineral Resource estimation, assays were capped between 15 to 60 g/t for Au and between 150 to 700 g/t for Ag.
- (5) Metal prices for the Mineral Resource Estimate are: US\$18.00/oz Ag and US\$1,225/ oz Au.
- (6) A bulk density of 2.99 tonnes/m³ has been applied for volume to tonnes conversion.
- (7) Grade model blocks are 1.25m x 2.5m x 2.5m
- (8) Mineral Resources are estimated from the 2,400m EI to the 2,250m EI, or from surface to approximately 150 m depth.
- (9) Mineral Resources are classified as Indicated and Inferred based on drill hole location, interpreted geologic continuity and quality of data.
- (10) A small amount of the Mineral Resource was historically mined in the upper portion of the Compas Vein and this material has not been included in the Mineral Resource Estimate.
- (11) 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.
- (12) 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.

1.8 Mineral Processing and Metallurgical Testing

Endeavour Silver contracted RDi to undertake metallurgical testwork with the primary objective of producing a saleable combined gravity and flotation concentrate. This would result in minimum capital to upgrade the existing process plant leased from the state government in Zacatecas, Mexico.

The testwork results indicate that a saleable gravity plus flotation concentrate can be produced with reasonable recoveries. The metal recoveries recommended for the economic model are 83.5% gold and 73% silver.

1.9 Mining Methods

The mine access portal is located in the wall of a nearby quarry just southwest of the Compas Vein. The development schedule focuses on critical-path development required to start development of the Compas Vein, and delays the non-critical path Orito Vein development.

Captive cut and fill mining is the proposed mining method for both the Compas and Orito Veins. Mine dilution is estimated to be 12%, represented by an approximate 30cm thick skin around the mining outline. Dilution grades were estimated within this 30cm skin. Mine dilution and extraction was applied to stope mineable tonnes only.

A conceptualized captive cut and fill mining method plan has been laid out to extract the deposit using in-stope micro scooptrams and hand-held pneumatic drills. Primary access to the mineral deposit will be via a 535m long trackless haulage ramp, from the portal, at the 2265m elevation. The Compas and Orito Vein mineralization are connected by a 407m long haulage ramp.

Multiple working faces can be accessed by mining a number of stope lifts at the same time via up-and-down ramps constructed in the stopes on the backfill. There are an estimated 48 - 3m high lifts at the Compas Vein and 38 – 3m high lifts at the Orito Vein. Mining advances from the bottom up.

Fresh air enters the mining areas through the service raises in each mining area and also through the portal.

There is a total life-of-mine (LOM) 4,536m of mine and stope development planned.

The mineralized material to be mined in the mine plan totals 300,000 tonnes, containing 829,000 oz silver and 61,000 oz gold for 5,099,000 oz AgEq as shown in Table 1.2.

Table 1.2 Summary of the Mineralized Material to be Mined

	Tonnes ('000's)	Ag g/t	Au g/t	AgEq g/t	Ag oz ('000's)	Au oz ('000's)	AgEq oz ('000's)
Indicated	114	99	6.81	576	363	25	2,113
Inferred	186	78	5.99	497	466	36	2,986

- (1) *P&E Mining Consultants Inc. estimated diluted and extractable Mineralized Material to be mined using a cut-off grade of 200 g/t silver equivalent and employing captive cut and fill mining methodology.*
- (2) *Mining extraction was estimated at 95% and dilution was calculated at an average of 12%*

1.10 Recovery Methods

The treatment of the El Compas process plant feed will be performed at the La Plata processing facility located 20 km from the mine. The process plant will be modified to produce a single gold-silver concentrate which would be sold to smelters or refineries. The process flowsheet will consist of conventional comminution, gravity and froth flotation.

Endeavour Silver will upgrade the existing plant so that it can safely and reliably process 250tpd of mill feed averaging ± 5 g/t Au and ± 96 g/t Ag.

The projected recoveries of gold and silver based on open-circuit rougher and cleaner flotation tests are 83.5% and 73%, respectively. The cleaner concentrate grade will be 868 g/t Au and 12,095 g/t Ag.

1.11 Environmental Studies, Permitting, and Social Impact

A Manifestación de Impacto Ambiental (MIA) for the El Compas Project was reviewed and approved by SEMARNAT in September, 2014. In an updated approval issued in March, 2016, the processing plant and tailings facility were

removed from the MIA approval, as it was identified that Endeavour Silver would rely on leased existing facilities. This relieves Endeavour Silver of environmental and permitting liabilities associated with the processing and tailings management.

The processing plant and tailings facility are owned by the Zacatecas state government and collectively are known as the “La Plata” facility. The facility is operated by a trust called the Fideicomiso Público de Promoción y Desarrollo Minero. SEMARNAT approved MIA for the “La Plata” facility in July, 2012.

Another important piece of environmental legislation is the Ley General de Desarrollo Forestal Sustentable (LGDFS). Article 117 of the LGDFS indicates that authorizations must be granted by SEMARNAT for land use changes to industrial purposes. An application for change in land use or Cambio de Uso de Suelo (CUS), must be accompanied by a Technical Supporting Study (Estudio Técnico Justificativo, or ETJ).

The CUS application for the El Compas Project, accompanied by an ETJ, was reviewed and approved by SEMARNAT in June, 2013. Similarly, the “La Plata” facility received its approved CUS in March, 2013.

The existing tailings storage facility (TSF) was previously designed, constructed, and operated for a limited time by others. The TSF will be modified to suit the requirements of El Compas, which include storing tailings for 4 years at a milling rate of 250 tonnes per day (tpd). The total capacity in the TSF is approx. 365,000 tonnes of tailings.

Knight Piésold Ltd. (KP) developed the concept for tailings and water management in the TSF using the existing facilities. The tailings management concept utilizes upstream embankment expansions with fill and coarse drained tailings as construction materials placed and compacted in the upstream embankment zone.

1.12 Capital and Operating Costs

The El Compas Project has a total estimated capital cost of US\$10million. The process plant upgrade costs are based on firm quotes from qualified local contractors and all estimates were prepared by engineers and construction personnel with direct experience on recent mine projects in Mexico.

Operating costs of US\$70 per tonne for mining, US\$26 per tonne for processing, and US\$14 per tonne for General and Administration were estimated using unit rates and costs for labour, material, and equipment taken from the current mine and plant operations of Endeavour Silver and electrical supply costs from the Commission Federal de Electricidad (CFE).

1.13 Economic Analysis

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 US\$18/oz silver and US\$1,260/oz gold.

The Mexico tax policies for mining changed effective January 1, 2014. An overriding royalty on gross revenues, after smelter deductions, of 0.5% applies to precious metal mines (gold, silver and platinum). A new 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 over-riding 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, NPV, and IRR.

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

- After-tax rate of return 42.1%
- Project payback period 2.1 years from start of production
- After-Tax Net Present Value (5% discount) of US\$12,598,000

These key indicators describe a project whose base case is financially viable and which, as the sensitivity analysis in Table 1.3 demonstrates, has considerable upside potential should the size of the deposit increase or metal prices improve

Table 1.3 Base Case After-Tax NPV and IRR Sensitivities

Variance	Operating Costs		Initial Capital		Metal Prices	
	NPV (5%)	IRR	NPV (5%)	IRR	NPV (5%)	IRR
-20%	\$ 16.3	52.7%	\$ 14.5	55.5%	\$ 4.1	17.6%
-10%	\$ 14.5	47.4%	\$ 13.6	48.2%	\$ 8.4	30.2%
Base Case	\$ 12.6	42.1%	\$ 12.6	42.1%	\$ 12.6	42.1%
10%	\$ 10.5	35.8%	\$ 11.6	36.9%	\$ 16.4	52.1%
20%	\$ 8.4	29.5%	\$ 10.7	32.4%	\$ 20.2	61.8%

(1) *The PEA economic analysis is preliminary in nature in that it is based on production schedules that include Inferred Mineral Resources, which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized or that Inferred Mineral Resources will ever be upgraded to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability*

1.14 Conclusions and Recommendations

The El Compas Mineral Resource Estimate presented here conforms 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.

There are no known significant technical, legal, environmental, or political considerations which would have an adverse effect on the Mineral Resource Estimate or the continued exploration and development of the El Compas Property.

The QP’s conclude that the economic analysis of the El Compas Project is based on sound inputs and cost estimates that take significant risks out of the project and provide a reliable basis for quantifying the key financial indicators of the project and for examining the project’s most critical sensitivities.

These key indicators describe a project whose base case is financially profitable and which, as the sensitivity analysis demonstrates, has considerable upside potential should the size of the deposit increase or metal prices improve.

The QP’s conclude that, given the many positive features of the project, the manageable risks, and Endeavour Silver’s record of successfully developing

similar projects in Mexico it is reasonable for Endeavour Silver to make a production decision on the basis of this PEA. Such a decision should be subject to Endeavour Silver obtaining an explosives permit and obtaining clarity by the state on its new Revenue Tax.

The QP's recommend that Endeavour Silver:

- Acquires other properties to produce more process plant feed
- Continues exploratory drilling nearby mineralized bodies to extend mine life and possibly increase the mine production rate
- Considers long hole or mechanized mining methods in certain areas of the mine that may improve economics
- Carries out additional locked-cycle testing to further enhance gold and silver recoveries
- Completes geotechnical testing on additional tailings samples to confirm the material properties and suitability as a construction material for the tailings embankment
- Continues to meet with the state Government to clarify and confirm the amount of the new Environmental Tax applicable to El Compas
- Complies fully with all existing permit conditions
- Applies for an explosives permit

Should Endeavour Silver make a production decision on the basis of this PEA, the QP's stress that such a decision will not be based on a Pre-Feasibility Study or Feasibility Study stating Mineral Reserves demonstrating economic and technical viability and caution that historically such projects have a much higher risk of economic or technical failure.

The QP's recommend that any development of El Compas be engineered, constructed, and operated in accordance with this PEA and subsequent technical studies.

2.0 INTRODUCTION

2.1 Issuer and Purpose of 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 and Mineral Reserves and Mineral Resources 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.

Endeavour Silver commissioned Smith Foster & Associates Inc. (SFA) to prepare a Technical Report at the level of a Preliminary Economic Assessment (PEA) for the El Compas Project compliant with Canadian Securities Administrators (CSA) National Instrument 43-101 (NI 43-101). The purpose of this report is to provide a preliminary design, cost estimates, and economic analysis to evaluate the potential viability of the project.

2.2 Sources of Information and Data

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

- Personal inspections of the El Compas site and surrounding area
- Technical information provided by Endeavour Silver
- Technical and cost information provided by the Commission Federal de Electricidad (CFE) concerning the power supply for the project
- Information provided by other experts with specific knowledge and expertise 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 (QP's) responsible for this report and the dates of their visits to the El Compas Project site and surrounding area are as follows. All QP's had input into Sections 1, 21, 25, 26, and 27.

QP Name	Certification	Company	Dates of Site Visit	Section Responsibility
Peter J. Smith	P.Eng	Smith Foster & Associates Inc.	August 30 & 31, 2016 January 27, 2017	Sections 1,2,3, 4, 5, 6, 18, 19, 21, 22, 23, 24, 25, 26, and 27
Deepak Malhotra	SME Member	Resource Development Inc.	August 30 & 31, 2016 January 27, 2017	Section 13 and 17
Eugene Puritch	P.Eng.	P&E Mining Consultants Inc.	January 27, 2017	Co-author of Sections 14, 15, 16, and 21
Yungang Wu	P.Geo.	P&E Mining Consultants Inc.		Co-author of Section 14
David Burga	P.Geo.	P&E Mining Consultants Inc.	August 30 & 31, 2016	Sections 7, 8, 9, 10, 11, 12, and 23. Co-author Section 4
Jarita Barry	P.Geo.	P&E Mining Consultants Inc.		Co-author of Section 12
James Pearson	P.Eng.	P&E Mining Consultants Inc.		Co-author of Sections 15, 16, and 21
Ken Embree	P.Eng.	Knight Piésold Ltd.	August 30 & 31, 2016 January 27, 2017	Section 20

2.4 Units and Currencies

All currency amounts are stated in US dollars (US\$) or Mexican pesos (MXP), as specified, with costs and commodity prices typically expressed in US dollars. The exchange rate as of the report effective date of March 27, 2017 was approximately US\$1.00 equal to MXP20.0 and US\$1.00 equal to Can\$1.34.

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) or parts per billion (ppb) 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 2.2.1 provides a list of the abbreviations used throughout this report.

Table 2.2.1 List of Abbreviations

Name	Abbreviations	Name	Abbreviations
arithmetic average of group of samples	mean	Metre(s)	m
atomic absorption	AA	Mexican Peso	mxp
BSI Inspectorate	BSI	Life of Mine	LOM
Canadian Institute of Mining, Metallurgy and Petroleum	CIM	Manifestacion de Impacto Ambiental	MIA
Canadian National Instrument 43-101	NI 43-101	Milligram(s)	mg
Carbon-in-leach	CIL	Millimetre(s)	mm
Commission Federal de Electricidad	CFE	Million ounces	mo
Centimetre(s)	cm	Million tonnes	Mt
Construction management	CM	Million years	Ma
Copper	Cu	Minera Plata Adelente S.A. de C.V.	Minera Plata Adelente
Cubic feet per minute	cfm	Nearest Neighbor	NN
Day	d	Net present value	NPV

Name	Abbreviations	Name	Abbreviations
Degree(s)	o	Net smelter return	NSR
Degrees Celsius	oC	North American Datum	NAD
Digital elevation model	DEM	Not available/applicable	n.a.
Dirección General de Minas	DGM	Ordinary Kriging	OK
Dollar(s), Canadian	\$, CDN \$	Ounces (troy)	oz
Endeavour Silver Corp	Endeavour Silver	Ounces per year	oz/y
Endeavour Gold Corporation S.A de C.V.	Endeavour Gold	Parts per billion	ppb
Estudio Tecnico Justificativo	ETJ	Parts per million	Ppm
Global Positioning System	GPS	Potassium-Argon (referring to age date technique)	K-Ar
Gold	Au	Pounds per square inch	psi
Gram (1g = 0.001 kg)	g	Project management	PM
Grams per metric tonne	g/t	Qualified Person	QP
Greater than	>	Quality Assurance/Quality Control	QA/QC
Hectare(s)	ha	Robust relative standard deviation	RSD
Horsepower	hp	Rock Quality Designation	RQD
Inches, 2.42 cm	in or (")	Second	s
Internal rate of return	IRR	Secretaria de Medio Ambiente y Recursos Naturales	SEMARNAT
Inverse Distance Weighted	IDW	Silver	Ag
Kilogram(s)	kg	Specific gravity	SG
Kilometre(s)	km	Standard Reference Material	Standard
Kilovolt-amps	Kva	System for Electronic Document Analysis and Retrieval	SEDAR
Lead	Pb	Système International d'Unités	SI
Less than	<	Tonne (metric)	t
Litre(s)	l	Tonnes (metric) per day	t/d, tpd, TPD
Megawatt	MW	Universal Transverse Mercator	UTM
Metalurgica Guanaceví S.A. de C.V.	Metalurgica Guanaceví	Zinc	Zn

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 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 report.

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

- Information available to the authors of this report up to and including the effective date of the report
- Assumptions, conditions, and qualifications as set forth in this report
- Data, reports, and other information supplied by Endeavour Silver and other third party sources

The QP's, while taking full responsibility for the contents of the report, recognize the support of Endeavour Silver's staff in Mexico including: Henry Cari, Manager, Projects; Luis Castro, VP Exploration; and Nelson Peña, Manager, Planning and Engineering.

None of the authors of this report has researched or verified property title or mineral or land access rights for the El Compas property and the authors of this report express no opinion as to the legal status of property ownership and rights as disclosed in Section 4 of this report. However, the authors have received a review of the mineral concession titles by the legal firm of Cereceres Estudio Legal, S.C. of Chihuahua, Mexico dated February 23, 2017 which supports Section 4.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The 3,990 hectare El Compas property is located in the southern portion of the state of Zacatecas, Mexico as shown in Figure 4.1.

The project is aligned on UTM coordinates 747,200E and 2,515,500N at a mean elevation of 2,430m.

Figure 4.1 Location Map



4.2 Ownership and Property Description

On May 30, 2016 Endeavour Silver completed the acquisition of Oro Silver Resources Ltd., a wholly-owned subsidiary of Canarc, which held the El Compas gold-silver mine property and a five-year renewable lease on the 500tpd La Plata mineral processing plant in Zacatecas, Mexico.

The project is comprised of 24 concessions fully permitted for mining as listed in Table 4.1. Of these, 18 concessions are subject to a 1.5% net smelter return royalty, while 6 concessions are subject to a 3.0% NSR royalty.

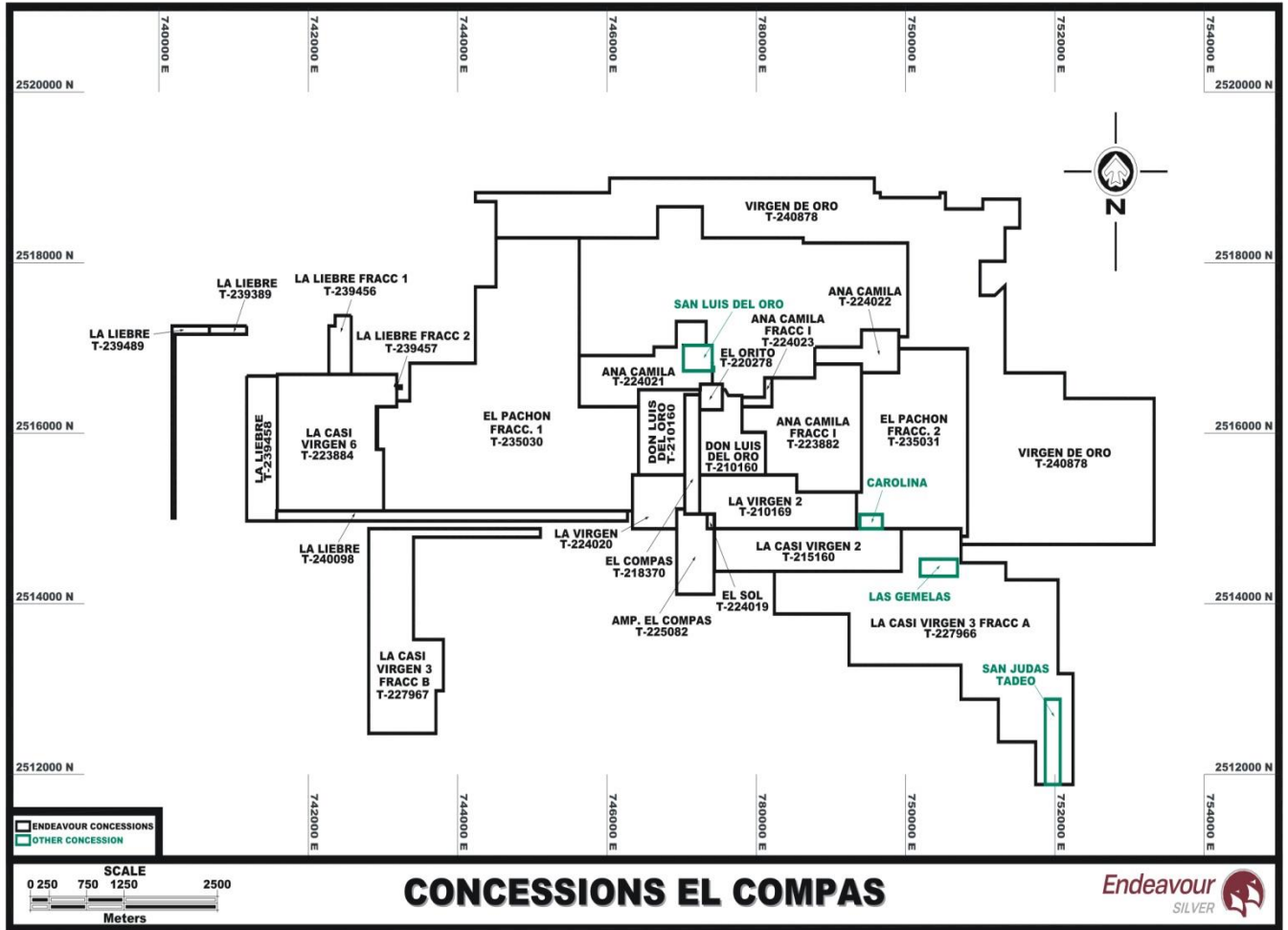
Table 4.1 Mineral Concessions Owned by Endeavour Silver

Concession Name	Title Number	Term of Mineral Concession	Hectares
El Compas	218370	05/11/02 to 03/07/29	28.0000
El Orito	220278	03/07/03 to 02/07/53	9.0000
La Virgen	224020	23/03/05 to 22/03/55	41.7001
Ampl. el Compas	225082	12/07/05 to 11/07/55	47.6516
El Pachon Fracc. 1	235030	29/09/09 to 28/09/59	723.1357
El Pachon Fracc. 2	235031	29/09/09 to 28/09/59	284.1939
La Liebre	239389	13/12/11 to 12/12/61	4.8526
La Liebre Fracc. 1	239456	15/12/11 to 14/12/61	19.6752
La Liebre Fracc. 2	239457	15/12/11 to 14/12/61	0.1686
La Liebre	239458	15/12/11 to 14/12/61	68.0000
La Liebre	239489	15/12/11 to 14/12/61	13.7800
La Liebre	240098	13/04/12 to 12/04/62	55.6918
Ana Camila Fracc. 1	223882	04/03/05 to 03/03/55	180.2906
Ana Camila	224021	23/03/05 to 22/03/55	94.6172
Ana Camila	224022	23/03/05 to 22/03/55	37.5014
Ana Camila Fracc. 1	224023	23/03/05 to 22/03/55	6.6344
Don Luis del Oro	210160	10/09/99 to 09/09/49	126.9829
La Virgen 2	210169	10/09/99 to 09/09/49	112.8791
La Casi Virgen 2	215160	08/02/02 to 07/02/52	125.0000
La Casi Virgen 3 - Fracc. A	227966	15/09/06 to 11/10/54	500.0000
La Casi Virgen 3 - Fracc. B	227967	15/09/06 to 11/10/54	200.0000
La Casi Virgen 6	223884	04/03/05 to 03/03/55	219.5716
Virgen de Oro	240878	27/07/12 to 26/07/62	1042.0870
El Sol	224019	23/03/05 to 22/03/55	1.4307
Total			3,942.8444

4.3 Concession Map

A map of the concessions owned by Endeavour Silver is shown in Figure 4.2.

Figure 4.2 Concession Map



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 because 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 6 years in Mexico and at the end of the 6 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 accomplished on the property between January and December of the preceding year.

4.5 Access and Surface Rights

A contract that expires in 2024 between Endeavour Silver and Maricela Bañuelos Arellano grants surface access to a 53 hectare plot on the Don Luis del Oro and La Virgen concessions. The contract provides access for the construction and operation of surface facilities and a portal to the underground mine. An existing surface quarry which operates within the contract area was excluded from the agreement as it does not interfere with the mine and its continued operations are of benefit to the community.

4.6 Licences, Permits and Environment

The environmental permits needed to develop the mine and operate the mine and process plant are in place except for an explosives permit as detailed in Section 20.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility and Local Resources

The El Compas project comprises a mine site to the south of Zacatecas city and a processing plant site to the north of the city. The two sites are connected by 20km of gravel road as shown on Figure 5.1.

Figure 5.1 Mine and Plant Sites and Connecting Road



Zacatecas city has a population of 138,000, an international airport, a national railroad, and good highway connections to other major centers in Mexico.

As the state has a history of mining development and many mines operate in the region, there are many qualified mine workers, tradesmen, and professionals in the area.

5.2 Physiography and Climate

The region's physiography is predominantly basin-and-range type with wide valleys lying north-north-east separated by small mountain ranges. The topography is made up of low hills covered by cactus, sage, and grass.

The region, known as Mesa Central, is characterized by a wet summer from May to September when the temperature averages 15.6°C and a dry winter from December to February when the temperature averages 13.4°C. The total annual rainfall averages 430mm.

5.3 Infrastructure

La Plata Processing Plant

The state of Zacatecas constructed the La Plata processing plant in 2012/13 to service local small miners in the area. The plant operated for 13 months before closing in October, 2014. The plant comprises conventional crushing, grinding, and flotation equipment that produce concentrates for transporting to a smelter. The plant was designed to handle 500tpd, however, no records exist that confirm this throughput was ever achieved.

The plant is leased to Endeavour Silver on the basis it will accept up to 20% of the process plant feed on a toll basis from local small miners.

Electrical Power Supply

The region is serviced by electrical power from the national grid operated by the Commission Federal de Electricidad (CFE).

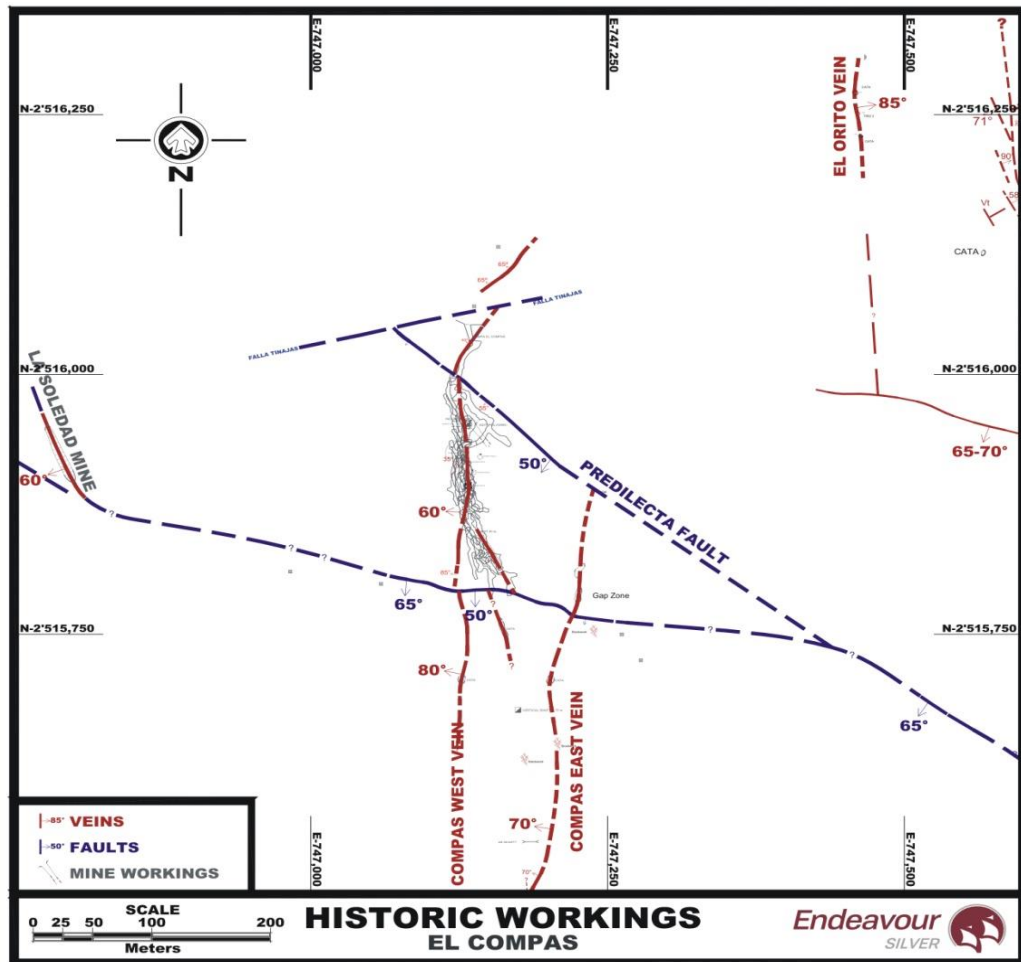
6.0 HISTORY

6.1 Zacatecas Mining District

The founding of Zacatecas city in 1546 followed the discovery of silver vein systems by Juan de Tolosa who had been directed to them by the local indigenous peoples. Until then the native silver had likely been mined from the oxide zones lying on top of the veins. In less than 100 years, Zacatecas became Mexico's largest silver producer and now produces more silver than all the other states in Mexico combined (Mexico is the largest silver-producing country in the world).

It is estimated that, historically, the district of Zacatecas has produced over 750 million ounces of silver and the state of Zacatecas over 1.5 billion ounces. A map showing the historic workings and local geology is shown in Figure 6.1.

Figure 6.1 Map of Historic Workings and Local Geology at El Compas



6.2 Historical Exploration at El Compas

The following section is summarized from Jutras and Thiboutot (2008).

The mining district of El Orito was mined from 1570 to the start of the Mexican Revolution in 1910. Most of the mining in this period was by small-scale shaft excavations and two of the largest shafts in the El Compas Mineral Resource area are known as El Compas and La Predilectra (Figure 6.1). The El Compas shaft had a depth of 115m whilst the depths of other shafts are unknown.

Several mining companies explored the area from the mid-1990's to the present:

- In 1996, Monarch Resources Limited drilled 829m of diamond core in four holes that tested the El Compas 2 and Escuadra Veins, located about 600m east of the El Compas Vein. The results of the drilling are not known
- In 2001, Consejo de Recursos Mexicanos mapped and sampled the surface and underground exposures on the El Compas concession. A non-NI 43-101 compliant Mineral Resource Estimate was produced
- In 2003-4, Aurcana Corporation drilled 1,899m of diamond core in nine holes that further tested the El Compas 2 Vein. A non-NI 43-101 compliant report was produced that reported the results of one of the holes intercepting 13.2 g/t Au over 4.46m
- Prior to 2005 (exact dates not known), Boliden Mining Company drilled four diamond core holes that targeted the El Compas 2 Vein south of the Aurcana drilling. No formal report is on record.
- From 2002 to 2007, Contracuna I, S.A. de C.V. mined the El Compas veins by ramp-in-ore mining estimated by Oro Silver to produce 50 to 100 tpd with an average weighted head grade of 4.7 g/t Au and 86.7 g/t Ag based on incomplete records for 55,140 tonnes shipped to the Veta Grande mill
- In 2005, Minera Hochschild de Mexico S.A. de C.V. (MHM) carried out an extensive exploration program focused mainly on the El Compas vein system. The program identified numerous targets characterized by north and northwest trending mineralized veins and faults of which eight were

tested by diamond drilling. A total of twenty holes totaling over 5,516m were drilled. Significant gold and silver grades were found at depth in many of the target structures, including 15.2 g/t Au and 155 g/t Ag over 1.05m from the El Compas 4 Vein, located 1.4km southeast of the El Compas Vein.

MHM also carried out surface mapping at 1:1,000 scale and collected 60 surface outcrop and 469 underground channel samples for analysis. Twenty diamond core holes totaling 5,788m were drilled in the El Compas Vein structure over almost 1,000m of strike length at 25m to 50m spacing in the mine area and about 100m spacing south of the mine at depths of 60m to 400m. The drilling results confirmed the presence of significant gold and silver grades at depth, particularly within the Adit Zone mineralized chute.

6.3 Previous Mineral Resource Estimates

A Mineral Resource Estimate for the El Compas deposit was completed in 2011 by SRK Consulting.

In 2016, Mining Plus Canada Consulting Ltd. prepared an updated Mineral Resource Estimate for Canarc.

6.4 Previous Production

Local small miners supplied the La Plata processing plant with feed during the time it operated from September, 2013 to October, 2014. No details of the amounts mined or processed are on record.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Geological Setting

The Zacatecas mining district is located at the transition of the Sierra Madre Occidental and Mesa Central physiographic provinces in north-central Mexico and is marked by the north-west striking Rio Santa Maria fault system. Concentric and radial fracture systems, a ring fracture zone, a thick pile of ash-flow tuffs, several subvolcanic plugs, a lava-flow dome, two partially superimposed asymmetric collapse features, and a resurgent dome, are all evidence of a deeply eroded caldera. The Tertiary volcanic rocks which presumably overlay older rocks of the Mesa Central have been uplifted and eroded. The Rio Santa Maria fault zone also separates a region of lower elevation and lower relief to the north, from higher elevation and higher relief topography to the south.

The Zacatecas Mining District covers a belt of Tertiary aged epithermal vein deposits that contain silver, gold and base metals including copper, lead and zinc. The dominant structural features that localize mineralization are of Tertiary age, and are interpreted to be related to the development of a volcanic center with subsequent caldera development and north-westerly trending basin-and-range structures. The prevolcanic floor of the caldera is represented by a Late Cretaceous microdiorite laccolith which intruded metasediments of possible Triassic age, all overlain by a continental red conglomerate of Paleocene age. The volcanic center is spatially associated with economic mineralization and exerted strong structural control on the formation of the deposits.

7.2 Regional Geology

The regional geology was mapped and described by Caballero Martinez and Rivera Venegas (1999) and Caballero Martinez and Rivera Venegas et al. (1999) Regional Geology (Source Oro Silver, 2008) Figure 7.1.

Mesozoic rocks occur north and west of Guadalupe and Zacatecas. The oldest rocks in the region are upper Triassic phyllites, arenites, and limestone of the Zacatecas Formation. These are overlain by upper Jurassic to Cretaceous phyllite, silty limestone, and volcanic rocks of the Chilitos Formation.

The western part of the Sierra de Zacatecas is underlain by lower members of the Chilitos Formation, and the eastern part by volcanic rock-dominant upper members of the Chilitos Formation. The Chilitos and Zacatecas Formations dip gently to the north- north-east.

Disconformably overlying the Chilitos Formation, and outcropping in Zacatecas and Guadalupe, is the lower Tertiary Conglomerado Rojo de Zacatecas dating between 29 and 50.9 Ma. This red-purple polymictic conglomerate unit is correlated with the Conglomerado Rojo de Guanajuato, and other continental red bed occurrences in the Mesa Central.

The occurrence of this conglomerate provides evidence of pre-Oligocene extension that predates extension temporally related to volcanism of the Sierra Madre Occidental (SMO). Discordantly overlying the Chilitos Formation and Conglomerado Rojo de Zacatecas are felsic volcanic rocks of the SMO. Rocks of the SMO occur south of Zacatecas and Guadalupe, the lowermost part of which is the Calerilla-Guadalupe Formation (46.8 Ma), comprising a thin, discontinuous volcanic breccia. The La Virgen Formation (36.8 Ma) overlies the Calerilla-Guadalupe Formation, comprising thick-bedded ignimbrite and minor rhyolite tuff. The Los Alamos Formation is an overlying, Miocene-aged ash flow with lithic fragments, up to 40m thick. Partially welded, biotite phyric ashflows of the Pliocene La Capilla Formation, up to 100m thick, cap the sequence.

Tertiary felsic plugs and dykes cut all the units. Intermediate plugs and dykes of Mesozoic age, locally known as the Roca Verde, intrude the Mesozoic sequence. Early Cenozoic to Mesozoic rocks have been affected by Laramide shortening, and all rocks are cut by faults related to mid to late Tertiary extension. Extension was episodic, occurring at 26 to 27 Ma, 24Ma, and 11Ma. Tertiary faults are N-S to NNE, NW, and occasionally NE trending. The timing relation between these fabrics is uncertain, though the lack of consistent cross- cutting relations suggests faults experienced coeval motion. Aranda-Gomez and others (2007) observe NW faults cut by N-S faults in the Zacatecas area.

The timing of initial motion on the Rio Santa Maria fault may be 27 to 32 Ma (Aranda-Gomez et al., 2007), older than extension affecting rocks of the SMO and the roughly 11 Ma age of most N-S faulting. Red bed sedimentary sequences are suggested by the same workers as temporally related to the early phase of extension, and spatially related to the structures accommodating that extension.

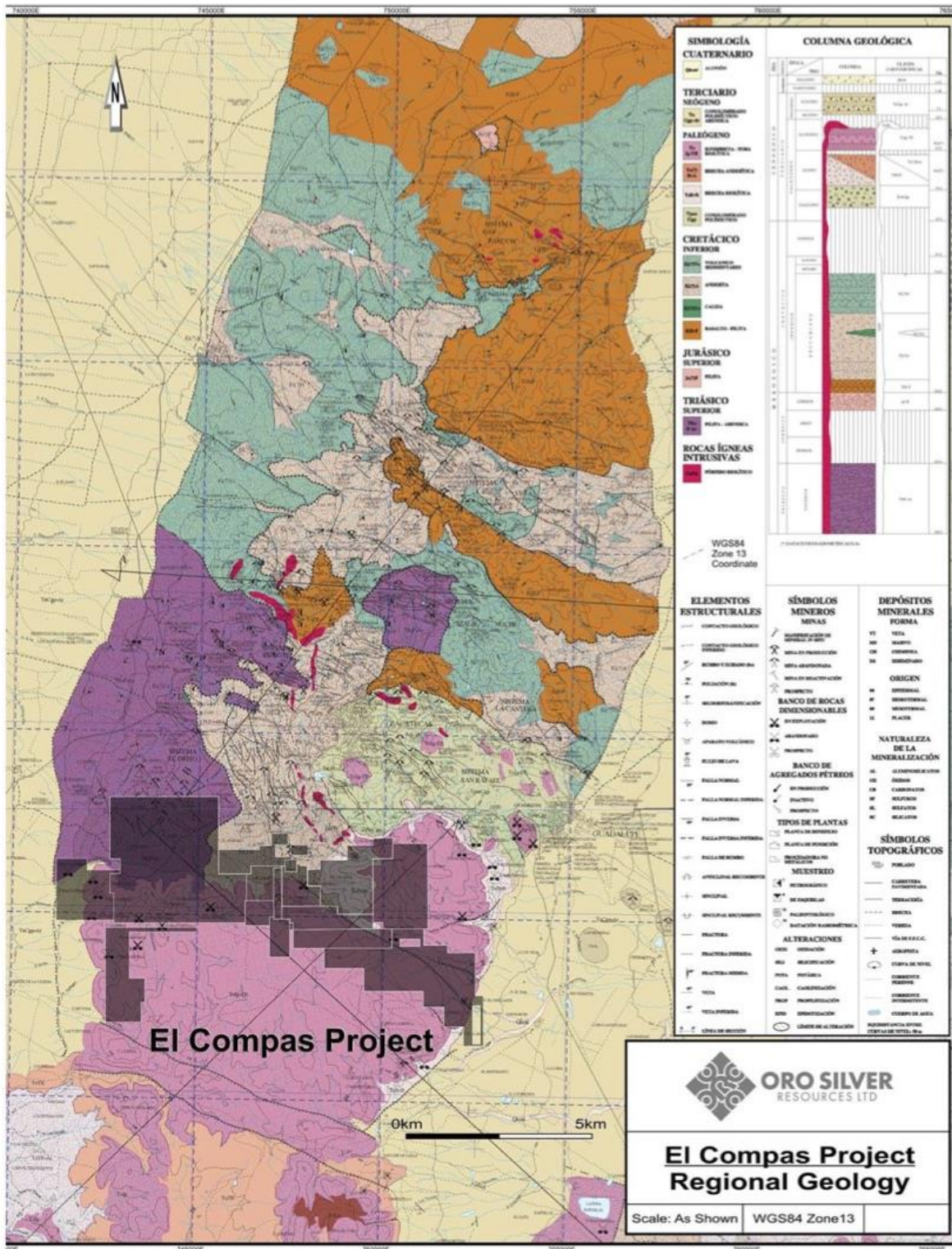
Epithermal vein systems in Mexico largely date from 48 Ma to 18 Ma, and are controlled by Tertiary extensional structural fabrics, as is volcanism of the SMO. In the Zacatecas region, most vein systems are closely associated with the intersection of NW and N-S trending faults, though the first-order control appears to be the NW striking fault fabrics of the Rio Santa Maria fault zone.

The nearby vein systems at Fresnillo and Real de Angeles have been respectively dated at 32-28 Ma and 45.2 Ma, suggesting an Eocene to Oligocene age for intermediate sulfidation state veins in the Zacatecas area. The timing for mineralisation therefore corresponds to the initial phases of felsic volcanism in the SMO, and motion along the north-west trending Rio Santa Maria fault zone. Zacatecas hosts low to intermediate sulfidation style vein systems, and exhalative base and precious metal sulfide systems.

Intermediate sulfidation style vein systems (Veta Grande, San Acacio) occur in the Chilitos Formation. These are silver-rich base metal+quartz+calcite veins and breccias, with very low gold content (typically <1 g/t gold in ore) and abundant sulfides.

Low sulfidation style veins occur in the El Orito Vein at El Compas, and are unique in the Zacatecas district. They are gold-rich, silver-poor (Ag/Au of about 6.7:1 to 20:1), with very low total sulfide and base metal content. Epithermal veins with a low sulfidation style occur in both the Chilitos Formation, and overlying felsic volcanic rocks of the La Virgen Formation. Exhalative sulfide mineralisation (San Nicholas, Francisco I Madero) occur in the marine sedimentary rock sequence of the Mesa Central. The Cozamin deposit, of Capstone Gold on the other side of Zacatecas, is described as an intermediate sulfidation style vein system, overprinted by an intrusion-related disseminated sulfide system.

Figure 7.1 Regional Geology



Source: Oro Silver, 2008

7.3 Local Geology

The veins at El Compas strike predominantly north and north-west and are hosted partly in volcanic and sedimentary rocks of the Chilitos formation and partly in overlying volcanic rocks of the La Virgen formation. At least five low sulfidation epithermal veins were historically exploited by several small shafts at the El Compas and El Orito concessions for gold and silver.

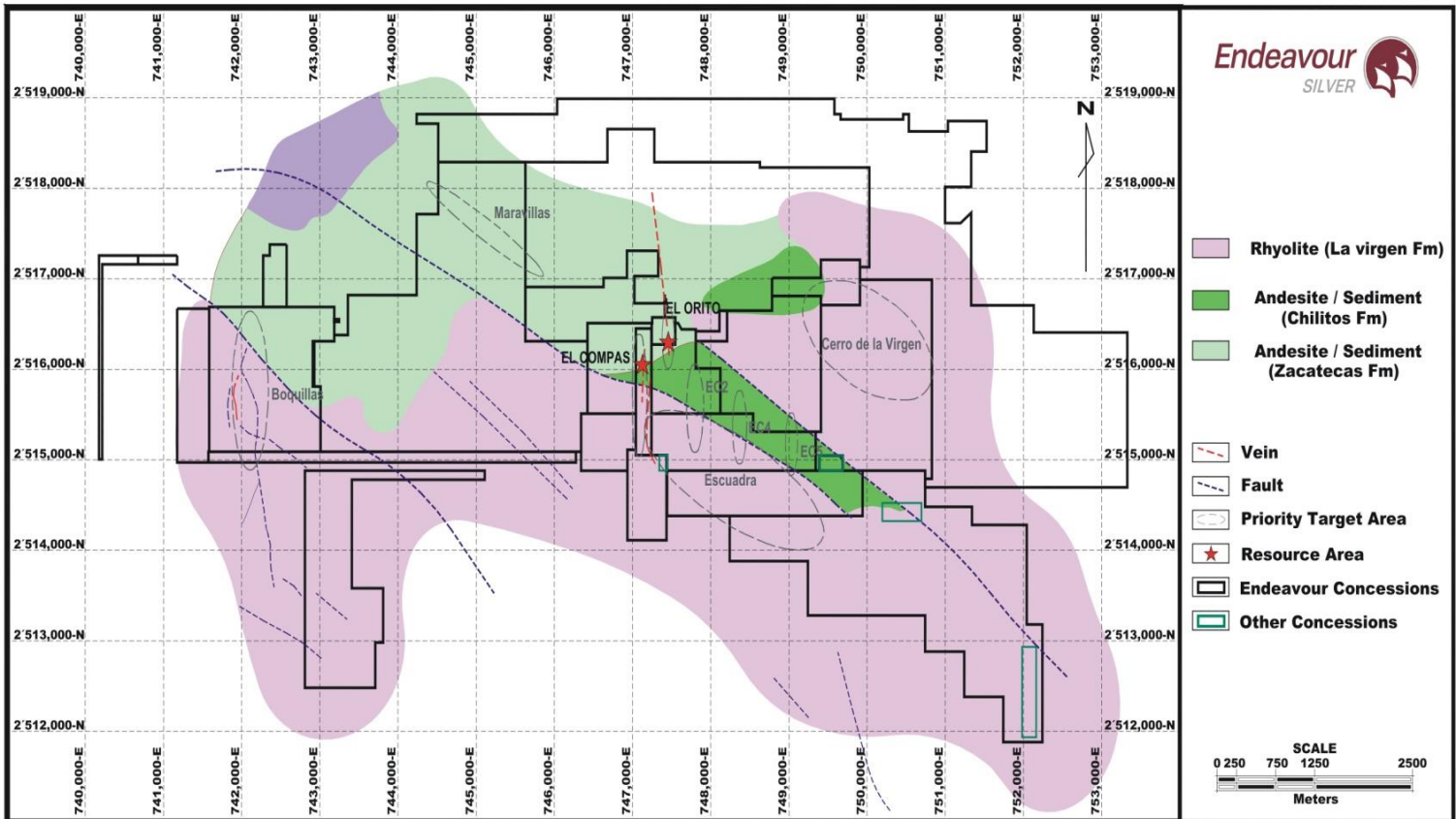
The exploitation by Contracuna at El Compas between 2002 and 2008 of two of these veins was by a ramp- in-ore. Contracuna reports on their mine plans state about 1,215m of ramp development, to a depth of about 90m below the portal elevation.

Local geology is presented in Figure 7.2. The El Compas project area is underlain by andesite and phyllite of the Chilitos Formation in the north (green in Figure 7.2), and felsic volcanic rocks of the La Virgen Formation in the south and east (pink in Figure 7.2). The La Virgen Formation is a thick sequence of massive, columnar jointed Tertiary ignimbrites, rhyolite flows, and sandstone. Midway between the El Compas Adit and Shaft zones the Escuadra fault, a significant NW striking and SW dipping district scale structure cuts the local stratigraphy and has juxtaposed Chilitos Formation and La Virgen rocks in fault contact with one another on surface. The Orito vein is within the La Virgen Formation with a large sedimentary component.

7.4 Alteration

Intense argillic alteration with strong Fe-oxide is observed at the andesite-rhyolite contact on the first level of the ramp. In the andesite, narrow zones of argillic alteration occur in the wallrocks to quartz veins and some veinlets. Chlorite and fine-grained epidote alteration of the propylitic zone, occurs as distal alteration associated with the quartz veins. The width of the propylitic zone is up to 5 times the vein width. In rhyolite, proximal wallrock alteration comprises narrow zones of silicification, fracture controlled Fe-oxide and argillic alteration.

Figure 7.2 Local Geology



7.5 Veins and Faults

Numerous fault-hosted veins occur on the Property. Faults and veins are primarily north-south trending and steep west to vertical dipping. North-west trending faults and fault-veins are moderate to steep south-west dipping.

On the El Compas claim north and north-west trending fault-veins merge across zones of curvilinear veins, faults, veinlets, and fault-related cleavages. Fault-veins correspond to areas of steeper topographic gradient, suggesting fault motion has at least partially controlled topography. In felsic rocks, faults are characterized by narrow fault cores containing gouge, quartz-matrix breccias, sheeted quartz veins, and single planar veins. Damage zones in the fault walls are narrow zones, and cleavage intensity and quartz veinlet density decrease away from the fault core. Veins occupying the fault core are typically <1m in width.

Rocks of the Chilitos Formation are cut by more numerous faults and cleavages, and veins occupying the fault cores are often >1m wide. In the El Compas ramp, the anastomosing Veta Bajo and Veta Alto (referred to collectively as the El Compas veins by MHM) are typically separated by 2m of wallrock, and are individually 2m to 4m in width. Where these structures merge, continuous vein widths up to 22m are observed. Furthermore, drilling has confirmed that mineralization extraction from the El Compas UG mine comes from a steep north plunging to subvertical chute within the plane of the Veta Bajo and Veta Alto veins.

7.6 Veins Texture and Mineralogy

At the El Compas concession northerly trending veins in the Chilitos Formation have finely banded, coliform, and crustiform open space fill textures. Bladed quartz after calcite textures are common. Veins in felsic rocks are comprised of saccharoidal to fine-grained quartz, banded veins. Wider veins in felsic rocks are observed in the Cantera pit and at the El Compas shaft. These veins show breccia and bladed quartz-after calcite textures. Calcite is observed in bands in large andesite-hosted quartz veins, and in veinlets distal to mineralised zones in very weakly propylitised rocks.

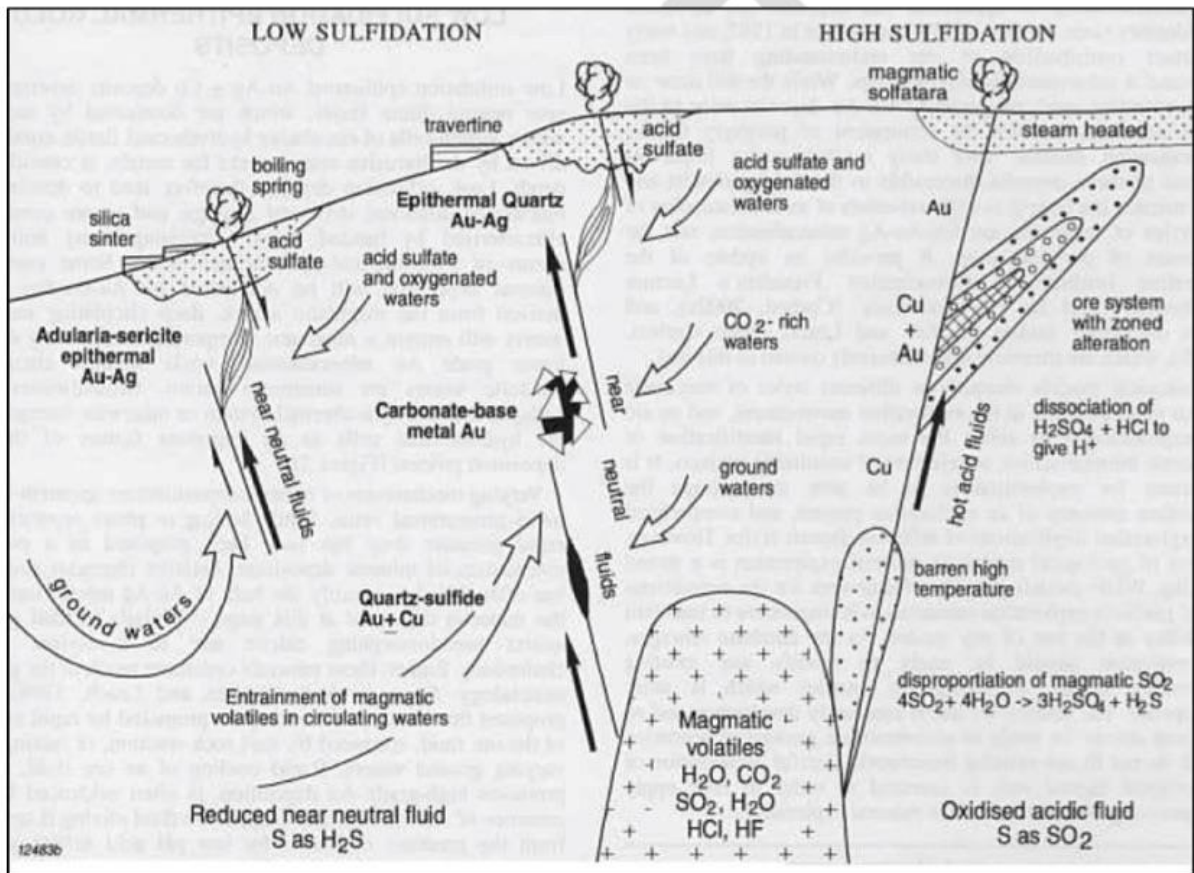
Within the El Compas ramp the widest calcite veins (>0.75m, both black and white coarse grained calcite) occur as north-west trending veins. Large northerly trending calcite veins have not been observed on surface or in the El Compas ramp; however, thick calcite- rich quartz veins were intersected by drilling at deeper levels below the mine and elsewhere that appear to correlate with the north-south trending El Compas and other veins. Sulfide abundance in veins rarely exceeds 5%, and is most abundant in the mineralized veins. Pyrite or pyrrhotite are the most common sulfides. Rare sphalerite and exotic copper was observed at the 7th level of the El Compas ramp. Magnetite was identified in panned concentrates from the mineralized veins.

8.0 DEPOSIT TYPES

The El Compas and El Orito veins have the characteristics of a low sulfidation epithermal vein system. They occur in a region characterised by numerous, high silver-grade intermediate sulfidation epithermal vein systems. See Figure 8.1 on the left side and center for the model by Corbett, 2004.

Epithermal systems may be classified as high, intermediate, and low sulfidation styles. They are characterised by the sulfidation state of the hypogene sulfide mineral assemblage, and show general relations in volcano- tectonic setting, precious and base metal content, igneous rock association, proximal hypogene alteration, and sulfide abundance (Sillitoe and Hedenquist, 2003). Mineralization is in all occurrences of the type form under epizonal conditions, which is generally within 2 kilometers of the paleo-surface. Veins in epithermal systems often display textures indicative of repetitive and sustained open-space filling and boiling.

Figure 8.1 Epithermal Deposit Model



(Source: Corbett, 2004)

Significant members of the low sulfidation class of epithermal systems include Sleeper, Midas, and El Penon. Those associated with bimodal basalt-rhyolite sequences and sub-alkaline magmas display illite proximal alteration zones, with adularia and local fluorite. They generally display low total sulfide content (<2 volume %). Base metal sulfides occur in very low abundance, and systems tend to be gold-rich. Selenides are common in some systems. The alkaline magma associated systems (not under consideration here) are temporally associated with alkaline basalt and trachyte, have roscoelite-bearing illite+adularia proximal alteration, more abundant sulfides (up to 10% volume), and selenides are uncommon. Both subclasses contain pyrrhotite, pyrite, and minor arsenopyrite. Low sulfidation epithermal systems often have silver:gold ratios of ≤ 15 , and <200 ppm copper (Sillitoe and Hedenquist, 2003).

Low sulfidation epithermal veins are generally not considered transitional to intermediate sulfidation state epithermal systems (Sillitoe and Hedenquist, 2003), although this is based solely on the different tectonic environments under which they may typically form. It does not exclude them from occurring in a similar area however. Significant members of the intermediate sulfidation epithermal class are well represented in Mexico, and include Fresnillo and Pachuca-Real del Monte. They are related to andesite, rhyodacite and occasionally rhyolite sequences. Adularia is rare to absent in the proximal alteration assemblage, and the gangue contains abundant, often manganiferous, carbonate. Sulfide content in veins typically exceeds 5% volume, and comprise pyrite, iron-poor sphalerite, galena, chalcopyrite, and tennantite-tetrahedrite.

Selenides and pyrrhotite are uncommon, and Mexican examples tend to be Ag-rich, with Ag:Au exceeding 10:1, and often >100:1. Most significant members of both classes have vertical mineralized extents of <1km, often <500 m. Mineralization is hosted by fault-related veins and breccias, and elevated precious metal content occurs in plunging, lenticular zones within the plane of the vein (“chutes”).

Vertical zonations in metal content occur in some low and intermediate sulfidation state systems. In systems displaying such zoning, gold, silver, mercury and tellurium are relatively enriched in the upper portions of the system, and base metal contents occur in higher concentrations at deeper levels in the system.

9.0 EXPLORATION

Endeavour Silver has not carried out any exploration on the El Compas property except for the drilling summarized in Section 10.

10.0 DRILLING

10.1 Early Drill Programs

From the mid 1990's until the present a number of companies have explored the El Orito district. Monarch Resources Limited conducted exploration in the area in 1996 that included 829m of diamond core drilling in 4 holes ("MLV" holes) that tested the El Compas 2 and Escuadra Veins, located about 600m east of the El Compas Vein. The results of that drilling are not known.

Aurcana Corporation conducted exploration in the area in 2003-2004 that included 1,899m of diamond core drilling in 9 holes ("LVDD" holes) that further tested the El Compas 2 Vein. Boliden Mining Company conducted exploration in the area prior to Minera Hochschild and drilled four diamond core holes ("BDDV" holes) that targeted the El Compas 2 Vein south of the historic Aurcana drilling. One of the holes intercepted mineralization grading 3.45 g/t Au and 25 g/t Ag over 0.55m.

District-wide surface exploration in 2005 by Minera Hochschild de Mexico S.A. de C.V. (MHM) identified numerous targets characterized by north and/or north-west trending mineralized veins and faults, eight of which were tested by diamond drilling. In total, 5,516m of drilling in 20 NQ holes were completed.

Results of the drilling confirmed the presence of significant gold and silver grades at depth in a number of the target structures tested. Significant results include 15.19 g/t Au and 155 g/t Ag over 1.05m from the El Compas 4 Vein, located roughly 1.4km south-east of the El Compas vein. Other results include 55.87 g/t Au and 368 g/t Ag over 2.50m (not true width) from drill hole HOC-16, from beneath the El Compas ramp. Assay results from the MHM drill program at El Compas were utilized in the current Mineral Resource Estimate.

During late 2007, the results of the Oro Silver work, in conjunction with available historical data, were used to define and prioritize drill targets for a 5,000m diamond drill program. The overall objectives of the program were the delineation of the El Compas Adit and Shaft zone mineralized chutes to greater depth, and the evaluation of parallel structures.

An additional objective was the discovery of one or more new, and potentially economic, mineralized mineralized chutes, and a preliminary evaluation of their size.

10.2 Oro Silver Drill Programs

10.2.1 Phase 1

From November, 2007 to April, 2008 Oro Silver completed a Phase 1 diamond drill program consisting of 5,399m of HQ diameter core in thirty-seven surface exploration holes over portions of the Compas and Orito vein systems, from which a total of 1,498 core samples were prepared and submitted for analysis.

The Compas shaft zone drilling was not completed as originally proposed following reinterpretation of available data. The maximum hole depth for the 37 holes was 246.55m, and the average hole depth was 145.93m. Results of the Oro Silver drill program confirmed and expanded on results obtained by MHM in 2005. The results from both MHM and Oro Silver drilling were utilized in the current Mineral Resource Estimate.

10.2.2 Phase 2

Phase 2 exploration by Oro took place between June, 2009 and September, 2010 during which time Oro completed 5,912m of combined diamond core and reverse circulation drilling in 39 holes. During the same period, it also completed an extensive property-wide surface exploration program.

The objectives of the Phase 2 drilling were to expand the Compas and Orito Mineral Resources where they were still open, upgrade Inferred Mineral Resources to the Indicated Mineral Resource category by infill drilling, confirm the continuity of grade and thickness in areas of higher grade mineralization with close spaced drilling and, finally, to test the Compas and other veins for higher grade gold and silver mineralization at significantly deeper levels than in the past.

From February to April, 2010, Oro conducted a deep drilling program consisting of RC pre-collars and HQ/NQ diamond core tails for a combined total of 2,330m in 4 holes. One hole tested the Compas Vein more than 200m below the historic workings and 100m below the deepest known, well-mineralized intercept. The other two holes, targeted the Compas and El Compas 2 Veins south of the historic El Compas shaft, at greater than 600m below surface, where they were projected to intersect the Escuadra fault, a prominent north-west trending regional structure.

From April to November the surface exploration program was expanded to cover the entire property. Prospecting, geochemical sampling, and collection of outcrop samples for analysis by infrared spectroscopy, at regular spaced intervals along north-east oriented lines was completed, as was geological mapping at 1:5,000 scale in areas identified by prospecting as interesting and 1:1,000 scale in selected areas identified as high priority. These property-wide studies were concluded towards the end of 2010.

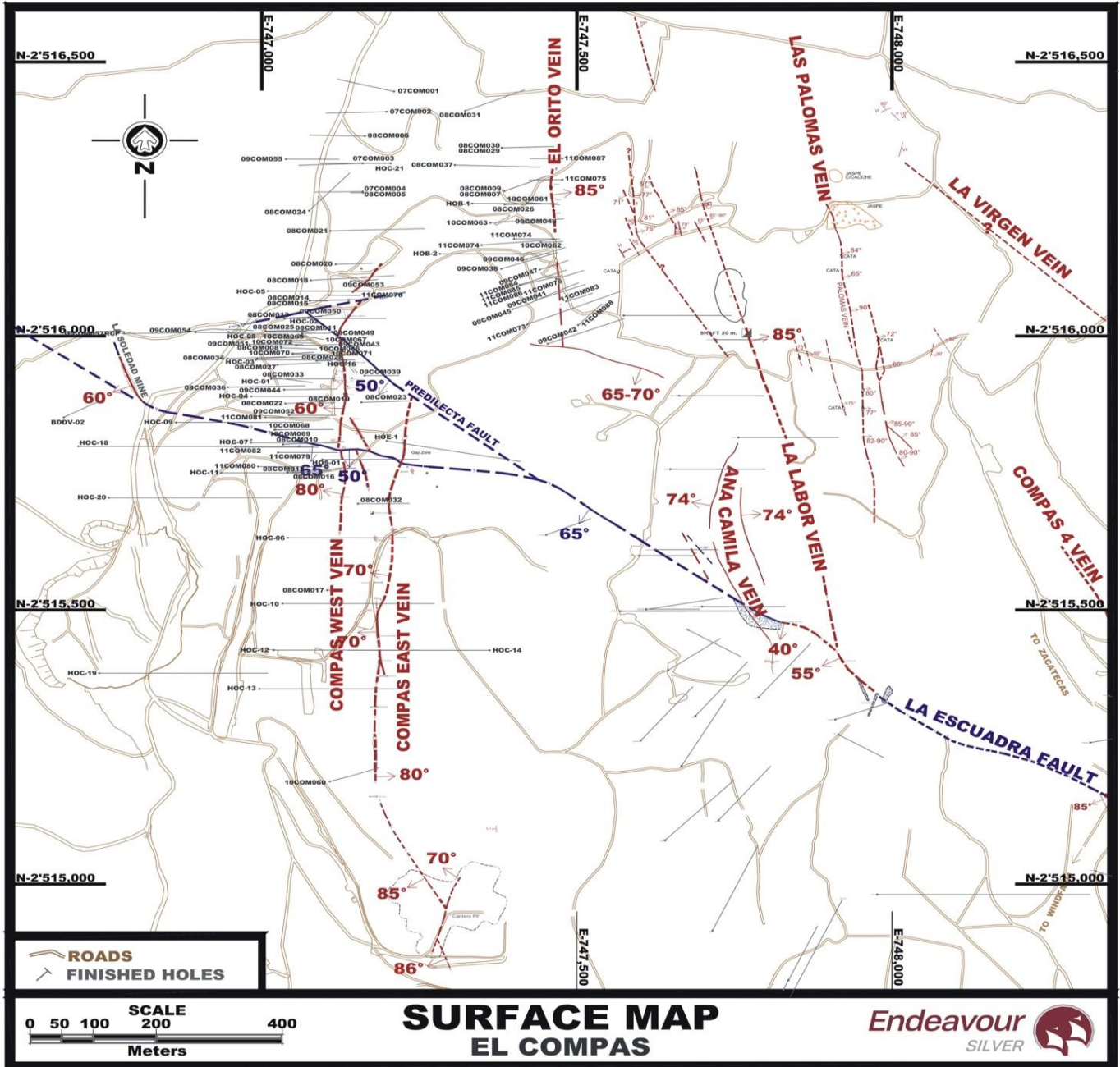
During August and September, 2010 an infill and close spaced diamond core drill program totaling 1,093m in 12 holes was completed at the El Compas and El Orito Mineral Resource areas. At the Compas Vein, nine holes (includes two abandoned holes) tested the Compas Vein at 15m centers in the area surrounding a higher- grade intercept. At the Orito Vein, three infill drill holes were completed in the area surrounding a higher- grade intercept.

10.2.3 Phase 3

In July and August, 2011 further drilling was undertaken. A total of 20 holes with 2,952m of drilling were completed. The targets in this drilling included the Compas and Orito Veins, stepping out and below existing intercepts and underneath fault zones.

The total drilling by Minera Oro in the three phases came to 14,263m. Drill hole locations are presented on Figure 10.1.

Figure 10.1 Surface Map Showing Historic Drill Holes in the El Compas Area



(Source: Endeavour Silver)

10.3 Survey and Investigation

Oro Silver contracted GMTZ to complete a detailed topographic survey at 1m contour intervals over the Compas and Orito Veins for the purpose of Mineral Resource estimation work. The drill hole collars were relocated during this survey and are on this survey datum. The topography outside this immediate survey area is not at the same detail and appears to be on a similar but different elevation datum.

10.4 Interpretation

The exploration work conducted by MHM and Oro Silver meets current industry standards. The geologic mapping, surface sampling, geophysical surveys, and exploration drilling programs are all appropriate for the type of mineralization found at El Compas. Drill recovery rates were high and adequate for this project. The drilling programs are well planned and carried out in a prudent, professional, and careful manner. All drill core and RC chip logging and sampling has been done by trained and professional personnel.

10.5 2016 Endeavour Silver Drilling Program

In late 2016, Endeavour Silver drilled 5,306m over 21 drill holes on the Ana Camila vein, a splay of the Orito vein located about 550m southeast of El Orito. This drilling is exploratory in nature and Endeavour Silver has outlined a new high-grade, south plunging mineralized zone over 250m long by 100m deep, starting approximately 100m below surface and still open to surface and at depth.

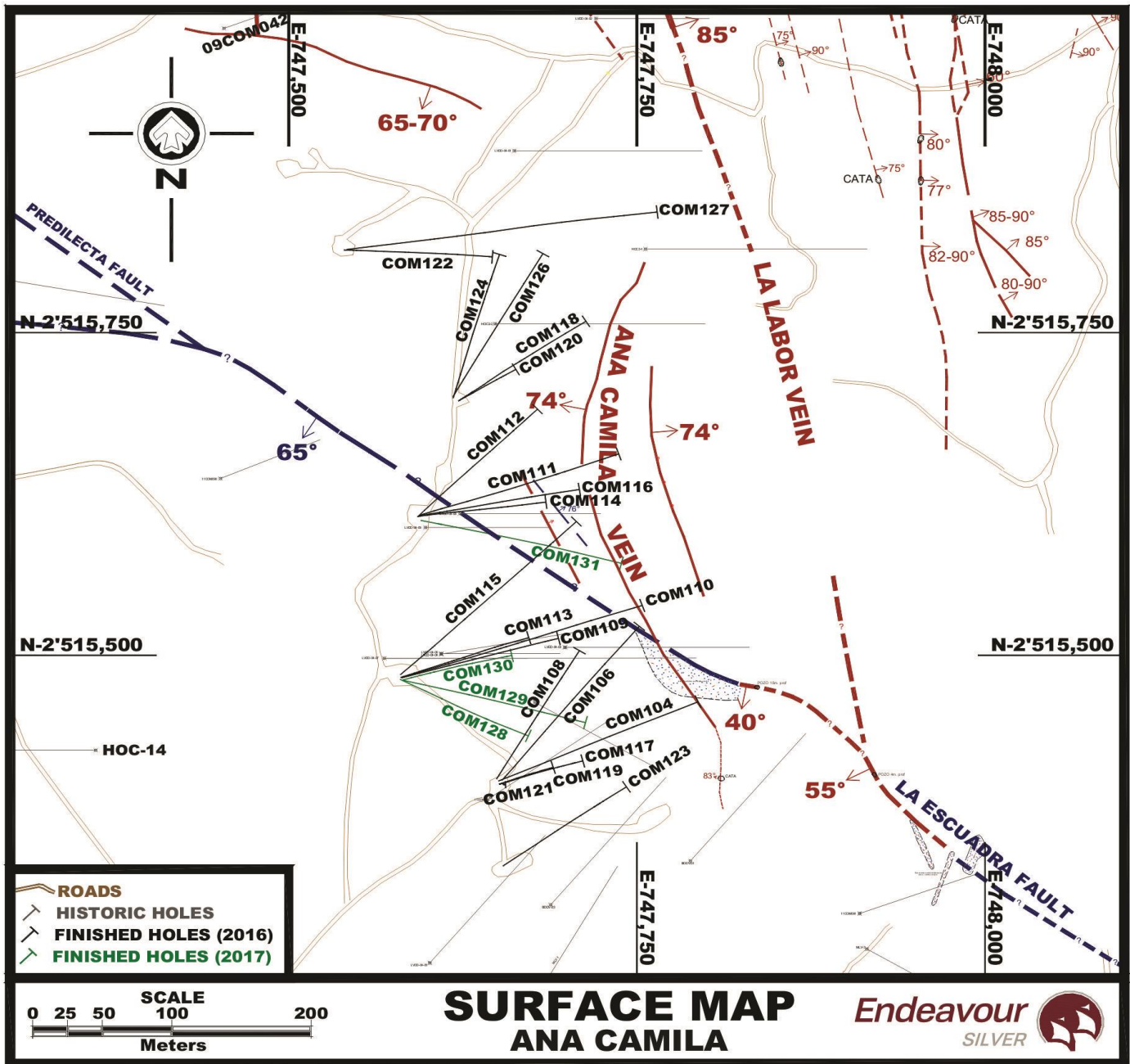
Drill hole locations are shown on Figure 10.2. Select significant intersections are presented in Table 10.1 and a longitudinal section, looking NE, is presented on Figure 10.3.

Drilling highlights include 72 g/t Ag and 26.5 Au (1,928 g/t AgEq) over 1.81m true width, including 283 g/t Ag and 132.5 g/t Au (9,558 g/t AgEq) over 0.24m true width in hole COM 108.

Table 10.1 Surface Drill Hole Significant Assay Summary for Mineral Intercepts in the Ana Camila Vein Area

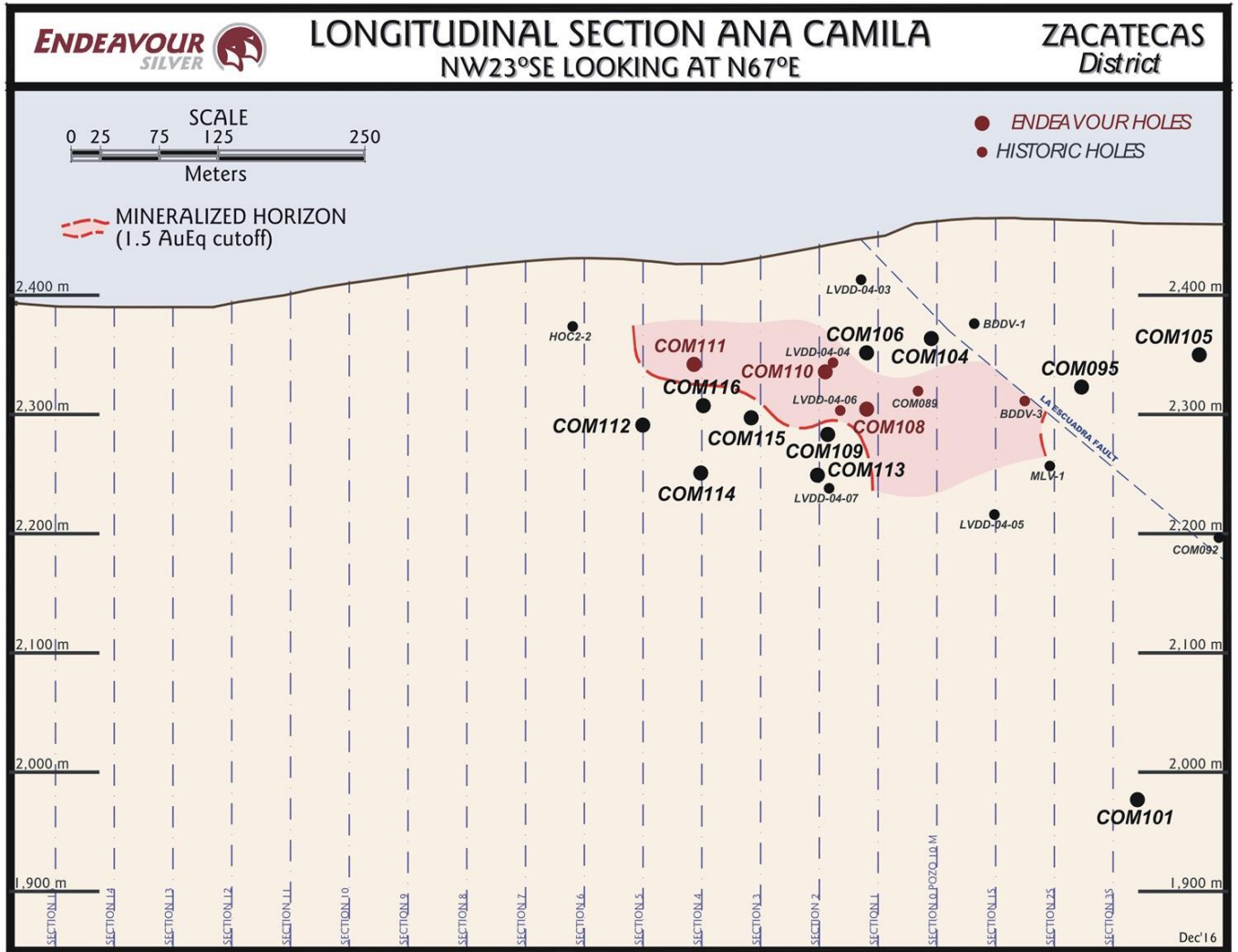
Hole	Structure	From (m)	To (m)	True Width (m)	Au (gpt)	Ag (gpt)	AgEq (gpt)
COM108	Ana Camila	187.05	189.35	1.81	26.52	72	72
	Including	188.75	189.05	0.24	132.50	283	283
	Fw Ana Camila	197.05	201.50	3.25	0.17	5	5
COM110	Ana Camila	183.85	186.85	2.85	12.86	45	45
	Including	183.85	184.85	0.95	24.90	87	87
	Fw Ana Camila	203.00	203.40	0.26	0.14	3	3
COM111	Ana Camila	147.05	149.65	2.43	1.05	80	80
	Including	148.75	149.65	0.84	1.73	160	160
	Fw Ana Camila	158.10	159.85	1.69	5.91	27	27
	Including	158.10	159.05	0.92	7.73	29	29
COM121	Ana Camila	290.70	293.25	1.04	2.83	7	7
	Including	291.10	291.55	0.18	6.04	14	14
COM123	Ana Camila	192.10	193.55	1.28	1.59	12	12
	Including	193.15	193.55	0.35	3.85	28	28
COM126	Ana Camila	159.65	161.00	1.00	2.05	29	29
	Including	160.50	161.00	0.37	4.59	60	60
COM131	Ana Camila	153.65	155.90	1.84	1.14	122	122
	Including	153.65	154.15	0.41	3.10	267	267

Figure 10.2 Surface Map Showing Endeavour Drill Holes - Ana Camila Vein



(Source: Endeavour Silver)

Figure 10.3 Longitudinal Section (Looking Northeast) Showing the Intersection Points on the Ana Camila Vein



(Source: Endeavour Silver)

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

According to the report by Oro Silver in 2008 and repeated in the SRK report of 2011, the following processes were used in sample preparation.

Sampling methodology and approach were not documented in any MHM reports obtained by Oro Silver. Limited information on sampling was inferred by Oro Silver personnel from direct inspection of core boxes and their contents, and from assay certificates. Based on the evidence gathered, Oro Silver believed that MHM core sampling took a systematic and organized approach.

11.1 Minera Hochschild Drilling

The core boxes were clearly identified with hole name, box number, and from-to interval. Drill hole depths were recorded on blocks inserted by the drillers every 3.05m or less. Depth measurements calculated by MHM tied in well with the driller blocks.

The start and finish of sample intervals were identified with marks on the inside wall of the plastic core box channel using a red marker. The corresponding sample identification numbers were written on the plastic channel, at the midway point of the sample interval, also with a red marker.

Core was cut into equal halves with a diamond saw and one half was returned to the core box for storage while the other half was submitted for analysis. Sample weights listed on lab assay certificates are typically in the 1-3 kg range, and suggest that entire half core was indeed submitted for analysis.

MHM prepared and submitted for analysis a total of 926 core samples from 20 HQ and NQ diameter holes. All holes were collared in HQ diameter core; NQ coring was limited to the tail portions of the deeper holes. The minimum sample length was 5cm, the maximum sample length was 3.05m, and the average sample length was 0.77m. There were only 4 samples under 15cm in length and only 8 samples over 2.0m in length.

It is not known if MHM produced detailed geological logs of the drill holes; the only geologic data available was recorded in the drill database and consisted of a single data column identifying rock type, together with sample interval and assay results data.

It is not known whether geotechnical logging such as core recovery or RQD was completed. Inspection of drill core in drill boxes, and in particular the mineralized intervals, suggests that low core recovery was not a significant concern.

11.2 Oro Silver Channel Sampling

A total of three hundred and seventy, one metre chip channel samples were systematically collected from forty-six channels spaced about 25m apart along the El Compas mine ramp and submitted for analysis. Channel sample assay results were partially incorporated into the database utilized in the Mineral Resource Estimate.

Prior to sampling, an Oro Silver geologist marked out the channels with spray paint on the back to be sampled. Where possible the channels were oriented perpendicular to the trend of the vein, beginning and ending in host rock at least 1m either side of the vein zone hanging wall and footwall contacts. Sample length was normally 1m, but in some instances samples were slightly shorter or longer, so that sample breaks coincided with vein zone hanging wall and footwall contacts. Samples were collected by two technicians using a hammer and chisel, with a plastic sheet to catch sample material. Scaffolding was utilized to access backs when necessary.

Samples were cut, described, and bagged individually. Samples collected each day were security-sealed and removed from the mine-site. Sample blanks and gold standards were included in every batch of 30 samples. All channel samples were shipped to the Inspectorate sample prep facility in Durango, Mexico. This program was co-managed by Rolando Mendoza Pina, a Mexican Geological Engineer with MGTZ, under the supervision of an OSR geologist. The collection of sample material and subsequent surveying of sample locations was performed by GMTZ technicians.

Every effort was made to ensure the sampling was continuous within the vein interval, understanding that differences in hardness between geologic material could result in a sample bias. Neither Oro Silver nor GMTZ believed a sample bias exists in the El Compas channel sampling.

11.3 Oro Silver Drilling

Oro Silver prepared and submitted for analysis a total of 1,498 core samples from 20 HQ diameter holes in Phase 1. The minimum sample length was 3cm, the maximum sample length was 3.71m, and the average sample length was 0.99m. There were 4 samples under 10cm in length and 3 samples over 2.5m in length.

Four Phase I drill holes were sampled in their entirety, all others were selectively sampled. Selective sampling was based on the prospect for an interval to carry gold or silver mineralization. Priority was therefore given to sampling geologic features such as veins, vein stockworks, fault zones, and altered/mineralized host rock. As an added precaution, samples were normally taken for 1m above and 1m below the prospective interval.

A core process flow sheet and protocol manual was developed and implemented by Oro Silver for the core drilling program at El Compas. The relevant parts are summarized below.

11.3.1 Drill Site

Once the core interval had been drilled, it was placed directly in the core boxes by the driller. Every interval drilled, usually every core lift, was marked with a drill hole depth marker using a wooden/plastic block with non-recovered intervals also indicated with wooden/plastic blocks.

11.3.2 Drill Site to Core Logging Facility

The core was collected at each drill site at least twice a day and carefully transported, as to avoid mixing up the core or moving the drillhole depth markers, to the core logging facility using a safe and appropriate vehicle. Before transport, a quick check was performed to ensure the proper drill hole number was written on the core boxes and that from-to that were written on the core boxes made sense. It might also be acceptable, under certain situations, to ask the drillers to transport the core to the core logging facility.

11.3.3 Core Logging Facility

The core boxes were stacked by box number in the core logging facility waiting area. They were grouped by drill hole so a second quick review of number of boxes, drill hole number and from-to was done. The core boxes were moved, as required, to the core logging benches for geotechnical, geological logging and sampling based on priority assigned to the different drill holes. The core was washed of its excessive mud except for the mineralized zone intervals, which should remain untouched. The project geologists, along with the logging geologists, were responsible to define priorities for logging.

11.3.4 Core Logging

The logging protocol and format was provided in an Oro Silver document called “MOS Core Logging Manual”. The logging system has a principal objective to ensure consistency in data recording and aid in future geological modeling. The general procedures used by Oro Silver are summarized as follows:

- The order and name of the core boxes was checked
- The core must be placed in the boxes beginning at the upper left and ending at the lower right. When the depth/drill hole mark was to the left of the logger facing the core boxes, the core was not snaked back and forth
- The core runs were checked for omission and/or errors.
- The core was lined-up within individual core boxes and between core boxes.
- The geologist does a walk-through to determine which sections need to be cleaned, which sections need to be geo-technically surveyed, and to determine major breaks of geotechnical & geological units.
- Prior to core logging, if applicable, the geologist or the technician completes the geotechnical logging of RQD and recovery.
- If geo- technical logging was done by a technician, the geologists can, at the same time, initiate the geological logging.

- The core was logged for lithology, structure, alteration and mineralization. Geological information was usually marked on the core using yellow wax markers
- Structural information can be marked on the core using a blue wax marker; measured depth, if applicable, can be marked with a black wax marker.
- It was strongly recommended to note important geological characteristics (rock types, structures, etc.) directly on the core so the core photos can “speak” for themselves.
- After the geological logging, the geologist assigns the sample interval by marking the core with a red wax marker with arrows indicating the start and end of the sample and the sample number mark in the middle of the interval; a center line, based on geological characteristics, was traced for sampling/cutting. A sample interval was typically 1m in length, and no shorter than 30cm unless it was a vein, in which case the minimum length was 15cm.
- Sample breaks should be adjusted to accommodate important changes in geology wherever possible.
- The geologist was responsible to fill the proper data in the sample tag books (drill hole number, box number, from-to, etc.). The from and to for all samples were also marked in red so there was no confusion between these and the core run blocks or other information on the core. This allows for verification by the technician before/during sawing.
- The sample tag books were given to the sampler. The sampler will verify the sample number written on the core and match it against one of the sample tags. One of the small sections of the sample tags (there were three sections for each sample tag) was put in the sample bags in which the sample will be put, one was stapled to the core boxes at the beginning of the sampled interval while the largest section of the sample tag was kept for reference.
- For duplicate samples, one of the small sections of the tag was put in an empty bag, while the second small section of the tag was attached to the sample preceding the duplicate sample. For the blank and standard samples one of the small sections of the tag was attached to the bags while the other small section of the tag was stapled in the core boxes

(sample preceding the standard/blank samples). Note that it was always the same side of the cut core that goes in the sampling bags, usually the right hand side. The geologists must make sure that the technician understands this step.

- The core boxes then proceed to the photo station where every box was digitally photographed twice; first dry and then wet.

11.3.5 Core Sampling

The core sampling protocol and format was provided in an Oro Silver document called “MOS QA/QC and Assaying Procedures”. General procedures are summarized as follows:

- Sample numbers were assigned for each interval to be sampled by the geologists, who will also control insertion of sample numbers for QA/QC samples: one standard, one blank, and one duplicate for every batch of 30 samples.
- The QA/QC samples will be marked ahead of time in the sample book using the stamps provided. The “from” and “to” for each interval must be checked by the technicians.
- The sample numbers will be entered in the computer files on a daily basis.
- As an extra QA/QC procedure, sample bags were prepared with the sample number marked on the outside of the bag.
- All surface core was sawed in half using the centerline identified by the core logging geologists. The section being bagged for assaying was always the right hand side of the sawed core sample.
- All samples to be shipped out were weighed and entered in the computer file.
- If necessary, the samples were double bagged and the external bag was closed using a security tie-wrap. Approximately 25-30 kg of individual samples were put in burlap bags for shipping, the burlap bags were also closed using a safety tie-wrap.

11.3.6 Shipping

Once approximately 100 samples were ready for shipping a shipment form was completed. The forms included information such as sample numbers, type of samples, and most importantly, a shipment tracking number. All drill core was shipped to the Inspectorate sample prep facility in Durango, Mexico.

11.4 Endeavour Silver Sampling Method and Approach

Endeavour Silver's 2016 drill program focused on exploration drilling and was not included in the Mineral Resource Estimate. The following procedures were used for the 2016 drill program and will be used for all Endeavour Silver drill programs going forward.

All drill core logging and sample preparation was conducted by qualified Endeavour Silver personnel, as required by NI 43-101 guidelines, at Endeavour Silver's core logging facilities located on the Property. Endeavour Silver has adopted a QA/QC program for its drilling program at El Compas.

Sampling is conducted to coincide with recuperation as opposed to lithology or geological markers. In this way, drill core loss is focused 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. Core recovery was generally good on the El Compas project.

11.5 Core Drilling

Drill holes are typically drilled from the hanging wall, perpendicular to the mineralized structure, into the footwall. Most drill holes are designed for intercept angles between 45° and 90°. Drill holes are typically HQ to NQ sized.

Each drill hole set-up is surveyed for azimuth, inclination and collar coordinates. The drilling is supervised by Endeavour Silver's geologists. At, or near, the targeted drill hole depth, the hole is surveyed using a Reflex multi-shot down-hole survey instrument. Survey measurements are obtained at a depth of approximately 4m below the end of the drill string and at 30m to 50m intervals from the bottom of the hole back up to the collar. The survey data obtained from the drill hole are transferred to a handheld personal digital assistant (PDA) and then to Vulcan mine planning software and AutoCAD databases. True

thicknesses are estimated from the measured inclination of the drill hole intercept and the interpreted dip of the vein. Drill core boxes are collected daily and brought to the core logging facilities located on the Property. The core storage facility on the Property is enclosed in a locked, fenced off area.

11.6 Sample Preparation and Security

The drill core is measured and logged for geotechnical and geological data and sampled. Depending on the competency of the core, it is either cut in half with a bladed saw or split with a pneumatic core splitter. All samples are prepared at the El Compas Project warehouse and shipped to the ALS preparation facility in Guadalajara, Mexico. After preparation, the samples are shipped to the ALS laboratory in Vancouver, Canada, for analysis.

In the ALS preparation facility, all samples are entered into the laboratory's LOG-22 tracking system. The sample is weighed (and 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).

Samples are analyzed for gold and silver in Vancouver. Fire assay followed by an atomic adsorption (AA) analysis is used for gold mineralization. A 30 g nominal pulp sample weight is used. The detection range for the gold assay is 0.005 to 10 ppm, or 5 to 10,000 ppb.

Aqua regia digestion followed an ICP-AES analysis is used for silver mineralization. The detection range for the silver assay is 0.2 ppm to 100 ppm.

The above mentioned analytical methods are optimized for low detection limits. For high-grade silver (+/- gold) mineralization (>20 ppm for silver), fire assay followed by a gravimetric finish is used. A 30 g nominal pulp sample weight is used. The detection ranges are 0.5 to 1,000 ppm for gold assays and 5 to 3,500 ppm for the silver assay.

As an economical tool for first pass exploration geochemistry, the pulps from selected drill holes are also subjected to aqua regia digestion and ICP multi-element analysis (ME-ICP41). The data reported from an aqua regia leach are considered to represent the leachable portion of the particular analyte. Lead and zinc values determined by ICP that are over 10,000 ppm are re-analyzed using

AES. The analytical procedure is an aqua regia digestion followed by an ICP-AES finish. The detection ranges are 0.001% to 20% for lead and 0.001% to 30% for zinc.

A summary of analytical procedures is presented in Table 11.1

Table 11.1 Summary of Analytical Procedures

Sample Type	Element	Description	Lower Detection Limit	Upper Detection Limit	ALS Code
Core	Au	Fire Assay and AA Analysis	0.005 ppm	10 ppm	AUAA23
	Ag + Multielements (35 elements)	Aqua Regia and ICP-AES Finish	0.2 ppm Ag / 1 ppm Cu / 2 ppm Pb / 2 ppm Zn	100 ppm Ag / 10,000 ppm Cu, Pb and Zn	Me-ICP41
	Au, Ag (Samples >20ppm Ag ME-ICP41)	Fire Assays and Gravimetric Finish	0.05 ppm Au / 5 ppm Ag	1,000 ppm Au / 10,000 ppm Ag	Au,Ag ME-GRA21
Rock	Au	Fire Assay and AA analysis	0.005 ppm	10 ppm	AUAA23
	Multielements (35 Elements)	Aqua Regia and ICP-AES Finish	0.2 ppm Ag / 1 ppm Cu / 2 ppm Pb / 2 ppm Zn	100 ppm Ag / 10,000 ppm Cu, Pb and Zn	ME-ICP41

ALS Minerals is an internationally recognized minerals testing laboratory operating internationally in many countries and has an ISO 9001:2000 certification. Several of its laboratories, including the Vancouver location, have also been accredited to ISO 17025 standards for specific laboratory procedures by the Standards Council of Canada (SCC).

12.0 DATA VERIFICATION

The 2016 Canarc report (Collins et al., 2016) reviewed the past QA/QC programs and a brief summary is provided below. Endeavour Silver has not conducted any drilling in the current Mineral Resource area, such as twinning drill holes. The database was verified by P&E's independent sampling during a site visit.

The drilling in 2011 included the systematic insertion of industry standards, blanks and sample duplicates. The program was small and only a limited part of the core was sampled and analyzed. Therefore there were few samples inserted as standards, blanks and duplicates. There were 20 blanks and 19 standards and duplicates found in the 2011 database. Several errors and data overlaps were found in an initial review of the total database, and then confirmed against field data such as drill logs. These errors were corrected in the database to conform to the field data. A further review was made to confirm the rest of the database. Although documentation of a QA/QC program was not found in the review of the 2011 drilling, much of that drilling was outside of the Mineral Resource Estimate area.

12.1 P&E Site Visit and Independent Sampling

Mr. David Burga, P.Ge., an independent Qualified Person ("QP"), according to the guidelines set out in NI 43-101 Standards for Disclosure for Mineral Projects, visited the El Compas Property on August 30 and 31, 2016. During the site visit, he collected fifteen samples from thirteen drill holes by manually splitting the half core remaining in the core box.

Select drill holes were reviewed and in-the-field drilling site locations were confirmed using hand-held GPS.

Samples were selected through a range of grades from high to low and from all phases of past drilling. At no time were any officers or employees of Endeavour Silver advised as to the identification of samples to be selected.

During the site visit, samples were tagged with unique sample numbers and bagged. Mr. Burga brought the samples back to P&E's office in Brampton, Ontario, where they were couriered to AGAT Laboratories in Mississauga.

AGAT is accredited by the Standards Council of Canada and conforms to the requirements of CAN-P-1579: Requirements for the Accreditation of Mineral Analysis Testing Laboratories. AGAT Laboratories employs a quality assurance system to ensure the precision, accuracy and reliability of all results. The best practices have been documented and are, where appropriate, consistent with The International Organization for Standardization’s ISO/IEC 17025, “General Requirements for the Competence of Testing and Calibration Laboratories” and the ISO 9000 series of Quality Management standards.

Gold was analyzed using lead collection fire assay with an AAS finish. A graph of gold values for samples taken during the site visit versus the original sample values is presented in Figure 12.1.

Silver was analyzed using a 4 acid digest with an AAS finish. A graph of silver values for samples taken during the site visit versus the original sample values is presented in Figure 12.2.

Figure 12.1 P&E Site Visit Results for Gold

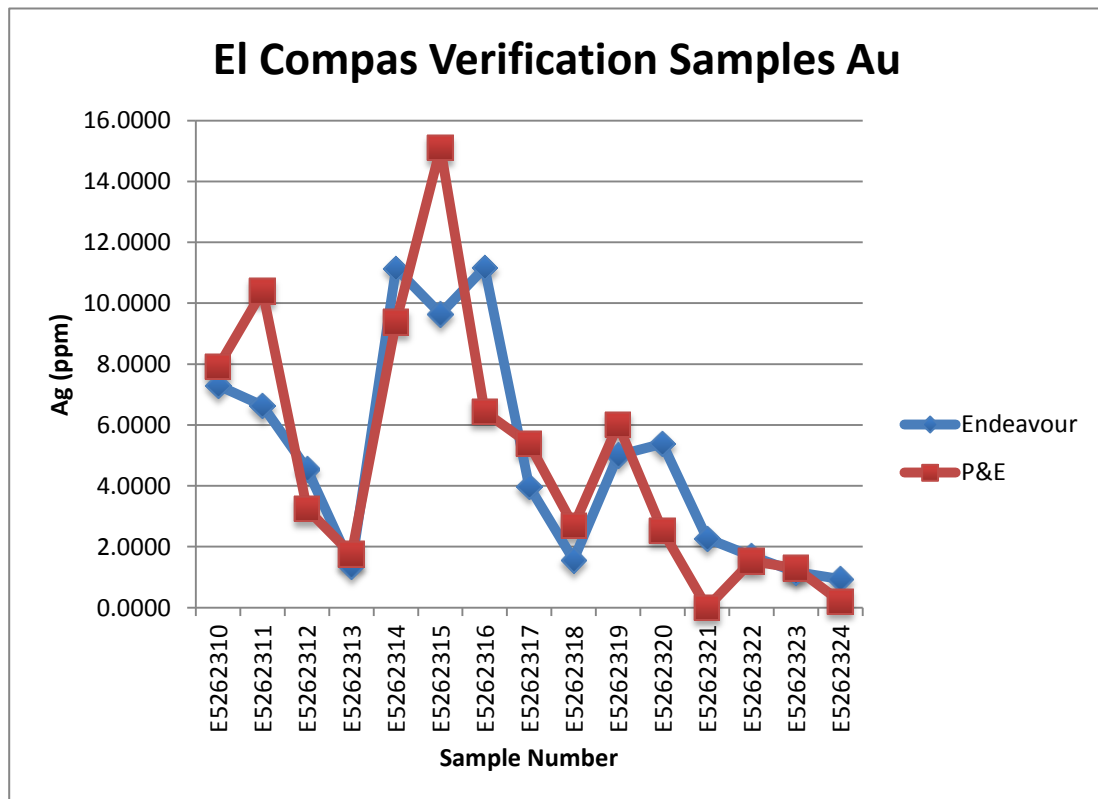
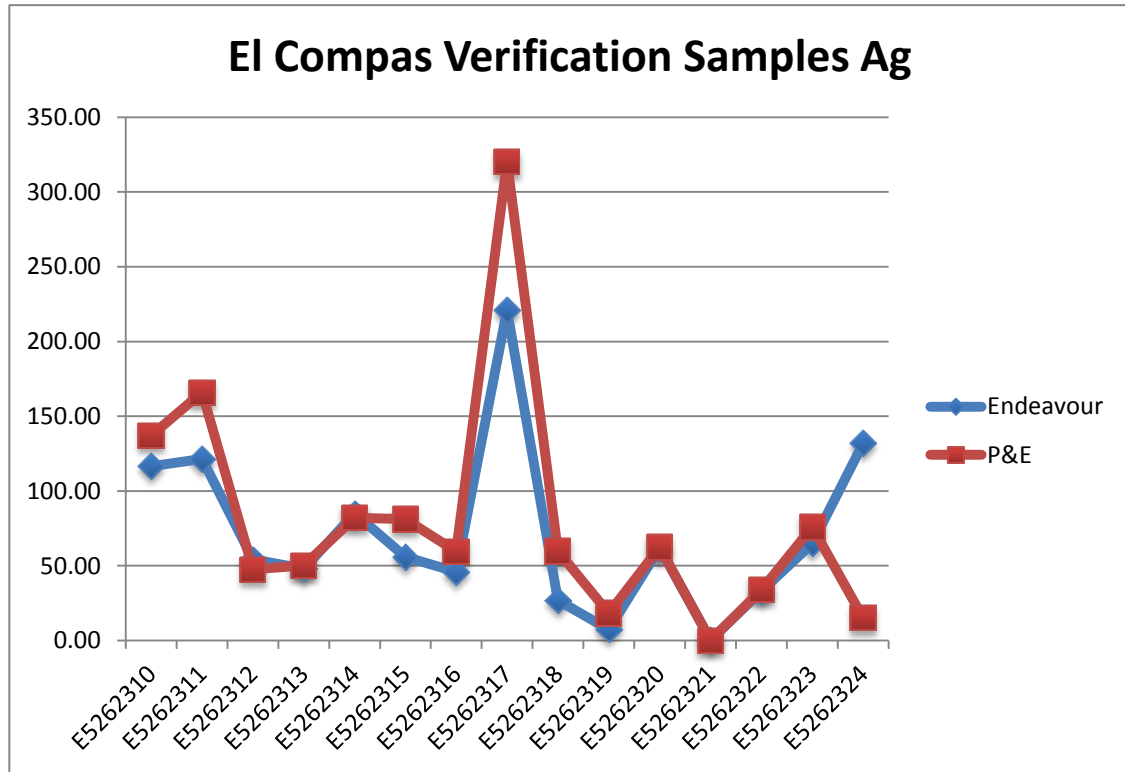


Figure 12.2 P&E Site Visit Results for Silver



12.2 Quality Assurance and Quality Control

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 during drilling. Each batch of 20 samples included one blank, one duplicate and one standard reference control sample. Check assaying is also conducted on the samples at a frequency of approximately 5%.

12.3 Conclusion

The QP has reviewed the results for the El Compas Project and independently verified the database through independent sampling. The results obtained from the exploration program on the El Compas project are suitable for use in a Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Bench-scale metallurgical studies have been performed at several laboratories by several companies from 2008 to the present.

The following reports were reviewed for the present PEA study:

1. A Deportation Study of Gold in High Grade 2 Composite Sample from Mexico for Oro Silver Resources Ltd, SGS Report, dated December 18, 2007
2. The Recovery of Gold from Mineralized Samples from Mexico for Oro Silver Resources Ltd, SGS Report, dated April 2, 2008
3. El Compas Gold-Silver Mine, Zacatecas, Mexico, Metallurgical Test Results for Canarc Resource Corp, dated December 8, 2015
4. El Compas Metallurgical Progress Report for November 2016, RDi Report, dated December 6, 2016
5. El Compas Metallurgical Progress Report for December 2016, RDi Report, dated January 4, 2017

The highlights of the metallurgical testwork are discussed in the following sections.

13.2 SGS Metallurgical Studies (2007-2008)

Bench-scale test program was undertaken at SGS Mineral Services Laboratory in Lakefield, Canada to investigate the recovery of gold and silver from mineralized samples for Oro Silver Resources Ltd.'s project in Mexico. The testwork consisted of preparation of eight composite samples, head analyses, gravity separation followed by cyanidation of gravity tailings, mineralogical examination, whole cyanidation, whole mineralization flotation and settling tests.

The test results, summarized in Table 13.1, indicated the following:

- The gold head grades varied from 2.46 g/t for low grade 1 composite to 38.5 g/t for the high grade 2 composite. The silver head grades ranged from 43.5 g/t for the low grade 2 composite to 213 g/t for the high grade 1 composite. The composite samples contained <0.05% sulfide sulfur

Table 13.1 Summary of Metallurgical Test Results

Process	Composite							
	Low Grade 1	Low Grade 2	Mid-Low Grade 1	Mid-Low Grade 2	Mid-High Grade 1	Mid-High Grade 2	High Grade 1	High Grade 2
Au								
Direct Assay g/t	2.46	2.91	5.17	5.65	9.36	9.23	33.9	38.5
Calc. from Testwork g/t	2.35	2.34	5.21	5.53	9.12	9.05	32.6	33.3
Ag								
Direct Assay g/t	48.7	43.5	94.7	100	117	97.9	213	193
Calc. from Testwork g/t	49.9	45.7	98.4	108	114	100	233	195
S %	0.08	0.02	0.03	0.02	0.04	<0.01	0.04	0.03
S ² %	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C (total) %	0.47	0.39	0.22	0.07	0.47	0.15	0.396	0.11
Whole Ore Cyanidation								
Au Extraction %	-	-	92	-	93-97	93	-	96-98
Ag Extraction %	-	-	52	-	55-58	51	-	68-71
Gravity separation								
Au Recovery in Grav Conc. %	17.6	24.8	8.8	10.7	10.8	15.6	23.3	28.6
Ag Recovery in Grav Conc. %	1.3	1.9	2.5	1.4	2.8	1.9	8.0	5.0
Cyanidation of Gravity Tails								
Au Extraction %	92.1	90.7	92.7	91.3	92.7	91.2	94.8	95.9
Ag Extraction %	49.7	54.9	53.0	50.5	58.2	51.7	74.5	71.2
Grav+CN Grav Tails Au Recovery %	93.5	93.0	93.3	92.2	93.5	92.6	96.0	97.1
Grav+CN Grav Tails Ag Recovery %	50.4	55.8	54.2	51.2	59.4	52.6	76.5	72.6
Flotation of Whole Ore								
Conc. Au Grade g/t	26.7	11.5	51-65	-	90-149	-	-	424-434
Conc. Ag Grade g/t	222	106	483-557	-	632-1050	-	-	1538-1577
Conc. S Grade %	0.19	0.03	0.13-0.34	-	0.03-0.26	-	-	0.03-0.16
Au Recovery %	67	66	68-70	-	65-71	-	-	75-78
Ag Recovery %	25	32	33-34	-	38-40	-	-	48-50
S Recovery %	35	33	42-49	-	20-27	-	-	16-33
Mass Recovery %	5	13	6-7	-	4-7	-	-	6

- Mineralogical study performed on high grade 2 composite indicated that quartz was the most abundant mineral followed by feldspar and montmorillonite. Gold occurred as electrum and native gold with an average particle size of 19 micrometers (1 to 134 micrometers). Silver minerals occurred mainly as Ag-S-Se with some native silver and Au-Ag alloy. The silver minerals had an average particle size of 30 micrometers (1 to 122 micrometers)
- Cyanidation tests on mid high grade 1 and high grade composite extracted 94% to 98% of gold and $\pm 58\%$ of silver at a grind size of P₈₀ of 50 micrometers and leach time of 72 hours. The extraction was higher for both gold and silver for the high grade composite but required twice the leach time as the other composite. The cyanide and lime consumptions were reasonable at 0.45 kg/t and 1.7 kg/t of CaO
- The gold extractions for mid-high and mid-low grade composites were also over 90% and the silver extractions were $\pm 52\%$. The lime and cyanide consumptions were similar to high-grade samples
- Gravity separation tests recovered 9% to 29% of gold and 1% to 8% of silver in a concentrate assaying 1,500 to 52,000 g/t Au and 2,200 to 50,000 g/t Ag
- Leaching of the gravity tailing recovered over 90% of gold and 50% to 75% of silver
- The combined gravity/cyanidation of gravity tailings recoveries of gold and silver were 92% to 97% and 50% to 76% respectively
- The scoping flotation tests on selected samples recovered 66% to 78% of gold and 32% to 50% of silver
- Settling tests on the leach residue indicated the supernatant solution clarity was poor

Based on these results, Marlin Resources decided to proceed with a whole mineralization leach process for recovery of gold and silver.

13.3 Tetra Tech Study (2015)

TetraTech contracted Resource Development Inc. (RDi) in October, 2015 to complete metallurgical testing of samples from the El Compas project for Canarc.

The primary objective of the study was to produce a combined gravity and rougher flotation concentrate containing precious metals which would then be leached in a cyanide circuit to produce a doré bar at site.

The testwork undertaken included the sample preparation, head analyses, mineralization hardness, gravity concentration, flotation testing, and leaching and settling of flotation concentrate.

The highlights of the study indicated the following:

- RDi received four samples labeled low grade, medium grade, high grade and grinding sample for the testwork. A composite projected to assay 3.60 g/t Au was created by blending 85% of low grade with 15% of medium grade. The composite, designated No. 1 assayed lower than expected and a second composite sample was created by blending 71% of composite No. 1 with 29% of grinding sample. The assays are given in Table 13.2. The calculated head analyses for Composite No. 2 was 3.12 g/t Au and 53.2 g/t Ag

Table 13.2 Composite Assay Results

Sample	Au (g/mt)	Ag (g/mt)	Total Sulfur (%)	Sulfide Sulfur (%)	Sulfate Sulfur (%)
Medium Grade	1.44	29.0	0.55	0.38	0.17
Composite 1	1.88	32.4	0.40	0.26	0.14
Re-Assay Med Grade	1.37	19.1	-	-	-
Re-Assay Comp 1	1.65	34.1	-	-	-
Grinding Sample	7.82	96.6	-	-	-
High Grade	5.86	57.4	-	-	-
Composite 2	3.12	53.2	-	-	-

- The Bond's ball mill work index for the grinding sample was determined to be 19.01 kwh/mt at 100 mesh grind size
- A series of tests were performed with composite No. 2 to determine the target processing conditions for precious metal recoveries utilizing gravity separation followed by flotation (Figure 13.1). The test results summarized in Table 13.3 indicated that $\pm 29.5\%$ of gold and $\pm 4.5\%$ of

silver were recovered in the gravity concentrate. The best flotation results were observed with AP3477 and copper sulfate at a grind of P₈₀ of 270 mesh. Combined gravity and flotation recoveries ranged from 79.1% to 89% for gold and 58.5% to 73.4%.for silver

- The flotation rougher concentrate, assaying 10.5 g/t Au and 224.4 g/t Ag, was amenable to cyanide leach. Approximately 99% of gold and 89% of silver were extracted in 72 hours. The gold extraction was complete in 24 hours
- The filtration characteristics of leach residue were poor thereby indicating that vacuum filtration may be a poor choice and pressure filtration may be required

The testwork indicated that the conceptual process flowsheet would consist of combined gravity and flotation to produce a concentrate that would be cyanide leached for gold and silver extraction.

Figure 13.1 Combined Gravity and Flotation Process Flowsheet

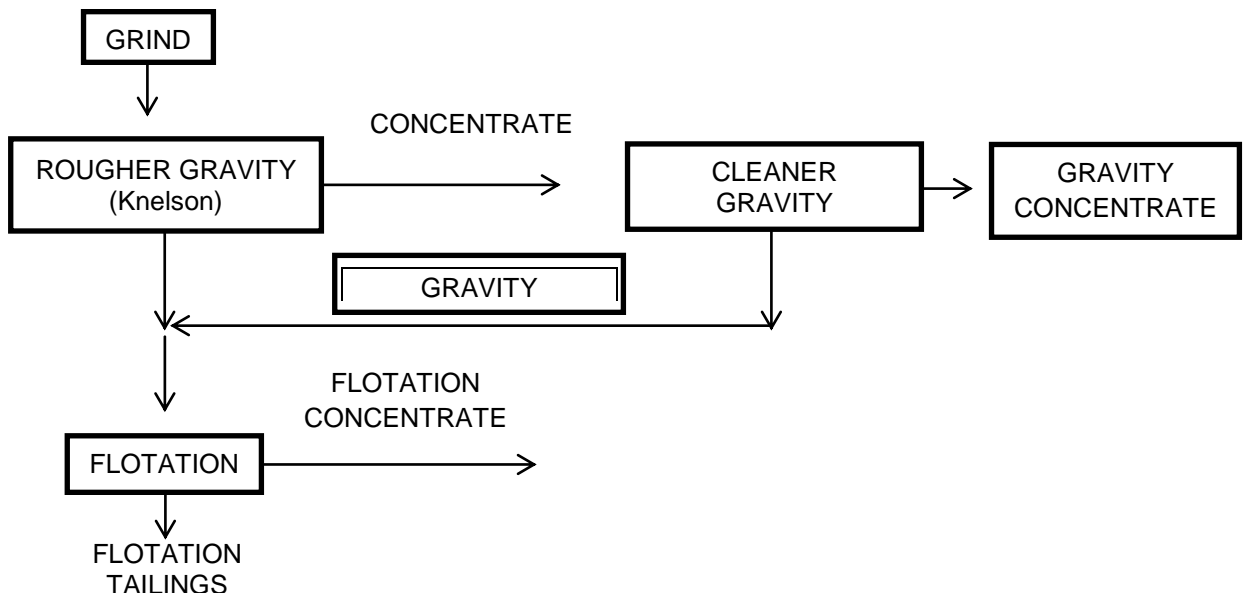


Table 13.3 Gravity/Flotation Conditions and Results

Test No.	Conditions		Combined Recovery %			Gravity Recovery %			Flotation Recovery %		
	Grind (P ₈₀) Mesh	Reagents	Wt.	Au	Ag	Wt.	Au	Ag	Wt.	Au	Ag
FT1	270	404, PAX	8.1	79.1	59.5	0.2	30.3	4.6	7.9	48.8	54.9
FT2	270	404, PAX, Copper Sulfate	6.9	86.5	67.9	0.1	30.0	5.1	6.8	56.5	62.8
FT3	270	404, PAX, Sodium Sulfide	7.7	81.7	58.5	0.2	34.8	5.9	7.6	46.9	52.6
FT4	270	404, PAX, Copper Sulfate, Sodium Sulfide	11.0	83.6	65.4	0.1	27.3	4.2	10.9	56.3	61.2
FT5	200	404, PAX, Copper Sulfate	13.1	83.8	67.0	0.3	34.8	5.2	12.8	49.0	61.8
FT6	325	404, PAX, Copper Sulfate	15.2	89.0	66.5	0.1	26.9	3.6	15.1	62.1	62.9
FT7	270	3477, PAX, Copper Sulfate	16.4	89.0	73.4	0.1	27.3	3.9	16.3	61.8	69.4
FT8	270	Max Gold, PAX, Copper Sulfate	15.3	86.3	64.9	0.1	24.9	3.6	15.2	61.4	61.3

13.4 Endeavour Silver Testwork (2016-2017)

Endeavour Silver contracted RDi in November, 2016 to undertake metallurgical testwork with the primary objective of producing a saleable combined gravity and flotation concentrate. This would result in minimum capital to modify/upgrade the existing process plant leased from the state government.

RDi received a composite sample for metallurgical studies and three composites for BWi. The testwork included head analyses, grindability studies, gravity concentration and flotation testwork. The highlights of the testwork indicated the following:

- A composite sample assayed 5.82 g/t Au, 128.4 g/t Ag, 0.09% S_{Total} and 0.05% S_{Sulfide}
- Bond's ball mill work indices for the three samples at 100 mesh grind were determined to be 20.45, 18.18 and 16.80 kwh/mt
- Gravity followed by flotation of gravity tailing were undertaken at varying grind sizes. Test data, given in Tables 13.4 and 13.5, indicated that gravity concentrator recovered 25% to 42.6% of the gold and 8.7% to 13.9% of the silver in a concentrate assaying 607 to 4121 g/t Au and 5,408 to 17,410 g/t Ag. The flotation kinetic data indicated majority of gold and silver values are recovered in 5 minutes of flotation time.

Table 13.4 Gravity and Flotation of Gravity Tails Results for Varying Grind Sizes

Test No.	Primary Grind, P ₈₀ mesh	Recovery %									Concentrate Grade, g/t						Flotation Tailing Grade, g/t	
		Gravity			Flotation			Combined			Gravity		Gravity + Flotation		Cal. Feed g/t			
		Wt.	Au	Ag	Wt.	Au	Ag	Wt.	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag
FT-1	100	0.2	28.0	13.9	4.8	48.1	47.0	5.1	76.1	60.9	607.5	5408	78.75	1128	5.24	93.7	1.32	38.6
FT-2	150	0.2	30.1	10.1	5.5	52.1	58.2	5.6	82.2	68.2	960.1	6336	74.95	1208	5.14	99.8	0.97	33.6
FT-3	200	0.1	25.0	8.7	5.9	59.5	60.6	6.0	84.5	69.3	1111	8732	62.40	1150	4.42	99.2	0.73	32.4
FT-4	270	0.1	42.4	10.7	7.3	47.0	62.5	7.3	89.5	73.3	4121	17410	70.30	963	5.76	96.3	0.66	27.8

Note: Flotation Time of 20 minutes

Table 13.5 Flotation Test Results Including Gravity for Varying Grind Sizes

Product	Cumulative Flotation Time (min)	Cumulative Recovery, %			Cumulative Grade g/t	
		Wt.	Au	Ag	Au	Ag
Test FT-3 (P₈₀ = 200 mesh)						
Grav. Conc.	-	0.1	25.0	8.7	1111	8732
Grav. + Flot Conc. 1	5	1.5	80.0	64.1	236	4246.4
Grav. + Flot Conc. 1+2	10	3.4	82.6	67.0	107.5	1957.0
Grav. + Flot Conc. 1 to 3	15	4.6	83.6	68.2	80.4	1471.5
Grav. + Flot Conc. 1 to 4	20	6.0	84.4	69.3	62.3	1147.3
Flotation Tail	-	96.0	15.6	30.7	0.73	32.4
Cal Feed	-	100.0	100.0	100.0	4.42	99.2
Test FT-4 (P₈₀ = 270 mesh)						
Grav. Conc.	-	0.1	42.4	10.7	4121	17410
Grav. + Flot Conc. 1	5	1.9	85.6	66.8	350.9	3824.7
Grav. + Flot Conc. 1+2	10	3.7	87.6	70.0	183.3	2046.2
Grav. + Flot Conc. 1 to 3	15	5.3	88.5	71.7	129.0	1460.0
Grav. + Flot Conc. 1 to 4	20	7.3	89.3	73.2	70.3	963.0
Flotation Tail	-	92.6	10.7	26.8	0.66	27.8
Cal Feed	-	100.0	100.0	100.0	5.76	96.3

- The combined gravity and flotation concentrate¹ recovered 80% to 85% of gold and 64% to 67% of silver in a concentrate assaying 236 to 350 g/t Au and 3,824 to 4,246 g/t Ag
- Open-circuit rougher plus cleaner flotation tests were performed according to the flowsheet given in Figure 13.2. The results are presented in Tables 13.6 and 13.7. The combined gravity and rougher flotation concentrate recovered 87% of gold and 77.8% of silver at a primary grind of P₈₀ of 200 mesh

- The combined gravity plus cleaner concentrate at P₈₀ of 200 mesh recovered 79.7% of gold and 68.3% of silver. The concentrate assayed 868 g/t Au and 12,095 g/t Ag

Figure 13.2 Test Process Flowsheet

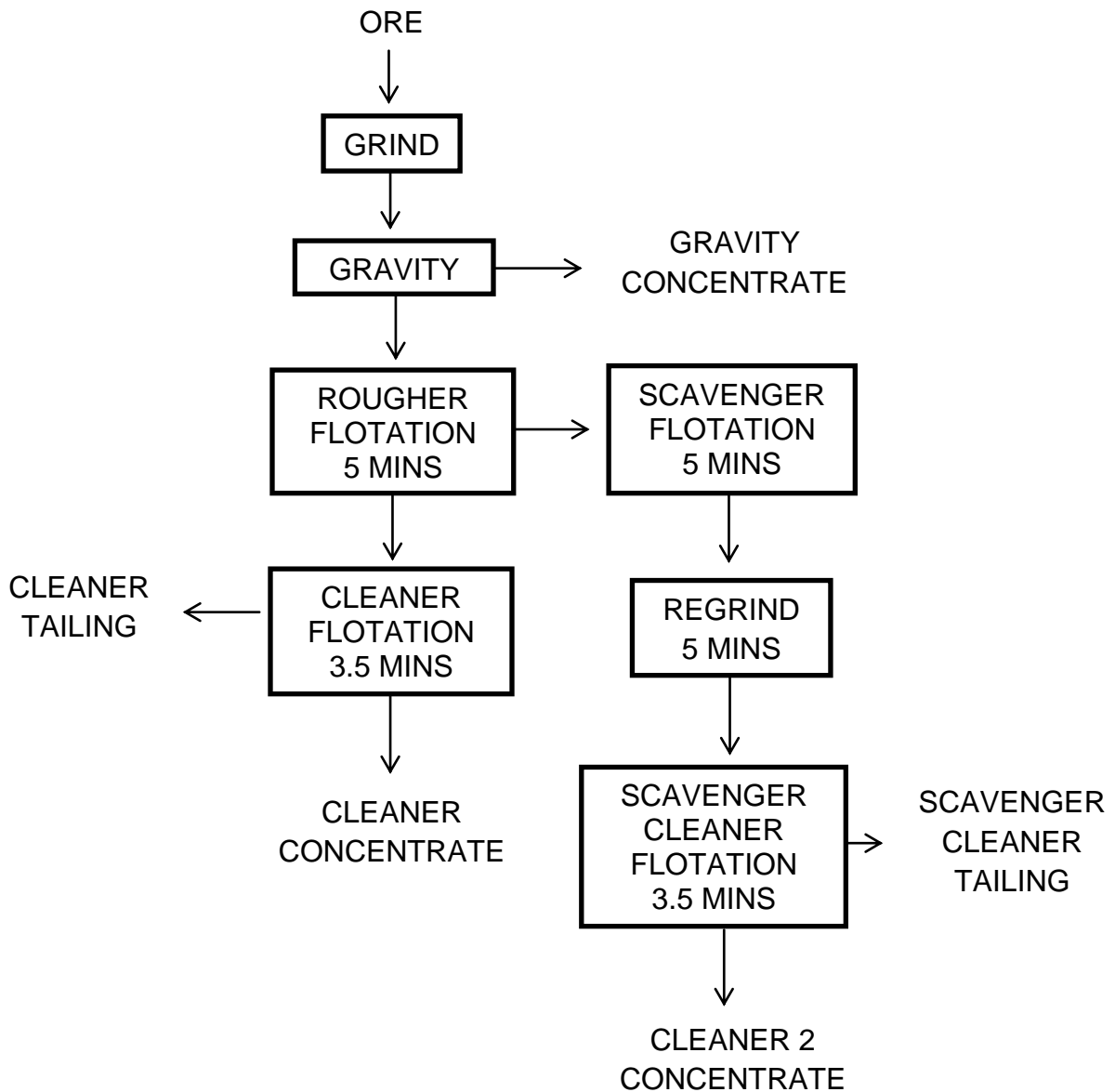


Table 13.6 Summary of Test Results at Primary Grind of 200 Mesh(Test No. 5)

Product	Recovery %			Grade, g/t	
	Wt.	Au	Ag	Au	Ag
Gravity Conc.	0.1	27.4	9.9	1,931.2	12,494
Cleaner Conc.	0.2	48.8	56.0	1,121.8	22,997
Gravity + Flotation Cleaner Conc.	0.3	76.2	65.9	1,391.6	19,496
Scavenger Cleaner Conc.	0.2	3.5	2.4	82.5	993.2
Gravity + Combined Cleaner Conc.	0.5	79.7	68.3	868.0	12,095
Cleaner 1 Tail	2.2	5.9	7.4	13.93	312.7
Scavenger Cleaner Tail	3.5	1.4	2.2	2.07	58.4
Rougher Flotation Tail	93.8	13.0	22.2	0.73	22.3
Calculated Feed	100.0	100.0	100.0	5.28	94.3

Table 13.7 Summary of Test Results at Primary Grind of 270 Mesh

Product	Recovery %			Grade, g/t	
	Wt.	Au	Ag	Au	Ag
Gravity Conc.	0.1	29.7	10.3	2920.7	17,217
Cleaner Conc.	0.3	47.4	58.4	966.8	20,191
Gravity + Flotation Cleaner Conc.	0.4	77.1	68.7	1455.3	19,447.5
Scavenger Cleaner Conc.	0.3	1.7	1.4	31.67	452.3
Gravity + Combined Cleaner Conc.	0.7	78.8	70.1	845.2	11,306.7
Cleaner 1 Tail	2.2	5.7	8.3	13.73	338.8
Scavenger Cleaner Tail	3.6	1.7	3.4	2.60	87.2
Rougher Flotation Tail	93.5	13.8	18.1	0.80	17.7
Calculated Feed	100.0	100.0	100.0	5.41	91.6

These results indicate that a saleable gravity plus flotation concentrate can be produced with reasonable recoveries. Additional locked-cycle testing is planned to further enhance gold and silver recoveries.

14.0 MINERAL RESOURCE ESTIMATE

14.1 Introduction

This report section summarizes the Mineral Resource Estimate of the El Compas Project. 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 Resource 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. of P&E Mining Consultants Inc. of Brampton, Ontario, an independent Qualified Person in terms of NI 43-101, from information and data supplied by Endeavour Silver. The effective date of this Mineral Resource Estimate is March 27, 2017.

14.2 Database

All drilling and assay data were provided in the form of Excel data files by Endeavour Silver. The Geovia Gems database for this Mineral Resource Estimate, constructed by P&E, consisted of 173 holes totaling 26,352.96m, of which 133 holes totaling 26,048.36m were diamond drill holes drilled from surface and 40 holes totaling 304.6m were drilled from underground faces (Table 14.1). A drill hole plan is shown in Appendix A.

Table 14.1 Drill Hole Database Summary

Drilling Type	# Drill Holes	Drilling (m)	# of Samples
Surface	133	26,048.36	5,856
Underground	40	304.60	248
Total	173	26,352.96	6,104

The assay table of the database contained a total of 6,104 Au and Ag assays.

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

14.3 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 the ALS Chemex laboratory in Hermosillo, Mexico. Some minor errors were found and considered non material to the Mineral Resource Estimate. These errors represented 0.5% of the total assay database and 5.6% of the domain constrained assays.

In addition to the data verification reported above, P&E reviewed the QA/QC for the El Compas Project 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 a Mineral Resource.

14.4 Domain Interpretation

Initial 3D mineral wireframes were provided by Endeavour Silver which P&E reviewed and modified.

A total of seven (7) mineralization wireframes were generated based on a cut-off grade of 150 g/t AgEq. The formula applied for AgEq was $AgEq = Ag + (Au \times 70)$. Minimum constrained sample length for interpretation was 1.0 m. In some cases mineralization below the above mentioned cut-off was included for the purpose of maintaining zonal continuity and the minimum thickness. The wireframes were typically extended on section no more than 25 m into untested territory. The

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

Wireframes of the historical mined out areas were provided by Endeavour Silver and P&E did not verified them.

A topographic surface was provided by Endeavour Silver which was created from drill hole collars, while the overburden surface was created by P&E using drill hole logs.

14.5 Rock Code Determination

A unique rock code was assigned for each mineralized domain (Vein) in the Mineral Resource model as tabulated in Table 14.2.

Table 14.2 Rock Code Description and Volume

Zone	Domain	Rock Code	Volume (m ³)
Compas	CNTR-W	100/150*	65,080
Compas	HW-West	200	10,506
Compas	SJ_CNTR	300	10,728
Compas	FW_West	400	21,071
Orito	CNTR	500	35,675
Orito	AC	600	8,792
Orito	HW	700	11,627
	Air	0	
	OVB	10	
	Waste	99	
	Voids	999	

*Note: * rock code 100 and 150 was assigned for domain CNTR-W of the Compas Vein in order that the search ellipse would be aligned with the domain*

14.6 Grade Capping

Grade capping was investigated on constrained assays in the database to ensure that the possible influence of erratic high values did not bias the database. Au and Ag Log-normal histograms were generated for each mineralized zone and the resulting graphs are exhibited in Appendix C. The Au

and Ag grade capping values are detailed in Tables 14.3 and 14.4 respectively. The assay statistics are summarized in Table 14.5. Capped assays were used for compositing.

Table 14.3 Au Grade Capping Values

Domains	Total # of Assays	Capping Value Au (g/t)	# of Capped Assays	Mean of Assays g/t	Mean of Capped Assays g/t	CoV of Assays	CoV of Capped Assays	Cap %
CM-CNTR-W	137	60	4	31.28	6.99	7.30	1.91	97.1%
CM-HW-West	28	15	1	4.74	4.24	1.28	1.05	96.4%
CM-SJ_CNTR	15	No Cap	0	4.83	4.83	1.05	1.05	100%
CM-FW_West	61	50	2	13.00	10.77	1.77	1.25	96.7%
Orito-CNTR	35	20	2	5.76	4.84	1.50	1.16	94.3%
Orito-AC	13	30	1	12.95	8.34	1.81	1.18	92.3%
Orito-HW	14	30	1	10.49	6.97	1.91	1.27	92.9%

Table 14.4 Ag Grade Capping Values

Domains	Total # of Assays	Capping Value Ag (g/t)	# of Capped Assays	Mean of Assays g/t	Mean of Capped Assays g/t	CoV of Assays	CoV of Capped Assays	Cap %
CM-CNTR-W	137	700	4	245.69	103.96	4.92	1.53	97.1%
CM-HW-West	28	500	1	197.48	173.49	1.13	0.79	96.4%
CM-SJ_CNTR	15	No Cap	0	42.34	42.34	0.73	0.73	100%
CM-FW_West	61	150	4	94.97	60.56	1.85	0.70	93.4%
Orito-CNTR	35	450	1	96.69	86.36	1.58	1.27	97.1%
Orito-AC	13	150	2	137.86	75.18	1.33	0.65	84.6%
Orito-HW	14	150	3	187.25	85.76	1.27	0.60	78.6%

Table 14.5 Basic Statistics of all Constrained Raw Assays and Capped Assays

Variable	Ag_Raw g/t	Ag_Cap g/t	Au_Raw g/t	Au_Cap g/t	Length
Number of samples	303	303	303	303	303
Minimum value	0.60	0.60	0.00	0.00	0.05
Maximum value	11224.00	700	2595.18	60.00	2.35
Mean	176.29	94.49	19.14	7.20	0.90
Median	50.00	50.00	2.79	2.79	1.00
Geometric Mean	47.94	44.88	2.61	2.49	0.82
Variance	683,944.86	16,348.48	23,851.64	136.24	0.12
Standard Deviation	827.01	127.86	154.44	11.67	0.35
Coefficient of variation	4.69	1.35	8.07	1.62	0.38

14.7 Compositing

As shown in Figure 14.1, approximately 80% of the constrained sample lengths were 1 m or less, with an average of 0.90 m. In order to regularize the assay sampling intervals for grade interpolation, a one metre compositing length was selected for the drill hole intervals that fell within the constraints of the constraining domains. The composites were calculated for Au and Ag 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 composites were calculated for Au and Ag 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 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 composite statistics are summarized in Table 14.6. The composite data were utilized for developing variograms and grade interpolation.

Figure 14.1 Distribution of Constrained Sample Length

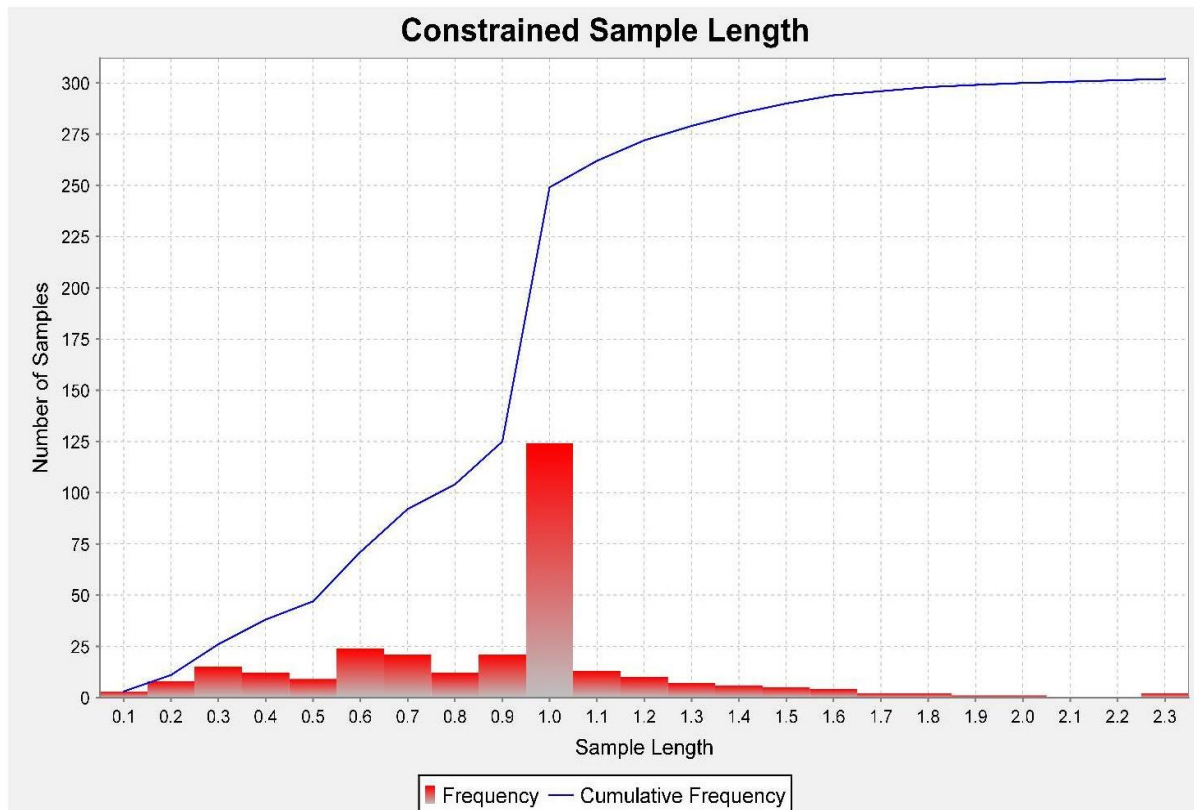


Table 14.6 Composite Summary Statistics

Variable	Ag Composites	Au Composites
Number of samples	295	295
Minimum value	0.60	0.02
Maximum value	691.10	60.00
Mean	84.84	6.33
Median	54.51	3.07
Geometric Mean	46.90	2.83
Variance	10935.94	85.17
Standard Deviation	104.58	9.23
Coefficient of variation	1.23	1.46

14.8 Semi-Variography

A semi-variography analysis was performed to provide a guide for determining a grade interpolation search strategy. Semi-variograms along strike, down dip and across dip were developed for the Compas Vein using Ag and Au composites. Semi-variograms were attempted for Orito Vein as well, however it was not possible to develop variograms due to an insufficient data population. Selected variograms are attached in Appendix D.

Continuity ellipses based on the observed ranges were subsequently generated and employed as the basis for grade estimation search ranges, distance weighting calculations, and Mineral Resource classification criteria.

14.9 Bulk Density

A total of 301 bulk density measurements from 19 drill holes were provided by Endeavour Silver, of which 47 measurements were located within the abovementioned wireframes with average bulk density of 2.54t/m³.

14.10 Block Modeling

The El Compas Mineral Resource Estimate block model was constructed using Geovia Gems V6.7.4 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, rock type, volume percent, bulk density and classification attributes.

Table 14.7 Block Model Definition

Direction	Origin	# of Blocks	Block Size (m)
X	747,000	480	1.25
Y	2,515,760	256	2.5
Z	2,460	92	2.5
Rotation	None		

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 contained 1 % or greater volume within the domains. These blocks were assigned their appropriate individual rock codes as indicated in Table 14.2. The overburden and topography surfaces were subsequently utilized to assign rock code 10 for overburden and 0 for air, for 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 inclusion percentage of the mineralized block was set to 1%.

A uniform bulk density of 2.54 t/m³ was applied for each constrained mineralized block.

Ag and Au grade were interpolated with Inverse Distance Cubed (1/d³) using the 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 domain accordingly. Grade blocks were interpolated using the following parameters in Table 14.8.

Table 14.8 Au & Ag Block Model Interpolation Parameters

Element	Pass	Dip Range (m)	Strike Range (m)	Across Dip Range (m)	Max # of Samples per Hole	Min # Samples	Max # Samples
Au	I	20	25	10	2	3	16
	II	60	75	30	2	1	16
Ag	I	45	35	20	2	3	16
	II	90	70	40	2	1	16

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

The Au equivalent blocks (AuEq) were derived using the formula $AuEq = Au + (Ag/70)$.

14.11 Mineral Resource Estimate Classification

In P&E's opinion, the drilling, assaying and exploration work of El Compas supporting this Mineral Resource Estimate is sufficient to indicate a reasonable potential for economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The Mineral Resource Estimates of the Compas Vein were classified as Indicated and Inferred, while Mineral Resources of Orito Vein were categorized as 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 Au grade interpolation Pass I in Table 14.8, which used at least 3 composites from a minimum of two holes; and the Inferred Mineral Resource was categorized for all remaining grade populated blocks within the mineralized domains. The classifications have been adjusted on long section to reasonably reflect the distribution of each category. Selected classification block cross-sections and plans are attached in Appendix F.

14.12 Mineral Resource Estimate

The Mineral Resource Estimate was derived from applying an 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\$1,225/oz based on three year trailing average at Dec 31/2016

Au Recovery 85%

Mining Cost \$70/tonne mined

Process Cost \$26/tonne milled

General & Administration \$14/tonne milled

Au Refining \$/oz US\$10

Au Smelter Payable 98%

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

Mining, Processing, G&A costs per ore tonne = (\$70 + \$26 + \$14) = \$110/tonne

$[(\$110)/[(\$1,225-10)/31.1035 \times 85\% \text{ Recovery} \times 98\% \text{ Payable}]] = 2.34$ Use 150 g/t AgEq

14.13 Mineral Resource Estimate Statement

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

Table 14.9 Mineral Resource Estimate Statement at Cut-off 150g/t AgEq ^{(1) (2) (3) (4) (5)}

Classification	Tonnes (000s)	Ag gpt	Au gpt	AgEq gpt	Ag oz (000s)	Au oz (000s)	AgEq oz (000s)
Indicated	148.4	104	7.31	616	495	34.9	2,939
Inferred	216.8	76	5.38	453	527	37.5	3,158

- 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. The Au:Ag ratio used for AuEq was 70:1*
- 5. Historically mined areas were depleted.*

14.14 Mineral Resource Estimate Sensitivity

A Mineral Resource Estimate is sensitive to the selection of a reporting AgEq cut-off grade. The sensitivities of the AgEq cut-off are demonstrated in Table 14.10.

Table 14.10 Sensitivity to Resource Estimate

Class	Cut-off	Tonnage	Au	Contained Au	Ag	Contained Ag	AgEq	Contained AgEq
	AgEq g/t	Tonnes	g/t	Oz (000s)	g/t	oz (000s)	g/t	Oz (000s)
Indicated	700	40,300	16.53	21.4	165	213	1,322	1,713
	560	56,900	13.82	25.2	152	278	1,119	2,048
	420	75,200	11.80	28.5	139	336	965	2,333
	280	104,100	9.61	32.2	121	406	794	2,657
	140	148,400	7.31	34.9	104	495	616	2,937
	70	163,500	6.74	35.4	98	514	569	2,993
	0.01	166,700	6.62	35.4	96	515	559	2,997
Inferred	700	28,700	13.09	12.1	117	108	1,033	954
	560	45,800	10.98	16.2	111	164	880	1,294
	420	89,500	8.39	24.1	99	286	687	1,976
	280	157,400	6.57	33.2	84	423	543	2,750
	140	216,800	5.38	37.5	76	527	452	3,153
	70	226,600	5.200	37.9	74	536	438	3,189
	0.01	226,800	5.20	37.9	74	536	438	3,189

14.15 Confirmation of Mineral Resource Estimate

The block model was validated using a number of industry standard methods including visual and statistical methods.

- Visual examination of composite and block grades on successive plans and sections on-screen in order to confirm that the block model correctly reflects the distribution of sample grades
- Review of grade estimation parameters included:
 - Number of composites used for grade estimation;

- Number of holes used for grade estimation;
 - Mean Distance to sample used;
 - Number of passes used to estimate grade;
 - Mean value of the composites used.
- Comparison of Ag and Au mean grades of composites with the block model are presented in Table 14.11.

Table 14.11 Average Grade Comparison of Composites with Block Model

Data Type	Ag g/t	Au g/t
Capped Assays	94.5	7.20
Composites	84.8	6.33
Block Model ID3*	83.2	5.80
Block Model NN**	78.6	5.59

*Note: * block model grade interpolated using Inverse Distance Cubed*

*** block model grade interpolated using Nearest Neighbour*

The comparison in Table 14.11 shows the average grades of the Ag and Au blocks in the block models to be somewhat lower than the average grades of composites used for grade estimation. This is probably due to the localized clustering being smoothed by the block modeling grade interpolation process. The block model grade will be more representative than the composites due to the block model's 3D 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 14.12.

Table 14.12 Volume Comparison of Block Model Volume with Geometric Solid Volume

Geometric Volume of Wireframes	163,479 m ³
Block Model Volume	163,249 m ³
Difference %	0.14%

- Local Au grade trends of the Compas Vein were evaluated by comparing the ID3 and NN estimate at zero cut-off (14.2, 14.3 and 14.4).

Figure 14.2 Compas Vein Au Grade Swath Plot along Easting

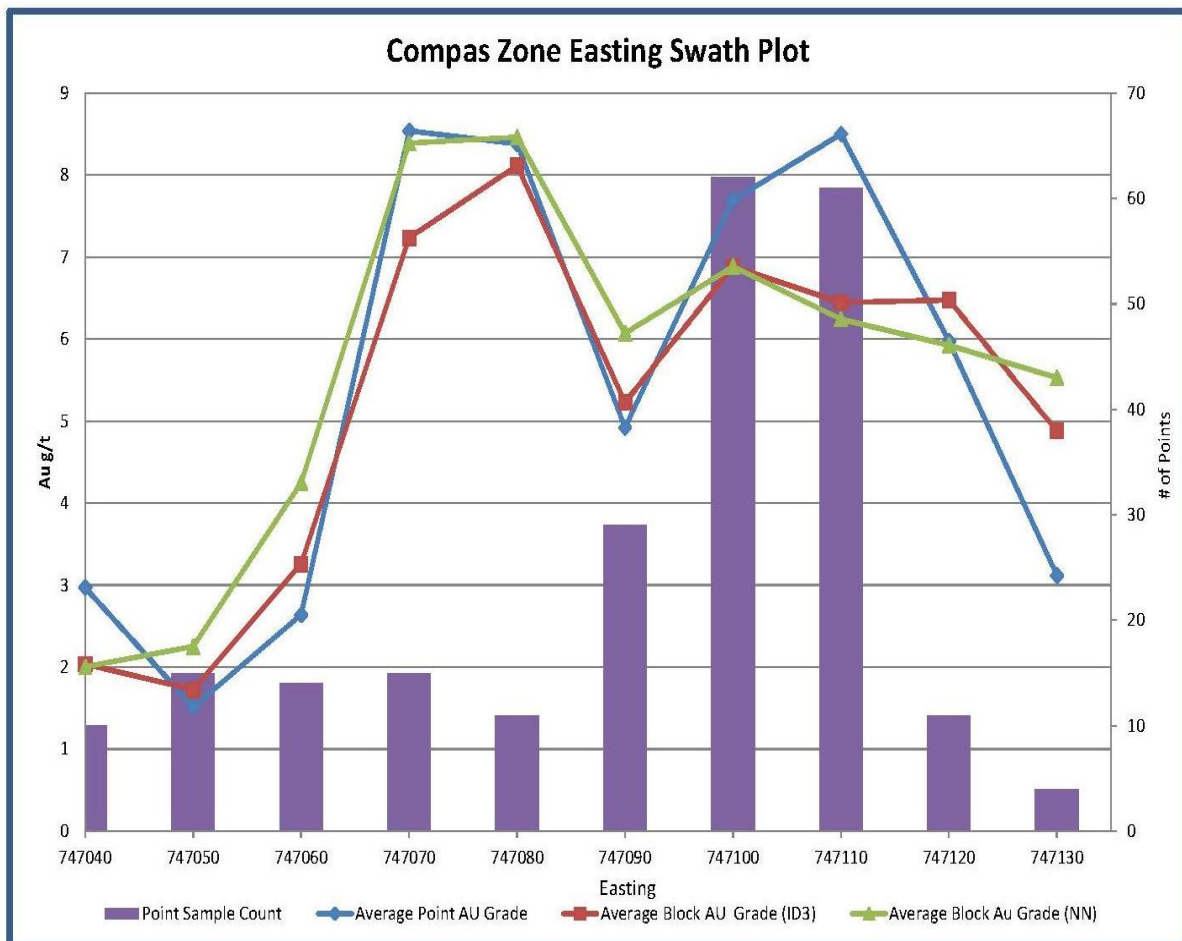


Figure 14.3 Compas Vein Au Grade Swath Plot along Northing

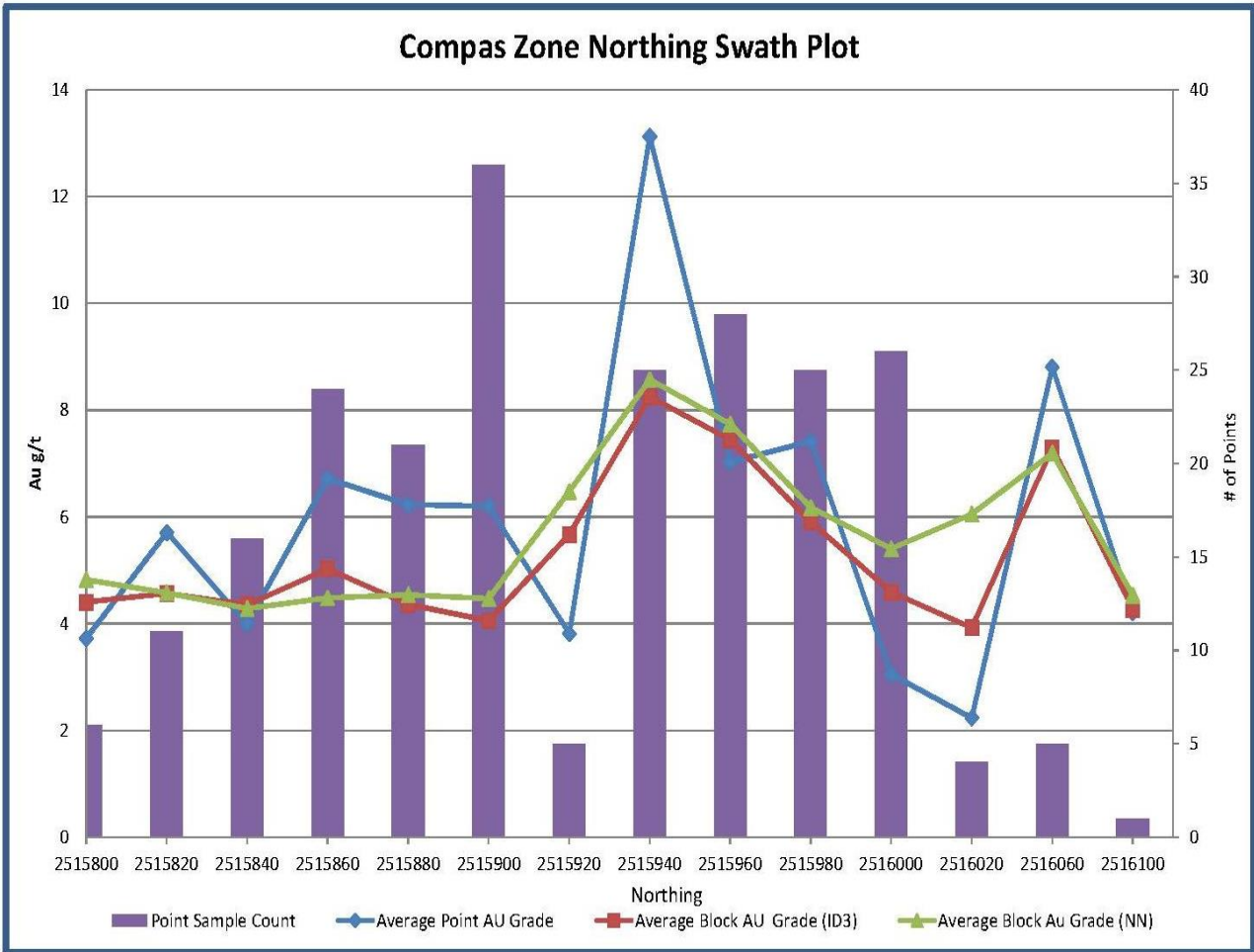
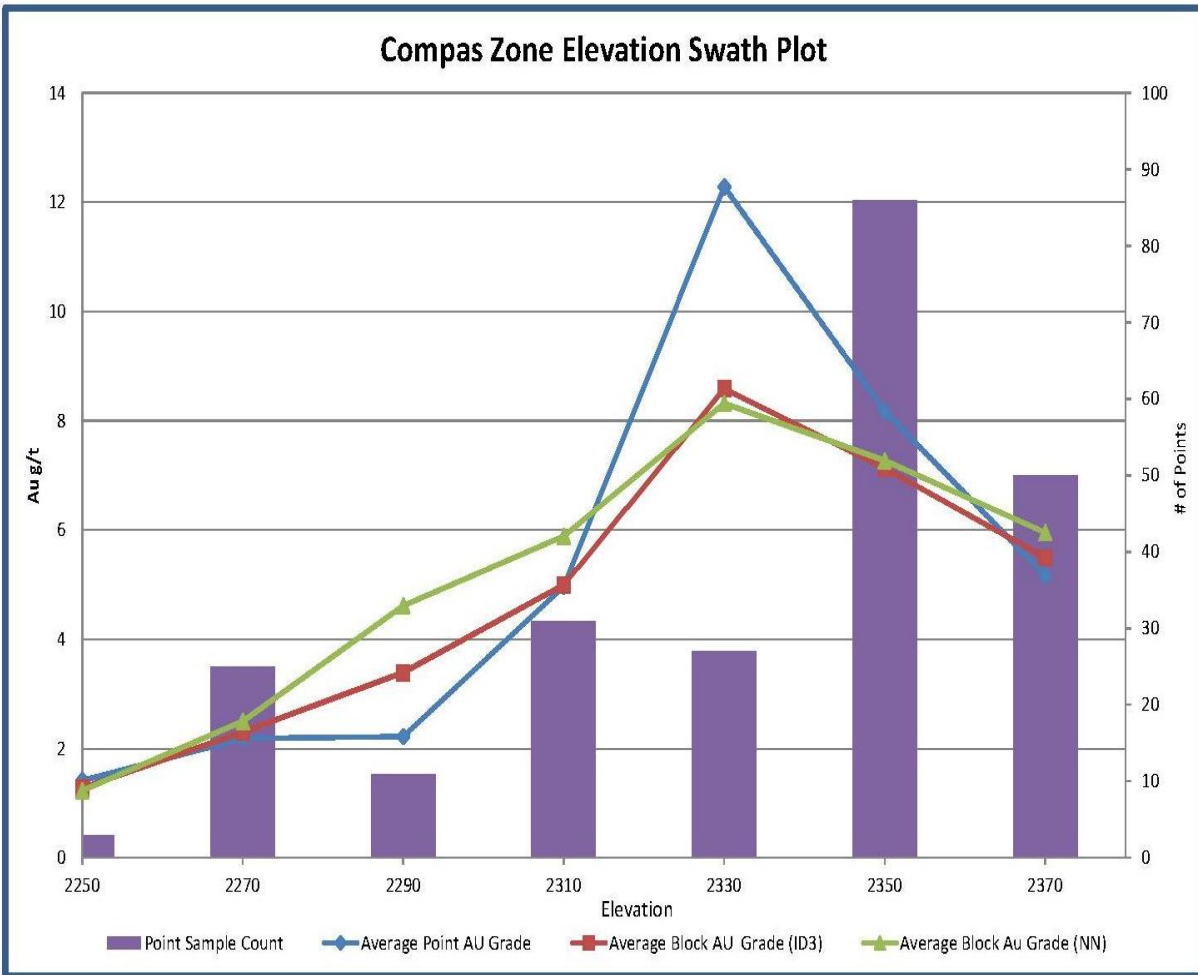
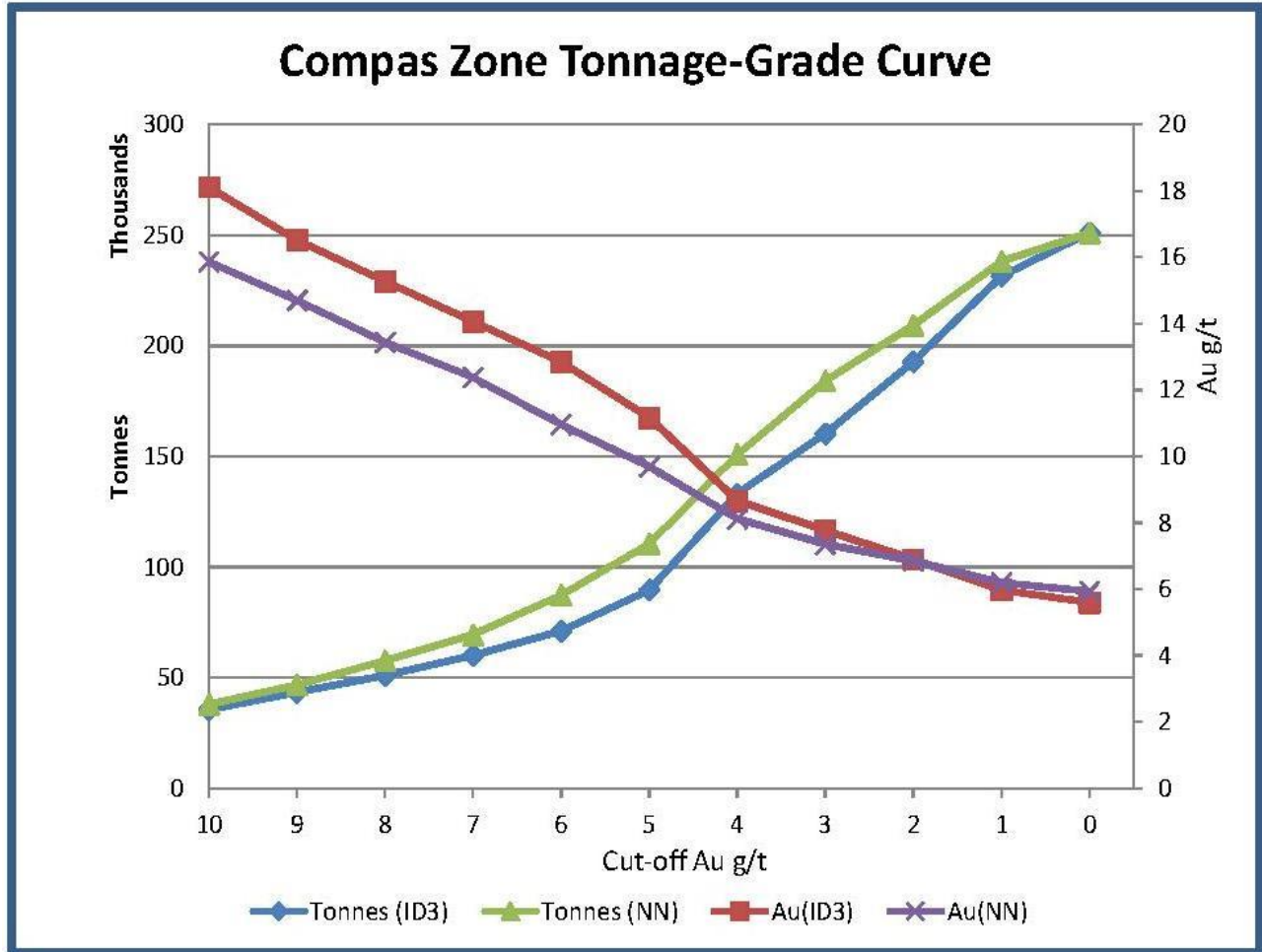


Figure 14.4 Compas Vein Au Grade Swath Plot along Elevation



- Comparison of Au grade interpolated with Inverse Distance cubed ($1/d^3$) and Nearest Neighbor (NN) on global mineralized tonnage basis, as presented in Figure 14.5.

Figure 14.5 Au Grade and Tonnage Comparisons of ID3 and NN Interpolation



15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to the current El Compas Project.

16.0 MINING METHODS

16.1 Mineral Resources Considered

The undiluted, unrecovered Mineral Resource considered for conversion to potentially economic portion of Mineral Resource, for the underground mine plan, is summarized in Table 16.1. This Mineral Resource was estimated at a 200 g/t AgEq cut-off grade.

Table 16.1 Summary of Compas and Orito Vein Resource @ 200 AgEq g/t Cut-Off

Area	Level	Tonnes (t)	Au (g/t)	Ag (g/t)	AgEq (g/t)
Compas Total		182,100	7.4	100	623
OritoTotal		118,800	6.6	82	539
Total		300,900	7.1	93	588
Details					
Compas (MB1)	2400EL	2,000	3.7	19	273
Compas (MB1)	2375EL	9,500	4.5	25	343
Compas (MB1)	2350EL	12,100	5.5	43	434
Compas (MB1)	2325EL	10,600	5.4	69	441
Compas (MB1)	2300EL	7,200	4.5	48	364
Compas (MB2)	2400EL	500	4.4	29	336
Compas (MB2)	2375EL	10,100	5.1	38	399
Compas (MB2)	2350EL	12,800	8.7	55	665
Compas (MB2)	2325EL	8,500	5.3	51	427
Compas (MB2)	2300EL	1,300	3.8	65	329
Compas (MB3)	2375EL	4,600	10.4	96	819
Compas (MB3)	2350EL	21,000	11.3	103	896
Compas (MB3)	2325EL	28,900	12.9	134	1036
Compas (MB3)	2300EL	22,300	6.2	194	623
Compas (MB3)	2275EL	13,500	3.4	173	406
Compas (MB3)	2265EL	2,200	4.0	177	455
Compas (MB4)	2350EL	4,900	4.6	50	371
Compas (MB4)	2325EL	6,900	6.8	86	560
Compas (MB4)	2300EL	3,400	4.3	89	385
Orito	2375EL	8,300	6.0	76	497
Orito	2350EL	32,100	7.7	82	616
Orito	2325EL	33,100	7.6	87	616
Orito	2300EL	29,000	5.9	90	504
Orito	2275EL	15,800	3.7	63	322
Orito	2265EL	500	2.9	60	259

The Mineral Resource that was converted to the potentially economic portion of the Mineral Resource was estimated at a 200 g/t AgEq cut-off grade. This cut-off grade was based on the following parameters, presented in Table 16.2.

Table 16.2 AgEq Cut-Off Parameters

Ag \$/oz	\$18
Au \$/oz	\$1,200
Concentrate Recovery Ag	73%
Concentrate Recovery Au	84%
Smelter Payable Ag	96%
Smelter Payable Au	98%
Mining Cost \$/t	\$56.23
Process Cost \$/t	\$22.00
G&A Cost \$/t	\$10.00
NSR Ag \$/g	\$0.33
NSR Au \$/g	\$30.48
Mine Cutoff \$	\$88.23
Process Cut-off \$	\$32.00
Mine Cutoff AgEq g/t @ 200tpd	202.3
(Use)	200

16.2 Diluted and Recovered Mineralization

Captive cut and fill mining is the proposed mining method for both the Compas and Orito Veins. Mine dilution is estimated to be 12%, represented by an approximate 30cm thick skin around the mining outline. Dilution grades were estimated within this 30cm skin. The average vein thickness of the Compas Vein is estimated to be 2.5m. Average vein thickness of the Orito Vein is estimated to be 1.5m. A summary of mining dilution and recovery estimates is presented in Table 16.3.

Table 16.3 Mine Dilution and Recovery Estimates

Dilution - Captive C&F @ 30cm	12%
Au Dilution Grade - (g/t)	0.5
Ag Dilution Grade - (g/t)	20
AuEq Dilution Grade - (g/t)	0.8
Mine Recovery / Extraction	95%

Mine dilution and extraction was applied to stope tonnes only. A detailed summary of mine diluted and recovered potentially mineable resources, by area, is presented in Table 16.4.

Table 16.4 Diluted / Recovered Potentially Mineable Mineralization

Area	Level	Tonnes (t)	Au (g/t)	Ag (g/t)	AgEq (g/t)
Compas Total		173,300	6.6	94	553
Orito Total		126,400	5.9	75	490
Total		299,700	6.3	86	525
Details					
Compas (MB1)	2400EL	2,100	3.3	19	252
Compas (MB1)	2375EL	5,600	4.1	25	308
Compas (MB1)	2350EL	12,100	5.0	41	392
Compas (MB1)	2325EL	11,300	4.8	64	399
Compas (MB1)	2300EL	7,600	4.1	45	329
Compas (MB2)	2400EL	600	4.0	28	308
Compas (MB2)	2375EL	9,400	4.6	36	364
Compas (MB2)	2350EL	10,300	7.8	51	602
Compas (MB2)	2325EL	8,500	4.8	48	385
Compas (MB2)	2300EL	1,300	3.4	60	301
Compas (MB3)	2375EL	700	9.3	88	742
Compas (MB3)	2350EL	16,500	10.1	94	805
Compas (MB3)	2325EL	30,700	11.6	122	931
Compas (MB3)	2300EL	23,700	5.6	175	567
Compas (MB3)	2275EL	14,300	3.1	157	371
Compas (MB3)	2265EL	2,400	3.6	160	413
Compas (MB4)	2350EL	5,200	4.1	47	336
Compas (MB4)	2325EL	7,300	6.1	79	511

Area	Level	Tonnes (t)	Au (g/t)	Ag (g/t)	AgEq (g/t)
Compas (MB4)	2300EL	3,600	3.9	81	350
Orito	2375EL	8,800	5.4	70	448
Orito	2350EL	34,100	6.9	75	560
Orito	2325EL	35,200	6.8	80	560
Orito	2300EL	30,800	5.3	82	455
Orito	2275EL	16,800	3.3	58	294
Orito	2265EL	500	2.6	56	238

There is a total 299,700t, grading 6.3 g/t Au, 86g/t Ag and 7.5 g/t AuEq, scheduled to be mined, life-of-mine (LOM).

16.3 Mine and Stope Development

The Potentially Mineable Mineralization for the Compas and Orito Veins extends from the 2,415m to 2,265m elevations, a vertical distance of 150m, and has a lateral extent of approximately 700m. A conceptualized captive cut and fill mining method plan has been laid out to extract the deposit using in-stope micro scooptrams and hand-held pneumatic drills.

Primary access to the mineral deposit will be via a 535m long trackless haulage drift (adit), from the Portal, at the 2265 m Level. The Compas and Orito Vein mineralization are connected by a 407m long haulage drift. Please refer to Figure 16.1 Drawing No. 1 'Compas and Orito Isometric Drawing' and Figure 16.4 Drawing No. 4 'Compas and Orito Composite Plan View' for illustrations of the overall mine plan, and the location of the Compas and Orito Vein Mineral Resource. Access to the mineralized zones will be via a series of access cross-cuts driven at the 2300 and 2265 Levels, at the Compas Vein, and at the base (bottom) of the Orito Vein at the 2285 Level. Please refer to Figure 16.2 Drawing No. 2 'Compas – Longitudinal Projection and Mining Sequence', and Figure 16.3 Drawing No. 3 'Orito - Longitudinal Projection and Mining Sequence' for further development details.

Figure 16.2 Drawing No. 2 'Compas – Longitudinal Projection and Mining Sequence

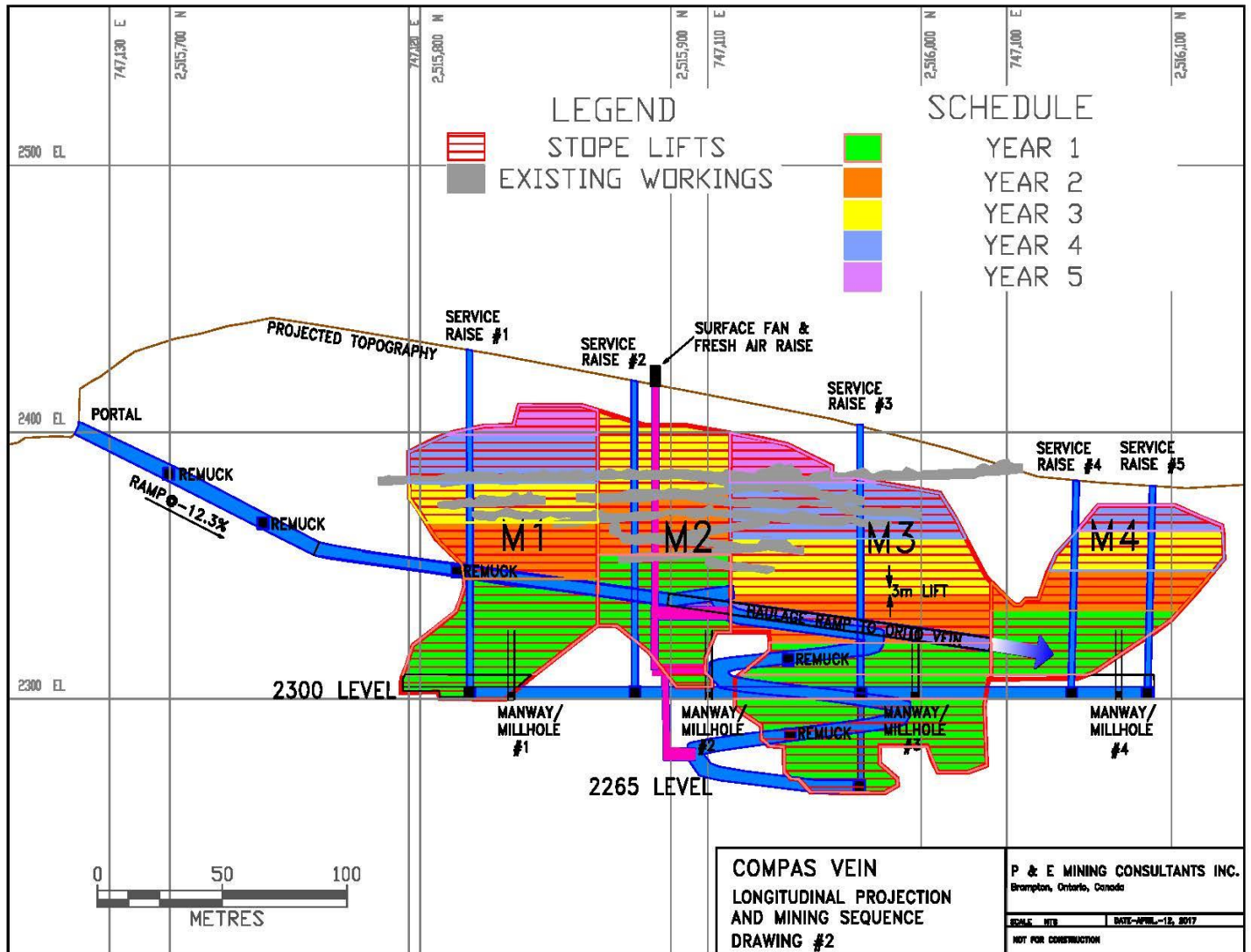


Figure 16.3 Drawing No. 3 'Orito - Longitudinal Projection and Mining Sequence'

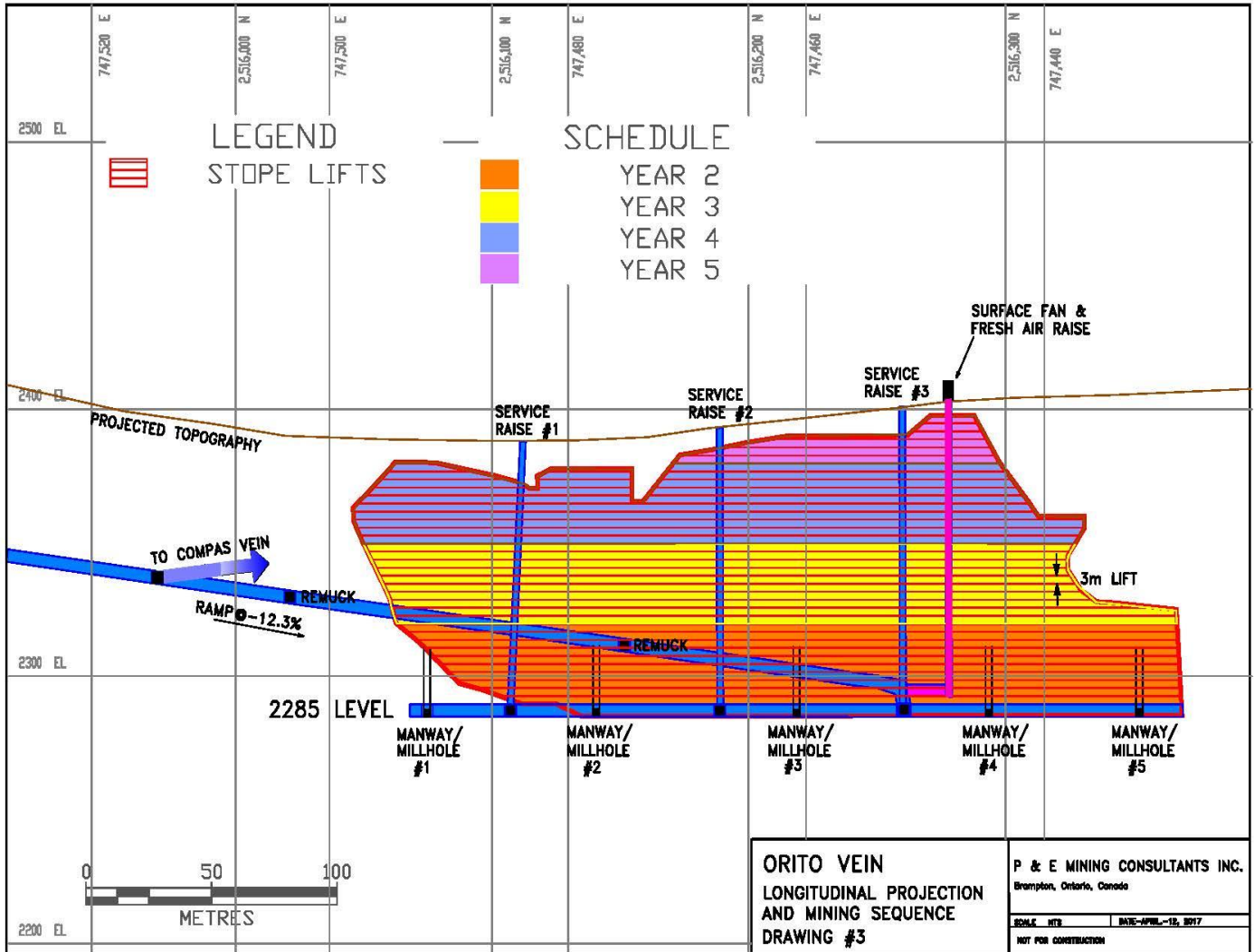
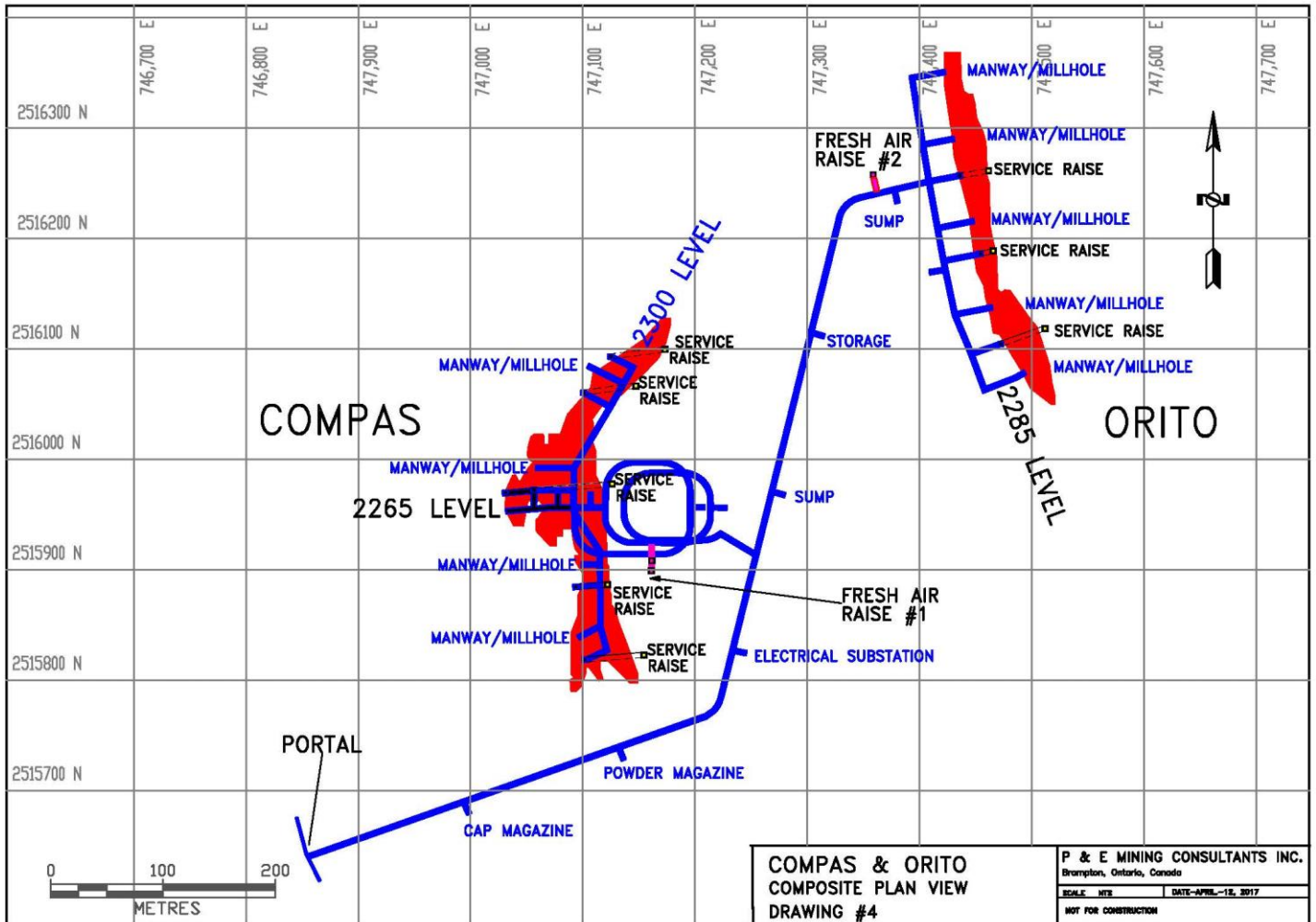


Figure 16.4 Drawing No. 4 'Compas and Orito Composite Plan View'



An initial 3m high by 2.5m wide drift-in-mineralization will be driven at the base (bottom) of each stope, the full longitudinal extent of mineralization. A minimum two access / ventilation / millhole raises will be driven in the full vertical extent in mineralization, from this drift-in-mineralization to break through on surface. At this point a second 3m high lift will be excavated. Access to the stoping area will be either from above, via the break-through raises to surface, or below, via mill holes / manways constructed in the unconsolidated backfill. Backfill will be dumped into the stopes via the break-through raises to surface. Mineralization will be removed from the stoping area via the mill holes.

There is a total life-of-mine (LOM) 4,536m of mine and stope development planned. A summary of this development, by type and cost category, is presented in Table 16.5.

Table 16.5 Summary of LOM Development (m)

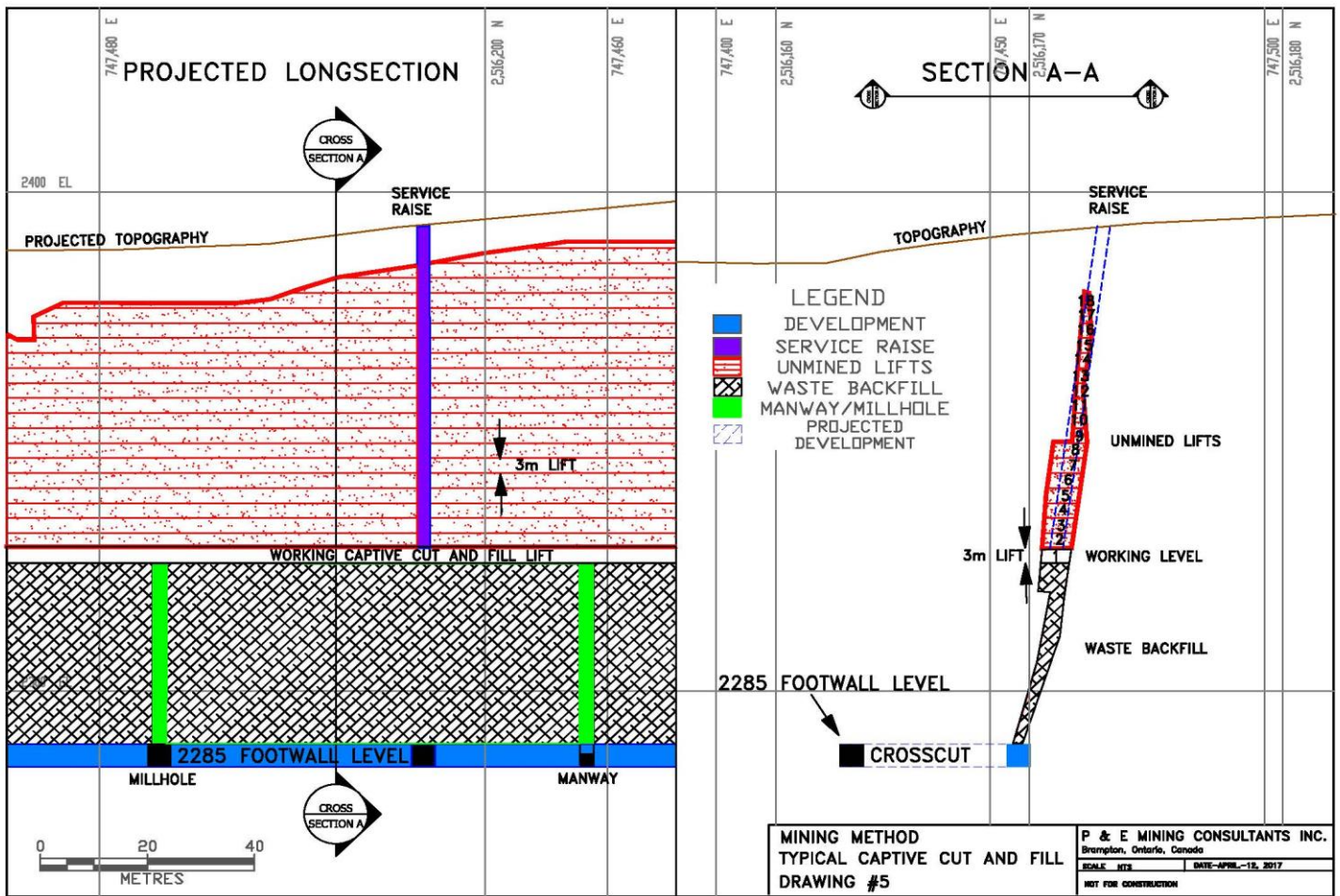
Description	Total (m)
Ramp @-12% - CAPEX	704
Ramp Re-muck - CAPEX	72
Major Access - CAPEX	943
Raising for CCF - OPEX	980
Level Access - OPEX	893
Access FAR - OPEX	82
Ventilation - OPEX	259
Re-muck - OPEX	60
Drifting in Mineralization - OPEX	289
Misc Inf - OPEX	254
Total Development	4,536

16.4 Captive Cut & Fill Mining Method

The mining method envisaged is captive cut and fill using in-stope micro scooptrams and pneumatic hand held drills. Please refer to Figure 16.5 Drawing No. 5 'Mining Method – Typical Cut and Fill'. The average thickness of the potentially mineable mineralization is estimated to be 2.5m at the Compas Vein and 1.5m at the Orito Vein.

Cut and fill lifts will be excavated 3m high by the width of the mineralized domain. Breasts will be drilled off and blasted either using up-holes (uppers) or horizontal holes, depending on mineral continuity, ground conditions and room in the stope area. Multiple working faces can be accessed by mining a number of lifts at the same time in a stope via up-and-down ramps constructed in the backfill. There is an estimated 48 - 3m high lifts at the Compas Vein and 38 - 3m high lifts at the Orito Vein. Mining proceeds from the bottom up.

Figure 16.5 Drawing No. 5 'Mining Method – Typical Cut and Fill'



16.5 Schedules

Underground mining will be at a steady state production rate of 200tpd on a schedule of 350 days per year (70,000tpy). The 200tpd decision can be supported using “Taylor’s Rule”, as follows:

$$Life = 0.2\sqrt[4]{Tonnage} \quad Production(mt/day) = \frac{Tonnage}{MineLife \times OperatingDays}$$

Using Taylors rule the Mine Life is estimated to be 4.7 years at a production rate of 183tpd for approximately 300,000 tonnes mill feed.

Initially the 200tpd production will come from the Compas Vein since it will have a shorter pre-production period being closer to the portal. The production schedule pursues a steady state 100tpd each from the Compas and Orito Veins with both projects finishing within the same year. Steady state production is achieved at the beginning of Year 2 and continues until the end of mine life in Year 5.

16.5.1 Development Schedule

The portal is located in the wall of a quarry just southwest of the Compas Vein. The development schedule focuses on critical-path development required to start the Compas Vein and delays the non-critical path Orito Vein development.

The development rate used for the critical path single heading development is 125m/month using development Crew No1. Flow through ventilation is established 660m into the development from the portal along the Compas Vein decline to surface.

Once a multiple heading scenario exists, a second development Crew No2 starts, allowing Crew No1 to focus on critical path development. Compas Vein mining blocks are scheduled to begin producing 200tpd starting in Year 1. The earliest start times for the mining blocks are indicated in Table 16.6.

Table 16.6 Summary of Compas Vein Earliest Start Month

Elevation	Area	Earliest Start Month
2300el	Compas (MB1)	12.1
2300el	Compas (MB2)	11.3
2265el	Compas (MB3)	13.6
2300el	Compas (MB4)	13.2

The pre-production development for the Orito Vein is delayed until after production from the Compas Vein begins in Year 1. It will take 12 months of pre-production development at 125m/month to bring the Orito Vein into production at the beginning of Year 2. A second ventilation raise to surface will be excavated at the Orito Vein adjacent to the haulage ramp.

Little development will be required once the Compas and Orito Veins are in steady state production. A summary of yearly development requirements is presented in Table 16.7.

Table 16.7 Mine and Stope Development Schedule (m)

Operation	Development Item	Units	Total	Yr-1	Yr1	Yr2
Compas Vein	Ramp @-12%	(m)	704	693	11	
	Ramp Remuck	(m)	72	36	36	
	Main Haul Ramp	(m)	535	535		
	Raising for CCF	(m)	623	0	498	125
	Level & X-Cuts	(m)	507	380	76	51
	Fresh Air Raise	(m)	61	49	12	
	Ventilation Raise	(m)	142	113	29	
	Remuck	(m)	48	48	0	
	Manway	(m)	133	39	61	34
	Misc Infrastructure	(m)	175	18	152	5
		Subtotal	(m)	3,001	1,910	875
Orito Vein	Main Haul Ramp	(m)	408		408	
	Raising for CCF	(m)	358		358	
	Level & X-Cuts	(m)	386		386	
	Fresh Air Raise	(m)	21		21	
	Ventilation Raise	(m)	117		117	
	Remuck	(m)	12		12	
	Manway	(m)	156		156	

Operation	Development Item	Units	Total	Yr-1	Yr1	Yr2
	Misc Infrastructure	(m)	79		13	67
	Subtotal	(m)	1,536		1,469	67
<hr/>						
Total	Ramp @-12%	(m)	704	693	11	
	Ramp Remuck	(m)	72	36	36	
	Main Haul Ramp	(m)	943	535	408	
	Raising for CCF	(m)	980	0	855	125
	Level & X-Cuts	(m)	893	380	462	51
	Fresh Air Raise	(m)	82	49	33	
	Ventilation Raise	(m)	259	113	146	
	Remuck	(m)	60	48	12	
	Manway	(m)	289	39	217	34
	Misc Infrastructure	(m)	254	18	165	72
		Total	(m)	4,536	1,910	2,344

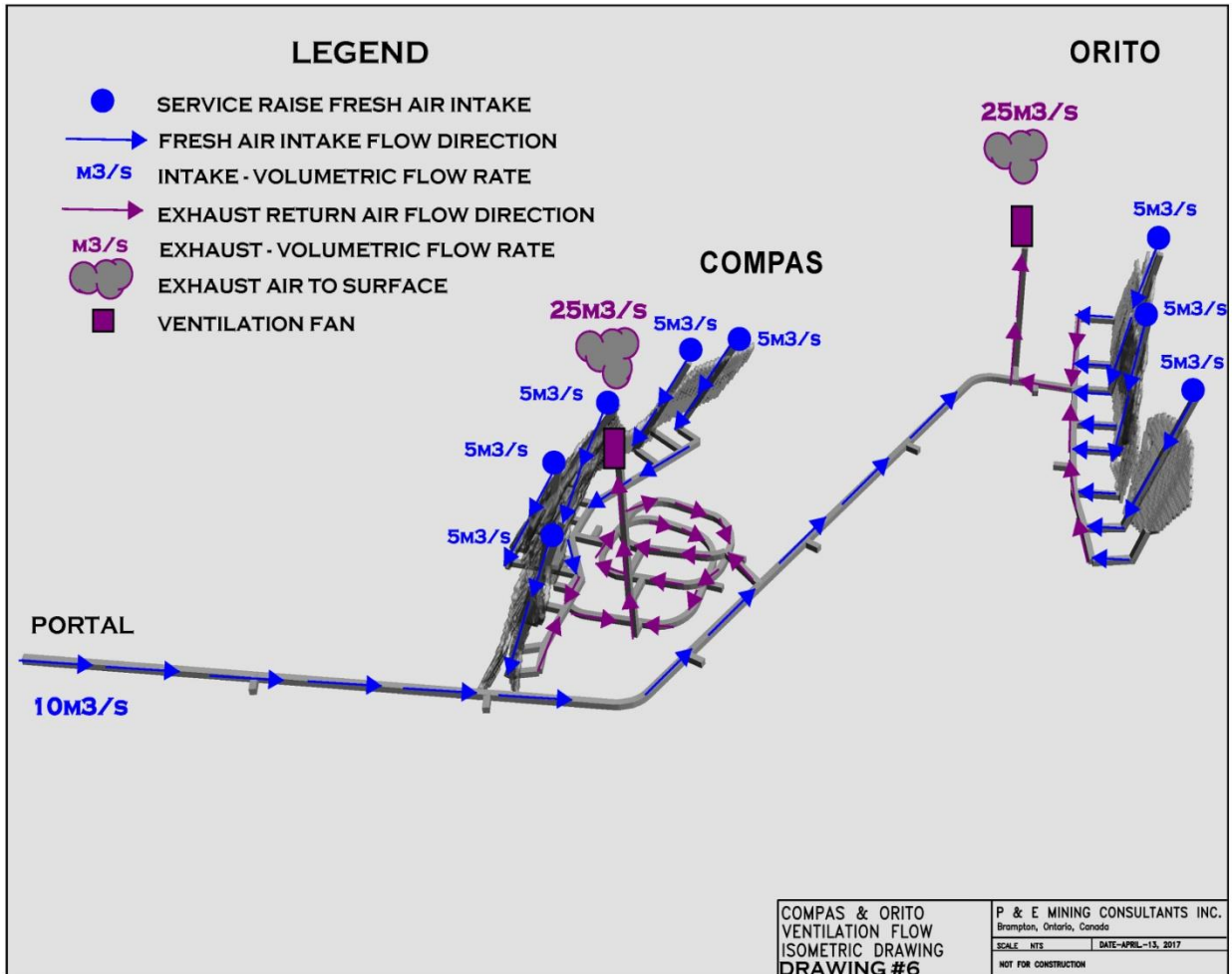
16.6 Ventilation

El Compas project has two areas to ventilate: the Compas and Orito Veins. Operating underground equipment indicates a peak airflow requirement of an estimated 92,549 CFM or 43.70m³/s. Conservatively, total airflow is assumed as 50m³/s and it is assumed to be equally distributed or 25m³/s for each area. Surface fans will be installed on top of the exhaust raises at the Compas Vein and the Orito Vein to exhaust 25m³/s from each mining area.

Fresh air enters the mining areas through the service raises in each mining area, and also through the portal. The portal adit is 4.5m x 4.5m, other major drifts are 4m x 4m, and the raises (exhaust and service) are 2.4m x 2.4m. The Compas Vein gets all its fresh air through the Compas Vein service raises and return air exits through the Compas Vein exhaust raise. The Orito Vein gets 16 m³/s of fresh air through the Orito Vein service raises and 9m³/s of fresh air from the main haulage drift. Exhaust air from the haulage drift and the Orito Vein exits through the Orito Vein exhaust raise. Minimum value of airflow velocity in the haulage drift is 0.4m/s, which is acceptable as it is more than 0.3m/s (required for preventing dust particles from settling on floor).

Ventilation plan Figure 16.6 Drawing No. 6 'Compas & Orito – Ventilation Flow Isometric Drawing' illustrates the results of a ventilation simulation exercise based on the assumptions stated above.

Figure 16.6 Drawing No. 6 'Compas & Orito – Ventilation Flow Isometric Drawing'



17.0 RECOVERY METHODS

17.1 Summary

The treatment of the El Compas mineralization will be performed at the La Plata processing facility located 20km from the mine. The facility is accessed by all-weather roads from the El Compas mine and the nearby city of Zacatecas.

The plant will be modified to produce a single gold-silver concentrate which would be sold to smelters and refiners. The process flowsheet will consist of conventional comminution, gravity and froth flotation. Endeavour Silver will upgrade the existing plant so that it can safely and reliably process 250tpd (200tpd from Endeavour Silver mining and 50tpd from toll mining) of mineralization averaging ± 5 g/t Au and ± 96 g/t Ag.

The projected recoveries of gold and silver based on open-circuit rougher and cleaner flotation tests are 83.5% and 73%, respectively. The cleaner concentrate grade will be 868 g/t Au and 12,095 g/t Ag.

17.2 Process Description

The process flow sheet is given in Figure 17.1. The major existing plant equipment is given in Table 17.1. The modified circuit will incorporate the existing equipment to as great an extent as possible in order to reduce capital costs.

The plant will process 250tpd at 93% availability. The design criteria for the plant are given in Table 17.2.

The mineralization will be delivered by truck from the mine in 20 tonne loads. Upon arrival at site, each truckload will be weighed on a platform scale. The mineralization will be dumped directly through a 200mm grizzly into a 63 tonne receiving hopper. Oversize (+200 mm) will be broken with a portable rock breaker. Excess material delivered from the mine is placed in separate coarse mill feed material pads, capable of accommodating up to 3,200 tonnes of mill feed. The mineralization from local miners will also be stored on pads before crushing and milling. The stockpiles will be located near the hopper in order to be fed into the plant with a front end loader.

Figure 17.1 Process Flowsheet
(Red Area Will Be Secured Area with Cameras)

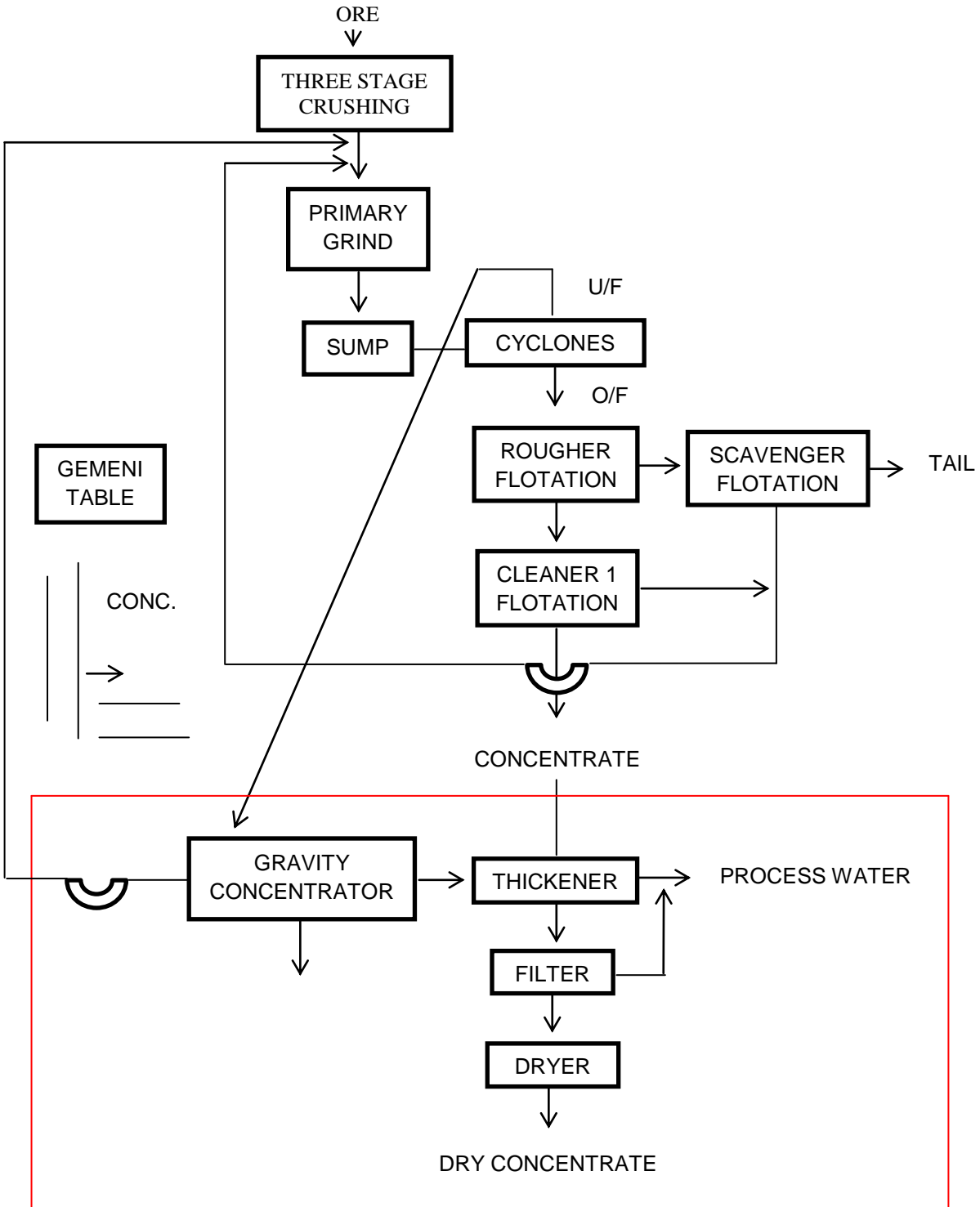


Table 17.1 Major Existing Plant Equipment

Item	Description
Platform Scale	RCC1550 – 50 Ton 15m X 3m
Coarse Mill Feed Bin	63 Tonne (70 Ton), 10m X 9m/8” Grizzly Opening
Bin Discharge Nozzles	Manual Steel Clam 2 ea., 70 X 30cm
Jaw Crusher (primary)	Manyu 75 HP, Series 40-Manye – 1989, 0.45m X 1.2m
Crusher Conveyer Gallery	Includes Conveyers & Motors, Chutes, Walkways
Belt Magnet	Eriez Permanent Magnet #SP-6330-MC-2
Cone Crusher (Secondary)	Symons 4 ft. Crusher, C/W 150 HP Type J 900 rpm Motor
Cone Crusher (Screen Oversize)	Symons 4-1/4 ft. Short Head Crusher, C/W Siemens 150 HP, 60 HZ, 1180 rpm Motor
Hoist (Crushing Area)	Yale – 50 Ton
Vibrating Screen	5” X 12” Alis Chalmers Double Deck Inclined Screens c/w Motor & Conveyor Feed Chute
Fine Mill Feed Bin System (2 ea.)	410 Tons Bins c/w with Hopper Feeders, Conveyer load Cell and Discharge
Ball Mill (Larger)	Avante Ball Mill 8 ft. Dia by 9 ft., 440V, 350 HP
Mill Discharge (Large Mill)	Discharge Hopper 2 X 2. 45 X 1.25m c/w 2 ea 30HP Denver SRL 4” X 5” pumps (1 standby)
Ball Mill (Smaller)	Marcy Ball Mill 7 ft. Dia by 7.5 ft., 440V, Motor Missing
Mill Discharge (Small Mill)	Discharge Hopper 1.46 X 1.9 X 0.95m c/w 2 ea 15HP Denver SRL 4” X 5” pumps (1 standby)
Hydroclones	Krebs B15-D c/w Feed Discharge Boxes
Sump Pumps	2.5” Gallagher c/w 15HP motor, grinding & Flotation Areas
Overhead Crane (Grinding Area)	Yale – Track Mounted Travelling Crane – 3 Ton
Mix Tanks (2 ea.)	6ft. X 6ft., 7ft. X 7ft.; each with 20 HP mixer, 23” Impeller
Float Rougher Cells	Gardner Denver @ 25 to 100 ft3 Cells c/w with Diffusers, Impellers, Launderers
Float Cell Motors/Blowers	10 – 25 HP Motors for Float Cells, Siemens Air Blowers 25 HP
Thickeners (2 ea.)	30 ft. Dia., & 50 ft. Dia., each on Concrete Foundation, Eimco Rake, Motors, Gearing

Table 17.2 Process Design Criteria

Item	Units	Value
Operating Schedule (Grind, Leach, Tailing) Plant Capacity @100% operating time		
Shifts/Day	#	2
Hours/Shift	hr.	12
Throughput (Tonnes)		
Daily Processing Rate	t/d (dry)	269
Hourly Processing Rate	t/hr. (dry)	11.2
Overall Plant Availability	%	93
Annual Process Production	tpa	91,312
Ore Description		
Mineralization Specific Gravity	t/m3	2.6
Ore Moisture Content	Wt.%	4.0
Bond Ball Mill Work Index	kW/h/t	19.0
Gold Mill Head Grade Range	g/t	1-10
Gold Head Grade (Average Mill Feed)	g/t	5
Silver Head Grade Range	g/t	15-92
Silver Head Grade (Average Mill Feed)	g/t	50
Precious Metal Recoveries (Based on Average Au Head Grade)		
Tabled Gold Gravity Recovery	%	30
Tabled Silver Gravity Recovery	%	10
Combined Gold Gravity & Float Recovery	%	83.5
Combined Silver Gravity & Float Recovery	%	73.0
Processing Parameters (Comminution Circuit)		
Top Size Crusher Feed (ROM)	mm	200
Coarse Mineralization Stockpile Capacity	tonnes	3200
Crushed Mineralization Particle Size Stage 1 (Jaw Crushed)	mm	50
Top Size Ball Mill Feed	mm	12
Crushed Mineralization Particle Size	P ₈₀ mm	9.5
Grind Particle Size (Ball Mills Cyclone O/F)	P ₈₀ μ	75
Processing Parameters (Flotation Circuit)		
Feed Pulp Density	%	35
Flotation Retention Time Rougher	min	12.5
Flotation Retention Time Scavenger	min	7.5
Cleaner 1 Retention Time	min	8.75
Flotation Concentrate Generation	t/d (dry)	1.56
Ratio of Concentration	Ratio	160
Conc. Thickener Settling Rate (pH 10.5)	M ² /t/d	0.6
Conc. Thickener Underflow Pulp Density	Wt.%	50

Crushing will be done for 12 hours per day to ensure mill feed is available over the evening shift and with sufficient contingency to allow for scheduled crusher maintenance. The coarse mill feed material is delivered from the receiving hopper via a belt feeder to a 75 HP 0.6 m X 0.9 m (24" X 36") Manyu jaw crusher. Primary crushing reduces the rock to a nominal 50 mm (2") which is conveyed onto secondary crushing in a standard 150 HP 1.3m (4.25") Symons cone crusher.

The secondary product is sent to a double deck vibrating screen, incorporating a 9.5mm (3/8") bottom slot opening providing for a product particle size 80% passing (P_{80}) of 6.4 mm (1/4"). The plus 9.5mm material is sent to a 150 HP 1.2 m (4") Symons short head cone crusher operated in closed circuit with the screen. The minus 9.5 mm screened undersize is sent to a fine mill feed material bin having a 372 tonne live load capacity.

Mill feed is delivered from a fine mill feed material bin on a conveyor to feed the ball mill. The ball mill consists of an Avante 350 HP, 8' dia. X 9' mill.

The ball mill will operate in closed cycle with a dedicated hydrocyclone using a 300% circulating load. The hydrocyclone overflow would target a particle size of P_{80} of 75 microns that is directed to flotation. Hydrocyclone underflow would be sent to a splitter box, from where it will be pumped to a 1.7 mm (10 Tyler mesh) vibrating screen for gravity feed.

The minus 1.7mm gravity feed is forwarded to a semi-continuous centrifugal, which will be located in a secure area along with concentrate thickener and filter. Automatic backflush times from the bowl are typically set at 30 minutes and can be adjusted depending on the expected gold head grade. Centrifugal concentrator tailings are pumped back to the ball mill.

The resulting rougher gravity concentrate is sent to the thickener. In case it needs further upgrading, a shaking table will be installed in the security area.

The cyclone overflow discharges to a flotation feed conditioning tank that allows for four minutes of conditioning time. Based on laboratory observations during testing, the flotation feed pulp density will be adjusted to 28 wt. % solids, which is lower than standard, in order to assist with dispersing colloidal particles. Copper Sulphate ($CuSO_4$) and flotation collectors including potassium amylxanthate (PAX), A3477 and frother AF65 are added in the conditioning tank.

After conditioning and adjusting pulp density of the flotation feed, it is forwarded to rougher float cells allowing for 12.5 minutes retention time. The rougher flotation tailings are sent to the rougher scavenger flotation which will have 7.5 minutes of flotation time. Frother and additional collector are added, as required, during flotation. The bulk rougher concentrate is collected and sent to the cleaner flotation.

The cleaner flotation tailings and scavenger concentrate are combined and pumped to the primary ball mill. The scavenger flotation tailings are pumped to the tailings storage facility.

The combined flotation and gravity concentrate will be pressure filtered to minimize the moisture content and the filter cake will be bagged and ready for shipment. The gravity concentrator, thickener, filter, bagging and store facility will be in a secured area with cameras.

17.3 Energy and Water Requirements

The energy requirements were calculated based on the horsepower installed for the major equipment in the mill. The list of major equipment and associated horsepower are given in Table 17.3. Assuming miscellaneous equipment (conveyor belts, gravity concentrator, pumps, etc.) will require 20% of the major equipment horsepower (HP), the total required horsepower for the processing plant is estimated to be 1,155HP.

Since the locked-cycle flotation test has not been completed, the water requirements were estimated. One generally requires three to four tonnes of water per tonne of ore. However, in the present case, the plans are to thicken the tailings and recirculate the water.

Assuming the tailings are thickened to approximately 55% solids, it is reasonable to estimate that the water requirements will be one tonne of water per tonne of solids or 250 cubic metres per day.

Table 17.3 Major Plant Equipment and Associated Power

Equipment	HP
Jaw Crusher	75
Cone Crusher (4 ft.)	150
Cone Crusher (4.25ft.)	150
Ball Mill	350
Pump	30
Sump Pump	15
Mixing Tanks (2)	40
Rougher Flotation Cells (4-100 ft ³)	60
Scavenger Flotation Cells (3-100 ft ³)	45
Cleaner Flotation Cells (32 ft ³)	15
Air Blower	25
Thickener (6 ft. diam.)	2
Filter (10 ft ² required; 60 ft ² plate & frame)	5
Sub-total	962
Miscellaneous equipment (20% of above)	193
Total	1,155

17.4 Beneficiation Plant Process Reagents

Assuming that the plant will require 75% of the reagents used in the open-circuit laboratory test due to recycling of process streams containing reagents, the reagent usage per tonne of mill feed was calculated and is given in Table 17.4. Copper sulfate may not be needed when processing fresh ore. It was needed to clean the oxidized surfaces due to testing drill core reject samples.

Table 17.4 Reagent Consumption Per Tonne of Mill Feed

Reagents	Grams/tonne
Grinding Media/Mill Liners	1,000
Copper Sulfate	100
Potassium Amyl Xanthate	38
AP3477	23
MIBC	15
AF65	11
Flocculant	10

18.0 PROJECT INFRASTRUCTURE

18.1 Existing Infrastructure

The La Plata process plant was constructed by the Zacatecas state government in 2012/2013 for processing minerals available from local small miners in the state. The plant is located 5 km from Zacatecas city on mostly paved roads. The plant was built with a mix of new and used equipment and last operated in October, 2014.

In December, 2016 Endeavour Silver used a drone to take aerial photos of the La Plata site. A composite photo was produced (Figure 18.1) which shows the tailings area and the plant complex.

Figure 18.1 Aerial Photo of La Plata Site



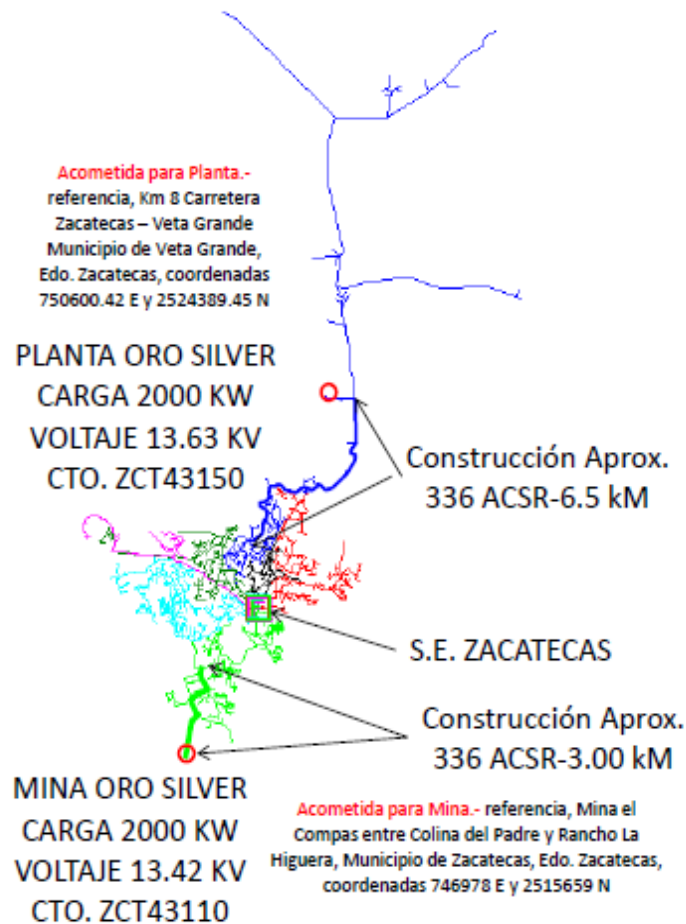
Since its shutdown, the plant has been stripped of all its electrical cabling and equipment and has received no care or maintenance. Accordingly, the plant needs a complete upgrade so that it can safely process the mill feed according to the flowsheet developed for the project at 250tpd with 90% reliability.

Process water is supplied by the city of Zacatecas through an existing water pipe.

The power supply to the plant and mine sites must be upgraded by CFE before operations can start. The upgrades required are shown on Figure 18.2

Figure 18.2 Upgrades Required to Supply Plant and Mine Sites with Power from CFE

CIRCUITOS DE SUBESTACION ZACATECAS CON SERVICIOS DE MINERA ORO SILVER



There is an administration building (needing minor repairs), a laboratory (needing test equipment and lab supplies), a weigh scale (needing repairs), and a gate house and fence on the plant site. There is a sewage collection system (needing two bio-digesters).

The process plant includes crushing facilities, conveyors, storage bins, two ball mills, two flotation lines (see Figure 18.3), thickeners, filter press area, and concentrate shed. None of this equipment is ready to operate, for example, besides the missing electrical components, the ball mills lack key parts, there is no filter press, a cone crusher is missing, some conveyor belts need replacing, most of the pumps have had their motors removed, and all the encrusted tanks and thickeners need a blast cleaning and overhaul.

Figure 18.3 Flotation Area



The main tailings storage area on the site has existing retaining structures but these are neither large nor safe enough to store more tailings.

The mine site is located within 18km of Zacatecas but the 1km road that connects the paved highway to the mine site needs to be upgraded. The mine portal will be located in an operating quarry (see Figure 18.4).

Figure 18.4 Mine Portal Site in Quarry

A gate house and fence is in place at the mine site and a drill core storage facility was constructed by Endeavour Silver adjacent to the gate house area.

18.2 Infrastructure for Project

The infrastructure to be constructed for the project is as follows:

Plant Area

- Change House
- Dining & Training Hall
- Warehouse
- Maintenance Shop
- Reagent Storage Facility
- Tailings storage facility (described in Section 20.0)

Mine Area

- Explosives Storage Facility
- Upgrade to 1km road connecting mine site to paved roads system

All the facilities will be low cost, minimal structures. The warehouse and reagent storage facility will be housed inside containers, the maintenance shop will be an addition to the crushing building, and the change house and dining hall will be pre-fab buildings.

19.0 MARKET STUDIES AND CONTRACTS

Endeavour Silver produces a silver concentrate which is then shipped to third parties for further refining before being sold. To a large extent, silver concentrate is sold at the spot price.

Endeavour Silver has a policy of neither hedging nor forward selling any of its products. As of the date of issuing this report, the company has not conducted any market studies, as gold and silver are commodities widely traded in world markets.

Due to the size of the bullion market and the above-ground inventory of bullion, Endeavour Silver's activities will not influence silver prices.

Table 19.1 summarizes the annual high, low, and average London PM gold and silver price per ounce from 2000 to 2016.

Table 19.1 Annual High, Low, and Average London PM Fix for Gold and Silver from 2000 to 2016

Year	Gold Price (US\$/oz)			Silver Price (US\$/oz)		
	High	Low	Average	High	Low	Average
2000	312.70	263.80	279.12	5.45	4.57	4.95
2001	293.25	255.95	271.04	4.82	4.07	4.37
2002	349.30	277.75	309.67	5.10	4.24	4.60
2003	416.25	319.90	363.32	5.97	4.37	4.88
2004	454.20	375.00	409.16	8.29	5.50	6.66
2005	536.50	411.10	444.45	9.23	6.39	7.31
2006	725.00	524.75	603.46	14.94	8.83	11.55
2007	841.10	608.40	695.39	15.82	11.67	13.38
2008	1,011.25	712.50	871.96	20.92	8.88	14.99
2009	1,212.50	810.00	972.35	19.18	10.51	14.67
2010	1,421.00	1,058.00	1,224.52	30.70	15.14	20.19
2011	1,895.00	1,319.00	1,571.52	48.70	26.16	35.12
2012	1,791.75	1,540.00	1,668.98	37.23	26.67	31.15
2013	1,693.75	279.40	1,257.42	32.23	5.08	21.26
2014	1,385.00	1,142.00	1,266.40	22.05	15.28	19.08
2015	1,295.75	1,049.40	1,160.06	18.23	13.71	15.68
2016	1,366.25	1,077.00	1,259.00	20.71	13.58	17.21

Over the period from 2000 to 2016, world silver and gold prices increased significantly. This had a favourable impact on revenue from production of most of the world's silver mines, including the three mines - Guanacevi, Bolanitos, and El Cubo - operated by Endeavour Silver.

Endeavour Silver has no contracts or agreements for mining, smelting, refining, transportation, handling or sales that are outside normal or generally accepted practices within the mining industry.

In addition to its own workforces, Endeavour Silver has a number of contract mining companies working at its three operating mines and contract miners will be used at El Compas.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT

20.1 Environmental Permitting

Mine permitting in Mexico is administered by the federal government body Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT). Guidance for the federal environmental requirements are derived from the Ley General del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA). Article 28 of the LGEEPA specifies that SEMARNAT must issue prior approval to parties intending to develop a mine. An Environmental Impact Assessment (by Mexican regulations called a Manifestación de Impacto Ambiental, or MIA) is the mechanism whereby approval conditions are specified where works or activities have the potential to cause ecological imbalance or have adverse effects on the environment. This is supported by Article 62 of the Reglamento de la Ley Minera. Article 5 of the LGEEPA authorizes SEMARNAT to provide the approvals for the works specified in Article 28.

The MIA for the El Compas Project was reviewed and approved by SEMARNAT in September, 2014. In an updated approval issued in March 2016, the processing plant and tailings facility were removed from the MIA approval, as it was identified that the Endeavour would rely on leased existing facilities. This relieves Endeavour of environmental and permitting liabilities associated with the processing and tailings management.

The processing plant and tailings facility are owned by the Zacatecas government and collectively are known as the “La Plata” facility. The facility is operated by a trust called the Fideicomiso Público de Promoción y Desarrollo Minero. SEMARNAT approved MIA for the “La Plata” facility in July of 2012.

The LGEEPA also contains articles that speak directly to conservation of soils, water quality, flora and fauna, noise emissions, air quality, and hazardous waste management. The Ley de Aguas Nacionales provides authority to the Comisión Nacional de Agua (CONAGUA), an agency within SEMARNAT, to issue water abstraction concessions, and specifies certain requirements to be met by applicants.

Another important piece of environmental legislation is the Ley General de Desarrollo Forestal Sustentable (LGDFS). Article 117 of the LGDFS indicates

that authorizations must be granted by SEMARNAT for land use changes to industrial purposes. An application for change in land use or Cambio de Uso de

Suelo (CUS), must be accompanied by a Technical Supporting Study (Estudio Técnico Justificativo, or ETJ).

The CUS application for the El Compas Project, accompanied by an ETJ, was reviewed and approved by SEMARNAT in June 2013. Similarly, the “La Plata” facility received its approved CUS in March of 2013.

Guidance for implementation and adherence to many of the stipulations of environmental legislation is provided in a series of Normas Oficiales Mexicanas (NOM). These NOM provide specific procedures, limits, and guidelines, and carry the force of law. Compliance with the NOM will be attained throughout the construction and operation of the project.

20.2 Topography

The topography in the region is characterized by gently rolling hills that range between 2,400m and 2,600m above sea level.

20.3 Soil

The dominant soil type in the project area is a medium textured lithosol, with a shallow depth (less than 10 cm). Soils in the project area support vegetation growth for some livestock grazing and limited agriculture, such as maize or cactus cultivation. However, the soils are generally in poor condition with high compaction from overgrazing and uncontrolled livestock management.

20.4 Climate

The climate is dry to semi-dry, characterized by an average annual temperature of 12°C to 18°C. The coldest months of the year are December and January and the hottest months are May and June. The maximum temperature occurs in the month of May, with regular temperatures in excess of 30°C, and an average of 18 °C. The minimum average temperature is in January a 10°C, although temperatures have been recorded at and around freezing (0°C). Frost is common during the winter months. The driest months are February and March, both with an average precipitation of 5mm. August is the wettest month, with average precipitation of 80mm. Total rainfall for the year averages approximately 370mm.

Annual evaporation exceeds precipitation and was calculated using the mean temperatures and project site latitude to be 650mm.

20.5 Flora and Fauna

The vegetation along the hillslopes is predominately matorral (shrubland) punctuated with grass dominated polygons. Shrubs typically grow to between 2 and 4 m in height. In the valley bottoms, pastures are common, which are characterized by grasses and graminoids. Livestock grazing is common in these areas.

Habitat in the project area has previously been affected by livestock range, as well as other mines and the extraction of rock, gravel and sand from unauthorized quarries. This in turn has reduced the diversity of wildlife species in the area. However, typical species of central Mexico are still prevalent, including numerous bird species, small mammals, and reptiles.

The rattle snake (*Crotalus scutulatus*) is the only species known to inhabit the area that is catalogued in the federal guidelines (Norma Oficial Mexicana NOM-059-SEMARNAT-2010). It is listed as not currently endangered or threatened but declining or subject to heavy exploitation.

20.6 Groundwater

No artesian conditions currently exist at the mine site, and there is no groundwater discharge from the quarry operated at the site. Endeavour Silver anticipates that there will not be any groundwater discharge from the El Compas Mine on a regular basis. Should there be local water-producing areas in the underground mine, or if there is water ingress during storm events, a mobile pump will be used to dewater the area for continued operations. 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. In order to comply with this NOM, any water that is pumped from underground will report to a settling pond, where it will be tested for compliance prior to discharge.

20.7 Social and Community Engagement

The El Compas Project lies within the Municipality of Zacatecas, which has a population of approximately 140,000. The economic drivers of the area are principally livestock production, agriculture, and light industry. Tourism is also an important contributor to the economy. However, during the development of the MIA, the following points were noted specifically for the Project area:

- It is not within an area of influence of a protected natural area;
- Although protected archaeological sites exist nearby, the Project area is not an area of archaeological or historic interest;
- The area of interest is not considered to have aesthetic, unique or exceptional qualities within the area; and
- It is not an area that attracts tourists.

Open pit and underground mining is currently taking place within, and very close to Zacatecas as part other operations, and the municipality is a recognized mining area. The location of the portal will put it facing south-west into scrub land behind a small hill and limit any noise and surface activity entering the community to the north.

There is an existing rock quarry adjacent to the mine area. Access and use of the quarry will be maintained during the life of the El Compas Project.

20.8 Tailings Storage Facility (TSF)

20.8.1 TSF Layout

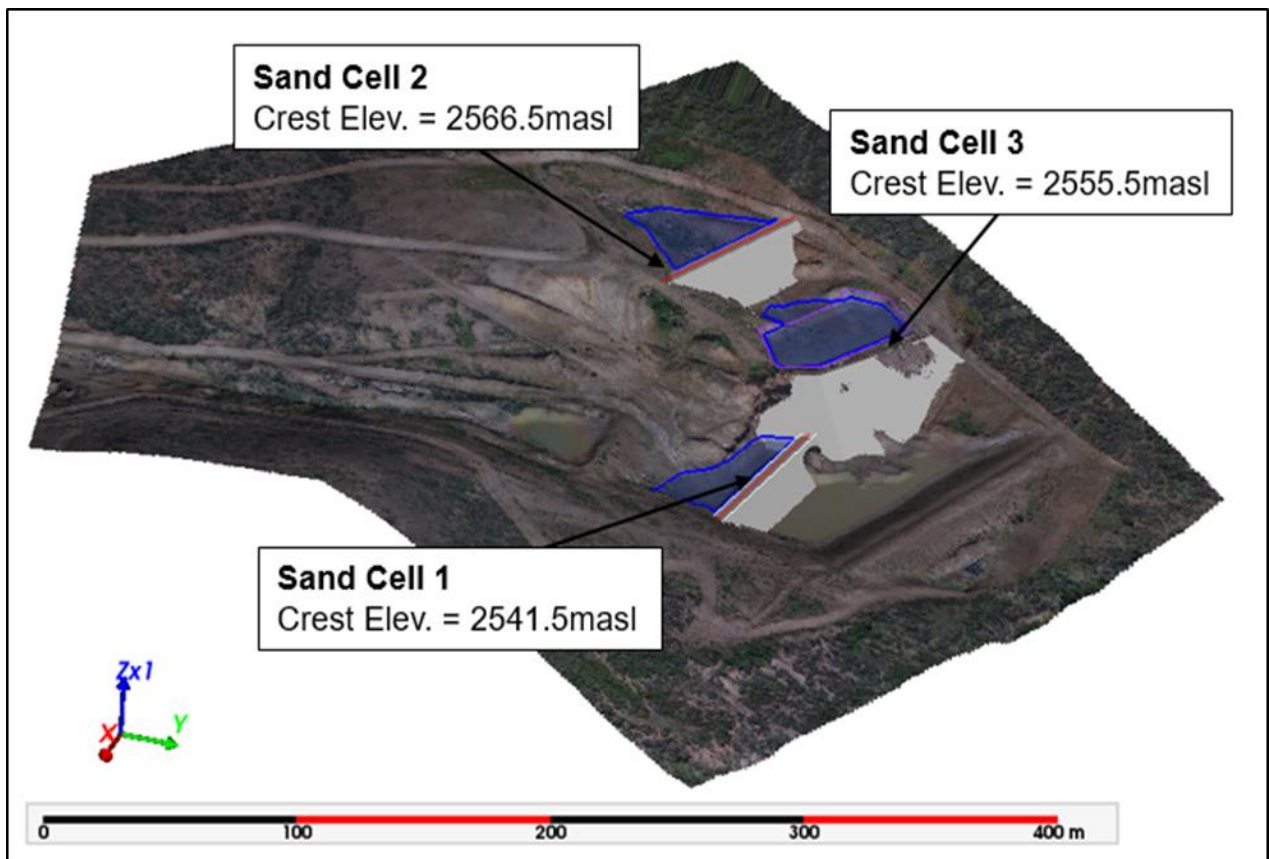
The El Compas Project will use the processing plant and tailings facility owned by the Zacatecas government (the La Plata facility) as described above. The existing tailings facility was previously designed, constructed and operated for a limited time by others. The TSF will be modified to suit the requirements of El Compas, which include storing tailings for 4 years at a milling rate of 250 tonnes per day (tpd). The total capacity in the TSF is approx. 365,000 tonnes of tailings.

Knight Piésold Ltd. (KP) developed the concept for tailings and water management in the TSF using the existing facilities. The tailings management concept utilizes upstream embankment expansions with fill and coarse drained

tailings (CDT) as construction materials placed and compacted in the upstream embankment zone.

The main requirement for tailings management at start-up is to maximize the production of coarse drained tailings for use as embankment construction material. Three sand cells will initially be developed and operated within the tailings basin to provide storage for coarse drained tailings. The sand cells will be operated in sequence, whereby tailings will be deposited in one cell while the other cell is allowed to drain. Ongoing excavation of tailings from the cells will provide fill material for the main embankment. An isometric view of the TSF layout for Year 1 is shown on Figure 20.1.

Figure 20.1 TSF Layout for Year 1



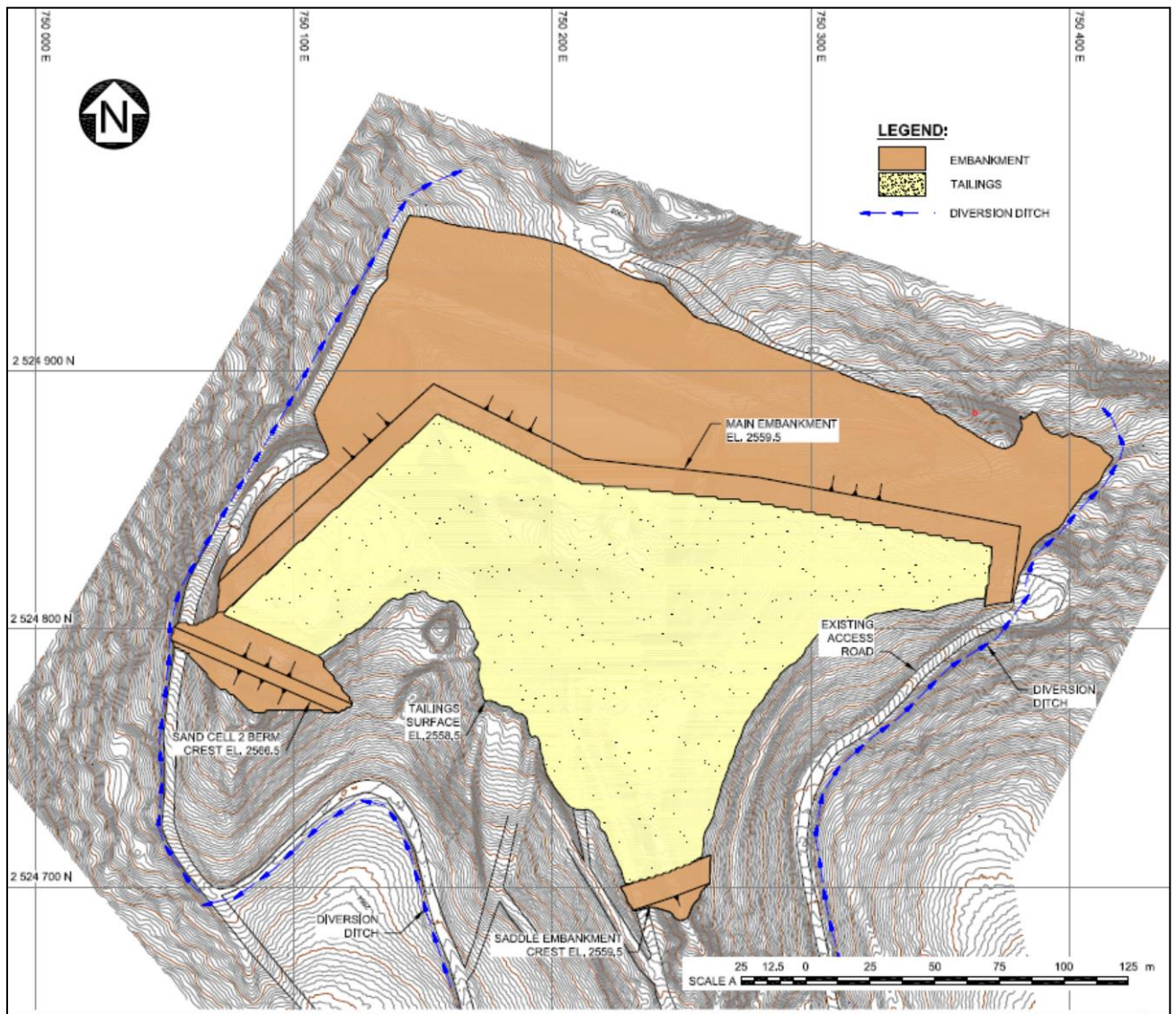
The main tailings embankment will be expanded by the upstream construction method using local borrow material for the compacted fill zone and tailings from the sand cells for the compacted coarse drained tailings (CDT) zone.

Construction with drained tailings involves mechanical excavation of the deposited tailings from the sand cells and placement along the main

embankment in a specified zone to develop a working platform. The working platform (compacted CDT) will extend out from the constructed embankment (compacted fill) to act as a buffer zone to keep ponded water or wet tailings away from the structural zone of the embankment. Tailings will then be deposited from this working platform.

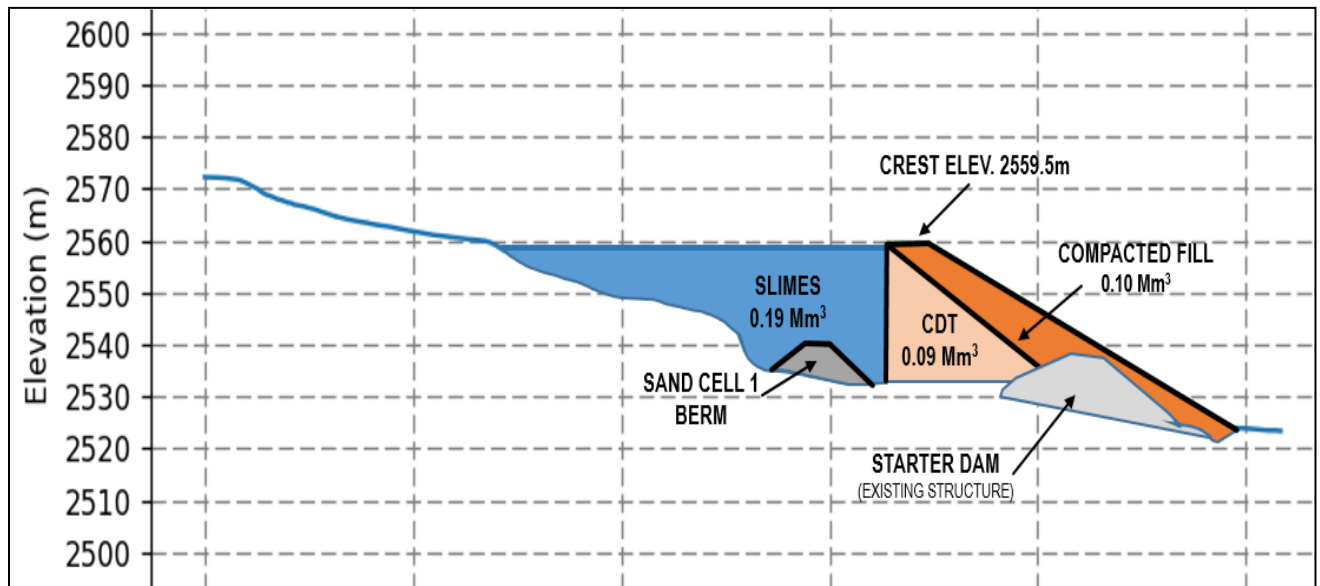
Two of the sand cells will be inundated by the main tailings embankment during operations. The remaining sand cell will continue to be operated as needed. The completed main embankment is shown with the plant on Figure 20.2.

Figure 20.2 Final TSF Layout



The TSF has storage capacity for 280,000 m³ of tailings (365,000 tonnes at an average dry density of 1.3 tonnes/m³). This includes 90,000 m³ of coarse drained tailings. The main embankment also requires approx. 100,000 m³ of compacted fill. A section through the main embankment is presented in Figure 20.3.

Figure 20.3 Main Embankment Cross-Section



A foundation drain will be installed in the lowest part of the tailings basin, against the main embankment. It will aid in dewatering the tailings near the embankment. The foundation drain will consist of granular material with corrugated drainage pipes. The granular material will be filter graded to separate tailings solids and allow for collection of water from the tailings slurry. The water will be directed to the existing reclaim pond.

20.8.2 Tailings Transport and Deposition

Process plant tailings will be thickened to a slurry solids content of approx. 50% (by mass). The thickened tailings will be delivered by gravity in an HDPE pipeline from the thickener to the TSF. This delivery system has already been used at El Compas. The tailings pipeline will be extended and moved to the sand cells as required, and then on to the main embankment. The pipeline will discharge tailings from different points along the embankment, as needed, to provide efficient filling and to develop drained tailings beaches. Spigot offtakes can be added if needed to enhance beach development.

20.8.3 Water Management

A high level water balance was completed for the TSF to assess the water supply and demand. Inputs included rainfall and runoff from the local (undiverted) catchment and water in the tailings slurry. Outputs included seepage, water retained in tailings voids and evaporation from a surface pond.

The inputs are greater than the outputs and this indicates that the TSF will operate in a slight surplus and as a result, available water will be reclaimed from the TSF for use at the processing plant.

The reclaim system for the TSF will include small floating pumps that can be operated from the sand cells during initial operations. They will pump available water to the existing reclaim pond. The pump(s) will be used in the main facility after the sand cells are inundated and tailings are deposited from the main embankment.

A pump and HDPE pipeline was previously operated at the reclaim pond, and this will be re-established to deliver reclaim water back to the processing plant. The reclaim water is a relatively small component of the overall demand for processing. Most of the water for processing will be provided from the city of Zacatecas.

Small diversion channels have been constructed around the TSF and these will be upgraded to limit runoff to the local (undiverted) catchment previously referred to.

20.9 Mine Closure

A conceptual closure plan and cost has been developed for the Project. There are no specific laws in Mexico that specify mine closure requirements, and there is no bonding requirement. The closure plan for the El Compas Project has been developed in consideration of best industry practice. The closure plan was designed to accommodate the following objectives:

- Health and security of the public
- Protection of the environment
- Ensure physical and chemical stability of post-closure structures
- Ensure unrestricted and unimpacted natural surface water flow

- Prevent erosion of post-closure structures from wind or water
- Safe removal of impacted surface structures and buildings
- Safety and security for people, wildlife, and livestock

Closure responsibility for the La Plata processing plant and TSF rests with the operating trust of the Zacatecas government (Fideicomiso Público de Promoción y Desarrollo Minero), who is the permit holder of those facilities.

Buildings and surface structures not being handed over to the state will be cleaned of residual fuels, lubricants, reagents, and wastes prior to being deconstructed and dismantled. Recyclable wastes will be reused wherever possible. All structures will be removed to ground level, with concrete slabs or other inert foundations covered with stored topsoil. All access roads to the portal will be blocked for safety using earthen berms accompanied by warning signs. The underground workings will be allowed to flood to the phreatic level.

Ongoing monitoring of the closure measures will be conducted to ensure successful implementation.

20.10 Environmental Program

The El Compas Project be designed to comply with the environmental regulations and standards in place in Mexico. The mining infrastructure and supporting facilities will need to be designed so as 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. This program will be required before and during mining operations and after mine closure. A program will be developed and submitted to SEMARNAT for review and approval prior to the initiation of construction activities.

21.0 CAPITAL & OPERATING COSTS

Capital and operating cost estimates were developed to evaluate the economic feasibility of the El Compas project. The capital costs comprise initial capital (incurred from the date of the project go-ahead to start-up of commercial production) and sustaining capital (incurred from start-up of commercial production to mine closure). The estimates are summarized in the following tables:

- Table 21.4 Summary of Capital Costs
- Table 21.7 Summary of Sustaining Capital Costs

Excluded from all capital costs are the sunk costs incurred prior to the project go-ahead, including all costs associated with:

- Property purchases
- Drilling and exploration
- Concession taxes and annual payments
- Assays and metallurgical testing
- Studies and technical reports including cost of outside consultants
- Advice and reports from third party professionals
- Endeavour Silver staff time and expenses in trips to site, meetings, and discussions with authorities, contractors, and other parties

The operating costs comprise operating and maintenance costs from all areas of Endeavour Silver's El Compas operations and administration. The operating costs are summarized in Section 21.2.

The capital and operating cost estimates were prepared by the following contributors:

- P&E Mining Consultants Inc. ("P&E") estimated the mining costs
- Smith Foster & Associates Inc. ("SFA") estimated the site infrastructure, process plant upgrade, Owner's costs, and PM/CM costs
- Knight Piésold Ltd. ("KP") estimated the tailings facilities engineering and construction costs
- Endeavour Silver Corp. ("Endeavour Silver") estimated the taxes, royalties, transport and refinery costs

21.1 Capital Costs

21.1.1 Basis of Capital Costs

The capital costs were estimated by engineers and construction managers with experience on similar mining projects in Mexico and were based on the following:

- Life of mine (LOM) production schedules derived from 3D block models
- Metallurgical test work by Resource Development Inc. (“RDi”), Denver
- Refurbishment of the existing La Plata plant was estimated by two mechanical contractors, two electrical contractors, and a contractor for refurbishing the conveyor belts. All contractors inspected the plant with the SFA Technical Manager to define the repairs and upgrade work required and submitted firm quotes for their scope of work
- Contractor quotes for contract mining work
- Vendor quotes for mine equipment and filter press
- Quote from Commission Federal de Electricidad (CFE) for connecting power supply to mine and plant
- Endeavour Silver and SFA data for all other equipment and materials
- The Project Execution Plan enclosed in Section 24 of this report
- Freight, duties, taxes, and vendor commissioning costs are included in equipment costs
- The direct costs include all contractors’ mobilization, management, overheads, site vehicles, utilities, surveying, and material testing
- Owner’s costs include internal Endeavour Silver project staff costs (management, procurement, accounting), vehicles, and communications equipment

The overall accuracy of the capital cost estimates is +/-15%.

The estimates are based on prices ruling 4th Quarter, 2016.

No allowance has been made for escalation and exchange rate fluctuations and the cost estimates exclude the costs of project financing.

A contingency of 10% was added to the pre-production capital costs to cover costs which are expected to be incurred but cannot be quantified with the level of information available. The contingency is less than a typical PEA capital cost estimate would include but, as most of the costs are based on firm contractor

quotes and the remainder come from similar, recent projects of Endeavour Silver in Mexico, the lower contingency was considered justified.

The contingency does not cover out-of-scope items or events that may arise during project execution, for example, large increases in material or equipment prices or legislation changes.

21.1.2 Mine Capital Costs

The mine capital costs comprise pre-production costs and sustaining costs. The pre-production costs include underground equipment purchased by Endeavour Silver, contractor pre-production development, and indirect labour and power costs all as detailed in Table 21.1.

Table 21.1 Summary of Pre-Production Mine Capital Costs

Description	Model	Units	US\$
Underground Equipment			
Tractors	New Holland	2	70,900
Grader	Cat M135H	1	150,000
U/G Fans	36"	6	83,900
Surface Fans		1	50,000
Main Pumps		1	150,000
Construct Portal		1	150,000
Construct Main Sump		1	250,000
Compressors	IR 300Hp	1	135,600
Electrical sub-stations (UG)		1	110,000
Refuge Shelters		1	100,100
Surf. High Expl. Storage Fac.		1	50,000
Surf. Detonator Storage Fac.		1	50,000
Surface.First Aid/Mine Rescue Facility		1	50,000
Engineering		1	50,000
Subtotal			1,450,500
Contractor Development			
Ramp @ -12%	(m)	693	877,200
Ramp Re-muck	(m)	36	45,500
Main Haul Ramp	(m)	535	676,900
Level & X-Cuts	(m)	380	449,700
Fresh Air Raise	(m)	49	57,600
Raisebored Ventilation	(m)	113	64,300
Re-muck	(m)	48	56,700

Description	Model	Units	US\$
Manway	(m)	39	35,900
Miscellaneous Infrastructure	(m)	18	20,700
Subtotal	(m)	1,910	2,284,500
Indirect Labour and Electric Power			
Warehouse Persons			34,400
Clerks			14,900
Mine Super/Manager			79,200
Ass. Super/Captain			52,000
Mine Engineer / Planner			63,100
Vent./Surveyor Tech.			39,700
Mine Geologist			63,100
Geol. Tech./Sampler			79,400
Mine Safety /Trainer			39,400
Electrician			40,100
Grader Operator			17,200
Pump Person			7,400
Mine Labourers			29,800
Electric Power			248,300
Subtotal			808,000
Total Pre-Production Mine Capital Costs			4,543,000

21.1.3 Site Infrastructure Costs

The cost estimate for the site infrastructure is detailed in Table 21.2.

Table 21.2 Site Infrastructure Costs

Description	Estimated Cost US\$ ('000's)
Gate House & Fencing	20
Weigh Scale (Major Service)	10
Laboratory & Equipment	250
Administration Building	65
Fresh Water Supply	25
Upgrade of Road from Mine to Highway	135
Power Supply (CFE)	160
Total Costs	665

21.1.4 Process Plant Upgrade Costs

The cost estimate for the process plant upgrade is detailed in Table 21.3.

Table 21.3 Process Plant Upgrade Cost Estimate

Description	Estimated Cost US\$ ('000's)
Primary Crusher	113
Fine Crushing Plant	551
Mill Area	332
Flotation Area	365
Reagents Area	30
Concentrate Thickener	43
Filter Area	143
Tailings Thickener Area	47
Security Equipment	140
General Services (Electrical)	139
Spares	110
Commissioning	112
Total Costs	2,125

21.1.5 Total Capital Costs

The total capital costs include all the direct and indirect costs of executing the 250tpd project from Endeavour Silver's project go-ahead to the start of commercial operations.

The capital costs are summarized in Table 21.4 Summary of Capital Costs.

Table 21.4 Summary of Capital Costs

Description	Estimated Cost US\$ ('000's)
Direct Costs	
Site Infrastructure	665
Mine Development	3,092
Mine Equipment	1,451
Process Plant	2,125
Tailings Facilities	515
Total Direct Costs	7,848
Indirect Costs	
Owner's Costs	380
Engineering	180
PM/CM	660
Total Indirect Costs	1,220
Sub-Total Direct + Indirect Costs	9,068
Contingency (10%)	907
TOTAL PROJECT COSTS	9,975

The capital costs shown in Table 21.4 are included in the cash flow and economic analysis described in Section 22.

21.1.6 Mine Closure Costs

When the mine shuts down, the leased process plant, buildings, and tailings facilities will revert to the State Government together with all capital improvements made to these facilities by Endeavour Silver. A barrier will be constructed to the mine entrance and all vent shafts will be sealed.

As all mining will be by contract miners, the only salvageable equipment to be set aside for sale will be the mine equipment listed in Table 21.1 purchased by Endeavour Silver in Year -1 and the mine equipment purchased in Year 1 listed in Table 21.6. The salvage value of each of these items was estimated between 5% and 15% of their purchase price. The total mine closure costs shown in Table 21.5 were included in the cash flow and economic analysis described in Section 22.

Table 21.5 Mine Closure Costs

Description	Estimated Costs US\$ ('000's)
Close mine entrance, seal air vents, and dismantle structures	40
Salvage value of mine equipment	-210
Total	-170

21.1.7 Sustaining Capital Costs

The sustaining capital costs include all the direct costs of mine development, the purchase of additional mine equipment, and the annual tailings dam construction work from the start of operations to the end of mine life

The estimated sustaining life-of-mine capital costs for the mine are shown in Table 21.6. All mining costs are expended in Year 1.

Table 21.6 Sustaining Life-of-Mine Capital Costs for Mine

Description	Model	Units	US\$
Underground Equipment			
U/G Fans	36"	2	28,000
Surface Fans		1	50,000
Main Pumps		1	150,000
Construct Main Sump		1	250,000
Compressors	IR 300Hp	1	135,600
Electrical sub-stations (UG)		1	110,000
Refuge Shelters		1	100,100
Subtotal			823,700
Contractor Capitalized Sustaining Development			
Ramp @-12%	(m)		13,900
Ramp Re-muck	(m)		45,500
Main Haul Ramp	(m)		515,600
Subtotal	(m)		575,000
Total Sustaining LOM Capital Costs			1,398,700

Excluded from the sustaining capital costs are all costs incurred by Endeavour Silver that are related to the cost of operating and maintaining the mine and process plant as detailed in Section 21.2 Operating Cost Estimates.

The total sustaining capital costs are summarized in Table 21.7 Summary of Sustaining Capital Costs.

Table 21.7 Summary of Sustaining Capital Costs

Sustaining Costs	Estimated Cost US\$ ('000's)			
	Year 1	Year 2	Year 3	Total
Mine Development	575	0	0	575
Mine Equipment	824	0	0	824
Tailings Construction	272	272	272	816
Total Costs	1,671	272	272	2,215

The sustaining capital costs are included in the cash flow and economic analysis described in Section 22.

21.2 Operating Costs

21.2.1 Process Plant Operating Costs

The operating costs for the process plant are based on Endeavour Silver's operating costs at its three existing process plants in Mexico. The unit costs of labour, material, consumables, and maintenance from these operations together with estimates of the quantities of labour, reagents, power, and consumables required for El Compas were used to estimate the operating costs.

The electrical kWh costs were given by CFE.

The total process plant operating costs are summarized in Table 21.8 Summary of Process Plant Operating Costs.

Table 21.8 Summary of Process Plant Operating Costs

Description	Total Annual Cost (US\$'000's)
Labor	1,187
Reagents	106
Steel Consumption	301
Electric Power	550
Maintenance Parts and Services	173
Supplies and Services (Allowance)	49
Diesel Fuel	20
Total Cost	2,386

The annual plant operating cost of US\$2,386,000 equals US\$26.2 per tonne.

21.2.2 Mine Operating Costs

All captive cut-and-fill (CCF) stope mining will be completed by a contractor. P&E estimated captive cut-and-fill stope mine operating costs for both the Compas and Orito Vein operations. Operating costs were estimated based on stope average thicknesses. The average stope thickness for the Compas and Orito Vein operations are 2.5m and 1.5m, respectively.

Details of the Compas Vein CCF basic contractor stoping cost are presented in Table 21.9

Table 21.9 Compas Vein CCF Mining Cost @ 2.5m Thick Stope

Description	Cost/t (US\$)
Contractor labour & equipment, bits & steel, fuel and lubes	23.73
Equipment cost	2.74
Explosives	5.25
Ground support	7.26
Piping	0.99
Electrical	0.33
Mill hole / access construction	2.41
Mined Material haulage - portal to plant	2.40
Miscellaneous	0.09
Total Captive Cut-and-Fill Mining Cost	45.21

Details of the Orito Vein CCF basic contractor stoping cost are presented in Table 21.10.

Table 21.10 Orito Vein Captive Cut-and-Fill Mining Cost

Description	Cost / t (US\$)
Contractor labour & equipment, bits & steel, fuel and lubes	26.88
Equipment cost	3.54
Explosives	7.17
Ground support	10.24
Piping	1.63
Electrical	0.55
Mill hole / access construction	1.40
Mined Material haulage - portal to plant	2.40
Miscellaneous	0.15
Total Captive Cut-and-Fill Mining Cost	53.95

Details of company indirect labour and electric power costs are presented in Table 21.11.

Table 21.11 Indirect Labour and Electric Power Cost

Description	Units	LOM Total	Year				
			Yr1	Yr2	Yr3	Yr4	Yr5
Tonnes / Year	('000's)	299.7	70.0	70.0	70.0	70.0	19.7
Labour							
Warehouse Person	US\$('000's)	147.2	34.4	34.4	34.4	34.4	9.6
Clerk	US\$('000's)	63.7	14.9	14.9	14.9	14.9	4.1
Mine Super./Manager	US\$('000's)	339.1	79.2	79.2	79.2	79.2	22.3
Ass. Mine Super./Capt.	US\$('000's)	222.7	52.0	52.0	52.0	52.0	14.7
Mine Engineer/Planner	US\$('000's)	270.6	63.2	63.2	63.2	63.2	17.8
Ventilation/Surveyor	US\$('000's)	170.4	39.8	39.8	39.8	39.8	11.2
Mine Geologist	US\$('000's)	270.6	63.2	63.2	63.2	63.2	17.8

Description	Units	LOM Total	Year				
			Yr1	Yr2	Yr3	Yr4	Yr5
Geol. Tech./Sampler	US\$('000's)	340.4	79.5	79.5	79.5	79.5	22.4
Mine Safety/Trainer	US\$('000's)	168.7	39.4	39.4	39.4	39.4	11.1
Electrician	US\$('000's)	172.2	40.2	40.2	40.2	40.2	11.4
Grader Operator	US\$('000's)	73.7	17.2	17.2	17.2	17.2	4.9
Pump Person	US\$('000's)	63.8	14.9	14.9	14.9	14.9	4.2
Mine Labourer	US\$('000's)	127.5	29.8	29.8	29.8	29.8	8.3
Electric Power	US\$('000's)	2,016.1	470.9	470.9	470.9	470.9	132.5
Total	US\$('000's)	4,446.7	1,038.6	1,038.6	1,038.6	1,038.6	292.3
Total	US\$ / t	14.84	14.84	14.84	14.84	14.84	14.84

'Stope development' services only one stoping area in the mine plan. Details of stope development costs are presented in Table 21.12.

Table 21.12 Summary of Stope Development Costs

Description	US\$/Unit	Year 1 (US\$)	Year 2 (US\$)	Total (US\$)
Raising for CCF	570	487,296	71,168	558,464
Level Access	1,183	546,903	60,097	606,999
Access FAR	1,183	38,803		38,803
Ventilation	570	83,191		83,191
Access Re-muck	1,183	14,196		14,196
Manway	933	202,245	31,825	234,070
Misc Infrastructure	1,183	194,652	85,117	279,769
Total Development		1,567,284	248,207	1,815,492
Average Cost per tonne		22.39	3.55	12.97

A summary of the Compas Vein operating costs is presented in Table 21.13.

Table 21.13 Summary of the Compas Vein Operating Costs

Description	Units	Year					Total / Average
		Yr1	Yr2	Yr3	Yr4	Yr5	
Tonnes	('000`s)	70.0	35.0	33.3	28.0	7.0	173.3
Au	(g/t)	4.80	6.59	8.34	8.46	8.73	6.59
Ag	(g/t)	102	104	84	80	79	94
AgEq	(g/t)	438	566	668	672	690	556
Labour, equip., bits, steel, fuel, lubes	(US\$/t)	23.73	23.73	23.73	23.73	23.73	23.73
Comp. Indirect Labour & Elect. Power	(US\$/t)	14.84	14.84	14.84	14.84	14.84	14.84
Equipment cost	(US\$/t)	2.74	2.74	2.74	2.74	2.74	2.74
Explosives	(US\$/t)	5.25	5.25	5.25	5.25	5.25	5.25
Ground support	(US\$/t)	7.26	7.26	7.26	7.26	7.26	7.26
Piping	(US\$/t)	0.99	0.99	0.99	0.99	0.99	0.99
Electrical	(US\$/t)	0.33	0.33	0.33	0.33	0.33	0.33
Mill hole/access Const.	(US\$/t)	2.41	2.41	2.41	2.41	2.41	2.41
Miscellaneous / tools	(US\$/t)	0.09	0.09	0.09	0.09	0.09	0.09
Mined Material Haulage - Portal to Plant	(US\$/t)	2.40	2.40	2.40	2.40	2.40	2.40
Stope Development	(US\$/t)	22.39	3.55				9.76
Total Operating Cost	(US\$/t)	82.43	63.59	60.04	60.04	60.04	69.80

A summary of the Orito Vein operating costs is presented in Table 21.14.

Table 21.14 Summary of the Orito Vein Operating Costs

Description	Units	Year					Total / Average
		Yr1	Yr2	Yr3	Yr4	Yr5	
Tonnes	('000`s)		35.0	36.8	42.0	12.6	126.4
Au	(g/t)		4.33	6.29	6.89	5.88	5.90
Ag	(g/t)		70	81	76	71	75
AgEq	(g/t)		373	521	559	483	489
Labour, equip., bits, steel, fuel, lubes	(US\$/t)		26.88	26.88	26.88	26.88	26.88
Comp. Indirect Labour & Elect. Power	(US\$/t)		14.84	14.84	14.84	14.84	14.84
Equipment cost	(US\$/t)		3.54	3.54	3.54	3.54	3.54
Explosives	(US\$/t)		7.17	7.17	7.17	7.17	7.17
Ground support	(US\$/t)		10.24	10.24	10.24	10.24	10.24
Piping	(US\$/t)		1.63	1.63	1.63	1.63	1.63
Electrical	(US\$/t)		0.55	0.55	0.55	0.55	0.55
Mill hole/access Const.	(US\$/t)		1.40	1.40	1.40	1.40	1.40
Miscellaneous / tools	(US\$/t)		0.15	0.15	0.15	0.15	0.15
Mined Material Haulage - Portal to Plant	(US\$/t)		2.40	2.40	2.40	2.40	2.40
Stope Development	(US\$/t)		3.55				0.98
Total Operating Cost	(US\$/t)		72.33	68.79	68.79	68.79	69.77

A summary of the combined Compas and Orito Vein operating costs is presented in Table 21.15.

Table 21.15 Summary of Operating Costs

Description	Units	Year					Total / Average
		Yr1	Yr2	Yr3	Yr4	Yr5	
Tonnes	('000`s)	70.0	70.0	70.0	70.0	19.7	299.7
Au	(g/t)	4.80	5.46	7.26	7.52	6.90	6.30
Ag	(g/t)	102	87	82	78	74	86
AgEq	(g/t)	438	469	591	604	557	527
Labour, equip., bits, steel, fuel, lubes	(US\$/t)	23.73	25.30	25.38	25.62	25.75	25.06
Comp. Indirect Labour & Elect. Power	(US\$/t)	14.84	14.84	14.84	14.84	14.84	14.84
Equipment cost	(US\$/t)	2.74	3.14	3.16	3.22	3.26	3.08
Explosives	(US\$/t)	5.25	6.21	6.26	6.40	6.48	6.06
Ground support	(US\$/t)	7.26	8.75	8.82	9.05	9.17	8.52
Piping	(US\$/t)	0.99	1.31	1.33	1.38	1.40	1.26
Electrical	(US\$/t)	0.33	0.44	0.45	0.46	0.47	0.42
Mill hole/access Const.	(US\$/t)	2.41	1.90	1.88	1.80	1.76	1.98
Miscellaneous / tools	(US\$/t)	0.09	0.12	0.12	0.12	0.12	0.11
Mined Material Haulage - Portal to Plant	(US\$/t)	2.40	2.40	2.40	2.40	2.40	2.40
Stope Development	(US\$/t)	22.39	3.55				6.06
Total Operating Cost	(US\$/t)	82.43	67.96	64.63	65.29	65.66	69.79

These operating costs include the cost of drift development in mineralization.

21.2.3 G&A Operating Costs

At Endeavour Silver's other operations in Mexico, General and Administration ("G&A") costs include the following services: Warehousing, Purchasing, Environmental, Human Resources, Camp, Security, Information Technology, Accounting, Administration, Community Relations, Legal, and Safety.

The G&A services required at El Compas were reviewed with Endeavour Silver and the staffing needed to provide those services. Using salaries and costs from Endeavour Silver's other operations in Mexico, the total annual cost for El Compas was estimated to be \$1.23 million or a unit cost of US\$14 per tonne

22.0 ECONOMIC ANALYSIS

22.1 Introduction

An economic analysis utilizing a after-tax cash flow financial model was prepared for the base case mine plan, processing a total of 300,000 tonnes of mined diluted Mineral Resource material in a nominal 200tpd plant allowing for normal plant maintenance and mill availability. The forecast operating mine life is 5 years following a one year period of pre-production capital investment, construction and mine development. The after-tax analysis is only an approximation as exact tax payable is highly dependent on business structure and involves complex variables that can only be calculated during operations.

Sensitivity analyses were performed for variations in commodity prices, operating costs, and initial capital costs to determine how each variable impacts valuation.

This Technical Report contains forward-looking projected mine production rates, development schedules and estimates of future cash flows. The anticipated process plant head grades and metal recoveries are derived from industry standard sampling and testing programs that is expected to be representative of actual mining operations. Numerous other factors such as permitting, construction delays, and availability of mining equipment may result in timing and scheduling differences from those presented in the economic analysis. The economic analysis has been run on a constant dollar basis with no inflation factor. The economic cash flow model is available in Table 22.3.

The PEA economic analysis is preliminary in nature in that it is based on production schedules that include Inferred Mineral Resources, which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the PEA will be realized or that Inferred Mineral Resources will ever be upgraded to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Should Endeavour Silver make a production decision on the basis of this PEA, the QP's stress that such a decision will not be based on a Pre-Feasibility Study or Feasibility Study stating Mineral Reserves demonstrating economic and technical viability and caution that historically such projects have a much higher risk of economic or technical failure.

The QP's recommend that any development of El Compas be engineered, constructed, and operated in accordance with this PEA and subsequent technical studies

22.2 Technical and Financial Assumptions

Silver and gold recoveries to a bulk flotation precious metal concentrate are projected to be 73% silver and 83.5% gold based on metallurgical test work with a target grind of 80% passing 270 mesh as detailed in Section 13.0 and the process recovery methods described in Section 17.0. Payables for silver and gold in concentrate of 96% and 97.5%, respectively, are based on current concentrate sales contracts for concentrates produced at Endeavour Silver's Bolañitos and El Cubo mines.

The average mine operating costs over the LOM are estimated to be US\$69.8 per tonne. This estimate is based on: the mining method and LOM production schedule shown in Section 16.0; productivities and quantities estimated by P&E; and unit costs provided by P&E and Endeavour Silver.

The operating costs for the process plant are based on Endeavour Silver's operating costs at its three process plants in Mexico. The current unit costs for labour, material, consumables, and maintenance from these operations together with estimates of the quantities of labour, reagents, power, and consumables required for El Compas were used to estimate the operating costs. The electrical kWh costs were provided by CFE.

The G&A services and staffing required at El Compas for the 250tpd operations were prepared with input from Endeavour Silver. Using salaries and costs from Endeavour Silver's other operations in Mexico, the total annual cost at 250tpd was estimated to be \$1.23 million which equals US\$14.0 per tonne.

Royalties are calculated directly from the modeled gross revenues, based on application of the 0.5% royalty payable to the Mexico government and a 1.5% net smelter royalty payable to the original owner of the El Compas property.

A summary of the financial and technical assumptions used in the Base Case analysis are presented in Table 22.1.

Table 22.1 Base Case Financial & Technical Assumptions

Financial		Notes
Corporate Tax Rate	30.0%	After allowable deductions
Mining Special Duty Tax Rate	7.5%	Applied to EBITDA, deductible against Corporate Tax
Government Royalty	0.5%	NSR on gross revenues after smelter charges
Discount Rate	5.0%	for NPV calculation
PESOS:USD FX Rate	20	Approximate average Q1 2017
Silver price, US\$/oz	\$18.00	Constant, LOM
Gold Price, US\$/oz	\$1,260	Constant, LOM
Depreciation	5 yr	Straight Line
Property NSR Royalty	1.5%	Payable to original property owner
Technical		Notes
Silver recovery to con %	73.0%	Forecast from initial metallurgical tests
Gold recovery to con %	83.5%	Forecast from initial metallurgical tests
Con Silver Payable%	96.0%	Based on current contracts
Con Gold Payable%	97.5%	Based on current contracts
Mining Cost/tonne	\$69.80	Applicable to stoped ore
Processing cost/tonne	\$26.20	Includes smelter and refining charges
G&A costs/tonne	\$14.00	On-site G&A

22.3 Economic Analysis Summary

The cash flow model after-tax financial results are summarized in Table 22.2.

Table 22.2 Summary of After-Tax Economic Analysis

Mine Plan Tonnage	(kt)	300
Silver Grade	(g/t)	86.4
Gold grade	(g/t)	6.30
Mill Capacity	(kt/a)	70
Mine Life	(yr)	5
Payable Silver, LOM	(koz)	583
Payable Gold, LOM	(koz)	49.4
Gross revenue, LOM	US\$(000s)	\$72,783
Operating Costs, LOM	US\$(000s)	\$34,420
Capital Expenditures, LOM	US\$(000s)	\$9,975
Total Taxes Paid	US\$(000s)	\$89,961
After-Tax Net Cash Flow, LOM	US\$(000s)	\$16,496
LOM Operating Cost/tonne	US\$	\$114.85
Cash Cost/oz Silver Equivalent	US\$	\$9.09
Cash Cost/oz Gold (net Silver By-Products)	US\$	\$483.91
After-Tax NPV , 5% discount	US\$(000s)	\$12,598
After-Tax Internal IRR	(%)	42.1%
After-Tax Payback period	(yr)	2.1

22.4 Cash Flows

The projected pre-tax, after-tax, and cumulative after-tax cash flows are presented in Figure 22.1 and a more complete year by year summary is presented in Table 22.3.

For the purposes of calculating the after-tax Net Present Value (NPV), a discount rate of 5% is used, applied at the midpoint of each year of the project, commencing in the first pre-production year of capital investment. Table 22.3 displays the discount factors applied through the life of the project.

Figure 22.1 After-Tax Annual and Cumulative Cash Flow

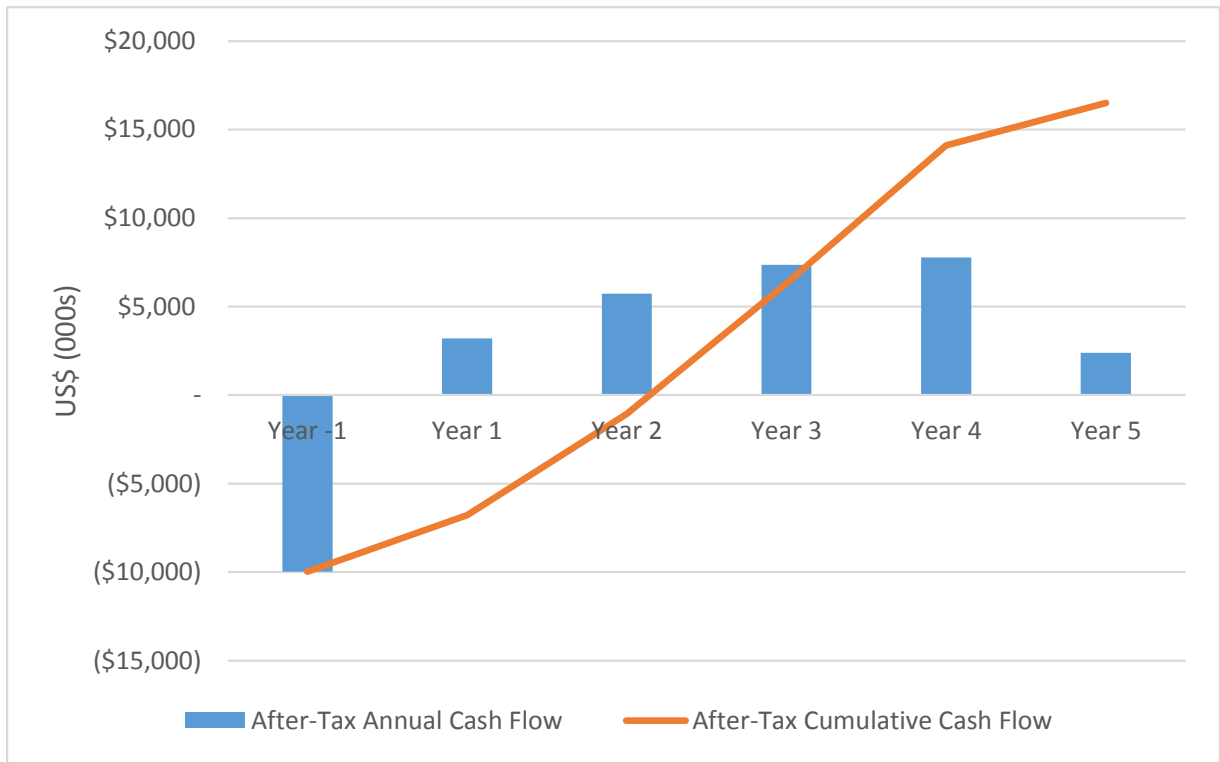


Table 22.3 Discounted After-Tax Cash Flow Model

			Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	
El Compas			2016	2017	2018	2019	2020	2021	2022
Production			-1	1	2	3	4	5	
Total LOM									
EDR Tonnes	(kt)	300	-	70	70	70	70	70	20
Beginning Tonnes	(kt)	300		300	300	230	160	90	20
Tonnes Processed	(kt)	300	-	-	70	70	70	70	20
Ending Tonnes	(kt)		-	300	230	160	90	20	0
Silver Grade	(g/t)	86.4	-	102	87	82	78	74	
Silver Recovery	(%)	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%
Silver Payable	(%)	96.0%	96.0%	96.0%	96.0%	96.0%	96.0%	96.0%	96.0%
Payable Silver	(koz)	583	-	161	137	130	123	123	33
Gold Grade	(g/t)	6.30	-	4.80	5.46	7.26	7.52	6.90	
Gold Recovery	(%)	83.5%	83.5%	83.5%	83.5%	83.5%	83.5%	83.5%	83.5%
Gold Payable	(%)	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%
Payable Gold	(koz)	49.4	-	-	8.8	10.0	13.3	13.8	3.6
Revenue									
Silver Price	(\$/oz)	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00
Gold Price	(\$/oz)	\$1,260	\$1,260	\$1,260	\$1,260	\$1,260	\$1,260	\$1,260	\$1,260
Total	(\$000s)	\$72,783	-	-	\$13,967	\$15,078	\$19,103	\$19,562	\$5,073
Costs									
Total Costs	(\$000s)	\$34,420	-	-	\$8,865	\$7,873	\$7,720	\$7,775	\$2,187
Cash Flow									
Pre-Tax Operating Cash Flow (EBITDA)	(\$000s)	\$38,363	-	-	\$5,102	\$7,206	\$11,382	\$11,787	\$2,886
Less Depreciation	(\$000s)	\$12,192	-	-	\$2,330	\$2,840	\$2,959	\$3,171	\$892
Earnings before Taxes	(\$000s)	\$26,171	-	-	\$2,771	\$4,366	\$8,424	\$8,616	\$1,994
Add Back Depreciation	(\$000s)	\$12,192	-	-	\$2,330	\$2,840	\$2,959	\$3,171	\$892
Mine Development + Capex+Exploration	(\$000s)	(\$12,020)	(\$9,975)	(\$1,671)	(\$272)	(\$272)	(\$272)	-	\$170
Tax Depreciation	(\$000s)	(\$5,349)	-	(\$590)	(\$1,434)	(\$1,279)	(\$1,108)	(\$938)	
Earnings for Tax Purposes	(\$000s)	\$20,994	(\$9,975)	\$2,840	\$5,500	\$9,832	\$10,678	\$2,119	
Corporate Taxes	(\$000s)	\$7,495	-	-	\$0	\$768	\$2,997	\$3,200	\$530
Mining Taxes	(\$000s)	\$2,353	-	-	\$235	\$436	\$749	\$800	\$132
Total Taxes	(\$000s)	\$9,847	47%	-	\$235	\$1,204	\$3,746	\$4,000	\$662
Net Earnings	(\$000s)	\$16,324	-	-	\$2,536	\$3,162	\$4,677	\$4,616	\$1,332
Add back depreciation	(\$000s)	\$12,192	-	-	\$2,330	\$2,840	\$2,959	\$3,171	\$892
Less Capex & Exploration	(\$000s)	\$12,020	-	\$9,975	\$1,671	\$272	\$272	-	(\$170)
Free Cash Flow	(\$000s)	\$16,496	-	(\$9,975)	\$3,196	\$5,730	\$7,364	\$7,787	\$2,394
Cumulative Free cash Flow	(\$000s)		-	(\$9,975)	(\$6,779)	(\$1,050)	\$6,315	\$14,101	\$16,496
Discount Years				0.5	1.5	2.5	3.5	4.5	5.5
Discount Factor				0.9759	0.9294	0.8852	0.8430	0.8029	0.7646
Discounted Free Cash Flow	(\$000s)	\$12,598	-	(\$9,734)	\$2,970	\$5,072	\$6,208	\$6,252	\$1,831
NPV	(\$000s)	\$26,343		(\$9,975)	\$3,431	\$6,934	\$11,110	\$11,787	\$3,056
IRR (After-Tax)		42.1%							
Payback period (yrs)		2.1							

22.5 Taxes and Tax Treatment

The Mexico tax policies for mining changed effective January 1, 2014. An overriding royalty on gross revenues, after smelter deductions, of 0.5% applies to precious metal mines (gold, silver and platinum). A new 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 over-riding royalty are also deductible for the purpose of calculating corporate income tax.

The financial model for the El Compas PEA incorporates these taxes in the cash flow model in computing the after-tax cash flow amounts, NPV and IRR. The financial model is constructed on a 100% equity basis.

22.6 Sensitivity Analysis

The after-tax cash flow model Net Present Value (at 5% discount) and IRR were determined after varying the base case model values for Metal Prices, Operating Costs, and Initial Capital Costs to determine the project economic sensitivity to these key parameters. In each case, the other project and model assumptions were kept constant. Sensitivity analysis results are summarized in Table 22.4 and Figure 22.2 below. Variances were run at $\pm 10\%$ and $\pm 20\%$ from the base case.

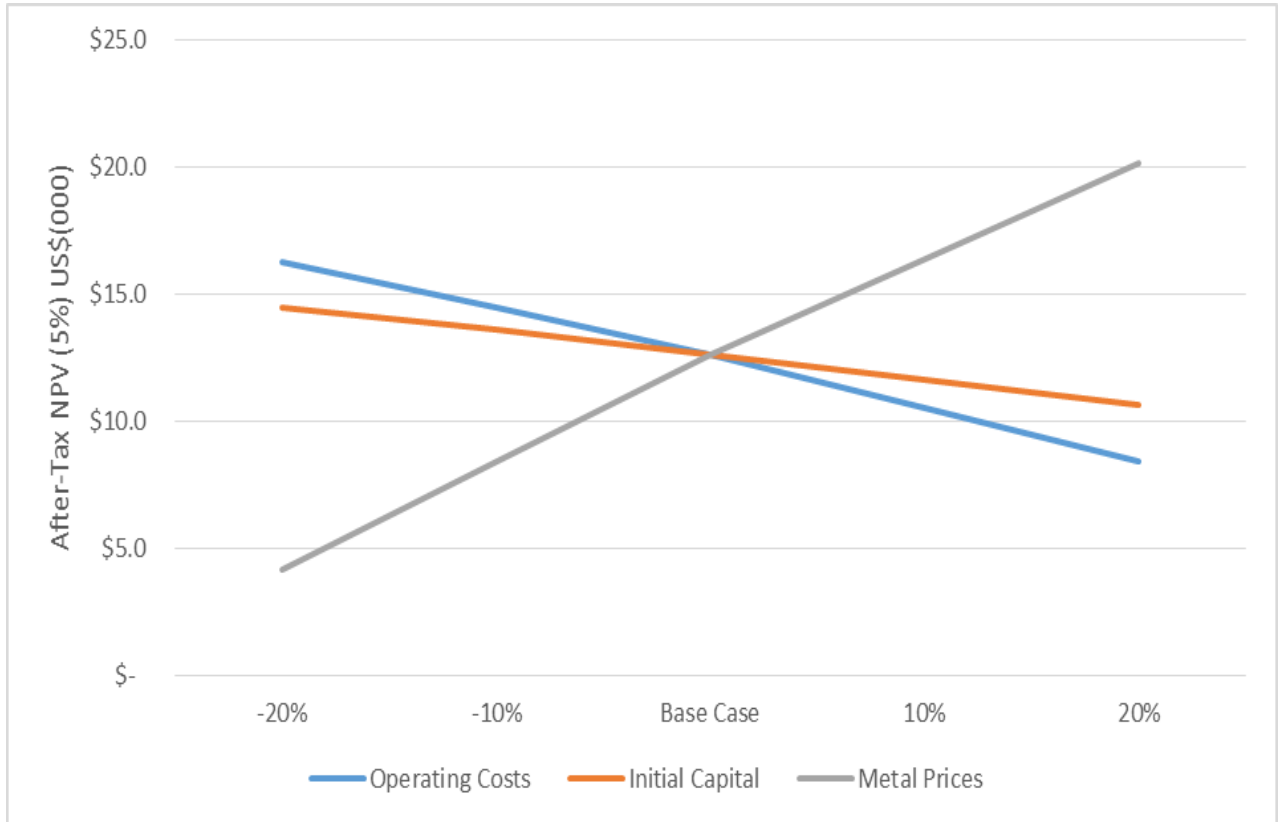
As is typical of high-grade underground mines, results show that the project NPV and internal IRR are most directly sensitive to changes in metal prices, and almost equally so to operating costs. Variance in the initial capital has much less impact on the NPV and IRR.

Table 22.4 Base Case After-Tax NPV (US\$ millions) and IRR Sensitivities

Variance	Operating Costs		Initial Capital		Metal Prices	
	NPV (5%)	IRR	NPV (5%)	IRR	NPV (5%)	IRR
-20%	\$ 16.3	52.7%	\$ 14.5	55.5%	\$ 4.1	17.6%
-10%	\$ 14.5	47.4%	\$ 13.6	48.2%	\$ 8.4	30.2%
Base Case	\$ 12.6	42.1%	\$ 12.6	42.1%	\$ 12.6	42.1%
10%	\$ 10.5	35.8%	\$ 11.6	36.9%	\$ 16.4	52.1%
20%	\$ 8.4	29.5%	\$ 10.7	32.4%	\$ 20.2	61.8%

The currently proposed environmental tax of 30pesos per tonne, should it be imposed, would lower the base case IRR from 42.1% to 41.3%.

Figure 22.2 After-Tax NPV Sensitivity Graph



23.0 ADJACENT PROPERTIES

Although the region around the city of Zacatecas has a long history of mining, the QP's are not aware of any adjacent properties that are relevant to the development of El Compas.

24.0 OTHER RELEVANT DATA AND INFORMATION

24.1 Project Execution Plan

The project execution plan assumed for El Compas uses a similar approach to that used by Endeavour Silver on its Bolanitos and El Cubo projects. The methodology of this proven approach is as follows:

- Endeavour Silver purchases directly all mine equipment and any process equipment required for the plant
- Endeavour Silver contracts directly with qualified engineering companies to engineer the mine and tailings facilities and monitor their procurement and construction
- Endeavour Silver awards lump sum contracts to qualified local mechanical and electrical contractors to repair, clean, upgrade, supply and install equipment, and restore the existing process plant to operating condition
- Endeavour Silver engages an Owner's Engineer to monitor and control the process plant rehabilitation works. The Owner's Engineer also provides overall project management; monitors and controls the overall project schedule; plans, organizes, monitors and controls commissioning and handover; and implements a site safety program
- Endeavour Silver arranges the re-energizing of the existing site power supply with CFE
- Endeavour Silver engages a mining contractor to develop the mine
- Endeavour Silver employs and trains an operating and supervisory labour force for the process plant in time for plant commissioning

24.2 Construction Schedule

A Construction Schedule shown in Figure 24.1 was prepared based on the contracting approach, equipment delivery times, tailings construction, CFE power line work, and schedules submitted by the mechanical and electrical contractors for their work in the process plant.

The overall duration of the project is 6 months.

Figure 24.1 Construction Schedule

MONTHS	1	2	3	4	5	6
Project Go-Ahead	x					
CFE power lines change-over		Work On Sundays Only				
Portal, Ramp, & Mine development						
3rd Party Miners development						
Tailings engineering & procurement						
Tailings construction						
Site infrastructure engineering & procurement						
Site infrastructure construction						
Electrical procurement & supply						
Electrical installation						
Mechanical procurement & supply						
Mechanical installation						
Commissioning						
Start-up 250TPD operation						x

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Interpretation

In preparing the PEA, the QP's recognized that Endeavour Silver may decide to proceed directly to mine development should the PEA Mineral Resource and economics prove sufficiently encouraging and the project risks be manageable for mining projects of this size and type. Although production decisions are generally based on Feasibility Studies of Mineral Reserves that demonstrate economic and technical viability, this project has many positive features that mitigate the risks of placing the mine directly into production:

- The existing process plant has operated before and has the equipment and layout needed for the 250tpd flowsheet
- The estimates for upgrading the existing process plant to Endeavour Silver's standards are based on firm quotes submitted by local qualified contractors after detailed inspections of all equipment
- The estimates for contract mining are based on Endeavour Silver's current contract mining costs at its other cut-and-fill operations in Mexico
- The project already has its environmental permits with the exception of an explosives permit. An application for this permit has been submitted and is currently under review by the authorities
- The capital costs are low and the base case economics are robust
- The local power grid is close by and CFE has quoted the costs of re-connecting and supplying power
- The 50tpd assigned to local 3rd party miners was not considered in the project economics. Given that Endeavour Silver controls the type of mineralization accepted and the price of purchasing the mineralization, it is reasonable to assume that any mineralization purchased will benefit the project economics
- The nearby town of Zacatecas has the labour and technical resources to operate the mine and process plant
- The mine and process plant can be easily expanded to 500tpd should Endeavour Silver discover or bring in additional Mineral Resources

The issues which have the most impact on the economic and technical viability of a mining project at the PEA stage of development are as follows:

1. The size and quality of the deposit

El Compas has a mineable deposit that, at 200tpd, will produce mill feed containing 829,000 oz of silver and 61,000 oz of gold over the LOM.

2. The mining methods

The cut-and-fill mining method planned for El Compas is used by Endeavour Silver in its current mining operations in Mexico.

3. The amount of metallurgical testing and engineering

The metallurgical testing program was based on a composite sample taken from the deposit. The sample was tested by RDi laboratories in Denver, Colorado. The testwork included head analyses, grindability studies, gravity concentration and flotation testwork.

The results indicate that a saleable gravity plus flotation concentrate can be produced with reasonable recoveries.

4. The extent and quality of existing infrastructure

The existing La Plata process plant opened in 2013 and operated until 2014 when it was shut down. Several detailed inspections of the plant were made with local contractors to determine the scope and cost of the changes and upgrades needed to process the mill feed in accordance with the flowsheet.

An initial tailings dam was used in 2013/14 to store a small amount of tailings. Preliminary engineering was carried out for a larger tailings dam that can safely store the tailings generated by the 250tpd mine. The new structure will utilize some of the material from the initial facility along with other materials, including drained tailings from new operations.

5. The accuracy and reliability of the cost estimates

The total capital cost estimate has an accuracy of +/-15% and is based on either firm quotes or unit costs from Endeavour Silver's current operations in Mexico applied to quantities estimated for El Compas.

All operating costs were based on unit costs from Endeavour Silver's three operations in Mexico and quantities estimated for the El Compas 250tpd operation.

6. Metal Prices

Given historical and current prices, the base case prices assumed for silver (US\$18/oz) and gold (US\$1,260/oz) are considered reasonable.

Increases and decreases in the base case metal prices and their impact on the project key indicators were examined as part of the sensitivity analysis.

7. Project-Specific Risks

Every mining project has risks that are specific to that project. In the case of El Compas, one such risk materialized midway through the PEA and that was the risk of changes in tax and other legislation in the mine's jurisdiction. On December 15, 2016 the Congress of the state of Zacatecas approved the Revenue Law for 2017, to be effective on January 1, 2017. The Revenue Law includes a new set of "Green Taxes" for increasing tax revenue to be used for purposes of reducing the environmental impact created by industrial activities carried out in the state.

Endeavour Silver has met with state officials to discuss this tax and various revisions proposed by the state during these meetings, including a possible exemption. At the present time, Endeavour Silver awaits confirmation from the state on the specific revisions to be enacted.

25.2 Conclusions

The QP's conclude that the economic analysis of the El Compas Project is based on sound inputs and cost estimates that take significant risks out of the project and provide a reliable basis for quantifying the key financial indicators of the project and for examining the project's most critical sensitivities.

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

- After-tax rate of return 42.1%
- Project payback period 2.1 years
- After-Tax Net Present Value (5% discount) of US\$12,598,000

These key indicators describe a project whose base case is financially profitable and which, as the sensitivity analysis demonstrates, has considerable upside potential should the size of the deposit increase or metal prices improve.

The main downside risks are:

- Decrease in metal prices
- Increase in operating costs

The QP's conclude that, given the many positive features of the project, the manageable risks, and Endeavour Silver's record of successfully developing similar projects in Mexico it would be reasonable for Endeavour Silver to make a production decision on the basis of this PEA. Such a decision should be subject to Endeavour Silver obtaining an explosives permit and obtaining clarity by the state on its new Revenue Tax.

26.0 RECOMMENDATIONS

26.1 Mineral Resources and Reserves

Acquire other properties to produce more feed for the facility.

Continue drilling nearby mineralized bodies to extend mine life and possibly increase the mine production rate.

26.2 Mining Methods

Mine plan to consider long hole or mechanized mining methods in certain areas that may improve economics.

26.3 Mineral Processing and Metallurgical Testing

Carry out additional locked-cycle testing to further enhance gold and silver recoveries.

Complete geotechnical testing on additional tailings samples to confirm the material properties and suitability as a construction material for the tailings embankment.

26.4 Environmental

Endeavour Silver continues to meet with the state Government to clarify and confirm the amount of the new Environmental Tax applicable to El Compas.

Endeavour Silver to comply fully with all existing permit conditions.

Endeavour Silver to apply for an explosives permit.

26.5 Potential Development

Should Endeavour Silver make a production decision on the basis of this PEA, the QP's stress that such a decision will not be based on a Prefeasibility Study or Feasibility Study stating Mineral Reserves demonstrating economic and technical viability and caution that historically such projects have a much higher risk of economic or technical failure.

The QP's recommend that any development of El Compas be engineered, constructed, and operated in accordance with this PEA and subsequent technical studies.

27.0 REFERENCES

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- Tarnocai, C. and Thiboutot, H., 2007. Technical Report on the El Compas Property, Zacatecas State, Mexico for Oro Silver Resources Ltd., August 24, 2007, 48p.
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Canarc Resource Corp., 2016, NI 43-101 Technical Report for the El Compas Project, Zacatecas State, Mexico

Cereceres Estudio Legal, S.C. of Chihuahua, Mexico, Due Diligence Report for Endeavour Silver Corporation dated February 23, 2017

28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

PETER J. SMITH, P.ENG.

I, Peter J. Smith, P. Eng., residing at 951 Beachview Drive, North Vancouver, BC V7G 1P8, do hereby certify that:

1. I am an independent consultant and President of Smith Foster & Associates Inc.
2. This certificate applies to the technical report titled “Technical Report Preliminary Economic Assessment for the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”), with an effective date of March 27, 2017.
3. I graduated with a Bachelor’s Degree in Applied Science (Civil Engineering) from the University of British Columbia in 1968.
4. I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of BC, registration number 12720.
5. I have worked as a civil engineer, project manager, and senior engineering manager in Canada and internationally since graduation from university. My summarized career experience is as follows:
 - Engineer - Dept. of Fisheries & Oceans.....1968-1969
 - Engineer – Gruner AG Consulting Engineers.....1970-1974
 - Site Project Engineer – Alusuisse Engineering.....1974-1979
 - Project and Construction Manager – Swan Wooster Engineering Ltd.1969-1985
 - Engineer and Co-Owner – Watson Smith Consultants Ltd.....1985-1986
 - Director, Engineering – Vancouver Port Corporation.....1986-1995
 - Managing Director, Ports & Infrastructure, Simons Consulting Ltd...1995-2000
 - Senior VP, Industrial – UMA Engineering Ltd.....2000-2006
 - Co-Owner & President – Axxent Engineering Ltd.....2006-2012
 - Co-Owner & President – Smith Foster & Associates Inc.....2012-Present
6. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and hereby certify that by reason of my education, affiliation with a professional

association (as defined by NI 43-101), and past relevant work experience on mining projects, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

7. I am the qualified person responsible for Sections 1, 2, 3, 4, 5, 6, 18, 19, 21, 22, 23, 24, 25, 26 and 27 of the Technical Report.
8. I am independent of the issuer as independence is described in Section 1.5 of NI 43-101.
9. I visited the site of the project that is the subject of this Technical Report on August 30 and 31, 2016 and January 26 and 27, 2017.
10. I have no prior involvement with the project that is the subject of this Technical Report.
11. I have read NI 43-101 including Form 43-101F1 and the Technical Report. This Technical Report has been prepared in compliance therewith.
12. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: March 27, 2017

Signed Date: May 11, 2017

{ *SIGNED AND SEALED* }

[*Peter J. Smith*]

Peter J. Smith, P. Eng

CERTIFICATE OF QUALIFIED PERSON

EUGENE J. PURITCH, P.ENG., FEC

I, Eugene J. Puritch, P. Eng., FEC, residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby 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 “NI 43-101 Technical Report Preliminary Economic Assessment for the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”) with an effective date of March 27, 2017.
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 Professional Engineers and Geoscientists New Brunswick (License No. 4778), Professional Engineers, Geoscientists Newfoundland & 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) the Professional Engineers of Ontario (License No. 100014010) and Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912). 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 report on January 27, 2017.
5. I am responsible for co-authoring Sections 1, 14, 15, 16, 21, 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 no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date March 27, 2017

Signing Date: May 11, 2017

{SIGNED AND SEALED}

[Eugene J. Puritch]

Eugene J. Puritch, P.Eng., FEC

CERTIFICATE OF QUALIFIED PERSON**JARITA BARRY, P.GEO.**

I, Jarita Barry, P.Geo., residing at 2485B Hwy 3A, Nelson, British Columbia, V1L 6K7, 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 “NI 43-101 Technical Report Preliminary Economic Assessment for the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”) with an effective date of March 27, 2017.
3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for over 10 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Associations of Professional Engineers and Geoscientists of British Columbia (License No. 40875) and Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

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:

- Geologist, Foran Mining Corp. 2004
- Geologist, Aurelian Resources Inc. 2004
- Geologist, Linear Gold Corp. 2005-2006
- Geologist, Búscore Consulting 2006-2007
- Consulting Geologist (AusIMM) 2008-2014
- Consulting Geologist, P.Geo. (APEGBC/AusIMM) 2014-Present.

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Section 1, 12, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying all of the tests in section 1.5 of National Instrument 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.

8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date March 27, 2017

Signing Date: May 11, 2017

{SIGNED AND SEALED}

[Jarita Barry]

Jarita Barry, P.Geol.

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 “NI 43-101 Technical Report Preliminary Economic Assessment for the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”) with an effective date of March 27, 2017.
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 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 Aug 30 and 31, 2016.
5. I am responsible for authoring Sections 7 to 11 and 23 and co-authoring Sections 1, 4, 12, 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 no prior involvement with the Property that is the subject of this Technical Report.

8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date March 27, 2017

Signing Date: May 11, 2017

{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 “NI 43-101 Technical Report Preliminary Economic Assessment for the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”) with an effective date of March 27, 2017.
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 am also a member of the Ontario Prospectors Association.

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.
7. I have had no prior involvement with the Property that is the subject of the Technical Report.

8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading;

Effective Date March 27, 2017

Signing Date: May 11, 2017

{SIGNED AND SEALED}

[Yungang Wu]

Yungang Wu, P.Geol.

CERTIFICATE OF QUALIFIED PERSON**JAMES L. PEARSON, P. ENG.**

I, James L. Pearson, P.Eng., residing at 105 Stornwood Court, Brampton, Ontario, Canada, L6W 4H6, do hereby certify that:

1. I am an independent Mining Engineering Consultant, contracted by P& E Mining Consultants Inc.
2. This certificate applies to the technical report titled “NI 43-101 Technical Report Preliminary Economic Assessment for the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”) with an effective date of March 27, 2017.
3. I am a graduate of Queen’s University, Kingston, Ontario, Canada, in 1973 with a Bachelor of Science degree in Mining Engineering. I am registered as a Professional Engineer in the Province of Ontario (Reg. No. 36043016). I have worked as a mining engineer for a total of 37 years since my graduation.

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:

- Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements;
 - Project Manager and Superintendent of Engineering and Projects at several underground operations in South America;
 - Senior Mining Engineer with a large Canadian mining company responsible for development of engineering concepts, mine design and maintenance;
 - Mining analyst at several Canadian brokerage firms
4. I have not visited the Property that is the subject of this Technical Report.
 5. I am responsible for coauthoring Sections 1, 15, 16, 21, 25 and 26 of the Technical Report.
 6. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
 7. I have had no prior involvement with the property that is the subject of the Technical Report.

8. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that Instrument and Form.
9. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: March 27, 2017

Signed Date: May 11, 2017

{SIGNED AND SEALED}

[James L. Pearson]

James L. Pearson, P. Eng.

CERTIFICATE OF QUALIFIED PERSON**Dr DEEPAK MALHOTRA, SME Registered Member (No. 2006420)**

I, Dr Deepak Malhotra, do hereby certify that:

1. I am currently employed as President of Resource Development Inc. (RDi) with the business address:

Resource Development Inc. (RDi)
11475 W. I-70 Frontage Road
North Wheat Ridge, CO 80033
2. This certificate applies to Sections 13 and 17 of the technical report titled “Technical Report Preliminary Economic Assessment on the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”) with an effective date of March 27, 2017.
3. I am a Registered Member of the Society of Mining, Metallurgy and Exploration Inc. (SME) and a member of Canadian Institute of Mining, Metallurgy and Petroleum (CIM) in good standing.
4. I have worked as an engineer for 44 years.
5. I graduated with a Master of Science in Metallurgical Engineering in 1973 and a PhD in Mineral Economics in 1977 from Colorado School of Mines.
6. 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 fulfil the requirements to be a “Qualified Person” for the purposes of NI 43-101.
7. I am the Qualified Person (QP) for Sections 13 and 17 of the Technical Report.
8. I am independent of the issuer as independence is described in Section 1.5 of NI 43-101.
9. I have visited the site of the project that is the subject of this Technical Report from August 29 to September 1, 2016 and January 26 to 28, 2017.
10. I have prior involvement with the project that is the subject of this Technical Report. RDi performed testwork for Tetra Tech Consulting in December, 2015. The testwork was used to support the NI 43-101 Technical Report for the El Compas Project, Zacatecas, Mexico issued by Canarc Resource Corporation (Canarc) on February 4, 2016. In addition, I am a Director of Canarc that, through its subsidiary, Minera Oro Silver de Mexico S.A. de C.V., owned the El Compas project until its purchase by Endeavour Silver in May, 2016.

11. I have read NI 43-101 including Form 43-101 F1, and the Technical Report. This has been prepared in compliance with that instrument and form.
12. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: March 27, 2017

Report Date: May 11, 2017

{SIGNED AND SEALED}

/Dr Deepak Malhotra/

Dr Deepak Malhotra
SME Registered Member (No. 2006420)

CERTIFICATE OF QUALIFIED PERSON**KENNETH EMBREE, P. ENG.**

I, Kenneth Embree, P. Eng., do hereby certify that:

1. I am an independent consultant employed as Managing Principal of Knight Piésold Ltd. with an office at 1400 - 750 West Pender Street, Vancouver, British Columbia, V6C 2T8.
2. This certificate applies to the technical report titled “Technical Report Preliminary Economic Assessment for the El Compas Project, Zacatecas State, Mexico” (the “Technical Report”) with an effective date of March 27, 2017.
3. I am a graduate of the University of Saskatchewan with a B.Sc. in Geological Engineering (1986). I have practiced my profession continuously since 1986. I am a Professional Engineer in good standing with the Association of Professional Engineers and Geoscientists of British Columbia in the area of geological engineering (No. 17439). I am also as a registered Professional Engineer in Ontario (No. 100040332).
4. I visited the site of the project that is the subject of this Technical Report on August 30 and 31, 2016 and January 27, 2017.
5. I am the qualified person responsible for co-authoring Sections 1, 20, 21, 25 and 26 of the Technical Report.
6. I am independent of the issuer as independence is described in Section 1.5 of NI 43-101.
7. I have no prior involvement with the property that is the subject of this Technical Report.
8. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.
9. At the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: March 27, 2017

Signed Date: May 11, 2017

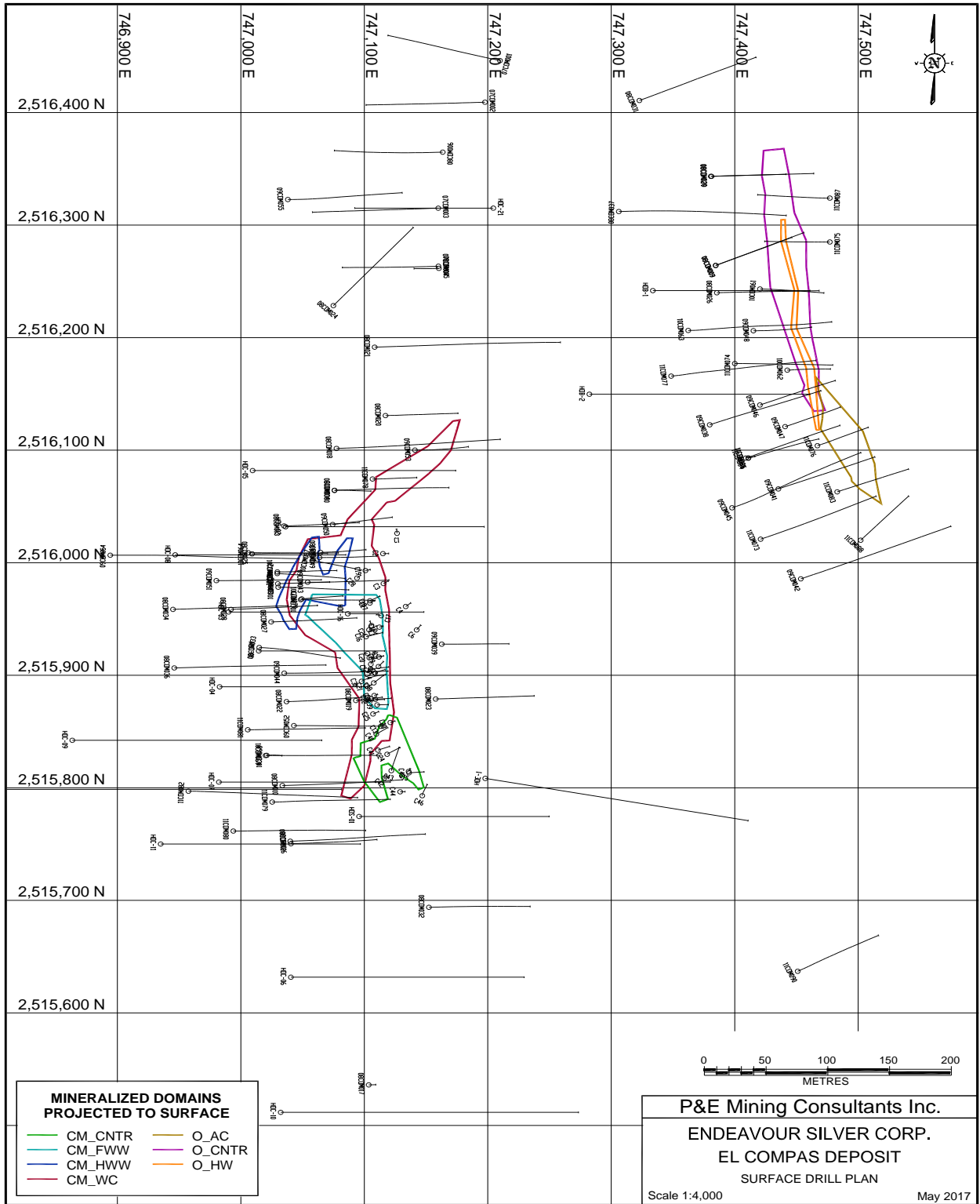
{SIGNED AND SEALED}

[Kenneth Embree]

Kenneth Embree, P. Eng.

Appendix A

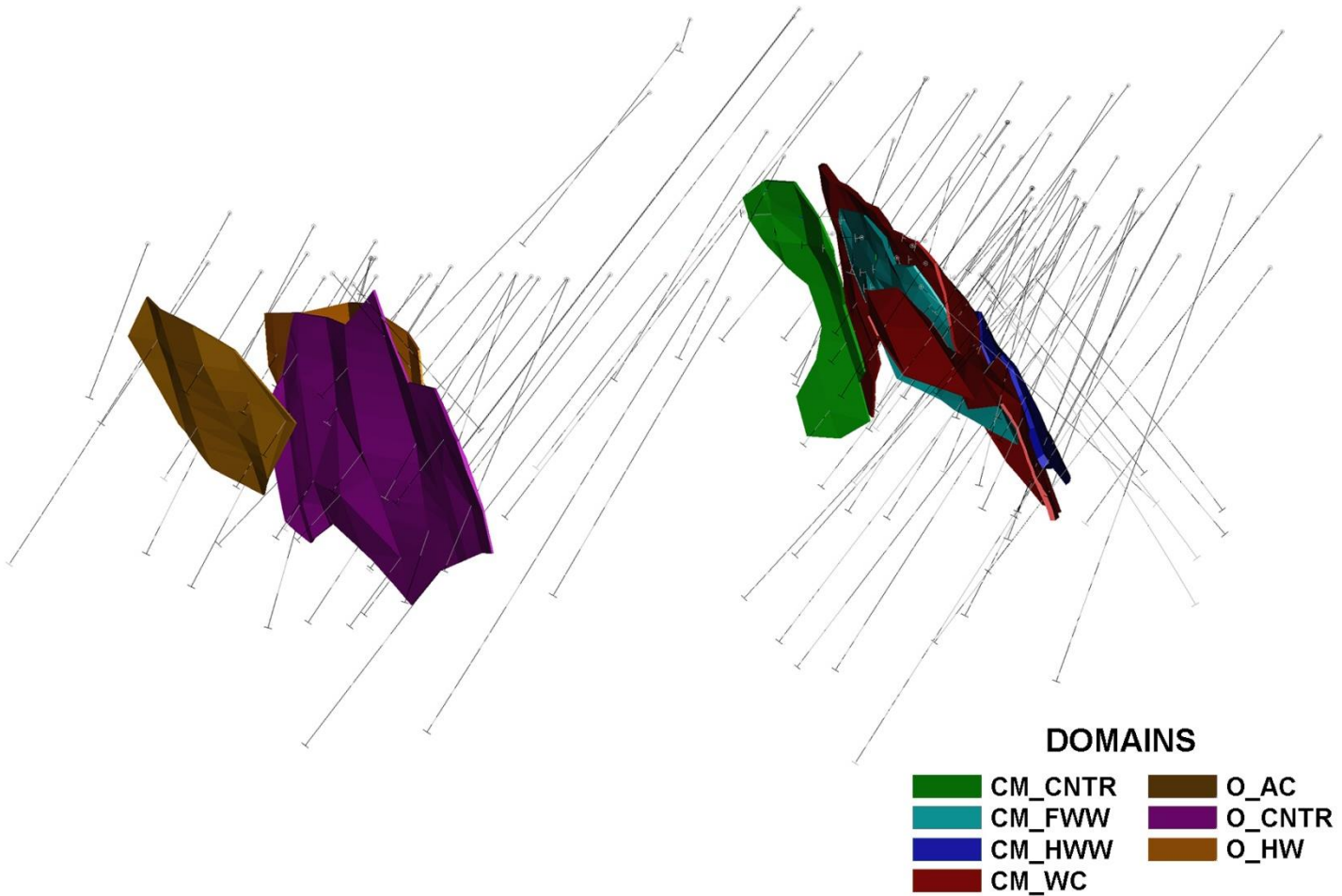
Drill Hole Plan



Appendix B

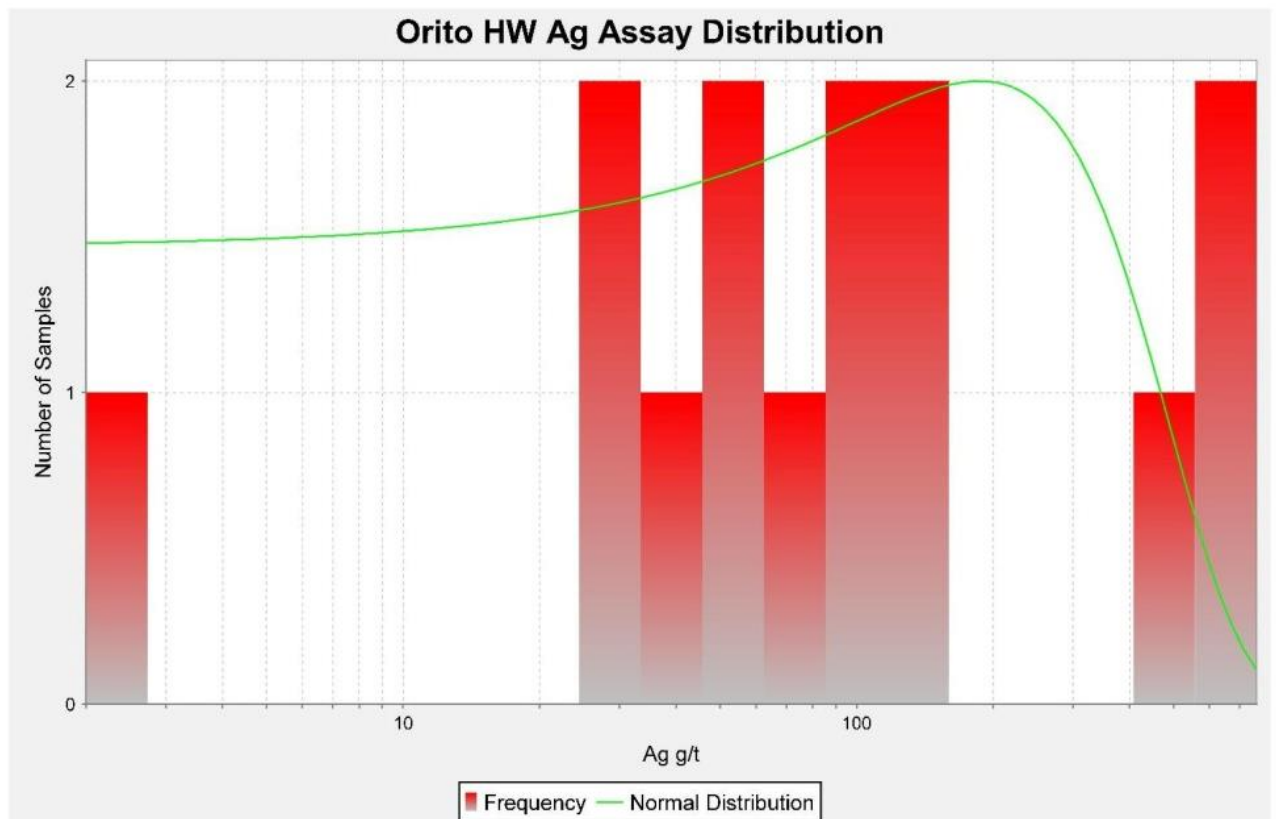
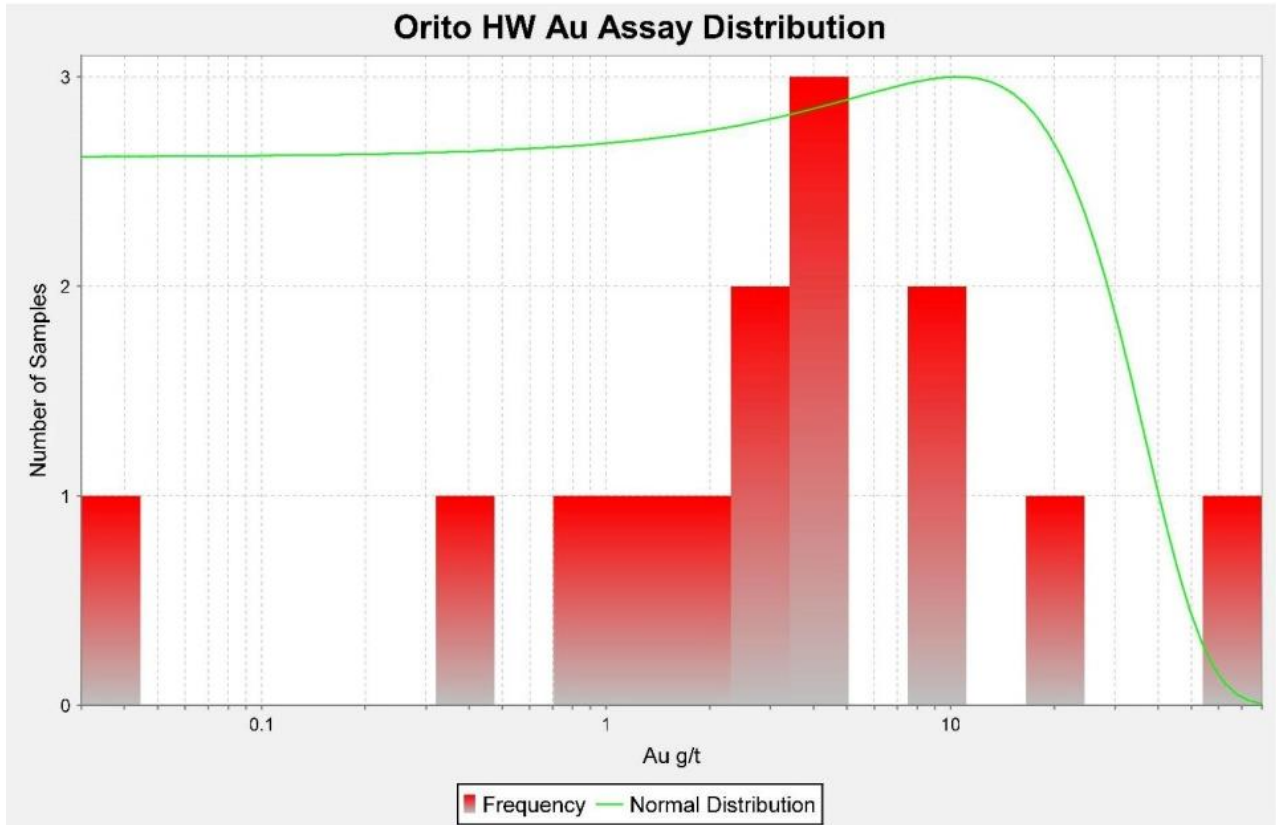
3D Domains

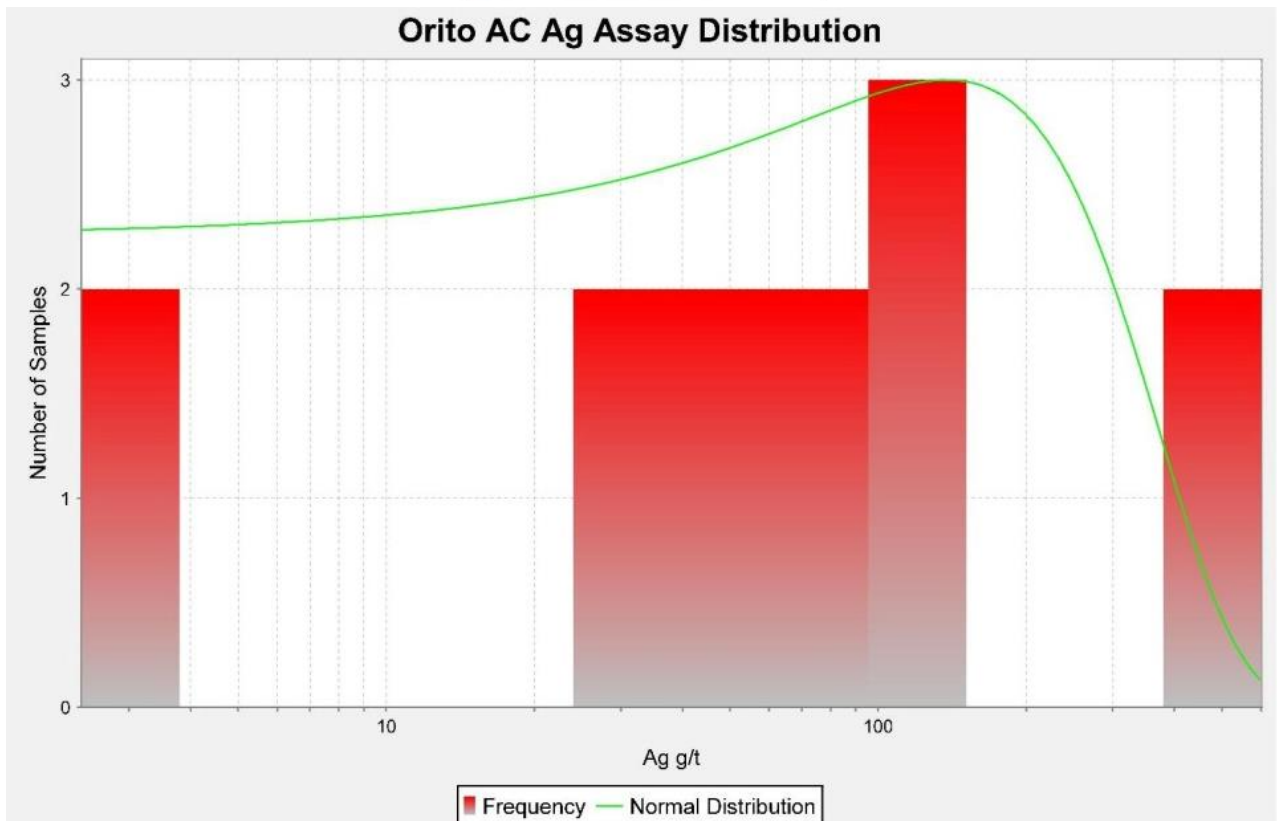
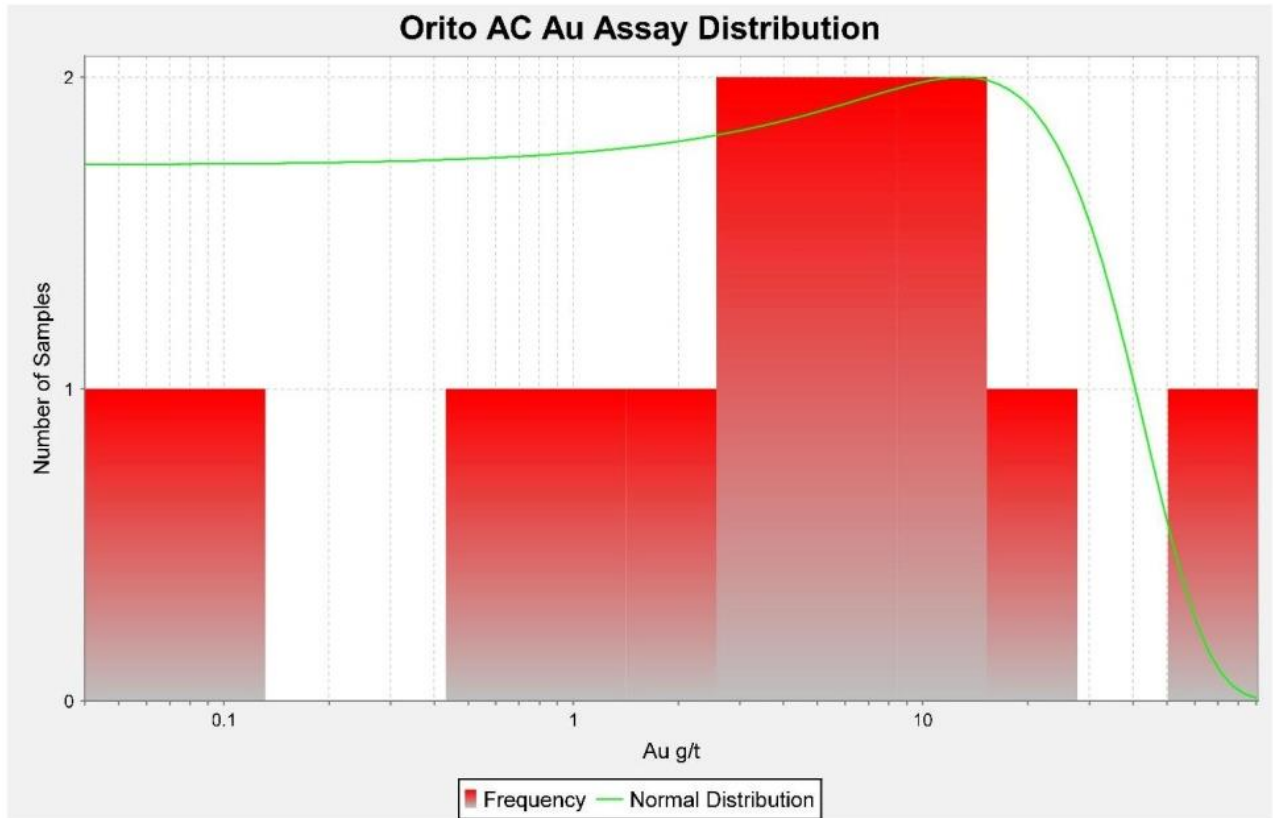
EL COMPAS DEPOSIT - 3D DOMAINS

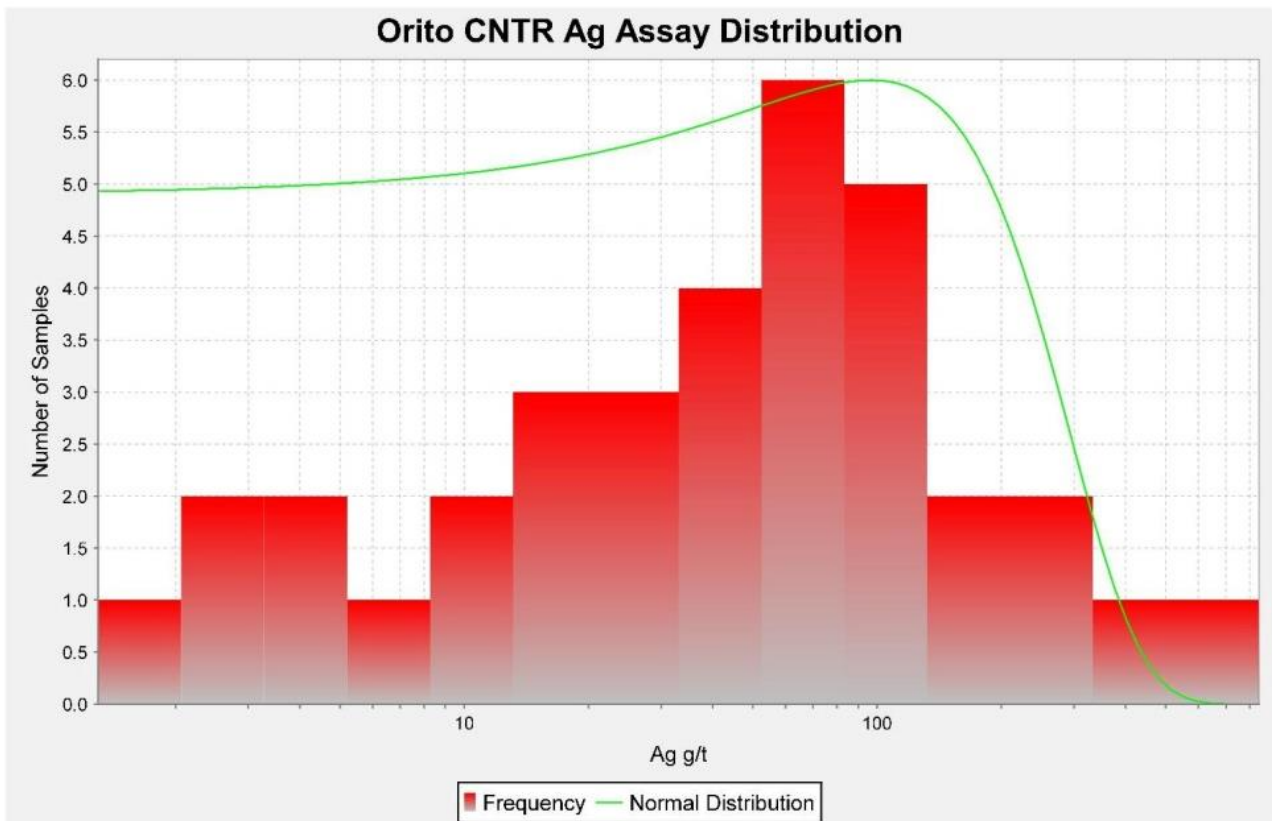
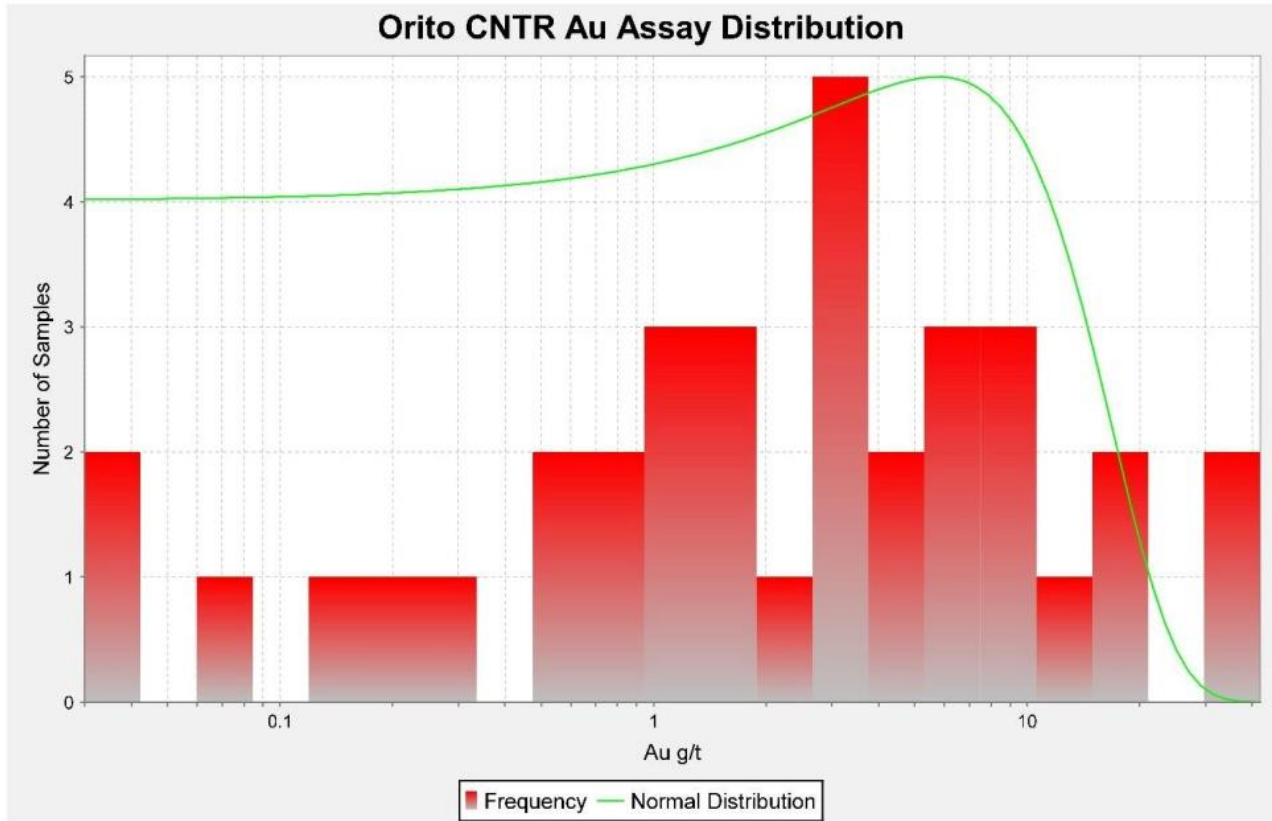


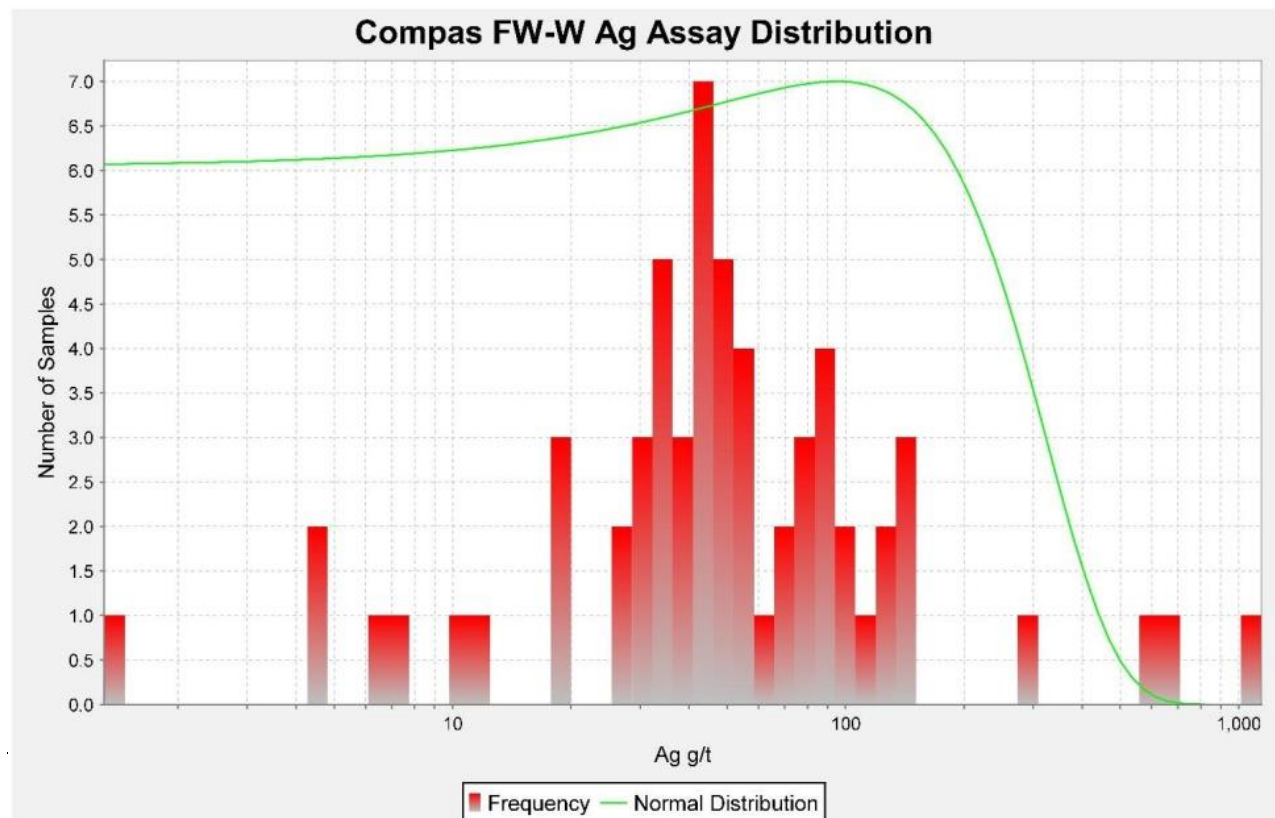
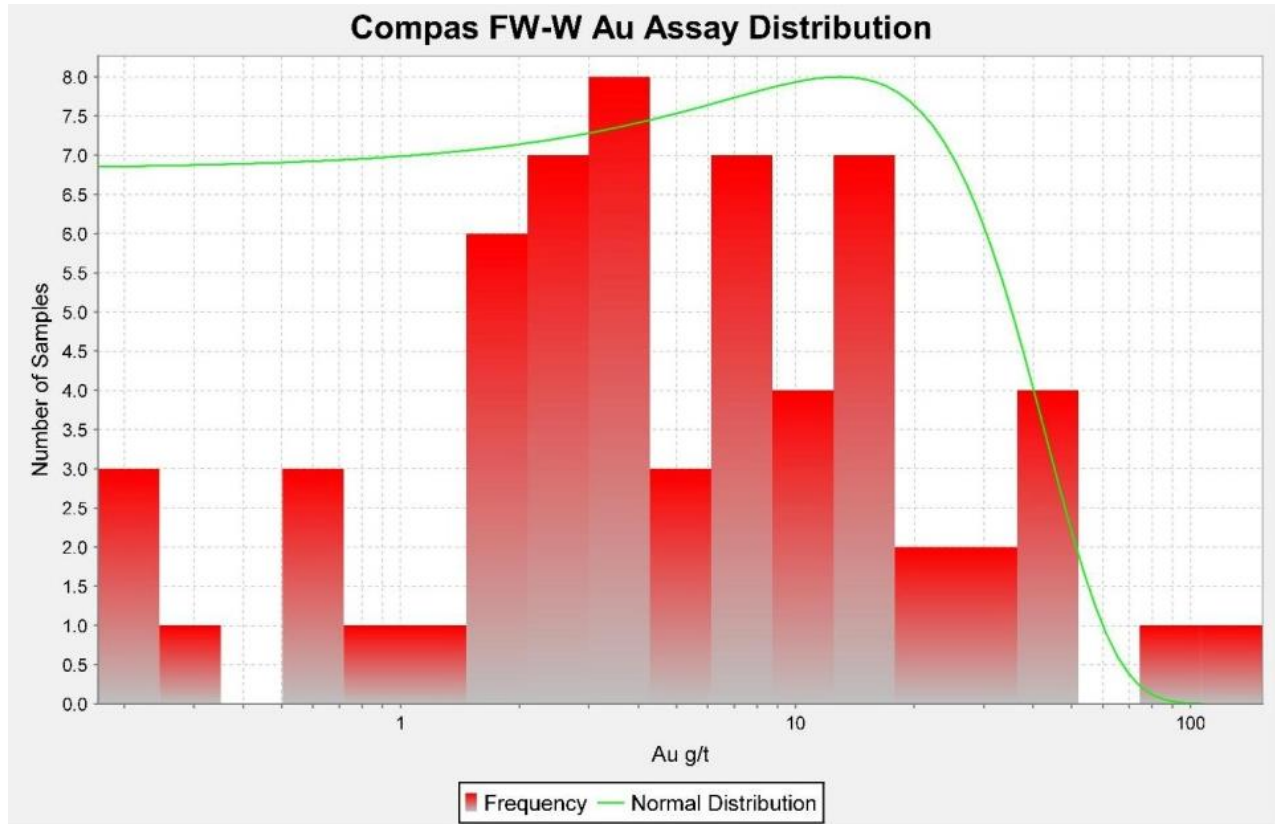
Appendix C

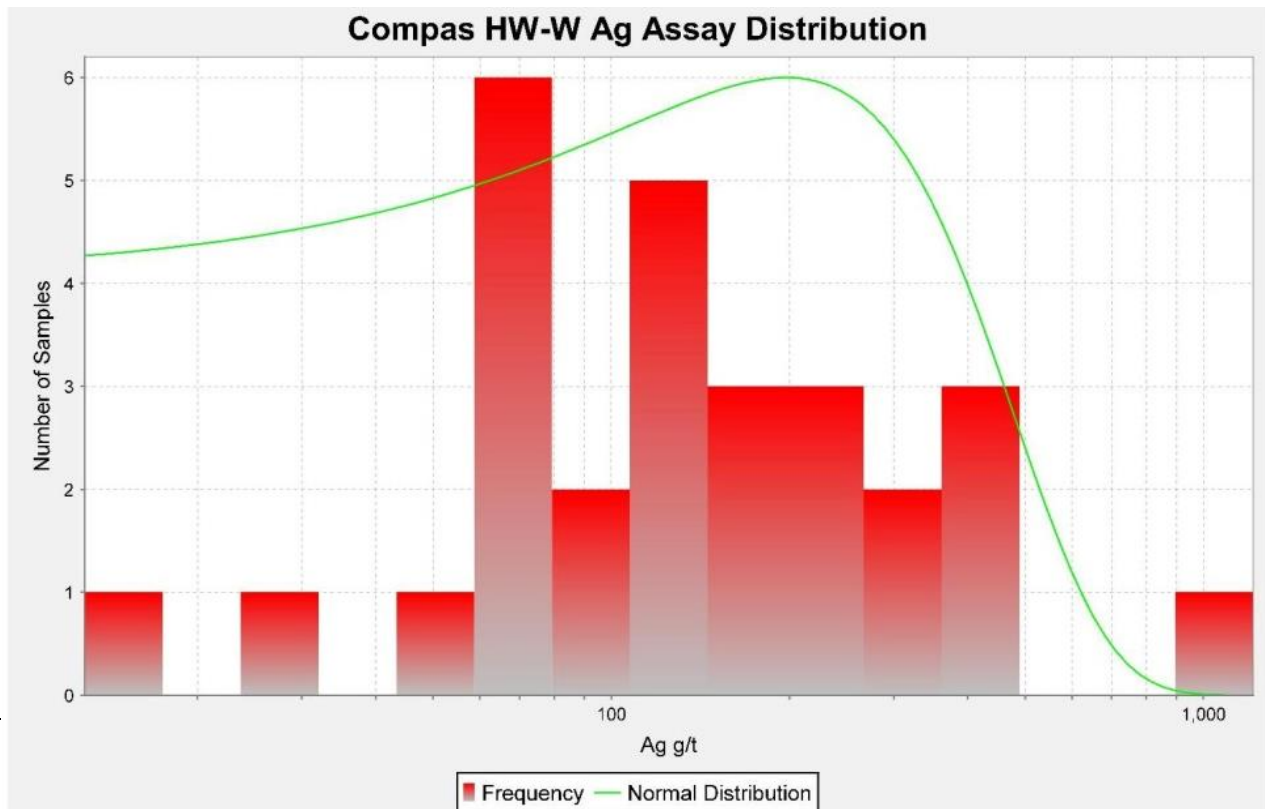
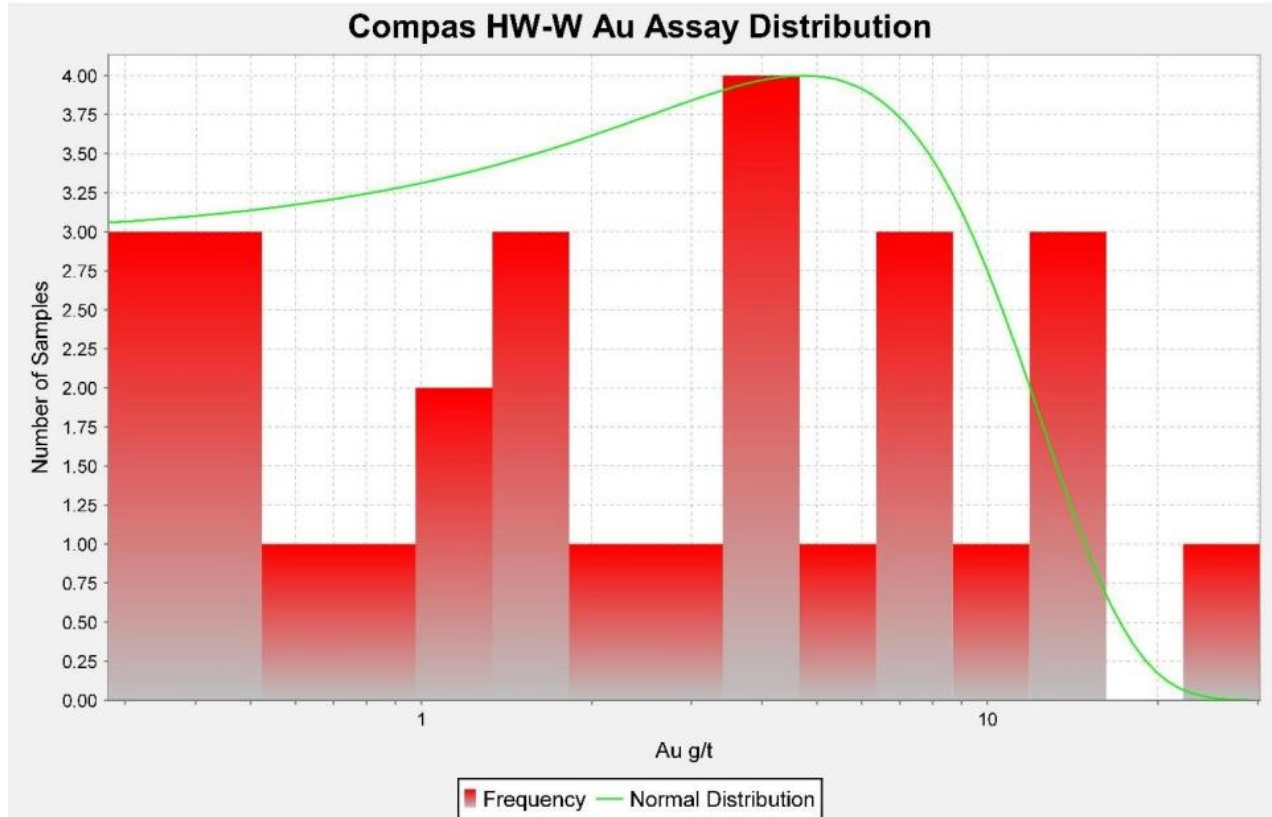
Au and Ag Log-Normal Histograms

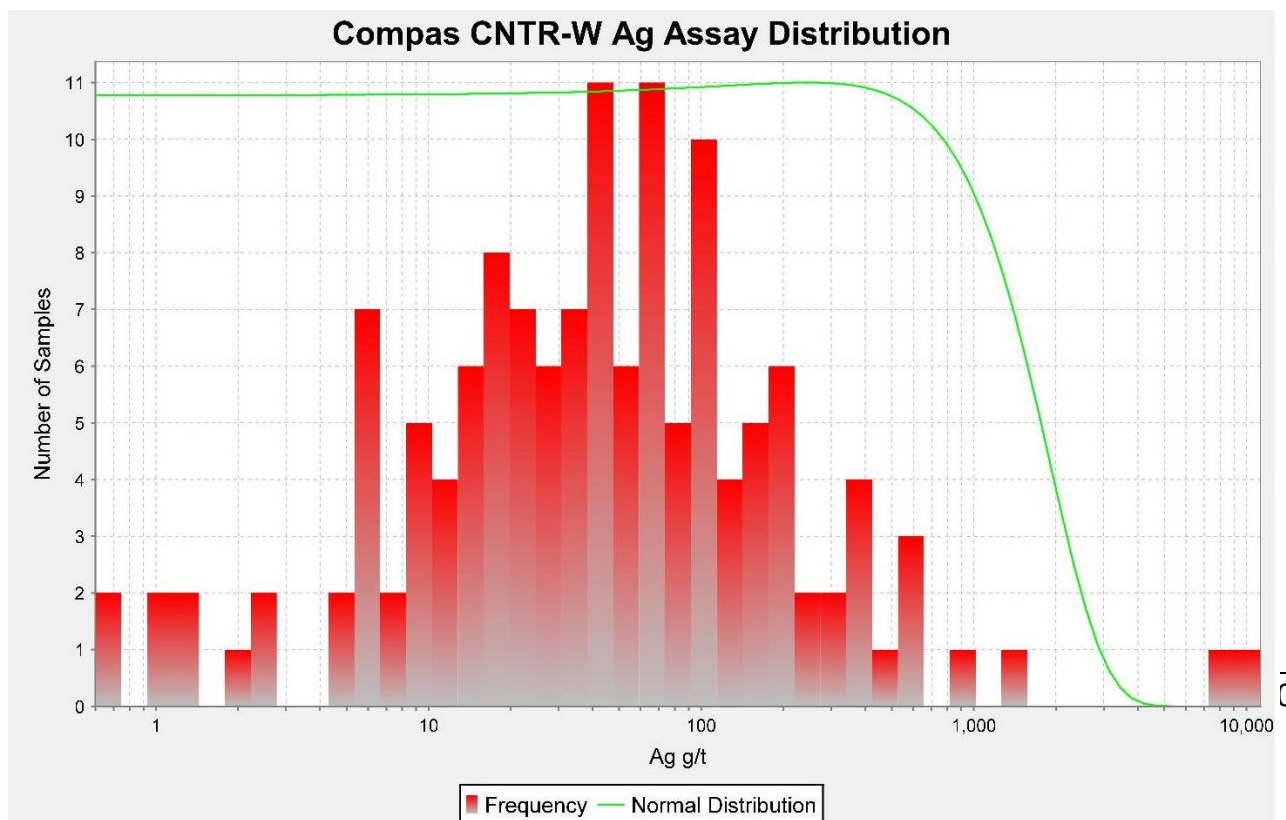
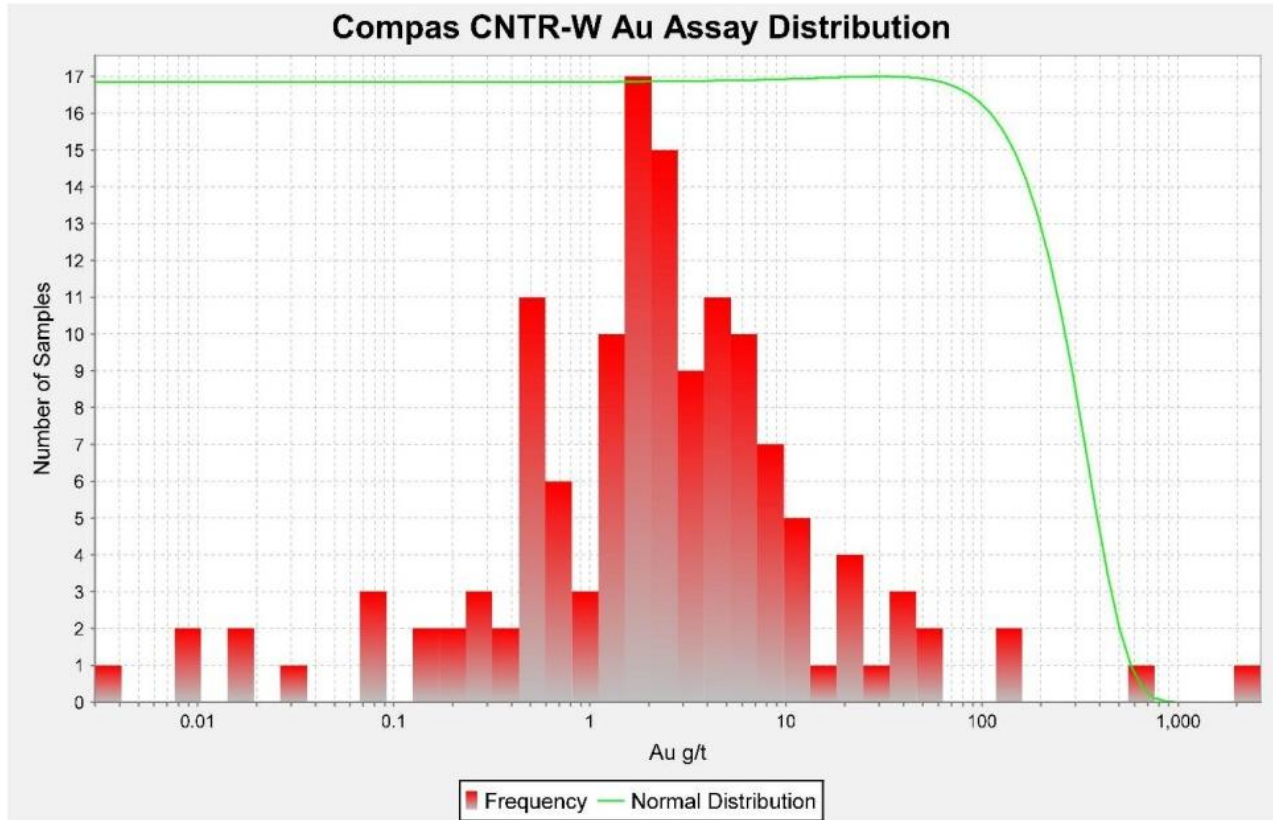






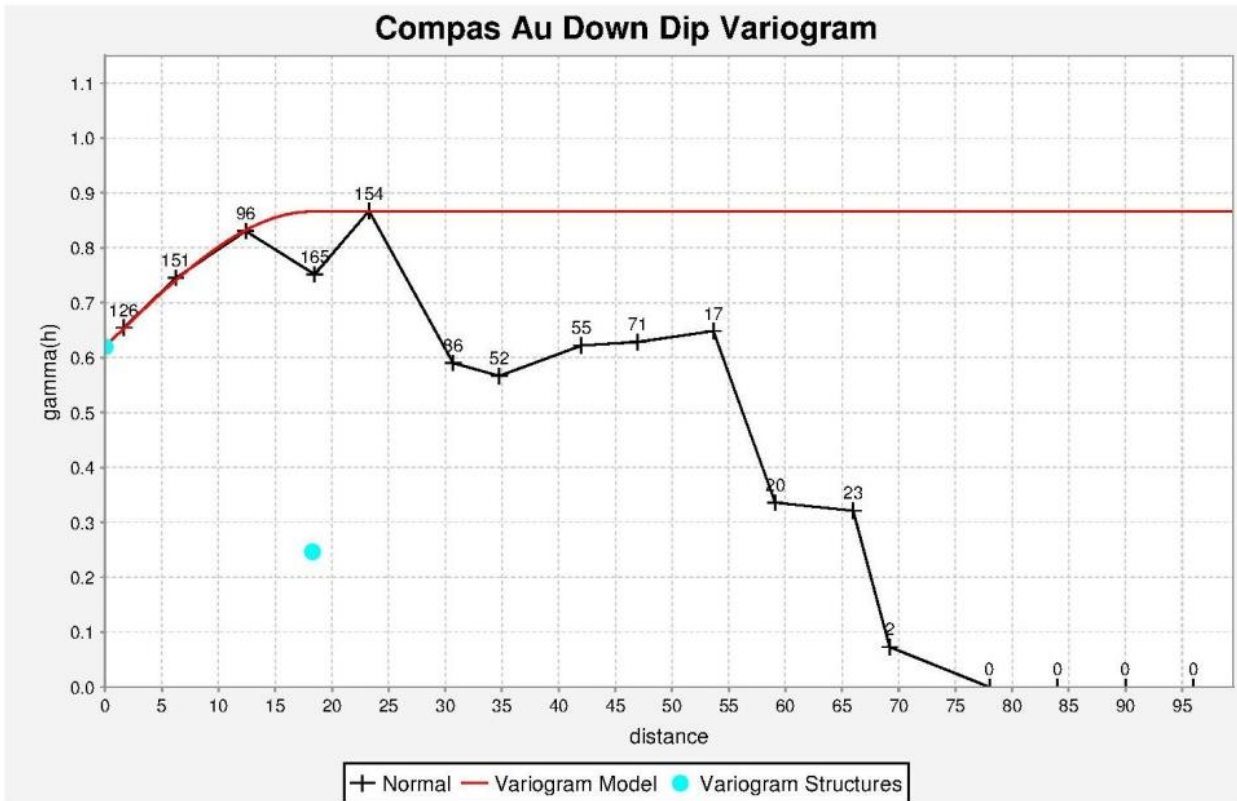
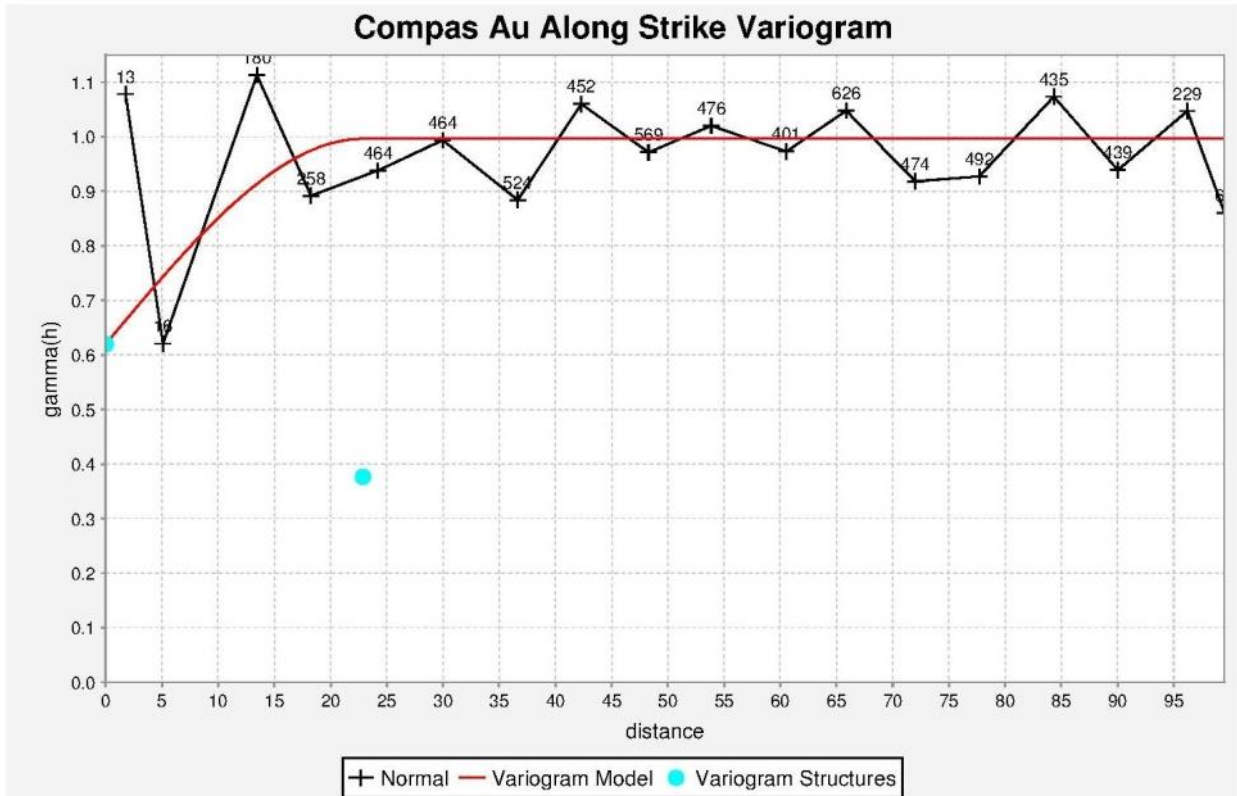


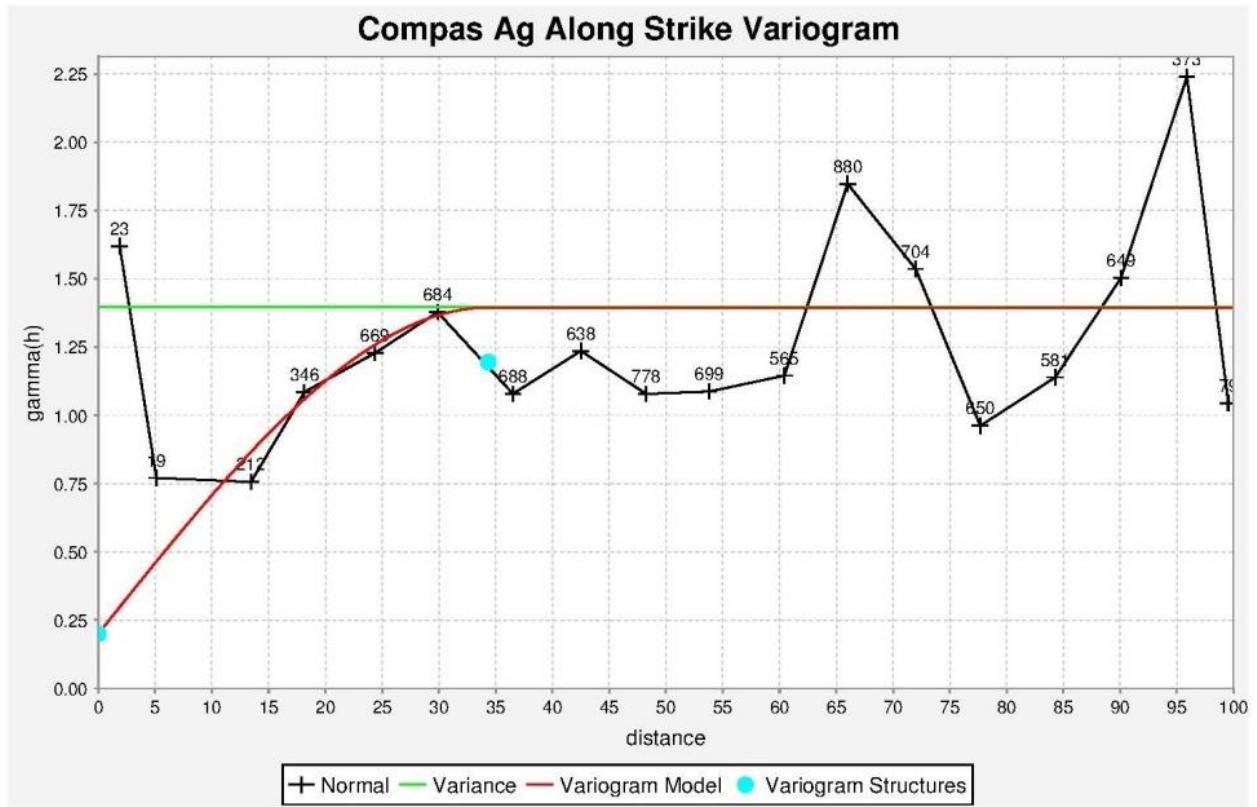
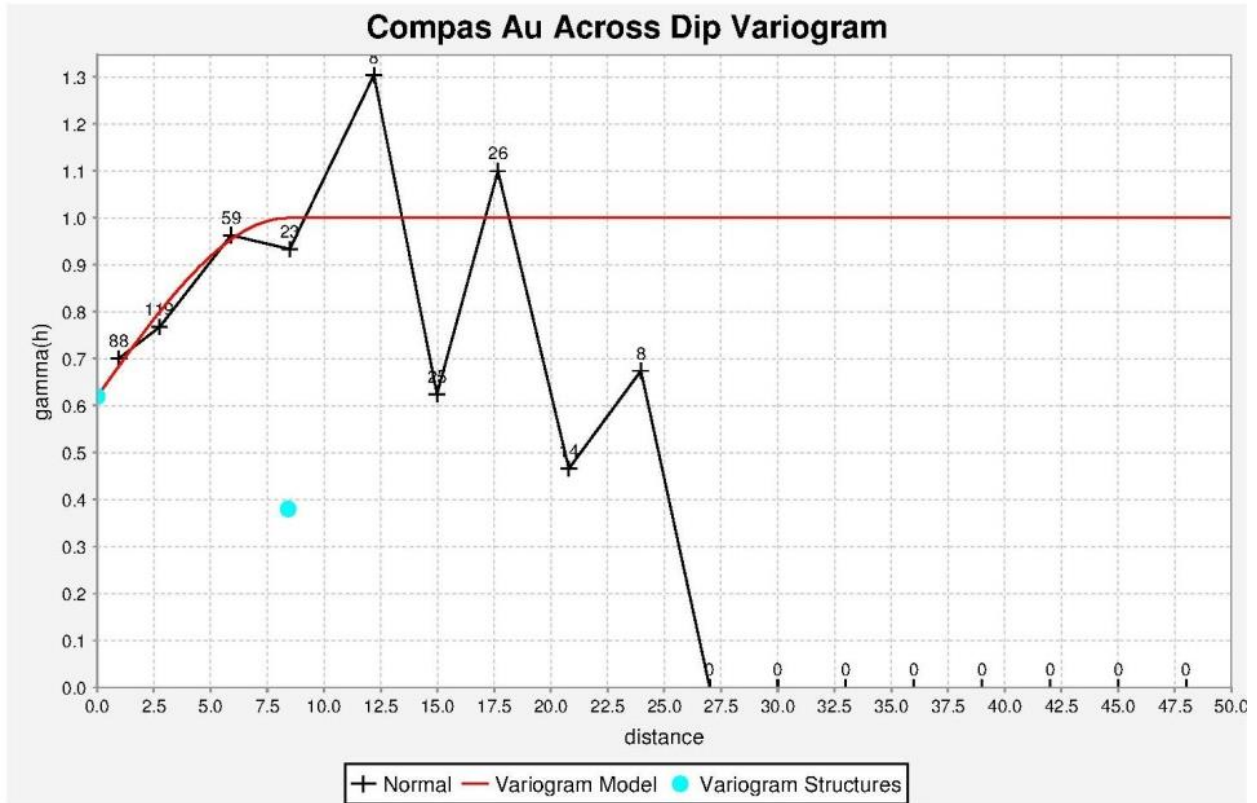


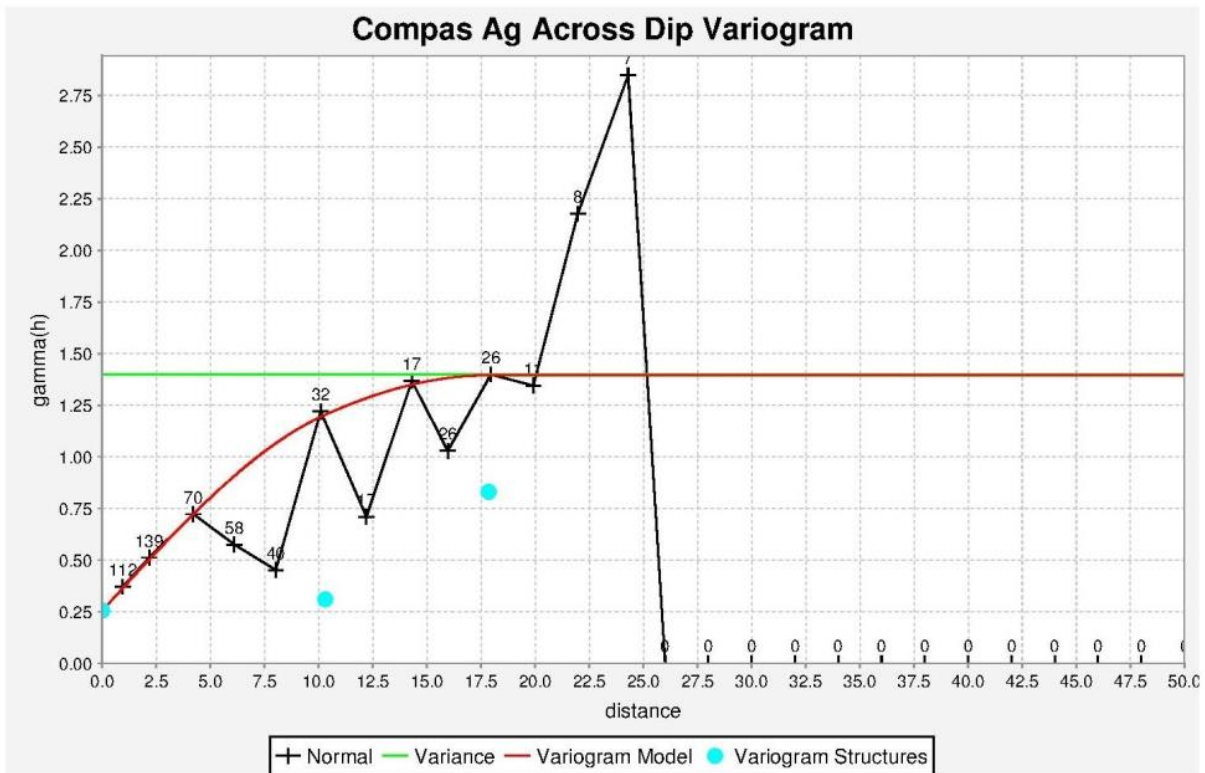
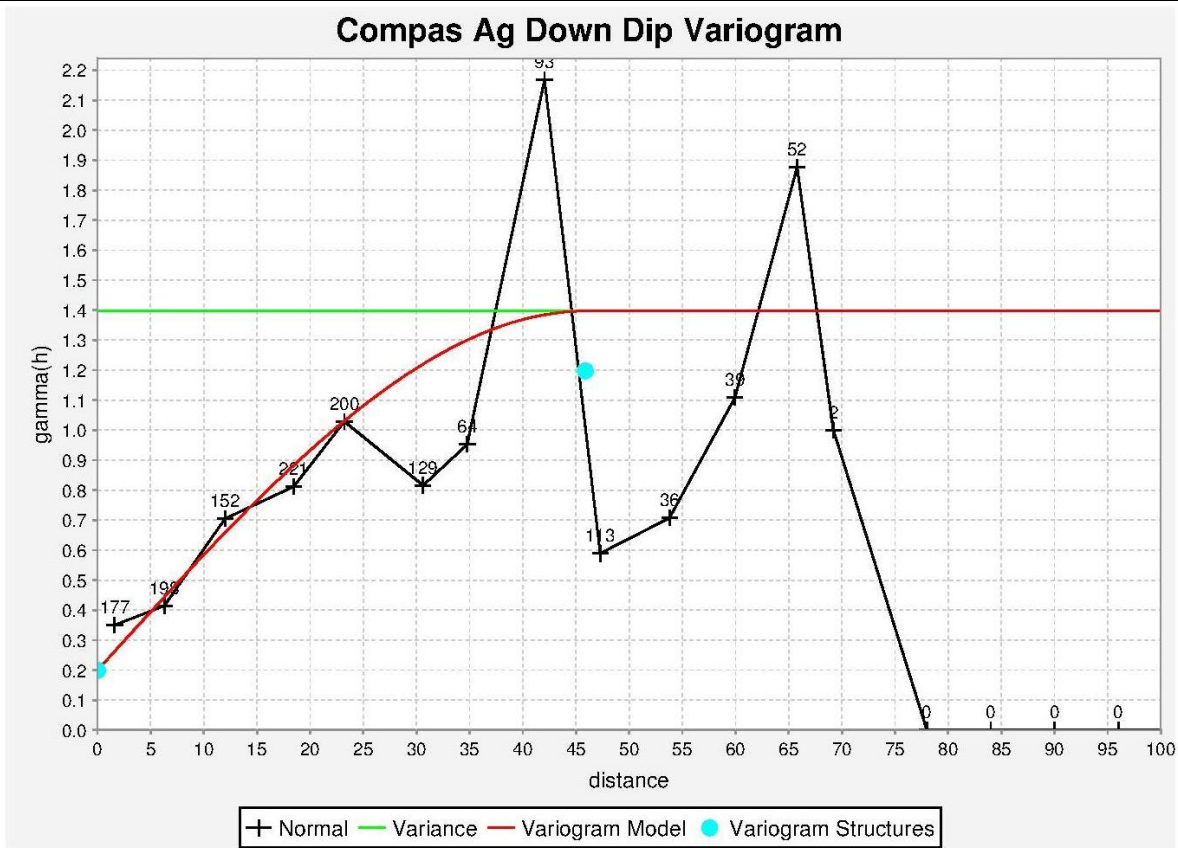


Appendix D

Variograms



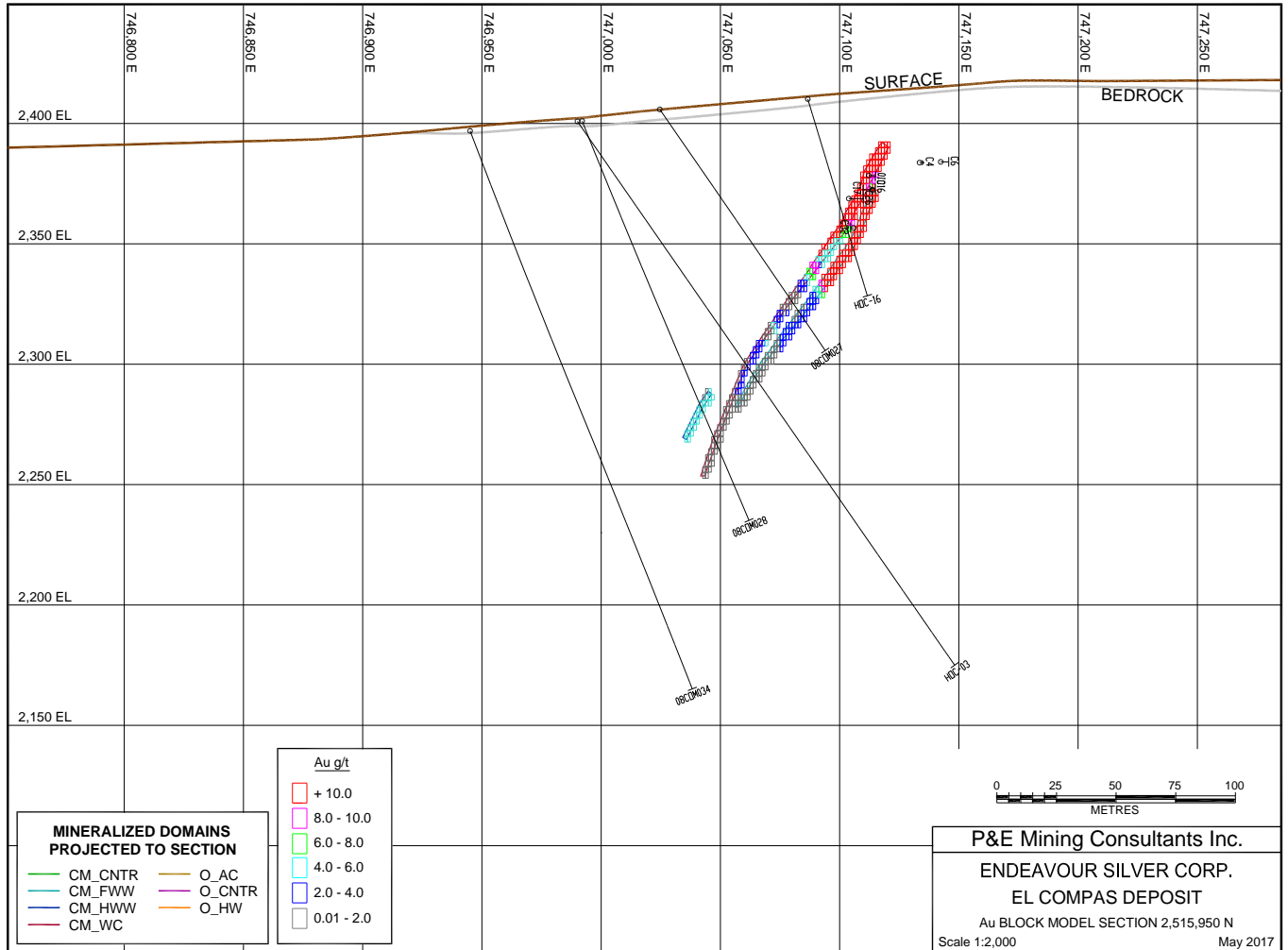




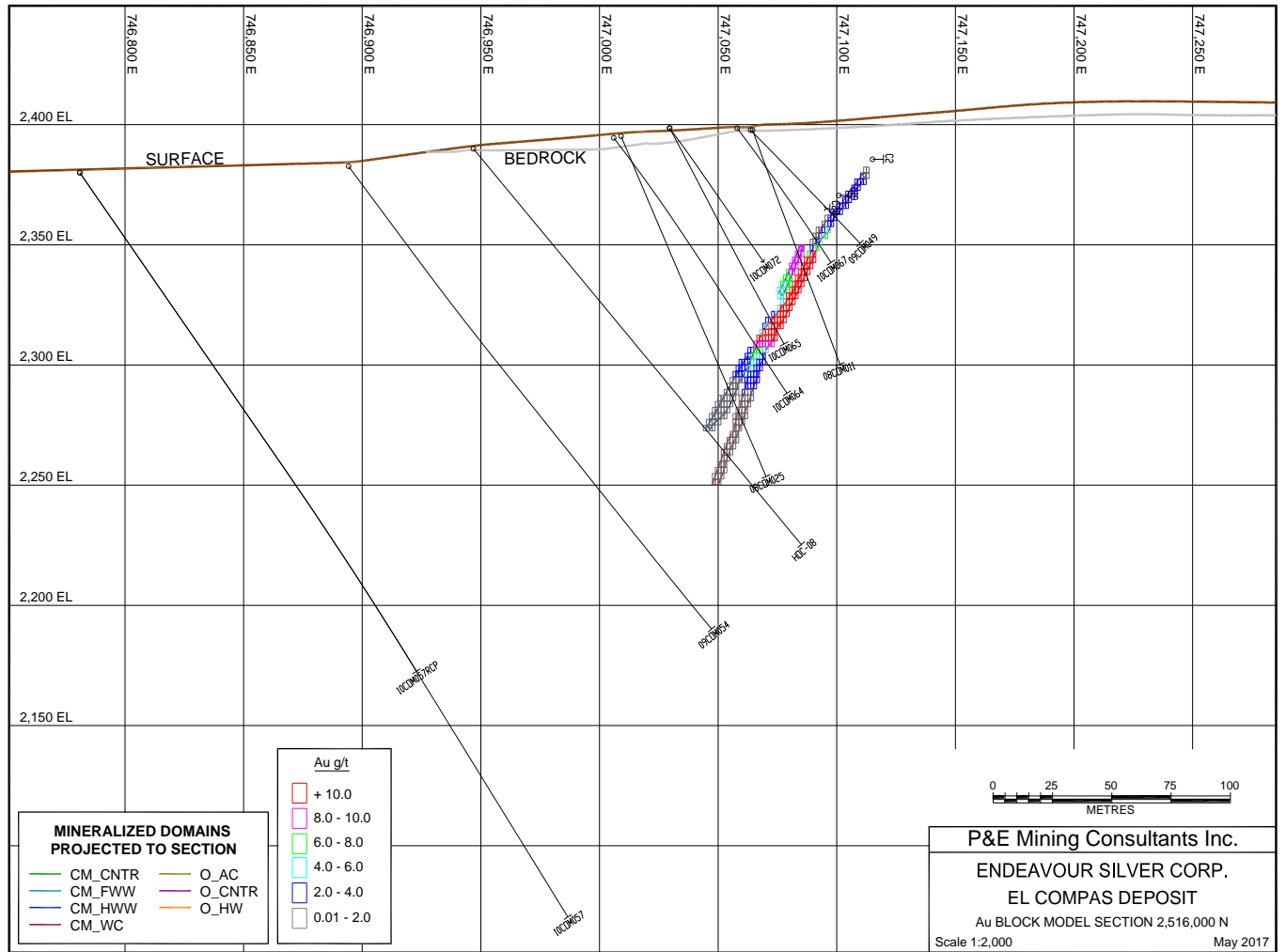
Appendix E

Cross-Sections & Plans of Au Grade Blocks

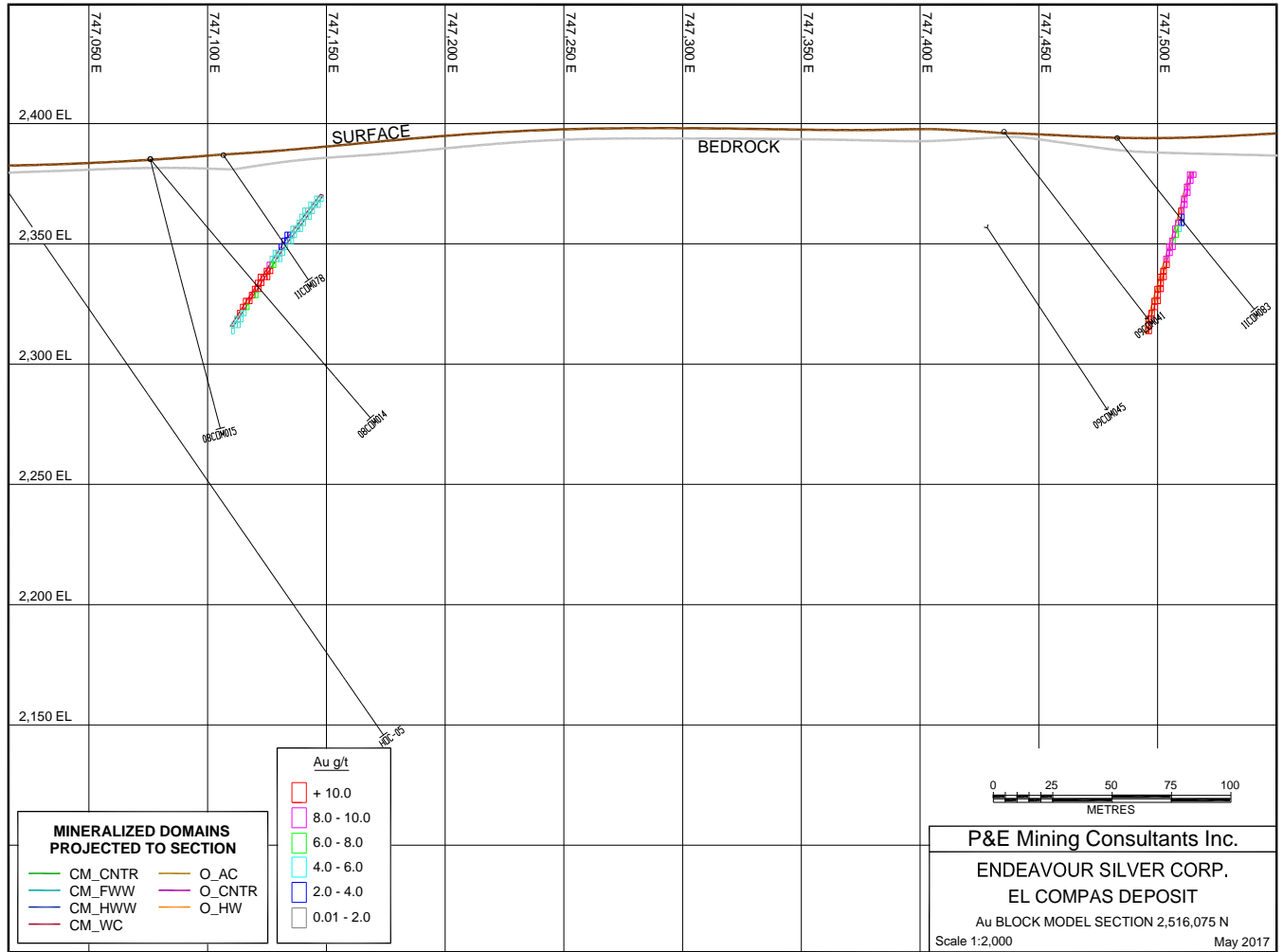
EL COMPAS PROJECT
PRELIMINARY ECONOMIC ASSESSMENT

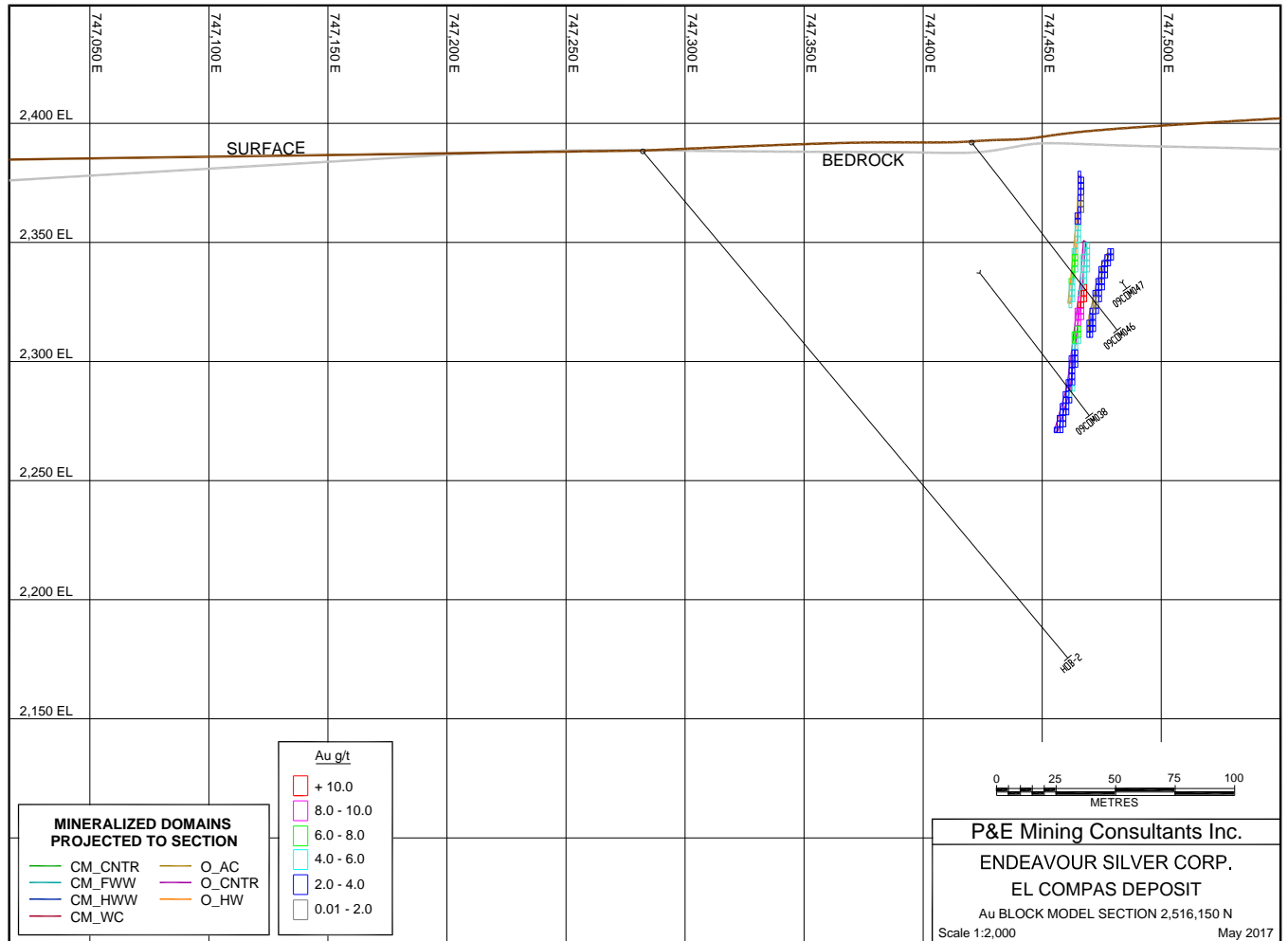


EL COMPAS PROJECT
PRELIMINARY ECONOMIC ASSESSMENT

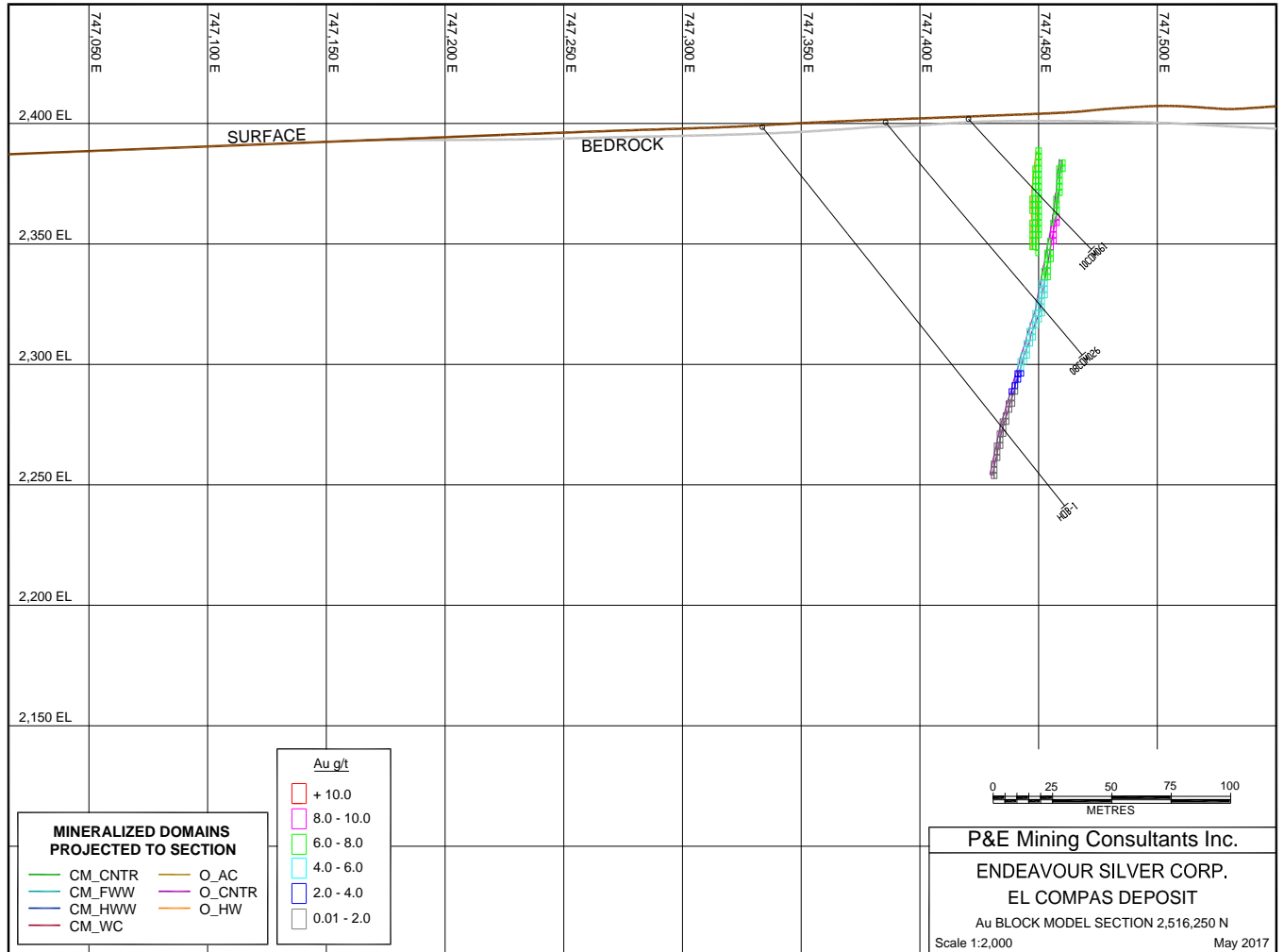


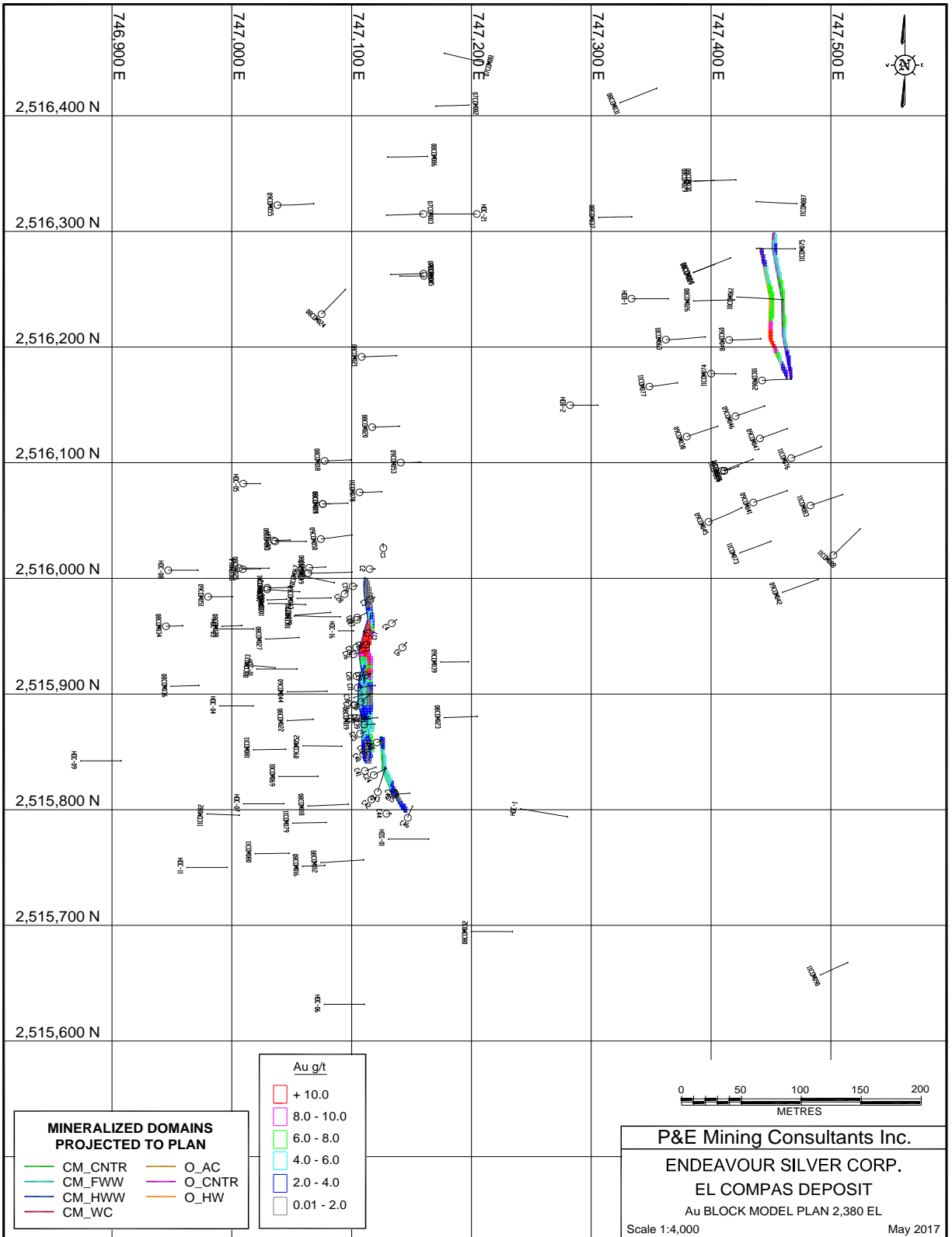
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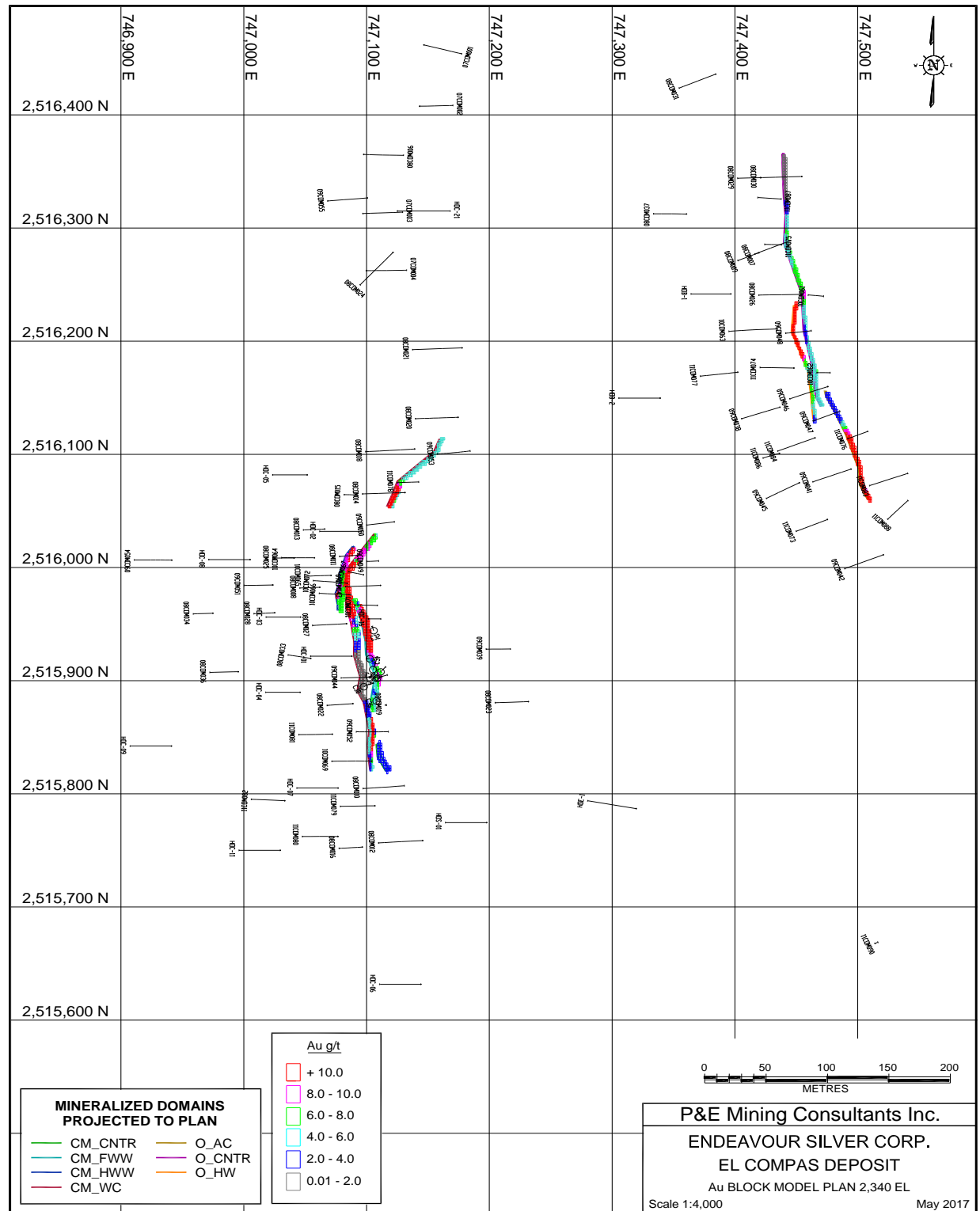


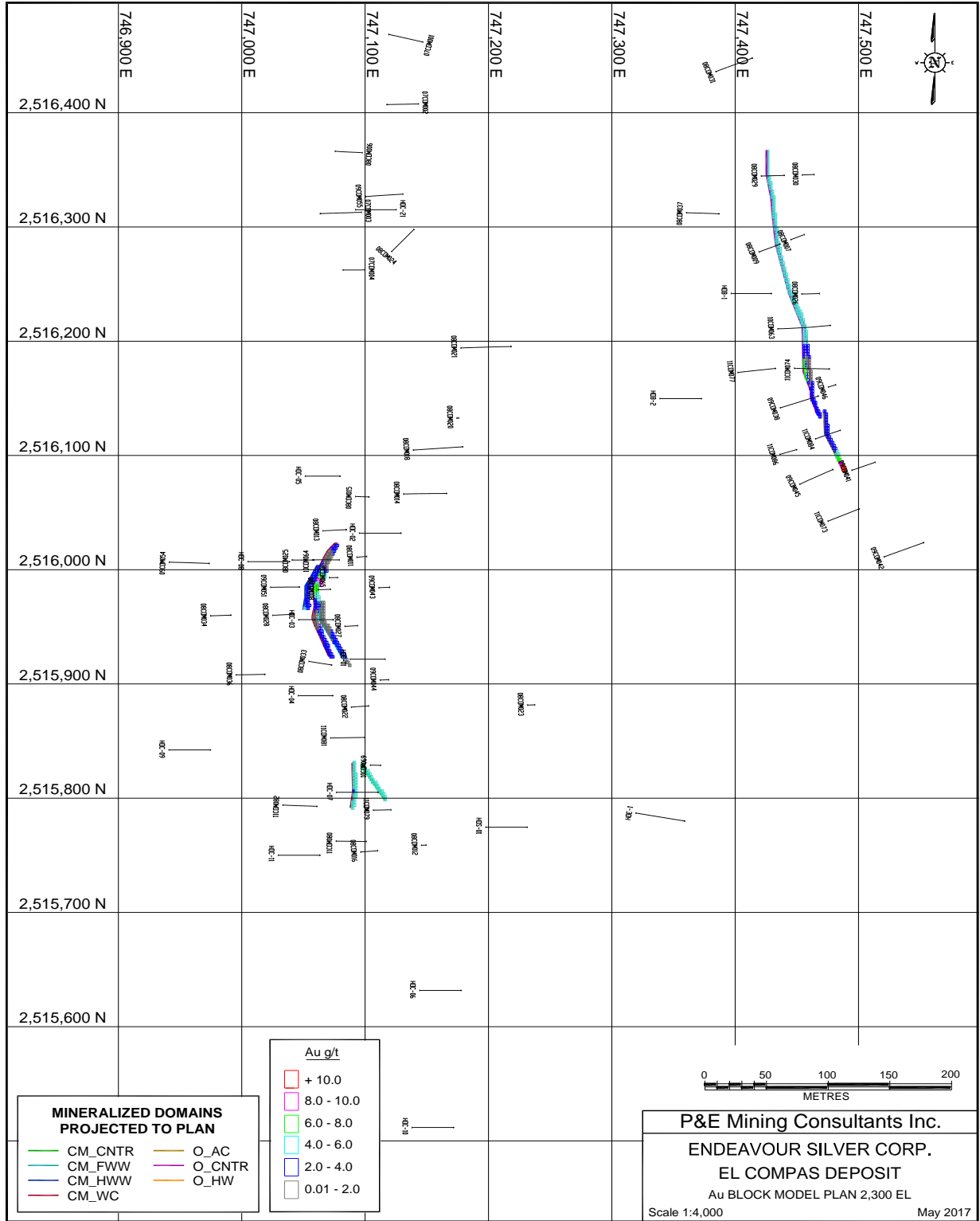
EL COMPAS PROJECT
PRELIMINARY ECONOMIC ASSESSMENT





EL COMPAS PROJECT
PRELIMINARY ECONOMIC ASSESSMENT





Appendix F

Classification Block Cross-Sections & Plans

