
CSA NI43-101 Technical Report on the Camino Rojo Gold Project, Municipio of Mazapil, Zacatecas, Mexico

Prepared for Orla Mining Ltd.

by

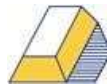
Matthew D. Gray, Ph.D., C.P.G. #10688

Resource Geosciences Incorporated



and

Carl E. Defilippi, RM SME # 775870



Kappes, Cassiday & Associates

Effective date: 24 January 2018



Represa area discovery zone of Camino Rojo deposit (geologists D Aguilar and H Smit)



Table of Contents

Item	Page
Title Page.....	cover
Table of Contents, Table of Figures, List of Tables.....	i
1 Summary.....	1
1.1 General Summary	1
1.2 Property Description.....	1
1.3 Ownership	1
1.4 Geology and Mineralization.....	1
1.5 Exploration and Drilling	2
1.6 Mineral Processing and Metallurgical Testwork.....	3
1.7 Historical Mineral Resources	4
1.8 Conclusions and Recommendations.....	5
1.8.1 Conclusions – Project Opportunities and Risks.....	5
1.8.2 Recommendations and Work Plan	6
1.8.2.1 Stage 1: Data Confirmation, Creation of Resource Estimate on Known Deposit, Metallurgical Studies, Exploration for Additional Deposits	6
1.8.2.2 Stage 2: Preliminary Economic Assessment of Stage 1 Resources and Definition Drilling of Stage 1 Targets	7
2 Introduction and Terms of Reference	9
2.1 Introduction.....	9
2.2 Terms of Reference.....	9
2.3 Purpose of Report	9
2.4 Sources of Information	9
2.5 Field Examination and Data Review by the Qualified Person.	10
2.6 Definitions and Translations.....	12
3 Reliance on Other Experts.....	14
4 Property Description and Location.....	15
4.1 Area and Location	15
4.2 Claims and Title.....	17
4.2.1 Orla Control of Mining Concessions via Acquisition from Minera Peñasquito SA de CV 20	
4.3 Surface Rights.....	21
4.4 Environmental Liability	24
4.5 Permits	24
4.6 Access, Title, and Permit Risks.....	25
4.6.1 Access Risks.....	25



4.6.2	Title Risks	25
4.6.3	Permit Risks.....	25
5	Accessibilty, Climate, Local Resources, Infrastructure, and Physiography.....	27
5.1	Accessibility.....	27
5.2	Physiography, Climate and Vegetation	28
5.3	Local Resources and Infrastructure	29
6	History	31
6.1	Prior Ownership.....	31
6.2	Prior Exploration.....	31
6.3	Historical Metallurgical Studies	33
6.4	Historical Resource Estimates	34
6.4.1	Canplats.....	34
6.4.2	Goldcorp	34
6.5	Prior Production.....	35
7	Geological Setting.....	36
7.1	Regional Geology.....	36
7.2	Local Geology	38
7.2.1	General Deposit Geology	38
7.2.2	Mineralized Zones.....	40
7.3	Oxidation	42
7.4	Conclusions.....	44
8	Deposit Types	45
9	Exploration	46
9.1	General.....	46
10	Drilling	47
10.1	Drilling History	47
11	Sampling Method and Approach	48
12	Data Verification.....	49
13	Mineral Processing and Metallurgical Testing	50
13.1	Review of Canplats Historical Metallurgical Data (2009).....	50
13.2	Review of Goldcorp Historical Metallurgical Data (2010 - 2015)	52
13.2.1	Kappes Cassiday & Associates	52
13.2.2	Blue Coast Research Metallurgy (2012 – 2013).....	55
13.2.3	Hazen Research (2014).....	56
13.3	Conclusions.....	56
14	Mineral Resource Estimates	57



15	Mineral Reserve Estimates	57
16	Mining Methods.....	57
17	Recoveries Methods	57
18	Project Infrastructure.....	57
19	Market Studies and Contracts.....	57
20	Environmental Studies, Permitting, and Social or Community Impact	57
21	Capital and operating cost	57
22	Economic Analysis	57
23	Adjacent Properties.....	58
24	Other Relevant Data and Information	59
25	Interpretation and Conclusions	60
25.1	Project Opportunities.....	60
25.1.1	Metallurgical Opportunity	60
25.1.2	Development of Sulphide Resources	60
25.1.3	Exploration Opportunity	61
25.2	Project Risks	61
25.2.1	Permitting Risk.....	61
25.2.2	Water Supply Risk	62
25.2.3	Surface Access Risks	62
25.2.4	Metallurgical Risk.....	62
26	Recommendations	64
26.1	Stage 1: Data Confirmation, Creation of Resource Estimate on Known Deposit, Metallurgical Studies, Exploration for Additional Deposits.....	64
26.2	Stage 2: Preliminary Economic Analysis of Stage 1 Resources and Definition Drilling of Stage 1 Targets.....	65
27	References.....	67
28	Effective Date and Signatures of Authors.....	69



List of Figures

Figure	Page
Figure 4.1. Location map, Camino Rojo Project.....	16
Figure 4.2. Mining concessions, Camino Rojo Project.....	19
Figure 4.3. Surface rights in project area.	22
Figure 5.1. Project location and regional infrastructure.....	28
Figure 5.2. View of typical topography and vegetation at Camino Rojo.	29
Figure 6.1. Historical drillhole locations and project claim boundaries.....	33
Figure 7.1. Regional geologic map (Servicio Geologico Mexicano, 2000).	37
Figure 7.2. Local geology, Camino Rojo deposit (Servicio Geologico Mexicano, 2014)	38
Figure 7.3. Drillcore from CR12-345D, 254m, showing typical and diagnostic interbedded centimeter scale sandstone, siltstone, and shale beds, fining upward turbiditic sequence, in unoxidized Caracol Formation. Sample assayed less than 5 ppb Au. Stratigraphic top is to right.	39
Figure 7.4. Drillcore from CR12-345D, 818m, showing relatively uniform nature of siltstone and shale beds in Indidura Formation, stratigraphically below Caracol Formation. Indidura is distinguished from Caracol by the absence of rhythmic sandstone-shale beds. Interval from 817.5 to 819.0m assayed 18 ppb Au.	39
Figure 7.5. Drillcore from CR12-345D, 993m, showing marbleized Cuesta del Cura limestone, stratigraphically below Indidura Formation. Interval from 991.5 to 993.0m assayed 44 ppb Au.	40
Figure 7.6. Pyrite concentrations developed in basal sandy layer of fining upward sandstone-siltstone-shale/mudstone turbiditic sequence of Caracol Formation. Note textbook turbiditic sequence comprised of cross bedded sandstone above laminar basal sand, and scour marks of basal sand into black pelagic sediments that mark top of lower and base of upper turbidite sequence. Stratigraphic up is to right of photo. From drillhole CR12 345D 395m. Interval from 394.5 to 396.0m assayed 0.211 gpt Au, 8 gpt Ag, 101 ppm Pb, 128 ppm Zn, and 245 ppm As.41	
Figure 7.7. Pyrite concentrations developed in silty and sandy beds of turbiditic sequence of Caracol Formation. From drillhole CR12 345D 727m. Stratigraphic up is to right of photo. Interval from 726.0 to 727.5m assayed 0.109 gpt Au, 1 ppm Ag, 19 ppm Pb, 56 ppm Zn, and 114 ppm As. .41	
Figure 7.8. Banded pyrite-marmatite (Fe rich sphalerite) carbonate veinlet, from drillhole CR11 267D 490m. Interval from 489.5 to 491m assayed 4.76 gpt Au, 22 gpt Ag, 572 ppm Pb, 16850 ppm Zn, and 7240 ppm As. Surrounding sample intervals without discordant sulphide veinlets assayed only 0.793 and 0.279 gpt Au. Note that sulphide veinlet is nearly parallel to core axis.	42
Figure 7.9. Pyrite-marmatite (Fe rich sphalerite) matrix bedding discordant breccia, from drillhole CR11 267D 473m. Interval from 471.5 to 473.0m assayed 1.710 gpt Au, 14 gpt Ag, 411 ppm Pb, 3050 ppm Zn, and 4290 ppm As. Surrounding sample intervals without discordant sulphide veinlets assayed only 0.188 and 0.310 gpt Au.	42
Figure 7.10. Partially oxidized mineralized Caracol Formation from drillhole CR11 258D 256m. Note that oxidation is controlled by both bedding and structures. Sandy turbiditic beds are preferentially oxidized in the oxide/sulphide transition zone, whereas interlayered mudstone and shale beds are unoxidized. Oxidation affects all beds adjacent to structures.	43
Figure 7.11. Oxidized Caracol Formation from drillhole CR11 258D 257m. Interval from 256.5 to 258.0m assayed 3.52 gpt Au, 33 gpt Ag, 6070 ppm Pb, 6060 ppm Zn, and 2590 ppm As.	43



List of Tables

Table	Page
Table 1.1. 2016 Camino Rojo Historical Proven and Probable Mineral Reserve Estimate by Goldcorp, \$1,200 USD/oz. gold price and \$18.00 USD/oz. silver price assumed.....	5
Table 1.2. 2016 Camino Rojo Historical Measured and Indicated Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price and \$20.00 USD/oz. silver price assumed.....	5
Table 1.3. 2016 Camino Rojo Historical Inferred Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price price and \$20.00 USD/oz. silver price assumed.....	5
Table 1.4. Recommended Two Stage Work Plan and Budget, Camino Rojo Project	8
Table 4.1. Listing of Mining Concessions	18
Table 6.1. 2016 Camino Rojo Historical Proven and Probable Mineral Reserve Estimate by Goldcorp, \$1,200 USD/oz. gold price and \$18.00 USD/oz. silver price assumed.....	35
Table 6.2. 2016 Camino Rojo Historical Measured and Indicated Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price and \$20.00 USD/oz. silver price assumed.....	35
Table 6.3. 2016 Camino Rojo Historical Inferred Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price and \$20.00 USD/oz. silver price assumed.	35
Table 13.1. Oxide Column Test Results SGS Mineral Services Minerals.....	51
Table 13.2. Transition Column Test Results SGS Mineral Services Minerals	51
Table 13.3. KCA 2010 Column Leach Test Results on Composites based on Sample Intervals.....	53
Table 13.4. KCA 2012 Summary Column Leach Test Results by Material Type	53
Table 13.5. KCA 2015 Column Leach Test Results by Lithology	54
Table 26.1. Recommended Work Plan and Budget, Camino Rojo Project.....	66



1 SUMMARY

1.1 General Summary

Orla Mining Ltd. (Orla) contracted Resource Geosciences Incorporated and Kappes, Cassiday & Associates to prepare this technical report on their Camino Rojo, Zacatecas project. Orla has not completed exploration or development work on the project, thus this report, which has been prepared to comply with the disclosure and reporting requirements of CSA NI43-101, describes the historical work completed at the project and recommends additional work to further advance the project. The effective date of this report is 24 January 2018.

1.2 Property Description

The Camino Rojo project is located in the Municipality of Mazapil, State of Zacatecas, near the village of San Tiburcio. The project lies 190km NE of the city of Zacatecas, 48km S-SW of the town of Concepcion del Oro, Zacatecas, and 54km S-SE of Goldcorp's Peñasquito Mine. The project area is centered at approximately 244150E 2675900N UTM NAD27 Zone 14N. The Camino Rojo deposit is an intrusive related, polymetallic, intermediate sulphidation distal skarn Au, Ag, Zn, and Pb deposit. For purposes of this evaluation, only Au and Ag are of potential significance.

1.3 Ownership

The project mineral rights are held in 8 mining concessions covering approximately 2,059 square kilometers. Surface rights are held by the Ejido San Tiburcio, a communal agrarian cooperative. Exploration has been carried out under the authority of agreements between the project operators and the Ejido San Tiburcio.

1.4 Geology and Mineralization

The Camino Rojo project comprises intrusive related, clastic sedimentary strata hosted, polymetallic Au, Ag, As, Zn, and Pb mineralization. For purposes of this evaluation, only Au and Ag are of potential significance.

The Camino Rojo deposit is hosted by Cretaceous submarine sedimentary strata, dominantly clastic. The most important mineralization host is the Caracol Formation, a rhythmically interbedded sequence of weakly calcareous turbiditic sandstones, siltstones and shales. The underlying Indidura Formation, comprised of regularly bedded reduced siltstones and shales, and the Cuesta del Cura limestone, now recrystallized to white fine grained marble, host a minor amount of sulphide mineralization, but are inconsequential hosts of oxide mineralization. The gold-silver-lead-zinc deposit is situated above, and extends down into, a zone of feldspathic hornfels developed in the sedimentary strata, and variably mineralized dacitic dikes. The mineralized zones correspond to zones of sheeted sulfidic veins and veinlet networks, creating a bulk-mineable style of gold mineralization. Phyllic alteration and



quartz veining are not well developed in the Camino Rojo deposit. Skarn mineralization has been encountered in the deeper portions of the system. The observed geologic and geochemical characteristics of the gold-silver-lead-zinc deposit at Camino Rojo are consistent with those of a distal oxidized gold skarn deposit. The metal suite and style of mineralization at Camino Rojo are similar to the intrusion-related deposits in the Caracol Formation and underlying carbonate rocks adjacent to the diatremes at Peñasquito.

1.5 Exploration and Drilling

The Camino Rojo deposit was discovered in mid-2007, and was originally entirely concealed beneath post-mineral cover in a broad, low relief alluvial valley adjacent to the western flank of the Sierra Madre Oriental. Mineralized road ballast placed on a dirt road near San Tiburcio, Zacatecas, was traced to its source by geologists Perry Durning and Bud Hillemeyer from La Cuesta International, working under contract to Canplats Resources Corporation (Canplats). A shallow pit excavated through a thin veneer of alluvium, located adjacent to a stock pond (represa) was the discovery exposure of the deposit. Canplats began concurrent programs of surface geophysics and reverse-circulation drilling in late 2007, which continued into 2008.

The initial drilling was focused on a 450 x 600 meter gold in rock geochemical anomaly named the Represa zone. Core drilling began in 2008. The geophysical survey defined two principal areas of high chargeability: one centered on the Represa zone and another 1 km to the west named the Don Julio zone. The elevated chargeability zones were interpreted as large volumes of sulphide mineralized rocks. Drilling by Canplats, and later drilling by Goldcorp Inc. (Goldcorp), confirmed the presence of extensive sulphide mineralization at depth in the Represa zone, and much lower quantities of sulphide minerals at Don Julio.

By August of 2008, Canplats drilled a total of 92 reverse-circulation, and 30 diamond-core holes, for a total of 23,988 and 16,044 meters respectively, mainly focused in the Represa zone.

Canplats was acquired by Goldcorp in early 2010. Validation, infill, condemnation, and expansion drilling began in January 2011. By the end of 2015, a total of 279,788 meters of new core drilling in 415 drillholes and 20,569 meters of new RC drilling in 96 drillholes was completed in the Represa and Don Julio zones and their immediate surroundings. An additional 31,286 meters of shallow RAB-style, RC drilling in 306 drillholes was completed, with most of the RAB drilling testing other exploration targets within the concession. Airborne gravity, magnetic and TEM surveys were also carried out.

As of the end of 2015 a total of 295,832 meters in 445 diamond core holes, 44,557 meters in 188 RC drillholes, and 31,286 meters of RAB drilling had been completed. The drillhole database has not been verified by the authors. Until the validation and confirmation work recommended in Item 26 of this report is conducted, this database



is not considered current, but is considered adequate for the purposes used in this technical report, being the basis for the recommended work plan.

1.6 Mineral Processing and Metallurgical Testwork

Neither Orla nor the authors have conducted metallurgical studies of Camino Rojo. Canplats and Goldcorp conducted metallurgical tests. Canplats examined the potential gold and silver recoveries from the Camino Rojo deposit and in 2009 publicly disclosed results of 18 column tests, 61 bottle roll tests, and 35 flotation tests (Blanchflower, K.D., Kaye, C., and Steidtmann, H., 2009). The results of these tests have not been verified by the authors or Orla, and these metallurgical studies are not considered current but are considered adequate for the purposes used in this technical report, being the basis for the recommended work plan.

Based on the historic metallurgical data available, the Camino Rojo deposit shows significant variability in gold recoveries based on material type and geological domain. In general, historical data shows that recoveries for oxide material are good and will yield acceptable results using conventional heap leaching methods with cyanide. Recoveries for transition material and sulphides are significantly lower compared with the oxide material for conventional leaching with some areas of transition showing reasonably high recoveries. Reagent consumptions for all mineralization types were reasonably low.

Additional metallurgical studies are recommended, and should include review of the drillhole logs of previously tested material to explore the variability in gold recoveries in the transition material. Additional column leach tests may be required on reclassified drill holes to confirm recoveries on transitional or similar material.



1.7 Historical Mineral Resources

Historic resource and reserve estimates were publicly disclosed by prior operators of the project. **These resource estimates were prepared prior to Orla acquiring the project and neither the authors nor Orla have verified these estimates and they are herein considered historical estimates and should not be relied upon. Orla is not treating the historical estimate as a current estimate.**

Minorex Consulting prepared a resource estimate for Canplats in 2009 (Blanchflower, 2009) that was publicly disclosed in a Technical Report written prepared in accordance with the disclosure standards of CSA NI43-101. However, since the effective date of the 2009 resource estimate, significant additional drillhole data has become available, rendering the 2009 estimate obsolete. **The 2009 resource estimate is historical in nature, has not been verified by the authors, and should not be relied upon. Orla is not treating the historical estimate as a current estimate.**

In 2016, Goldcorp, for Camino Rojo, publicly released a Proven and Probable Mineral Reserve estimate exclusive of Reserves containing 1.70M oz. contained gold, a Measured and Indicated Mineral Reserve estimate exclusive of Reserves containing 7.50M oz. contained gold, and an Inferred Mineral Resource estimate exclusive of Reserves, containing 0.47M oz. contained gold, as summarized in Table 1.1, Table 1.2, and Table 1.3 (Goldcorp Inc., 2017). **The 2016 Mineral Resource and Mineral Reserve estimates are historical in nature, have not been verified by the author, and should not be relied upon. A Qualified Person has not done sufficient work to classify the historical estimates as current Mineral Resources or Mineral Reserves and Orla is not treating the historical estimates as current estimates. The further work recommended in Item 26 of this report needs to be completed in order to create a current resource estimate.**



Table 1.1. 2016 Camino Rojo Historical Proven and Probable Mineral Reserve Estimate by Goldcorp, \$1,200 USD/oz. gold price and \$18.00 USD/oz. silver price assumed.

<i>Category</i>	<i>Tonnes x 10⁶</i>	<i>Grade Au gpt</i>	<i>Grade Ag gpt</i>	<i>Contained Ounces Au x 10⁶</i>	<i>Contained Ounces Ag x 10⁶</i>
<i>Proven</i>	-	-	-	-	-
<i>Probable</i>	75.52	0.70	14.22	1.70	34.53
<i>Proven + Probable</i>	75.52	0.70	14.22	1.70	34.53

Table 1.2. 2016 Camino Rojo Historical Measured and Indicated Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price and \$20.00 USD/oz. silver price assumed.

<i>Category</i>	<i>Tonnes x 10⁶</i>	<i>Grade Au gpt</i>	<i>Grade Ag gpt</i>	<i>Contained Ounces Au x 10⁶</i>	<i>Contained Ounces Ag x 10⁶</i>
<i>Measured</i>	-	-	-	-	-
<i>Indicated</i>	223.08	1.05	9.02	7.50	64.72
<i>Measured + Indicated</i>	223.08	1.05	9.02	7.50	64.72

Table 1.3. 2016 Camino Rojo Historical Inferred Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price and \$20.00 USD/oz. silver price assumed.

<i>Category</i>	<i>Tonnes x 10⁶</i>	<i>Grade Au gpt</i>	<i>Grade Ag gpt</i>	<i>Contained Ounces Au x 10⁶</i>	<i>Contained Ounces Ag x 10⁶</i>
<i>Inferred</i>	17.16	0.88	9.06	0.49	5.00

1.8 Conclusions and Recommendations

1.8.1 Conclusions – Project Opportunities and Risks

Exploration and metallurgical test results for the Camino Rojo project demonstrate that it is prospective for the potential to define a Mineral Resource. Opportunities exist to:

1. Improve the metallurgical characterization of the known mineralized zones, which consequently would enable selective development of the zones amenable to standard cyanide heap leach processing.
2. Develop sulphide resources to produce Au and Ag in Pb and Zn concentrates.
3. Discover new mineralized zones.



The risks identified are social/political and metallurgical. The geologic risk has been eliminated by the extensive drill campaigns conducted at the project that have defined significant gold mineralized zones. The chief social/political risks relate to authorizations required of Federal agencies, and include:

1. Federal legislation that could prohibit mining activity in the region, as discussed in Item 4.6.3 of this report.
2. Inability to obtain develop a water supply.
3. Inability to exercise surface access rights.

The metallurgical risk is the converse to the metallurgical opportunity, i.e. that material that is not amenable to heap leach processing and/or is preg-robbing cannot be accurately modeled or segregated, resulting in lowered metal recoveries.

1.8.2 Recommendations and Work Plan

A 30 month, 2 stage work plan is recommended. The first stage comprises 18 months and encompasses validation and confirmation of the drillhole database, creation of a current Mineral Resource model, metallurgical studies, and regional exploration around the Camino Rojo deposit. The second stage, lasting 12 months, which is conditional upon positive results from the first, is a Preliminary Economic Assessment of development of the Mineral Resource defined in Stage 1, and resource definition drilling of new deposits discovered during Stage 1 exploration. Exclusive of corporate costs and holding costs, the total recommended Stage 1 budget is \$4.5M USD. The conditional Stage 2 budget is \$4.0M with \$1.5M USD budgeted for a preliminary Economic Assessment of development of the Camino Rojo deposit and \$2.5M USD budgeted for definition drilling of new deposits. All Stage 2 work is contingent upon successful results from Stage 1 work. Recommended work plans and budgets are summarized in Table 1.4.

1.8.2.1 *Stage 1: Data Confirmation, Creation of Resource Estimate on Known Deposit, Metallurgical Studies, Exploration for Additional Deposits*

Historic data demonstrates that Camino Rojo has potential to host a gold Mineral Resource. In order to accurately evaluate the economic worth of the deposit, the existing project drillhole database must be validated and confirmed, and a better understanding of the metallurgical characteristics of the deposit is required. Creation of a current geologic and Mineral Resource model and additional metallurgical studies are warranted, with emphasis on accurate modelling of the parameters that affect gold recoveries hence dictate which beneficiation methods are appropriate.

Extensive drillhole data created by prior operators will allow for creation of a geologic model and a current Mineral Resource estimate without additional drilling beyond confirmation drilling. This confirmation drilling should comprise duplication of existing



drillholes (twinning) to compare current results to the historic results in order to validate and confirm the existing drillhole database. Additionally, infill drillholes are required to validate that the drillhole spacing is appropriate for the continuity of the mineralization. Additional metallurgical testing is required to determine the expected gold and silver recoveries for the various mineralization types and processing alternatives. The objective of the modelling is to define the resources that may be treated by standard cyanide heap leach processing methods and the sulphide resources that may require milling and flotation beneficiation. An improved metallurgical model has potential to immediately add value to the project by identifying portions of the known and drill tested mineralized zone where the mineralization may be amenable to standard heap leaching methods.sulphide

An 18 month, approximately \$2.3M USD program, exclusive of project holding costs and corporate costs, is recommended. Costs and time frame to complete the creation of a new geologic model and resource estimate are summarized in Table 1.4.

Positive results from the Mineral Resource estimation and metallurgical modeling program would justify next steps, being conducting a Preliminary Economic Assessment to assess exploiting the Camino Rojo deposit by a potential combination of standard open pit mining and heap leach recovery methods and sulphide flotation and concentration.

Concurrent with the creation of a current geologic/metallurgical model and Mineral Resource estimate for the Camino Rojo deposit, a 2-stage exploration program to seek additional analog deposits within the claim block is recommended. Because outcrop is exceedingly scarce, exploration will be driven by indirect geophysical and geochemical surveys, followed by exploratory RC drilling of targets identified and follow up diamond core drilling of positive RC drill tests. This work would be conducted in a 12 month period at a cost of \$2.2M USD for Stage 1 exploration and \$2.5M USD for Stage 2 work, which is conditional upon positive results from Stage 1. Costs and time frame to conduct the exploration are summarized in Table 1.4.

1.8.2.2 Stage 2: Preliminary Economic Assessment of Stage 1 Resources and Definition Drilling of Stage 1 Targets

Conditional upon positive results from Stage 1 work, a Preliminary Economic Assessment of resources defined by Stage 1 work is recommended. The exact details of the PEA cannot be determined prior to definition of a precious metal Mineral Resource and its metallurgical characteristics. The PEA would focus on development options of both oxide and sulphide resources. If Stage 1 exploration successfully defined analog targets to Camino Rojo within the project mineral concessions, a definition drilling program of these targets is warranted. The Stage 2 program is envisioned as a 12 month program with \$1.5M USD budgeted for a PEA and \$2.5M USD for resource definition drill programs.



Table 1.4. Recommended Two Stage Work Plan and Budget, Camino Rojo Project

Stage 1: Data Confirmation, Geologic Model Creation, Metallurgical Studies, and Resource Estimation

Activity or Concept	Month Start	Month End	Cost USD
Acquire/Analyze Data	1	2	25,000
Relog Core (geologic and metallurgical domain logging)	1	4	200,000
Preliminary Update Deposit Geologic and Metallurgical Model	4	5	100,000
Metallurgical and Confirmation Drilling	4	6	600,000
Metallurgical Testing	7	16	750,000
Technical Consulting Metallurgy	7	16	100,000
Technical Consulting Engineering	13	16	50,000
Resource Estimation	16	18	100,000
Technical Consulting Permitting	1	18	50,000
Baseline Environmental Sampling and AMD Testing	1	18	100,000

\$2,075,000

Stage 1 Exploration

Geophysical Surveys (magnetics, IP)	1	4	450,000
Regional Geochemical Survey	1	4	300,000
Trenching	1	5	250,000
RC Drilling (10000m, cost includes assay, geology, drilling)	5	12	1,000,000

\$2,000,000

Camp/Travel/Logistics (cost shared equally by Resource Modelling and Exploration programs)

Camp (house rental, meals, janitorial, cook, etc.)	1	18	126,000
Core warehouse and logging facilities	1	18	72,000
Vehicles	1	18	108,000
Vehicle fuel and maintenance	1	18	22,000
Travel (flights, hotels, meals)	1	18	130,000
Communication	1	18	18,000

\$476,000

Grand Total Stage 1 USD

\$4,551,000

Stage 2: PEA on Resources defined in Stage 1, Drill testing of targets discovered in Stage 1

Preliminary Economic Assessment, Stage 1 Resources	1	12	1,500,000
RC and Core Drilling (10000m RC, 5000m core)	1	12	2,500,000

Grand Total Stage 2 USD

\$4,000,000



2 INTRODUCTION AND TERMS OF REFERENCE

2.1 Introduction

Matthew D. Gray of Resource Geosciences Incorporated (RGI) and Carl E. Defilippi of Kappes, Cassiday & Associates (KCA), the authors of this report, were asked by Orla Mining Ltd. (Orla) to:

1. Perform an independent evaluation of the Camino Rojo gold project in Mazapil Municipality, Zacatecas, Mexico
2. Provide an opinion as to whether the project merits additional work.
3. Provide recommendations to advance the project
4. Prepare for Orla a technical report prepared in accordance with the disclosure standards of CSA National Instrument 43-101 (NI43-101).

This report has been prepared in accordance with CSA NI 43-101 standards. The report provides a summary of the geology of the project, its potential to host economic mineral deposits, and recommendations for additional work.

2.2 Terms of Reference

Orla commissioned RGI and KCA to review the Camino Rojo project and to prepare a report following CSA NI43-101 guidelines for submission as a Technical Report. Orla is a publicly traded company listed on the TSX Venture Exchange under symbol OLA.V. Matthew Gray, senior partner of RGI, an independent geosciences consulting firm contracted by Orla, visited the Camino Rojo project, reviewed the available geologic data, and conducted an independent analysis to accomplish the requested task. Carl E. Defilippi and KCA were contracted to review metallurgical data and provide commentary for this report.

2.3 Purpose of Report

The purpose of this report is to provide an independent assessment of the Camino Rojo gold project and to recommend an exploration program to enhance the economic potential of the project. This report has been prepared in accordance with the disclosure and reporting requirements set forth in CSA NI43-101.

2.4 Sources of Information

In the preparation of this report Dr. Gray has relied on his own observations, supplemented by information obtained through review of both published and unpublished documents and maps. In addition to Dr. Gray's own observations, sources of information regarding regional geology, mining history of the region, and topographic data, include:



- Geologic, geophysical, and assay data collected and published by the Servicio Geológico Mexicano, a Mexican Federal agency.
- Topographic and physiographic data collected and published by the Instituto Nacional de Estadística y Geografía, a Mexican Federal Agency.
- Drillhole geology and assay information contained in digital databases provided by Goldcorp.
- Engineering and geological reports prepared by Goldcorp and its consultants.
- Mining concession title opinion provided by Lic. Mauricio Hieras, Mexican legal counsel for Orla.
- Land access agreement summaries provided by Lic. Mauricio Heiras, Mexican legal counsel for Orla.
- Environmental permitting information contained in reports prepared by Lic. Mauricio Heiras, Mexican legal counsel for Orla, and by consulting firm ERM.
- Metallurgical reports prepared by prior operators of the project.

Data that was not generated by the authors have not been independently verified, except as noted in Item 12 of this report. Where information from unverified sources is relevant to interpretations and discussions of the economic potential of the project, the source of information is explicitly mentioned.

2.5 Field Examination and Data Review by the Qualified Person.

During the period 12 to 13 December 2016, the Qualified Person responsible for all sections of this report except for 1.6, 6.3, and 13, Matthew D. Gray, Ph.D., C.P.G., President of RGI, conducted a field visit to the Camino Rojo Gold Project, Zacatecas, Mexico, at the time owned and operated by Goldcorp. The visit was made at the request of Orla. The project review was conducted with Hans Smit, COO of Orla, Fletcher Bourke, consultant geologist to Orla, and Tony Longo, consultant geologist to Orla. The Represa zone of the Camino Rojo deposit was visited in the field, and core from the project was reviewed at the Goldcorp exploration office and core warehouse in San Tiburcio. Carl E. Defilippi, the Qualified Person responsible for sections for 1.6, 6.3, and 13 of this report, did not visit the project as it was not required for the sections for which he was responsible.

The deposit is nearly 100% covered by colluvium, thus nearly all time on site was spent reviewing core.

The purpose of the review was to determine:

1. If the Mineral Resource and economic model defined by Goldcorp could be improved by creation of an improved geologic/metallurgical domain model, with emphasis on determining how much of the oxide/sulphide transition zone material might yield acceptable recoveries under standard cyanide heap leaching processes.
2. The potential of the concessions to host additional oxide resources.



Dr. Gray spent several days in RGI's Rio Rico, Arizona office reviewing and interpreting geologic and assay data obtained during the site visit.

Prior to the field visit and data review conducted for the purposes of this Technical Report, Dr. Gray had been directly involved in mineral exploration programs in the region, but had not conducted examinations of the Camino Rojo project.



2.6 Definitions and Translations

AMSL	-	Above Mean Sea Level
ANP	-	Area Natural Protegida
ARD	-	acid rock drainage
C	-	Centigrade
CIL	-	Carbon in Leach
cm	-	centimeter
CN	-	cyanide
CONAFOR	-	Comision Nacional Forestal (National Forestry Commission)
CONAGUA	-	Comision Nacional de Agua (National Water Commission)
CONANP	-	Comision Nacional de Areas Naturales Protegidas (National Commission for Protected Natural Areas)
COPE	-	Convenio de Ocupacion Previa a la Expropacion (Occupation Agreement Prior to Expropriation)
COT	-	Convenio de Ocupacion Temporal (Temporary Occupation Agreement)
CRM	-	Consejo de Recursos Minerales (Natural Resources Council)
CRSA	-	Collaboration and Social Responsibility Agreement
CUS	-	Cambio de Uso de Suelo (Land Use Change Permit)
DGM	-	Direccion General de Minas (Central Mining Department)
gpt	-	grams per tonne
GRG	-	gravity recoverable gold
Has	-	hectares
HQ	-	diamond drill core size, 63.5 mm core diameter
ID2	-	Inverse Distance Squared
km	-	kilometer
M	-	million
MIA	-	Manifiesto de Impacto Ambiental (Environmental Impact Statement)
mm	-	millimeter
NAD	-	North American Datum
Orla	-	Orla Mining Ltd.
oz.	-	Troy Ounce
PEOA	-	Previous to Expropriation Occupation Agreement
ppm	-	parts per million
NAD27	-	North American Datum 1927
QUEMSCAN	-	quantitative evaluation of minerals by scanning electron microscopy
RAB	-	rotary air blast (drilling method)
RC	-	reverse circulation (drilling method)
RGI	-	Resource Geosciences Incorporated
SEMARNAT	-	Secretaria del Medio Ambiente y Recursos Naturales (Secretary of the Environment and Natural Resources)
SGM	-	Servicio Geológico Mexicano (Mexican Geologic Survey)
SMO	-	Sierra Madre Occidental



TEM	-	transient electromagnetic (geophysical survey method)
TOA	-	Temporary Occupation Agreement
UTM	-	Universal Transverse Mercator
WGS84	-	World Geodetic System 1984 datum



3 RELIANCE ON OTHER EXPERTS

The authors are not experts in Mexican mining, civil, environmental or tax laws and the authors are not Qualified Persons with respect to these subjects. For Items 4.2, 4.3, 4.5, and 4.6 the authors have relied upon:

- Mining concession title opinion provided by Lic. Mauricio Heiras, Mexican legal counsel for Orla on 28 June 2017 (Heiras, 2017) and in a report dated 6 January 2018 (Heiras, 2018).
- Land access agreement summaries provided by Lic. Mauricio Heiras, Mexican legal counsel for Orla in a report dated 28 June 2017 (Heiras, 2017) and a report dated 6 January 2018 (Heiras, 2018).
- Environmental permitting information contained in a report prepared by by Lic. Mauricio Heiras, Mexican legal counsel for Orla, dated 28 June 2017 (Heiras, 2017).

This Technical Report and all publications, exhibits, documentation, conclusions, and other work products obtained or developed by RGI for this Technical Report are for sole and exclusive use of Orla. However, all reports, publications, exhibits, documentation, conclusions, and other work products obtained or developed by RGI during completion of this Technical Report shall be and remain the property of RGI. Unauthorized use or reuse by third parties of reports, publications, exhibits, documentation, conclusions, and other work products obtained or developed by RGI for the purposes of this Technical Report is prohibited.

This Technical Report was prepared specifically for the purpose of complying with CSA NI 43-101 and may be distributed to third parties and published without prior consent of RGI if the Technical Report is presented in its entirety without omissions or modifications, subject to the regulations of CSA NI43-101.



4 PROPERTY DESCRIPTION AND LOCATION

4.1 Area and Location

The Camino Rojo project is located in the Municipality of Mazapil, State of Zacatecas, near the village of San Tiburcio. The project lies 190km NE of the city of Zacatecas, 48km S-SW of the town of Concepcion del Oro, and 54km S-SE of Goldcorp's Peñasquito Mine (Figure 4.1). The project area is centered at approximately 244150E 2675900N UTM NAD27 Zone 14N.

All geographic references in this report utilize UTM Zone 14N datum NAD27 unless otherwise stated.



Figure 4.1. Location map, Camino Rojo Project.



4.2 Claims and Title

The author is not an expert in Mexican mining law. The author has relied upon Orla's legal counsel in Mexico, Lic. Mauricio Heiras of Chihuahua, Chihuahua for a review of the concession titles and legal framework, as described in Item 3 of this report. Lic. Heiras verified that the concessions are in good standing and ownership of all eight concessions has been registered to Minera Camino Rojo SA de CV (Heiras, 2017), (Heiras, 2018).

All minerals rights in Mexico are the property of the government of Mexico, and may be exploited by private entities under concessions granted by the Mexican federal government. The process was defined under the Mexican Mining Law of 1992, and excludes petroleum and nuclear resources from consideration. The Mining Law also requires that non-Mexican entities must either establish a Mexican corporation, or partner with a Mexican entity.

Under current Mexican mining law, amended April 29, 2005, the Direccion General de Minas ('DGM') grants concessions for a period of 50 years, provided the concession is maintained in good standing. There is no distinction between mineral exploration and exploitation concessions. As part of the requirements to maintain a concession in good standing, bi-annual fees must be paid based upon a per-hectare escalating fee, work expenditures must be incurred in amounts determined on the basis of concession size and age, and applicable environmental regulations must be respected.

The northern edge of the Camino Rojo deposit identified in this technical report extends onto mining concessions that are not part of the project holdings. The mineral potential discussed in this technical report is located entirely within the mining concessions that comprise the project. It is probable that the mineralized zone extends north of the current project claim package, but the existence and significance of such an extension is currently unknown.

The Camino Rojo project consists of eight concessions covering in aggregate 205,936.867 Has. The Los Cardos concession was originally staked and titled to Explominerals SA de CV whereas all other concessions were staked and titled to Canplats de Mexico SA de CV, whose legal name was subsequently changed to Camino Rojo SA de CV. The concession rights of Explominerals were transferred to Camino Rojo SA de CV. Camino Rojo SA de CV subsequently ceded all mining claims to Minera Peñasquito SA de CV, who in turn sold the mining claims to Minera Camino Rojo SA de CV, a subsidiary of Orla.

Concession information is summarized in Table 4.1, and the concessions are shown in Figure 4.2.



Table 4.1. Listing of Mining Concessions

Concession Name	File Number (Expediente)	Title Number	Validity		Area
			Title Issued Date	Expiration Date	Has.
Camino Rojo	093/28336	230914	06/11/2007	05/11/2057	8,340.7905
Camino Rojo 1	093/28349	231922	16/05/2008	15/05/2058	88,897.3255
Camino Rojo 1 Frac. A	093/28349	231923	16/05/2008	15/05/2058	96.8888
Camino Rojo 3	093/28425	232014	03/06/2008	02/06/2058	30,050.0000
Camino Rojo 2	093/28417	232076	10/06/2008	09/06/2058	17,847.4398
Camino Rojo 4	093/28465	232644	02/10/2008	01/10/2058	9,701.0000
Camino Rojo 5	093/28534	232647	02/10/2008	01/10/2058	33,018.4718
Los Cardos	093/28561	232652	02/10/2008	01/10/2058	17,984.9513

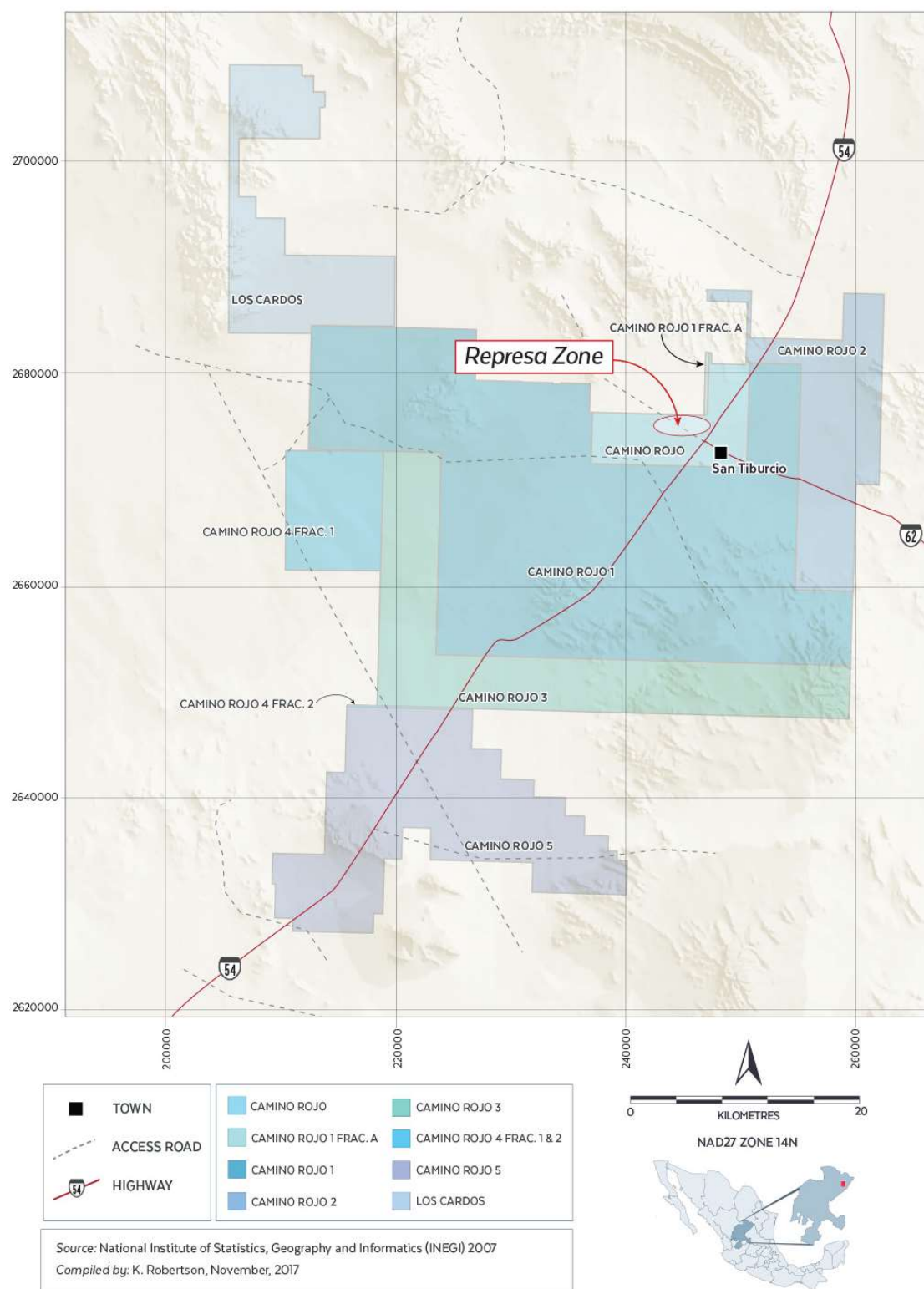


Figure 4.2. Mining concessions, Camino Rojo Project.



The legal standing of these claims and the ownership of surface rights have not been verified by Dr. Gray or RGI. Prior to entering into purchase option agreements for the concessions, Orla requested a title opinion for the concessions from Orla's legal counsel in Mexico, Lic. Mauricio Heiras of Chihuahua, Chihuahua, who investigated the concession status and reported that the claims were valid.

4.2.1 Orla Control of Mining Concessions via Acquisition from Minera Peñasquito SA de CV

The claims are controlled by Orla by means of its ownership of Minera Camino Rojo SA de CV, which acquired the concessions from Goldcorp's Mexican subsidiary, Minera Peñasquito SA de CV. A summary of Orla's and Goldcorp's rights and obligations under the terms of the acquisition agreement is as follows:

- Goldcorp was granted a 2% NSR on all metal production from the project, except for metals produced under the sulphide joint venture option stipulated in the acquisition agreement.
- Orla is the operator of the Camino Rojo project and has full rights to explore, evaluate, and exploit the property.
- In the event that a sulphide project is defined through a positive Pre Feasibility Study outlining one of the development scenarios a) or b) contained herein, Goldcorp may, at its option, enter into a joint venture for the purpose of future exploration, advancement, construction, and exploitation of the sulphide project.
 - Scenario a): A sulphide project where ore from Camino Rojo is processed using the existing infrastructure of the Peñasquito Mine, Mill and Concentrator facilities. In such circumstances, the sulphide project would be operated by Goldcorp, who would earn a 70% interest in the sulphide project, with Orla owning 30%.
 - Scenario b): A standalone sulphide project with a mine plan containing at least 500 million tonnes of Proven and Probable Mineral Reserves using standalone facilities not associated with Peñasquito. Under this scenario, the sulphide project would be operated by Goldcorp, who would earn a 60% interest in the sulphide project, with Orla owning 40%.
 - Following exercise of its option, if Goldcorp elects to sell its portion of the sulphide project, in whole or in part, the Orla would retain a right of first refusal on the sale of the sulphide project.
- For as long as Goldcorp maintains ownership of at least 10% of Orla common shares, Goldcorp has the right to nominate one director the board of Orla and to participate in all future equity offerings to maintain its prorated ownership.



- Orla will retain a right of first refusal on Goldcorp's NSR, Goldcorp's portion of the sulphide project, following the exercise of its option, and certain claims retained by Goldcorp.
- Carry forward of assessment work credits will be applied to the Camino Rojo project concessions thus no expenditures are immediately required to meet assessment work requirements.

4.3 Surface Rights

The author is not an expert in Mexican surface rights or contract law. The author has relied upon Orla Mining Ltd.'s legal counsel in Mexico, Lic. Mauricio Heiras of Chihuahua, Chihuahua for a review of the project surface rights (Heiras, 2017), (Heiras, 2018) as discussed in Item 3 of this report.

Surface rights in the project area are owned by the several Ejidos, which are Federally defined agrarian communities. The land which includes the historic resource at Camino Rojo is controlled by the San Tiburcio Ejido, comprised of 400 voting members who collectively control 37,154 Has. The legal ownership of surface rights has not been verified by Dr. Gray or RGI, and the information contained herein comes from summary reports prepared by Orla's legal counsel in Mexico, Lic. Mauricio Heiras.

Areas for which Minera Camino Rojo SA de CV controls surface rights are shown in Figure 4.3.

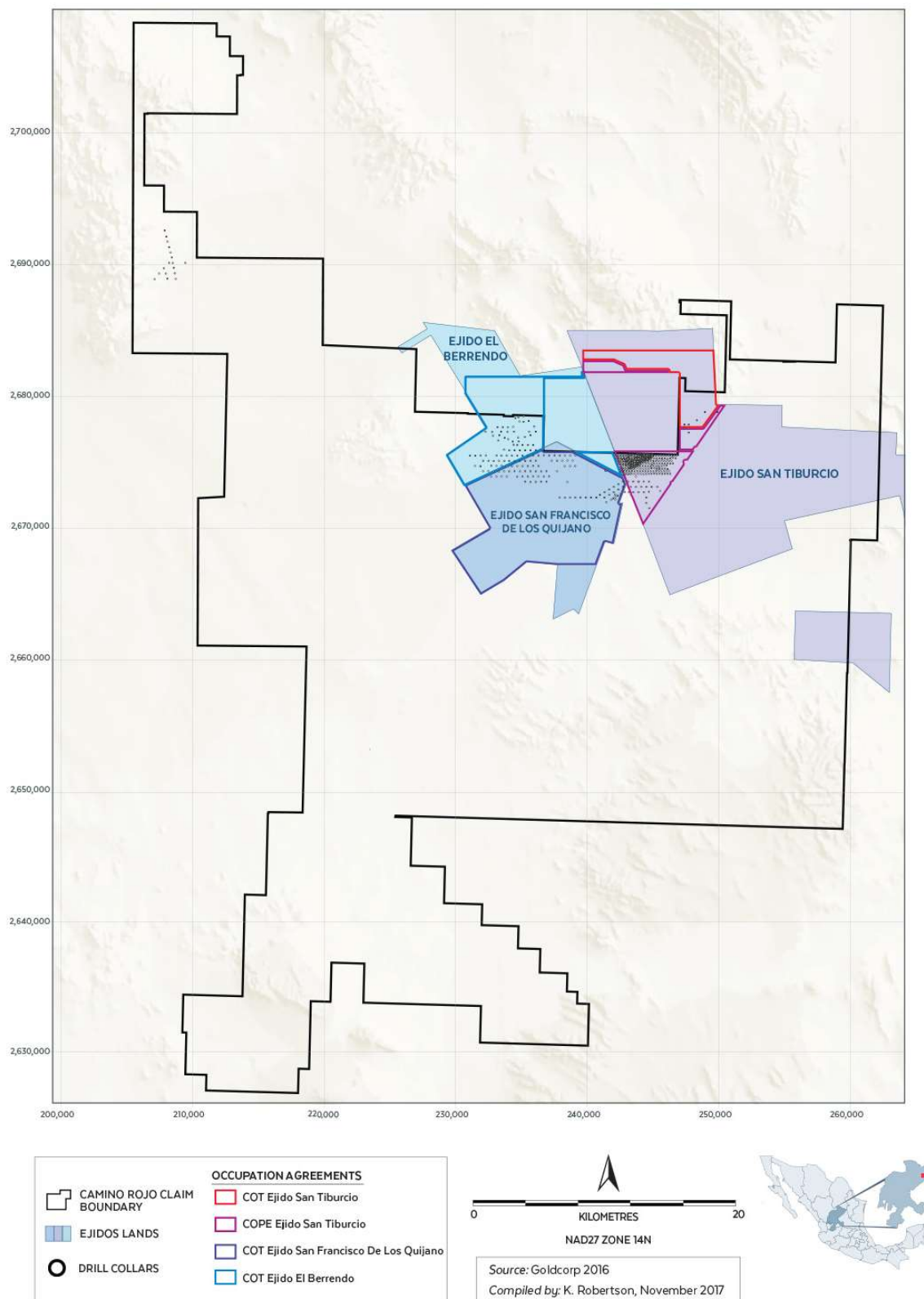


Figure 4.3. Surface rights in project area.



Exploration work at the project has been carried out under the terms of surface access agreements negotiated with the Ejido and executed on 26 February 2013. Camino Rojo SA de CV has executed three agreements with the Ejido that cover the Camino Rojo deposit. Camino Rojo SA de CV subsequently passed the rights and obligations of these agreements to Minera Peñasquito SA de CV, who subsequently transferred the rights and obligations to Minera Camino Rojo SA de CV. The three agreements are:

1. Previous to Expropriation Occupation Agreement (COPE), executed on February 26th, 2013 by and between Camino Rojo SA de CV, in its position of “occupant”, and Ejido San Tiburcio, as the owner, with regards to a surface of 2,497.30 Has. This agreement stipulates that the Ejido expressly and voluntarily accepts the expropriation of Ejido lands by Camino Rojo SA de CV, in effect converting the Ejido land to fee simple private land titled to Camino Rojo SA de CV. In the event that the Federal agency responsible for the expropriation process, the Secretario de Desarrollo Agrario Territorial y Urbano, denies the petition to cede the Ejido lands to Camino Rojo SA de CV, the agreement automatically converts to a 30 year temporary occupation agreement. Payment in full was made at the date of signing and no further payments are due.
2. Temporary Occupation Agreement (COT), executed on February 26th, 2013 by and between Camino Rojo SA de CV, in its position of occupant, and Ejido San Tiburcio, as owner, with regards to a surface of 2,500 Has (the “TOA”). This agreement allows Camino Rojo SA de CV to explore 2,500 Has of Ejido lands over a 5 year period, while the expropriation process is executed. Payment in full was made at the date of signing and no further payments are due.
3. Collaboration and Social Responsibility Agreement (CSRA), executed on February 26th, 2013 by and between Camino Rojo SA de CV, in its position of “collaborator”, and Ejido San Tiburcio, as “beneficiary”, with regards to certain social contributions to be provided in favour of this last CSRA. The agreement stipulates that Camino Rojo SA de CV will contribute \$10,000,000 Pesos annually to the Ejido to be used to promote and execute diverse social and economic development programs to benefit the Ejido. Additionally, at its discretion, Camino Rojo SA de CV will provide support for adult education, career training, business development assistance, and cultural programs, and scholastic scholarships. The agreement expires when exploration or exploitation activities at the Camino Rojo project end. Annual payments are due on the 29th of June each year.

Camino Rojo SA de CV has executed a surface rights agreement with Ejido Francisco de los Quijano. This agreement, executed on 22 December 2014, is a Temporary Occupation Agreement (COT) that allows Camino Rojo SA de CV to conduct exploration activities on 7,666 Has, as shown in Figure 4.3. The agreement expires



on 21 December 2019. Annual payments of \$9,134,749 Pesos are required to keep the agreement in good standing. Simultaneously with the execution of the COT, Camino Rojo SA de CV executed a Collaboration and Social Responsibility Agreement with the Ejido which obligates Camino Rojo SA de CV to: provide \$19,000 Pesos in monthly scholastic scholarships to the Ejido; complete electrification of an Ejido water well and rehabilitate/reconstruct the community cistern; assist Ejido members with finding appropriate employment opportunities with Camino Rojo SA de CV and its contractors; and to provide basic food rations to community members in need. The CSRA expires on 21 December 2019.

Minera Camino Rojo has executed a surface rights agreements with Ejido El Berrendo. This agreement, executed on 22 December 2014 is a Temporary Occupation Agreement (COT) that allows Camino Rojo SA de CV to conduct exploration activities on 4,201 Has, as shown in Figure 4.3. The agreement expired on 21 December 2017. Minera Camino Rojo is currently negotiating a new agreement with the Ejido. Annual payments of \$4,467,530 Pesos were required to keep the agreement in good standing. Simultaneously with the execution of the COT, Camino Rojo SA de CV executed a Collaboration and Social Responsibility Agreement with the Ejido which obligates Camino Rojo SA de CV to: provide \$26,000 Pesos in monthly scholastic scholarships to the Ejido; complete electrification of the Ejido community building; rehabilitate Ejido roads; provide materials needed for construction of a community health center; water well and rehabilitate/reconstruct the community cistern; assist Ejido members with finding appropriate employment opportunities with Camino Rojo SA de CV and its contractors; and to provide basic food rations to community members in need. The CSRA expired on 21 December 2017. Minera Camino Rojo is currently negotiating a new agreement with the Ejido.

4.4 Environmental Liability

No environmental liabilities are apparent. The property does not contain active or historic mines or prospects, there are no plant facilities present within the project area, nor are tailings piles present, and all exploration work has been carried out by prior operators in accordance with Mexican environmental standards.

4.5 Permits

The author is not an expert in Mexican environmental law. The author has relied upon Orla's legal counsel in Mexico, Lic. Mauricio Heiras of Chihuahua, Chihuahua for a summary review of the project environmental permits (Heiras, Legal opinion letter, 2017) and a public domain Federal report (CONANP, 2014) for a review of permitting risks as discussed in Item 3 of this report.

The Ley de Desarrollo Forestal Sustentable (Sustainable Development Forest Law) and the Ley General del Equilibrio Ecológico y Protección al Ambiente (General Law of Ecologic Equilibrium and Environmental Protection) regulate all direct exploration activities carried out at Camino Rojo (reverse circulation drilling, core drilling,



trenching, road construction, etc.). Surface disturbances caused by exploration activities require a Cambio de Uso de Suelo (CUS, Land Use Change) authorization and approval of an Environmental Impact Assessment (MIA).

The National Water Law regulates all water use in Mexico under the responsibility of Comisión Nacional del Agua (CONAGUA). Applications are submitted to CONAGUA indicating the annual water needs for mining activities and the source of water to be used. CONAGUA grants water concessions according to stipulated water availability in the source area.

A review of environmental compliance and permitting issues was not within the scope of the present study.

4.6 Access, Title, and Permit Risks

4.6.1 Access Risks

The project has had a productive relationship with the surface owners and no extraordinary risks to project access were discerned. A valid surface access agreement allows Orla, through its Mexican subsidiary Camino Rojo SA de CV, to explore the property.

4.6.2 Title Risks

Prior operators have met legal requirements to maintain in good standing mining concession titles. Conditional upon continued compliance with annual requirements, no risk to validity of title was discerned.

4.6.3 Permit Risks

Prior operators have been compliant with Mexican environmental regulations and conditional upon continued compliance, permits for normal exploration activities are expected to be readily attainable.

The chief project risk identified by previous operators is that of a possible Federal designation of a protected biological-ecological reserve that could affect the project. SEMARNAT published a public notice in the Official Gazette of the Federation requesting public consultation and comments on the possible designation of an area known as “Zacatecas Semiarid Desert” as a Natural Protected Area (ANP). If a designation of this ANP by the government includes the surface of the mining concession areas or ancillary work areas such as possible water well fields of Camino Rojo, this could limit the growth and continuity of the project. The proposed area for designation is located in the Municipalities of General Francisco Murguía, Villa de Cos, El Salvador, Melchor Ocampo, Concepción de Oro and Mazapil, in the State of Zacatecas (CONANP, 2014).



ANPs are is generally divided into sub-zones in which the execution of different activities are allowed or prohibited in accordance with the sub-zone's characteristics. "Core zones" are established with the objective of preserving the present ecosystems in the long term and may be controlled through designation of restricted use or through special protections. "Buffer zones" are intended to regulate exploitation activities under a sustainable development scheme through different uses such as human settlement or sustainable natural resources exploitation (the ANPs may include other sub-zones for different land uses, agricultural, recreational, restoration, among others).

Mining activities (including both exploration and exploitation), depending on the corresponding sub-zone may be carried out provided they are authorized by CONANP (National Commission on Protected Natural Areas), without prejudice of other authorizations required for their execution.

Goldcorp, the prior operator of the project, engaged in forums with government and community stakeholders, and submitted an official opinion regarding this ANP declaration to the government, with the objective of ensuring that if an ANP was created, the Camino Rojo project would not be restricted from development. Since the time that the idea of creating a ANP was first proposed there has been no formal movement on the proposal. The State government has opposed the declaration of an ANP in the region.



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

5.1 Accessibility

The property is dominantly situated along a wide, flat valley near the town of San Tiburcio. San Tiburcio is situated on Mexican highway 54, a well-maintained, paved highway linking the major city of Zacatecas in Zacatecas State with Saltillo in Coahuila State (Figure 5.1). Both of these cities have airports with regularly scheduled flights south to Mexico City or north to the U.S.A.

There are numerous gravel roads within the property linking the surrounding countryside with the two highways, Highways 54 and 62, which transect the property. There are very few locations within the property that are not readily accessible by four-wheel drive vehicles.

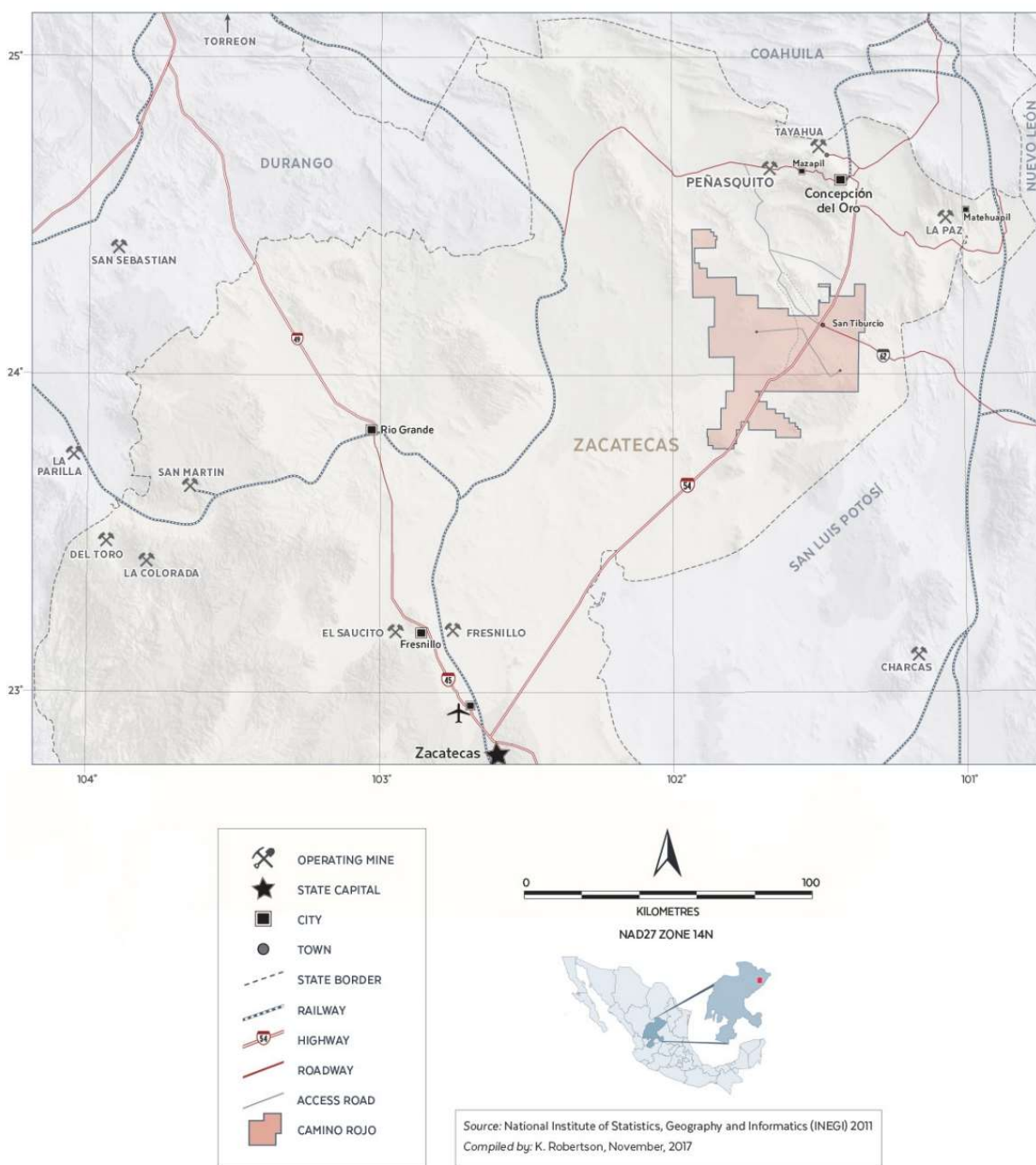


Figure 5.1. Project location and regional infrastructure.

5.2 Physiography, Climate and Vegetation

The broad valley around San Tiburcio is bounded to the north by the low rolling hills of Sierra La Arracada and Sierra El Barros, to the east by Sierra La Cucaracha, and



to the south by the Sierra Los Colgados. The terrain is generally flat. Bedrock exposures are rare, limited to road cuts or creek beds. The elevations within the property range from approximately 1,850 to 2,460 meters AMSL and relief is low.

The climate is typical of the high altitude Mesa Central, dry and semi-arid. Annual precipitation for the area is approximately 700 mm, mostly during the rainy season in June and July. Temperatures commonly range from +30° to 20° C in the summer and 15° to 0° C in the winter. Exploration and production activities can be conducted year-round.

The vegetation is dominantly scrub bushes with cacti, maguey, sage and coarse grasses with rare yucca (Figure 5.2). The natural grasses are used to locally graze domestic livestock. Wild fauna is not abundant but several varieties of birds, rabbits, coyote, lizards, snakes and deer reportedly inhabit the area.



Figure 5.2. View of typical topography and vegetation at Camino Rojo.

5.3 Local Resources and Infrastructure

There is a good network of road and rail services in the region. Road access to most of the property is possible via numerous gravel roads from both Highways 54 and 62. In addition, there is a railway approximately 40 km east of San Tiburcio that crosses both highways (Figure 5.1). There is a high voltage power line transecting the property near San Tiburcio which might be accessed for future electrical requirements.

The project site is generally flat with adequate space for any future development of mining and processing facilities. Surface rights are owned by local agrarian



cooperative, the Ejido San Tiburcio, and their permission is required to conduct any physical work. Gates and/or cattle guards would be required on any drilling access roads.

Prior operators purchased ground water from owners of local wells and trucked the water to site for drilling needs. On 24 February 2015 Camino Rojo SA de CV acquired subsurface water rights totalling 9,695,900 cubic meters per annum for industrial use. These water rights were subsequently transferred to Minera Peñasquito SA de CV and then assigned to Minera Camino Rojo SA de CV. Registration of the water rights titles in the name of Minera Camino Rojo SA de CV is in process with the Federal water authority (CONAGUA).

Most exploration supplies may be purchased in the nearby historic mining cities of Zacatecas, Fresnillo and Saltillo. Experienced mining personnel are available locally and from nearby mining towns of Concepción del Oro and Mazapil.



6 HISTORY

6.1 Prior Ownership

The mining concessions comprising the Camino Rojo project were originally staked to the benefit of Canplats Mexico, a subsidiary of Canplats Resources Corporation (Canplats), in 2007. In 2010 Goldcorp acquired 100% of the concession rights from Canplats.

6.2 Prior Exploration

The Camino Rojo gold-silver-lead-zinc deposit was discovered in mid-2007, approximately 45 km southwest of Concepcion del Oro, and was originally entirely concealed beneath post-mineral cover in a broad, low relief alluvial valley adjacent to the western flank of the Sierra Madre Oriental. Mineralized road ballast placed on a dirt road near San Tiburcio, Zacatecas, was traced to its source by geologists Perry Durning and Bud Hillemeyer from La Cuesta International, working under contract to Canplats. A shallow pit excavated through a thin veneer of alluvium, located adjacent to a stock pond (Represa) was the discovery exposure of the deposit. Following a rapid program of surface pitting and trenching for geochemical samples, Canplats Resources began concurrent programs of surface geophysics (resistivity and induced potential) and reverse-circulation drilling in late 2007, which continued into 2008.

The initial drilling was focused on a 450 x 600 meter gold in rock geochemical anomaly named the Represa zone. Core drilling began in 2008. The geophysical survey defined two principal areas of high chargeability: one centered on the Represa zone and another 1 km to the west named the Don Julio zone. The elevated chargeability zones were interpreted as large volumes of sulphide mineralized rocks. Drilling by Canplats, and later drilling by Goldcorp, confirmed the presence of extensive sulphide mineralization at depth in the Represa zone, and much lower quantities of sulphide minerals at Don Julio.

By August of 2008, Canplats drilled a total of 92 reverse-circulation, and 30 diamond-core holes, for a total of 23,988 and 16,044 meters respectively, mainly focused in the Represa zone. The surface access and permission to continue drilling were cancelled in early August 2008, by the ejido of San Tiburcio, Zacatecas. Nevertheless, in November 2008, Canplats published an independent Mineral Resource estimate for the Represa zone, as discussed in Item 6.4 of this report.

In October 2009 Canplats publicly released a Preliminary Economic Assessment of the project (Blanchflower, K.D., Kaye, C., and Steidtmann, H., 2009). **The preliminary economic assessment is historical in nature and should not be relied upon. The conclusions and recommendations of the historical Canplats assessment do not form the basis for the recommendations contained in this technical report.**



Canplats was acquired by Goldcorp in early 2010. Validation, infill, condemnation, and expansion drilling began in January 2011. By the end of 2015, a total of 279,788 meters of new core drilling in 415 drillholes and 20,569 meters of new RC drilling in 96 drillholes was completed in the Represa and Don Julio zones and their immediate surroundings. An additional 31,286 meters of shallow RAB-style, RC drilling in 306 drillholes was completed, with most of the RAB drilling testing other exploration targets within the concession. Airborne gravity, magnetic and TEM surveys were also carried out, the results of which are unavailable to the author.

As of the end of 2015 a total of 295,832 meters in 445 diamond core holes, 44,557 meters in 188 RC drillholes, and 31,286 meters of RAB drilling had been completed. The drillhole database has not been verified by the author. Until the validation and confirmation work recommended in Item 26 of this report is conducted, this database is not considered current but is considered adequate for the purposes used in this technical report, being the basis for the recommended work plan.

Locations of historical drillholes and the project claim boundaries are summarized in Figure 6.1.

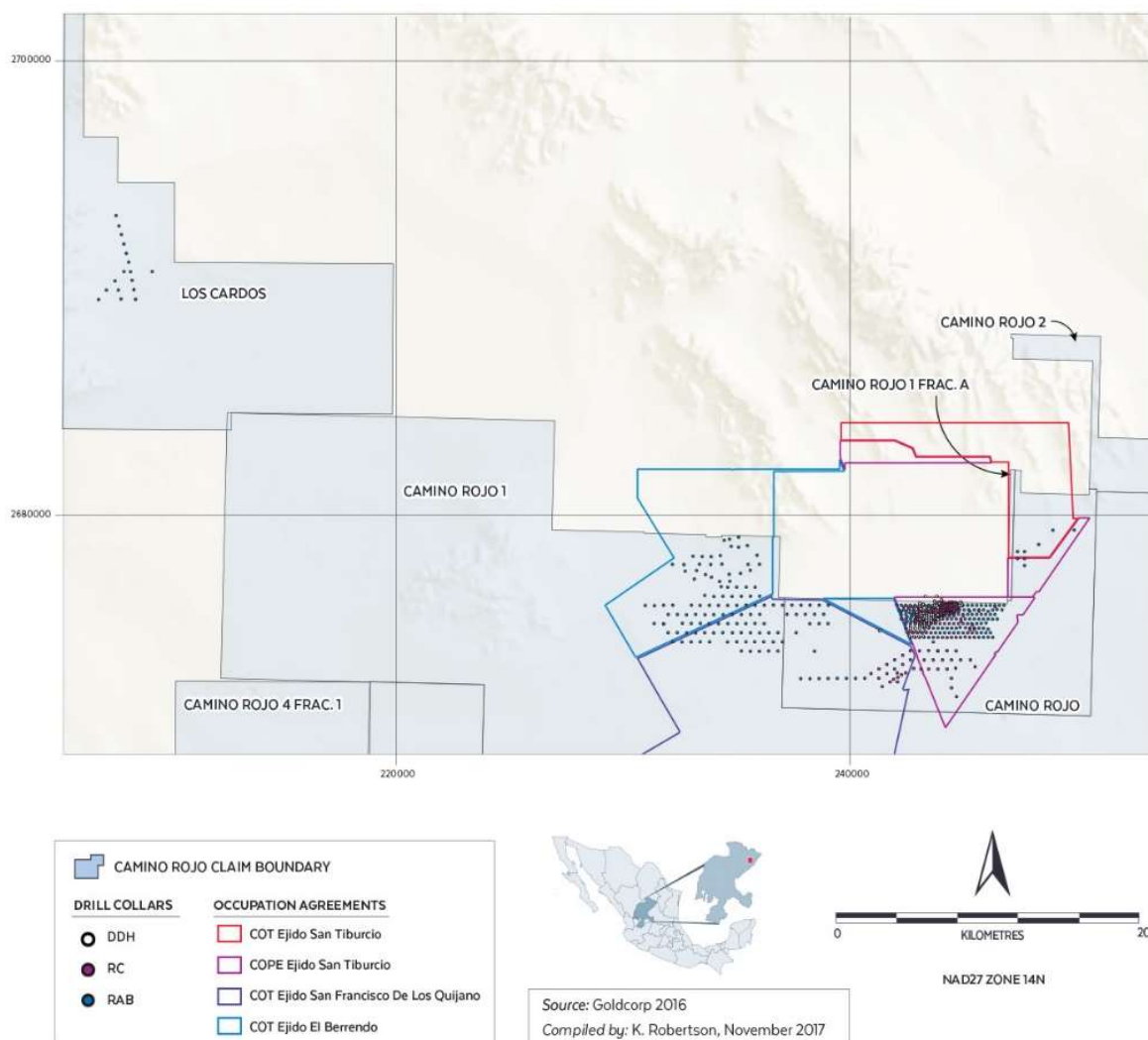


Figure 6.1. Historical drillhole locations and project claim boundaries.

Mineral Reserve and Mineral Resource tabulations for Camino Rojo were publicly disclosed by Goldcorp as recently as 30 June 2016, as discussed in Item 6.4 of this report. The methodology of Goldcorp's Mineral Resource estimations has not been disclosed and Dr. Gray has not confirmed the validity of the estimate, thus the Goldcorp estimates are regarded as historic estimates only, as discussed in Item 6.4 of this report.

6.3 Historical Metallurgical Studies

Neither Orla nor RGI or Dr. Gray have conducted metallurgical studies of Camino Rojo. Canplats and Goldcorp conducted metallurgical tests which are discussed in Item 13 of this report.



6.4 Historical Resource Estimates

The resource estimates discussed herein were prepared prior to Orla having acquired the project and neither Dr. Gray, Mr. Defilippi, nor Orla have verified these estimates and they are considered historical estimates and should not be relied upon. A Qualified Person has not done sufficient work to classify the historical estimates as current Mineral Resources or Mineral Reserves and Orla is not treating these historical estimates as current estimates.

6.4.1 Canplats

Minorex Consulting prepared a resource estimate for Canplats in 2009 (Blanchflower, 2009) that was publicly disclosed in a Technical Report prepared in accordance with the disclosure standards of NI43-101. However, since the effective date of the resource estimate, significant additional drillhole data has become available, rendering the 2009 estimate obsolete. **The 2009 resource estimate is historical in nature, has not been verified by the author, and should not be relied upon. Orla is not treating the historical estimate as a current estimate.**

6.4.2 Goldcorp

Goldcorp publicly disclosed a Mineral Reserve and Mineral Resources report with information on Camino Rojo with an effective date of 30 June 2016 (Goldcorp Inc., 2017). Goldcorp's historic Proven and Probable Mineral Reserve estimate for Camino Rojo was 75.52 Mt @ 0.70 gpt Au for 1.70M oz. contained gold, calculated at a gold price of \$1,200 USD per ounce and a silver price of \$18.00 USD per ounce. Goldcorp's historic Measured and Indicated Mineral Resource estimate for Camino Rojo, exclusive of Reserves, was 223.08 Mt @ 1.05 gpt Au containing 7.50M oz. contained gold (Goldcorp Inc., 2017) calculated at a gold price of \$1,400 USD per ounce and silver price of \$20.00 USD per ounce. Goldcorp's historic Inferred Mineral Resource estimate for Camino Rojo, exclusive of Reserves, was 17.16 Mt @ 0.88 gpt Au for 0.49M oz. contained gold, calculated at a gold price of \$1,400 USD per ounce and silver price of \$20.00 USD per ounce. Goldcorp's historic estimates are summarized in Table 6.1, Table 6.2, and Table 6.3. **The key assumptions, parameters, and methods used by Goldcorp to prepare the historical estimate are unknown. The 2016 reserve and resource estimates are historical in nature, have not been verified by the author, and should not be relied upon. Orla is not treating these historical estimates as current estimates. The further work recommended in Item 26 of this report needs to be completed in order to create a current resource estimate.**



Table 6.1. 2016 Camino Rojo Historical Proven and Probable Mineral Reserve Estimate by Goldcorp, \$1,200 USD/oz. gold price and \$18.00 USD/oz. silver price assumed.

<i>Category</i>	<i>Tonnes x 10⁶</i>	<i>Grade Au gpt</i>	<i>Grade Ag gpt</i>	<i>Contained Ounces Au x 10⁶</i>	<i>Contained Ounces Ag x 10⁶</i>
<i>Proven</i>	-	-	-	-	-
<i>Probable</i>	75.52	0.70	14.22	1.70	34.53
<i>Proven + Probable</i>	75.52	0.70	14.22	1.70	34.53

Table 6.2. 2016 Camino Rojo Historical Measured and Indicated Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price and \$20.00 USD/oz. silver price assumed.

<i>Category</i>	<i>Tonnes x 10⁶</i>	<i>Grade Au gpt</i>	<i>Grade Ag gpt</i>	<i>Contained Ounces Au x 10⁶</i>	<i>Contained Ounces Ag x 10⁶</i>
<i>Measured</i>	-	-	-	-	-
<i>Indicated</i>	223.08	1.05	9.02	7.50	64.72
<i>Measured + Indicated</i>	223.08	1.05	9.02	7.50	64.72

Table 6.3. 2016 Camino Rojo Historical Inferred Mineral Resource Estimate by Goldcorp, \$1,400 USD oz. gold price and \$20.00 USD/oz. silver price assumed.

<i>Category</i>	<i>Tonnes x 10⁶</i>	<i>Grade Au gpt</i>	<i>Grade Ag gpt</i>	<i>Contained Ounces Au x 10⁶</i>	<i>Contained Ounces Ag x 10⁶</i>
<i>Inferred</i>	17.16	0.88	9.06	0.49	5.00

6.5 Prior Production

There has been no recorded mineral production from the property. Surface gravels have been used for road material and a shallow excavation made for gravel extraction created the discovery exposure of the Camino Rojo deposit.



7 GEOLOGICAL SETTING

7.1 Regional Geology

The Camino Rojo gold-silver-lead-zinc deposit is situated between splays of the regional, northwest trending San Tiburcio fault zone, beneath a broad pediment of Tertiary and Quaternary alluvium (Figure 7.1). Maps published by the Servicio Geologico Mexicano (Mexican Geological Survey) indicate that the pediment is surrounded by uplands of folded marine limestone of Late Jurassic through Cretaceous ages. Beneath the alluvial and Tertiary-age volcanic rocks, the valleys near Camino Rojo are underlain by the Late Cretaceous Caracol Formation, the same marine siltstone-sandstone formation that underlies the Mazapil valley and hosts the mineralized diatremes at Peñasquito, 55 km to the northwest.

Mineralization styles in the region include polymetallic and copper-gold skarn and limestone manto (replacement) silver-lead-zinc sulphide ores in the Concepcion del Oro District, 50km north of Camino Rojo (Buseck, 1966), and gold-silver-lead-zinc mineralized igneous diatreme-breccia, and sulphide-sulfosalt-carbonate veinlets and fracture fillings in the Caracol Formation at the Peñasquito mine (Rocha-Rocha, 2016).

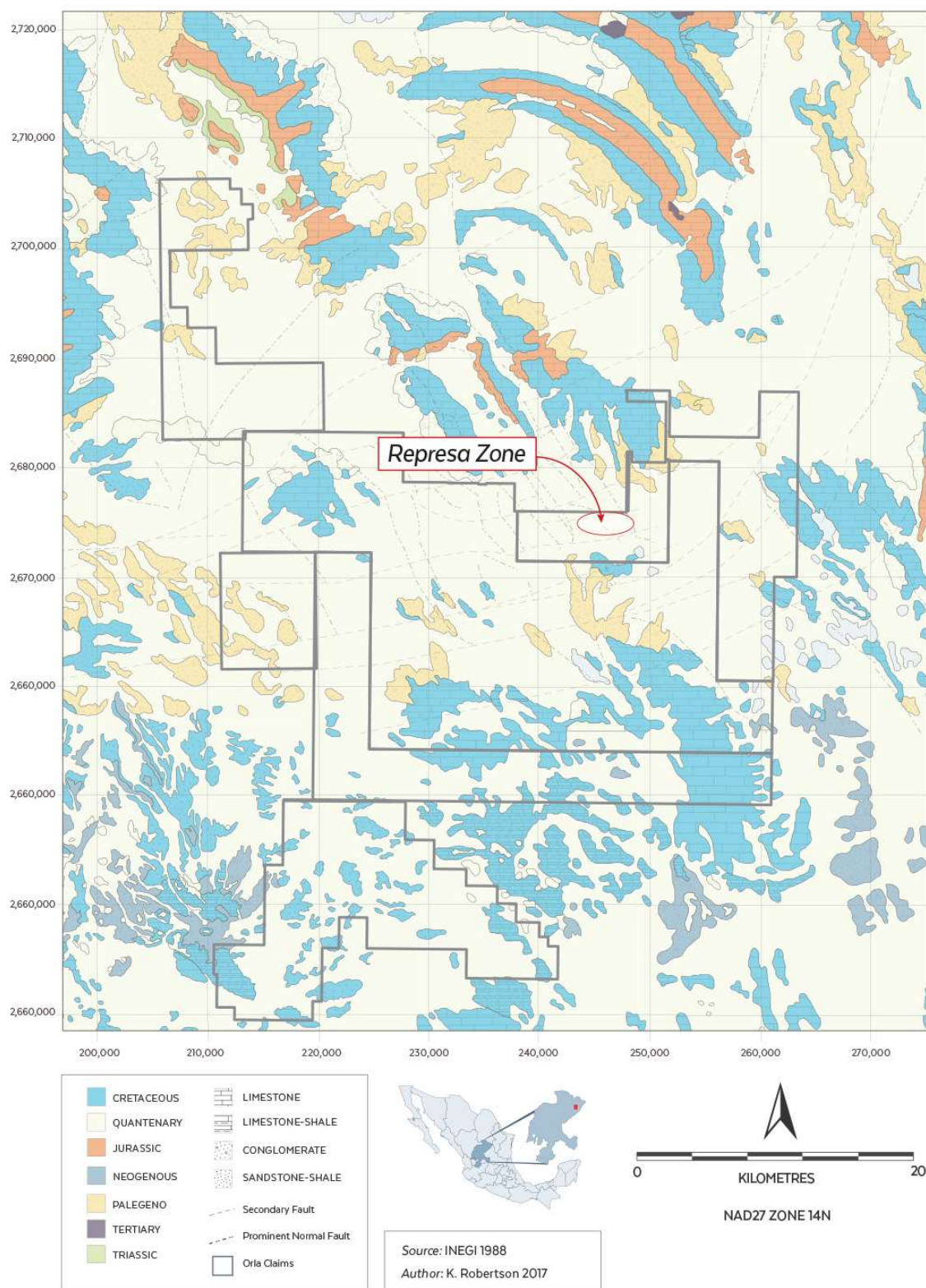


Figure 7.1. Regional geologic map (Servicio Geologico Mexicano, 2000).



7.2 Local Geology

7.2.1 General Deposit Geology

The bedrock geology of the Camino Rojo project is almost entirely masked by colluvial cover (Figure 7.2), thus the geology is known through drill core exposures. The following discussion of project geology is based upon geologic descriptions contained in publicly disclosed reports prepared for Canplats (Blanchflower, K.D., Kaye, C., and Steidtmann, H., 2009), a MSc. thesis (Sanchez, 2017), geologic maps published by the Servicio Geologico Mexicano, and by Dr. Gray's own observations (Gray, 2016).

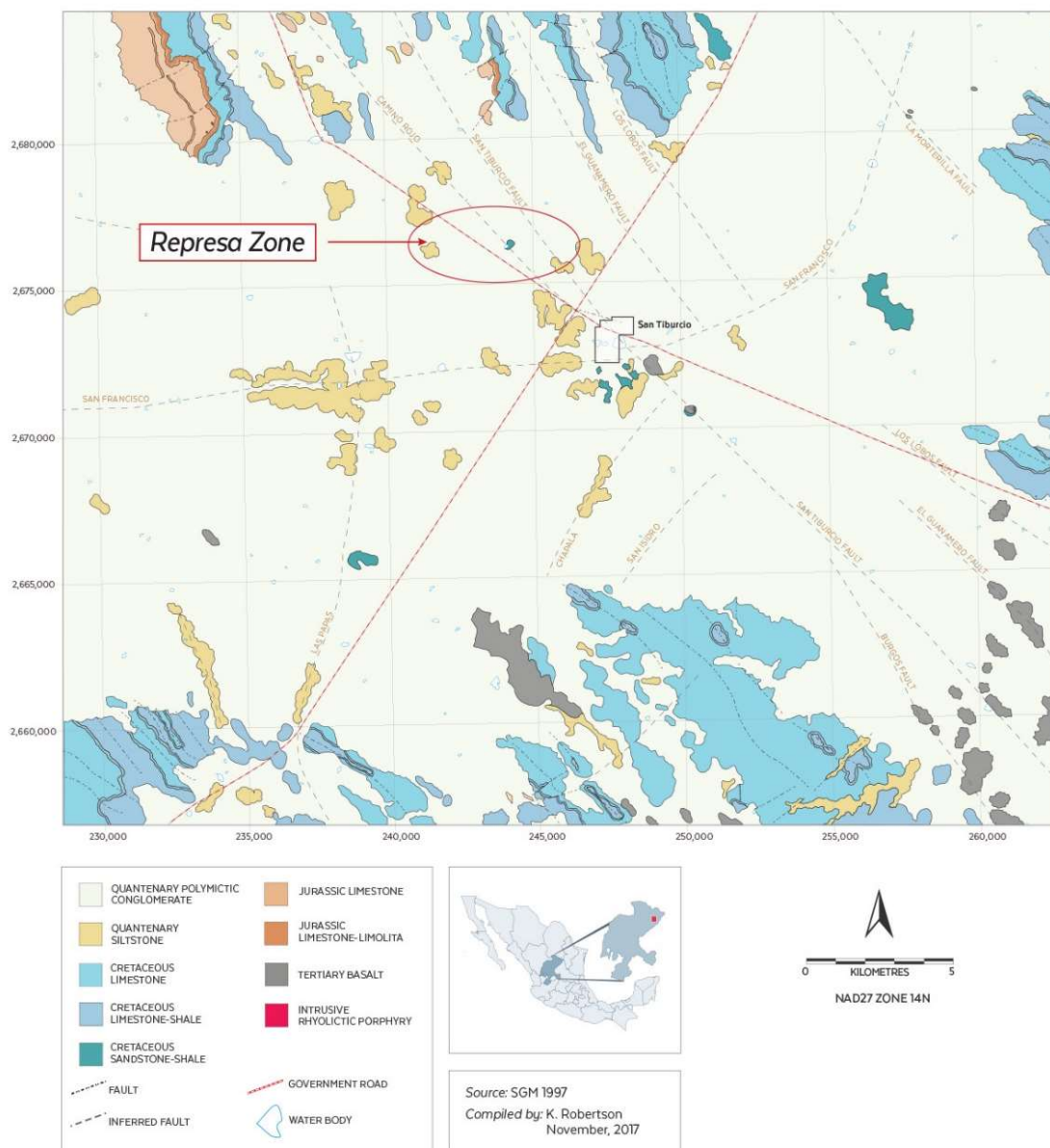


Figure 7.2. Local geology, Camino Rojo deposit (Servicio Geologico Mexicano, 2014)



The Camino Rojo deposit is hosted by Cretaceous submarine sedimentary strata, dominantly clastic. The most important mineralization host is the Caracol Formation, a rhythmically interbedded sequence of weakly calcareous turbiditic sandstones, siltstones and shales (Figure 7.3). The underlying Indidura Formation, comprised of regularly bedded reduced siltstones and shales (Figure 7.4) and the Cuesta del Cura limestone, now recrystallized to white fine grained marble (Figure 7.5), host a minor amount of sulphide mineralization, but are inconsequential hosts of oxide mineralization.



Figure 7.3. Drillcore from CR12-345D, 254m, showing typical and diagnostic interbedded centimeter scale sandstone, siltstone, and shale beds, fining upward turbiditic sequence, in unoxidized Caracol Formation. Sample assayed less than 5 ppb Au. Stratigraphic top is to right.



Figure 7.4. Drillcore from CR12-345D, 818m, showing relatively uniform nature of siltstone and shale beds in Indidura Formation, stratigraphically below Caracol Formation. Indidura is distinguished from Caracol by the absence of rhythmic sandstone-shale beds. Interval from 817.5 to 819.0m assayed 18 ppb Au.



Figure 7.5. Drillcore from CR12-345D, 993m, showing marbled Cuesta del Cura limestone, stratigraphically below Indidura Formation. Interval from 991.5 to 993.0m assayed 44 ppb Au.

7.2.2 Mineralized Zones

The mineralization is polymetallic, comprised of Au, Ag, As, Zn, and Pb. For purposes of evaluation of the oxide resource potential, only Au is of potential significance. During Dr. Gray's site visit, the only megascopically observed ore and gangue metallic minerals were pyrite, marmatite (Fe-rich sphalerite), sphalerite, and arsenopyrite.

Mineralization was observed to be multi-phase, comprising as many as 4 separate but related mineralizing pulses (inferred from observations of drill core). At hand specimen scale, mineralization is controlled by bedding and fractures. The sandy and silty beds of the turbidite sequences of the Caracol Formation are preferentially mineralized, with pyrite disseminations and semi-massive stringers hosted within them, presumably due to higher porosity and permeability relative to the enclosing shale beds. Basal layers of the turbiditic sandstone beds are often preferentially mineralized (Figure 7.6, Figure 7.7). Bedding discordant open space filling fractures and structurally controlled breccia zones host banded sulphide veins and sulphide matrix breccias (Figure 7.8, Figure 7.9). Some higher grade vein and breccia zones are localized along the margins of dikes of intermediate composition.

Dr. Gray observed mineralization in drill core over vertical intervals greater than 400 meters, with mineralization occurring in a broad NE-SW trending elongate zone as much as 300m wide and 700m long.

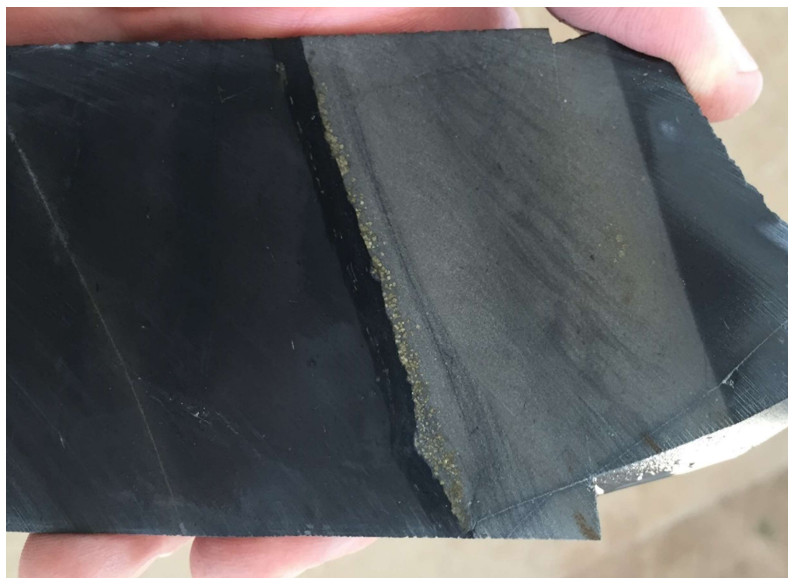


Figure 7.6. Pyrite concentrations developed in basal sandy layer of fining upward sandstone-siltstone-shale/mudstone turbiditic sequence of Caracol Formation. Note textbook turbiditic sequence comprised of cross bedded sandstone above laminar basal sand, and scour marks of basal sand into black pelagic sediments that mark top of lower and base of upper turbidite sequence. Stratigraphic up is to right of photo. From drillhole CR12 345D 395m. Interval from 394.5 to 396.0m assayed 0.211 gpt Au, 8 gpt Ag, 101 ppm Pb, 128 ppm Zn, and 245 ppm As.

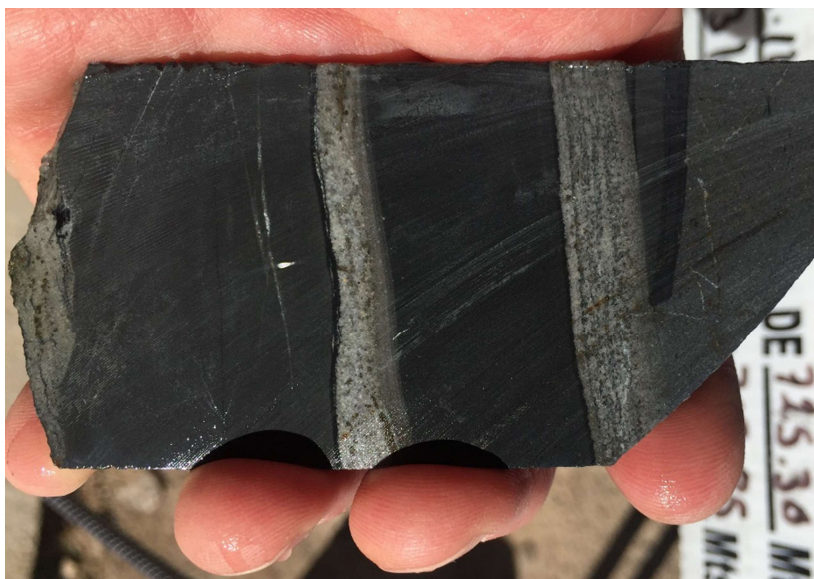


Figure 7.7. Pyrite concentrations developed in silty and sandy beds of turbiditic sequence of Caracol Formation. From drillhole CR12 345D 727m. Stratigraphic up is to right of photo. Interval from 726.0 to 727.5m assayed 0.109 gpt Au, 1 ppm Ag, 19 ppm Pb, 56 ppm Zn, and 114 ppm As.



Figure 7.8. Banded pyrite-marmatite (Fe rich sphalerite) carbonate veinlet, from drillhole CR11 267D 490m. Interval from 489.5 to 491m assayed 4.76 gpt Au, 22 gpt Ag, 572 ppm Pb, 16850 ppm Zn, and 7240 ppm As. Surrounding sample intervals without discordant sulphide veinlets assayed only 0.793 and 0.279 gpt Au. Note that sulphide veinlet is nearly parallel to core axis.



Figure 7.9. Pyrite-marmatite (Fe rich sphalerite) matrix bedding discordant breccia, from drillhole CR11 267D 473m. Interval from 471.5 to 473.0m assayed 1.710 gpt Au, 14 gpt Ag, 411 ppm Pb, 3050 ppm Zn, and 4290 ppm As. Surrounding sample intervals without discordant sulphide veinlets assayed only 0.188 and 0.310 gpt Au.

7.3 Oxidation

Oxidation was observed to range from complete oxidation in the uppermost portions of the deposit, generally underlain or surrounded by a zone of mixed oxide and sulphide mineralization where oxidation is complete along fracture zones and within permeable strata, but lacking in the remainder of the rock, which then is generally underlain by a sulphide zone in which no oxidation is observed.

Oxidation of the deposit is ~100%, extending from surface to depths of 100 to 150 meters. The underlying transitional zone of mixed oxide/sulphide extends over a



vertical interval in excess of 100 meters, and is characterized by partial oxidation controlled by bedding and structures.



Figure 7.10. Partially oxidized mineralized Caracol Formation from drillhole CR11 258D 256m. Note that oxidation is controlled by both bedding and structures. Sandy turbiditic beds are preferentially oxidized in the oxide/sulphide transition zone, whereas interlayered mudstone and shale beds are unoxidized. Oxidation affects all beds adjacent to structures.



Figure 7.11. Oxidized Caracol Formation from drillhole CR11 258D 257m. Interval from 256.5 to 258.0m assayed 3.52 gpt Au, 33 gpt Ag, 6070 ppm Pb, 6060 ppm Zn, and 2590 ppm As. Note oxidized sulphide veinlet crosscutting bedding, seen below of knife.

The sandy layers of the turbiditic sequence are preferentially oxidized, creating a stratigraphically interlayered sequence of oxide and sulphide material at the cm scale (Figure 7.10), with oxidation along structures affecting all strata (Figure 7.11). The partial oxidation of the Caracol Formation preferentially oxidizes the mineralized strata



thus incomplete oxidation in the transition zone may result in nearly complete oxidation of the gold bearing portion of the rock, thus the metallurgical characteristics of mixed oxide/sulphide may vary greatly, with some material exhibiting characteristics similar to oxide material.

7.4 Conclusions

The distribution of mineralization at Camino Rojo is controlled by both primary bedding and discordant structures. Near surface oxidation extends to depths in excess of 100m, and extends to greater depths along structurally controlled zones of fracturing and permeability.



8 DEPOSIT TYPES

The observed geologic and geochemical characteristics of the gold-silver-lead-zinc deposit at Camino Rojo are consistent with those of a distal oxidized gold skarn deposit. Characteristics of these deposits (Meinert, L.D., Dipple, G.M., and Nicolescu, S., 2005) are summarized as:

- Typically found in lithologies containing some limestone, but deposits not restricted to limestones
- Formed by regional or contact metamorphic processes by metasomatic fluids, often of magmatic origin.
- Typically zoned deposits with a general pattern of garnet and pyroxene minerals proximal to the mineralizing heat and fluid source, and distal zones of bleaching.
- Low total sulphide content.
- Sulphide mineralogy comprised of pyrite, pyrrhotite, chalcopyrite, sphalerite, and galena.
- Highest gold grades are associated with late relatively lower temperature mineralizing events, often with potassium feldspar and quartz gangue.
- May be transitional to epithermal deposits.

The near surface portion of the Camino Rojo deposit has characteristics consistent with those of the distal skarn zone, transitional to epithermal mineralization, and overlies garnet bearing skarn mineralization encountered in the deeper portions of the system.

Skarn deposits often exhibit predictable patterns of mineral zoning and metal zoning. Application of skarn zoning models to exploration allows for inferences about the possible lateral and depth extents of the mineralized system at the Camino Rojo deposit and can be used to guide further exploration drill programs.



9 EXPLORATION

9.1 General

Orla has conducted due diligence field reviews of the Camino Rojo project, but has not conducted any exploration at the project. Historic exploration by prior operators is summarized in Item 6 of this report.



10 DRILLING

10.1 Drilling History

No drilling has been conducted on the property by Orla. Prior operators Canplats and Goldcorp conducted extensive drill campaigns at the project, totaling 371,675 meters in 939 RC, RAB, and diamond core holes. Historic drilling by prior project operators is described in Item 6.2 of this report. Until the validation and confirmation work recommended in Item 26 of this report is conducted, the drillhole database is not considered current, but is considered adequate for the purposes used in this technical report, being the basis for the recommended work plan.

.



11 SAMPLING METHOD AND APPROACH

Orla has not conducted any sampling at the project.



12 DATA VERIFICATION

Orla has not yet commenced an exploration program at the project, thus there is no current data to be verified.

Dr. Gray examined publicly disclosed technical reports by Canplats and the drillhole database provided by Goldcorp and it appears that the information was collected and archived in a manner consistent with industry standards. The QA/QC and data verification procedures documented by Canplats (Blanchflower, 2009) and Goldcorp are consistent with industry standards. Dr. Gray observed drill core and drill logs during the site visit and is of the opinion that drill core handling and logging procedures were consistent with industry standards. Dr. Gray observed drill roads and drill pads in the project area that are consistent with the drill programs described for the project. Dr. Gray did not have access to original assay certificates or drillhole survey data, nor was Dr. Gray able to collect and analyze duplicate samples of drill core thus Dr. Gray is not able to verify the data generated by prior operators of the Camino Rojo project, however Dr. Gray has no reason to believe the historical data is less than valid and representative. Based on the work reviewed, it is Dr. Gray's opinion that data and information disclosed in this report is valid, and adequate in providing a basis for further work, which includes the data verification described in Item 26 of this report.



13 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical test work on the Camino Rojo project were commissioned by the prior operators of the project, Canplats Mexico and Goldcorp and are considered as historical data. No metallurgical studies have been conducted by Orla at this time. Test work and results from the programs carried out to date for Camino Rojo are summarized chronologically below.

13.1 Review of Canplats Historical Metallurgical Data (2009)

Canplats commissioned SGS Mineral Services Minerals in Durango, Mexico to conduct bottle roll, column, and flotation tests between two programs on Camino Rojo drill core samples and in 2009 publicly disclosed results of 18 column tests, 61 bottle roll tests, and 35 flotation tests. The results summarized herein are extracted from the Canplats 2009 technical report (Blanchflower, K.D., Kaye, C., and Steidtmann, H., 2009).

Composite samples for the first program by SGS were obtained from diamond drill cores of oxide and transition minerals (SGS Mineral Services, 2009). Tests performed during the first program included bottle roll, column leach and flotation. The second program used samples from diamond drill cores of oxide, sulphide and transition minerals. Material from the second program was used for bottle roll and flotation tests. No mineralogy, bond work index and crusher abrasion index tests were performed.

Column leach tests results are summarized in Table 13.1 and Table 13.2 for oxide and transition composites, respectively, and indicate crush sizes between 37 mm 9.5 mm for oxide material have a negligible effect on gold recovery. Silver recoveries tended to increase as the crush size was reduced to 9.5 mm. The effect of crush size on transition material was only evaluated on 2 samples and there were insufficient data to show any meaningful trends. In general, gold recovery was higher for oxide material than transition material. Silver recoveries were consistently higher in transition samples than in oxide samples. Maximum gold and silver recoveries for oxide material were achieved between 40 and 50 days. Different recovery trends for gold and silver based on material classification (oxide or transition) were evident. At a 19 mm crush size, modeling of recovery versus head grades indicated that at a 0.7 gpt Au head grade, a gold recovery of approximately 74% for oxide material and 69% for transition material is predicted. At a 14gpt Ag head grade, column test results indicated a silver recovery of approximately 23% for oxide material and 28% for transition material.



Table 13.1. Oxide Column Test Results SGS Mineral Services Minerals

Column	Crush Size (inches)	Calculated Head Grade		Extraction		Consumption	
		Gold (g/t)	Silver (g/t)	Gold (%)	Silver (%)	NaCN (kg/T)	CaO (kg/T)
CRM-06-1	1 1/2	0.672	8.27	72.59	12.84	0.66	2.29
	0.75	0.603	9.36	73.31	14.91	0.87	3.34
	0.375	0.537	9.00	73.65	19.02	0.81	4.28
CRM-06-2/3	1 1/2	1.952	10.63	83.66	12.05	0.79	2.36
	0.75	1.794	11.51	86.6	21.23	0.99	2.81
	0.375	1.795	11.58	86.49	25.27	1.23	4.60
CRM-14-1	1 1/2	0.508	19.24	62.14	30.39	0.78	3.00
	0.75	0.486	18.01	64.14	32.29	0.62	3.30
	0.375	0.486	18.01	61.81	28.06	0.91	4.30
CRM-20-1	1 1/2	0.369	14.09	65.15	23.16	0.58	2.63
	0.75	0.338	17.94	78.08	23.21	0.55	2.31
	0.375	0.359	15.26	74.81	30.88	0.71	3.55

Table 13.2. Transition Column Test Results SGS Mineral Services Minerals

Column	Crush Size (inches)	Calculated Head Grade		Extraction		Consumption	
		Gold (g/t)	Silver (g/t)	Gold (%)	Silver (%)	NaCN (kg/T)	CaO (kg/T)
CRM-14-2	1 1/2	0.431	15.51	34.74	33.71	0.67	1.59
	0.75	0.446	13.63	36.35	38.95	0.61	1.44
	0.375	0.387	15.33	33.13	44.15	0.81	2.53
CRM-20-2	1 1/2	0.593	21.51	55.2	30.54	0.54	1.55
	0.75	0.585	28.58	62.39	31.74	0.47	1.48
	0.375	0.589	22.35	60.51	50.87	0.84	2.83

Bottle roll tests did not show any clear distinction between gold and silver recoveries for the oxide, transition and sulphide materials tested. Dissolution of gold and silver was essentially complete after 48 hours. Slightly different recovery trends for gold associated with oxide and transition material were evident with recoveries being marginally higher for oxide material. Results for silver in oxide material were too scattered to determine a trend.



Flotation tests indicated that oxide material is not amenable to treatment by flotation and sulfidization did not improve the metallurgical response of this material. Flotation tests on sulphide samples produced some encouraging results for recoveries of base metals. Three tests recorded recoveries of lead to the lead rougher concentrate in excess of 85% while two indicated recoveries in excess of 70%. Apart from these tests, however, lead grades were mostly low and considerable upgrading would be required to produce a marketable lead concentrate. Recoveries of zinc to the zinc rougher concentrate were mostly modest although two tests recorded recoveries in excess of 75%. Considerable upgrading of both lead and zinc rougher concentrates are required to produce a marketable concentrate. Recoveries of gold and silver to the lead rougher concentrate were reasonable in some tests.

13.2 Review of Goldcorp Historical Metallurgical Data (2010 - 2015)

Between 2010 and 2015, Goldcorp carried out several metallurgical programs on oxide, sulphide and transition material. This work was performed by several different metallurgical testing groups including Kappes, Cassiday & Associates in Reno, NV, Blue Coast Research Metallurgy in Parksville, B.C., and Hazen Research in Golden, CO.

13.2.1 Kappes Cassiday & Associates

Kappes, Cassiday & Associates (KCA) completed four separate test programs for Goldcorp between 2010 and 2015 including column leach tests, agglomeration and percolation tests, bottle roll tests and cyanide shake tests (Kappes, Cassiday and Associates, 2012), (Kappes, Cassiday and Associates, 2014), (Kappes, Cassiday and Associates, 2015).

Column leach tests were performed by KCA for their programs conducted in 2010, 2012 and 2015 and the results for gold recovery of these tests are summarized in Table 13.3, Table 13.4 and Table 13.5, respectively. The column tests were completed on composite samples of split core material by mineralization types and lithologies. The 2010 program included 18 column tests on 18 different composites based on sample intervals. The 2012 program included 28 column tests on 14 different composites by pit and material type. The 2015 program included 26 column tests on 13 different composites by lithology.



Table 13.3. KCA 2010 Column Leach Test Results on Composites based on Sample Intervals

Composite	Crush Size, mm	Calculated Head, gms Au/t	Extracted, % Au	Consumption NaCN, kg/t	Hydrated Lime Addition, kg/t
1	19.0	0.33	63%	1.30	1.01
2	19.0	0.77	70%	1.10	1.00
2	9.5	0.78	73%	1.07	1.00
3	19.0	0.96	75%	0.95	1.01
4	19.0	0.37	49%	0.95	1.00
5	19.0	0.64	57%	1.06	1.01
6	19.0	0.95	67%	1.06	1.01
9	19.0	0.59	74%	1.16	1.01
9	9.5	0.61	79%	1.34	1.01
10	19.0	0.81	78%	1.30	1.01
11	19.0	0.44	36%	1.01	1.01
12	19.0	0.57	51%	1.28	1.01
16	19.0	0.60	78%	1.08	1.01
16	9.5	0.58	79%	0.98	1.01
17	19.0	0.83	80%	0.77	1.00
18	19.0	0.27	41%	0.90	1.00

Table 13.4. KCA 2012 Summary Column Leach Test Results by Material Type

Description	Crush Size, mm	Calculated Head, g Au/t	Weighted Avg. Tail Screen, g Au/t	Extracted, % Au	Calculated Tail p80 Size, mm	Days of Leach	Consumption NaCN, kg/t	Addition Hydrated Lime, kg/t
Average, Oxide	25.0	0.993	0.228	71%	18.2	113	0.89	2.03
Average, Oxide	12.5	1.016	0.226	71%	9.2	113	0.90	2.03
Average, Transition	25.0	0.670	0.452	31%	17.6	113	0.67	2.03
Average, Transition	12.5	0.657	0.442	30%	9.2	113	0.79	2.03
Average, Sulphide	25.0	0.438	0.385	13%	17.7	113	0.84	2.03
Average, Sulphide	12.5	0.416	0.367	12%	9.4	113	0.67	2.04



Table 13.5. KCA 2015 Column Leach Test Results by Lithology

Description	Crush Size, mm	Calculated Head, g Au/t	Extracted, g Au/t	Weighted Average Tail Screen, g Au/t	Extracted, % Au	Calculated Tail p80 Size, mm	Days of Leach	Consumption NaCN, kg/t	Addition Hydrated Lime, kg/t	Addition Cement, kg/t
HF - Ox 11	25	1.060	0.827	0.234	78%	16.52	90	1.39	1.00	0.00
HF - Ox 11	12.5	1.033	0.837	0.195	81%	9.27	90	1.42	1.01	0.00
HFT - Hi 2	25	0.834	0.605	0.229	72%	17.71	90	1.49	1.00	0.00
HFT - Hi 2	12.5	0.855	0.642	0.213	75%	9.93	90	1.37	1.00	0.00
IHT - Hi 4	25	0.812	0.549	0.263	68%	18.29	90	1.35	1.00	0.00
IHT - Hi 4	12.5	0.858	0.626	0.232	73%	9.92	90	1.37	1.00	0.00
HFT - Hi 8	25	1.095	0.793	0.302	72%	18.32	90	1.44	1.01	0.00
HFT - Hi 8	12.5	0.973	0.719	0.254	74%	10.16	90	1.52	1.02	0.00
HFT - Lo 1	25	0.817	0.496	0.321	61%	18.06	90	1.51	0.95	0.00
HFT - Lo 1	12.5	0.788	0.499	0.289	63%	9.51	90	1.33	0.95	0.00
HFT - Lo 7	25	0.880	0.556	0.324	63%	17.58	90	1.30	0.99	0.00
HFT - Lo 7	12.5	0.912	0.642	0.270	70%	9.84	90	1.79	0.99	0.00
IH - Ox 12	25	0.610	0.357	0.253	59%	18.75	90	1.22	1.01	0.00
IH - Ox 12	12.5	0.589	0.374	0.215	63%	9.90	90	1.59	1.01	0.00
IHT - Lo 3	25	0.911	0.523	0.388	57%	18.26	90	1.47	1.01	0.00
IHT - Lo 3	12.5	0.932	0.538	0.394	58%	9.74	90	1.45	1.01	0.00
OX - Ox 9	25	0.269	0.197	0.073	73%	18.66	90	1.41	1.01	0.00
OX - Ox 9	12.5	0.281	0.209	0.072	74%	9.77	90	1.54	1.01	0.00
OX - Ox 10	25	0.729	0.569	0.160	78%	17.66	90	0.89	1.01	0.00
OX - Ox 10	12.5	0.765	0.608	0.157	79%	10.01	90	0.76	1.01	0.00
PC - Ox 13	25	0.557	0.335	0.222	60%	18.10	90	1.24	0.93	0.00
PC - Ox 13	12.5	0.554	0.306	0.248	55%	13.66 ¹	90	1.25	0.93	0.00
PCT - Hi 6	25	1.069	0.770	0.299	72%	17.64	90	1.52	1.01	0.00
PCT - Hi 6	12.5	1.087	0.745	0.342	69%	9.51	90	1.24	1.04	0.00
PCT - Lo 5	25	0.922	0.343	0.579	37%	18.19	90	1.56	1.01	0.00
PCT - Lo 5	12.5	0.989	0.259	0.730	26%	9.06	90	1.54	1.01	0.00

The results of column testing on fractions of 100% passing 25 mm and 12.5 mm, respectively, reaffirmed the conclusion that the gold is insensitive to changes in particle size with the exception of oxide and transitional material logged as hornfels and incipient hornfels, which benefitted from finer crush size. Gold extractions for all test work ranged from 12% to 81%. Silver recoveries ranged between 4% to 62% with material classified as oxide yielding the highest recoveries.

Bottle roll and shake tests performed by KCA yielded equivocal information about preg robbing characteristics of the samples tested. The preg-robbing test work performed on the head material did not prove to be an indication of preg-robbing during leaching. Samples that exhibited preg-robbing characteristics during the preg-robbing test work did not necessarily show the same characteristics during direct and CIL bottle roll leach tests (Kappes, Cassidy and Associates, 2014).



Preg robbing potential ranged from 3 to 43%. No strong correlation was observed between sulphide sulfur content and preg-rob values, nor was one observed between organic carbon content and preg-rob values.

13.2.2 Blue Coast Research Metallurgy (2012 – 2013)

A test work program was undertaken in 2012/2013 at Blue Coast Research Metallurgy (“Blue Coast Research”) in Parksville, B.C. This program consisted of a variability study, a small gravity program, and a flotation flowsheet development component (Blue Coast Research Ltd., 2014). Tests were completed using four samples selected from the Represa transition to obtain information from a high oxidation and low oxidation sample from both the west and east zones of the deposit.

The variability program subjected 98 samples to small-scale bench flotation, small-scale leach testing, and small-scale gravity recovery tests. Flotation flowsheet development testing was conducted on three bulk sulphide composites: one from the Represa zone and two from the West Extension.

Blue Coast Research performed nine single-pass gravity recoverable gold (“GRG”) tests on different samples from various locations in the Camino Rojo deposit, both in the Represa and in the West Extension areas. A single extended GRG test was performed on a sulphide sample from the West Extension (WE MC1). The results of these tests demonstrated gold recoveries greater than 20% at nominal primary grind feed sizes with mass pulls averaging 2%. These results suggest that concentration of gold by an initial gravity process is a viable option. No subsequent gravity work has been conducted to date.

Very little transitional mineralization was tested at Blue Coast Research; the majority of the test work completed was performed on sulphide mineralization from the ‘West Extension’. Flowsheet development work conducted at Blue Coast Research formed the basis for understanding the processing options for the Camino Rojo sulphide deposit.

A full mineralogical analysis was performed on several samples during this study. The results of the QEMSCAN sulphide mineralogy indicated that the sphalerite was relatively coarse-grained, being well-liberated (having a 40% release size) well above 100 microns. Galena appeared finer-grained, being well-liberated at 90 microns.

Gold mineralogy was undertaken using both optical and D-SIMS techniques. Results indicated that gold was significantly linked to both pyrite and arsenopyrite. Higher gold values were associated with higher arsenic values.



13.2.3 Hazen Research (2014)

Hazen Research was commissioned to conduct grinding, flotation, and cyanide leaching studies of sulphide and transitional material. Some 112 composites were tested. Standard flotation methods yielded recoveries of ~90% Au, 74 to 81% Ag, 83 to 90% Zn, and 82 to 91% Pb for sulphide material, and recoveries of 60 to 67% Au, 56 to 63% Ag, 35% Zn, and 48% Pb for transition material (Hazen Research Inc., 2014).

13.3 Conclusions

There has been a significant amount of test work completed to date on material samples from documented drill holes with good spatial distribution at the proposed pit. Based on the metallurgical data available, the Camino Rojo deposit shows significant variability in gold recoveries based on material type and geological domain with preg robbing organic carbon being the only significant deleterious element identified. In general, recoveries for oxide material are good and will yield acceptable results using conventional heap leaching methods with cyanide. Recoveries for transition material and sulphides are significantly lower compared with the oxide material for conventional leaching with some areas of transition showing reasonably high recoveries. Reagent consumptions for all mineralization types were reasonably low.

Additional metallurgical studies are recommended, and should include review of the drillhole logs to explore the variability in gold recoveries in the transition material. Additional column leach tests may be required on reclassified drill holes to confirm recoveries on transitional or similar material.



14 MINERAL RESOURCE ESTIMATES

The Camino Rojo project does not host a current Mineral Resource. Historical estimates are presented in Item 6.4 of this report.

15 MINERAL RESERVE ESTIMATES

Camino Rojo is not an Advanced Property thus this section is not applicable.

16 MINING METHODS

Not applicable.

17 RECOVERIES METHODS

Not applicable.

18 PROJECT INFRASTRUCTURE

Not applicable.

19 MARKET STUDIES AND CONTRACTS

Not applicable.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Not applicable.

21 CAPITAL AND OPERATING COST

Not applicable.

22 ECONOMIC ANALYSIS

Not applicable.



23 ADJACENT PROPERTIES

There are no active exploration properties or producing mines immediately adjacent to the Camino Rojo project.

Fresnillo PLC controls a mining concession adjacent to the Camino Rojo concessions and abuts the northern limit of the Represa Zone. Drillpads and drillroads were observed on this claim during Dr. Gray's site visit, but the results are unavailable to the author. Notwithstanding the absence of this information, it is concluded that the Represa mineralized zone extends onto the Fresnillo claim, however, all interpretations, conclusions, and recommendations contained in this report relate exclusively to the mining concessions that comprise the Camino Rojo project.

The nearest significant producing mines or past producers are Goldcorp's Peñasquito mine, located 53km N-NW of Camino Rojo, and various mines of the Concepcion del Oro district, 47km N-NE of Camino Rojo. The Peñasquito mine exploits gold-silver-lead-zinc ores hosted in igneous diatreme-breccia and the surrounding Caracol Formation. Peñasquito ores give way at depth to copper-gold sulphide breccias in garnet skarn, within limestone beneath the Caracol Formation (Rocha-Rocha, 2016). Concepcion del Oro mines produced from polymetallic and copper-gold skarn deposits and limestone-hosted manto (replacement) silver-lead-zinc sulphide deposits adjacent to Late Eocene igneous intrusions (Buseck, 1966). **Dr. Gray has not verified this information and the mineralization described for the mines and mineral deposits in this section is not necessarily indicative of the mineralization at the Camino Rojo, Zacatecas property.**



24 OTHER RELEVANT DATA AND INFORMATION

To the best of the author's knowledge, all relevant data has been presented in this report.



25 INTERPRETATION AND CONCLUSIONS

25.1 Project Opportunities

Exploration and metallurgical test results for the Camino Rojo project demonstrate that it is prospective for the potential to define a Mineral Resource. Opportunities exist to:

1. Improve the metallurgical characterization of the known mineralized zones, which consequently could enable selective development of the zones amenable to standard cyanide heap leach processing.
2. Develop sulphide resources to produce Au and Ag in Pb and Zn concentrates.
3. Discover new mineralized zones.

25.1.1 Metallurgical Opportunity

Oxidation of the deposit is ~100%, extending from surface to depths of 100 to 150 meters. The underlying transitional zone of mixed oxide/sulphide extends over a vertical interval in excess of 100 meters, and is characterized by partial oxidation controlled by bedding and structures. The sandy layers of the turbiditic sequence are preferentially oxidized, creating a stratigraphically interlayered sequence of oxide and sulphide material at the cm scale (Figure 7.10), with oxidation along structures affecting all strata (Figure 7.11). The partial oxidation of the Caracol Formation preferentially oxidizes the mineralized strata thus incomplete oxidation in the transition zone may result in nearly complete oxidation of the gold bearing portion of the rock, thus the metallurgical characteristics of what megascopically appears to be transitional material may vary greatly, with some material exhibiting characteristics similar to oxide material.

Creation of an improved geometallurgical model of the deposit is an opportunity to add value to the project. Accurately defining the geometallurgical domains that are most amenable to heap leaching recovery methods will allow development efforts to focus on high value material, with consequent improvement of projected economic performance, particularly if material with preg-robbing potential can be accurately modeled and segregated.

25.1.2 Development of Sulphide Resources

Oxide mineralization has been the main focus of prior evaluations, however historic work by both Canplats and Goldcorp indicate that the overall gold inventory in sulphide mineralization exceeds that of oxide mineralization. The sulphide resource potential merits evaluation, and in the longer term may add significant value to the project. Extensive drillhole data from the sulphide zone will allow for determination of a sulphide resource without additional work beyond confirmation drilling, however,



additional metallurgical and engineering studies are required to determine the feasibility of developing the sulphide resource.

25.1.3 Exploration Opportunity

Outside of the Camino Rojo deposit, the concessions comprise an early stage exploration opportunity that merits evaluation. Analogs to targets that should be sought are the Camino Rojo and Peñasquito deposits. Both were discovered because volumetrically insignificant portions of the mineralized system were exposed as outcrop or subcrop. Colluvial cover is extensive over the Camino Rojo concessions, and outside of the Represa zone discovery subcrop, outcrop is nearly non-existent.

The entirety of the claim block is considered permissive of hosting deposits similar to Camino Rojo. Although aerially extensive, colluvial cover over the concessions appears to be shallow, thus deep sensing geochemical surveys (mobile metal ion) may be useful exploration tools for defining additional targets. The utility of this method could be quickly demonstrated or disproven with an orientation survey over the concealed portions of Camino Rojo deposit.

25.2 **Project Risks**

The risks identified are social/political and metallurgical. The geologic risk has been eliminated by the extensive drill campaigns conducted at the project that have defined significant gold mineralized zones. Principal risks recognized are:

1. Federal legislation that could prohibit mining activity in the region, as discussed in Item 4.6.3 of this report.
2. Inability to develop a water supply.
3. Inability to exercise surface access rights.
4. Deposit metallurgical characteristics may be unfavorable.

25.2.1 Permitting Risk

Because the Camino Rojo project has successfully obtained multiple permits for exploration, and large open pit mines are currently operating in the region and have successfully acquired all necessary environmental permits, it is presumed that additional exploration activities at Camino Rojo, and eventual production from the deposit would not be prohibited by environmental regulations, provided that the Federal land use designation is not changed.

The chief project permitting risk is that of a possible Federal designation of a protected biological-ecological reserve that could affect the project. SEMARNAT published a public notice in the Official Gazette of the Federation requesting public consultation



and comments on the possible designation of an area known as “Zacatecas Semi-arid Desert” as a Natural Protected Area (ANP). If a designation of this ANP by the government includes the surface of the mining concession areas or ancillary work areas such as possible water well fields of Camino Rojo, this could limit the growth and continuity of the project, as discussed in Item 4.6.3 of this report.

25.2.2 Water Supply Risk

Minera Camino Rojo SA de CV has acquired industrial use water rights for project use, as detailed in Item 5.3 of this report, thus mitigating the social/political risk of obtaining water for the project.

The technical risk of developing a well field is unquantified. Preliminary studies have identified three aquifers within 30 km of the Represa zone could serve as sources of project water, but detailed hydrologic studies of these aquifers have not been conducted.

25.2.3 Surface Access Risks

The approval of the San Tiburcio community and regional stakeholders will be necessary to further advance the Camino Rojo project. Camino Rojo SA de CV has enjoyed a mutually beneficial relationship with the community, and executed an agreement enabling the company to acquire the lands needed to develop the Camino Rojo deposit. Exploration work at the project has been carried out under the terms of surface access agreements negotiated with the Ejido and executed on 26 February 2013. Camino Rojo SA de CV has executed three agreements with the Ejido that cover the Camino Rojo deposit as detailed in Item 4.3 of this report.

Dr. Gray does not see undue risk of community opposition to project development, however the nearby Peñasquito mine, operated by Goldcorp with valid surface access agreements with the local landowners, was forced to temporarily shut down in October 2016 due to an illegal blockade imposed by local contractors, and access was again briefly restricted by an illegal blockade in 2017, thus the risk of denial of surface access is not fully mitigated by virtue of legal agreements.

25.2.4 Metallurgical Risk

The metallurgical risk is the converse of the metallurgical opportunity. Metallurgical test results indicate that heap-leach gold recoveries of some Camino Rojo mineralized material could be similar to those of economically successful mines using heap leach recovery methods on similar grade mineralized material, however the testwork also indicates that some transitional mineralized material at Camino Rojo would yield very low gold recoveries, and some mineralized zones contain “preg-robbing” organic carbon that greatly depresses gold recoveries. “Preg-robbing” is the removal of gold from leach solution caused by the chemical binding of the gold-CN complex to organic carbon. If the metallurgically favorable oxide material and unfavorable preg robbing



material cannot be accurately modelled and/or segregated, then acceptable heap leach gold recoveries might not be feasible.



26 RECOMMENDATIONS

A 30 month, 2 stage work plan is recommended. The first stage comprises 18 months and encompasses validation and confirmation of the drillhole database, creation of a current Mineral Resource model, metallurgical studies, and regional exploration around the Camino Rojo deposit. The second stage, lasting 12 months, which is conditional upon positive results from the first, is a Preliminary Economic Assessment of development of the Mineral Resource defined in Stage 1, and Mineral Resource definition drilling of new deposits discovered during Stage 1 exploration. Exclusive of corporate costs and holding costs, the total recommended Stage 1 budget is \$4.5M USD. The conditional Stage 2 budget is \$4.0M with \$1.5M USD budgeted for a Preliminary Economic Assessment of development of the Camino Rojo deposit and \$2.5M USD budgeted for definition drilling of new deposits. All Stage 2 work is contingent upon successful results from Stage 1 work. Recommended work plans and budgets are summarized in Table 26.1.

26.1 Stage 1: Data Confirmation, Creation of Resource Estimate on Known Deposit, Metallurgical Studies, Exploration for Additional Deposits

Historic data demonstrates that Camino Rojo has potential to host a gold Mineral Resource. In order to accurately evaluate the economic worth of the deposit, the existing project drillhole database must be validated and confirmed, and a better understanding of the metallurgical characteristics of the deposit is required. Creation of a current geologic and Mineral Resource model and additional metallurgical studies are warranted, with emphasis on accurate modelling of the parameters that affect gold recoveries hence dictate which beneficiation methods are appropriate.

Extensive drillhole data created by prior operators will allow for creation of a geologic model and a current Mineral Resource estimate without additional drilling beyond confirmation drilling. This confirmation drilling should comprise duplication of existing drillholes (twinning) to compare current results to the historic results in order to validate and confirm the existing drillhole database. Additionally, infill drillholes are required to validate that the drillhole spacing is appropriate for the continuity of the mineralization. Additional metallurgical testing is required to determine the expected gold and silver recoveries for the various mineralization types and processing alternatives. The objective of the modelling is to define the resources that may be treated by standard cyanide heap leach processing methods and the sulphide resources that may require milling and flotation beneficiation. An improved metallurgical model has potential to immediately add value to the project by identifying portions of the known and drill tested mineralized zone where the mineralization may be amenable to standard heap leaching methods.

Creation of an accurate geological-metallurgical model that enables forecasting of metal recoveries and reagent consumption in a cyanide heap leach and Merrill Crowe process will require re-examination of the existing drill core and collection of data related to features specifically related to the material's amenability to heap leaching,



including degree of alteration of mineralization related sulphides, sedimentary facies as related to primary content of organic carbon, and alteration and ore mineral characterization. Logging of core by geologists will be augmented by mineralogic analyses and QEMSCAN analyses as needed. Following re-interpretation of the metallurgical domains, metallurgical drilling to confirm interpretations and to provide information on metallurgical characteristics of each domain is required. Input from consultant process engineers and metallurgists will guide the nature of the metallurgical tests performed. The same factors important to determining metallurgical characteristics also affect ARD potential, thus acid-base accounting and the ARD evaluations are included in the work program. The geologic-metallurgical model will then serve to constrain a resource estimate.

An 18 month, approximately \$2.3M USD program, exclusive of project holding costs and corporate costs, is recommended. Costs and time frame to complete the creation of a new geologic model and resource estimate are summarized in Table 26.1.

Positive results from the Mineral Resource estimation and metallurgical modeling program would justify next steps, being conducting a Preliminary Economic Assessment to assess exploiting the Camino Rojo deposit by a potential combination of standard open pit mining and heap leach recovery methods and sulphide flotation and concentration.

Concurrent with the creation of a current geologic/metallurgical model and Mineral Resource estimate for the Camino Rojo deposit, a 2-stage exploration program to seek additional analog deposits within the claim block is recommended. Because outcrop is exceedingly scarce, exploration will be driven by indirect geophysical and geochemical surveys, followed by exploratory RC drilling of targets identified and follow up diamond core drilling of positive RC drill tests. This work would be conducted in a 12 month period at a cost of \$2.2M USD for Stage 1 exploration and \$2.5M USD for Stage 2 work, which is conditional upon positive results from Stage 1. Costs and time frame to conduct the exploration are summarized in Table 26.1.

26.2 Stage 2: Preliminary Economic Analysis of Stage 1 Resources and Definition Drilling of Stage 1 Targets

Conditional upon positive results from Stage 1 work, a Preliminary Economic Assessment of resources defined by Stage 1 work is recommended. The exact details of the PEA cannot be determined prior to definition of a precious metal Mineral Resource and its metallurgical characteristics. The PEA would focus on development options of both oxide and sulphide resources. If Stage 1 exploration successfully defined analog targets to Camino Rojo within the project mineral concessions, a definition drilling program of these targets is warranted. The Stage 2 program is envisioned as a 12 month program with \$1.5M USD budgeted for a PEA and \$2.5M USD for resource definition drill programs, as summarized in Table 26.1.



Table 26.1. Recommended Work Plan and Budget, Camino Rojo Project

Stage 1: Data Confirmation, Geologic Model Creation, Metallurgical Studies, and Resource Estimation

Activity or Concept	Month Start	Month End	Cost USD
Acquire/Analyze Data	1	2	25,000
Relog Core (geologic and metallurgical domain logging)	1	4	200,000
Preliminary Update Deposit Geologic and Metallurgical Model	4	5	100,000
Metallurgical and Confirmation Drilling	4	6	600,000
Metallurgical Testing	7	16	750,000
Technical Consulting Metallurgy	7	16	100,000
Technical Consulting Engineering	13	16	50,000
Resource Estimation	16	18	100,000
Technical Consulting Permitting	1	18	50,000
Baseline Environmental Sampling and AMD Testing	1	18	100,000

\$2,075,000

Stage 1 Exploration

Geophysical Surveys (magnetics, IP)	1	4	450,000
Regional Geochemical Survey	1	4	300,000
Trenching	1	5	250,000
RC Drilling (10000m, cost includes assay, geology, drilling)	5	12	1,000,000

\$2,000,000

Camp/Travel/Logistics (cost shared equally by Resource Modelling and Exploration programs)

Camp (house rental, meals, janitorial, cook, etc.)	1	18	126,000
Core warehouse and logging facilities	1	18	72,000
Vehicles	1	18	108,000
Vehicle fuel and maintenance	1	18	22,000
Travel (flights, hotels, meals)	1	18	130,000
Communication	1	18	18,000

\$476,000

Grand Total Stage 1 USD

\$4,551,000

Stage 2: PEA on Resources defined in Stage 1, Drill testing of targets discovered in Stage 1

Preliminary Economic Assessment, Stage 1 Resources	1	12	1,500,000
RC and Core Drilling (10000m RC, 5000m core)	1	12	2,500,000

Grand Total Stage 2 USD

\$4,000,000



27 REFERENCES

- Blanchflower, J. (2009, January 15). Technical Report on the Mineral Resources of the Camino Rojo Property. Technical report posted by the Canplats on SEDAR, January 15, 2009, 70 p: Minorex Consulting.
- Blanchflower, K.D., Kaye, C., and Steidtmann, H. (2009). *Technical Report Preliminary Assessment based on Report Titled "Technical Assessment of Camino Rojo Project, Zacatecas, Mexico", prepared by Minorex Consulting Mine and Quarry Engineering Services Inc for Canplats Resources Corporation, October 16, 2009.*
- Blue Coast Research Ltd. (2014). *Camino Rojo Final Report Draft*. Parksville, British Columbia: Blue Coast Research Ltd.
- Buseck, P. R. (1966). Contact metamorphism and ore deposition, Concepcion del Oro, Mexico. *Economic Geology*, 61(1), p 97-136.
- CONANP. (2014). *Estudio previo justificativo para la declaratoria como Area Natural Protegida Reserva de la Biosfera Desierto Semiarido de Zacatecas*. Mexico City, Mexico: Comision Nacional de Areas Naturales Protegidas.
- Goldcorp Inc. (2017, March 26). *Goldcorp Annual Information Form for the Financial Year Ending 31 December 2016*.
- Gray, M. D. (2016, December 17). Site Visit Report, Camino Rojo Gold Project (Goldcorp), Zacatecas, Mexico, Prepared for Orla Mining Ltd. Rio Rico, Arizona, USA: Resource Geosciences Inc.
- Hazen Research Inc. (2014). *Camino Rojo Project Variability Study*. Golden, Colorado: Hazen Research inc.
- Heiras, M. (2017, June 28). Legal opinion letter. Chihuahua, Chihuahua, Mexico: Heiras y Asociados S.C. Abogados.
- Heiras, M. (2018, January 6). Letter report, Camino Rojo permitting for exploration and Ejido relations. Chihuahua, Chihuahua, Mexico: Heiras y Asociados S.C., Abogados.
- Kappes, Cassiday and Associates. (2012). *Camino Rojo Project, Report of Metallurgical Test Work, May 2012*. Reno, Nevada: Kappes, Cassiday and Associates.
- Kappes, Cassiday and Associates. (2014). *Camino Rojo Project, Report of Metallurgical Test Work, October 2014*. Reno, Nevada: Kappes, Cassiday and Associates.
- Kappes, Cassiday and Associates. (2015). *Camino Rojo Project, Report of Metallurgical Test Work, August 2015*. Reno, Nevada: Kappes, Cassiday and Associates.
- Meinert, L.D., Dipple, G.M., and Nicolescu, S. (2005). World Skarn Deposits. In J. T. Hedenquist, *Economic Geology One Hundredth Anniversary Volume 1905 - 2005*. (p. 1136). Littleton, CO: Society of Economic Geologists, Inc.
- Rocha-Rocha, M. (2016, May). Metallogenesis of the Peñasquito polymetallic deposit: A contribution to the understanding of the magmatic ore system. *Doctoral dissertation*. Reno, Nevada, USA: University of Nevada Reno.



- Sanchez, S. (2017, May). The Mineralogy, Paragenesis And Alteration Of The Camino Rojo Deposit, Zacatecas, Mexico. *Master of Science Thesis*. Reno, Nevada, USA: University of Nevada, Reno.
- Servicio Geologico Mexicano. (2000). Carta Geologico-Minero Concepcion del Oro G14-10. Pachuca, Hidalgo, Mexico: Servicio Geologico Mexicano.
- Servicio Geologico Mexicano. (2014). Carta Geologico-Minero San Tiburcio G14C82. Pachuca, Hidalgo, Mexico: Servicio Geologico Mexicano.
- SGS Mineral Services. (2009). *Progress Report 1 Evaluation of the amenability of Camino Rojo drill hole samples to cyanide leaching and flotation processes*. Durango, Mexico: SGS Mineral Services.



28 EFFECTIVE DATE AND SIGNATURES OF AUTHORS



I, Matthew Dean Gray, of Rio Rico, Arizona, USA, do hereby certify that:

1. This certificate is being delivered in connection with the technical report entitled "CSA NI 43-101 Technical Report on the Camino Rojo Gold Project, Municipio of Mazapil, Zacatecas, Mexico" dated 24 January 2018 (the "Technical Report") prepared for Orla Mining Ltd.
2. I am employed as a geologist at Resource Geosciences Incorporated, (RGI) an independent consulting geosciences firm, whose address is 765A Dorotea Ct, Rio Rico, Arizona, 85648 USA.
3. I am a Certified Professional Geologist (#10688) with the American Institute of Professional Geologists since 2003 and my qualifications include experience applicable to the subject matter of this Technical Report. In particular, I am a graduate of the Colorado School of Mines (Ph.D., Geology with Minor in Mineral Economics, 1994; B.Sc., Geological Engineering, 1985) and the University of Arizona (M.Sc., Geosciences, 1988) and I have practiced my profession continuously since 1988. Most of my professional practice has focused on exploration metallic mineral deposits, the creation of resource models, and the economic development of gold and copper deposits.
4. I have read the definition of Qualified Person set out in National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of NI 43-101.
5. I most recently completed a personal inspection of the Camino Rojo gold project on December 12 and 13, 2016.
6. I am responsible for Section 1 exclusive of 1.6, the entirety of Sections 2 to 5, Section 6 exclusive of 6.3, the entirety of Sections 7 to 12, and the entirety of Sections 14 to 27 of the Technical Report.
7. I am independent of Orla Mining Ltd. as defined in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Date: 24 January 2018

Signed and Sealed: "Matthew D. Gray"
Matthew D. Gray, Ph.D., C.P.G. #10688



I, Carl E. Defilippi, of Reno, Nevada, USA, do hereby certify that:

1. This certificate is being delivered in connection with the technical report entitled "CSA NI 43-101 Technical Report on the Camino Rojo Gold Project, Municipio of Mazapil, Zacatecas, Mexico" dated 24 January 2018 (the "Technical Report") prepared for Orla Mining Ltd.
2. I am employed as a Sr. Project Engineer at Kappes, Cassiday & Associates, an independent metallurgical consulting firm, whose address is 7950 Security Circle, Reno, Nevada 89506.
3. I am a registered member with the Society for Mining, Metallurgy and Exploration (SME) since 2011 and my qualifications include experience applicable to the subject matter of the Technical Report. In particular, I am a graduate of the University of Nevada and I have practiced my profession continuously since 1982. Most of my professional practice has focused on the development of gold-silver leaching projects.
4. I have read the definition of Qualified Person set out in National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of NI 43-101.
5. I have not completed a personal inspection of the Camino Rojo gold project, as it was not required for the sections for which I am responsible.
6. I am responsible for Sections 1.6, 6.3 and 13 of the Technical Report.
7. I am independent of Orla Mining Ltd. as defined in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Date: 24 January 2018

Signed and Sealed: "Carl E. Defilippi"

Carl E. Defilippi
RM SME # 775870
Sr. Project Engineer
Kappes, Cassiday & Associates