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OREZONE GOLD CORPORATION

TECHNICAL REPORT ON THE UPDATED MINERAL RESOURCE ESTIMATE FOR THE BOMBORÉ GOLD PROJECT, BURKINA FASO, WEST AFRICA

NI 43-101 Report

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FORWARD-LOOKING INFORMATION

This report contains forward-looking statements. All statements, other than statements of historical fact regarding Orezone Gold Corporation or Bomboré Project, are forward-looking statements. The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "intend", "project", "continue", "budget", "estimate", "potential", "may", "will", "can", "could" and similar expressions identify forward-looking statements. In particular, this report contains forward-looking statements with respect to exploration expenditure, and potential mineralization and metal or mineral recoveries. All forward-looking statements in this report are necessarily based on opinions and estimates made as of the date such statements are made and are subject to important risk factors and uncertainties, many of which cannot be controlled or predicted. Material assumptions regarding forward-looking statements are discussed in this report, where applicable. In addition to such assumptions, the forward-looking statements are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. Such factors include, but are not limited to: fluctuations in the spot and forward price of commodities (including gold, diesel fuel, natural gas and electricity); the speculative nature of mineral exploration and development; changes in mineral production performance, exploitation and exploration successes; risks associated with the fact that the Bomboré Project is still in the early stages of evaluation and additional engineering and other analysis is required to fully assess their impact; operating or technical difficulties in connection with mining or development activities, including disruptions in the maintenance or provision of required infrastructure and information technology systems; damage to Orezone Gold Corporation's or Bomboré Project's reputation due to the actual or perceived occurrence of any number of events, including negative publicity with respect to the handling of environmental matters or dealings with community groups, whether true or not; risk of loss due to acts of war, terrorism, sabotage and civil disturbances; uncertainty whether the Bomboré Project will meet Orezone Gold Corporation's capital allocation objectives; the impact of global liquidity and credit availability on the timing of cash flows and the values of assets and liabilities based on projected future cash flows; the impact of inflation; fluctuations in the currency markets; changes in interest rates; changes in national and local government legislation, taxation, controls or regulations and/or changes in the administration of laws, policies and practices, expropriation or nationalization of property and political or economic developments in Burkina Faso; failure to comply with environmental and health and safety laws and regulations; timing of receipt of, or failure to comply with, necessary permits and approvals; litigation; contests over title to properties or over access to water, power and other required infrastructure; increased costs and physical risks including extreme weather events and resource shortages, related to climate change; and availability and increased costs associated with mining inputs and labor. In addition, there are risks and hazards associated with the business of mineral exploration, development and mining, including environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins, flooding and gold bullion, (and the risk of inadequate insurance, or inability to obtain insurance, to cover these risks).

Many of these uncertainties and contingencies can affect Orezone Gold Corporation's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, Orezone Gold Corporation. All of the forward-looking statements made in this report are qualified by these cautionary statements. Orezone Gold Corporation and RPA and the Qualified Persons who authored this report undertake no obligation to update publicly or otherwise revise any forward-looking statements whether as a result of new information or future events or otherwise, except as may be required by law.

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1 SUMMARY

EXECUTIVE SUMMARY

Roscoe Postle Associates Inc. (RPA) was retained by Orezone Gold Corporation (Orezone) to prepare an independent Technical Report on the Bomboré Project (the Project or the Property), located in Burkina Faso, West Africa. The purpose of this Technical Report is to support an updated Mineral Resource estimate for the Project. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

The Property consists of a contiguous block of mining tenures totalling 16,600 ha comprising a mining permit, an exploration permit, and three exploration permit applications located in Ganzourgou Province, approximately 85 km east of the capital of Ouagadougou. The Project is readily accessible by paved road from Ouagadougou.

The Project was the subject of a 2013 Mineral Resource estimate update, a 2014 Preliminary Economic Assessment (PEA), and a 2015 Feasibility Study (FS). In consideration of the recent geological re-interpretation of the mineralized domains coupled with restrictions on the grade modelling of the low grade domains, as described in a press release dated August 22, 2016, a new Mineral Resource estimate was prepared with an effective date of September 7, 2016. The September 7, 2016 Mineral Resource estimate was subsequently updated by RPA to include 391 new low grade wireframe-constrained domain models in those areas where a minimum of three intervals longer than three metres and an overall grade above 0.20 g/t Au can be observed to be present in adjacent drill sections and there are a minimum of two such intersects in at least one section, as more fully described in Section 14. The results of this update, with a new effective date of January 5, 2017, were disclosed in a News Release dated January 10, 2017. An updated FS will be prepared to incorporate the Mineral Resource estimate of January 5, 2017.

The January 5, 2017 resource model was initially prepared by Orezone and was subsequently audited, updated, classified, and accepted by RPA as part of the Mineral Resource estimation (Table 1-1). The estimate conforms to the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM definitions).

TABLE 1-1 SUMMARY OF THE MINERAL RESOURCES AS OF JANUARY 5, 2017
Orezone Gold Corporation – Bomboré Gold Project

	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes	Grade	Gold	Tonnes	Grade	Gold	Tonnes	Grade	Gold	Tonnes	Grade	Gold
Material Type	**Mt**	**g/t Au**	**koz**	**Mt**	**g/t Au**	**koz**	**Mt**	**g/t Au**	**koz**	**Mt**	**g/t Au**	**koz**
Oxide+Tran HG	16.9	0.94	513	36.5	0.83	974	53.4	0.87	1,487	4.8	0.77	117
Oxide+Tran LG	18.5	0.33	196	50.1	0.33	531	68.6	0.33	727	16.4	0.29	151
Total Oxide+Tran	**35.4**	**0.62**	**709**	**86.7**	**0.54**	**1,505**	**122.0**	**0.56**	**2,214**	**21.2**	**0.39**	**268**
Fresh HG	2.3	118	87	68.7	0.96	2,121	71.0	0.97	2,208	20.1	0.97	630
Fresh LG	0.8	0.43	11	24.2	0.43	337	25.0	0.43	348	6.9	0.43	96
Total Fresh	**3.1**	**0.99**	**97**	**93.0**	**0.82**	**2,458**	**96.0**	**0.83**	**2,556**	**27.0**	**0.84**	**726**
Total HG	**19.2**	**0.97**	**600**	**105.3**	**0.91**	**3,095**	**124.5**	**0.92**	**3,695**	**24.9**	**0.93**	**747**
Total LG	**19.2**	**0.33**	**206**	**74.4**	**0.36**	**868**	**93.6**	**0.36**	**1,075**	**23.3**	**0.33**	**246**
Total HG+LG	**38.4**	**0.65**	**806**	**179.6**	**0.69**	**3,964**	**218.1**	**0.68**	**4,770**	**48.2**	**0.64**	**994**

Notes:
1. CIM definitions were followed for Mineral Resources.
2. HG indicates material above the higher grade cut-offs, LG indicates low grade material between the high grade and breakeven cut-off grades.
3. Mineral Resources are estimated at variable cut-off grades depending on weathering layer and location; cut-off grades are approximately 0.2 g/t Au for oxide and transition material, and 0.38 g/t Au for fresh material.
4. Mineral Resources are estimated using a long-term gold price of US$1,400 per ounce.
5. A minimum mining width of approximately 3 m was used.
6. Bulk density varies by material type.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
8. Numbers may not add due to rounding.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

CONCLUSIONS

RPA offers the following conclusions:

GEOLOGY AND MINERAL RESOURCES

- The Bomboré gold deposit is a large structurally controlled orogenic gold deposit similar to deposits found elsewhere in late Proterozoic Birimian terranes of West Africa.

- Drilling has outlined mineralization with three-dimensional continuity, and size and grades that can potentially be extracted economically.

- Orezone's protocols for drilling, sampling, analysis, security, and database management meet industry standard practices.

- The drill hole database was verified by Orezone, RPA, and other consultants and is suitable for Mineral Resource and Mineral Reserve estimation work.

- In RPA's opinion, the January 5, 2017 Mineral Resource estimation work is in accordance with the CIM definitions and the results are reasonable.

- At a cut-off grade of 0.2 g/t Au for oxide and transition material and 0.38 g/t Au for fresh material, Measured plus Indicated Mineral Resources are estimated to total 218.10 million tonnes (Mt) at an average grade of 0.68 g/t Au for 4.8 million ounces of contained gold. At the same cut-off grades, Inferred Mineral Resources are estimated to total an additional 48.20 Mt at an average grade of 0.64 g/t Au for 994,000 ounces of contained gold.

- The January 5, 2017 Mineral Resource estimate has a slightly lower average grade compared to the September 7, 2016 Mineral Resource estimate due to the addition of new low grade mineralized wireframes and a new unconstrained domain ("third domain") of selected assays above 0.20 g/t Au.

- The estimated contained metal is higher in the January 5, 2017 estimate compared to the September 7, 2016 resource statement due to additional mineralized wireframes and the third domain, as well as a slightly deeper resource pit shell.

- RPA concurs that the updated resource model is a realistic representation of the mineralization within the wireframes and the new third domain.

- A number of mineralized drill hole intervals, though included within the database, remain beyond the limits of the mineralization wireframes and third domain. No tonnage or grade estimates were provided for these intersections at this stage.

MINING AND MINERAL RESERVES

- There is no current Mineral Reserve estimate for the Project. A previous Mineral Reserve estimate for the Project was summarized in an FS level NI 43-101 Technical Report dated April 28, 2015, however, due to changes in the 2016 and 2017 Mineral Resource model, as described in the October 31, 2016 and the current Technical Reports, this Mineral Reserve estimate cannot be relied upon. RPA has been contracted to complete a new Mineral Reserve estimate based on the current Mineral Resource estimate.

- There is sufficient advanced engineering data and new optimization studies available to complete a Mineral Reserve estimate without significant additional work.

- A conventional open pit mining scenario with excavators and haul trucks is envisioned for the Project, targeting the gold resources in the saprolite and transition weathering horizons as the initial phase, and the fresh rock as a potential second phase.

PROCESSING

- A sufficient level of metallurgical test work and flow sheet design has already been completed and indicate that Bomboré material is amenable to processing by the combined scrubbing/carbon-in-leach (CIL) and heap leaching method.

- Gold recoveries are reasonably high, consistently demonstrated, and the rates of recoveries are fairly rapid for oxide material. Reagent requirements are low to moderate.

- Based on the available leach test results and by applying appropriate deductions to estimate heap leach field recoveries from laboratory data, overall gold recovery is estimated to average 87% on oxides.

ENVIRONMENTAL STUDIES AND PERMITTING

- The Mining Code of Burkina Faso guarantees a stable fiscal regime for the life of any mine developed. It also guarantees stabilization of financial and customs regulations and rates during the period of operation to reflect the rates in place at the date of the approved Operating Permit. The Mining Code also states that no new taxes can be imposed with the exception of mining duties, taxes, and royalties.

- Orezone has already completed the Environmental and Social Impact Assessment (ESIA) and a Resettlement Action Plan (RAP). In May 2016, Orezone received approval of its application for an environmental permit from Ministère de L'Environnement, de L'Économie Verte et du Changement Climatique. On August 11, 2016, the Bomboré Mining Permit was granted and is valid for the mine life.

- Other required permits and authorizations could include:
  - Permit for industrial exploitation
  - Once in production, the opening of a fiduciary account for an amount equal to the mine reclamation closure and rehabilitation budget
  - Authorization for the management of raw water
  - Authorization for the collection of raw water for civil work
  - Authorization for hydraulic work or dam
  - Authorization for road construction
  - Authorization for allotment of registered parcels on the resettlement sites

RECOMMENDATIONS

The Property hosts a significant gold deposit and merits considerable exploration, engineering, and development work. The near-term primary objectives are to advance engineering work and improve the confidence in the Mineral Resource estimate.

RPA's recommendations are as follows:

MINERAL RESOURCE MODEL

- The use of a single grade threshold (of 0.2 g/t Au) for creation of mineralization envelopes would simplify the estimation process. RPA recommends that Orezone test this approach by re-running the grade estimate without the 0.45 g/t Au envelopes.

- In-fill drilling to confirm the continuity of the gold grades in the high grade pods contained within the resource pit shell is warranted in the South model area. The information gained from this work will improve the variogram models in these areas and will improve the accuracy and level of confidence of the local grade estimate.

- Complete a detailed study to determine the optimal grade control drill hole spacing. The selection of the test areas for these studies should be synchronized with the proposed mine production schedule to focus on the initial production period.

MINERAL RESERVES

- Mineral Reserves should be updated to reflect the updated Mineral Resource model.

PROCESSING

- Some test work evaluating the merit of utilizing alternative sizing equipment after scrubbing may provide additional operational optimization, however, no further metallurgical test programs are envisioned.

ENVIRONMENTAL STUDIES AND PERMITTING

- The potential impact of the Project on the environment and community should be reviewed for the updated FS. The RAP might also require an update based on the project definition of the updated FS.

- Orezone should continue to actively participate in public consultations including the presentation of the updated FS results. Once the updated FS is completed, resettlement efforts and planning should be pursued aggressively to allow for resettlement activities to begin as soon as possible.

PROPOSED EXPLORATION PROGRAM AND BUDGET

RPA has reviewed and concurs with Orezone's proposed budgets. The recommended Phase I program, to be initiated as soon as operationally practical, consists mainly of oxide grade reverse circulation (RC) validation drilling and oxide resource expansion RC drilling on the mining permit. Validation drilling will be focused on mineralization outside of the mineralized envelopes and resource expansion drilling will be focused on areas where there are gaps in the current drilling. Other drilling will include resource expansion core and RC drilling on the Toéyoko Exploration Permit, ground geophysical surveying, and exploration drilling on the exploration permit applications. The budget for this program is US$617,750.

Details of the recommended Phase I program can be found in Table 1-2.

TABLE 1-2 PROPOSED PHASE I BUDGET
Orezone Gold Corporation – Bomboré Gold Project

Tenement	Phase I Program	Quantity	Budget (US$)
Mining Lease	North Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	1,500 m	60,000
	South Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	750 m	30,000
Toéyoko	P17S Metallurgical test work program		18,750
	P17S Resource Expansion Core Drilling Program	2,800 m	250,000
	P17S Resource Expansion RC Drilling Program	1,300 m	55,000
	Auger Drilling Program	1,675 m	36,000
	P13 RC Scout Drilling Program	1,850 m	80,000
Bomboré II	Auger Drilling Program	500 m	11,000
Bomboré III	Auger Drilling Program	300 m	5,000
	IP Surveys	26 km	72,000
TOTAL Phase I			**617,750**

Contingent upon the Phase I program results, a Phase II program will consist of resource expansion RC drilling on the mining permit, resource expansion core and RC drilling on the Toéyoko Exploration Permit, and exploration drilling on the exploration permit applications. The budget for this Phase II exploration program is US$960,000 (Table 1-3).

TABLE 1-3 PROPOSED PHASE II EXPLORATION BUDGET
Orezone Gold Corporation – Bomboré Gold Project

Tenement	Phase II Program (Contingent on positive Phase I results)	Quantity	Budget (US$)
Mining Lease	North Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	5,000 m	205,000
	South Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	1,500 m	65,000
Toéyoko	P17S Resource Expansion Core Drilling Program	3,500 m	380,000
	P17S Resource Expansion RC Drilling Program	10 km	25,000
	P17 S IP Survey	10 km	25,000
	P13 Resistivity Survey	140 km	75,000
	P13 RC Definition Drilling Program	2,000 m	90,000
Bomboré II	RC Scout Drilling Program	1,000 m	30,000
Bomboré III	P17N Definition Drilling Program	2,000 m	65,000
TOTAL Phase II			**960,000**

TECHNICAL SUMMARY

PROPERTY DESCRIPTION AND LOCATION

The Property consists of a contiguous block totalling 16,600 ha comprising a mining permit, an exploration permit, and three exploration permit applications located in Ganzourgou Province, Burkina Faso, approximately 85 km east of Ouagadougou. The Property is centred at approximately 1,348,800mN, 728,100mE (UTM Zone 30, Clarke 1880 ellipsoid, Adindan datum) and is easily accessible by paved road RN4 from Ouagadougou.

LAND TENURE

Orezone owns a 100% interest in the Project subject to a 10% free carried interest and a 3% to 5% sliding scale net smelter return (NSR) royalty on gold produced in favour of the Government of Burkina Faso, as well as a 0.45% NSR royalty held by Sandstorm Gold Ltd. that can be re-purchased for US$3.3 million to US$3.9 million prior to January 2018.

The Bomboré Mining Permit is registered in the name of Orezone Bomboré S.A. (OBSA), a 90% owned subsidiary of Orezone Inc. s.a.r.l., itself a 100% owned subsidiary of Orezone Inc., which is 100% owned by Orezone. The Bomboré Mining Permit was granted to OBSA in August 2016 and is valid for the mine life as defined in the 2015 FS.

The Toéyoko Exploration Permit is registered in the name of Société Orezone Inc. (Société Orezone). It was granted to Société Orezone in July 2011 and is valid until July 13, 2017 when it will be renewable for the last of two possible three-year additional terms.

EXISTING INFRASTRUCTURE

Existing infrastructure includes an exploration camp, a core shack, light vehicle shop, and 18,000 sample per month sample preparation facility. In Ouagadougou, located 85 km from the Project, the company owns and operates a fully functional office and warehouse facility with auxiliary power and water that is sufficient to manage a significant mining operation at Bomboré.

HISTORY

Initial exploration work at the Project was conducted by la Générale des Mines et des Carrières during the period from 1989 to 1994. Exploration activities included soil

geochemical surveys, trenching, rock sampling, and data collection from the artisanal miners. In 1994, Channel Mining (Barbados) Company Ltd. (Channel) and Solomon Resources Limited (Solomon) acquired control of the Property and completed exploration work consisting of remote sensing, geochemical, airborne and ground geophysical, geological, and trenching programs as well as 1,271 rotary air blast (RAB), RC, and diamond drill core holes. Limited petrographic and metallurgical studies were also completed.

In 1999, Placer Dome (Africa) Inc. reached an agreement to earn a 20% interest in the exploration permit and completed work from September 1999 to July 2000 consisting mainly of RC and RAB drilling on the P8/P9, Maga, and CFU zones, and in the Mankarga Target Area. The earn-in conditions of the agreement were not met.

Orezone's predecessor company Orezone Resources Inc. (Orezone Resources) acquired a 50% interest in the Project from Channel and Solomon in 2002 and began exploration activities in 2003. Orezone Resources acquired the remaining 50% interest in 2008. In February 2009, Orezone was formed as part of the business agreement between Orezone Resources and IAMGOLD Corporation (IAMGOLD) and currently owns a 100% interest in the Project. There was no further relationship with IAMGOLD after the transaction closed other than IAMGOLD becoming a shareholder of Orezone Gold Corporation.

GEOLOGY AND MINERALIZATION

The geology of Burkina Faso is dominated by the Proterozoic Baoulé-Mossi Domain, which corresponds to the eastern portion of the West African Craton. Neoproterozoic to Paleozoic sedimentary rocks cover the west and southeast of the country.

The Baoulé-Mossi Eburnean orogenic domain contains Birimian (Lower Proterozoic) volcano-sedimentary units arranged in elongated belts and relics of the Archean basement. The belts generally trend north-northeast but form arcuate belts to the north of Ouagadougou. They are bounded by older granite gneiss terrains and have been intruded by syn- to late tectonic granite bodies.

The Birimian Supergroup has been divided into a Lower sequence comprised of wacke, argillite and volcanoclastic rock, and an Upper sequence of basalt with interflow sedimentary rock. Post-Eburnean marine and continental sedimentary rocks unconformably overlie the

Lower Proterozoic sequences. The Birimian formations have been affected by three tectono-metamorphic phases with up to greenschist facies metamorphism.

The Project lies in a small northeast-trending belt located to the west of the major Tiébélé-Dori-Markoye Shear Zone that sub-divides the country into domains characterized by different structural patterns. The Project area is underlain mainly by a meta-sedimentary flysch-type sequence dominated by meta-sandstones with subordinate carbonaceous meta-pelites and polymictic meta-conglomerates. This metasedimentary sequence is intruded by early meta-gabbroic and ultramafic (peridotitic) intrusives and then syntectonic granodioritic intrusives. Late-tectonic quartz-feldspar porphyries occur as dikes and larger bodies within the greenstone belt. Large biotite granite intrusives are present on Property to the west and to the south of the greenstone belt that is also molded on a large quartz diorite intrusive located along the eastern limit of the Project. A syenitic intrusion referred to as the Petite Suisse is exposed on the west of the property.

The gold mineralization on the Property is hosted in the Bomboré Shear Zone (BSZ), a major north-northwest to north-northeast trending structure. This shear zone has an arcuate shape, and extends over tens of kilometres beyond the limits of the Property. It is interpreted as a secondary structure to the Tiébélé-Dori-Markoye Fault, a regional north-northeast trending sinistral fault that represents a major discontinuity in the Birimian rocks, across which regions of contrasting structural styles are juxtaposed.

The Bomboré gold mineralization trend is defined by a gold-in-soil anomaly exceeding 0.1 g/t gold, as well as by the presence of numerous gold showings and orpaillage sites. The Bomboré gold-in-soil anomaly measures 14 km in length, is several hundreds of metres in width, and occurs within the BSZ.

EXPLORATION STATUS

Since acquisition of the Property in 2003, Orezone has carried out systematic mapping, prospecting, sampling, and gold assaying of outcrops and gold workings. A number of airborne and ground magnetic and induced polarization/resistivity surveys as well as core, RC, and auger drilling campaigns have also been completed that support the geological model used for the current Mineral Resource estimate (Table 1-1). Between 2003 and 2014, Orezone completed a total of 1,025 core holes for approximately 156,000 m, 4,703 RC holes for approximately 284,000 m, and a total of 4,221 auger holes for approximately 20,000 m.

The Mineral Resource estimate is based only on data from core and RC drilling. The additional drilling of 5,968 m of core and RC drilling completed between November and December 2016 were not used for the resource update since assay results had not yet been finalized as of the resource effective date of January 5, 2017.

MINERAL RESOURCES

The estimation of Mineral Resources was carried out initially by Orezone and included the development of the geological model, block model and the grade estimation. RPA carried out audits, updated and classified the initial model and reported the updated Mineral Resource estimate. Mineral Resources are estimated at variable cut-off grades depending on weathering layer and geographic location. At a cut-off grade of 0.2 g/t Au for oxide and transition material and 0.38 g/t Au for fresh layers, Measured plus Indicated (M&I) Mineral Resources are estimated to be 218.1 Mt at an average grade of 0.68 g/t Au for a total of 4.8 million ounces of contained gold. Using the same cut-off grades, Inferred Mineral Resources are estimated to total an additional 48.2 Mt at an average grade of 0.64 g/t Au for 994,000 ounces of contained gold. The Mineral Resource estimate has an effective date of January 5, 2017.

The gold mineralization at the Project has a strike length of 12 km and has been split into four separate block model areas to keep the size of the various block model files within functionally manageable limits. The block model areas are referred to as the North, South, P16, and P17 areas. Together, the North and South block models contain the majority of the Mineral Resources.

The methodology included estimating the grade in two principal grade domains, a higher grade +0.45 g/t Au domain (the core of mineralization) and a lower grade 0.2 g/t to 0.45 g/t Au domain (the lower grade halo around the core). Gold grades were estimated using the ordinary kriging (OK) interpolation algorithm for the North, South, and P16 model areas. The gold grades for the P17 model area were estimated using the inverse distance squared (ID^2) interpolation algorithm. The gold grades inside the January 2017 new low grade mineralized wireframe models for the North and South areas were estimated using the OK interpolation algorithm; there were no new low grade wireframe domain models in the P16 and P17 model areas. The grade of each domain (or envelope) was estimated using only the composited assays that occur within each envelope and thus there was a hard boundary between each domain.

To fulfill the NI 43-101 requirement of “reasonable prospects for eventual economic extraction”, RPA prepared a preliminary open pit shell to constrain the block models for resource reporting purposes. Additional criterion to constrain the Mineral Resource report included several “non-permitted” areas related to flood plains, environmentally sensitive areas, and mineralized areas being set aside for the benefit of local artisanal miners.

Using similar cut-off grades to the September 7, 2016 Mineral Resource estimate for comparison purposes, the results indicate that the tonnage and gold ounces contained in the 2016 overall combined M&I Mineral Resources have been increased by 27% and 19%, respectively. The average gold grade has been reduced by 6% to 0.68 g/t Au. Within this, the oxide and transition portion of the M&I resource tonnage and gold ounces have increased by 20% and 14%, respectively, and the average gold grade has reduced by 5% to 0.56 g/t Au. The fresh rock (sulphide) M&I resource tonnage and gold ounces have been increased by 36% and 23%, respectively, and the average gold grade has reduced by 10% to 0.83 g/t.

The increase in M&I Mineral Resource is related to the new wireframes and the associated increase in pit shell depth allowing for recovery of additional material within previously defined wireframes. Approximately 60% of the Inferred Mineral Resource increase is due to the new wireframes and the new pit shell, with the remaining 40% belonging to the third domain.

2 INTRODUCTION

Roscoe Postle Associates Inc. (RPA) was retained by Orezone Gold Corporation (Orezone) to prepare an independent Technical Report on the Bomboré Project (the Project or the Property), located in Burkina Faso, West Africa. The purpose of this Technical Report is to support an updated Mineral Resource estimate for the Project. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

Orezone is an Ottawa-based company formed in February 2009 as part of the business agreement between Orezone Resources Inc. (Orezone Resources) and IAMGOLD Corporation (IAMGOLD) and is a reporting issuer in all provinces and territories in Canada. The common shares of Orezone trade on the TSX Venture Exchange. In addition to the Project, Orezone owns the resource development stage Bondi Gold Project, located in the Houndé Greenstone Belt in southwestern Burkina Faso. Orezone has conditionally sold Bondi to Sarama Resources Ltd with the transaction awaiting final approval.

Orezone owns a 100% interest in the Project subject to a 10% free carried interest and a 3% to 5% sliding scale net smelter return (NSR) royalty in favour of the Government of Burkina Faso, as well as a 0.45% NSR royalty held by Sandstorm Gold Ltd. that can be re-purchased for US$3.3 million to US$3.9 million prior to January 2018.

The Project was the subject of a 2013 Mineral Resource estimate update, a 2014 Preliminary Economic Assessment (PEA), and a 2015 Feasibility Study (FS). In consideration of the recent geological re-interpretation of the mineralized domains coupled with restrictions on the grade modelling of the low grade domains, as described in a press release dated August 22, 2016, a new Mineral Resource estimate was prepared with an effective date of September 7, 2016. The September 7, 2016 Mineral Resource estimate was subsequently updated, with the results disclosed in a News Release dated January 10, 2017. The effective date of the resource update was assigned January 5, 2017. An updated FS will be prepared to incorporate the Mineral Resource estimate of January 5, 2017.

SOURCES OF INFORMATION

A site visit was carried out Mr. Glen Ehasoo, P.Eng., Principal Mining Engineer, RPA, on June 20, 2014. The most recent site visit was carried out by Mr. Tudorel Ciuculescu, M.Sc.,

P.Geo., Senior Geologist, RPA, from October 10 to 13, 2014. While on site, Mr. Ciuculescu visited the chip and core sample handling and processing facility as well as the core and sample storage facility. Several chip and core samples were collected to confirm the presence of gold mineralization.

During the site visit, discussions regarding the geology of the Project, drilling and sampling procedures, database management, and geological interpretation were held with the following Orezone personnel:

- Mr. Pascal Marquis, Ph.D., Geo., Senior Vice President
- Mr. Ousséni Derra, Exploration Manager
- Mr. Babacar Diouf, Consulting Mineral Resource Geologist
- Mr. Adama Zongo, Senior Geologist
- Mr. Moumouni Tamani Project Geologist
- Mr. Edwin Maes, Database and QA/QC Manager

Mr. Ciuculescu is responsible for Sections 4 to 12, 23, and parts of Sections 1 to 3, 14, and 25 to 27. Mr. Reno Pressacco, P.Geo., is responsible for parts of Sections 1 to 3, 14, and 25 to 27. Mr. José Texidor Carlsson, P.Geo., is responsible for parts of Sections 1, 2, 14, and 25 to 27. Mr. Glen Ehasoo, P.Eng., is responsible for Sections 15, 16, 18 19, 21, 22, and 24, and parts of Sections 1 to 3 and 25 to 27. Mr. Tim Scott of Kappes, Cassiday & Associates (KCA) is responsible for Sections 13 and 17, and parts of Sections 1 to 3 and 25 to 27. Mr. Jean-Sébastien Houle, P.Eng., of WSP Canada Inc. (WSP) is responsible for Section 20 and parts of Sections 1, 25 and 26.

The documentation reviewed, and other sources of information, are listed at the end of this report in Section 27 References.

LIST OF ABBREVIATIONS

Units of measurement used in this report conform to the metric system. All currency in this report is US dollars (US$) unless otherwise noted.

a	annum
A	ampere
bbl	barrels
btu	British thermal units
°C	degree Celsius
C$	Canadian dollars
cal	calorie
CFA	West African CFA franc
cfm	cubic feet per minute
cm	centimetre
cm^2	square centimetre
d	day
dia	diameter
dmt	dry metric tonne
dwt	dead-weight ton
°F	degree Fahrenheit
ft	foot
ft^2	square foot
ft^3	cubic foot
ft/s	foot per second
g	gram
G	giga (billion)
Gal	Imperial gallon
g/L	gram per litre
Gpm	Imperial gallons per minute
g/t	gram per tonne
gr/ft^3	grain per cubic foot
gr/m^3	grain per cubic metre
ha	hectare
hp	horsepower
hr	hour
Hz	hertz
in.	inch
in^2	square inch
J	joule
k	kilo (thousand)
kcal	kilocalorie
kg	kilogram
km	kilometre
km^2	square kilometre
km/h	kilometre per hour
kPa	kilopascal
kVA	kilovolt-amperes
kW	kilowatt
kWh	kilowatt-hour
L	litre
lb	pound
L/s	litres per second
m	metre
M	mega (million); molar
m^2	square metre
m^3	cubic metre
µ	micron
MASL	metres above sea level
µg	microgram
m^3/h	cubic metres per hour
mi	mile
min	minute
µm	micrometre
mm	millimetre
mph	miles per hour
MVA	megavolt-amperes
MW	megawatt
MWh	megawatt-hour
oz	Troy ounce (31.1035g)
oz/st, opt	ounce per short ton
ppb	part per billion
ppm	part per million
psia	pound per square inch absolute
psig	pound per square inch gauge
RL	relative elevation
s	second
st	short ton
stpa	short ton per year
stpd	short ton per day
t	metric tonne
tpa	metric tonne per year
tpd	metric tonne per day
US$	United States dollar
USg	United States gallon
USgpm	US gallon per minute
V	volt
W	watt
wmt	wet metric tonne
wt%	weight percent
yd^3	cubic yard
yr	year

3 RELIANCE ON OTHER EXPERTS

This report has been prepared by Roscoe Postle Associates Inc. (RPA) for Orezone Gold Corporation (the Client). The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to RPA and all the authors at the time of preparation of this report,
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by the Client and other third party sources.

For the purpose of this report, RPA has relied on ownership information provided by the Client. The client has relied on an opinion by Ouagadougou based lawyer Moumouny Kopiho dated July 4, 2016, entitled "Legal Opinion", and this opinion is relied on in Section 4 and the Summary of this report. RPA has not researched property title or mineral rights for the Bomboré Project and expresses no opinion as to the ownership status of the property.

Qualified Person Jean-Sébastien Houle, P.Eng., of WSP, has relied upon information provided by Dr. Ousmane Bamaba, from BEGE and by Adama Deme from SOCREGE for matters pertaining to environmental and permitting process as disclosed in Section 20.

Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.

4 PROPERTY DESCRIPTION AND LOCATION

The Property consists of a block of contiguous permits totalling 16,600 ha located in Ganzourgou Province, Burkina Faso, approximately 85 km east of the capital city of Ouagadougou (Figure 4-1). The Property is easily accessible by paved road RN4 from Ouagadougou.

The Universal Transverse Mercator (UTM) co-ordinates for the approximate centre of the Property are 1,348,800mN, 728,100mE (Zone 30, Clarke 1880 ellipsoid, Adindan datum). The geographic co-ordinates for the approximate centroid of the currently defined Bomboré gold deposit are 12°12'N Latitude and 0°12'W Longitude.

LAND TENURE

The Property covers an area of 16,600 ha and consists of one Industrial Operating Permit (the Bomboré Mining Permit) of 2,500 ha, one Mining Exploration Permit (the Toéyoko Exploration Permit) of 6,300 ha, and three Exploration Permit applications totalling 7,810 ha.

Mining permits are granted by Decree of the Council of Ministers and exploration permits are granted by order of the Ministère de l'Énergie des Mines et des Carrières (MEMC) of Burkina Faso. The Government of Burkina Faso retains a 10% free carried interest in the mining company holding a mining permit. The government's free carried interest cannot be diluted. Exploration permits are issued for an initial three-year term as of the date of issuance and may be renewed for a maximum of two consecutive three-year terms according to the Mining Act. Exceptional extensions of up to three additional years have been granted for several permits in recent years.

The land tenure information presented herein is derived from copies of the *Decree* and *Arrêtés* by which the Property permits were granted.

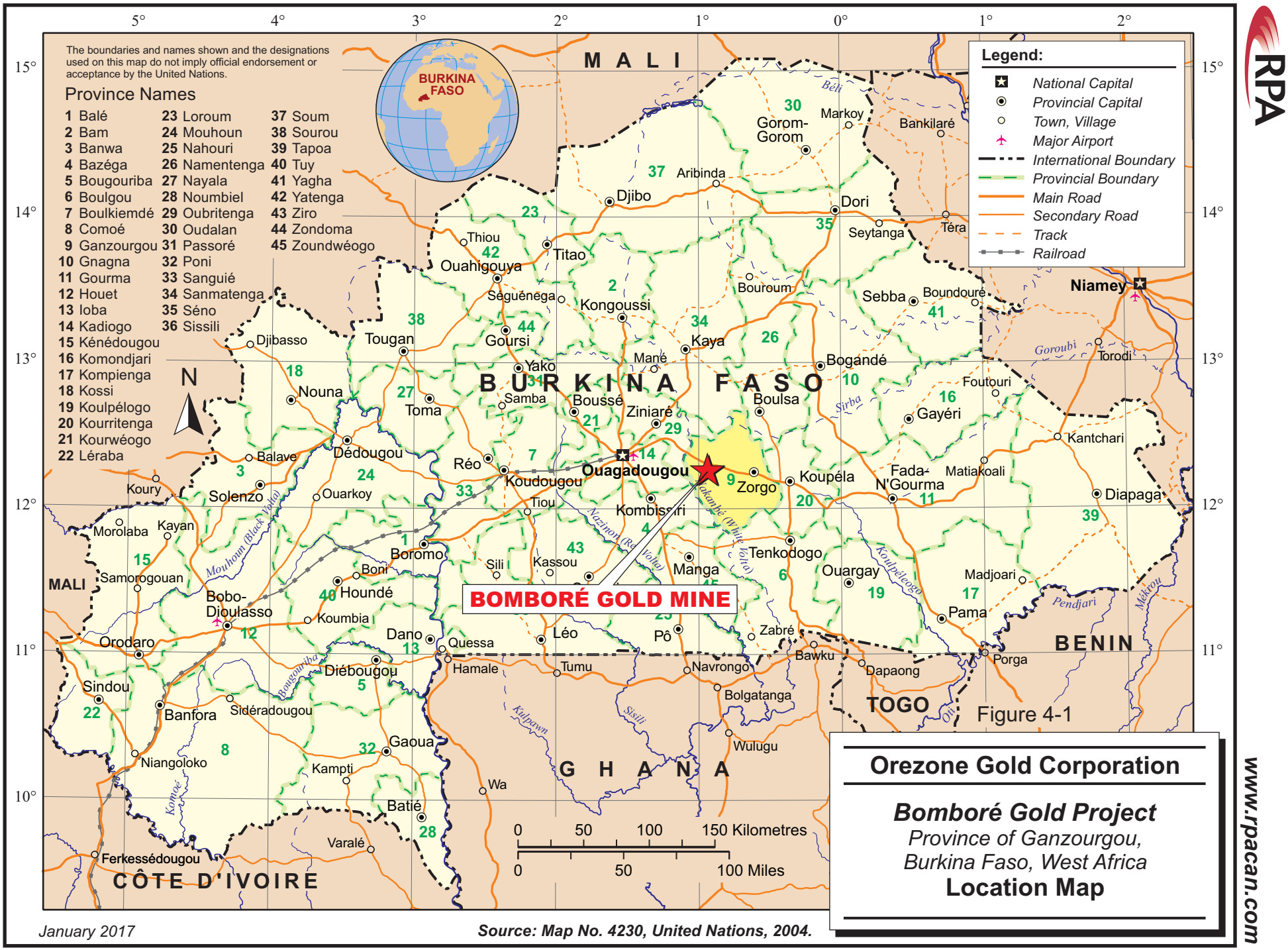


Figure 4-1

Orezone Gold Corporation

Bomboré Gold Project

Province of Ganzourgou, Burkina Faso, West Africa

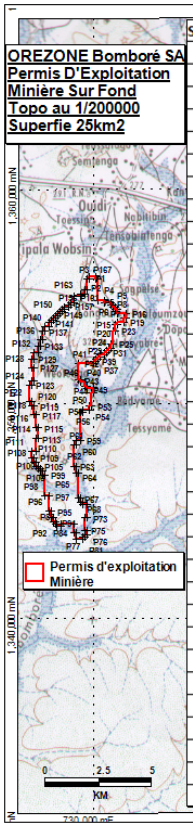
Location Map

January 2017

Source: Map No. 4230, United Nations, 2004.

The boundaries of each permit are defined by corner posts positioned according to geographic coordinates (UTM Clarke 1880 ellipsoid, Adindan datum, Zone 30) as indicated on the regional land tenure map (Tables 4-1 and 4-2, and Figure 4-2). The boundaries of mining permits must be physically marked on the ground and legally surveyed within six months of its issuance. The boundaries of exploration permits are not subject to this requirement.

TABLE 4-1 BOMBORÉ MINING PERMIT
Orezone Gold Corporation – Bomboré Project



Sommets	X	Y	Sommet	X	Y	Sommet	X	Y	Sommets	X	Y	Sommet	X	Y
P1	729820	1355687	P35	730320	1351987	P69	729420	1345187	P103	727520	1346787	P137	727620	1353187
P2	730120	1355687	P36	730220	1351987	P70	729520	1345187	P104	727420	1346787	P138	727720	1353187
P3	730120	1355587	P37	730220	1351887	P71	729520	1345087	P105	727420	1346887	P139	727720	1353387
P4	730220	1355587	P38	730120	1351887	P72	729720	1345087	P106	727320	1346887	P140	727920	1353387
P5	730220	1354587	P39	730120	1351787	P73	729720	1344487	P107	727320	1347087	P141	727920	1353587
P6	730520	1354587	P40	730020	1351787	P74	729620	1344487	P108	727220	1347087	P142	728020	1353587
P7	730520	1354487	P41	730020	1351687	P75	729620	1343887	P109	727220	1347287	P143	728020	1353687
P8	730820	1354487	P42	729320	1351687	P76	729720	1343887	P110	727120	1347287	P144	728120	1353687
P9	730820	1354387	P43	729320	1350887	P77	729720	1343687	P111	727120	1347587	P145	728123	1353783
P10	730920	1354387	P44	729420	1350887	P78	729620	1343687	P112	727320	1347587	P146	728220	1353787
P11	730920	1354287	P45	729420	1350787	P79	729620	1343587	P113	727320	1348187	P147	728220	1353887
P12	731020	1354287	P46	729620	1350787	P80	729520	1343587	P114	727420	1348187	P148	728320	1353887
P13	731020	1354187	P47	729620	1350587	P81	729520	1343487	P115	727420	1348687	P149	728320	1353987
P14	731120	1354187	P48	729720	1350587	P82	729220	1343487	P116	727320	1348687	P150	728420	1353987
P15	731120	1353987	P49	729720	1350487	P83	729220	1343787	P117	727320	1349287	P151	728420	1354087
P16	731520	1353987	P50	730020	1350487	P84	729120	1343787	P118	727220	1349287	P152	728520	1354087
P17	731520	1353787	P51	730020	1350287	P85	729120	1344187	P119	727220	1349687	P153	728520	1354187
P18	731420	1353787	P52	729920	1350287	P86	728520	1344187	P120	727120	1349687	P154	728620	1354187
P19	731420	1353587	P53	729920	1349687	P87	728520	1344087	P121	727120	1349887	P155	728620	1354287
P20	731120	1353587	P54	729820	1349687	P88	728320	1344087	P122	727020	1349887	P156	728820	1354287
P21	731120	1353487	P55	729820	1349487	P89	728320	1344187	P123	727020	1350687	P157	728820	1354387
P22	731020	1353487	P56	729520	1349487	P90	728220	1344187	P124	727120	1350687	P158	728920	1354387
P23	731020	1353187	P57	729520	1349387	P91	728220	1344287	P125	727120	1350887	P159	728920	1354487
P24	730920	1353187	P58	729420	1349387	P92	728120	1344287	P126	727220	1350887	P160	729120	1354487
P25	730920	1352587	P59	729420	1348087	P93	728120	1344487	P127	727220	1351487	P161	729120	1354787
P26	730820	1352587	P60	729220	1348087	P94	728020	1344487	P128	727120	1351487	P162	729420	1354787
P27	730820	1352387	P61	729220	1347887	P95	728020	1344787	P129	727120	1351887	P163	729420	1354887
P28	730720	1352387	P62	729120	1347887	P96	727920	1344787	P130	727220	1351887	P164	729620	1354887
P29	730720	1352287	P63	729120	1346887	P97	727920	1345487	P131	727220	1352187	P165	729620	1355087
P30	730620	1352287	P64	729220	1346887	P98	727720	1345487	P132	727420	1352187	P166	729720	1355087
P31	730620	1352187	P65	729220	1346587	P99	727720	1346487	P133	727420	1352487	P167	729720	1355587
P32	730520	1352187	P66	729320	1346587	P100	727620	1346487	P134	727520	1352487	P168	729820	1355587
P33	730520	1352087	P67	729320	1345387	P101	727620	1346687	P135	727520	1352787			
P34	730320	1352087	P68	729420	1345387	P102	727520	1346687	P136	727620	1352787			

TABLE 4-2 TOÉYOKO PERMIT LAND TENURE
Orezone Gold Corporation - Bomboré Project

Corner	Easting	Northing
A	723,300E	1,351,879N
B	725,450E	1,351,879N
C	725,450E	1,342,800N
D	733,000E	1,342,800N
E	733,000E	1,338,300N

Note. UTM Projection: Clarke 1880, Adindan datum, Zone 30 North

The Bomboré Mining Permit is registered in the name of Orezone Bomboré S.A. (OBSA), a 90% owned subsidiary of Orezone Inc. s.a.r.l., itself a 100% owned subsidiary of Orezone Inc., which is 100% owned by Orezone. The Bomboré Mining Permit was granted to OBSA in August 2016 and is valid for the mine life indicated in the FS, and up to ten years if the mine life is extended beyond what was initially applied for. It can be renewed thereafter for consecutive periods of five years until exhaustion of the reserves and closure of the mine.

The Toéyoko Exploration Permit is registered in the name of Société Orezone Inc. (Société Orezone). It was granted to Société Orezone in July 2011 and is valid until July 13, 2017 when it will be renewable for the last of two possible three year additional terms.

The Mineral Resources reported in this report are essentially located within the Bomboré Mining Permit (Figure 4-2), with one small deposit on the Toéyoko Exploration Permit (P17S) and one small deposit on the Bomboré III Exploration Permit application.

UNDERLYING AGREEMENT

The current Property was originally covered by a prospecting authorization covering 605,800 ha, granted to Générale de Mines et de Carrières (GMC) in 1989. In January 1994, following changes in the Mining Act in 1993, a modified exploration permit covering 210,800 ha was issued to GMC.

Channel Mining (Barbados) Company, Ltd. (Channel) entered into an option agreement giving it a 90% working interest in the exploration permit, leaving GMC with a 10% carried interest. In the summer of 1997, GMC converted its 10% interest into Channel shares.

A sub-option agreement reached with Solomon Resources Limited (Solomon) allowed Channel to secure financing for further exploration. By the end of 1997, Solomon earned a 45% interest, leaving Channel with a 10% carried interest and a 45% interest in the permit. The exploration permit was renewed in early 1998.

In 1999, Placer Dome (Africa) Inc. (Placer) reached an agreement to earn a 20% interest in the exploration permit but never fulfilled the conditions to earn in. In July 2001, the exploration permit was reduced to 150,000 ha upon renewal.

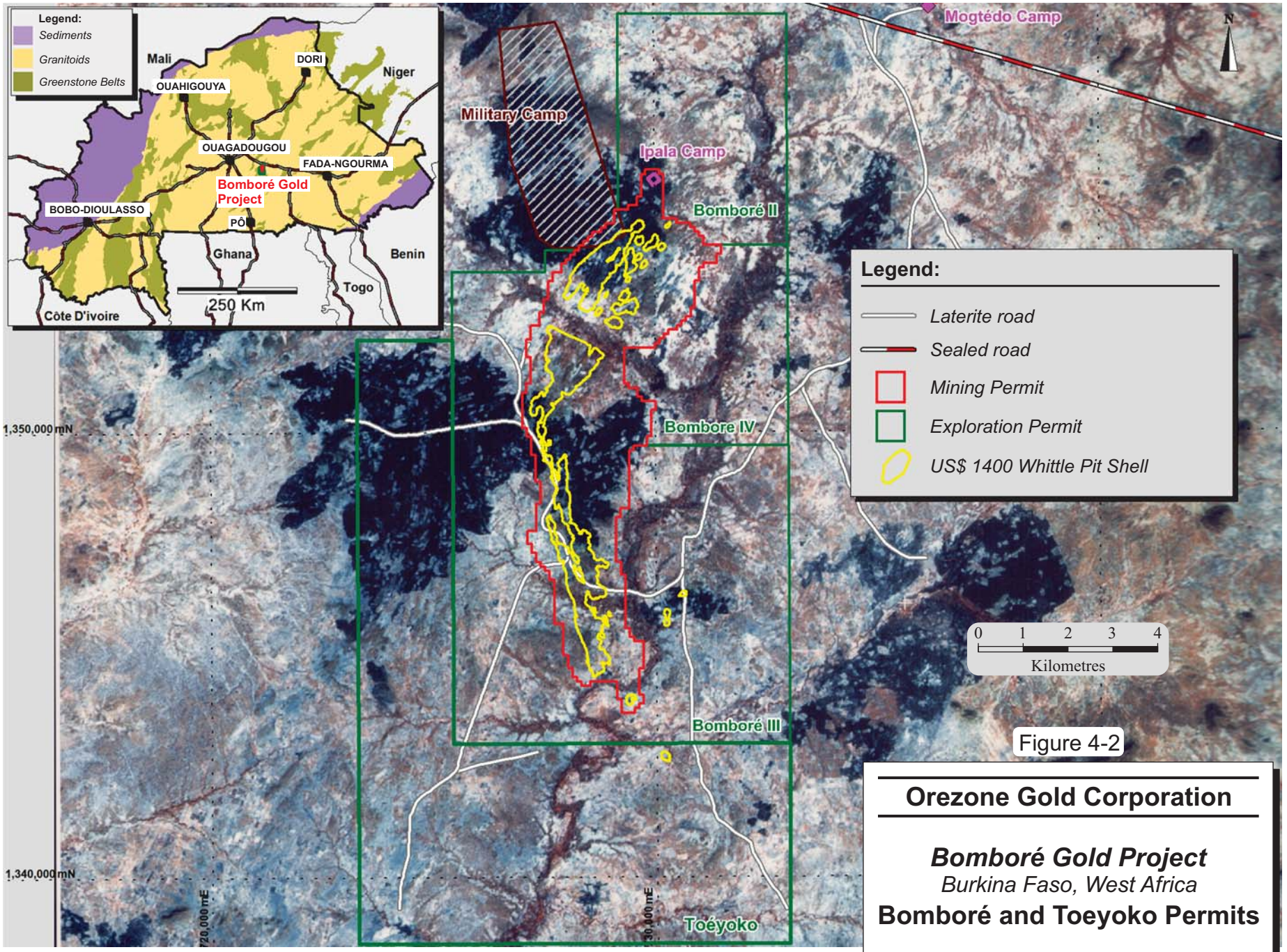


Figure 4-2

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Bomboré and Toeyoko Permits

January 2017

Datum WGS 84, UTM Zone 30N

Source: Orezone, 2016.

Orezone's rights to the Property arise from an initial option agreement signed in 2002 by Orezone's predecessor Orezone Resources with Channel and Solomon granting Orezone Resources the right to earn a 50% interest in the Project. In 2004, the original Bomboré exploration permit expired and a new Bomboré I exploration permit covering 25,000 ha was granted to Société Orezone, a subsidiary of Orezone Resources, by the MEMC on February 17, 2004. Orezone Resources earned its 50% interest in the Project by issuing 150,000 common shares, making a C$40,000 payment, and spending C$2 million on exploration before January 17, 2007. The Bomboré I exploration permit was renewed on May 14, 2007 and reduced to 10,450 ha.

On September 3, 2008, Orezone Resources announced that it had purchased the remaining interest in the Bomboré 1 exploration permit from Channel and Solomon in consideration of one million common shares of Orezone Resources (Orezone Resources News Release dated September 3, 2008).

On February 25, 2009, Orezone Resources and IAMGOLD announced that IAMGOLD had acquired Orezone Resources pursuant to a plan of arrangement under the Canada Business Corporations Act (IAMGOLD, 2009). As part of the business agreement between Orezone Resources and IAMGOLD, a new exploration company, Orezone Gold Corporation, was incorporated and acquired certain assets and liabilities of Orezone Resources, including the Bomboré I exploration permit. There was no further relationship with IAMGOLD after the transaction closed other than IAMGOLD becoming a shareholder of Orezone Gold Corporation.

The Bomboré I exploration permit was renewed for the third and last time on December 13, 2012 and expired on February 17, 2016. Orezone's subsidiary Orezone Bomboré S.A. applied on May 25, 2015 for an Operating Mining Permit, which was granted in August 2016. Under the 2015 Mining Act (Article 42), which was in force when the Bomboré I exploration permit expired and when the Bomboré Mining Permit was granted, the portion of the Bomboré I exploration permit that was not covered by the Mining Permit application can be covered by a new exploration permit application. On June 3, 2016, Orezone Inc. s.a.r.l., a wholly-owned subsidiary of Orezone, submitted three new exploration permit applications to cover most of the former Bomboré I exploration permit ground that surrounds the Bomboré Mining Permit. Decisions regarding these applications are expected later in 2017.

PERMITS, PERMITTING PROCESS AND THE MINING ACT

In Burkina Faso, the state owns title to all mineral rights. The Government of Burkina Faso passed into law Decree No. 2015-885/PRES-TRANS pertaining to the Mining Code of Burkina Faso (Mining Code) that is administered by MEMC. The Mining Code provides the legal framework for the mining industry in the country. Mineral rights are acquired through a map-based system by direct application to the MEMC. The Government retains a 10% free equity in all mining ventures.

There are six types of mineral rights, two of which pertain to the Project:

1. Research Permit
2. Industrial Operating Permit
3. Semi Mechanized Small-Scale Operating Permit
4. Prospecting Authorization
5. Traditional Artisanal Mining Authorization
6. Quarrying Authorization

A Research Permit (*Permis de Recherche* or Exploration Permit), such as Orezone's Toéyoko Exploration Permit, is granted by order of the MEMC to any person or legal entity (not necessarily a Burkinabe company) by application to the administrative authorities. The surface area of an exploration permit cannot exceed 25,000 ha. The application document must include payment of the application fee of 1,000,000 CFA and a proposed work program for the first year of the permit. An exploration permit may be assigned or transferred subject to the approval of the MEMC.

The exploration permit is valid for three years commencing on the date of the grant of the order. It may be renewed twice for subsequent periods of three years. At the second renewal, the size of the permit must be reduced by at least 25%. A renewal application must be filed at least three months prior to the expiration date. The renewal fee varies from 1,500,000 CFA for the first renewal to 2,000,000 CFA for subsequent renewals. The renewal is granted provided that the holder has fulfilled its obligations pursuant to the Mining Code and that its application complies with mining regulations.

The exploration permit gives its holder the exclusive right to explore the mineral substances applied for and to use freely products extracted during exploration. These rights can be extended, via subsequent application, to other mineral substances within their perimeters.

During the validity of an exploration permit, its holder also has the right to apply for an Industrial Operating Permit (*Permis d'exploitation industrielle,* or Mining Permit) if, in conducting exploration activities, the holder has outlined a "mineable" reserve in compliance with the Mining Code.

The mining permit, such as the Bomboré Mining Permit, is granted by the Council of Ministers at the request of the Minister in charge of the MEMC following the positive review by the Minister in charge of the Ministry of Environment, Green Economy and Climate Change (*Ministère de l'environnement, de l'économie verte et du changement climatiques,* or MEEVCC) and of the National Mining Commission (*Commission Nationale des Mines,* or CNM) to the holder of a exploration permit who is in compliance with the Mining Act and has submitted an application for a mining permit at least three months prior to the expiry of the exploration permit. Applications must include a feasibility study, an Environmental and Social Impact Assessment (ESIA), and a Resettlement Action Plan (RAP) if anybody must be expropriated to allow for the development of the mining project. Any change to the feasibility study, deposit development, and production plan during the life of this permit must be approved by the MEMC and CNM.

Once a mining permit is granted, the exploration permit for the mining permit area is terminated, and the holder is given the exclusive right to conduct exploration and exploitation of the deposits in the area, where it may possess, hold, transport, and sell extracted mineral substances on domestic or foreign markets. The holder is also given the right to build ore treatment installations and transport extracted minerals. The permit is valid for ten years from the date of grant for large mines and ten years from the date of grant for small mines, both renewable for a consecutive period of five years until the exhaustion of the deposit. A mining permit is subject to variable application, renewal, or transfer fees based on the size of the operation. The surface area of an exploitation permit is contingent on the size of the deposit and infrastructure requirements and must have its perimeter marked out by a chartered surveyor.

The mining permit holder must begin production activities within two years of the mining permit grant date (Article 52), however, an exemption to this obligation may be obtained by a joint order from the MEMC and the Minister of Finance (Article 53). This exemption is always granted when the economics of the project are not favourable to its financing, as

demonstrated by an economic study to be produced by the mining permit holder. After six years, the issuing authority may withdraw the permit as per Article 112 of the Mining Act.

On August 11, 2016, the Burkina Faso Council of Ministers also approved the Project in their Report from the Council of Ministers MC-RP No 029-2016 thereby granting the Project a mining permit.

ROYALTIES AND OTHER FINANCIAL OBLIGATIONS

All mining ventures in Burkina Faso are subject to a 10% carried interest and a royalty on gold produced in favour of the Government of Burkina Faso, once a mining convention is signed and an operating permit is awarded by the government. A decree issued by the government in 2010 has modified the royalty formula to allow for royalty increases based on the price of gold; a 3% base royalty at gold prices less than US$1,000/oz increasing to 4% at gold prices between US$1,000/oz and US$1,300/oz and 5% at gold prices in excess of US$1,300/oz.

A 0.45% NSR royalty held by Sandstorm Gold Ltd. can be bought back by the Company for US$3.3 million to US$3.9 million prior to January 2018 and the Company intends to complete this purchase.

The Mining Act guarantees a stable fiscal regime for the life of any mine developed. It also guarantees stabilization of financial and customs regulations and rates during the period of the exploitation to reflect the rates in place at the date of signing. Furthermore, the Mining Act states that no new taxes can be imposed with the exception of mining duties, taxes, and royalties. The title holder can benefit from any reductions of tax rates during the life of the exploitation licence.

RPA is not aware of any environmental liabilities on the Property. Orezone has all required permits to conduct the proposed work on the Property. RPA is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

ACCESSIBILITY

The Property is located approximately 85 km to the east of the capital city of Ouagadougou, in Ganzourgou Province, Région du Plateau Central, Burkina Faso. Ouagadougou is serviced by daily flights from various cities in Europe. The Property is readily accessible from Ouagadougou along paved national highway RN4.

The property is easily accessed during the dry season by four-wheel drive vehicles using well-travelled roads and trails. Access during the rainy season is restricted to a degree, as parts of the permit area are waterlogged and flooded by overflowing rivers, however, the main service road on the Property, which accesses the area of the Bomboré deposit, is passable year-round.

CLIMATE

The Project is located in the subtropical steppe, low latitude dry zone of the Koppen-Geiger System of Climate Classification.

The area is characterized by two contrasting seasons:

- A dry season from mid-October to April characterized by dry Harmattan winds blowing from the Sahara Desert towards the coast. The Harmattan is dry and cool from November to February, and hot and dry from March to April.
- A rainy season from May to mid-October during which cool and moist monsoon winds are blowing from the coast towards the Sahara Desert.

The temperature averages 29ºC and ranges from lows of approximately 18ºC in December and January to highs of approximately 40°C in April. Atmospheric humidity averages 45% and ranges from a low of approximately 6% in February to highs of approximately 96% in August and September.

Rainfall ranges from 0 mm in November to March to a maximum averaging 234 mm in August. Evapo-transpiration averages 153 mm per month and ranges from a low of 103 mm in August to a high of 203 mm in March.

Mean daily sunshine hours average 9.2 hours per day, ranging from a low of eight hours per day in December to a high of 9.8 hours per day in April.

Table 5-1 illustrates the major climatic data for weather stations in Ouagadougou and Fada N'Gourma, located approximately 85 km to the west and 115 km to the east of the Property, respectively.

TABLE 5-1 CLIMATIC DATA - OUAGADOUGOU AND FADA N'GOURMA
Orezone Gold Corporation - Bomboré Project

	Ouagadougou	Fada N'Gourma
Average January temperature	32.9°C	33.5°C
Average July temperature	34.7°C	31.6°C
Extreme maximum temperature	46.1°C	48.5°C
Extreme minimum temperature	8.5°C	8.4°C
Average annual rainfall	743.8 mm	795.9 mm
Average annual relative humidity	48%	53%
Average annual rainy days (≥0.1 mm)	68	69

Source: World Meteorological Association

LOCAL RESOURCES AND INFRASTRUCTURE

The Bomboré Mining Permit area is sparsely populated. The local population largely depends on subsistence farming, cattle breeding, and artisanal gold mining. The livestock consists mainly of cows, sheep, goats, hogs, and poultry. Artisanal gold miners or "orpailleurs" have been active at several sites in the permit area for the last 20 years and approximately 20% of the permit area has been affected by their activities. Artisanal miners extract gold from the saprolite horizon, but also sink shafts as deep as 45 m to recover gold from quartz veins.

A sponsored and spontaneous immigration program was set up in the 1970s and 1980s by the Volta Valley Authority (*Autorité pour l'Aménagement des Vallées des Volta,* or AVV). The aim of the program was to encourage the resettlement from arid lands into the more

fertile upper White Volta River (locally called Nakambé River) basin. Although many of the original households have left the area, some buildings from the program are still standing in the Mogtédo-Bomboré area. A military artillery range is located to the northwest of the Maga grid, but is only intermittently in use.

INFRASTRUCTURE

The existing infrastructure at the Project includes a camp, core shack, light vehicle shop, and 18,000 sample per month sample preparation facility. New infrastructure requirements are envisioned for an open pit mine.

PHYSIOGRAPHY

The topography of the Property is generally flat with low hills, in the order of 30 m to 50 m in elevation, and an average altitude of 276 MASL. The land surface consists of limited outcrop and sub-crop, and hard ferruginous lateritic cap rock that form a gently southwesterly sloping plateau, with an average elevation of 290 MASL in the northern portion of the Project and 267 MASL in the southern portion. The highest point culminating at an elevation of 344 MASL is the Siga hills located to the east of the Mogtédo V3 village.

The Bomboré River crosses the Project along a north-northeast south-southwest course and its tributaries follow northeast and northwest directions. The Bomboré River is a tributary of the Nakambé River. The drainage pattern is rectangular–dendritic, reflecting late fracture systems trending north-south, east-west, and northwest-southeast and the predominantly north-northeast trend of the stratigraphic units.

Vegetation in uncultivated areas comprises mostly savannah woodlands, with dense bush growing only near streams and rivers. Farmers cultivate staple crops such as millet, rice, sorghum, and maize corn, and cash crops such as cotton, sesame, and groundnuts. Deforestation is widespread over the permit area. Wildlife is mostly restricted to small game and birds, but snakes are common, and a few monkeys have been reported. The southwest corner of the Property lies approximately 11 km away from the classified forest of the Nakambé River. As it flows southwards toward Ghana, the Nakambé River marks the border of this protected area.

RPA is of the opinion that, to the extent relevant to the mineral project, there is a sufficiency of surface rights and water.

6 HISTORY

The following is taken from Defilippi et al (2015).

PRIOR OWNERSHIP

In 1989, GMC was issued with a prospecting authorization covering 605,800 ha, including the area of the current Property. In January 1994, following changes to the Mining Act in 1993, a modified exploration permit covering an area of 210,800 ha was issued to GMC.

Channel subsequently entered into an option agreement with GMC whereby it could earn a 90% interest in the modified exploration permit. In 1997, GMC converted its 10% interest into Channel shares. Solomon entered into an agreement with Channel and by the end of 1997 had earned a 45% interest. The permit was renewed in 1998.

In 1999, Placer reached an agreement whereby it could earn a 20% interest in the Property. Placer failed to earn its interest.

In July 2001, the exploration permit was reduced to 150,000 ha.

In 2002, Orezone's predecessor company, Orezone Resources entered into an agreement with Channel and Solomon whereby it could earn a 50% interest in the exploration permit. In 2004, the original exploration permit expired and the 25,000 ha Bomboré I exploration permit was granted to a subsidiary of Orezone Resources. Orezone Resources vested a 50% interest in the Bomboré I permit by making a cash payment, issuing shares, and making specified exploration expenditures by January 2007. The Bomboré I exploration permit was renewed in May 2007 but was reduced in area to 10,450 ha.

On September 3, 2008, Orezone Resources announced that it had purchased the remaining 50% interest in the Bomboré exploration permit from Channel and Solomon in exchange for one million common shares.

On February 25, 2009, Orezone Resources and IAMGOLD announced that IAMGOLD had acquired Orezone Resources pursuant to a plan of arrangement under the Canada Business Corporations Act (IAMGOLD, 2009). As part of the business agreement between Orezone

Resources and IAMGOLD, a new exploration company, Orezone Gold Corporation, was incorporated and acquired certain assets and liabilities of Orezone Resources, including the Bomboré I exploration permit. There was no further relationship with IAMGOLD after the transaction closed other than IAMGOLD becoming a shareholder of Orezone Gold Corporation.

EXPLORATION AND DEVELOPMENT HISTORY

Between 1989 and 2000, various phases of mineral exploration were completed within the area now covered by the Project. A summary of the historical exploration activities undertaken in the Project area between 1989 and 2000 is presented in Table 6-1.

TABLE 6-1 SUMMARY OF HISTORICAL EXPLORATION FROM 1989 AND 2000
Orezone Gold Corporation – Bomboré Project

Company	Period	Exploration Activity
GMC	1989 – 1994	• Soil geochemistry, trenching, rock sampling. • Evaluation of orpaillage sites.
Channel/Solomon	1994 – 1995	• Soil geochemistry (3,350 samples). • Ground magnetic (172.4 km) and VLF-EM (175.5 km). • Geological mapping (1/2500: 1,670 ha; 1/1000: 4 ha). • Rock sampling (287 samples). • 57 reverse circulation (RC) boreholes within the Bomboré First Target (BFT) (5,941 m). • Airborne geophysical surveys (8,548 m lines, 300 m spacing): magnetic, radiometric, very low frequency electromagnetic (VLF-EM). • Satellite data (SPOT) interpretation. • Soil geochemistry (5,666 samples, 500 x 500 m grid). • P23: 21 trenches (5,398 m), rock sampling, and geological mapping.
	1996 – 1997	**Bomboré Project Area:** • Geological mapping, trenching, and rock sampling (4,893 samples). • Soil and termite sampling (9,521 samples). • 126 RC boreholes (9,011 m). • 361 rotary air blast (RAB) boreholes (13,132 m). • Geological mapping, rock and soil sampling outside the BFT area (Sabse, Sogdin, Zabre, Ziga, Boudry-Tanguin and Meguet). • Soil sampling in SW and SE sectors of the permit (Nakambé and Mankarga). • Petrography study (21 samples).
	1998	• 639 RAB boreholes (21,117 m) (to 200 m spacing in some key areas). • 10 core boreholes (1,080 m).

Company	Period	Exploration Activity
Channel/Solomon/ Placer Dome	1999 – 2000	• 76 RC boreholes (4,402 m) at P8/P9, Maga and Colline de Fusille. • 168 RAB boreholes (3,633 m) at Mankarga.

GMC (1989 to 1994)

Initial exploration work at the Project was conducted by GMC during the period 1989 to 1994. Exploration activities included soil geochemical surveys, trenching, rock sampling, and data collection from the artisanal miners. The current Project area was included in a large prospecting authorization covering 605,800 ha granted to GMC in 1989. In January 1994, following changes in the Mining Act in 1993, a modified exploration permit of 210,800 ha was issued to GMC.

CHANNEL, SOLOMON AND PLACER (1994 TO 2001)

From 1994 to 2001, exploration consisted of geochemical, geophysical, geological, and trenching programs as well as some 1,271 rotary air blast (RAB), reverse circulation (RC), and diamond drill core holes. Limited petrographic and metallurgical studies were also completed.

1994 to 1995

Channel began its exploration activities with mapping and sampling of outcrops and orpaillage sites, soil geochemistry, ground magnetic, and electromagnetic (VLF-EM) surveying. These activities were focused on four grids covering various *orpaillage* sites. An RC drilling program of 57 holes totalling 5,937 m returned significant gold intersections on the P16, P17, P12 (Siga), P8, P9, and KT zones on the Bomboré First Target (BFT), which was identified as the major exploration target on the exploration permit. The BFT was completely covered by the Bomboré I exploration permit. The exploration results from this period are covered in detail in a series of Channel reports (Holt, 1994; Holt, 1995; Chisholm, 1995; and Anderson, 1995).

1996 to 1997

The following exploration was conducted by Channel in 1996 over the entire exploration permit in preparation for a drill program:

- a geophysical airborne survey totalling 8,548 line-km at a nominal line spacing of 300 m including magnetic and radiometric surveys (Aerodat, 1996);
- the acquisition and interpretation of SPOT imagery (Anon., 1996);

- a reconnaissance soil geochemical survey at a 500 m x 500 m grid spacing over priority areas (5,666 samples);
- a reconnaissance geological survey (322 outcrop samples collected).

Follow-up work was also completed over the BFT area:

- soil and termite-mound sampling on 400 m x 100 m and 50 m x 25 m grids (9,521 samples collected);
- trenching (21 trenches totalling 5,398 m);
- geological mapping and rock sampling (4,893 samples, including in trenches);
- an RC drilling program of 127 holes totalling 9,091 m.

Outside the BFT area, the target definition work consisted of geological mapping, and rock and soil sampling over seven grids (Sabse, Sogdin, Zabre, Ziga, Boudry-Tanguin, and Meguet). Soil sampling was also performed over the southwestern and southeastern parts of the permit (Nakambé and Mankarga). These areas lay outside the Bomboré 1 permit area.

Channel completed the first internal resource estimate over the BFT in 1997 (Guérard, 1997a). Following this initial resource estimate, a systematic drilling program was initiated: RAB drill fences 1,500 m apart were completed across the entire width of the BFT, which helped to define and extend the main axes of mineralization and detect new zones. Some 361 RAB holes were completed in 1997, totalling 13,132 m and averaging 32 m in depth.

The exploration results from this period are covered in detail in a series of Channel reports (Davis, 1996; Learn, 1996a; Learn et al., 1996; and Guérard, 1997a).

1997 to 1998

Preliminary metallurgical and mineralogical test work was conducted on RAB and RC drill samples at the SGS laboratory in Kumasi, Ghana.

The RAB program continued in 1998 when the fence spacing was reduced to 800 m or even 200 m in some areas; 639 new RAB holes were completed in 1998, totalling 21,117 m with an average depth of 33 m. The new RAB holes confirmed the continuity of the known mineralized zones and resulted in the discovery of new ones in the P11 and P8/P9 NE areas.

In June 1998, ten diamond drill holes confirmed the width and grade of previous drill intersections. A petrographic study was performed by Lakefield Research Limited on polished thin sections cut from 21 core samples (Krstic, 1998; Grammatikopoulos, 1998). The drilling data were used to estimate Mineral Resources for the Project as documented in a report prepared by Channel (Guérard and Learn, 1998). A detailed technical report covering all the exploration work completed on the permit since 1994 was then completed (Guérard and Learn, 1998).

The exploration results from this period are covered in detail in a series of Channel reports (Guérard, 1997a; Guérard, 1997b; and Guérard, 1998).

1999 to 2001

In 2000, Placer's exploration focus was placed on RC and RAB drilling into the P8/P9, Maga, and CFU zones, and in the Mankarga Target Area. The exploration results from this period are covered in detail in a series of Channel reports (Guérard, 2000; and Learn, 2000).

There is no evidence of any exploration work by Channel after the drilling program that ended in February 2000.

The Bomboré exploration permit was reduced to 150,000 in July 2001.

HISTORICAL AND PREVIOUS MINERAL RESOURCE ESTIMATES

Mineral resources were previously estimated in 1997, 1998, 2008, 2010, 2012, 2013 and 2016 (Table 6-2). Mineral resources were first estimated by Channel in 1997 (Guérard, 1997a) and 1998 (Guérard, 1998) as listed in Table 6-2. These estimates are considered to be historical in nature, relevant as they demonstrate the mineralization on the Property, and should not be relied upon. A qualified person has not completed sufficient work to classify the historical estimate as a current Mineral Resource or Mineral Reserve and Orezone is not treating the historical estimates as current Mineral Resources or Mineral Reserves.

Mineral Resource estimates from 2008 onwards were made at the request of Orezone and are included here for completeness. Mineral Resource statements presented in Table 6-2 have been superseded by the Mineral Resource Statement presented in Section 14.

TABLE 6-2 PREVIOUS MINERAL RESOURCE ESTIMATES
Orezone Gold Corporation – Bomboré Project

Year	Operator	Author	Classification	Cut-off (g/t Au)	Tonnage (Mt)	Grade (Au)
1997	Channel	Channel [1]	Unclassified		14.1	1.20
1998	Channel	Channel [1]	Indicated		35.0	1.10
2008	Orezone	Met-Chem	Indicated	0.4	29.6	0.61
			Inferred		23.7	0.66
2008	Orezone	SRK [2]	Indicated	0.24/0.25/0.52	49.4	0.59
			Inferred		91.8	0.61
2010	Orezone	SRK [3]	Indicated	0.30/0.35/0.50	60.9	0.81
			Inferred		60.6	0.96
2012	Orezone	SRK [4]	Measured	0.45/0.45/0.50	58.6	0.99
			Indicated		66.4	1.06
			Inferred		32.1	1.00
2013	Orezone	SRK [4]	Measured	0.45/0.45/0.50	83.0	0.99
			Indicated		56.8	1.06
			Inferred		18.4	1.22
2016	Orezone	RPA[5]	Measured	0.2/0.45	40.6	0.72
			Indicated		131.4	0.73
			Inferred		24.26	0.74

Notes:

1. Historical resource estimate prepared before the development of NI 43-101. The reader is cautioned that these estimates should not be relied upon.
2. Mineral resources reported at a cut-off grade of 0.24 Au for laterite/oxide, 0.25 Au for transitional and 0.52 Au for fresh material.
3. Mineral resources reported at a cut-off grade of 0.30 Au for laterite/oxide, 0.35 Au for transitional and 0.50 Au for fresh material.
4. Mineral resources reported at a cut-off grade of 0.45 Au for laterite/oxide, 0.45 Au for transitional and 0.50 Au for fresh material.
5. Mineral resources reported at a cut-off grade of 0.2 g/t Au for oxide/transition and 0.45 g/t Au for fresh material.

INITIAL RESOURCE STATEMENT BY MET-CHEM

In 2007, Orezone commissioned Met-Chem Canada Inc. (Met-Chem) to prepare an initial Mineral Resource statement for the Project. This Mineral Resource estimate considered drilling information to March 2007 and is documented in a technical report prepared by Met-Chem dated February 28, 2008 (Buro and Saucier, 2008).

The initial resource estimate for the Project included 0.58 million ounces (Moz) of gold in the Indicated category (71% of which was from the weathered zone) and 0.50 Moz of gold in the Inferred category (61% of which was from the weathered zone).

2008 RESOURCE UPDATE BY SRK

In June 2008, Orezone commissioned SRK Consulting (Canada) Inc. (SRK) to audit an updated Mineral Resource model prepared by Orezone for the Project. This Mineral Resource statement considered drilling information to May 2008 and is documented in a technical report prepared by SRK and dated November 26, 2008 (Cole and El-Rassi, 2008).

The second resource estimate for the Project reported 0.93 Moz of gold in the Indicated category (81% of which was from the weathered zone) and 1.78 Moz of gold in the Inferred category (45% of which was from the weathered zone).

2010 RESOURCE UPDATE BY SRK

In July 2010, Orezone again commissioned SRK to audit an updated Mineral Resource model prepared by Orezone for the Project. This Mineral Resource estimate considered drilling information to July 2010 and is documented in a technical report prepared by SRK and dated November 29, 2010 (Cole and El-Rassi, 2010).

The third resource estimate for the Project included 1.59 Moz of gold in the Indicated category (65% of which was from the weathered zone) and 1.87 Moz of gold in the Inferred category (34% of which was from the weathered zone).

2012 RESOURCE UPDATE BY SRK

In March 2012, Orezone commissioned SRK to update the Mineral Resource model for the Project with assistance of Orezone for the geological and domain modelling. This Mineral Resource estimate considered drilling information to June 2012 and is documented in a technical report prepared by SRK and dated October 11, 2012 (Cole et al., 2012). This technical report also included technical information and economic parameters used in the earlier PEA completed by G Mining Services Inc. (GMSI) in August 2011 (Gignac et al., 2011).

The fourth resource estimate for the Project included 1.87 Moz of gold in the Measured category (44% of which was from the weathered zone), 2.26 Moz of gold in the Indicated category (41% of which was from the weathered zone), and 1.03 Moz of gold in the Inferred category (25% of which was from the weathered zone).

2013 RESOURCE UPDATE BY SRK

In November 2012, Orezone commissioned SRK to update the Mineral Resource model for the Project with assistance of Orezone for the geological modelling. This Mineral Resource

estimate considered drilling information to November 2012 for the North and South models, and to March 2013 for the Southeast model. It is documented in a PEA technical report prepared by GMSI and dated January 22, 2014 (Gourde, Gignac, and Menard, 2014).

The fifth resource estimate for the Project reported 2.63 Moz of gold in the Measured category (45% of which was from the weathered zone), 1.93 Moz of gold in the Indicated category (41% of which was from the weathered zone), and 0.72 Moz of gold in the Inferred category (26% of which was from the weathered zone).

2016 RESOURCE UPDATE BY RPA

In 2016, Orezone prepared an updated Mineral Resource estimate based on drill hole information to December 2014. The estimate was audited, classified, and reported by RPA in a NI 43-101 Technical Report dated October 31, 2016. At a cut-off grade of 0.2 g/t Au for oxide and transition material and 0.38 g/t Au for fresh layers, Measured plus Indicated Mineral Resources were estimated to be 171.95 Mt at an average grade of 0.73 g/t Au for a total of four million ounces of contained gold. Using the same cut-off grades, Inferred Mineral Resources were estimated to total an additional 24.26 Mt at an average grade of 0.74 g/t Au for 579,000 ounces of contained gold. The Mineral Resource estimate had an effective date of September 7, 2016. The 2016 Mineral Resource Estimate, did not include several mineralized drill intersections that have subsequently been included in this 2017 resource update through the addition of 391 wireframe domain models and modelling in the unconstrained third domain as performed by RPA since the 2016 estimate.

PAST PRODUCTION

Artisanal gold mining goes as far back as the GMC period (1989 to 1994). The historical gold production by artisanal miners is unknown.

7 GEOLOGICAL SETTING AND MINERALIZATION

REGIONAL GEOLOGY

The geology of Burkina Faso is dominated by the Proterozoic Baoulé-Mossi Domain, which corresponds to the eastern portion of the West African Craton. Neoproterozoic to Paleozoic sedimentary rocks cover the west and southeast of the country (inset of Figure 7-1).

The Baoulé-Mossi Eburnean orogenic domain contains Birimian (Lower Proterozoic) volcano-sedimentary units arranged in elongated belts and relics of the Archean basement. The belts generally trend north-northeast but form arcuate belts to the north of Ouagadougou. They are bounded by older granite gneiss terrains and have been intruded by syn- to late tectonic granite bodies.

The Birimian Supergroup has been divided into a Lower sequence comprised of wacke, argillite and volcanoclastic rock, and an Upper sequence of basalt with interflow sedimentary rock. Post-Eburnean marine and continental sedimentary rocks unconformably overlie the Lower Proterozoic sequences. The Birimian formations have been affected by three tectono-metamorphic phases with up to greenschist facies metamorphism.

The Project lies in a small northeast-trending belt located to the west of the major Tiébélé-Dori-Markoye Shear Zone that sub-divides the country into domains characterized by different structural patterns. Lithological and structural elements of the Project area are illustrated in Figures 7-1 and 7-2.

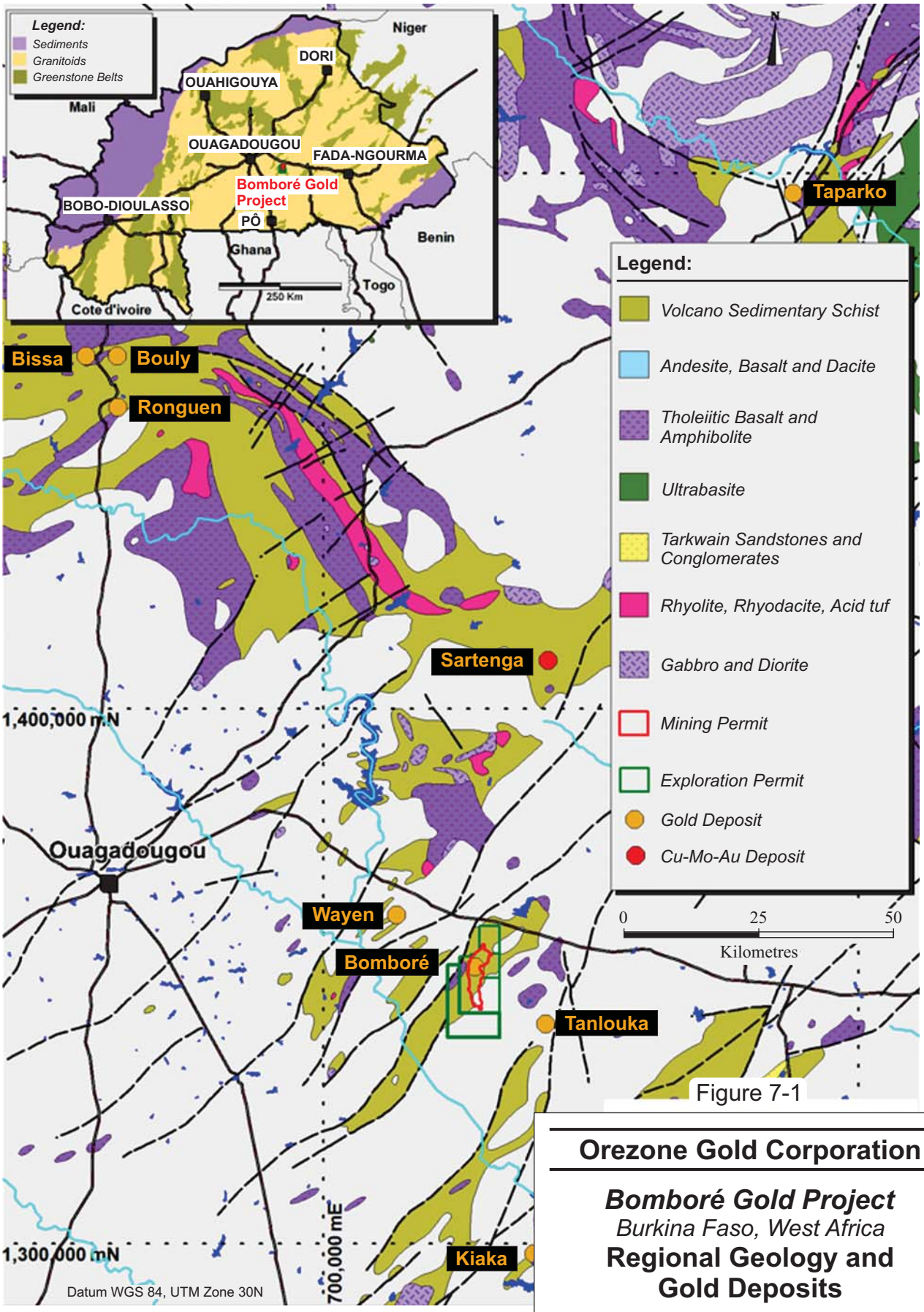


Figure 7-1

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Regional Geology and Gold Deposits

January 2017

Source: Orezone, 2016.

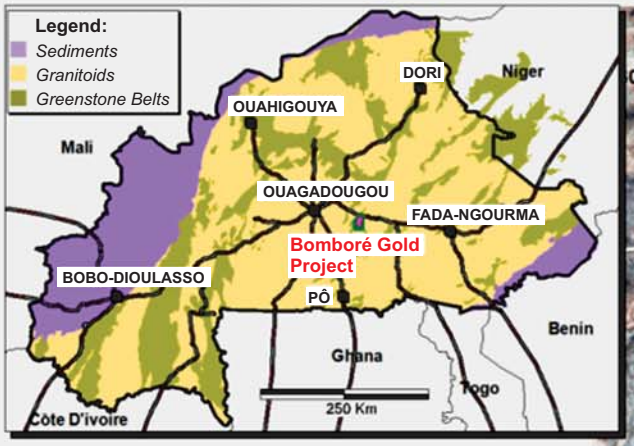
Figure 7-2

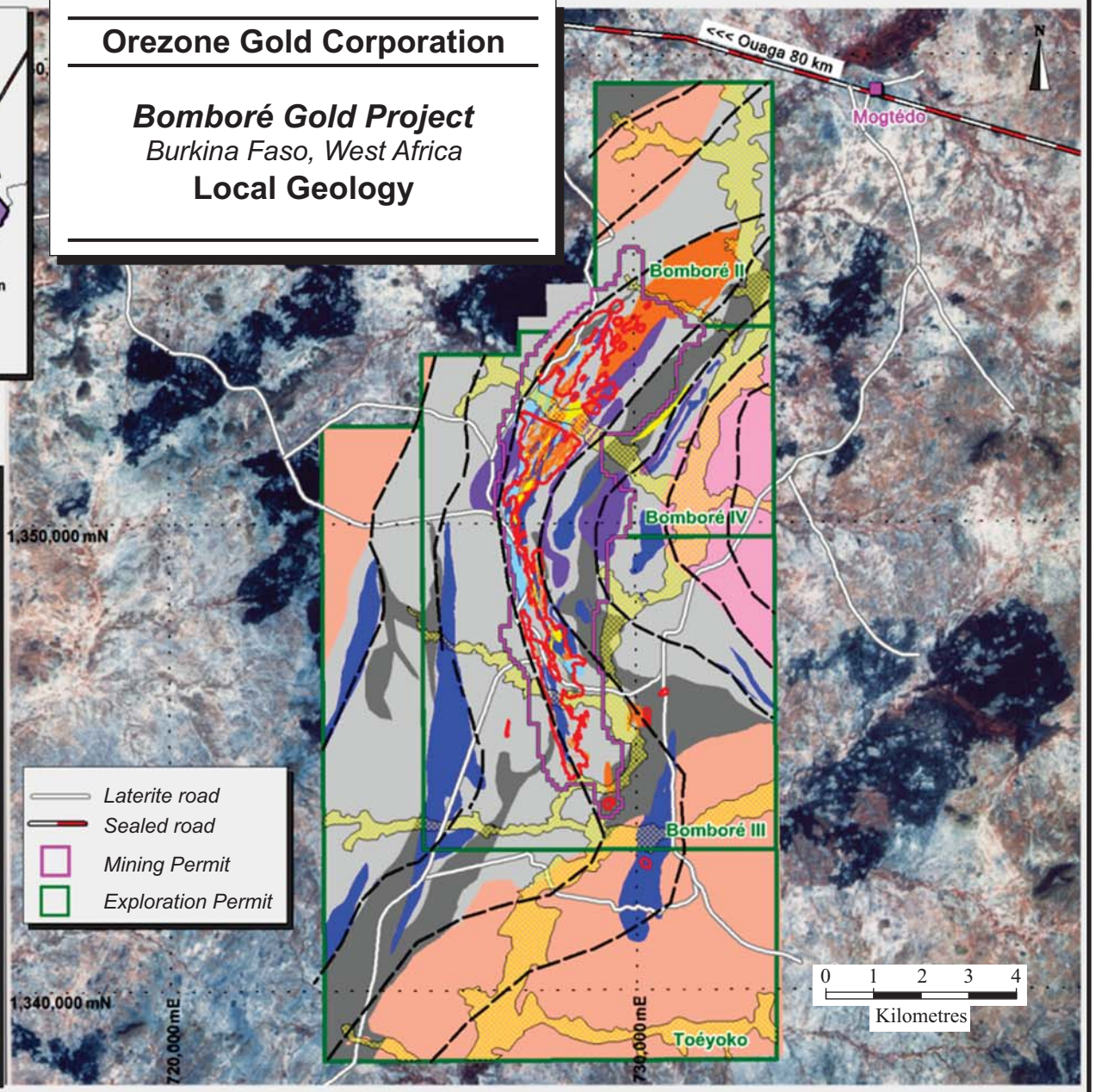
Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Local Geology





Legend:

- *Alluvium*
- *Quartz-Diorite*
- *Biotite Granite*
- *QFP-Porphyritic Granite*
- *Granodiorite*
- *Porphyritic granodiorite*
- *Meta-peridotite (talc schist)*
- *Meta-gabbro (biotite schist)*
- *Dolerite*
- *Polymictic Meta-conglomerate*
- *Meta-greywacke*
- *Graphitic (carbonaceous) Metapelite*
- *Interpreted Shear Zone*
- *US$ 1400 Resource Shell*

Datum WGS 84, UTM Zone 30N

January 2017

Source: Orezone, 2016.

PROPERTY GEOLOGY

The Project covers part of a northeast-southwest trending greenstone belt extending for 50 km from the southwest corner to the village of Meguet in the northeast. The permit area is underlain mainly by a meta-sedimentary flysch-type sequence dominated by meta-sandstones with subordinate carbonaceous meta-pelites and polymictic meta-conglomerates. This metasedimentary sequence is intruded by early meta-gabbroic and ultramafic intrusives and then syntectonic granodioritic intrusives. Late-tectonic quartz-feldspar porphyries occur as dikes and larger bodies within the greenstone belt. Large biotite granite intrusives are present on the Property to the west and to the south of the greenstone belt that is also molded on a large quartz diorite intrusive located along the eastern limit of the Project. A syenitic intrusion referred to as the Petite Suisse is exposed in the west portion of the Property.

The Bomboré Shear Zone (BSZ) is a major, one to three kilometre thick structure that contains the Bomboré gold mineralization and represents the dominant structural feature of the area. The Bomboré gold mineralization trend is defined by a gold-in-soil anomaly exceeding 0.1 g/t Au (Figures 7-3 and 7-4), as well as by the presence of numerous gold showings and *orpaillage* sites. The Bomboré anomaly measures 14 km in length, is several hundreds of metres in width, and occurs within the BSZ. Figures 7-3 and 7-4 illustrate the main mineralized areas.

Surface weathering has affected the rocks to an average depth of 35 m to 50 m, but can be as deep as 100 m on the P8/P9 and CFU hanging wall and as shallow as 5 m to 10 m in the P17 area.

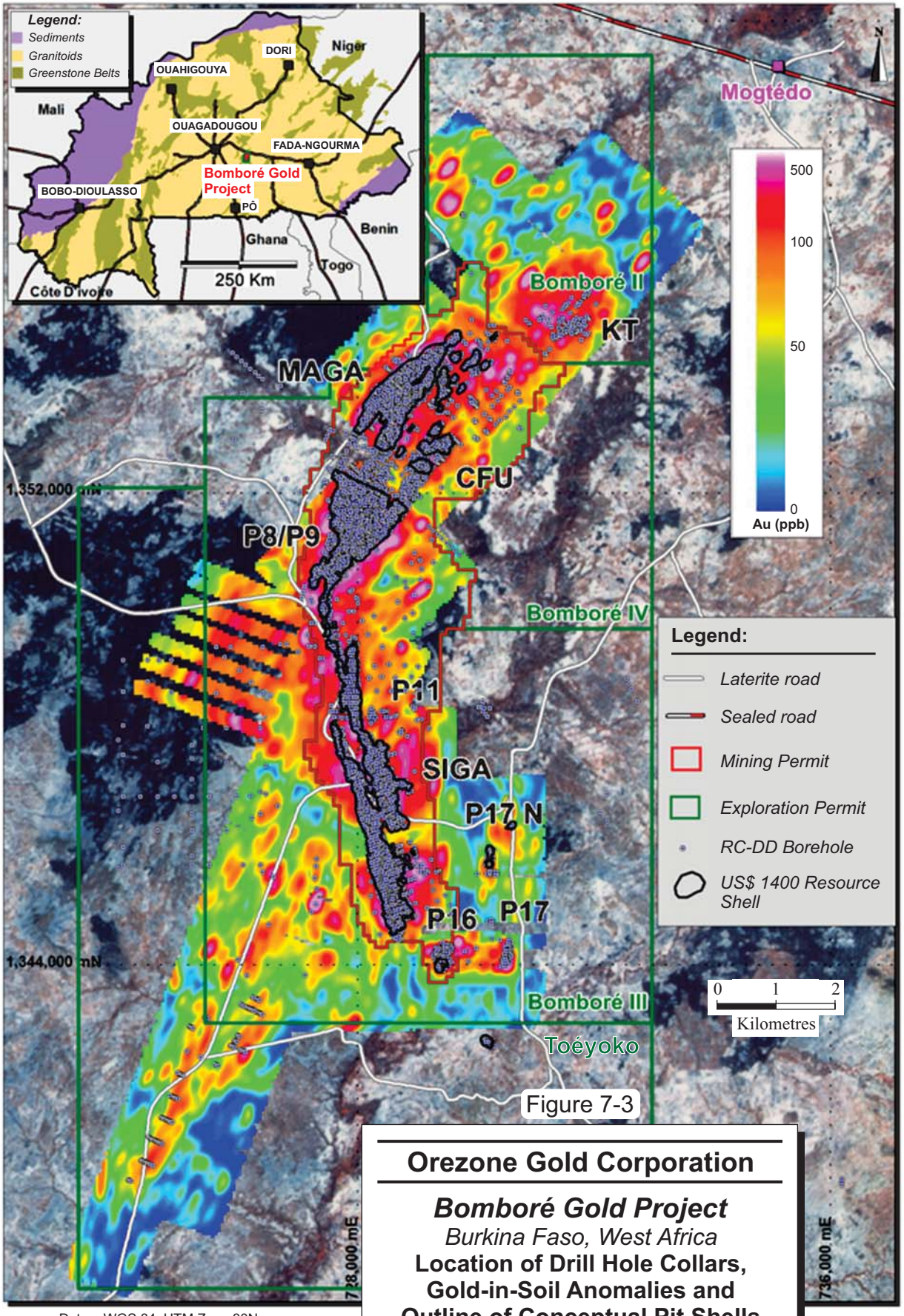


Figure 7-3

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Location of Drill Hole Collars, Gold-in-Soil Anomalies and Outline of Conceptual Pit Shells

Datum WGS 84, UTM Zone 30N

January 2017 ***Source: Orezone, 2016.***

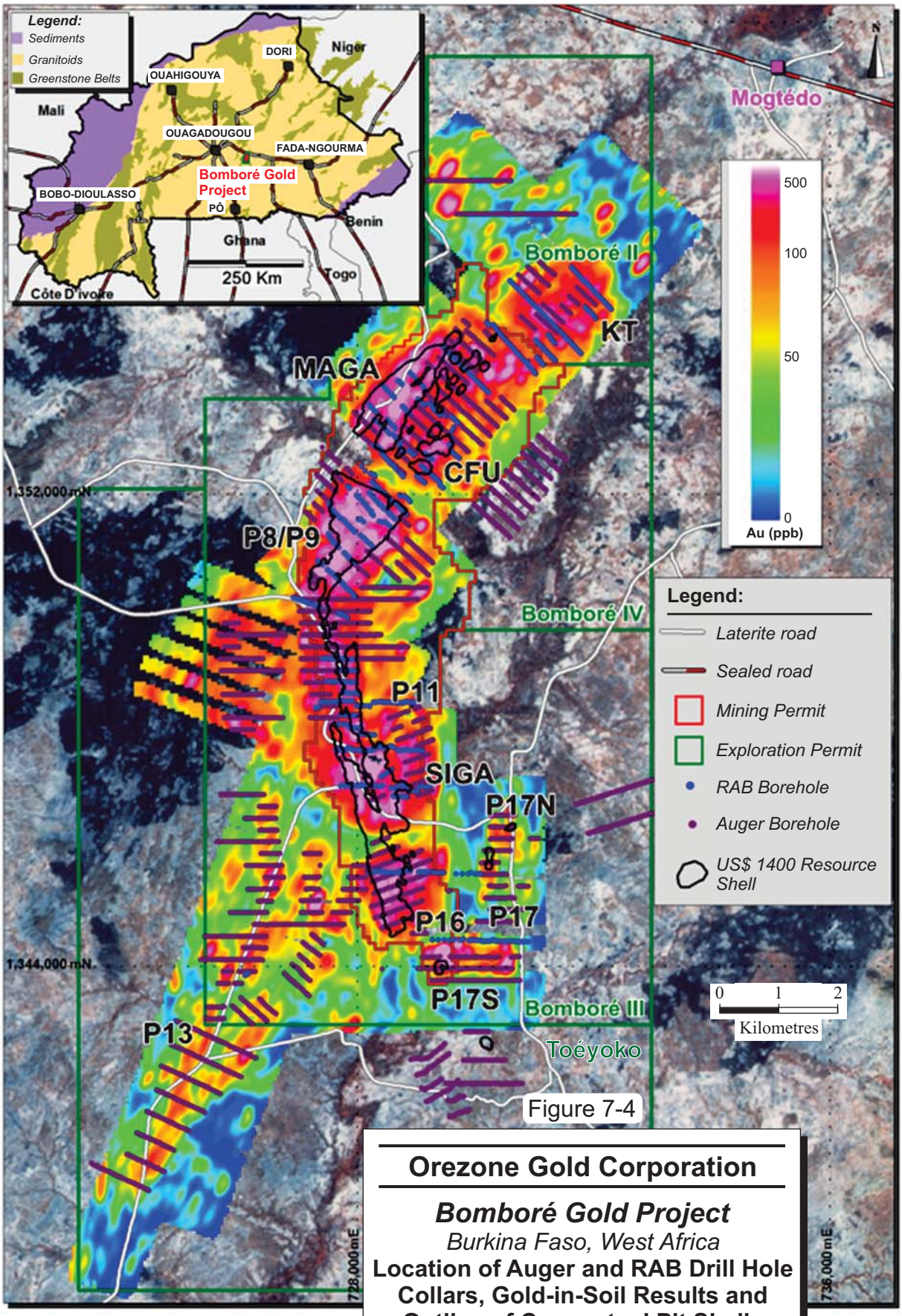


Figure 7-4

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Location of Auger and RAB Drill Hole Collars, Gold-in-Soil Results and Outline of Conceptual Pit Shells

Datum WGS 84, UTM Zone 30N

January 2017 ***Source: Orezone, 2016.***

LITHOLOGIES

Several lithological units have been recognized by Orezone on the Property, in surface outcrops, drill core, and RC chips. The current geological model integrates new information derived from additional drilling, petrographic examinations, and the systematic field X-ray fluorescence (XRF) analyses of all samples. The main lithological units are described below, from the oldest to youngest based on the current understanding of the Property litho-stratigraphic history. Representative major litho-types, as seen in the drill core, are shown in Figures 7-5 to 7-8. Plan maps showing the distributions of the lithologies of the Maga – P8/P9 and Siga – P11 areas are shown in Figure 7-9 and Figure 7-10, respectively.

S4: META-PELITIC ROCK

This unit consists of a sequence of laminated to finely bedded dark grey graphitic or carbonaceous meta-argillite and grey to grey-greenish meta-siltstone and fine meta-sandstone. This sequence can be up to 500 m thick, with a lateral extent greater than ten kilometres. It is the second most common unit within the greenstone sequence and it is interpreted to be the oldest volcano-sedimentary unit recognized in the area. The map pattern suggests that this unit forms regional tight folds with major closures located to the southwest on the Toéyoko Exploration Permit, to the north in the Maga area and to the south in the P16 area. Although primary sedimentary structures and textures can be locally preserved, they are generally overprinted by the regional deformation and metamorphism.

S3: META-SANDSTONE ROCK

This unit is the most important within the portion of the greenstone belt underlying the Property, and is interpreted to be overlying the meta-argillite unit. It occurs as a sequence up to one kilometre thick dominated by greyish meta-sandstones interbedded with carbonaceous dark grey lamina. Although primary sedimentary structures and textures can be locally preserved, they are generally overprinted by the regional deformation and metamorphism. In thin section, the meta-sandstone beds consist of a quartz-sericite-biotite±graphite (carbonaceous matter) schist with a lepidoblastic to granoblastic texture. The main fabric is a pressure solution cleavage on which primary lithological contacts and early veinlets are typically transposed.

S1: POLYMICTIC META-CONGLOMERATE ROCK

This unit occurs as elongated lenses adjacent to the meta-sandstone unit. The lenses are typically less than 100 m thick but can display a kilometric lateral extent. They consist of

poorly sorted polymictic meta-conglomerate and conglomeratic lithic meta-sandstone. The lithic clasts consist of meta-sandstone, chert, carbonaceous-graphitic meta-argillite, granite, and quartz, predominantly as granules, pebbles, and cobbles set in a matrix of meta-sandstone. In thin section, the sandy matrix consists mostly of chlorite, sericite, quartz, and calcite with a lepidoblastic to granoblastic texture. The abundant chlorite and carbonate in this unit seems to represent a retrogressive assemblage overprinting the regional metamorphic assemblage; it is responsible for the greenish colour of this unit below the weathering profile.

I3: MAFIC INTRUSIVE ROCK

This unit intrudes the metasedimentary sequence where it is generally para-conformable to the regional pressure-solution cleavage. The meta-gabbro is characterized by heterogeneous strain, locally with a massive or brecciated texture but in most instances strongly deformed (MI3 sub-unit) with a mylonitic foliation that can be crenulated or micro-folded. Where least-altered and least-deformed, it is greenish and fine to medium grained. It is composed of idiomorphic plagioclases and interstitial pyroxenes, with subordinate hornblende and biotite. In the P11 and Siga areas, gabbroic intrusives may contain millimetric blue quartz phenocrysts. This unit is commonly metasomatized and strongly overprinted by a ductile deformation event that has transformed the meta-gabbro into a quartz-biotite-actinolite-albite-calcite-ankerite±pyrite±pyrrhotite schist that is a major host of the Bomboré gold mineralization; this unit displays a characteristic brownish colour below the weathering profile.

I4: ULTRAMAFIC INTRUSIVE ROCK

Ultramafic intrusive units are present essentially in the northern portion of the Property. Least deformed and least altered occurrences outside of the BSZ consist of massive meta-peridotite where primary olivine and pyroxene are largely retrograded to an assemblage of talc, asbestos, chlorite, and carbonate pseudomorphs. Talc schists host gold mineralization in the CFU area.

I2: SYN-TECTONIC PORPHYRITIC GRANODIORITE INTRUSIVES

Within the BSZ, a porphyritic granodioritic intrusive characterized by abundant zoned plagioclase phenocrysts up to 12 mm set in a groundmass of fine grained quartz-biotite-sericite commonly occurs as narrow (1 m to 100 m) dikes typically at a low counter-clockwise angle to the pre-existing lithological units and fabrics, but also as larger elongated intrusions

in the Maga and KT areas. They are syn-tectonic and pre- to syn-gold mineralization, but are less deformed and less well mineralized than the older units that they are intruding. The sheared and mineralized porphyritic granodiorite is often difficult to distinguish from the sheared and deformed meta-sandstone even in core boreholes.

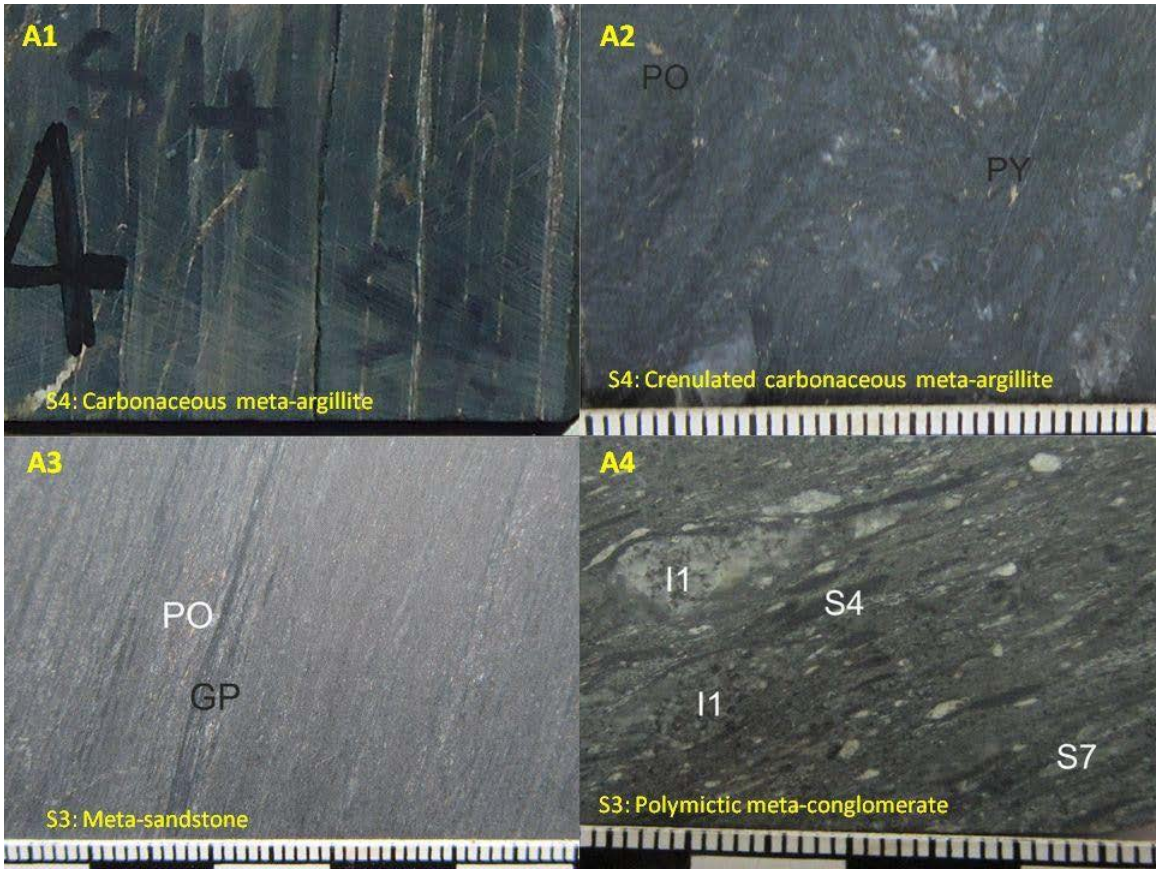
IIC: SYN-TECTONIC MICRO-PORPHYRITIC GRANODIORITE INTRUSIVES

Within the BSZ, a fine grained micro-porphyritic granodiorite occurs as narrow dykes and larger elongated intrusions, mostly on the hanging wall of the P8/P9, P11, and Siga East deposits, but also as the main mineralized unit of the P17 and P17S deposits. This unit is more massive and seems slightly younger than the porphyritic granodiorite but is also syn-tectonic and pre- to syn-gold mineralization. Most of the rare occurrences of visible gold within the BSZ are associated with this unit.

I1: LATE QUARTZ FELDSPAR PORPHYRY GRANITE DYKES

Within the BSZ, late pale grey fine-grained granitic dykes characterized by abundant corroded quartz and plagioclase-albite phenocrysts set in a microlitic and sericitic ground mass occur as narrow metric (typically one to three metres wide) dykes, mostly in the Maga and P8/P9 area. They are post-tectonic and post-gold mineralization.

FIGURE 7-5 PHOTOGRAPHS OF THE META-SEDIMENTARY UNITS



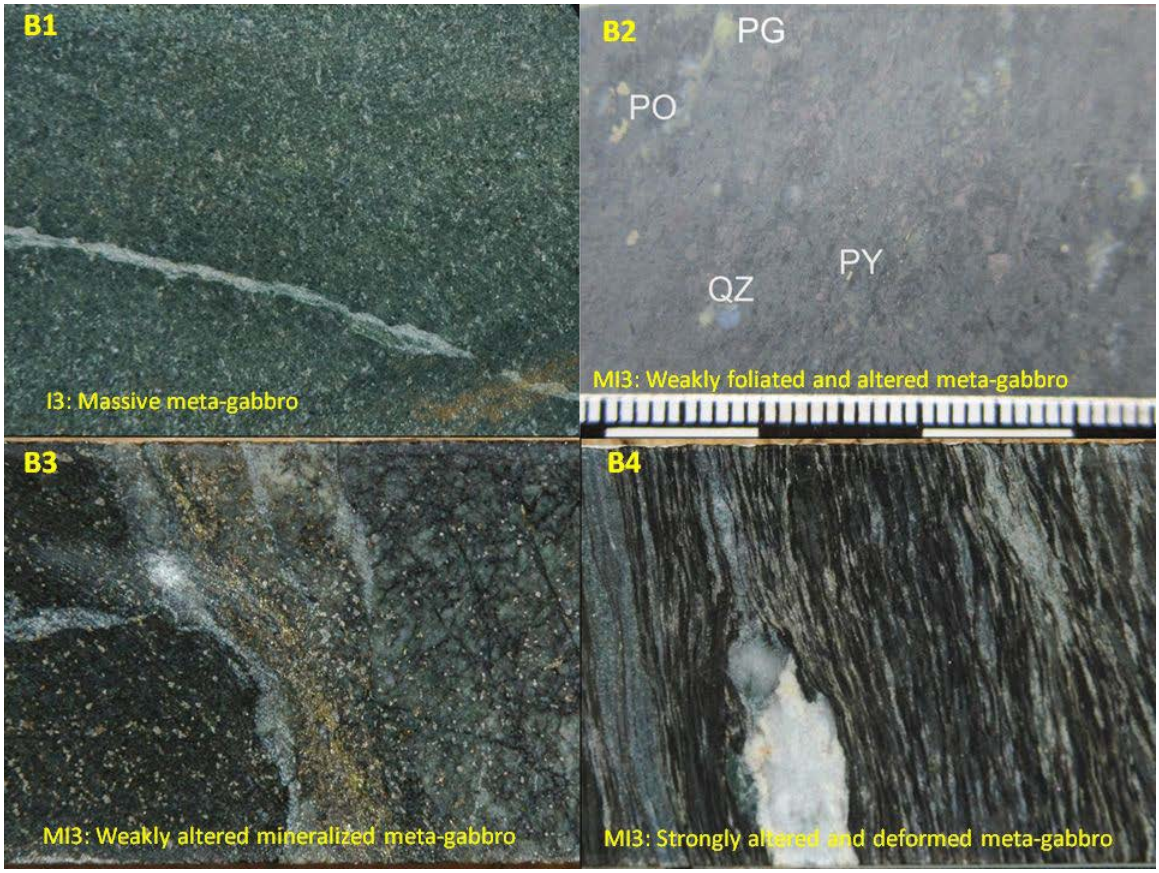
A1: Carbonaceous meta-argillite.

A2: Crenulated carbonaceous meta-argillite. P16, BBD0012, 40.79 m.

A3: Meta-sandstone. Disseminated pyrrhotite (PO) and graphite (GP) laminae. P16, BBD0214, 146.0 m.

A4: Polymictic meta-conglomerate. Lithic clasts of meta-argillite (S4), chert (S7) and felsic intrusive (I1). P8/P9, BBD0069, 75.65 m.

FIGURE 7-6 PHOTOGRAPHS OF THE META-GABBRO UNITS



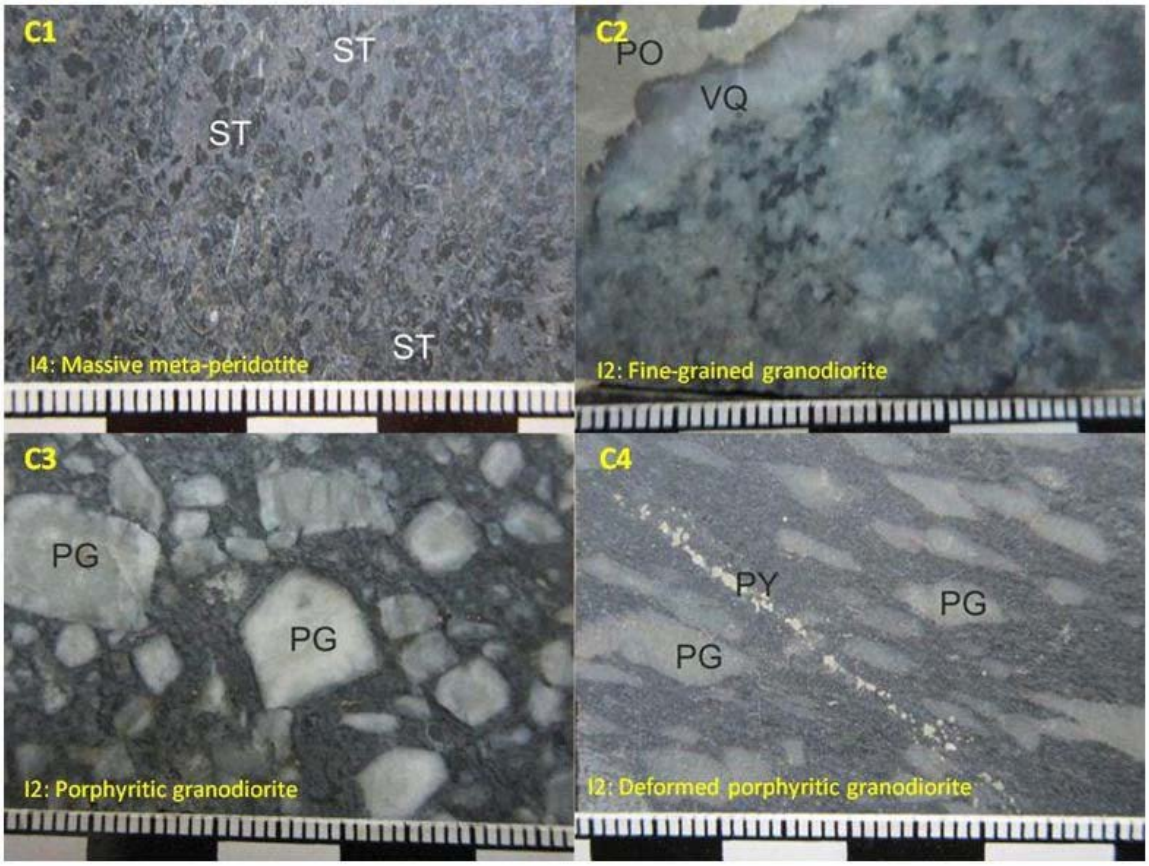
B1: Massive meta-gabbro. P11, BDD0029.

B2: Weakly foliated and altered meta-gabbro with blue quartz (QZ) and altered plagioclase (PG) phenocrysts. Disseminated pyrite (PY) and pyrrhotite (PO). Siga W, BBD0013, 120.29 m.

B3: Weakly altered mineralized meta-gabbro. P11, BBD0029.

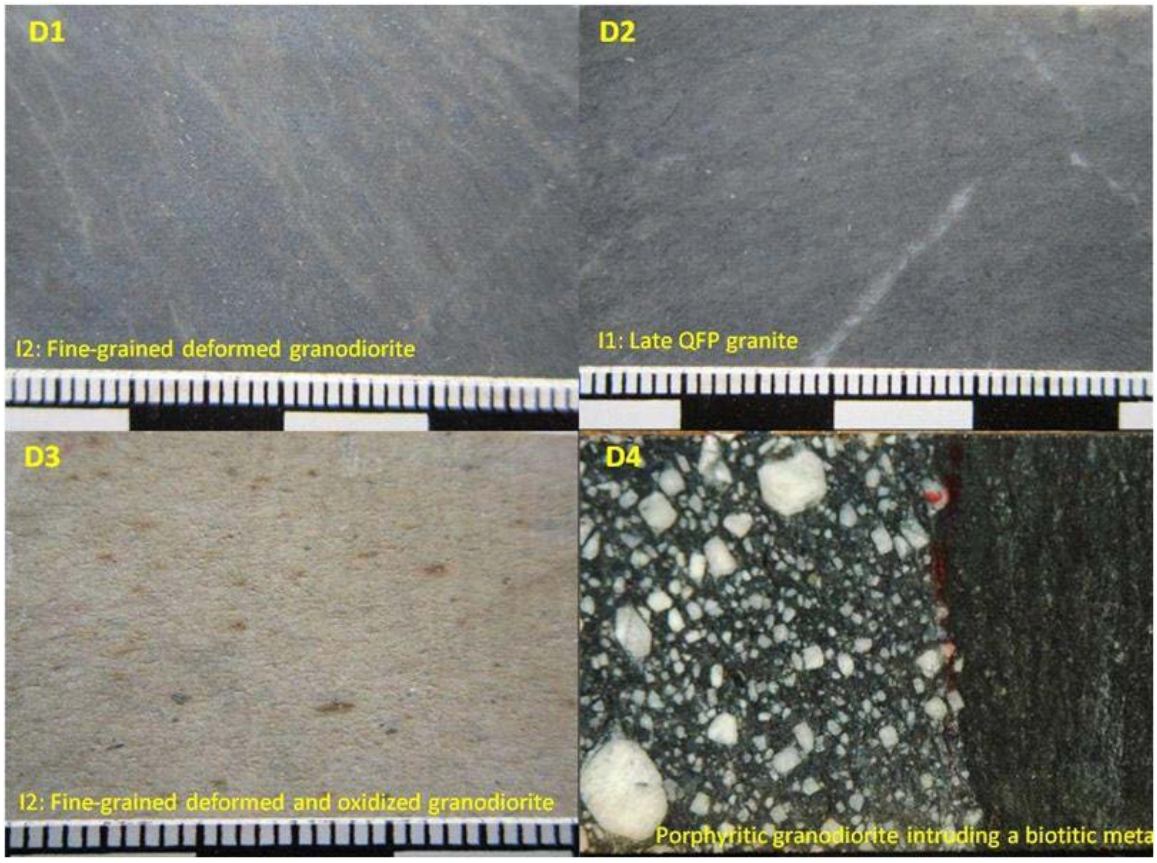
B4: Strongly altered biotitic meta-gabbro. P11, BBD0029.

FIGURE 7-7 PHOTOGRAPHS OF THE PERIDOTITE AND GRANODIORITE UNITS



C1: Massive meta-peridotite with serpentine (ST) olivine pseudomorphs. Outcrop AE14, P11 east area.
C2: Fine-grained granodiorite cut by a quartz (VQ) and pyrrhotite (PO) vein. P8/P9, BBD0491, 120.18 m.
C3: Porphyritic granodiorite with large zoned plagioclase (PG) phenocrysts. P8/P9, BBD0612, 53.8 m.
C4: Deformed porphyritic granodiorite. P8/P9, BBD0529, 133.55 m.

FIGURE 7-8 PHOTOGRAPHS OF THE GRANODIORITE AND GRANITE UNITS



D1: Fine-grained deformed granodiorite. Plagioclase (PG) phenocrysts are altered and deformed. Pyrite (PY) veinlet. Maga, BBD0130, 83.0 m.

D2: Late quartz feldspar porphyry (QFP) granite. P8/P9, BBD0039, 89.3 m.

D3: Fine-grained weathered granodiorite. Maga, BBD0055, 34.25 m.

D4: Late QFP granite intruding a deformed biotitic meta-gabbro. P11, BBD0029.

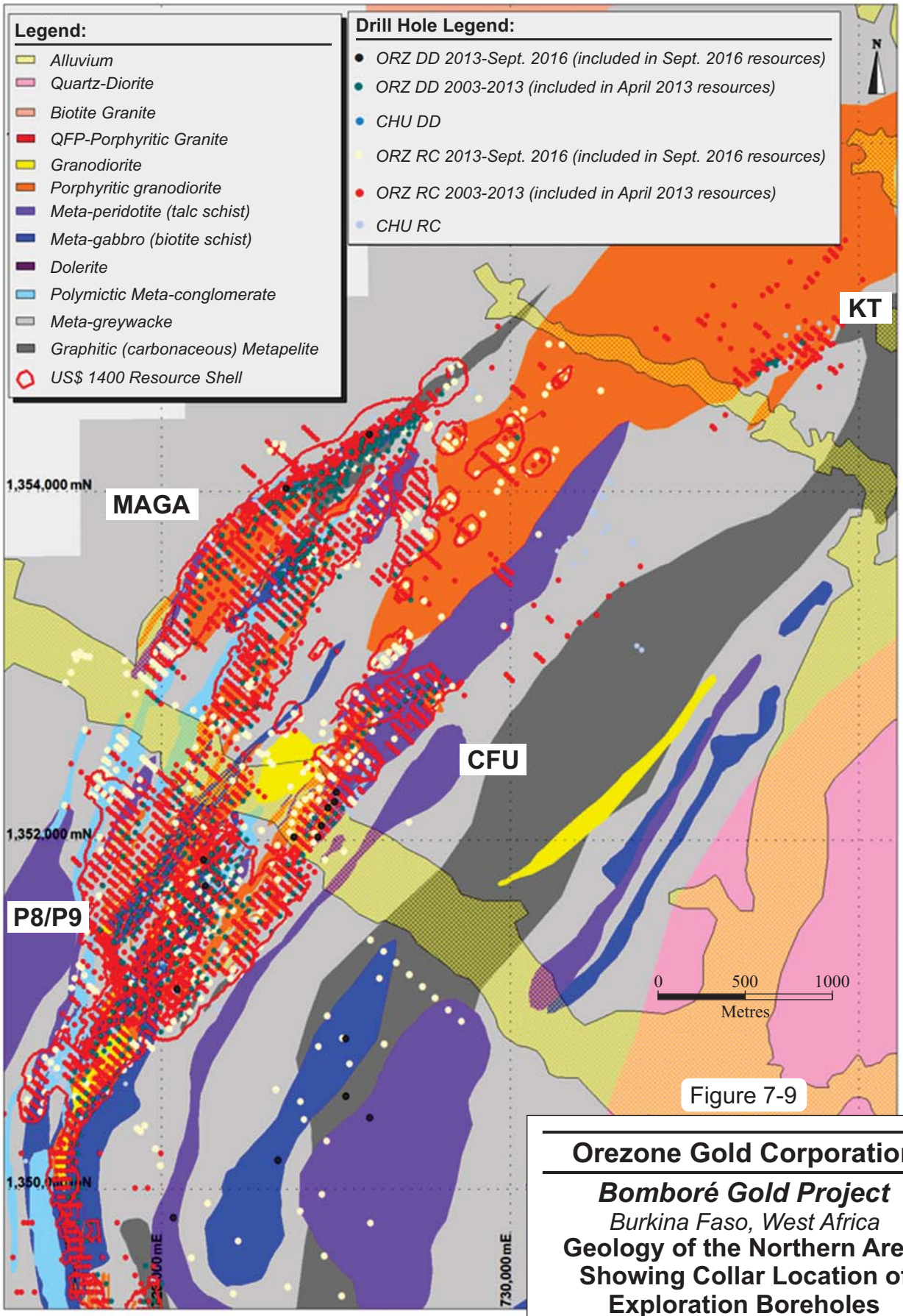


Figure 7-9

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Geology of the Northern Area, Showing Collar Location of Exploration Boreholes

January 2017

Datum WGS 84, UTM Zone 30N

Source: Orezone, 2016.

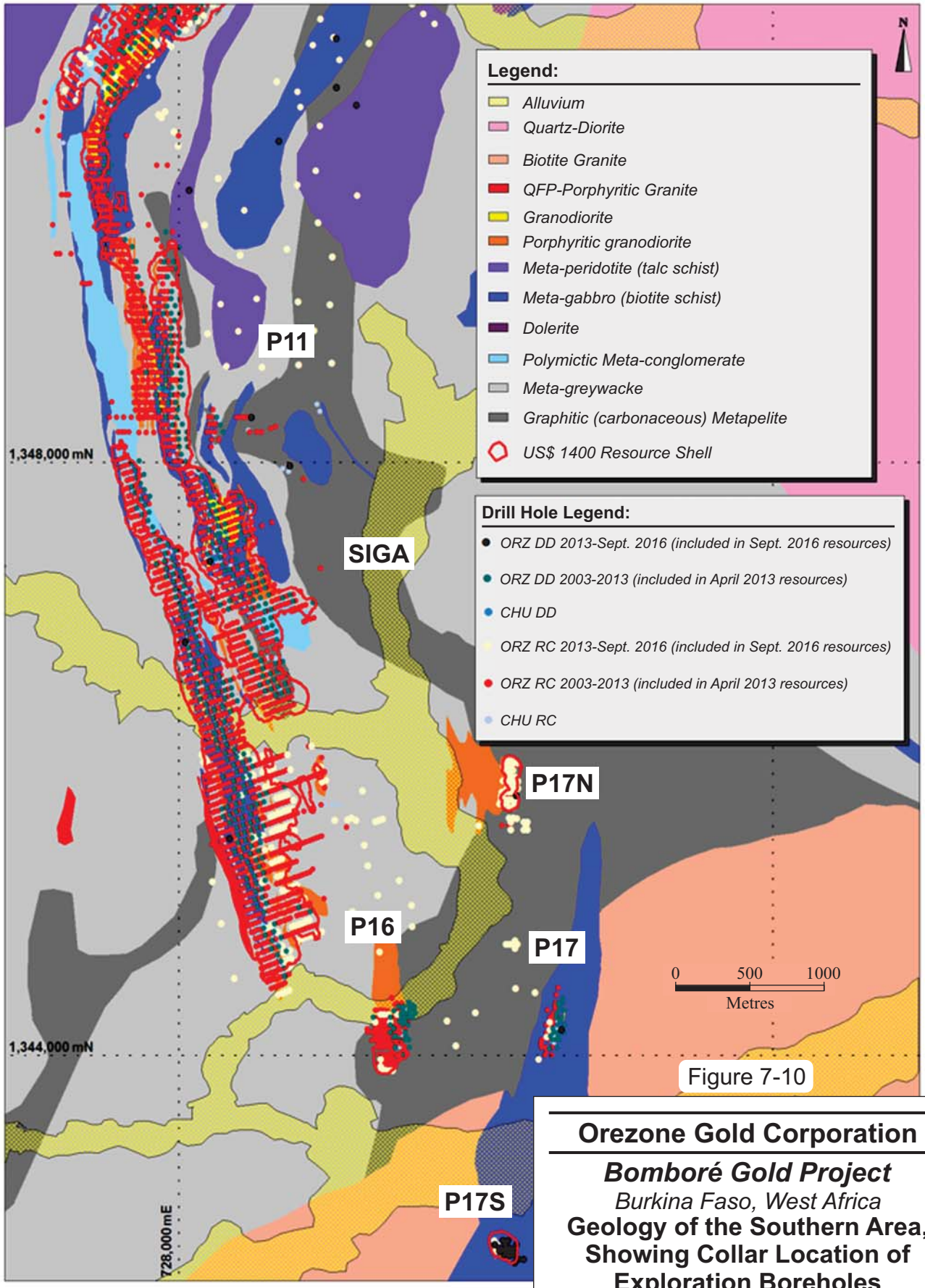


Figure 7-10

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Geology of the Southern Area, Showing Collar Location of Exploration Boreholes

January 2017 Datum WGS 84, UTM Zone 30N ***Source: Orezone, 2016.***

STRUCTURAL GEOLOGY

The gold mineralization on the Property is hosted in the BSZ, a major north-northwest to north-northeast trending structure. This shear zone has an arcuate shape, and extends over tens of kilometres beyond the limits of the Property. It is interpreted as a secondary structure to the Tiébélé-Dori-Markoye Fault, a regional north-northeast trending sinistral fault that represents a major discontinuity in the Birimian rocks, across which regions of contrasting structural styles are juxtaposed.

The BSZ is visible on the aerial photos and exhibits a strong signature on the geophysical (magnetic and induced polarization) maps. The curvature of this shear zone is interpreted to be caused by the molding of the greenstone belt on the late quartz-diorite intrusive that is located along the eastern margin of the Property.

The BSZ is oriented 040° in the northern portion of the Property and 340° in the southern portion of the Property (Figure 7-11). Most of the syn- to late-tectonic dykes are located within the BSZ, together with the gold mineralized schists and barren quartz vein arrays. The dip of the main foliation and the main lithological contacts is approximately 65º towards the southeast in the northern portion of the Property (Maga, CFU, and P8/P9 deposits), although it steepens in the Maga footwall area to approximately 75º and is approximately 55º towards the northeast in the southern portion of the Property (P11, Siga East, and Siga West-Siga South deposits). The main foliation is oriented 360° to 010° and is sub-vertical in the southeast area where the small satellite deposits (P16, P17N, P17, and P17S) are located.

A north-south fault system is visible on satellite imagery, as well as an east-northeast and a west-northwest system. In addition, breaks in the magnetic data and apparent displacements in the mineralization support the presence of the systems oriented at 070° and 110° (Figures 7-11 and 7-12) responding to a late faulting event. Some of the gold mineralization appears to have been remobilized along the latter orientations. Fractures and quartz veins (sometimes auriferous) oriented roughly east-west are also noted on outcrops and in trenches.

Observations in surface outcrops and borehole geophysical data suggest that rock units within the BSZ exhibit brittle-ductile behaviour with folds, transposition, and an anastomosing pattern typical of a shear zone environment. The presence of brittle structures, such as breccias and quartz veins, have also been recorded in the drill logs and surface maps. In the

P11 and Siga areas where the S_0-S_1 fabric is oriented north-northwest to north, a northeast secondary cleavage has been observed in several localities, suggesting that the dominant northeast trending regional foliation might be overprinting earlier fabrics (S_0 and S_1).

In outcrop, the foliation fabric contains a stretching lineation plunging moderately (45° to 55°) to the north. The current geological model, well constrained by oriented core observations, clearly shows that several units, including the auriferous meta-gabbro units, plunge moderately to the north-northeast.

All rock units within the shear zone have been affected by a heterogeneous (brittle) - ductile strain, except the late QFP granitic dykes and some late dolerite dykes.

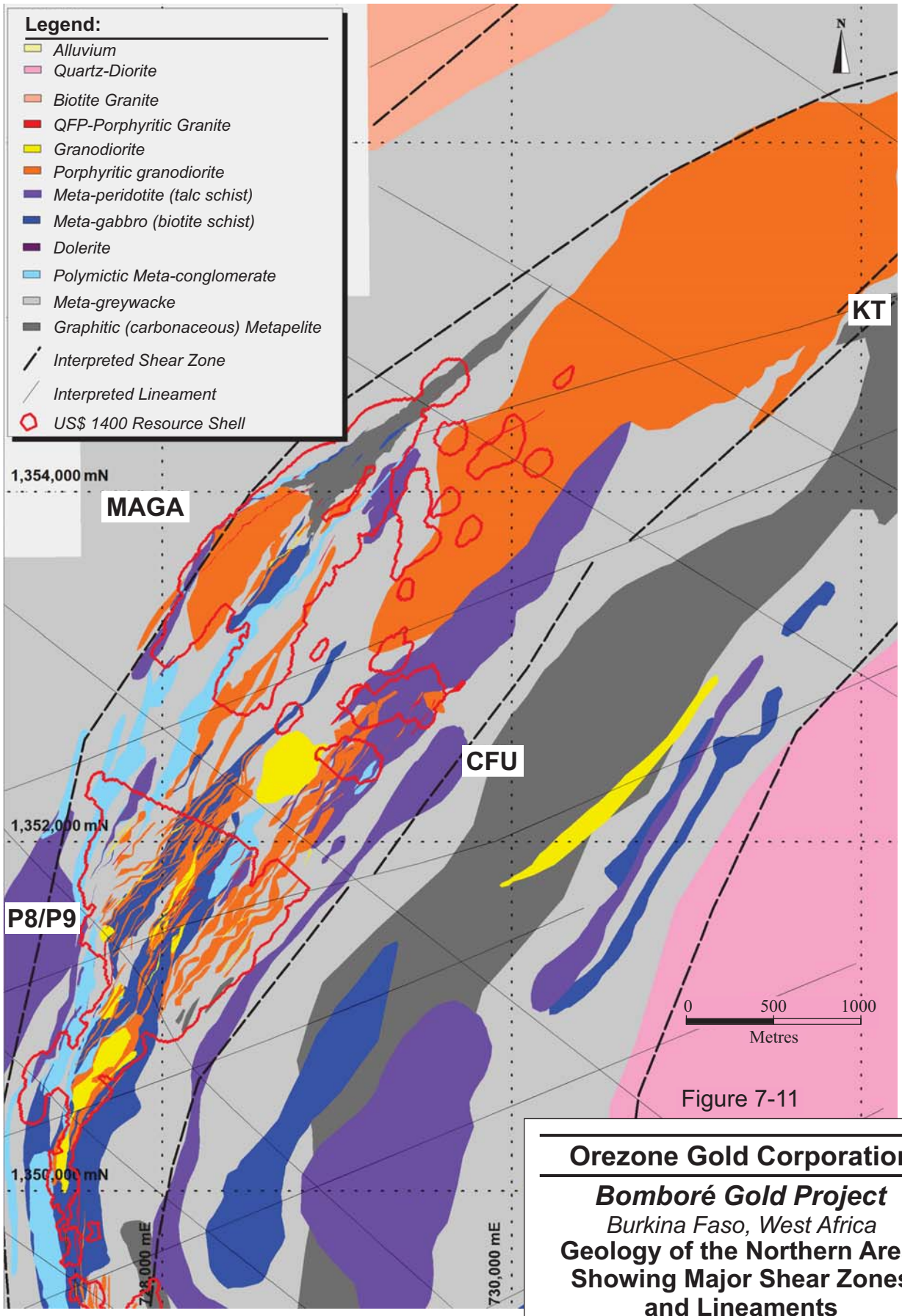


Figure 7-11

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Geology of the Northern Area, Showing Major Shear Zones and Lineaments

Datum WGS 84, UTM Zone 30N

January 2017

Source: Orezone, 2016.

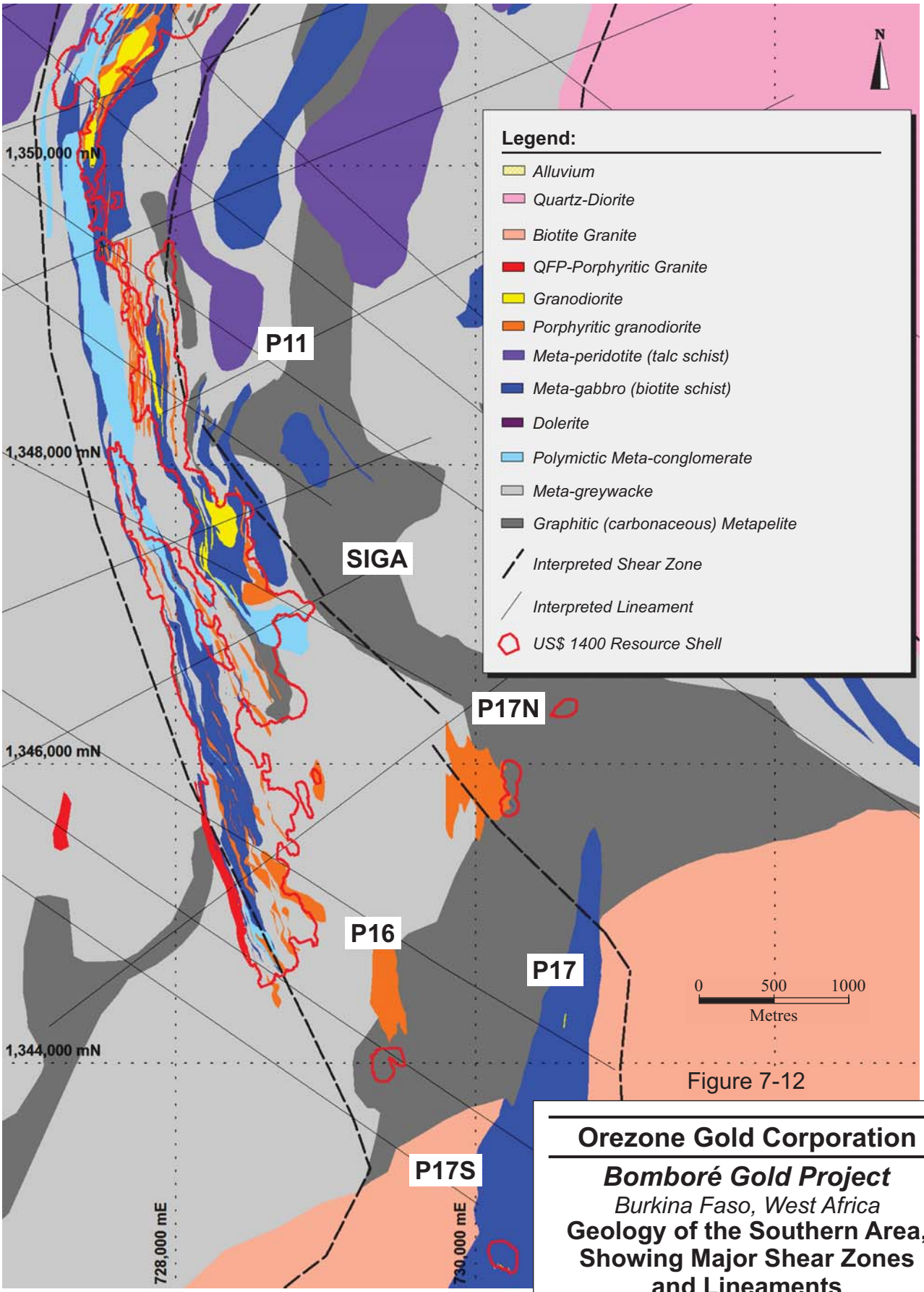


Figure 7-12

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Geology of the Southern Area, Showing Major Shear Zones and Lineaments

Datum WGS 84, UTM Zone 30N

January 2017

Source: Orezone, 2016.

MINERALIZATION

The Bomboré gold deposit occurs within the regional BSZ, a major north to northeast trending structure considered as a subsidiary to the Tiébélé-Dori-Markoye Fault. Eleven separate auriferous zones have been delineated by drilling within the 14 km segment of the BSZ located within the Property. The gold deposits were discovered by tracing gold-in-soil anomalies (Figure 7-2) to bedrock by drilling. The auriferous zones are defined by geographic coordinates in Table 7-1.

The gold mineralization in the Property area is associated with arrays of structurally controlled quartz veins and veinlets and attendant silica, sulphide, and carbonate alteration developed within the BSZ. Most quartz veins are oriented sub-parallel to the foliation and exhibit strong strain, however, the presence of relatively unstrained quartz veins and breccia in drill core attest the long protracted history of vein formation and deformation. Late west trending veins crosscutting the main foliation fabric are also observed. Locally, there is evidence suggesting that gold mineralization was remobilized into northeast and southeast dilation zones associated with late faults.

TABLE 7-1 LOCATION OF THE BOMBORÉ GOLD ZONES
Orezone Gold Corporation – Bomboré Project

Bomboré Gold Zones	Easting*		Northing*	
	Minimum	Maximum	Minimum	Maximum
Kiin Tanga (“KT”)	731,300	731,900	1,354,500	1,355,100
Maga	727,900	730,500	1,352,600	1,354,800
Colline de Fusille (“CFU”)	728,600	729,700	1,352,000	1,353,200
P8/P9	727,000	729,100	1,349,800	1,352,600
P11	727,000	728,200	1,348,000	1,350,100
Siga East (“SE”)	727,800	729,000	1,346,200	1,348,000
Siga West-Siga South (“SW-SS”)	727,500	729,000	1,344,400	1,348,200
P16	728,200	729,700	1,343,800	1,344,300
P17	730,400	730,800	1,343,900	1,344,400
P17N	730,100	730,800	1,345,600	1,346,500
P17S	730,000	730,300	1,342,600	1,342,900

* UTM Projection – WGS84 datum, Zone 30 North.

The quartz associated with the gold mineralization is milky white to smoky, locally vitreous and may contain tourmaline. The widths of the veins range from two centimetres to one metre, with an average of ten centimetres. The near surface gold mineralization with grades

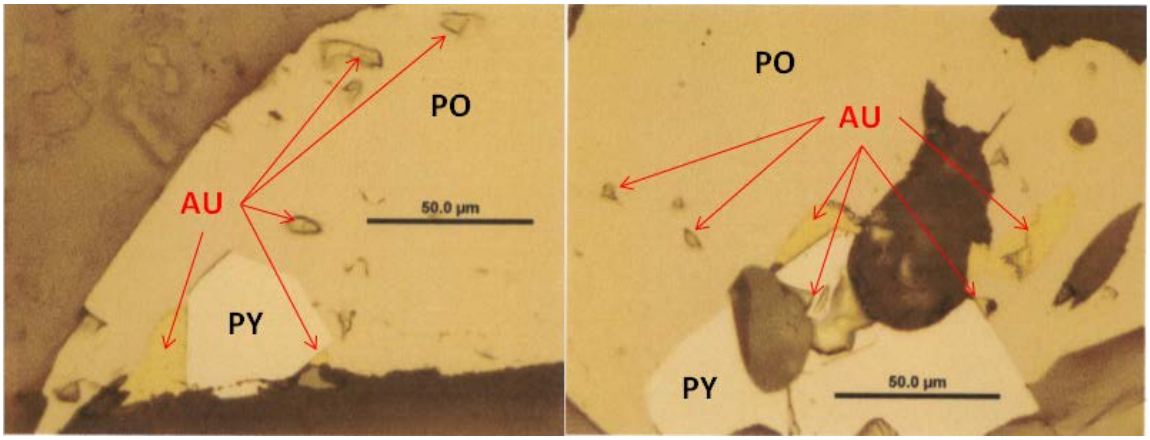
of up to 0.2 g/t Au is pervasive regardless of quartz veining and is associated with fine disseminated sulphides, predominantly pyrite.

Generally, the gold occurs as fine grain electrum (< 10 µm) but can be visible in outcrop. Artisanal mining over the last 15 years attests to the existence of coarser gold locally. Gold occurs as free gold in quartz veins and stringers and is mainly associated with pyrite, pyrrhotite, chalcopyrite, and arsenopyrite. Most sulphides occur as disseminations and fine stringers sub-parallel to the foliation fabric suggesting development in active shear zone or re-mobilization. Magnetite and graphite are present locally. Although the sulphide content can be as much as 5%, it is on average only 1% to 2% in fresh (i.e., non-weathered) mineralized rocks.

Gold mineralization is hosted by various rock types but most commonly in the biotite schist (meta-gabbro) and its host rocks (typically the meta-sandstones but also the granodiorite dykes that intrude the gabbros), although in Maga north, P16 and P17N areas, the meta-argillites are the main host. The syn-tectonic granodioritic intrusives are also mineralized, although to a lesser degree than the biotite schist and the meta-argillites. The meta-conglomerate and meta-peridotite are unfavourable hosts. The meta- gabbro might represent the best chemical trap given its high iron content if gold was transported as a thio-complex, as suggested by the pervasive fine pyritic assemblage that is associated with the gold mineralization in the sulphide zone.

Petrographic work on fresh rock samples in 2008 (Schandl 2008a, b and c) revealed that the gold mineralization is predominantly associated with silica and iron carbonate, although sericite is a ubiquitous and often an abundant alteration mineral in a number of the gold-enriched rocks. Gold occurs as electrum, native gold, and gold telluride (calaverite). Small gold grains are included in pyrite, in fractures of pyrite grains (Figure 7-13), and as free gold in the fine-grained quartz-goethite matrix in the weathered zone. The major sulphides are pyrite and pyrrhotite with subordinate amounts of chalcopyrite, covellite, galena, and arsenopyrite. Pyrrhotite and chalcopyrite are found mostly in the biotite schist and arsenopyrite in the metasediments. The gangue of the saprolitic ore consists of an assemblage of quartz, sericite, kaolinite, hematite, and goethite.

FIGURE 7-13 PRIMARY GOLD MINERALIZATION (SULPHIDE ZONE): GOLD (AU) OCCURRING AS INCLUSIONS IN PYRITE (PY) AND PYRRHOTITE (PO)



At a cut-off grade of approximately 0.2 g/t Au, the gold mineralization exhibits reasonable continuity over a strike length of approximately ten kilometres. At this cut-off grade, the gold mineralization forms more restricted corridors (500 m to 1,000 m in length and 10 m to 100 m in width) defining anastomosing patterns, parallel and slightly oblique to the general trend of the BSZ.

These higher grade corridors formed the basis for defining geostatistical domains within each litho-domain considered for resource estimation. One of the benefits of the 2010 to 2013 infill drilling programs was the delineation of higher grade sub-domains based on a cut-off grade of 0.5 g/t Au with the broader low grade domains based on a lower cut-off grade of 0.2 g/t Au. The higher grade sub-domains have a strike length of up to 500 m and a width typically between 5 m and 30 m.

The typical texture of the gold mineralization host rocks in drill core is shown in Figure 7-14.

SEQUENCE OF GEOLOGICAL EVENTS

Based on the work completed by Orezone since 2008, the following geological history is interpreted for the Property area:

- Sedimentation of a sequence of carbonaceous argillites followed by sandstone and capped by polymictic conglomerates.
- Intrusion of mafic (gabbroic to dioritic) sills and dikes, followed by ultramafic (peridotite) intrusives.

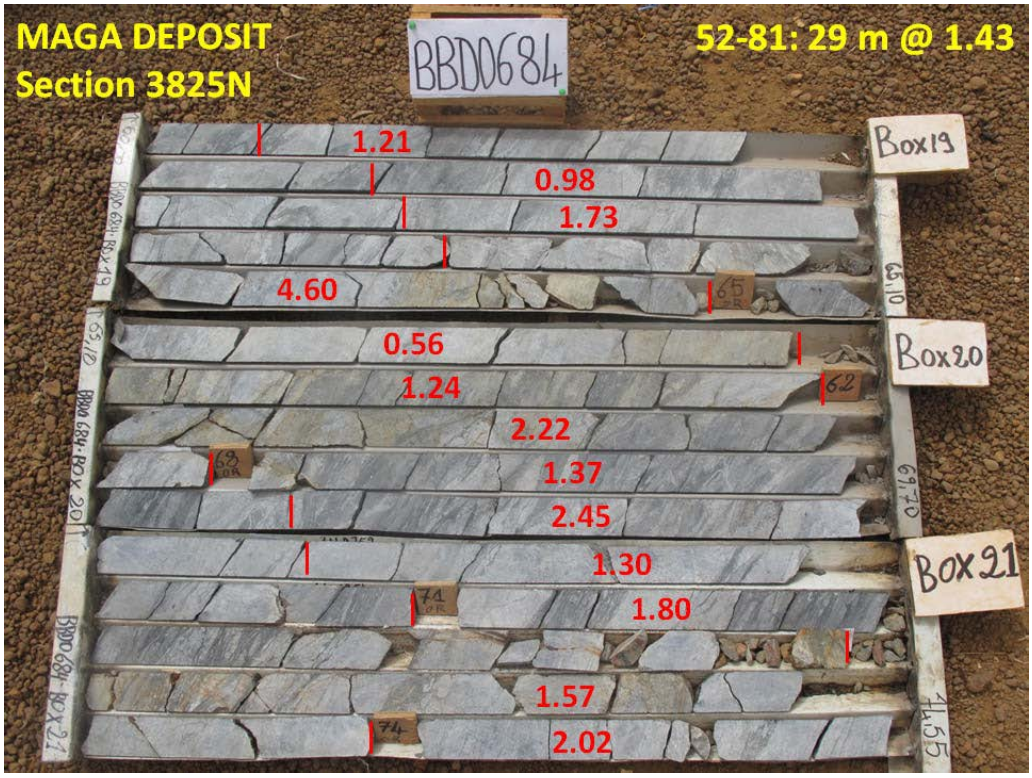
- Regional deformation and prograde metamorphism culminating under greenschist facies, biotite zone conditions, with pre- to syn-tectonic intrusion of granodiorite dikes, including an earlier porphyritic set of dikes and larger intrusive and a later fine-grained set of dikes and small intrusives.

- Syn- to late metamorphic albite-calcite-tourmaline-biotite-pyrite metasomatism – the main gold mineralizing event.

- Late-tectonic intrusion of QFP granitic dykes.

- Retrograde brittle-ductile deformation – local remobilization of gold in late quartz veins.

FIGURE 7-14 TYPICAL TEXTURE OF THE GOLD MINERALIZATION IN THE CORE OF THE MAGA DEPOSIT META-ARGILLITE (TOP) AND SIGA SOUTH DEPOSIT BIOTITE (BOTTOM)

- 

8 DEPOSIT TYPES

The following is taken from the PEA technical report prepared by GMSI and dated January 22, 2014 (Gourde, Gignac and Menard, 2014).

The Bomboré gold deposit is the principal gold mineralization of potential economic significance found to date on the Property. It is located in an area that is principally prospective for orogenic gold deposits. Similar to gold deposits found elsewhere in late Proterozoic Birimian terrains of West Africa, the Bomboré gold deposit exhibits a structural control and hydrothermal activity. It is a large tonnage, low grade system that has similar characteristics to other Birimian gold deposits such as Kiaka in Burkina Faso, Damang, Yamfo-Selwi and Obuasi in Ghana, and the Sadiola deposit in Mali.

Hydrothermal deposits are typically late orogenic deposits and exhibit strong relationship with regional arrays of major shear zones. The gold mineralization is typically associated with a network of quartz veins containing subordinate amounts of carbonate, tourmaline, sulphides, and native gold. In these deposits, the gold is typically free milling. Alternatively, the gold mineralization can also be associated with disseminated sulphides in strongly deformed alteration zones. In the latter case, gold may be free milling but also locked in the sulphide lattice structure and refractory. The Bomboré deposits are stratabound disseminated sulphide bodies preferentially hosted in the meta-gabbro and meta-argillite lithologies, which are interpreted to have acted as preferential gold traps during a syntectonic deformation and metasomatic event due to their chemical and rheological characteristics.

The wet paleo-climate that preceded the current semi-arid climate in Burkina Faso has resulted in extensive surface oxidation of bedrock and a deep weathering profile. Oxidized bedrock can occur up to a vertical depth of 100 m. Gold deposits span both the surface oxide zone and a deeper sulphide zone. In the oxide zone, gold typically occurs in a free milling form but is grind sensitive in the sulphide zone.

9 EXPLORATION

Work performed on the Property prior to 2002 is considered to be historical and is summarized in Section 6 of this report. The following is taken from the final land tenure report filed by Orezone for the Bomboré I Exploration Permit (Derra and Tamani, 2016).

BOMBORÉ EXPLORATION PERMIT

In 2002, Orezone entered into an option agreement with Channel and Solomon and assumed the funding and execution of exploration activities on the 150,000 ha Bomboré exploration permit until its expiry in January 2004. Exploration activities during this period consisted of data compilation and a RC drilling program (Ackert, 2004). The work is described in detail in a series of Orezone reports (Zongo, 2003a and b; and Marquis, 2003).

BOMBORÉ I EXPLORATION PERMIT

In February 2004, Orezone was granted the 25,000 ha Bomboré I exploration permit, which covered the most prospective portion of the former 150,000 ha Bomboré exploration permit, i.e., the BFT area. A summary of the activities undertaken at the Property from 2003 to 2014 by Orezone is presented Table 9-1. Other project development work is included in the summary such as metallurgical testwork, geotechnical drilling, and environmental studies.

TABLE 9-1 SUMMARY OF EXPLORATION ON THE BOMBORÉ I EXPLORATION PERMIT
Orezone Gold Corporation – Bomboré Project

Period	Exploration Activities and Studies
2003	• RC drilling: Mankarga grid: 8 boreholes (614 m); P8/P9: 11 boreholes (747 m); Kiin Tanga: 13 boreholes (640 m).
2004	• Compilation work. • Report on the 2003 RC drilling program.
2005	• 217 RC boreholes (13,829 m) at P8/P9, Maga and Kiin Tanga.
2006	• Establishment of a pair of trigonometric beacons in P8/P9 area and of survey control points from Kiin Tanga to Siga. • Survey of all RC and core boreholes that could be found. • Photogrammetric airborne survey (112 square kilometres). • 121 RC boreholes (8,770 m) at Maga, P8/P9, P11 and Siga. • Ground gradient induced polarization (IP) survey (153.6 km; 100 m line spacing; 25 m stations) at Maga, P8/P9 and CFU. • 1,450 check assays on the 2005 RC samples. • 614 RC composite samples collected for cyanidation metallurgical test work. • 39 core and 17 rock outcrop samples petrographic study.

Period	Exploration Activities and Studies
2007	• Met-Chem Resource Estimate based on RC and core borehole data up to March 2007 – Initiated in August 2007, delivered in February 2008. • Systematic mapping, prospecting, sampling, and gold assaying of outcrops and gold workings. • 57 core boreholes (5,314 m November 2007 to February 2008) mostly within the 2007 resource model core samples assayed for gold and also used for structural measures, multi-element inductively coupled plasma (ICP) orientation study, petrographic study, and petrophysical analyses.
2008	• Systematic mapping, prospecting, sampling, and gold assaying of outcrops and gold workings. • 268 RC boreholes (19,963 m February to April 2008). • Quality assurance/quality control (QA/QC) report, 2007-2008 RC-core programs. • Cyanidation test work under the supervision of H.C. Osborne and Associates (Commerce City, CO, USA) completed in September 2008. • Petrographic studies by Dr. Schandl (Toronto, ON, Canada) completed between April and September 2008. • 662 multi-element ICP analyses from core samples. • Re-logging of all RC and core boreholes to reconcile the surface mapping, petrography, and ICP data. • SRK Resource Estimate based on RC and core data up to August 2008 – Initiated in June 2008, delivered in November 2008. • Compilation of all historical RC borehole detailed journals to create a penetration rate model. • Academic study of the petrography and structure of the Bomboré 1 deposits by H. Zongo under the supervision of Dr. Lompo from the Université de Ouagadougou – initiated in May 2008. • Check sampling of RC boreholes with poor QA/QC scores (3,211 samples).
2009	• Re-logging of selected RC and core boreholes, revised geological model. • High-resolution (50 m 10 m) resistivity surveys (237 km) over the Maga, P8/P9, P11, and Siga areas in March-April 2009. • Core drilling program (April to June 2009) including 20 boreholes (4,502 m) to a vertical depth of 175 m in the P8/P9 area on two fences 200 m apart and three PQ boreholes (235 m) for metallurgical sampling. • Commissioning of bench top rotary sample dividers for all pulverized samples. • Validation of all historical core specific gravity determinations, including new more closely spaced determinations. • QA/QC reports on the April-June 2009 core drilling program and on various check assay programs. • Metallurgical test work (June to November 2009) by AMMTEC (Perth, WA, Australia) under the supervision of GBM (Twikenham, Middlesex, UK), including bottle tests on coarse material and milled material, flotation/leaching tests on milled material, gravity concentration tests, and column leaching, AMD, UCS, Bond impact, Bond abrasion, Bond rod mill, Bond ball mill and JK Drop-weight tests on two sets of composite samples representative of the oxide, transitional and fresh Bomboré mineralized material – final AMMTEC report January 2010. • Petrographic and structural study of the Bomboré gold deposits; Ph.D. progress report. • Environmental Baseline Study (April to July 2009) by Bureau d'Études des Géosciences, des Énergies et de l'Environnement (BEGE) – report July 2009. • Preliminary Environmental Impact Study by BEGE (April to September 2009) – Report September 2009. • Bench-top XRF program commenced in April 2009 – All available historical core pulp samples (> 10,000) were analyzed for a suite of 35 elements. • Core drilling program (November-December 2009), five boreholes (3,001 m) drilled to a vertical depth of 300 m in the Maga, P8/P9, and Siga areas. • Several programs of check assays on RC (n = 130), core (n = 388) and leach tail (n = 914) samples.
2010	• Migration of all historical RC and core data to Datashed database. • QA/QC report on the November-December 2009 core drilling program.

Period	Exploration Activities and Studies
	• Mogtédo camp expansion and commissioning of laboratory with two rotary sample dividers (RSDs) for RC samples. • Commissioning of a dedicated laboratory equipped with three bench top RSDs at the Kossodo office. • Check assay program on SGS Tarkwa and Abilab Ouagadougou RC samples (n = 354) with a soluble gold grade > 1 g/t. • 389-borehole auger drilling program to investigate the overburden-saprolite interface and saprolite over the Siga South, P11-P8/P9 gap, and other targets (3,055 m). • 617 borehole RC definition and resource expansion drilling program (42,456 m). • Establishment of four new pairs of trigonometric beacons at Kiin Tanga, Maga, Siga, and Siga South followed by a check survey of all historical survey control stations and corrections of all historical collar positions. • Several programs of check assays on RC (n = 2,236), core (n = 141) and leach tail (n = 12,411) samples. • QA/QC report on the 2010 RC drilling program and various check assay programs. • Bench-top XRF analysis of approximately 40,000 samples. • Geological 3D model updated in Gemcom. • SRK Resource Estimate based on RC and core data up to April 2010 – Initiated in July 2010, delivered in October 2010. • 2,374 line-km high-resolution magnetometry and radiometry airborne survey over the Bomboré 1 permit by UTS-Aeroquest in November 2010. • Initiation of a major core drilling definition program in November 2010 to define the 2010 sulphide resources on a 50 m by 50 m drilling pattern to a vertical depth of about 125 m. The program was completed in June 2012 and totalled 770 boreholes for 116,795.5 m. • Initiation of the construction of a new base camp for the Project in November 2010. • High-resolution (50 m by 10 m) resistivity surveys (243 km) over the KT, Maga, CFU, P11, Siga South, P16 and P17 areas in December 2010 and January 2011. • Initiation of a major RC drilling program in February 2011 to define the 2010 oxide resources on a 50 m by 25 m drilling pattern and to test several new targets. The program was completed in June 2012 and totalled 2,375 boreholes and 135,167 m.
2011	• 2,547 borehole auger drilling program between February 2011 and July 2011 to investigate the overburden-saprolite interface and the saprolite over several new targets (12,146 m). • Report from AccuMin Minerals Services on the lithostructural controls of the Bomboré gold mineralization. • High-resolution photogram metric base map of the Bomboré permit generated by Photosat in May 2011. • PEA by GMSI delivered in June 2011. • Initiation of a detailed baseline environmental and impact study based on the PEA/Carbon-in-Leach (CIL) project. The socio-economic study by Société de Conseil et de Realisation pour la Gestion de l'Environnement (SOCREGE) commenced in May 2011 and the EIA by BEGE commenced in September. • Toéyoko permit granted to Orezone in July 2011. • Commissioning of a weather station at the new Bomboré camp in September 2011. • Initiation of a detailed CIL process metallurgical study in September 2011, using McClelland Laboratories, Inc. (McClelland) under the supervision of Woods Process Services. A suite of 76 samples representative of the various oxide, transition, and sulphide facies of each of the deposits sent to McClelland. Final report delivered in February 2013. • 1,901 line-km high-resolution magnetometry and radiometry airborne survey over the Toéyoko permit by UTS-Aeroquest in October 2011. • Delivery by SOCREGE of the report on the socio-economic study relevant to the 2011 PEA/CIL project. • High-resolution photogram metric base map of the Toéyoko permit generated by Photosat in December 2011.
2012	• Initiation of an environmental testing study in February 2012 on a series of 28 composite waste samples by McClelland. Results received in July 2012.

Period	Exploration Activities and Studies
	• 598 borehole auger drilling program during the April-May 2012 period to investigate the overburden-saprolite interface and saprolite over several new targets on the Bomboré 1 permit (2,299 m). • 587 borehole auger drilling program during the April-May 2012 period to investigate the overburden-saprolite interface and saprolite over several new targets on the Toéyoko permit (2,561 m). • Petrographic and mesoscopic catalogue of photographs of the Bomboré lithologies; Ph.D. progress report. • Report from Economic Geology Consulting on the mineralogy of the master composite samples used by McClelland for the detailed CIL process metallurgical study. • Delivery by BEGE in July 2012 of the report on the environmental baseline study relevant to the 2011 PEA/CIL project. • High-resolution (50 m 10 m) resistivity surveys (41 km) over the P17N area on Bomboré 1 permit in July 2012. • High-resolution (50 m 10 m) resistivity surveys (51 km) over the P17S area on Toéyoko 1 permit in July 2012. • Prospecting, outcrop sampling, and geological mapping on new regional targets on Bomboré 1 permit from March to July 2012 (401 samples). • Prospecting, outcrop sampling, and geological mapping on new regional targets on Toéyoko 1 permit from March to June 2012 (190 samples). • SRK Resource Estimate based on RC and core data up to March 2012 – Initiated in March 2012, delivered in August 2012. • Initiation of a CIL process FS in June 2012 under the direction of GMSI from Brossard, QC, Canada. • Pit slope geotechnical study by Golder Associates Ltd. (Golder) from Montreal, Canada, initiated in August 2012. The final report was delivered by Golder in April 2013 • Core drilling definition program started in September 2012 to define the 2012 Inferred sulphide resources on a 50 m 50 m drilling pattern to a vertical depth of about 150 m. The first phase of the program was completed in February 2013 and totalled 121 boreholes for 23,109.5 m. • QA/QC report, RC, core, and auger programs completed from November 2010 to June 2012. • QA/QC report, RC, core, and check assay programs completed from June 2012 to September 2012. • RC drilling program started in September 2012 to define the 2012 Inferred oxide resources on a 50 m 25 m drilling pattern and to test several new targets. The first phase of the program was completed in April 2013 and totalled 541 boreholes and 32,440 m. • Initiation in October 2012 by Golder from Montreal, Canada, of a geochemical characterization study of waste rock, tailings and potential construction material at the Project. Final report received in December 2013. • Initiation in November 2012 of site investigation by Golder from Montreal, Canada, for a feasibility level geotechnical study of the tailings and water management structures for the Project. Preliminary report delivered by Golder in April 2013. • Initiation in November 2012 of site investigation by Golder from Montreal, Canada, for a feasibility level geotechnical study of the design of foundations at the processing plant site and at the Nobsin and Bomboré bridges for the Project. Preliminary technical memorandum delivered by Golder in May 2013. • Completion of the preliminary scrubbing test work completed by Orezone under the direction of GMSI, targeting the saprolite gold resources. • QA/QC report, RC, core and check assay programs completed from October 2012 to December 2012. • Initiation in December 2012 of a complementary comminution study with Hazen Research Inc., from Golden, CO, USA, on three granodiorite samples from the weathered zone. Report delivered in February 2013. • Initiation in December 2012 of a complementary comminution study with SGS Canada Inc from Lakefield, ON, Canada, on twenty sulphide samples. Report delivered in May 2013.

Period	Exploration Activities and Studies
2013	• Initiation in January 2013 of an eight-borehole, 280 m saprolite PQ core drilling program for a scrubber test work program with Met-Solve Laboratories Inc. (Met-Solve) from Langley, BC, Canada. Report delivered in May 2013. • Delivery by SOCREGE of an interim socio-economic study relevant to the 2011 CIL Definitive Feasibility Study (DFS) project. • Final report of the study of the archaeological artifacts collected by BEGE. • Final report from McClelland on the CIL DFS process metallurgical study. • Initiation in March 2013 of a metallurgical study on pyrrhotitic samples with COREM from Quebec City, QC, Canada. Report delivered in May 2013. • SRK Resource Estimate updated based on RC and core borehole data up to November 2012 for the North and South models and March 2013 for the Southeast model. • Decision to interrupt in June 2013 the CIL process DFS due to adverse economic conditions. Initiation of a review of the 2011 Heap Leach (HL) PEA. • Interim report from BEGE on complementary botanical and archaeological studies completed for the CIL DFS. • Decision in August 2014 to update the 2011 HL PEA, under the supervision of GMSI, and with the support of Kappes, Cassiday & Associates (KCA) from Reno, NV, USA, and Golder Associates Inc. (Golder) from Reno, NV, USA for the process engineering. • QA/QC report, RC, core and check assay programs completed from November 2012 to June 2013. • Preliminary PEA HL facility design delivered by Golder in November 2014. • Final DFS report from Golder in December 2013 on the CIL process geochemical characterization of waste rock, tailings, and potential construction material.
2014	• Release in January 2014 of the findings of the HL PEA completed under the direction of GMSI. • Decision to proceed with an HL DFS in January 2014. • Initiation in January 2014 of the HL metallurgical DFS under the supervision of KCA. This study includes one sample consisting of the coarse fraction scrubbed from the Met-Solve Laboratories Inc. 2013 oxide core samples scrubbing program. Final report delivered in August 2014. • Preliminary design delivered by Golder in February 2014 of the HL facility at a new site retained for the HL DFS. • Initiation of the HL DFS geotechnical study under the supervision of Golder. Field report delivered in July 2014. The field program executed in February and March 2014 included seven new core boreholes (170 m), eight new pressure metre boreholes (167 m), 51 new RC boreholes (2,167 m; a piezometer was installed in 8 boreholes), and 71 test pits (up to 5 m deep). All the samples were described. Laboratory test work was completed and reported from April to July 2014. All the samples were, if possible, used by Orezone as part of the sterilization program, i.e., they were described, assayed for gold, and analyzed by XRF (multi-elements Orezone bench top Niton units). • Updated CIL process interim baseline environmental study from BEGE delivered in March 2014. • Report delivered in April 2014 of the audit completed by WSP Canada Inc. (WSP) on the ESIA and RAP work completed by BEGE and SOCREGE since 2011, and on the gaps to fill to complete the HL DFS. • Cyanide leach report delivered in April 2014 by Met-Solve on the fine fraction scrubbed from the 2013 oxide core samples. • Limited core drilling program (1,114 m) in May 2014 in the CFU and P17S areas. • RC drilling program (21,383 m) from May to July 2014, essentially infill definition drilling in the north area of the project. • Hiring of KCA to coordinate and deliver the hybrid process DFS. • Complementary DFS comminution test work report delivered by SGS Lakefield Canada in June 2014. • Updated CIL process interim baseline environmental study from BEGE delivered in June 2014. • Updated CIL process interim socio-economic study from SOCREGE delivered in July 2014. • Decision to assess a hybrid process (HL and CIL) for the DFS based on the HL metallurgical study results to reduce the operational risks inherent to the high-cement agglomeration requirement for the saprolite material. • Release in June 2014 of the preliminary conclusions about the hybrid process based on

Period	Exploration Activities and Studies
	the Met-Solve and KCA test work. Final report on the hybrid process preliminary test work delivered by KCA in November 2014. • Hybrid design trade-off study delivered by Golder in June 2014. • Revised ESIA and RAP terms of reference relevant to the hybrid process submitted to the Ministry of Environment in July 2014. • PFS assessment of the hybrid process facility (tailings storage and heap leach pad) delivered by Golder in August 2014. • Preliminary assessment by WSP in August 2014 of the 2009 and 2014 Bomboré metallurgical results relevant to the environmental impacts of the hybrid process DFS. • Preliminary assessment by WSP in September 2014 of the baseline air quality conditions relevant to the environmental impacts of the hybrid process DFS. • Preliminary assessment by WSP in September 2014 of the baseline acoustic conditions relevant to the environmental impacts of the hybrid process DFS. • QA/QC report, RC, core, geotechnical and check assay programs completed from July 2013 to August 2014. • DFS pit slope recommendations from Golder delivered in November 2014. • Initiation of the hybrid process DFS geotechnical study under the supervision of Golder. The field program was executed in December 2014 and included 40 new RC holes (1,153 m; a piezometer was installed in one borehole) and 58 test pits (up to 5 m deep). All the samples were described. Laboratory test work was completed and reported from January 2015 to March 2015. All of the samples were, if possible, used by Orezone as part of the sterilization program, i.e. they were described, assayed for gold, and analyzed by XRF (multi-elements Orezone bench top Niton units).
2015	• DFS Assessment, Hybrid Facility (Tailings Impoundment and Heap Leach Pad), final report delivered by Golder in January 2015. • Progress report delivered by BEGE in January 2015 on the complementary archaeological and ethnographic studies relevant to the hybrid process DFS. • QA/QC report, geotechnical and check assay programs completed from September 2014 to February 2015. • Various reports delivered by Golder such as the design of the waste rock dumps, plant foundations, bridge foundations, and surface water management infrastructure. • Final revision of the ESIA and RAP terms of reference relevant to the hybrid process submitted to the Ministry of Environment in February 2015.
2016	• A small drill program completed from November to December 2016, including 3,162 m of RC drilling in the P13 and P17S areas, and 2,806 m of core definition drilling in the P17S area. • A small induced polarization and gravimetry test survey was also completed during the drill program.

10 DRILLING

DRILLING PROGRAMS

The following is paraphrased from the French version of the Project FS prepared by Orezone and appended to the Orezone Bomboré Operating Mining permit application submitted to the MEMC in April 2015. Subsequent to this, Orezone undertook a small drill program from November to December 2016 but no results from this program were included in this Mineral Resource Estimate.

Orezone undertook core, RC, and auger drilling on the Property from 2003 to 2014 that supported the geological model used for the Mineral Resource estimate described in Section 14. Auger sample assay results were not used for the Mineral Resource grade estimation, but auger drill data was used to interpret the geological model. The location of the core and RC borehole collars is shown in Figure 10-1. A summary of Orezone drilling from 2003 to 2014 is presented in Table 10-1. Drilling by previous owners is summarized in Section 6. Boreholes completed after the previous resource estimate dated April 2013 include new definition RC and core boreholes, sterilization and geotechnical boreholes, and some deepened core holes.

TABLE 10-1 SUMMARY OF OREZONE DRILLING
Orezone Gold Corporation – Bomboré Project

Years	Drilling Type	Number of Holes Drilled	Length (m)
2003	RC	24	1,387
2005	RC	217	13,829
2006	RC	102	7,187
2007 to 2008	RC	287	21,246
2007 to 2008	Core	57	5,714
2009	Core	29	7,738
2010	Auger	489	3,054
2010	RC	619	42,456
2011 to 2013	Auger	3,732	17,004
2011 to 2013	Core	830	131,091
2011 to 2013	RC	2,636	152,616
2012 to 2014	Core	110	11,526
2012 to 2014	RC	824	45,732
2016	Core	27	2,806
2016	RC	72	3,162
	Auger	**4,221**	**20,058**
TOTAL	**RC**	**4,775**	**287,102**
	Core	**1,052**	**158,875**

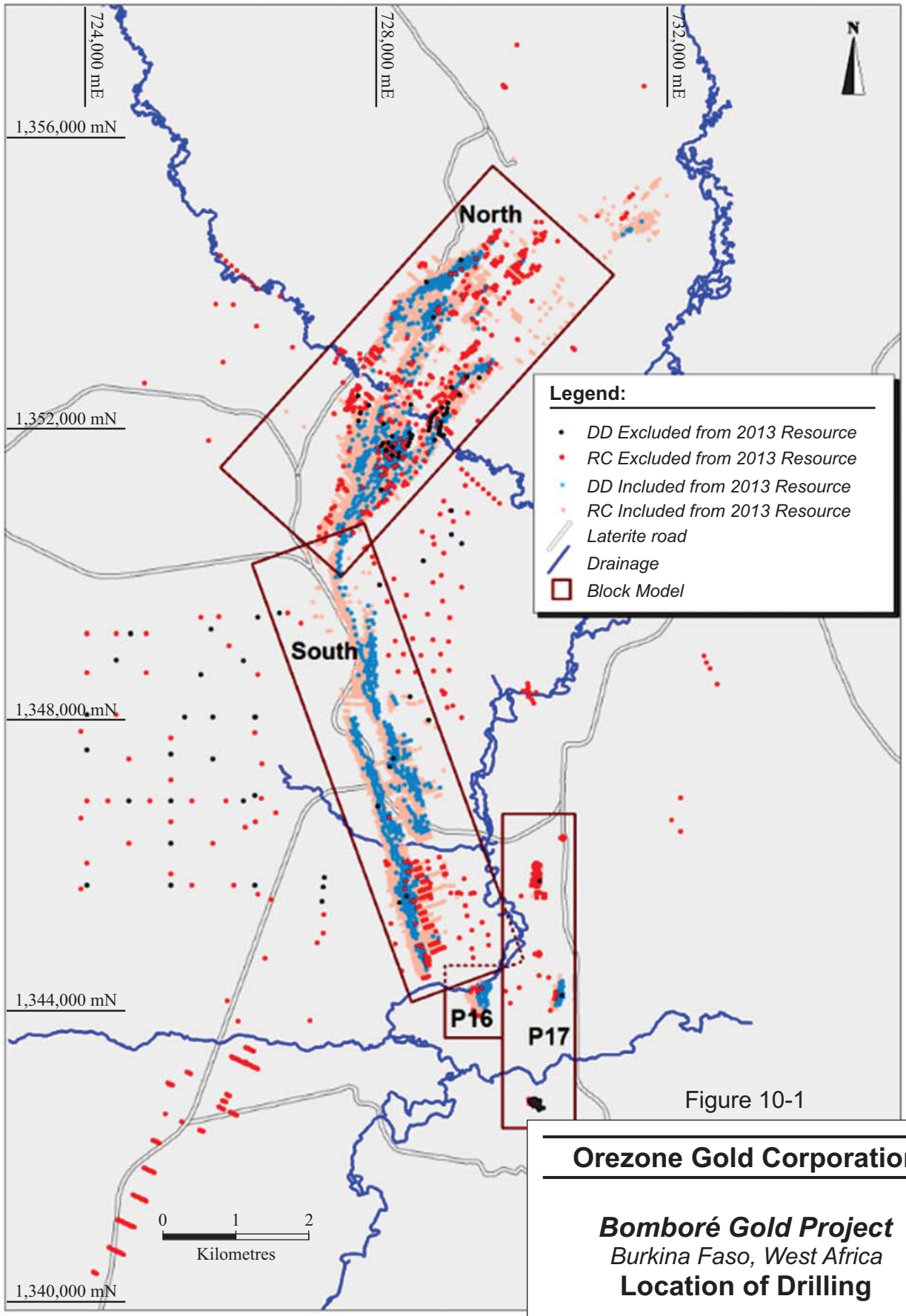


Figure 10-1

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Location of Drilling

January 2017

Source: Orezone, 2016.

DRILLING PROCEDURES

TYPE OF DRILLING

Orezone chose to drill significantly more RC holes than core holes because of the shallow and weathered nature of the targeted portion of the BSZ. Core drilling was used to define deeper targets within the sulphide zone.

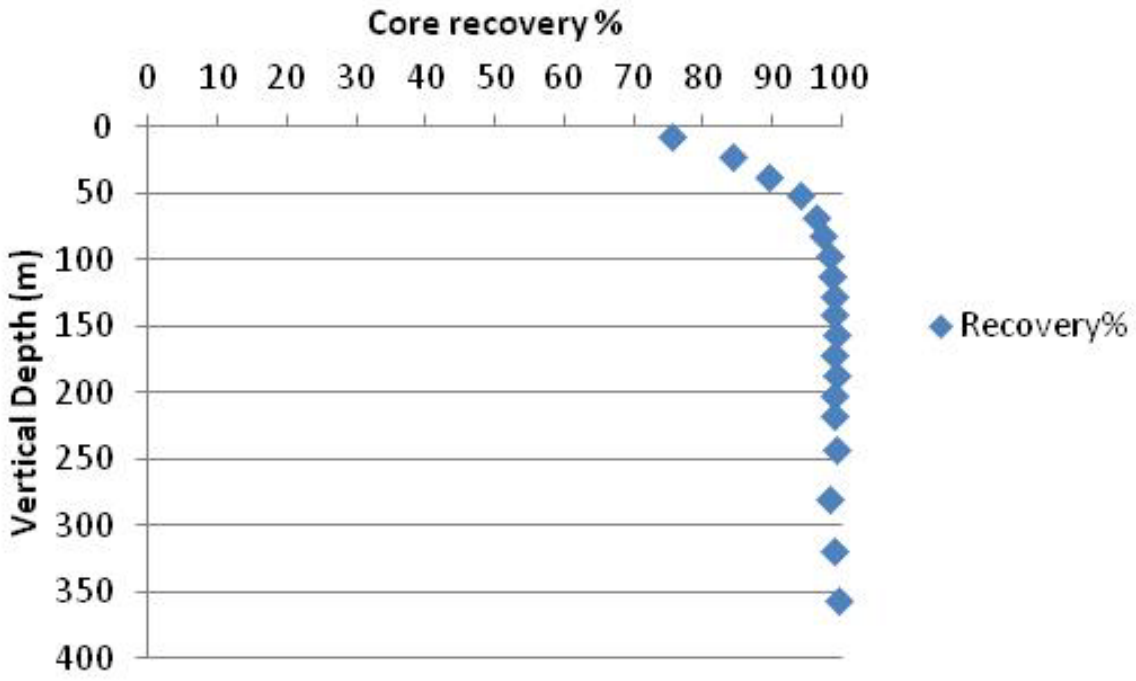
Since 2010, core drilling has been completed by JMS Drilling Inc. (JMS) using up to five Boart Longyear 44 rigs with an HQ core barrel for the weathered zone and an NQ core barrel for the fresh bedrock. Prior to 2012, RC drilling was mostly completed by Boart Longyear using either a CatMax or a DeltaBase RC drilling rig equipped with a 5.25 in. hammer bit. Since February 2012, all drilling has been carried out using Orezone's own Hardab rig operated by JMS. The Orezone owned rig completed 46,556 m of drilling from December 2011 to June 2012, 38,055 m from September 2012 to April 2013, and 24,703 m in 2014.

WATER TABLE ELEVATION AND SAMPLE RECOVERY

The water table is encountered at a depth of approximately 20 m on average and is shallower in the southern (Siga) area and deeper in the northern (Maga) area. The RC rigs are equipped with compressors powerful enough to completely flush the borehole between rod additions and during bit advancement. Recovery from the RC boreholes is based on sample weight and has been estimated to average between 83% and 92% in the oxide zone, 91% and 95% in the transition zone, and 84% and 89% in the sulphide zone. Estimates are based on a theoretical volumetric density of 1.83 g/cm^3, 2.35 g/cm^3 and 2.86 g/cm^3, respectively, for each of those weathering zones.

Core recovery, based on detailed geotechnical logs representing approximately 129,000 m of drilling, averages 76% in the top 15 m and increases across the weathering profile to greater than 98% from the top of the sulphide zone (Figure 10-2).

FIGURE 10-2 CORE RECOVERY BY VERTICAL DEPTH



BOREHOLE ORIENTATION AND DRILLING PATTERN

The RC and core boreholes were drilled towards the northwest in the northern area (Maga, CFU and P8/P9 deposits), the west in the area of P11, P16, and P17, and the west-southwest in the Siga area. In all areas, the drilling direction is opposed to the dip and orthogonal to the average strike of the lithological units, major fabric, and mineralized envelopes. The plunge of the boreholes at the collar is commonly 50°±5º degrees, intersecting the lithological units, major fabric, and mineralized envelopes at an angle between 65º and 90º.

The oxide resources have been defined along 50 m sections with 25 m between the drill collars. The sulphide resources have been defined along 50 m sections with 50 m between the drill collars. In some areas, such as the Maga North and P8/P9 starter pits, the RC drill collars were drilled on a 25 m by 25 m pattern.

PLANNING AND BOREHOLE IMPLEMENTATION

Drilling programs are planned by the exploration team under the supervision of the Vice President of Exploration and the Exploration Manager. A handheld GPS with a precision of ±5 m is used by a technician to locate and prepare drilling pads. The borehole collars are

spotted in the field and pegged using a Differential Global Positioning System (DGPS) that is set to achieve a sub-metre accuracy.

Once drilled, the casing is surveyed using both DGPS and a Total Station instrument. Orezone used contractor La Boussole from Ouagadougou in 2006 for the Total Station surveys but then acquired a Leica Total Station instrument and surveyed the drill collars internally. Orezone acquired a new Trimble M3 Total Station instrument in 2011 and a Trimble R6 DGPS instrument in 2012, which is coupled with the Trimble M3 Total Station instrument and uses the national network of CORS DGPS stations now installed in Burkina Faso. This system provides accurate coordinates over the entire Project area. The DGPS accuracy is validated on a known control station at the beginning and end of each work shift.

Orezone re-surveyed all drill holes back to 1994 using the Leica Total Station instrument or the DGPS instrument. A series of geodetic stations tied to the national grid system had been set up by La Boussole to build a network of control survey stations over the entire Project area. The planned and final collar coordinates are transferred into the database as “collar” files.

Upon completion, a three metre PVC pipe is inserted in RC holes and a six metre PVC pipe is inserted in core holes. The top of the pipe is capped by a concrete beacon on which the Hole-ID, the final depth, and the date of completion are recorded.

BOREHOLE TRAJECTORY

An Orezone crew conducts downhole deviation surveys in open RC boreholes after drilling is completed, rods have been pulled and the rig moved, but before the PVC casing is capped. Readings are taken at 25 m increments starting at six metres below the collar. The reading at a depth of six metres is used to control the quality of the drill collar alignment. A mock probe is first run down and up the hole to confirm that it is open and safe.

Readings in core boreholes are taken once or twice a day with the instrument positioned six metres ahead of the drill string to avoid magnetic interference. If the distance between successive tests exceeds 30 m, rods are removed to take additional readings and to maintain on average 25 m between successive readings.

The path of the Orezone boreholes was surveyed using a Reflex Instrument that measures several parameters, including the plunge of the borehole and the three components of the magnetic field. It relies on a compass to read the azimuth. The azimuth angles are validated against the measured intensity of magnetic field, and an accelerometer reading to ensure the compass was stable when measurements were taken. The magnetic azimuth is converted to a geographic azimuth using the declination applicable at the time of the survey.

The borehole path of RC boreholes at the Property typically steepens up with depth, contrary to core holes that have the opposite behaviour, but both types of boreholes deviate to the right of the collar azimuth. Borehole deviation is not a critical issue because more than 75% of the boreholes are shorter than 70 m and 93% of the boreholes do not exceed a depth of 90 m. The Reflex instrument occasionally produces incorrect results. Spurious readings can be filtered out and the deviation path can be interpolated. In RPA's opinion, the survey method applied by Orezone conforms to industry best practice.

DESCRIPTION OF RC CUTTINGS

RC holes are sampled at one metre intervals by collecting 100% of the material reporting to the cyclone. Small samples of screened and washed chips from each one metre run are saved in labelled plastic boxes (chip boxes). A quick log of RC chips is done at the drill site to monitor the drill advance and extend the borehole if necessary as the Orezone objective is to reach the top of the sulphide zone before a hole is stopped, although the large majority of RC holes reach a minimal depth of 50 m even if the top of the sulphide zone is significantly shallower.

The bags containing the RC chips are transported by truck from the drill site to Orezone's storage area in the Property where they are weighed to estimate recovery, and magnetic susceptibility is measured. The description of the RC cuttings is recorded as logs in Microsoft Excel spreadsheets.

Significant gold assay results are added on the chip box cover once they become available. Chip boxes have all been photographed (Figure 10-3) to facilitate the validation of the description during the 3D geological modelling.

The RC material remaining after sampling is saved in plastic bags at the Property storage area (Figure 10-4). Once the QA/QC check assaying program is completed, barren sample

rejects from multi-metre zones are discarded but all samples from mineralized or geochemically anomalous (> 0.1 g/t) zones are kept. Some sample bags damaged by UV light despite of the protective sheet are also discarded.

FIGURE 10-3 CHIP BOX PHOTOGRAPH

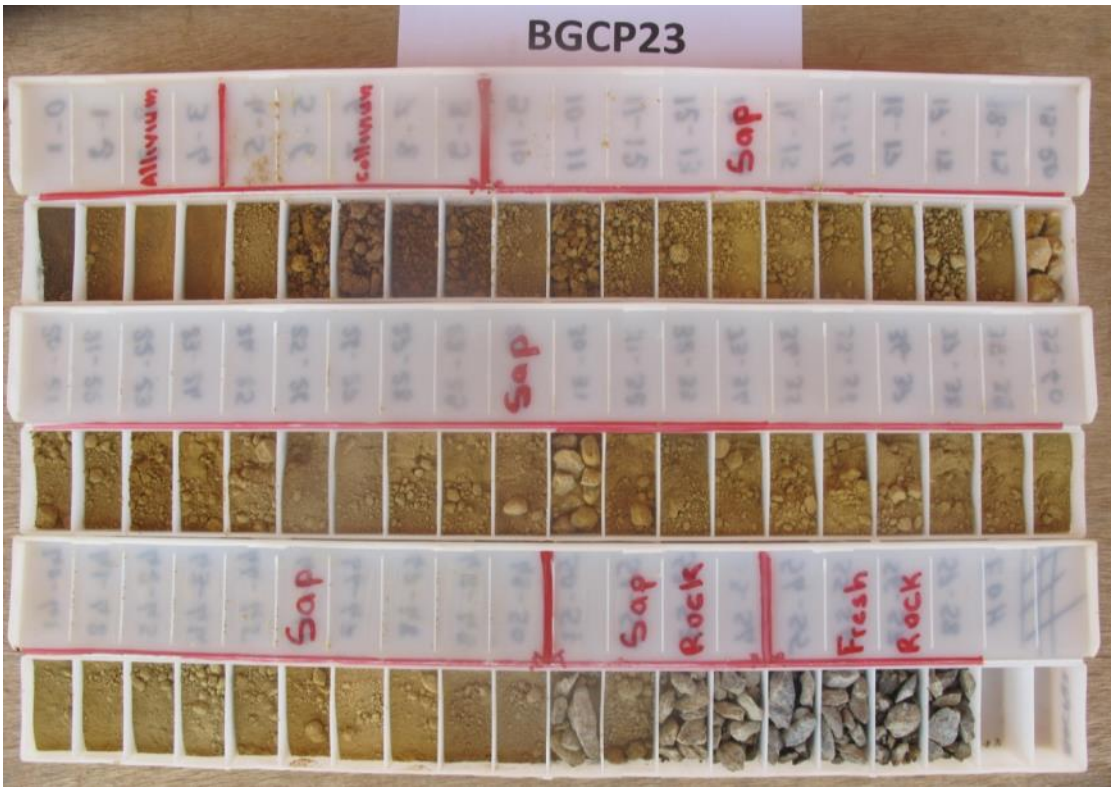


FIGURE 10-4 RC SAMPLE STORAGE AT THE BOMBORÉ MAIN CAMP

Orezone uses a well-designed procedure for logging the RC samples and the subsequent integration of this information into the exploration database. All field measurements,

geological logging (lithological, structural, mineralization, and alteration features) and sampling parameters of the RC boreholes are captured directly in fixed forms with menus on a Microsoft Excel platform loaded in handheld computers. Logs are checked daily by the project geologist for completeness and accuracy. The validation of the field descriptions and measurements involves the samplers, technicians, junior geologists, and the project geologist before the data are sent to Ouagadougou for further validation by the GIS and database team responsible for importing the data in Datashed, and the senior geologist who is responsible for the 3D geological modelling. The GIS team and the senior geologist use MapInfo and GEMS to validate the geology of each hole and model the geology of each deposit. Over the years, chips from previous RC boreholes drilled by Orezone have been re-logged to record additional standardized information and ascertain consistency between the descriptions of a large number of geologists.

DESCRIPTION OF DRILL CORE

Orezone uses procedure for drill core similar to the RC program, but with the addition of measurements and descriptions specific to drill core, i.e., density measurements, a geotechnical description (Rock Quality Designation (RQD), joint/fracture analyses, material type and rock strength), and the goniometric measurements of structural elements. Core boxes are photographed before and after sampling (Figure 10-5).

FIGURE 10-5 CORE BOXES PHOTOGRAPHS, BEFORE AND AFTER SAMPLING

RPA COMMENTS

In the opinion of RPA, the drilling procedures employed by Orezone conform to industry best practice and the resultant drilling pattern is sufficient to interpret the geometry and the

boundaries of the gold mineralization with confidence. All drilling sampling was conducted by qualified personnel under the direct supervision of appropriately qualified geologists.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The following is summarized from the final French version of the Project FS prepared by Orezone and appended to the Orezone Bomboré Operating Mining permit application submitted to the MEMC in April 2016.

SAMPLING AND ANALYSIS BY OREZONE 2003 to 2015

2003 RC PROGRAM

For the 2003 RC drilling program, samples were collected at the rig cyclone at one metre intervals. Each sample was logged, then split with a riffle splitter and recombined in a two metre composite sample that was submitted to Abilab Afrique de l'Ouest s.a.r.l. from Bamako, Mali, to analyze gold by the fire assay method. The series of 1,115 samples that were submitted included approximately 1% of duplicate and triplicate samples and two certified reference material (CRM) samples.

2005 TO 2007 RC PROGRAMS

The protocols used by Orezone for the sampling and the QA/QC, and the protocols used by the sample preparation laboratory and analytical laboratories for the RC drilling programs completed in 2005, 2006, and 2007 are summarized in Table 11-1. Most sample preparation was done at Abilab-Ouagadougou, SGS-Tarkwa, Ghana, and SGS-Siguiri, Guinea; and a minor amount at SGS-Ouagadougou.

TABLE 11-1 SUMMARY OF THE SAMPLING PROTOCOL FROM 2005 TO 2007
Orezone Gold Corporation – Bomboré Project

PROTOCOLS
SAMPLING AND SAMPLE PREPARATION
• 100% of the material reporting to the RC rig cyclone is collected at one metre intervals during the drilling advance in a 500 mm by 800 mm polypropylene bag. • Each bag is identified with a black marker by the Hole-ID and the depth interval of the sample and is assigned a unique sample number from a multi-stubs sample book. • No material other than the blow-back material is abandoned at the drilling site. • The samples are transported immediately to the Orezone camp where the sample splitting and detail logging take place. • A four to five kilogram fraction is collected from each one metre sample using a riffle splitter, after sun-baking the rare damp or wet samples. The riffle splitter is cleaned with a brush or a rag after each sample. • The rest of the sample is kept under an open shed, in heaps covered by a tarp or black plastic

sheeting, over a compacted laterite base that is protecting the heap of bags from the run-off waters.

- The five kilogram samples are packaged in lots of eight samples in 100 kg rice bags and sent in large lots to the QPS sample preparation facility in Ouagadougou. Each shipment includes specific instructions to the preparation laboratory regarding the insertion of QA/QC samples (see QA/QC below).
- At QPS, each sample is entirely dried, pulverized with a Keegor mill and divided in two halves of about two kilograms with a riffle splitter.
- The samples are then packaged in lots of 20 in 100 kg rice bags and sent in large lots to the analytical laboratory.

QA/QC

- A second riffle splitter fraction of five kilograms is collected by Orezone and identified as a field sample duplicate (code FD) in Orezone sampling log.
- FD samples are collected according to a predetermined random list and represent 2% of the stream of samples submitted to the analytical laboratory. The FD follows immediately the fivekilogram sample from the same parent sample and is blind to the preparation laboratory.
- A duplicate sample of the pulverized material is collected at the preparation laboratory and identified as a pulp duplicate (code PD) in the sampling log; an empty bag with its sample number stub was inserted by Orezone in the stream of samples submitted to the preparation laboratory, and the list of PD samples to be collected by QPS is submitted by Orezone to QPS for each lot of samples.
- PD samples are collected according to a predetermined random list and represent 4% of the stream of samples submitted to the analytical laboratory. The PD sample follows immediately the two kg sample from the same parent sample and is blind to the preparation laboratory.
- Non-certified reference material samples are inserted by QPS according to instructions submitted by Orezone to QPS for each lot of samples; an empty bag with its sample number stub was inserted by Orezone in the stream of samples submitted to the preparation laboratory.
- Non-certified reference material samples are inserted according to a predetermined random list and represent 4% of the stream of samples submitted to the analytical laboratory, i.e., 2% of blank material and 2% of mineralized material.
- The reference material is made of bulk samples of several hundred kilograms collected on Orezone exploration projects: the gold grade thus varies from batch to batch and the reference material can therefore be used to detect sample mix-up or cross-contamination issues but cannot be used to monitor the accuracy of the analytical results. Each bulk sample was submitted separately to QPS, totally dried, pulverized, and divided in two kilogram fractions for subsequent insertion in the stream of prepared samples, according to Orezone instructions. The reference material to be inserted is selected by Orezone to blend (colour-wise) into the sequence as inconspicuously as possible for the analytical laboratory.

ANALYTICAL WORK

- In 2005, the gold content of each two kilogram samples was analyzed by bottle-roll cyanidation (BLEG) after 24 hours of rolling.
- If the soluble gold grade is equal to or greater than 0.5 g/t, the leach residues are neutralized, dried and prepared for a gold analysis by fire assay on a 50 g aliquot and atomic absorption spectrometry finish (AAS) finish; the leach residue assay is reported together with the bottle roll assays by some laboratories or separately by others.
- In 2006 and 2007, the gold content of each two kilogram samples was analyzed by bottle-roll cyanidation (LeachWELL) after 12 hours of rolling.
- If the soluble gold grade is equal to or greater than 0.5 g/t, the leach residues are neutralized, dried and prepared for a gold analysis by fire assay on a 50 g aliquot and AAS finish; the leach residue assays are reported together with the bottle roll assays; the leach residue assay is reported together with the bottle roll assays by some laboratories or separately by others.

2008 DRILLING PROGRAM

The sampling, analytical, and QA/QC protocols used during the 2008 RC drilling program are summarized in Table 11-2.

TABLE 11-2 SUMMARY SAMPLING, ANALYTICAL AND QA/QC PROTOCOLS USED DURING THE 2008 RC DRILLING PROGRAM
Orezone Gold Corporation – Bomboré Project

PROTOCOLS
SAMPLING AND SAMPLE PREPARATION
• 100% of the material reporting to the RC rig cyclone is collected at one metre intervals during the drilling advance in a 500 mm by 800 mm polypropylene bag. • Each bag is identified with a black marker by the Hole-ID and the depth interval of the sample and is assigned a unique sample number from a multi-stubs sample book. • No material other than the blow-back material is abandoned at the drilling site. • The samples are transported immediately to the Orezone camp where the sample splitting and detail logging take place. • A 2.5 kg fraction is collected from each one metre sample using a riffle splitter in several stages, after sun-baking the rare damp or wet samples. The riffle splitter is cleaned with a brush or a rag after each sample. • The rest of the sample is kept under an open shed, in heaps covered by a tarp or black plastic sheeting, over a compacted laterite base that is protecting the heap of bags from the run-off waters. • The 2.5 kg samples are packaged in lots of 15 samples in 100 kg rice bags and sent in large lots to the Orezone Kossodo facility in Ouagadougou. Each shipment includes specific instructions regarding the insertion of QA/QC samples (see QA/QC below). • The Orezone Kossodo team inserts QA/QC samples in the stream of field samples that are then submitted in lots of about 200 samples to a commercial sample preparation laboratory in Ouagadougou. • At the commercial sample preparation laboratory, each sample is entirely dried, pulverized with a Keegor mill, and then returned to the Orezone Kossodo team.
QA/QC
• At Bomboré, a second riffle splitter fraction of 2.5 kg is collected by Orezone and identified as a field sample duplicate (code FD) in Orezone sampling log. • FD samples are collected according to a predetermined random list and represent 2% of the stream of samples submitted to the analytical laboratory. The FD follows immediately the 2.5 kg sample from the same parent sample and is blind to the preparation laboratory. • The Orezone Kossodo team receives the field sample delivery, validates the list of samples, monitors their respective weight and inserts reference material samples (blank or mineralized) according to the instructions received from the Bomboré team and based on the Orezone predetermined random list. • Reference material samples represent 4% of the stream of samples submitted to the analytical laboratory, i.e., 2% blanks and 2% standards. • The Orezone Kossodo team retrieves the batch of samples prepared by the commercial sample preparation laboratory, validates the list of samples, monitors their respective weight and produces a one kilogram split sample with a riffle splitter. • Riffle splitter pulp duplicate samples (code PD) are collected according to a predetermined random list and represent 4% of the stream of samples submitted to the analytical laboratory. The PD follows immediately the 2.5 kg sample from the same parent sample and is blind to the preparation laboratory. • Riffle splitter pulp duplicate samples (code LAPD) are collected so that the analytical laboratory has 10% of duplicate samples for internal QA/QC purpose.

PROTOCOLS

- The one kilogram samples are packaged in lots of 20 samples in 100 kg rice bags by the Orezone Kossodo team and then submitted in lots of about 200 samples to a commercial analytical laboratory in Ouagadougou.
- Orezone is recording the weight of the field sample, the weight of each fraction generated by riffle splitting before the sample preparation, the weight recorded by the sample preparation laboratory, the weight of each fraction generated by riffle splitting after the sample preparation and the weight recorded by the analytical laboratory.
- These weights are compared so as to detect (i) any losses during the transfer from the Bomboré project to Kossodo, or between Kossodo and the sample preparation laboratory or the analytical laboratory, (ii) excessive losses at the sample preparation stage, (iii) sample mix-up at any stage, or (iv) incomplete use of the sample submitted by the analytical laboratory.

ANALYTICAL WORK

- From October 2007, one kilogram samples have been analyzed for gold by bottle-roll LeachWELL cyanidation during ten hours.
- If the leachable gold grade is greater than or equal to 0.5 g/t for any given sample, the commercial analytical laboratory is instructed to neutralize, dry, and pulverize this sample with a LM2 shatter box before assaying for gold a 50 g split by fire assay with an AAS finish.

2010 TO PRESENT RC DRILLING PROGRAMS

The sampling, analytical, and QA/QC protocols used since 2010 on RC drilling programs are summarized in Table 11-3.

TABLE 11-3 SUMMARY SAMPLING, ANALYTICAL AND QA/QC PROTOCOLS USED IN RC DRILLING PROGRAMS SINCE 2010
Orezone Gold Corporation – Bomboré Project

PROTOCOLS

SAMPLING AND SAMPLE PREPARATION

- 100% of the material reporting to the RC rig cyclone is collected at one metre intervals during the drilling advance in a 500 mm by 800 mm polypropylene bag.
- Each bag is identified with a black marker by the Hole-ID and the depth interval of the sample and is assigned a unique sample number from a multi-stubs sample book.
- No material other than the blow-back material is abandoned at the drilling site.
- The samples are transported immediately to the Orezone sampling facility where the sample splitting and detail logging take place.
- A ±2.1 kg fraction is collected from each one metre sample using Rotary Sample Divider (RSD) in at most two stages, after sun-baking the rare damp or wet samples. The RSD is cleaned with a brush or a rag and with compressed air after each sample.
- The rest of the sample is kept under an open shed, in heaps covered by a tarp or black plastic sheeting, over a compacted laterite base that is protecting the heap of bags from the run-off waters.
- The 2.1 kg samples are packaged in lots of 15 samples in 100 kg rice bags and sent in large lots to the Orezone Kossodo facility in Ouagadougou. Each shipment includes specific instructions regarding the insertion of QA/QC samples (see QA/QC below).
- The Orezone Kossodo team inserts QA/QC samples in the stream of field samples that are then submitted in lots of approximately 200 samples to a commercial sample preparation laboratory in Ouagadougou.
- During the period from June 2012 to July 2014, most of the samples were submitted to the Bomboré sample preparation laboratory operated by SGS and in this case the QA/QC samples were inserted at Bomboré by the Orezone Bomboré team.

- At the commercial sample preparation laboratory, each sample is entirely dried, pulverized with a Keegor mill, and then returned to the Orezone Kossodo team.
- The samples prepared at the Bomboré sample preparation laboratory were pulverized with a LM2 shatter box.

QA/QC

- At Bomboré, a second RSD fraction of ±2.1 kg is collected by Orezone and identified as a field sample duplicate (code FD) in the Orezone sampling log.
- FD samples are collected according to a predetermined random list and represent 2% of the stream of samples submitted to the analytical laboratory. The FD follows immediately the ±2.1 kg sample from the same parent sample and is blind to the preparation laboratory.
- The Orezone team receives the field sample delivery, validates the list of samples, monitors their respective weight, and inserts reference material samples (blank or mineralized) according to the instructions received from the Bomboré team and based on Orezone predetermined random list.
- Reference material samples represent 4% of the stream of samples submitted to the analytical laboratory, i.e., 2% blanks and 2% standards.
- The Orezone Kossodo team retrieves the batch of samples prepared by the commercial sample preparation laboratory, validates the list of samples, monitors their respective weight and produces a 1 kg split sample with a riffle splitter.
- RSD duplicate pulp samples (code PD) are collected according to a predetermined random list and represent 4% of the stream of samples submitted to the analytical laboratory. The PD follows immediately the 2.5 kg sample from the same parent sample and is blind to the preparation laboratory.
- Riffle splitter pulp duplicate samples (code LAPD) are collected so that the analytical laboratory has 10% of duplicate samples for internal QA/QC purpose.
- The one kilogram samples are packaged in lots of 20 samples in 100 kg rice bags by the Orezone Kossodo team and then submitted in lots of about 200 samples to a commercial analytical laboratory in Ouagadougou.
- Orezone is recording the weight of the field sample, the weight of each fraction generated by RSD splitting before the sample preparation, the weight recorded by the sample preparation laboratory, the weight of each fraction generated by RSD after the sample preparation, and the weight recorded by the analytical laboratory.
- These weights are compared so as to detect (i) any losses during the transfer from the Bomboré project to Kossodo, or between Kossodo and the sample preparation laboratory or the analytical laboratory, (ii) excessive losses at the sample preparation stage, (iii) sample mix-up at any stage, or (iv) the incomplete use of the sample submitted by the analytical laboratory.
- From 2011, in addition to the sieve tests completed and reported by the sample preparation laboratory, Orezone conducted independent sieve tests on about 5% of the prepared samples.

ANALYTICAL WORK

- One kilogram samples have been analyzed for gold by bottle-roll LeachWELL cyanidation during ten hours.
- If the leachable gold grade is greater than or equal to 0.2 g/t for any given sample, the commercial analytical laboratory is instructed to neutralize, dry, and pulverize this sample with a LM2 shatter box before assaying for gold a 50 g split by fire assay with an AAS finish.

August 2010 to March 2013

During the period from August 2010 to March 2013, Orezone used several commercial laboratories for sample preparation, analysis, and QA/QC, including from May 2012 a preparation facility built at Bomboré and operated by SGS. Summary statistics of the sample preparation activities by laboratory and type of samples are presented in Table 11-4.

TABLE 11-4 SUMMARY OF SAMPLE PREPARATION ACTIVITIES BY LABORATORY AND TYPE OF SAMPLE FOR THE PERIOD FROM AUGUST 1, 2010 TO MARCH 15, 2013
Orezone Gold Corporation – Bomboré Project

Sample Type	ALS	SO	BIGS	ACT	SGS-B	Total
Primary Samples						
Rock (outcrop)		396		174	19	589
Core (definition)	11,962	46,767	33,660	6,993	28,260	127,642
Core (geotechnical)					123	123
RC (geotechnical)					1,856	1,856
Trench (geotechnical)					151	151
Metallurgy					172	172
Auger	3458	2074	2,065			7,597
RC (definition)	39,635	60,446	27,039	1507	51,211	179,838
Check Samples						
Core (definition)					60	60
Auger					16	16
RC (definition)	717	4,946	109	124	521	6,417
Bottle-roll Cyanidation Leach Residue Samples						
Core (definition)			33,578			33,578
Core (geotechnical)			1			1
RC (geotechnical)			43			43
Metallurgy			2,530			2,530
RC (definition)			54,236			54,236
Core (definition check samples)			298			298
RC (definition check samples)			3,906			3,906
Umpire Samples						
Core (definition)						0
RC (definition)	353					353
RC (definition ≥ 5 g Au/t)					34	34
Total	**56,125**	**114,629**	**157,465**	**8,798**	**82,423**	**419,440**

ALS ABILAB Burkina s.a.r.l., a subsidiary company of the ALS Group in Ouagadougou
SO SGS Burkina Faso SA, a subsidiary company of the SGS Group in Ouagadougou
BIGS BIGS Global Burkina s.a.r.l. in Ouagadougou
ACT ACTLABS Burkina Faso s.a.r.l., a subsidiary company of the ACTLABS Group in Ouagadougou
SGS-B SGS Burkina Faso SA, a subsidiary company of the SGS Group operating the Orezone Bomboré sample preparation facility

Summary statistics of analytical services by laboratory for the period 2010 to 2013 are presented in Table 11-5.

TABLE 11-5 SUMMARY OF ANALYTICAL ACTIVITIES BY LABORATORY AND TYPE OF SAMPLE FOR THE PERIOD FROM AUGUST 1, 2010 TO MARCH 15, 2013
Orezone Gold Corporation – Bomboré Project

Sample Type	LeachWELL 1kg		FA-AAS 50g			FA-GRAV 50g
	SGS	BIGS	ALS	SGS	Total	ALS
Primary Samples						
Rock (outcrop)		611			0	
Core (definition)		120,897	14,180		14,180	
Core (geotechnical)		132			0	
RC (geotechnical)		1,894			0	
Trench (geotechnical)		158			0	
Metallurgy (LW on FA ≥0.4 g Au/t)		2,492			0	
Metallurgy (scrubber testwork)		124		144	144	
Auger		7,834			0	
RC (definition)		185,361			0	
Check Samples						
Core (definition)		741	821		821	
Auger		16			0	
RC (definition)		7 085			0	
Bottle-roll Cyanidation Leach Residue Samples (Primary Samples)						
Core (definition)			5,012	28,498	33,510	
Core (geotechnical)				4	4	
RC (geotechnical)				22	22	
Metallurgy			958	1,803	2,761	
RC (definition)			21,779	36,645	58,424	
RC (definition) – 2010 Program			1,030	224	1,254	
Bottle-roll Cyanidation Leach Residue Samples (Check Samples)						
Core (definition)			12	264	276	
RC (definition)			3,394	773	4,167	
Check Assays Leach Residue Samples						
Metallurgy (LW on FA ≥0.4 g Au/t)				4	4	
Core (definition)			112	1,522	1,634	
RC (definition)			117	1,779	1,896	
RC (definition) – Check Assays				34	34	
Umpire Assays						
Core (definition)	2,100			331	331	
RC (definition)	4,763				0	
Core (definition ≥ 5 g Au/t)					0	475
RC (definition ≥ 5 g Au/t)					0	744
Total	**6,863**	**327,345**	**47,415**	**72,047**	**119,462**	**1,219**

LeachWELL 1kg	Bottle-roll cyanidation with LeachWELL on a one kilogram sample over ten hours
FA-AAS 50g	Fire assay and atomic absorption spectrophotometry.
FA-GRAV 50g	Fire assay and gravimetric finish.
ALS	ABILAB Burkina s.a.r.l., a subsidiary company of the ALS Group in Ouagadougou.

SO SGS Burkina Faso SA, a subsidiary company of the SGS Group in Ouagadougou.
BIGS Global Burkina s.a.r.l. in Ouagadougou.

March 2013 to January 2015

During the period from March 2013 to January 2015, Orezone used several commercial laboratories for the sample preparation, analysis, and QA/QC, including a preparation facility built at Bomboré and operated by SGS. Summary statistics of the sample preparation activities by laboratory and type of samples are presented in Table 11-6.

TABLE 11-6 SUMMARY OF SAMPLE PREPARATION ACTIVITIES BY LABORATORY AND TYPE OF SAMPLE FOR THE PERIOD FROM MARCH 16, 2013 TO JANUARY 27, 2015
Orezone Gold Corporation – Bomboré Project

Sample Type	SO	BIGS	SGS-B	Total
Drill Core	56		1,071	1,127
Geotech Core	29			29
Geotech RC	3,559			3,559
Geotech Pits	296			296
RC	6		27,158	27,164
Geotech RC Check Assays	46			46
RC Check Assays	77		284	361
Core Leach Residue		279		279
Geotech DD Leach Residue		2		2
Geotech RC Leach Residue		521		521
Geotech Pits Leach Residue		29		29
RC Leach Residue		8,237		8,237
Leach Residue Check Assays		226		226
Core Umpire	30			30
RC Umpire	380			380
RC Umpire FA GRAV			76	76
Total	**4,479**	**9,294**	**28,589**	**42,362**

Summary statistics of analytical services by laboratory for the period 2013 to 2015 are presented in Table 11-7.

TABLE 11-7 SUMMARY OF ANALYTICAL ACTIVITIES BY LABORATORY, TYPE OF ANALYTICAL SERVICES AND TYPE OF SAMPLE FOR THE PERIOD FROM MARCH 16, 2013 TO JANUARY 27, 2015
Orezone Gold Corporation – Bomboré Project

Sample Type	LeachWELL 1kg		FA-AAS 50g		FA-GRAV 50g	
	SGS	BIGS	ALS	SGS	ALS	SGS
Core	2	1,185				2
Geotech Core		30				
Geotech RC		3,670				
Geotech Pits		312				
RC	12	27,993				
Core Check Assays		57				
RC Check Assays		368			0	
Geotech RC Check Assays		48				
Geotech Pits Check Assays		12				
Core Leach Residue				371		
Geotech DD Leach Residue				3		
Geotech RC Leach Residue				494		
Geotech Pits Leach Residue				34		
RC Leach Residue				8,677		
Core Leach Residue Check Assay				28		
RC Leach Residue Check Assay				116		
Geotech RC Leach Residue Check Assay				8		
Core Umpire	221					
RC Umpire	1,002					
Geotech RC Umpire	114					
Core Umpire FA GRAV					56	20
RC Umpire FA GRAV					106	80
Geotech RC Umpire FA GRAV					4	6
Core Leach Residue Umpire Assay			35			
Core Leach Residue Umpire Assay			419			
Total	**1,351**	**33,675**	**454**	**9,733**	**166**	**106**

SPECIFIC GRAVITY DATA

The specific gravity database includes 84,761 records generated by Orezone from measurements on core from 994 boreholes. Measurements were conducted on site using the water displacement method. Generally, a single piece of core, 10 cm to 15 cm in length, is selected and measured in each core box prior to core splitting for assaying. Wax coating or a plastic film wrap were applied whenever necessary. Specific gravity data were subsequently classified by rock and material type.

Since samples are not fully dried prior to the water displacement test, water present in core samples could potentially overestimate the specific gravity measurement, especially in the oxide and transition zones. To estimate this moisture content, Orezone weighed samples at the sample preparation laboratory before and after drying. The average loss of moisture in the oxide core samples is 5.7%, in the transition core samples 2.8%, and in the fresh core samples 0.2%. As such Orezone applied a reduction factor of 5.5% and 2.5% to individual samples in the oxide and transition zones, respectively, for the block model density calculations.

Orezone has recognized that specific gravity increases with depth through the weathering profile and is then fairly homogeneous within the fresh zone. During the resource estimation process, specific gravity values were interpolated into the block model by Orezone using an ordinary kriging (OK) estimator to generate a realistic model of the tonnage within the Bomboré deposits.

Specific gravity data by lithology and material type is presented in Table 11-8.

TABLE 11-8 SPECIFIC GRAVITY DATA BY LITHOLOGY AND MATERIAL TYPE
Orezone Gold Corporation – Bomboré Project

		Specific Gravity			
Lithology	**Count**	**Average**	**SD**	**Min**	**Max**
Upper Oxide Zone (Ox_U)					
Regolith	655	1.88	0.18	1.29	3.00
Late granitic intrusives	57	1.72	0.20	1.38	2.22
Granodiorite Zr-rich	99	1.81	0.16	1.43	2.22
Porphyritic Granodiorite	1,383	1.75	0.18	1.28	2.85
Dolerite	1	2.17		2.17	2.17
Meta-gabbro (type II) Cr-rich	139	1.78	0.19	1.33	2.77
Gabbro-Diorite	5	1.79	0.08	1.67	1.87
Meta-gabbro (type I) Cr-poor	1,135	1.82	0.18	1.35	3.04
Meta-peridotite	253	1.74	0.17	1.39	2.49
Meta-conglomerate	250	1.87	0.18	1.42	2.52
Meta-sandstone	1,937	1.79	0.19	1.33	2.91
Meta-argillite	917	1.77	0.15	1.26	2.56
Lower Oxide Zone (Ox_L)					
Late granitic intrusives	41	1.83	0.17	1.54	2.41
Granodiorite Zr-rich	91	1.89	0.21	1.37	2.36
Porphyritic Granodiorite	1,356	1.87	0.20	1.30	2.57
Dolerite	2	1.83	0.01	1.83	1.83

Lithology	Specific Gravity				
	Count	Average	SD	Min	Max
Meta-gabbro (type II) Cr-rich	176	1.97	0.20	1.60	2.70
Gabbro-Diorite	17	1.93	0.15	1.59	2.25
Meta-gabbro (type I) Cr-poor	1,279	1.94	0.18	1.28	2.81
Meta-peridotite	309	1.83	0.16	1.46	2.37
Meta-conglomerate	244	1.98	0.20	1.43	2.75
Meta-sandstone	1,828	1.92	0.21	1.26	2.95
Meta-argillite	1,005	1.92	0.16	1.49	2.76
Upper Transition Zone (TR_U)					
Late granitic intrusives	43	2.41	0.20	1.59	2.76
Granodiorite Zr-rich	87	2.34	0.20	1.79	2.66
Porphyritic Granodiorite	1,170	2.29	0.16	1.51	2.69
Meta-gabbro (type II) Cr-rich	178	2.42	0.24	1.93	3.08
Gabbro-Diorite	24	2.30	0.25	1.78	2.68
Meta-gabbro (type I) Cr-poor	932	2.32	0.20	1.68	2.85
Meta-peridotite	117	2.24	0.26	1.81	2.90
Meta-conglomerate	273	2.39	0.19	1.99	2.80
Meta-sandstone	1,261	2.30	0.15	1.66	2.77
Meta-argillite	643	2.27	0.13	1.83	2.65
Lower Transition Zone (TR_L)					
Late granitic intrusives	42	2.43	0.30	1.57	2.72
Granodiorite Zr-rich	126	2.47	0.18	1.87	2.76
Porphyritic Granodiorite	1,149	2.41	0.16	1.63	2.83
Meta-gabbro (type II) Cr-rich	129	2.50	0.22	1.82	2.96
Gabbro-Diorite	39	2.40	0.27	1.83	2.83
Meta-gabbro (type I) Cr-poor	962	2.46	0.20	1.74	3.02
Meta-peridotite	126	2.24	0.28	1.55	2.94
Meta-conglomerate	213	2.47	0.16	1.96	2.86
Meta-sandstone	1,454	2.44	0.17	1.66	3.11
Meta-argillite	685	2.45	0.14	1.67	2.90
Upper Sulphide Zone (Fr_U)					
Late granitic intrusives	176	2.69	0.06	2.44	2.91
Granodiorite Zr-rich	766	2.76	0.06	2.30	3.15
Porphyritic Granodiorite	4,036	2.74	0.07	2.16	3.22
Dolerite	2	3.02	0.17	2.90	3.15
Meta-granite	6	2.68	0.02	2.66	2.70
Meta-gabbro (type II) Cr-rich	784	2.97	0.11	2.26	3.69
Gabbro-Diorite	579	2.95	0.15	2.17	3.25
Meta-gabbro (type I) Cr-poor	4,349	2.93	0.13	2.23	3.84
Meta-peridotite	401	2.80	0.13	1.84	3.06
Meta-conglomerate	1,231	2.81	0.10	2.28	3.11
Meta-sandstone	4,032	2.76	0.07	1.98	3.32
Undifferentiated sediments (P17S)	2	2.99	0.11	2.91	3.06

Lithology	Specific Gravity Count	Average	SD	Min	Max
Meta-argillite	1,366	2.72	0.06	2.38	2.99
Lower Sulphide Zone (Fr_L)					
Late granitic intrusives	727	2.71	0.07	2.48	3.17
Granodiorite Zr-rich	2,182	2.77	0.04	2.50	3.16
Porphyritic Granodiorite	8,563	2.76	0.06	1.94	3.25
Dolerite	6	2.95	0.08	2.88	3.11
Meta-granite	15	2.71	0.05	2.66	2.83
Meta-gabbro (type II) Cr-rich	1,242	2.97	0.10	2.63	3.27
Gabbro-Diorite	1,049	2.91	0.12	2.61	3.32
Meta-gabbro (type I) Cr-poor	11,906	2.94	0.12	2.50	3.47
Meta-peridotite	1,231	2.82	0.08	2.39	3.20
Meta-conglomerate	2,489	2.82	0.07	2.60	3.34
Meta-sandstone	11,509	2.78	0.06	2.34	3.43
Undifferentiated sediments (P17S)	143	2.89	0.10	2.71	3.19

QUALITY ASSURANCE AND QUALITY CONTROL

Quality control measures are typically set in place to ensure the reliability and trustworthiness of exploration data. These measures include written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management, and database integrity. Appropriate documentation of quality control measures and regular analysis of quality control data are important as a safeguard for project data and form the basis for the quality assurance program implemented during exploration.

Analytical control measures typically involve internal and external laboratory control measures implemented to monitor the precision and accuracy of the sampling, sample preparation, and assaying. They are also important to prevent sample mix-up and to monitor the voluntary or inadvertent contamination of samples.

Assaying protocols typically involve regularly duplicating and replicating assays and inserting quality control samples to monitor the reliability of assaying results throughout the sampling and assaying process. Check assaying is normally performed as an additional test of the reliability of assaying results; it generally involves re-assaying a set number of sample pulps at a secondary umpire laboratory.

Detailed reviews of analytical quality control measures implemented since December 2012 and March 2013 for the P16 deposit are provided in (Maes, October 2014) and (Maes,

February 2015). Detailed reviews of analytical quality control measures implemented prior to December 2012 and prior to March 2013 for the P16 deposit are provided by Met-Chem (Buro and Saucier, 2008) and SRK (Cole and El-Rassi, 2008; Cole and El-Rassi, 2010; Cole et al., 2012; Gourde, 2014; Defilippi et al., 2015).

Historical sampling, analytical, and QA/QC protocols used on the Property are summarized in Tables 11-9 and 11-10.

TABLE 11-9 SUMMARY OF THE SAMPLING, ANALYTICAL AND QA/QC PROTOCOLS USED ON THE RC PROGRAMS SINCE 1994
Orezone Gold Corporation – Bomboré Project

Period	Program (m)	Division	QA/QC Samples					Analyses (Method and weight)
			FD	LAPD	PD	BLK	STD	
1994 to 2000	19,501	Riffle?	No	No	No	No	No	FA 30g
2003	1,387	Riffle	1%	0%	0%	No	0,2%	FA 50g
2005	13,829	Riffle	2%	8%	4%	2% NC	2% NC	BLEG 2kg
2006 to 2007	8,770	Riffle	2%	9%	4%	2% NC	2% NC	LW 2kg
2008	19,663	Riffle	2%	10%	4%	2% IHC	2% IHC	LW 1kg
2010	42,456	RSD	4%	10%	4%	3% IHC	4% IHC	LW 1kg
2011 to 2014	188,172	RSD	2%	5%	3%	2% IHC	3% IHC	LW 1kg

RSD : Rotary Sample Divider
FD: Field Duplicate, blind to the preparation laboratory
PD : Pulp Duplicate, blind to the analytical laboratory
LAPD : Lab-Aware Pulp Duplicate, known to the analytical laboratory
BLK : Blank, blind to the preparation laboratory
STD : Standard; blind to the preparation laboratory
NC : Non certified reference material
IHC : In-house referenced material
FA : Fire Assay, with AAS finish
BLEG : Bulk Leach Extractable Gold
LW : LeachWELL

In all instances, the percentage is based on the total stream of samples submitted to the analytical laboratory, i.e., the primary samples plus the FD, PD, BLK, and STD, but excluding the LAPD.

TABLE 11-10 SUMMARY OF THE SAMPLING, ANALYTICAL AND QA/QC PROTOCOLS USED ON THE CORE DRILLING PROGRAMS SINCE 1999
Orezone Gold Corporation – Bomboré Project

Period	Program (m)	Division	QA/QC Samples					Analyses (Method and weight)
			CD	LAPD	PD	BLK	STD	
1998	1,080	Saw	No	No	No	No	No	FA 50g
2007 to2008	5,714	Saw	2%	No	4%	2% CM	2% CM	FA 50g
2009	7,503	Saw; RSD	2%-0%	9-10%	4%	2%-3% IHC	2%-6% IHC	LW 1kg; FA 50g
2010 to 2011	73,025	Saw; RSD	No	5%	3%-5%	2% IHC	3% IHC	LW 1kg; FA 50g
2012 to 2014	65,795	Saw; RSD	No	5%	3%	2% IHC	3% IHC	LW 1kg

RSD : Rotary Sample Divider
CD : Crush Duplicate, blind to the analytical laboratory
PD : Pulp Duplicate, blind to the analytical laboratory
LAPD : Lab-Aware Pulp Duplicate, known to the analytical laboratory
BLK : Blank, blind to the preparation laboratory
STD : Standard; blind to the preparation laboratory
CM : Certified Reference Material
NC : Non certified reference material
IHC : In-house reference material
FA : Fire Assay, with AAS finish
BLEG : Bulk Leach Extractable Gold
LW : LeachWELL

In all instances, the percentage is based on the total stream of samples submitted to the analytical laboratory, i.e., the primary samples plus the CD, PD, BLK, and STD, but excluding the LAPD.

During this period, Orezone relied partly on the internal analytical quality control measures implemented by ALS, BIGS, and SGS. In addition, Orezone implemented external analytical control measures on all RC, diamond drill hole, and trench sampling consisting of using control samples as well as duplicate sampling in all sample batches submitted for assaying.

Commercial CRMs, including standards and blanks were used on core samples, and core and RC tail samples analyzed by fire assay by SGS and ALS. In-house blanks and standards were used on RC and core samples analyzed by LeachWELL by BIGS and SGS. Field duplicates were used on RC samples analyzed by LeachWELL by BIGS and SGS. Pulp duplicates were used on all sampling including tails and were run by all laboratories. Lab-aware pulp duplicates were used on RC and core samples analyzed by LeachWELL by BIGS.

The type and location of the control samples in the sample stream has been determined on the basis of randomly generated numbers.

Orezone also did check assaying on RC and core samples analyzed by LeachWELL by BIGS and on core samples analyzed by fire assay by SGS, at a secondary umpire laboratory, SGS and ALS, respectively.

LEACHWELL QA/QC

Since October 2007, Orezone introduced a procedure of internal certification for the reference material inserted in the stream of one kilogram samples analyzed by the LeachWELL method. The in-house certified material is made of barren saprolite "spiked" with CRM. This method allows the insertion of blind QA/QC samples in the stream of samples and the monitoring of the accuracy of the analytical results; it was possible and economically affordable to implement this new procedure given the presence of three reliable commercial analytical laboratories in Ouagadougou from 2007.

Orezone has been using two different sources of barren oxidized material for the preparation of in-house CRM, saprolite of coarse grained granite and lateritized coarse grained granite. The material is collected in a quarry in batches of approximately 100 kg, crushed, dried, and split in two kilogram bags: to be accepted as a blank batch, five of the 50 two kilogram samples are submitted to BIGS Global Burkina s.a.r.l. (BIGS), in Ouagadougou, for sample preparation and LeachWELL analysis of the gold content, and all samples must return a gold analysis less than or equal to the detection limit (i.e., 1 ppb or less) for the batch to be accepted.

Once a batch of blank material is accepted, it can be used as a blank in the stream of samples to be prepared, or it can be used as a blank base that will be spiked, with CRM. Using various certified materials and various proportions of barren blank and CRM, Orezone can create reference material with a theoretical gold grade within the range normally expected for the samples of a given exploration project. For Bomboré, Orezone focused on a range of grades between 0.2 g/t Au and 1.5 g/t Au as approximately 97% of the mineralized samples in the Project's assay database display a grade less than or equal to 1.5 g/t, with a lower cut-off grade of 0.2 g/t Au used to define the mineralized envelopes of economic significance.

The list of CRM used for the preparation of the in-house standards since 2007 is presented in Table 11-11.

TABLE 11-11 SPECIFICATION OF CONTROL SAMPLES USED TO PRODUCE IN-HOUSE STANDARDS USED FOR LEACHWELL BY OREZONE FROM OCTOBER 2007 TO JANUARY 2015

Orezone Gold Corporation – Bomboré Project

Certified Reference Material	Source	Certified Grade (Au ppm)	
		Average	Standard Deviation
Amis23	Amiso	3.57	0.33
Amis43	Amiso	1.65	0.85
AuBlank50	Rocklabs Ltd	<0.002	-
AuBlank51	Rocklabs Ltd	<0.002	-
BLKORZ*	Rocklabs Ltd	<0.002	-
HiSilK2*	Rocklabs Ltd	3.474	0.087
HiSilP1*	Rocklabs Ltd	12.05	0.33
OREAS 62c	ORE	8.79	0.01
OREAS 67a*	ORE	2.24	0.01
OxC102	Rocklabs Ltd	0.207	0.054
OxJ47	Rocklabs Ltd	2.384	0.048
OxK48	Rocklabs Ltd	3.557	0.042
OxQ75	Rocklabs Ltd	50.03	0.48
SF30	Rocklabs Ltd	0.81	0.021
SG56*	Rocklabs Ltd	1.027	0.21
SH24	Rocklabs Ltd	1.32	0.043
SH55*	Rocklabs Ltd	1.344	0.045
SL34	Rocklabs Ltd	5.893	0.14
SL46	Rocklabs Ltd	5.867	0.17
SL51	Rocklabs Ltd	5.909	0.023
SL61*	Rocklabs Ltd	5.931	0.177
SN26	Rocklabs Ltd	8.543	0.175
SN38	Rocklabs Ltd	8.573	0.018
SN50	Rocklabs Ltd	8.685	0.021
SQ36	Rocklabs Ltd	30.04	0.02
SQ48*	Rocklabs Ltd	30.25	0.17

* Used during the December 2012 to January 2015 period

The list of CRM used for all the primary samples analyzed by fire assay is presented in Table 11-12.

TABLE 11-12 SPECIFICATIONS OF CONTROL SAMPLES USED FOR FIRE ASSAY ANALYSIS OF PRIMARY SAMPLES FROM OCTOBER 2007 TO JANUARY 2015
Orezone Gold Corporation – Bomboré Project

Certified Reference Material	Type	Source	Certified Grade (Au ppm) Average	Certified Grade (Au ppm) Standard Deviation	Number of Samples Used
Amis43	Certified Standard	Amiso	1.650	0.085	4
BLK10	Certified Blank	Rocklabs Ltd	<0.002	-	33
BLK12	Certified Blank	Rocklabs Ltd	<0.002	-	182
BLK13	Certified Blank	Rocklabs Ltd	<0.002	-	93
BLK24	Certified Blank	Rocklabs Ltd	<0.002	-	195
BLK31	Certified Blank	Rocklabs Ltd	<0.002	-	14
BLK35	Certified Blank	Rocklabs Ltd	<0.002	-	81
BLK44*	Certified Blank	Rocklabs Ltd	<0.002	-	54 (**39**)
HiSilK2*	Certified Standard	Rocklabs Ltd	3.474	0.087	(**1**)
HiSilP1*	Certified Standard	Rocklabs Ltd	12.050	0.330	35 (**27**)
OREAS 15h	Certified Standard	ORE	1.019	0.025	1
OREAS 65a	Certified Standard	ORE	0.520	0.017	1
OREASBLK	Certified Blank	ORE	<0.024	-	12
OxA71	Certified Standard	Rocklabs Ltd	0.085	0.006	8
OxC88	Certified Standard	Rocklabs Ltd	0.203	0.010	116
OxD73	Certified Standard	Rocklabs Ltd	0.416	0.013	22
OxE86	Certified Standard	Rocklabs Ltd	0.613	0.021	40
OxG83	Certified Standard	Rocklabs Ltd	1.002	0.027	113
OxJ68	Certified Standard	Rocklabs Ltd	2.342	0.064	15
SE58	Certified Standard	Rocklabs Ltd	0.607	0.019	67
SG56	Certified Standard	Rocklabs Ltd	1.027	0.033	1
SH41	Certified Standard	Rocklabs Ltd	1.320	0.041	71
SH55	Certified Standard	Rocklabs Ltd	1.375	0.045	2
SL46	Certified Standard	Rocklabs Ltd	5.867	0.170	8
SL61*	Certified Standard	Rocklabs Ltd	5.931	0.177	26 (**22**)
SN26	Certified Standard	Rocklabs Ltd	8.543	0.175	5
SQ48*	Certified Standard	Rocklabs Ltd	30.250	0.510	20 (**14**)

* Used during the December 2012 to January 2015 period (**number of samples within brackets**)

The list of CRM used for all the leach residue samples analyzed by fire assay is presented in Table 11-13.

TABLE 11-13 SPECIFICATIONS OF CONTROL SAMPLES USED FOR FIRE ASSAY ON LEACHWELL RESIDUES FROM OCTOBER 2007 TO JANUARY 2015
Orezone Gold Corporation – Bomboré Project

Certified Reference Material	Type	Source	Certified Grade (Au g/t) Average	Certified Grade (Au g/t) Standard Deviation	Number of Samples Used
BLK12	Certified Blank	Rocklabs Ltd	<0.002	-	58
BLK13	Certified Blank	Rocklabs Ltd	<0.002	-	295
BLK24	Certified Blank	Rocklabs Ltd	<0.002	-	205
BLK31	Certified Blank	Rocklabs Ltd	<0.002	-	168
BLK35	Certified Blank	Rocklabs Ltd	<0.002	-	218
BLK44*	Certified Blank	Rocklabs Ltd	<0.002	-	872 (**306**)
BLK50*	Certified Blank	Rocklabs Ltd	<0.002	-	74 (**38**)
BLK51*	Certified Blank	Rocklabs Ltd	<0.002	-	55 (**13**)
BLK9	Certified Blank	Rocklabs Ltd	<0.002	-	13
BLKORZ	Certified Blank	ORE	<0.002	-	128
BLKORZ	Certified Blank	ORE	<0.002	-	128
OREAS 15f	Certified Standard	ORE	0.334	0.016	146
OREAS 15h	Certified Standard	ORE	1.019	0.025	67
OREAS 65a	Certified Standard	ORE	0.520	0.017	100
OREASBLK	Certified Blank	ORE	0.024	-	784
OxA71	Certified Standard	Rocklabs Ltd	0.085	0.006	538
OxA89*	Certified Standard	Rocklabs Ltd	0.084	0.008	140 (**111**)
OxC102	Certified Standard	Rocklabs Ltd	0.207	0.011	48
OxC109*	Certified Standard	Rocklabs Ltd	0.201	0.008	199 (**159**)
OxC72	Certified Standard	Rocklabs Ltd	0.200	0.012	207
OxC88	Certified Standard	Rocklabs Ltd	0.203	0.010	277
OxD73	Certified Standard	Rocklabs Ltd	0.416	0.013	2
OxD87	Certified Standard	Rocklabs Ltd	0.417	0.013	24
OxE101*	Certified Standard	Rocklabs Ltd	0.607	0.016	218 (**110**)
OxE106*	Certified Standard	Rocklabs Ltd	0.606	0.013	(**30**)
OxE86	Certified Standard	Rocklabs Ltd	0.613	0.021	245
OxF65	Certified Standard	Rocklabs Ltd	0.760	0.036	95
OxG83	Certified Standard	Rocklabs Ltd	1.002	0.027	286
OxJ47	Certified Standard	Rocklabs Ltd	2.384	0.048	87
OXJ47	Certified Standard	Rocklabs Ltd	2.365	0.059	54
OxJ68	Certified Standard	Rocklabs Ltd	2.342	0.064	69
OxK48	Certified Standard	Rocklabs Ltd	3.557	0.042	46
OxK48	Certified Standard	Rocklabs Ltd	3.460	0.093	47
OXL51	Certified Standard	Rocklabs Ltd	5.850	0.123	13
SE44	Certified Standard	Rocklabs Ltd	0.590	0.028	202
SE58	Certified Standard	Rocklabs Ltd	0.607	0.019	328
SF23	Certified Standard	Rocklabs Ltd	0.831	0.027	21
SF30	Certified Standard	Rocklabs Ltd	0.832	0.021	51
SF30	Certified Standard	Rocklabs Ltd	0.810	0.031	140
SG56*	Certified Standard	Rocklabs Ltd	1.027	0.033	282 (**43**)

Certified Reference Material	Type	Source	Certified Grade (Au g/t) Average	Standard Deviation	Number of Samples Used
SG66*	Certified Standard	Rocklabs Ltd	1.086	0.032	(**48**)
SH24	Certified Standard	Rocklabs Ltd	1.326	0.043	6
SH41	Certified Standard	Rocklabs Ltd	1.320	0.041	310
SH55*	Certified Standard	Rocklabs Ltd	1.375	0.045	138 (**34**)
SL34	Certified Standard	Rocklabs Ltd	5.893	0.140	13
SL34	Certified Standard	Rocklabs Ltd	5.770	0.140	30
SL46	Certified Standard	Rocklabs Ltd	5.867	0.170	2

* Used during the December 2012 to January 2015 period (**number of samples within brackets**)

RPA COMMENTS

In RPA's opinion, the sampling preparation, security, and analytical procedures used by Orezone are consistent with, and often exceed, generally accepted industry best practices and are, therefore, adequate for use in the estimation of Mineral Resources.

In RPA's opinion, the QA/QC program as designed and implemented by Orezone is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

12 DATA VERIFICATION

Orezone uses a quality management system with procedures at all stages of work from exploration through to resource estimation. RPA reviewed these procedures and results, and also conducted independent checks during a site visit, a series of digital queries, and checks of laboratory certificates. RPA is of the opinion that the work complies with industry standards and the drill hole data are adequate for the purposes of Mineral Resource estimation.

OREZONE DATABASE VERIFICATION PROCEDURES

All field data are captured in computerized IPAQ palm loggers and subsequently downloaded to network linked computers. The database is checked for input errors at different stages, from the field office to the Ouagadougou office. The data is imported by a team of geologists and technicians in a master database that is managed by a geologist in Ouagadougou who is responsible for the quality control and sampling protocols. Field and assay data are transferred into the master database in Ouagadougou with additional auditing performed by a geologist, a resource geologist, the Exploration Manager, and the Senior Vice President, Exploration. Data is stored in a Datashed database.

Data in the master database can easily be tracked by project number, date, and activities. Orezone tracks the sample stream by recording the project, job, certificate numbers, and date at different stages of the sampling stream. Paper maps and original signed laboratory certificates are saved and the old files are archived. The integrity of the database is protected by restricted access, transfer of data using the VLOOKUP function, Excel filters and control formulas, GEMS validations, Datashed validation, and visual examination.

Sample shipments and assay deliveries were routinely monitored as produced by the preparation and assaying laboratories. Assay results and quality control data produced by the various laboratories are inspected visually and analyzed using various bias and precision charts. At the end of each drilling program, Orezone produces quality control reports summarizing protocol and the quality control.

SITE VISIT AND CORE REVIEW

RPA visited the property most recently from October 10 to 13, 2014. The site visit included a property tour guided by Pascal Marquis, Orezone SVP Exploration, with stops at drilling sites, artisanal mining sites, and sample handling, processing, and storage facilities. All the aspects and procedures of the exploration program, from drill set-up through to sample shipment, were reviewed. Drill core and chips from typical holes were reviewed and compared to digital logs and on vertical cross sections, following the lithological description and interpretation, and the gold mineralization. Several RC and core independent samples collected by RPA during the site visit confirmed the presence of gold and show good grade correlation with original samples.

TABLE 12-1 ASSAY CHECK SAMPLES
Orezone Gold Corporation – Bomboré Project

Type	Prospect	HoleID	Sample	From (m)	To (m)	Au (g/t)	Check Sample	Check Au (g/t)
RC	P8/P9	BBC2232	1003628	42	43	0.77	196062	0.76
RC	Siga S	BBC3338	1155309	32	33	3.425	196063	3.48
RC	P8/P9	BBC3480	1171086	33	34	0.815	196065	0.71
RC	P8/P9	BBC2669	1068512	27	28	1.32	196066	1.36
core	Siga E	BBD0450	1048667	182	183	1.248	196068	1.26
core	Maga	BBD0665	1053153	133	134	0.57	196069	0.62

ASSAY TABLE REVIEW

RPA received 5,553 assay certificates in Excel format from Orezone. These included assays for samples collected from 2005 to 2015, covering the entire project, as well as the QA/QC material. Assay certificates of cyanide leach and tails were grouped and assembled in Excel, then matched to a combined North and South database via the VLOOKUP function. Data from 1,410 cyanide leach certificates and 525 tails certificates were used to match in excess of 40,000 leach and 10,000 tails assays in the unified database. No significant discrepancies were identified.

BASIC DATABASE VERIFICATION TESTS

RPA reviewed the resource database using a number of basic database and resource model checks including:

- Visual review for collar location above or below topographic surface and for drill hole traces with unreasonable directions.
- Basic database queries and sorting checks for from/to errors, unreasonable assay interval length, and missing and duplicate sample numbers.
- Plotting and querying of the relationship between fire assays (total gold) and LeachWELL results.

RPA considers the resource database reliable and appropriate to prepare a Mineral Resource estimate.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical work on Bomboré is extensive. A number of programs have been conducted on sample sets derived from drill core that were deemed representative at the time they were composited with respect to the aim of the particular program embarked upon. Various programs studied oxides, transition, and sulphide ores. Investigations were conducted for:

- grinding characteristics;
- flotation and gravity extraction of slurries;
- leaching characteristics both for heaps and slurries;
- ore characterization;
- scrubber testing;
- environmental testing; and
- thickener testing and slurry rheology.

The following is a chronological list of relevant references considered for this section, provided where necessary with summary descriptions of metallurgical test work completed:

- GBM Minerals Engineering Consultants Limited, September 2009, Testwork review for Bomboré Gold Project for Orezone Gold Corporation-0379-MTR-001-Rev 2.
- AMMTEC Ltd., January 2010, Metallurgical Testwork Conducted Upon Samples of Gold Ore from the Bomboré Gold Project for Orezone Gold Corporation-A12037.
- G Mining Services Inc., June 2011, Bomboré Project Preliminary Economic Assessment, Carbon-In-Leach Processing Option.
- McClelland Laboratories, Inc., 2012, February 2013, Report on Metallurgical Testing – Bomboré Drill Core Samples MLI Job No. 3625 (Comprehensive Grinding, Leaching and Detox Oxide and Sulphide, also included Pocock SLS and Cyanide Detox Work as Appendix).
- Phillips, R.J., March 2013, Report on Abrasion Index Tests, Impact Tests. Ball Mill Grindability Tests, SMC Evaluations (Grindability Work by Hazen Research Inc.).
- SGS, May 2, 2013, An Investigation into the Grindability Characteristics of Twenty-Six Samples from the Bomboré Project (Grindability and Work Indexes - Fresh Ore with Sulphides).
- Azizi, A., June 7, 2013, Cyanidation Testwork on Orezone Gold Corp. Samples-Effect of Lead Nitrate No. T1498, prepared by COREM for Orezone Gold Corporation (Cyanidization of Sulphide Ore-Corollary to SGS 2013 samples).
- Met-Solve Laboratories Inc., May 13, 2013, Orezone Gold Scrubber Tests MS1444-R2.

- G Mining Services Inc., March 11, 2014, Bomboré Project Preliminary Economic Assessment, Heap Leach Processing Option.
- Met-Solve Laboratories Inc., April 16, 2014, Cyanide Leach Results from Scrubber Tests (Supplement to MS1444).
- Kappes, Cassiday & Associates, August 2014, Bomboré Project Report of Metallurgical Test Work Heap Leach Column Testing KCA 0140009_BOM_04 (Recoveries, Cement vs. Compacted Permeability on overall orebody composites, plus a column test of the Met Solve coarse scrubbed product from Met-Solve campaign).
- Pocock, August 2014, Sample Characterization, Flocculant Screening, Gravity Sedimentation, and Pulp Rheology thickener and Rheology Testwork (accompanies test work from first scrubbing campaign with Global Lithology composite).
- Kappes, Cassiday & Associates, December 2014, Bomboré Project Report of Metallurgical Test Work with Hybrid Scrubbing/CIL/Heap Leach Testing of Global Lithology Composite Samples.
- Kappes, Cassiday & Associates, April 2015, Bomboré Project Report of Metallurgical Test Work Hybrid Scrubbing/CIL/Heap Leach Testing of Resource Composite Samples.
- Pocock, October 2014, Sample Characterization, Flocculant Screening, Gravity Sedimentation, and Pulp Rheology thickener and Rheology Testwork (accompanies test work on above KCA scrubbing campaign with a select high-fines sample and a global Resource Composite).

Based on the high cement requirements and overall low stacking height for conventional heap leaching indicated by column leach testing, Bomboré material was deemed to be best processed by scrubbing the material and utilizing a combined process as generally demonstrated by the Met-Solve scrubbing program where the oversize material from the scrubbed product is heap leached and the undersized material, processed via a carbon-in-leach (CIL) circuit. This was confirmed by additional testing by KCA.

Results from a 2014 KCA metallurgical test program, which included scrubbing and leaching of resource composites, were used for estimating metallurgical recoveries and designing process facilities. The composites were selected to be spatially and grade representative and were based on the ratios of each material type estimated to be within the Mineral Resource as published at that time.

These composites were utilized for head screen analyses with assays by size fraction and scrubber test work, which produced two scrubber products, scrubber oversize (+0.212 millimetre) material and scrubber undersize (-0.212 millimetre) material.

The scrubber oversize material from each composite was utilized for column leach test work. The scrubber undersize material from each composite was utilized for a series of bottle roll leach tests and solid/liquid separation tests.

All preparation, assaying, and metallurgical studies were performed utilizing accepted industry practices and standards.

A summary of the processing design criteria is presented in Table 13-1.

TABLE 13-1 PROCESSING DESIGN CRITERIA SUMMARY
Orezone Gold Corporation – Bomboré Project

Item	Design Criteria
Annual Tonnage Processed	5.5 million tpa
Grade	Au 0.76 g/t
Production Rate	15,581 tpd, 353 days per year
Processing	CIL 7,613 tpd (49% of mineral), Heap Leach 7,968 tpd (51% of mineral)
Recovery Gold	87%
Recovery Silver	32%
Crushing Operation	12 hours/shift, 2 shifts/day, 7 days/week, 353 days per year
Crusher Availability	80%
Heap Leaching Cycle	75 days

The test work to date shows an estimated gold recovery of 87% and silver recovery of 32% for the overall process. Cement is not needed for the heap leach and pebble lime will be added at a rate of 1.0 kg/t for pH control in the heap; approximately 93% of lime required will be added before scrubbing. Pebble and hydrated lime will be used for pH control for the CIL, which will require approximately 1.5 kg/t.

14 MINERAL RESOURCE ESTIMATE

SUMMARY

Gold mineralization at shallow depths has been defined by reverse circulation (RC) drilling, diamond drilling, and trenching along a strike length of over 12 km. The gold mineralized zones have been modelled as a large number of sub-parallel, tabular zones that gradually change in strike from north-south, to northwest, to northeast. Most of the mineralization wireframes are interpreted to dip moderately to the east or southeast. Review of the lithologic models shows that gold values are contained within all host rock types and can be seen to follow a stratiform orientation.

In order to keep the size of the various block model files within functionally manageable limits, the gold mineralization has been split into four separate block model areas, referred to as the North, South, P16, and P17 areas. Together, the North and South block models contain the majority of the Mineral Resources. Low grade mineralized wireframe models were created for the September 2016 estimate using a grade threshold of approximately 0.20 g/t Au, and a high grade mineralized wireframe models that were created using a grade threshold of approximately 0.45 g/t Au.

Following completion of the September 2016 estimate, an additional set of low grade mineralized wireframes was created for the North and South model areas using only the lower grade threshold of 0.20 g/t to capture material remaining outside the September 2016 estimate wireframes. There was also a further grade estimate completed for selected material outside all wireframes on an unconstrained basis (“third domain”) for the North, South, P16, and P17 model areas. The newly constructed low grade mineralized wireframe models and the third domain were used to extract a total of 3,207 and 146,372 assay results, respectively, from the four drill hole databases (North, South, P16, and P17) for analysis. Orezone has elected to use the capping method to reduce the influence of high grade assay values. The selection of the various capping values was guided by the goal of achieving a target coefficient of variation (CoV) of less than approximately 2.0. This resulted in capping values that ranged from 1.50 g/t Au to 48.97 g/t Au for the low and high grade mineralized wireframe domain assays for the September 2016 estimate and a universal value of 5.00 g/t

Au for both the January 2017 estimate low grade mineralization wireframe domain and third domain assays. The capped assays were composited as follows:

- For the September 2016 estimate, low and high grade mineralized wireframe domains into equal sample lengths using a composite length of 1.5 m for the North, South, and P16 model areas. A composite length of 1.0 m was used for the P17 model area.
- For the January 2017 estimate, low grade mineralized wireframe domain assays into equal sample lengths using a composite length of 1.5 m for the North and South model areas.
- For the January 2017 estimate, third domain into equal sample lengths using a composite length of 1.5 m for the North, South, and P16 model areas and a composite length of 1.0 m was used for the P17 model area.

Gold grades within the September 2016 estimate mineralized wireframe models (low grade, high grade) for the North, South, and P16 areas were estimated using the ordinary kriging (OK) interpolation algorithm. The gold grades within the September 2016 and 2017 estimate wireframe models (low grade, high grade) for the P17 model area were estimated using the inverse distance squared (ID^2) interpolation algorithm. The gold grades inside the January 2017 additional low grade mineralized wireframe models for the North and South areas were also estimated using the ordinary kriging (OK) interpolation algorithm; there were no additional low grade wireframe domain models in the P16 and P17 model areas. Hard boundaries were used to constrain the source composite files such that only those composite samples that are present within a specified wireframe were used to estimate block grades. Similarly, hard boundaries were used to constrain coding of the block model where only those blocks that are contained within the specified mineralized wireframe model were permitted to receive estimated gold grades. Gold grades for the January 2017 estimate third domain in all model areas were estimated using a two-step process using the ID^3 interpolation algorithm. The first step used only composites outside wireframes and above 0.20 g/t Au to flag blocks with a grade above 0.00 g/t Au from a minimum of two composites, then on the second step used all composites outside wireframes to estimate the gold grade of the previously flagged blocks.

Measured Mineral Resources comprise that mineralized material that has been outlined with a drill hole density of at least 25 m x 25 m. Indicated Mineral Resources comprise that mineralized material that has been outlined with a nominal drill hole density of 25 m x 50 m. Inferred Mineral Resources comprise the mineralized material that has been outlined with a nominal drill hole density of 100 m x 100 m and to within a depth of 100 m below the bottom

of the drill hole coverage. Clipping polygons representing the various Mineral Resource categories were created for each of the oxidation layers to ensure the continuity and consistency of the classification category. These clipping polygons were used to code final classification into each of the four block models.

A number of cut-off grades were developed for the Project that reflect the varying processing costs and metallurgical recoveries of the different oxidation layers and the additional transportation costs for mineralized material that is located distant to the proposed processing plant. A gold price of US$1,400 per ounce was used for all cut-off grades for reporting of the Mineral Resources. To fulfill the NI 43-101 requirement of "reasonable prospects for eventual economic extraction", RPA prepared a preliminary open pit shell to constrain the block models for resource reporting purposes. Additional criterion to constrain the Mineral Resource report included several "non-permitted" areas related to environmentally sensitive areas and mineralized areas being set aside for the benefit of local artisanal miners.

At a cut-off grade of approximately 0.2 g/t Au for oxide and transition material and 0.38 g/t Au for fresh material, the updated Measured plus Indicated Mineral Resources are estimated to total 218.1 Mt at an average grade of 0.68 g/t Au for 4.8 million ounces of contained gold (Table 14-1). Using the same cut-off grades, Inferred Mineral Resources are estimated to total an additional 48.2 Mt at an average grade of 0.64 g/t Au for 994,000 ounces of contained gold.

TABLE 14-1 SUMMARY OF THE MINERAL RESOURCES AS OF JANUARY 5, 2017
Orezone Gold Corporation – Bomboré Gold Project

	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes	Grade	Gold	Tonnes	Grade	Gold	Tonnes	Grade	Gold	Tonnes	Grade	Gold
Material Type	**Mt**	**g/t Au**	**koz**	**Mt**	**g/t Au**	**koz**	**Mt**	**g/t Au**	**koz**	**Mt**	**g/t Au**	**koz**
Oxide+Tran HG	16.9	0.94	513	36.5	0.83	974	53.4	0.87	1,487	4.8	0.77	117
Oxide+Tran LG	18.5	0.33	196	50.1	0.33	531	68.6	0.33	727	16.4	0.29	151
Total Oxide+Tran	**35.4**	**0.62**	**709**	**86.7**	**0.54**	**1,505**	**122.0**	**0.56**	**2,214**	**21.2**	**0.39**	**268**
Fresh HG	2.3	118	87	68.7	0.96	2,121	71.0	0.97	2,208	20.1	0.97	630
Fresh LG	0.8	0.43	11	24.2	0.43	337	25.0	0.43	348	6.9	0.43	96
Total Fresh	**3.1**	**0.99**	**97**	**93.0**	**0.82**	**2,458**	**96.0**	**0.83**	**2,556**	**27.0**	**0.84**	**726**
Total HG	**19.2**	**0.97**	**600**	**105.3**	**0.91**	**3,095**	**124.5**	**0.92**	**3,695**	**24.9**	**0.93**	**747**
Total LG	**19.2**	**0.33**	**206**	**74.4**	**0.36**	**868**	**93.6**	**0.36**	**1,075**	**23.3**	**0.33**	**246**
Total HG+LG	**38.4**	**0.65**	**806**	**179.6**	**0.69**	**3,964**	**218.1**	**0.68**	**4,770**	**48.2**	**0.64**	**994**

Notes:
1. CIM definitions were followed for Mineral Resources.
2. HG indicates material above the higher grade cut-offs, LG indicates low grade material between the high grade and breakeven cut-off grades.
3. Mineral Resources are estimated at variable cut-off grades depending on weathering layer and location; cut-off grades are approximately 0.2 g/t Au for oxide and transition material, and 0.38 g/t Au for fresh material.
4. Mineral Resources are estimated using a long-term gold price of US$1,400 per ounce.
5. A minimum mining width of approximately 3 m was used.
6. Bulk density varies by material type.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
8. Numbers may not add due to rounding.

DESCRIPTION OF DATABASES

Gold mineralization at shallow depths has been defined by RC drilling, diamond drilling, and trenching along a strike length of over 12 km. For the most part, the gold mineralized zones have been modelled as a large number of sub-parallel, tabular zones that gradually change in strike from north-south, to northwest, to northeast (Figure 14-1). Most of the mineralization wireframes are interpreted to dip moderately to the east or southeast.

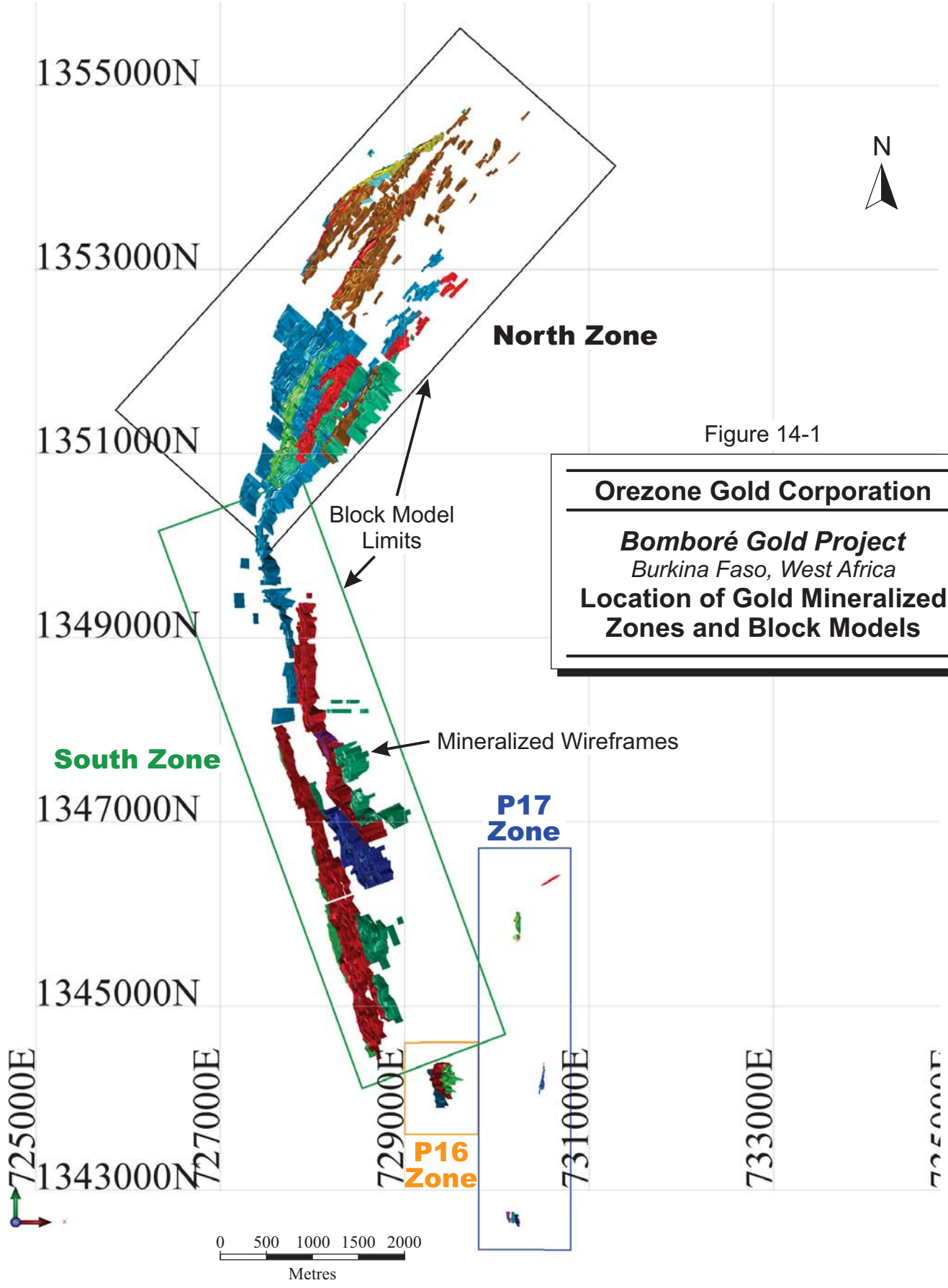


Figure 14-1

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Location of Gold Mineralized Zones and Block Models

January 2017

Source: RPA, 2016.

The gold mineralization along the 12 km strike length has been split into four separate block model areas in order to keep the size of the various block model files within functionally manageable limits. The block model areas are referred to as the North, South, P16, and P17 areas. Together, the North and South block models contain the majority of the Mineral Resources. The mineralized wireframes have been grouped into various sub-domains within each of the block model areas.

The modelling of the host lithologies and the extents of the gold mineralization at the Project is based on drill hole data only. No information obtained from trenching programs has been used, and outcrop data is too sparse to provide any meaningful information.

The drill hole data are contained in four separate databases that have been prepared using the GEMS mine modelling software package as the source database files. Drill hole data were converted and imported into the Surpac mine modelling package on an as-needed basis. Both software packages used the MS Access database format for collecting and storing the drill hole database information.

Each of the four drill hole databases was constructed using a similar structure to store information for lithology, weathering profile, oxidation level, gold assays, density measurements, and various working tables that are required to be created as part of the block model estimation process. In the vast majority of cases, all drill holes were angled towards the west or the northwest.

The North model drill hole database contains the largest proportion of the drill hole data (5,502 drill hole records), followed by the South model (2,001 drill hole records). The P16 and P17 models are defined by 165 and 170 drill holes, respectively (Table 14-2). In total, the four databases contain drill hole information for 7,838 drill holes. The cut-off date for the drill hole database is January 5, 2017. The location of the drill holes which were used to prepare the January 5, 2017 Mineral Resource estimate are shown in Figure 14-2.

TABLE 14-2 SUMMARY OF THE DRILL HOLE DATABASES
Orezone Gold Corporation – Bomboré Gold Project

Table Name	Data Type	Table Type	Records
	North Model		
collar			5,502
survey			16,507
au_3d_domain	interval	time-independent	9,489
au_assay_waste	interval	time-independent	183,086
Drillholes_NITON_lithologies	interval	time-independent	279,807
Drillholes_NITON_oxidation	interval	time-independent	279,807
Drillholes_NITON_weathering	interval	time-independent	279,807
Drillholes_assays	interval	time-independent	267,443
Drillholes_comp200ppb	interval	time-independent	12,181
Drillholes_comp450ppb	interval	time-independent	5,249
Drillholes_density	Point	time-independent	48,326
Drillholes_structure_Foliations	Point	time-independent	0
Drillholes_structure_beddings	Point	time-independent	0
Drillholes_structure_fract_jts	Point	time-independent	0
ResEstim_intersect_450_envelops	interval	time-independent	3,232
ResEstim_intersect_LG_envelops	interval	time-independent	8,485
ResEstim_intersect_R_envelops	interval	time-independent	3,914
flagging_orezones_200	interval	time-independent	61,614
flagging_orezones_450	interval	time-independent	18,619
flagging_orezones_R	interval	time-independent	8,121
styles			291
translation			0
	South Model		
collar			2,001
survey			8,560
Drillholes_NITON_lithologies	interval	time-independent	156,046
Drillholes_NITON_oxidation	interval	time-independent	133,011
Drillholes_NITON_weathering	interval	time-independent	133,011
Drillholes_assays	interval	time-independent	133,011
Drillholes_comp200ppb	interval	time-independent	6,086
Drillholes_comp450ppb	interval	time-independent	2,810
Drillholes_density	Point	time-independent	37,010
Drillholes_structure_Foliations	Point	time-independent	15,084
Drillholes_structure_beddings	Point	time-independent	3,262
Drillholes_structure_fract_jts	Point	time-independent	460
ResEstim_intersect	interval	time-independent	0
ResEstim_intersect_450_envelops	interval	time-independent	1,989
ResEstim_intersect_LG_envelops	interval	time-independent	4,067
ResEstim_intersect_R_envelops	interval	time-independent	1,802
composites	interval	time-independent	35,562
flagging_orezones_200	interval	time-independent	29,130
flagging_orezones_450	interval	time-independent	11,418
flagging_orezones_R	interval	time-independent	5,753

Table Name	Data Type	Table Type	Records
styles			267
translation			0
	P16 Model		
collar			165
survey			573
Drillholes_NITON_lithologies	interval	time-independent	11,959
Drillholes_NITON_oxidation	interval	time-independent	11,444
Drillholes_NITON_weathering	interval	time-independent	11,444
Drillholes_assays	interval	time-independent	11,444
Drillholes_comp200ppb	interval	time-independent	359
Drillholes_comp450ppb	interval	time-independent	225
Drillholes_density	Point	time-independent	3,347
Drillholes_structure_Foliations	Point	time-independent	17,452
Drillholes_structure_beddings	Point	time-independent	3,777
Drillholes_structure_fract_jts	Point	time-independent	623
ResEstim_intersect_450_envelops	interval	time-independent	284
ResEstim_intersect_LG_envelops	interval	time-independent	431
ResEstim_intersect_R_envelops	interval	time-independent	161
comps_autot_200	interval	time-independent	888
comps_autot_450	interval	time-independent	856
flagging_orezones_200	interval	time-independent	1,538
flagging_orezones_450	interval	time-independent	1,629
flagging_orezones_R	interval	time-independent	539
translation			0
	P17 Model		
collar			170
survey			748
Drillholes_NITON_lithologies	interval	time-independent	13,157
Drillholes_NITON_oxidation	interval	time-independent	11,240
Drillholes_NITON_weathering	interval	time-independent	11,240
Drillholes_assays	interval	time-independent	11,240
Drillholes_comp200ppb	interval	time-independent	373
Drillholes_comp200ppb_b	interval	time-independent	223
Drillholes_comp450ppb	interval	time-independent	8,361
Drillholes_density	Point	time-independent	3,275
Drillholes_structure_Foliations	Point	time-independent	17,452
Drillholes_structure_beddings	Point	time-independent	3,777
Drillholes_structure_fract_jts	Point	time-independent	17,452
ResEstim_intersect	interval	time-independent	170
flag_orezone_200	interval	time-independent	701
flag_orezone_450	interval	time-independent	701
flag_orezone_r	interval	time-independent	486
p17_comps_450	interval	time-independent	904
styles			88
translation			0

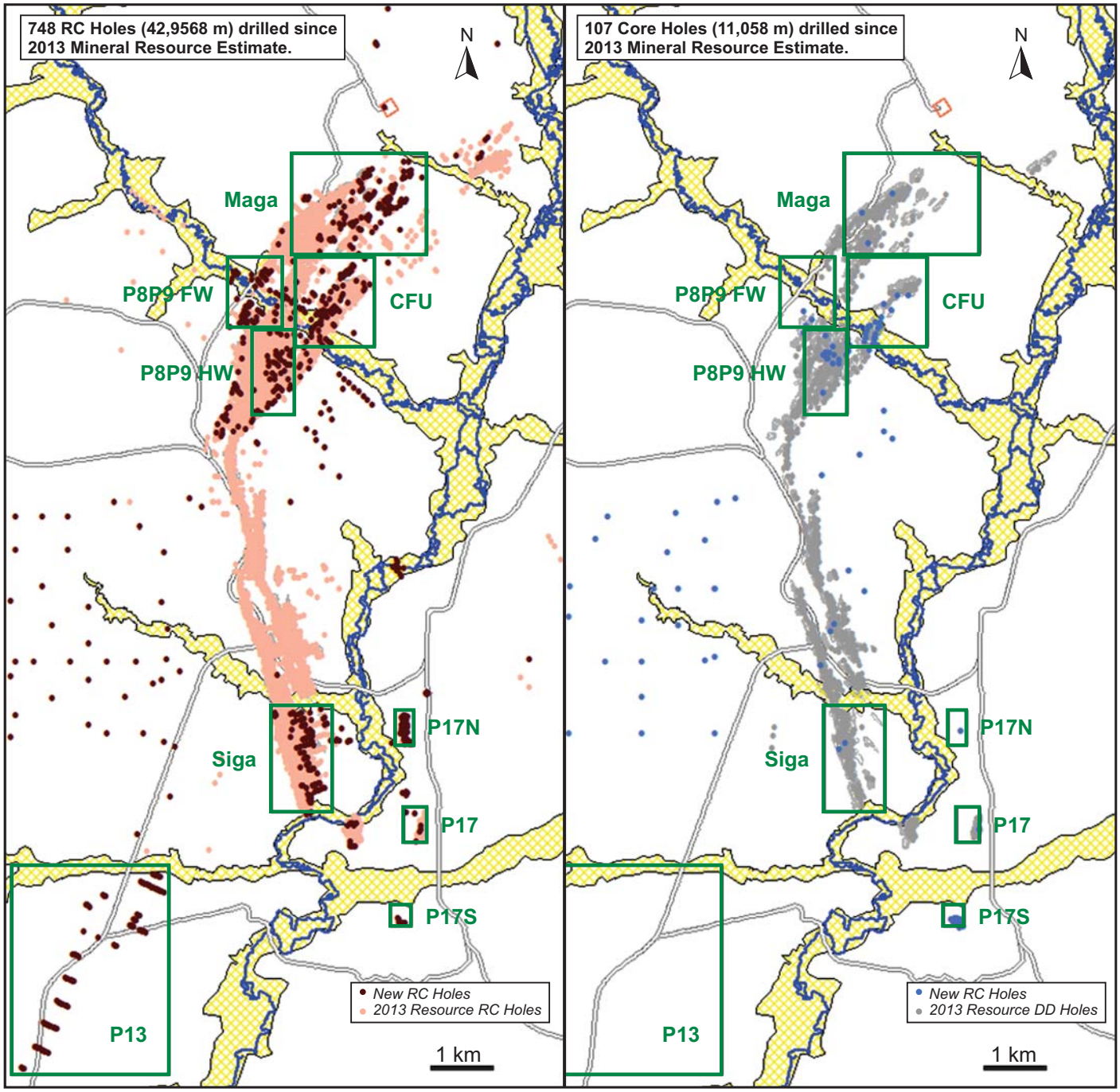


Figure 14-2

Orezone Gold Corporation

Bomboré Gold Project
Burkina Faso, West Africa
Drill Hole Plan Map

January 2017

Source: Orezone Gold Corp., 2016.

The spacing of the drill holes varies for each of the four model areas and is summarized in Table 14-3.

TABLE 14-3 SUMMARY OF THE DRILL HOLE SPACING
Orezone Gold Corporation – Bomboré Gold Project

Model	Drill Hole Spacing	Remarks
North	25 m spacing on 50 m spaced section planes	Some portions of the mineralization are defined by drill holes at 25 m x 25 m spacing
South	25 m spacing on 50 m spaced section planes	
P16	25 m x 25 m	
P17	25 m x 25 m	

LITHOLOGY AND MINERALIZATION WIREFRAMES

WEATHERING PROFILE

The gold mineralization at the Project is located in a non-glaciated terrain, consequently the weathering profile has largely remained in place except for a small amount of re-working of the upper portions of the weathering profile to form a thin alluvium layer in places. The weathering profile has been divided into four major units, with sub-divisions as shown below.

1) Regolith
2) Oxidized
   a) Upper
   b) Lower
3) Transition
   a) Upper
   b) Lower
4) Fresh rock
   a) Upper (<25 m)
   b) Lower (>25 m)

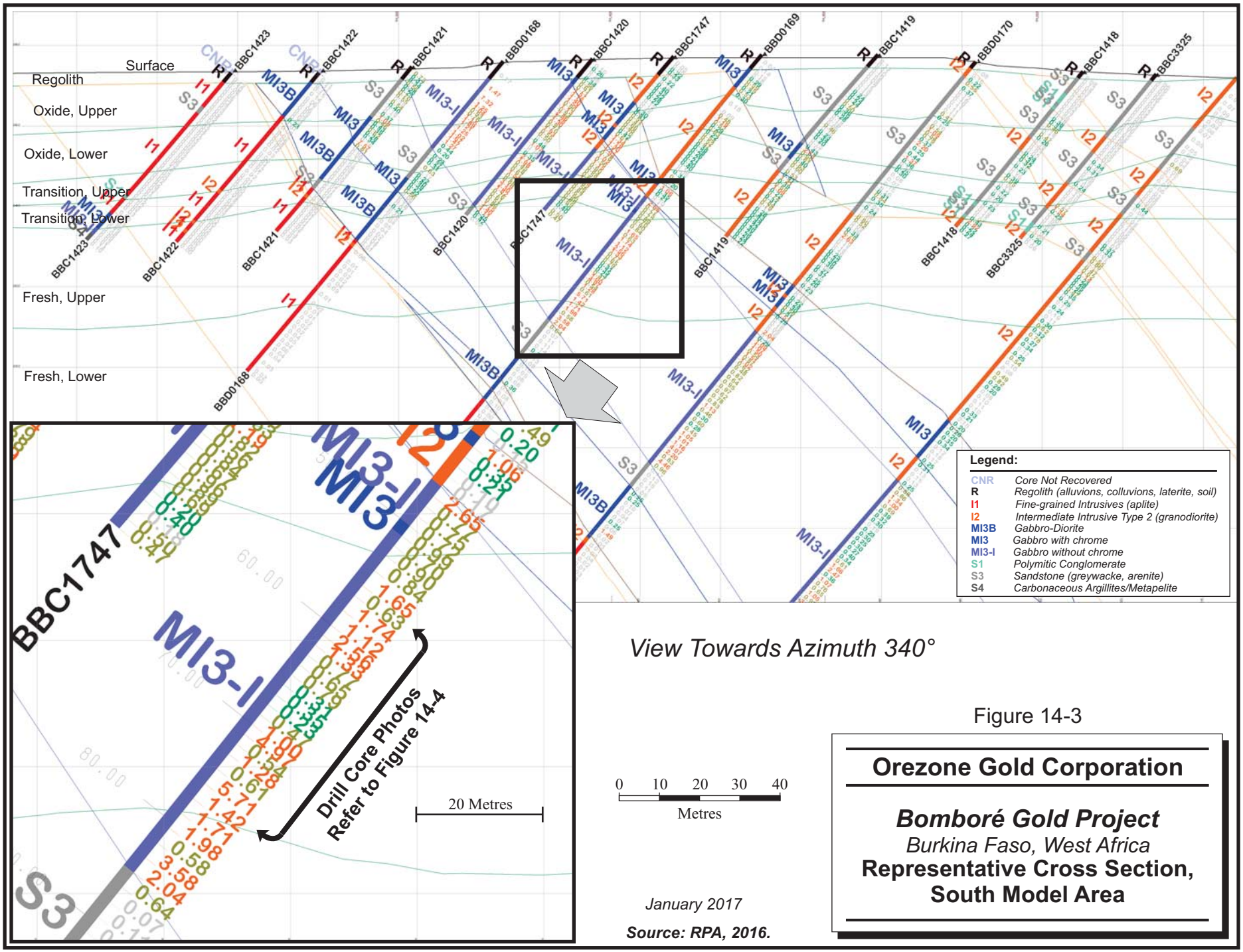
Digital surface models for each of these weathering zones has been created from the visual information collected during logging of the drill core or RC chips and from geochemical indicators.

HOST ROCK LITHOLOGY

The host rocks at the Project are comprised of a large sequence of metamorphosed clastic sediments that are Lower Proterozoic in age. The clastic sediments are composed of

conglomerate, greywackes, and argillite/siltstone units that may contain graphitic material in places. The clastic sedimentary package has been intruded by rocks of gabbroic and granodioritic compositions. Many of the rock units contain a weakly to moderately well developed foliation or fabric that strikes in a north-northwesterly direction in the southern portions of the mineralized trend. The strike gradually changes to a northeasterly direction in the northern portions of the mineralized trend. The foliations of the host rocks dip consistently moderately to the northeast, east, and southeast. A late-tectonic intrusion of quartz-feldspar porphyritic granite is present in the southern portions of the South model area.

Digital solids models of the major rock units were prepared on cross sections using information collected during logging of the drill core or RC chips. The cross-sectional lithology contacts were then linked together from section to section to form the final solid models that were subsequently used to code the block model. Examples of the lithologic interpretation and host rocks for the South model area are provided in Figures 14-3 and 14-4. Examples of the lithologic interpretation and host rocks for the North model area are provided in Figures 14-5 and 14-6.



View Towards Azimuth 340°

0 10 20 30 40
Metres

January 2017

Source: RPA, 2016.

Figure 14-3

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Representative Cross Section, South Model Area

Figure 14-4

Orezone Gold Corporation

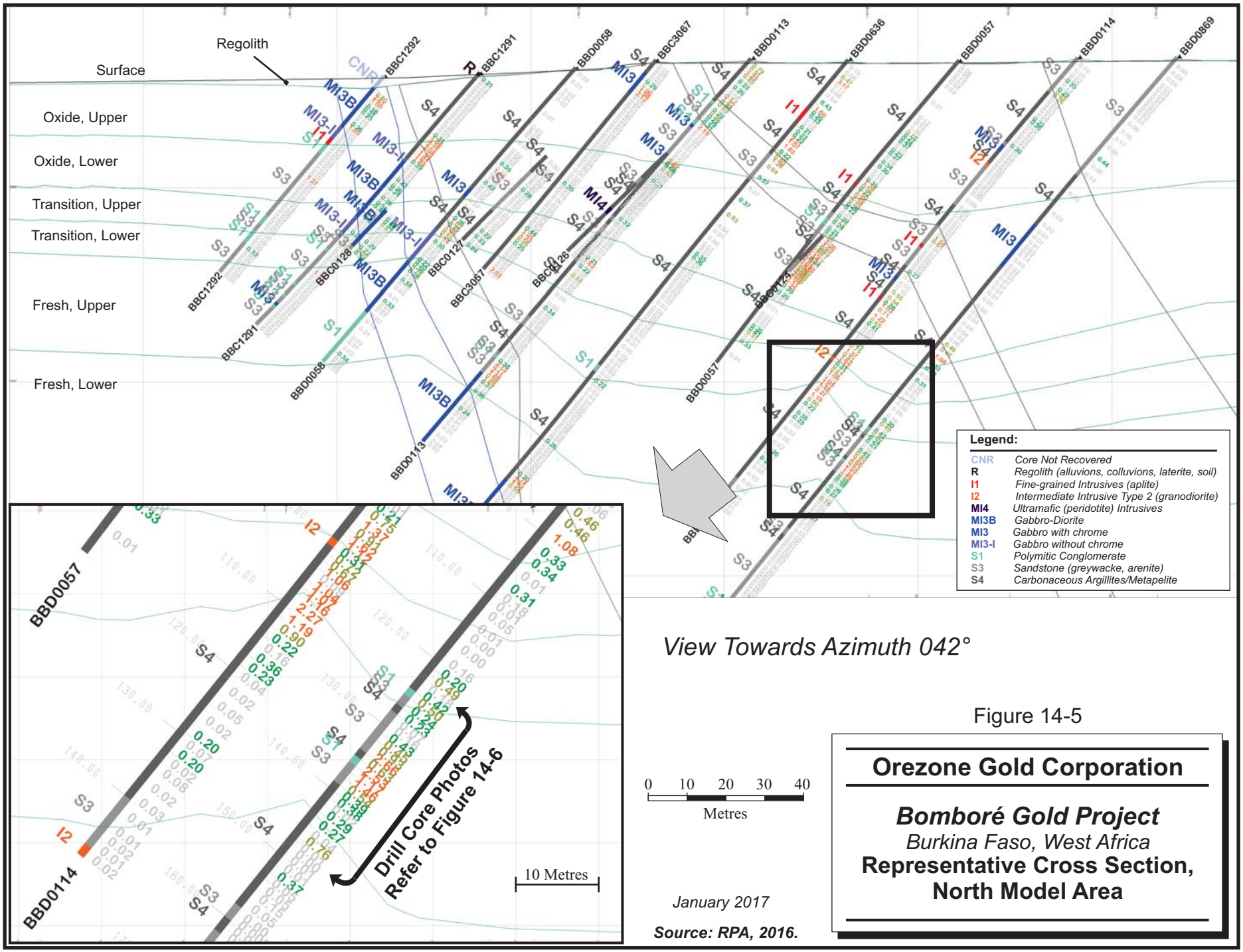
Bomboré Gold Project

Burkina Faso, West Africa

Mineralized Gabbro,
Drill Hole BBD0169,
South Model Area

January 2017

Source: RPA, 2016.



View Towards Azimuth 042°

January 2017

Source: RPA, 2016.

Figure 14-5

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Representative Cross Section, North Model Area

Figure 14-6

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Mineralized Sediments
Drill Hole BBD0869,
North Model Area

January 2017

Source: RPA, 2016.

MINERALIZATION WIREFRAMES

The mineralization wireframes for the September 2016 estimate were prepared on cross sectional views using a two-tiered cut-off grade approach and a minimum width of three metres for the high grade domains. A minimum width of five metres was used for creation of the September 2016 estimate low grade domains. A minimum width of three metres was used for the creation of the new low grade domains for the January 2017 estimate. Sample intervals with assay results less than the nominated cut-off grade (internal dilution) were included within the September 2016 estimate high and low grade mineralized wireframes if the length was less than 1.5 m. Sample intervals with assays results less than the nominated cut-off grade were included within the January 2017 estimate new low grade mineralized wireframes if the overall grade of the samples in that intercept was above 0.20 g/t Au.

Both the September 2016 estimate and January 2017 estimate low grade domain models were created using a lower grade limit of approximately 0.20 g/t Au, while the September 2016 estimate high grade domain models were created using a grade limit of approximately 0.45 g/t Au. RPA considers the selection of 0.20 g/t Au to be appropriate for construction of mineralized wireframe outlines, as this value well reflects the lowest cut-off grade that is expected to be applied for reporting of the Mineral Resources in an open pit operating scenario. The selection of the threshold for the high-grade population was set as the inflection point in a plot of the coefficient of variation of composite samples as a function of cut-off grade.

For the January 2017 estimate RPA produced 391 new low grade wireframe-constrained domain models in those areas where a minimum of three intervals longer than three metres and an overall grade above 0.20 g/t Au can be observed to be present in adjacent drill sections and there are a minimum of two such intersects in at least one section.

Review of the drill hole information supports the interpretation that the gold mineralization follows a stratiform orientation for the most part. In some locales, the elevated gold grades can clearly be seen to be related to one specific host rock type. Consequently, the mineralization wireframes were constructed so as to sub-parallel the lithological contacts (Figures 14-7 and 14-8). The mineralization wireframe interpretations were cross-checked for continuity from section to section prior to construction of the final solid model.

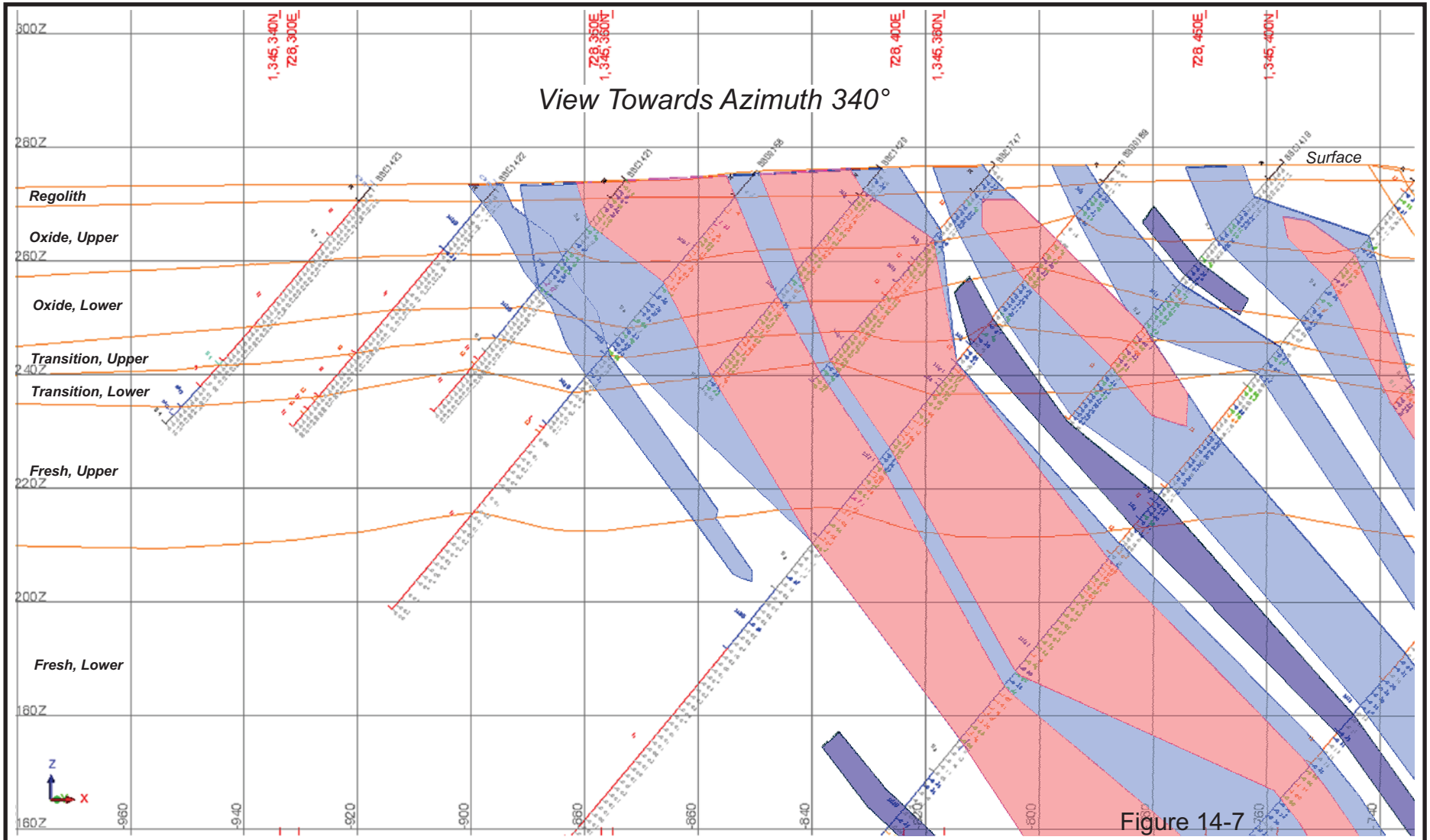


Figure 14-7

0 10 20 30 40

Metres

Legend:

High Grade Wireframes | *Low Grade Wireframes* | *New Low Grade Wireframes*

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Example of the Mineralized Wireframe Interpretation, South Model Area

January 2017

Source: RPA, 2016.

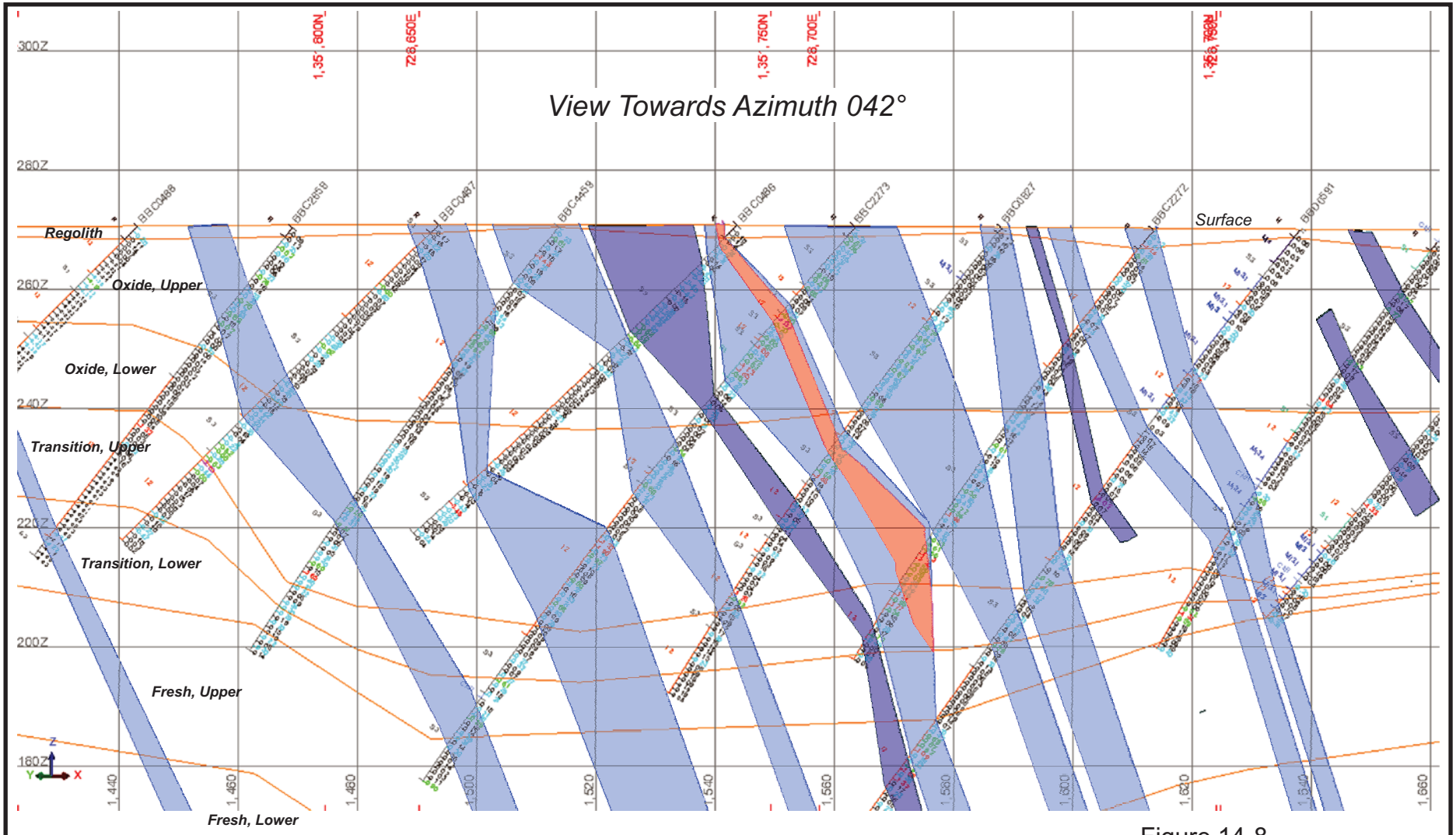


Figure 14-8

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Example of the Mineralized Wireframe Interpretation, North Model Area

January 2017

Source: RPA, 2016.

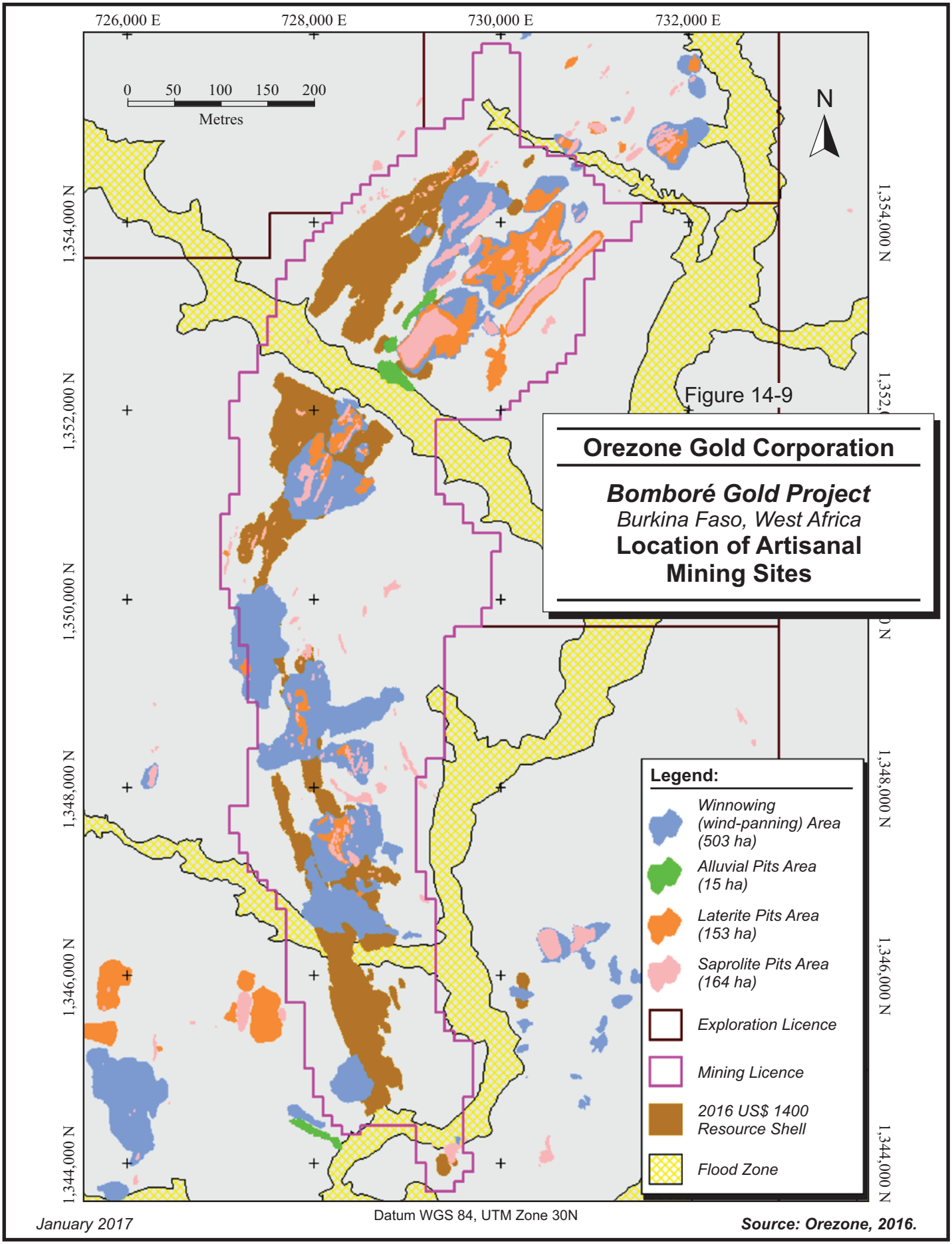
MINED OUT AREAS

Artisanal gold mining (zones d'orpaillage) on the Project was described for the first time during the 1989 to 1994 period when Générale de Mines et de Carrières (GMC) was the operator of the Project. Artisanal miners (orpailleurs) were essentially exploiting accessible quartz veins. Channel Mining (Barbados) Company, Ltd. (Channel) prepared initial maps and detailed descriptions of the various gold prospects mined by the artisanal miners during the 1994 to 2000 period. Artisanal mining is currently allowed only outside of the areas where the Project's Mineral Resources are located.

Orezone mapped the artisanal gold mining zones according to a standard definition which is based on the identification of the style of artisanal gold mining (Table 14-4). The locations of the individual pits and areas of exploitation are identified by means of handheld GPS units (Figure 14-9).

TABLE 14-4 DESCRIPTION OF THE ARTISANAL MINING TYPES
Orezone Gold Corporation – Bomboré Gold Project

Work Type	Description
Limite de vannage (LV)	Area of winnowing, a very superficial type of exploitation. The top surface is brushed and gold concentrated by winnowing, using the wind to blow away the light particles with heavy ones progressively concentrated over several cycles. These areas are easily identified by the shallow winnowing mounds (typically a conical shallow mound of about one square meter) and such areas can cover several square kilometers, and they are typically developed over areas of residual soils.
Limite de puits alluvionnaires (LPA)	Area of alluvial material mining. Typically found in the active drainages, but can also be found in the paleo-drainages. Gravels are typically exploited to a multi-metre depth. In places, the softer saprolite underlying the gravels will be mined first, and the gravel horizon then mined from bottom up, until the gold contents decline. These deposits are typically linear and the alluvial gold can be transported or in contact with the primary (Birimian) source. Individual pits are picked as "puits alluvionnaires" (PA), and the outline of an extensive zone of PA is picked as an LPA. There are three knows alluvial zones at Bomboré, each located essentially outside of the resource pit shells.
Limite de puits latéritiques (LPL)	Area of pits exploiting ferrugineous laterite or duricrust. These are typically found within the LV areas, over more restricted areas where gold has been residually concentrated in this horizon. At Bomboré, this horizon is often absent, and where present, is typically less than 2 m thick. Individual pits are picked as PL, and the outline of an extensive zone of PL is picked as an LPL. Such an area can cover several hectares.
Limite de puits dans la saprolite (LPS)	Area where gold is mined from shafts reaching the saprolite, and in place even the saprock or sulphide zones. Individual shafts are picked as PS, and the outline of an extensive zone of PS is picked as an LPS. At Bomboré, most of these zones are narrow and follow developed along a quartz vein structure, the longest being 700 m long on the hanging wall of the Maga prospect. LPS zones can be found within LPL or LV areas, or where the Birimian is exposed. LPS can also be developed over areas of several hectares. The P16 and P17 gold deposits are the only ones where a relatively large pit has been developed.



January 2017

Source: Orezone, 2016.

TOPOGRAPHY MODELS

In April 2011, Orezone acquired the initial satellite topographic data from PhotoSat Information Ltd. (PhotoSat) for the Project area. Satellite topographic data was subsequently acquired from PhotoSat for the area to the west and south of the original data in January 2012 and was merged with it. In October 2012, PhotoSat re-processed the data to produce a topographic model that better fit ground control point co-ordinates and to eliminate north-south strips that appeared in the contoured topographic model (Marquis, 2014). An improved series of raster images and 50 cm topographic contours using more control points than the original surveys were delivered to Orezone in November 2012.

Orezone has created a comprehensive database of survey points within the Project area consisting mainly of drill hole collars surveyed with the Trimble TSC3 series instrument and earlier instruments with recalculated co-ordinates, including 20 control points within the PhotoSat topographic model area. These control points were used to geo-reference the November 2012 re-processed topographic model. In 2014, Geozone Geomatics validated the Project survey data against the PhotoSat topographic surface.

SAMPLE STATISTICS AND GRADE CAPPING

The September 2016 estimate mineralization wireframe models and the new January 2017 mineralization wireframe models were used to code the drill hole database and identify those samples within all the mineralized wireframes. All remaining samples were considered as potentially being part of the third domain population. These groups of samples were then extracted from the database on a group-by-group basis, subjected to statistical analyses into their respective domains, and then subjected to analysis by means of histograms and probability plots. A total of 146,372 samples were contained within the September 2016 estimate low and high grade domain mineralized wireframes in all four block model areas. A total of 15,003 samples were contained within the January 2017 estimate new low grade domain mineralized wireframes in the North and South model areas. A total of 272,058 samples remained outside all wireframes for the four block model areas. The sample statistics are summarized in Table 14-5.

TABLE 14-5 SUMMARY STATISTICS OF THE UNCAPPED ASSAYS
Orezone Gold Corporation – Bomboré Gold Project

Wireframe	Mean (g/t Au)	StDev	CoV	Min	Max	Count
North Model						
R	0.22	0.57	2.61	0	27.24	7,403
Cfu_200 main	0.96	7.05	7.35	0.02	171.32	1,055
Cfu_200hw	0.44	0.86	1.98	0.03	6.64	73
Cfu_200fw	0.79	5.20	6.58	0.01	163.77	1,4707
Cfu_450main	1.22	1.76	1.44	0.02	16.97	208
Cfu_450hw	0.86	0.53	0.62	0.08	2.67	72
Cfu_450fw	2.02	7.28	3.6	0.03	102.81	246
Maga_200main	0.45	1.14	2.56	0	66.26	4,629
Maga_200hw	0.46	0.95	2.06	0	50.19	14,751
Maga_200fw	0.53	0.64	1.21	0.01	7.89	572
Maga_450main	1.18	1.73	1.46	0.01	46.9	3,392
Maga_450hw	1.36	2.89	2.13	0.01	93.39	2,485
Maga_450fw	1.60	2.25	1.40	0.03	13.54	75
P8/P9_200main_c	0.44	0.85	1.91	0	37.38	6,494
P8/P9_200main_e_s_w	0.39	0.52	1.34	0	12.77	7,965
P8/P9_200hw	0.45	1.28	2.87	0	71.05	6,629
P8/P9_200fw	0.43	1.14	2.68	0	55	15,147
P8/P9_450main_c	1.10	1.94	1.76	0	59.56	4,340
P8/P9_450main_e_s_w	0.87	2.10	2.41	0.01	104.52	3,000
P8/P9_450hw	1.38	2.85	2.08	0.01	50.16	1,597
P8/P9_450fw	0.99	2.02	2.04	0.01	37.19	1,856
3D (new wireframes)	0.47	0.97	2.03	0.001	60.40	10,550
Waste (inc. third domain)	0.12	0.49	4.10	0.001	122.82	172,020
South Model						
R	0.20	0.71	3.63	0	33.81	5,314
Siga SW_200main	0.40	0.68	1.67	0	42.6	12,779
Siga SW_200hw	0.39	0.59	1.52	0.01	15.6	2,539
Siga SW_200fw	0.40	1.00	2.51	0.01	28.93	1,128
Siga SW_450main	1.24	21.95	17.77	0.01	1,7836.88	6,639
Siga SW_450hw	1.01	1.73	1.72	0.06	21.44	268
Siga SW_450fw	1.00	2.18	2.17	0.03	26.97	172
Siga East_200main	0.47	0.91	1.94	0	29.50	3,080
Siga East_200hw	0.47	1.08	2.31	0	32.28	1,420
Siga East_200fw	0.41	1.41	3.45	0	49.63	2,455
Siga East_450main	1.03	2.62	2.55	0	67.04	1,797
Siga East_450hw	1.21	2.09	1.72	0	31.98	554
Siga East_450fw	0.83	1.44	1.74	0.01	28.00	526
P11_200main	0.42	0.97	2.28	0	36.72	2,430
P11_200fw	0.38	0.70	1.82	0	15.09	2,318
P11_450main	1.06	1.95	1.83	0	32.19	1,042
P11_450fw	1.01	1.48	1.47	0.02	14.54	369
3D (new wireframes)	0.48	1.15	2.39	0.001	31.95	4,453
Waste (inc. third domain)	0.11	0.45	4.04	0.001	89.93	82,584

Wireframe	Mean (g/t Au)	StDev	CoV	Min	Max	Count
		P16 Model				
P16_200main	0.35	0.60	1.72	0	12.32	603
P16_200hw	0.45	0.93	2.08	0	12.68	624
P16_200fw	0.32	0.36	1.10	0.02	3.21	385
P16_450main	1.41	2.68	1.91	0.01	44.33	770
P16_450hw	1.76	5.78	3.28	0	114.73	698
P16_450fw	0.87	1.22	1.41	0.02	13.59	175
Waste (inc. third domain)	0.06	0.32	5.15	0.001	21.09	7,711
		P17 Model				
P17c	1.10	2.21	2.01	0	41.63	884
P17n	0.80	2.01	2.51	0.02	36.42	409
P17s	2.15	2.34	1.09	0	15.52	298
Waste (inc. third domain)	0.06	0.29	4.77	0.001	12.06	9,743

Orezone elected to cap high assay values to reduce the influence of erratic high grade assay values. The selection of the various capping values was partially guided by the goal of achieving a target coefficient of variation (CoV) of less than approximately 2.0. For the September 2016 estimate the capping values were selected separately for the high grade (0.45 g/t Au) and low grade (0.20 g/t Au) domains for the North, South, and P16 block model areas, partially guided by the goal of achieving a target coefficient of variation (CoV) of less than approximately 2.0. Capping values were also applied to the three grade domains for the P17 block model area. For the 2017 estimate a uniform capping value of 5.00 g/t Au was applied to the new low grade mineralized wireframes and the third domain samples. The summary statistics for the capped assays are provided in Table 14-6.

TABLE 14-6 SUMMARY STATISTICS OF THE CAPPED ASSAYS
Orezone Gold Corporation – Bomboré Gold Project

Wireframe	Mean (g/t Au)	StDev	CoV	Min	Max	Count
		North Model				
R	0.21	0.40	1.87	0	5.02	7,403
Cfu_200 main	0.57	1.09	1.90	0.02	10.00	1,055
Cfu_200hw	0.33	0.31	0.94	0.03	1.50	73
Cfu_200fw	0.57	1.08	1.89	0.01	10.00	1,407
Cfu_450main	1.13	1.11	0.99	0.02	7.00	208
Cfu_450hw	0.85	0.51	0.60	0.08	2.25	72
Cfu_450fw	1.39	1.99	1.43	0.03	10.00	246
Maga_200main	0.43	0.57	1.33	0	9.00	4,629
Maga_200hw	0.46	0.79	1.72	0	16.69	14,751
Maga_200fw	0.52	0.55	1.06	0.01	3.50	572
Maga_450main	1.15	1.28	1.11	0.01	18.30	3,392

Wireframe	Mean (g/t Au)	StDev	CoV	Min	Max	Count
Maga_450hw	1.30	1.86	1.43	0.01	20.00	2,485
Maga_450fw	1.56	2.02	1.30	0.03	10.00	75
P8/P9_200main_c	0.44	0.69	1.57	0	10.00	6,494
P8/P9_200main_e_s_w	0.39	0.51	1.30	0	8.00	7,695
P8/P9_200hw	0.43	0.73	1.72	0	10.00	6,629
P8/P9_200fw	0.41	0.65	1.60	0	10.00	15,147
P8/P9_450main_c	1.08	1.49	1.38	0	20.00	4,340
P8/P9_450main_e_s_w	0.84	0.89	1.07	0.01	8.50	3,000
P8/P9_450hw	1.29	2.11	1.63	0.01	15.00	1,597
P8/P9_450fw	0.97	1.67	1.73	0.01	20.00	1,856
3D (new wireframes)	0.43	0.52	1.19	0.001	5.00	10,550
Waste (inc. third domain)	0.11	0.22	1.95	0.001	5.00	172,020
		South Model				
R	0.19	0.38	2..07	0	7.79	5,314
Siga SW_200main	0.40	0.60	1.48	0	22.20	12,779
Siga SW_200hw	0.38	0.45	1.18	0.01	6.00	2,539
Siga SW_200fw	0.38	0.58	1.54	0.01	9.00	1,128
Siga SW_450main	0.97	1.62	1.67	0.01	48.97	6,639
Siga SW_450hw	0.92	1.00	1.09	0.06	7.00	268
Siga SW_450fw	0.86	0.84	0.98	0.03	5.00	172
Siga East_200main	0.46	0.75	1.62	0	10.00	3,080
Siga East_200hw	0.45	0.71	1.57	0	10.00	1,420
Siga East_200fw	0.37	0.68	1.82	0	10.00	2,455
Siga East_450main	0.93	1.20	1.30	0	10.00	1,797
Siga East_450hw	1.16	1.57	1.36	0	10.00	554
Siga East_450fw	0.79	0.91	1.15	0.01	10.00	526
P11_200main	0.41	0.62	1.50	0	8.00	2,430
P11_200fw	0.37	0.49	1.34	0	6.24	2,318
P11_450main	0.98	1.26	1.28	0	8.00	1,042
P11_450fw	0.95	1.08	1.14	0.02	6.70	369
3D (new wireframes)	0.44	0.59	1.35	0.001	5.00	4,453
Waste (inc. third domain)	0.10	0.23	2.15	0.001	5.00	82,584
		P16 Model				
P16_200main	0.34	0.37	1.10	0	3.00	603
P16_200hw	0.42	0.72	1.71	0	5.56	624
P16_200fw	0.32	0.31	0.99	0.02	2.00	385
P16_450main	1.29	1.53	1.19	0.01	10.00	770
P16_450hw	1.37	2.15	1.56	0	11.87	698
P16_450fw	0.84	1.02	1.20	0.02	10.00	175
Waste (inc. third domain)	0.06	0.17	2.70	0.001	5.00	7,711

Wireframe	Mean (g/t Au)	StDev	CoV	Min	Max	Count
		P17 Model				
P17c	1.06	1.74	1.64	0	12.03	884
P17n	0.74	1.06	1.43	0.02	9.17	409
P17s	2.14	2.28	1.07	0	12.27	298
Waste (inc. third domain)	0.05	0.20	3.71	0.001	5.00	9,743

RPA agrees that the influence of high grade gold assays must be reduced or controlled, and uses a number of industry best practice methods to achieve this goal, including capping of high grade values. RPA employs a number of statistical analytical methods to determine an appropriate capping value including preparation of frequency histograms, probability plots, decile analyses, and capping curves. Using these methodologies, RPA examined the selected capping values for the mineralized domains in the four model areas. In RPA's opinion, the selected capping values are reasonable and have been correctly applied to the raw assay values for all four model areas.

COMPOSITING METHODS

Composited samples were created from the capped, raw assay values using the downhole compositing function of the Surpac mine modelling software package. In this function, compositing begins at the point in a drill hole at which the zone of interest is encountered and continues down the length of the hole until the end of the zone is reached. Composite samples were created for each individual mineralization wireframe solid model and the resulting data stored in separate files. In the case of the third domain, a composite file for each zone was created along the length of the holes using only assays outside all wireframes. For the September 2016 estimate a composite length of 1.5 m was used for the North, South, and P16 block model areas while a composite length of one metre was used for the P17 block model area. The January 2017 estimate used a composite length of 1.5 m for the new low grade mineralization wireframe domains in the North and South block model areas and the same composite lengths as in the September 2016 estimate for the new third domain in all four block model areas. The summary statistics for the composited samples are presented in Table 14-7.

As often happens, the thickness of the mineralized zone encountered by any given drill hole is not an even multiple of the composite length. The remaining samples that were less than 100% of the composite length (i.e., the "tails") were retained as part of the data set so as to

enable a more accurate estimate of the grades for the various elements along the bottom contacts of the respective domain models.

TABLE 14-7 SUMMARY STATISTICS OF THE COMPOSITED ASSAYS
Orezone Gold Corporation – Bomboré Gold Project

Wireframe	Mean (g/t Au)	StDev	CoV	Min	Max	Count
North Model (1.5 m composites)						
R	0.23	0.38	1.66	0	5.02	6,670
Cfu_200 main	0.57	0.87	1.52	0.02	10.00	809
Cfu_200hw	0.33	0.22	0.68	0.07	1.08	54
Cfu_200fw	0.57	0.91	1.60	0.01	10.00	1,086
Cfu_450main	1.12	0.94	0.84	0.03	7.00	169
Cfu_450hw	0.86	0.38	0.44	0.18	2.08	56
Cfu_450fw	1.47	1.86	1.27	0.04	10.00	198
Maga_200main	0.43	0.47	1.09	0.01	6.76	3,526
Maga_200hw	0.45	0.65	1.43	0	16.69	11,186
Maga_200fw	0.51	0.46	0.89	0.01	3.5	439
Maga_450main	1.14	1.06	0.93	0.01	12.93	2,520
Maga_450hw	1.30	1.63	1.25	0.01	20.00	1,925
Maga_450fw	1.58	1.80	1.14	0.21	9.22	55
P8/P9_200main_c	0.43	0.57	1.31	0	9.41	5,052
P8/P9_200main_e_s_w	0.38	0.40	1.05	0	6.70	5,943
P8/P9_200hw	0.42	0.62	1.46	0	10.00	5,090
P8/P9_200fw	0.40	0.55	1.35	0	10.00	11,178
P8/P9_450main_c	1.05	1.15	1.09	0	15.88	3,359
P8/P9_450main_e_s_w	0.83	0.73	0.89	0.01	8.08	2,241
P8/P9_450hw	1.29	1.79	1.40	0.01	15.00	1,284
P8/P9_450fw	0.98	1.60	1.64	0.01	20.00	1,441
3D	0.45	0.46	1.02	0.01	5.00	7,880
Waste (inc. third domain)	0.11	0.20	1.75	0.01	5.00	128,305
South Model (1.5 m composites)						
R	0.20	0.36	1.80	0	7.79	4,657
Siga SW_200main	0.40	0.50	1.25	0	20.20	10,083
Siga SW_200hw	0.38	0.38	1.01	0.02	6.00	1,822
Siga SW_200fw	0.38	0.47	1.23	0.01	6.18	840
Siga SW_450main	0.96	1.29	1.34	0.01	33.02	5,276
Siga SW_450hw	0.92	0.76	0.83	0.22	4.90	194
Siga SW_450fw	0.89	0.81	0.91	0.19	5.00	126
Siga East_200main	0.45	0.63	1.38	0	10.00	2,589
Siga East_200hw	0.50	0.74	1.47	0	10.00	1,225
Siga East_200fw	0.37	0.59	1.57	0	10.00	1,904
Siga East_450main	0.92	1.08	1.18	0	10.00	1,515
Siga East_450hw	1.13	1.31	1.16	0	8.51	430

Wireframe	Mean (g/t Au)	StDev	CoV	Min	Max	Count
Siga East_450fw	0.77	0.67	0.87	0.01	7.02	431
P11_200main	0.40	0.50	1.25	0	6.33	1,836
P11_200fw	0.37	0.40	1.08	0	6.24	1,647
P11_450main	0.98	1.04	1.07	0.01	8.00	803
P11_450fw	0.93	0.86	0.93	0.05	5.37	268
3D	0.44	0.50	1.12	0.01	5.00	3,441
Waste (inc. third domain)	0.10	0.19	1.78	0.01	5.00	61,885
P16 Model (1.5 m composites)						
P16_200main	0.40	0.39	0.97	0	2.70	457
P16_200hw	0.50	0.93	1.87	0	11.87	479
P16_200fw	0.30	0.23	0.77	0.02	2.00	270
P16_450main	1.32	1.42	1.07	0.01	10.00	531
P16_450hw	1.53	2.11	1.37	0.01	11.87	423
P16_450fw	0.83	0.65	0.77	0.04	3.57	130
Waste (inc. third domain)	0.06	0.13	2.02	0.001	3.35	5,950
P17 Model (1.0 m composites)						
P17c	1.15	1.70	1.48	0	12.03	916
P17n	0.71	1.04	1.46	0.01	9.17	424
P17s	2.27	2.32	1.02	0	12.27	304
Waste (inc. third domain)	0.05	0.19	3.61	0.001	5.00	9,745

BULK DENSITY

The specific gravity of a single piece of core, ten centimetres to 15 cm in length, selected from each core box prior to splitting is determined by the water immersion method on site. A wax coating is applied to the sample if necessary (e.g., for samples of oxidized material or from the transition zone). The results of the specific gravity measurements are classified by rock and material type. Specific gravity determinations have been completed on average every two metres in all historical and current boreholes. The specific gravity is seen to increase with depth through the weathering profile and is fairly homogeneous within the fresh zone.

A total of 91,958 density determinations are contained in the drill hole databases for each of the four block model areas.

To estimate the moisture content, samples are weighed at the sample preparation laboratory before and after drying. The average loss of moisture is 5.7% in the oxide core samples, 2.8% in the transition core samples, and 0.2% in the fresh core samples. A reduction factor of 5% and 2% is applied to individual samples in the oxide and transition zones, respectively, for the block model density calculations.

The bulk densities were extracted from each of the four drill hole databases and were grouped according to their host rock lithology and weathering profile. Separate capping values were determined for each lithology type and oxidation state. The density values for each block in a given block model were then estimated using the capped density values and the OK interpolation algorithm. For those areas of limited sample data, the average density value of the specific lithology type and oxidation state was applied.

VARIOGRAPHY

NORTH MODEL AREA

Variography studies for the North model areas were carried out on two test areas of the Maga sub-domain that were selected as representative of the mineralization distribution in that area. The two sub-domains used for variogram analysis together outline gold mineralization along a strike length of approximately two kilometres and include four wireframe models: Maga 200 Main Upper, Maga 450 Main Upper, Maga 200 Main Lower, and the Maga 450 Main Lower. Normal scores variograms were created for both of the test areas, however, meaningful variograms were derived for only the Maga 200 Main Upper wireframe model (Test Area 2). The drill spacing that outlines the gold mineralization for this area is approximately 25 m x 25 m. The normal scores variogram models from this test area were back-transformed and the resulting parameters were used to estimate the gold grades in the remainder of the wireframe models in the North block model area. The geometries of the search ellipses were suitably modified to account for the changes in the strike of each of the individual mineralized wireframe models separately. The range of the major axis (along strike direction) was determined to be approximately 100 m for Test Area 2.

Given the complex geometries and the large number of wireframe models present in the North model area, RPA agrees with the approach of selecting representative areas for variography studies. Using a combined data set of the low grade and high grade composite

values, RPA was able to generate an along-strike variogram with a range of approximately 50 m.

As a cross-check of the selected variography parameters, RPA proceeded to examine the gold distribution for the two test areas by means of conventional longitudinal projections (Figures 14-10 and 14-11). Comparison of the two images clearly shows that, other than the high grade values occurring as small isolated pods, the gold grade distributions follow different patterns between the two test areas. The gold grades in Test Area 1 occur for the most part as larger pods of medium-grade mineralization that is surrounded by lower gold grades. In contrast, the gold grades in Test Area 2 are dominated by a zone of higher gold grades located in the central and northern portion of the area. As no clear, consistent overall rakes or plunges are apparent in either of the two test areas examined, RPA agrees with the selection of the search ellipse parameters.

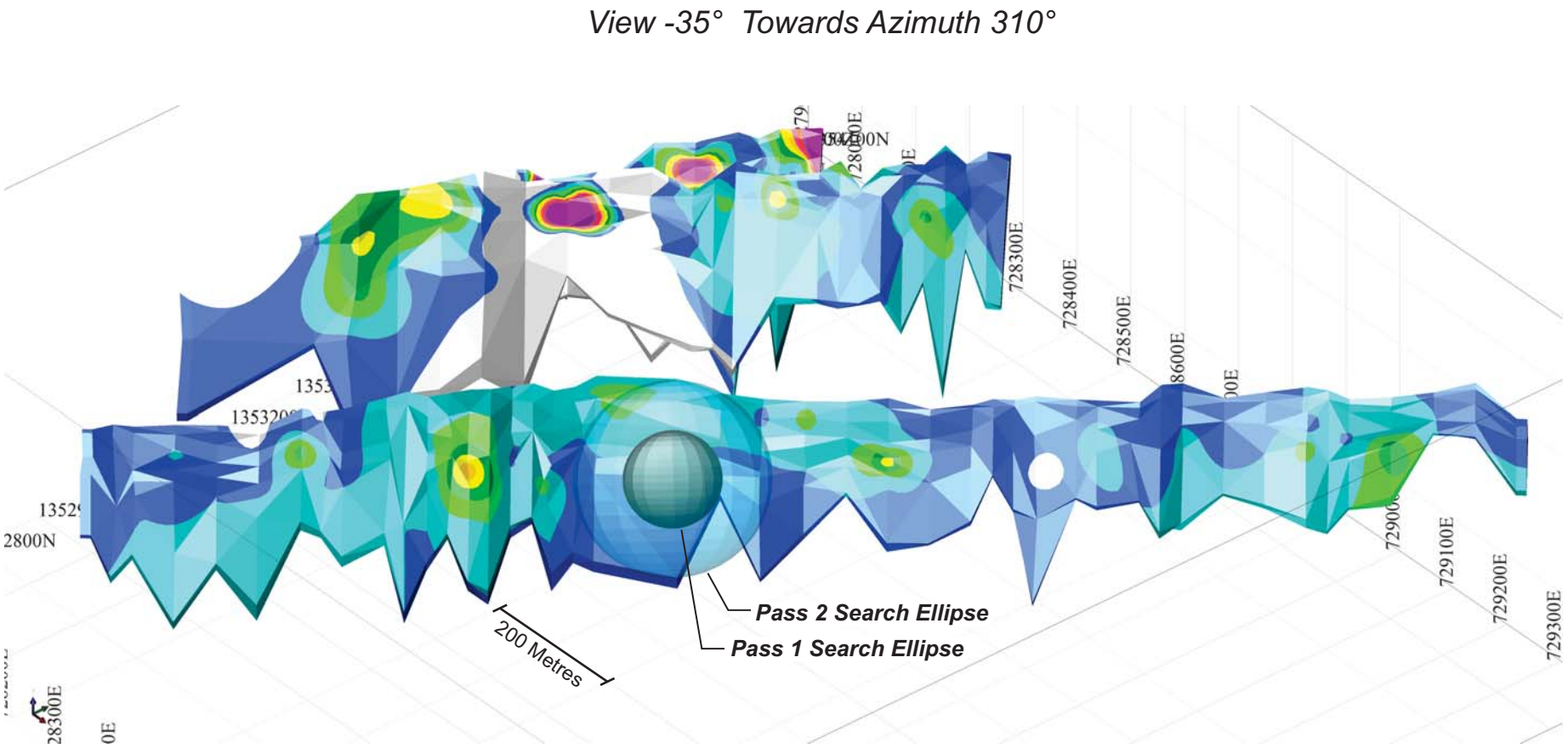


Figure 14-10

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Longitudinal Projection of the Gold Values for the Test Area 1, North Model Area

January 2017

Source: RPA, 2016.

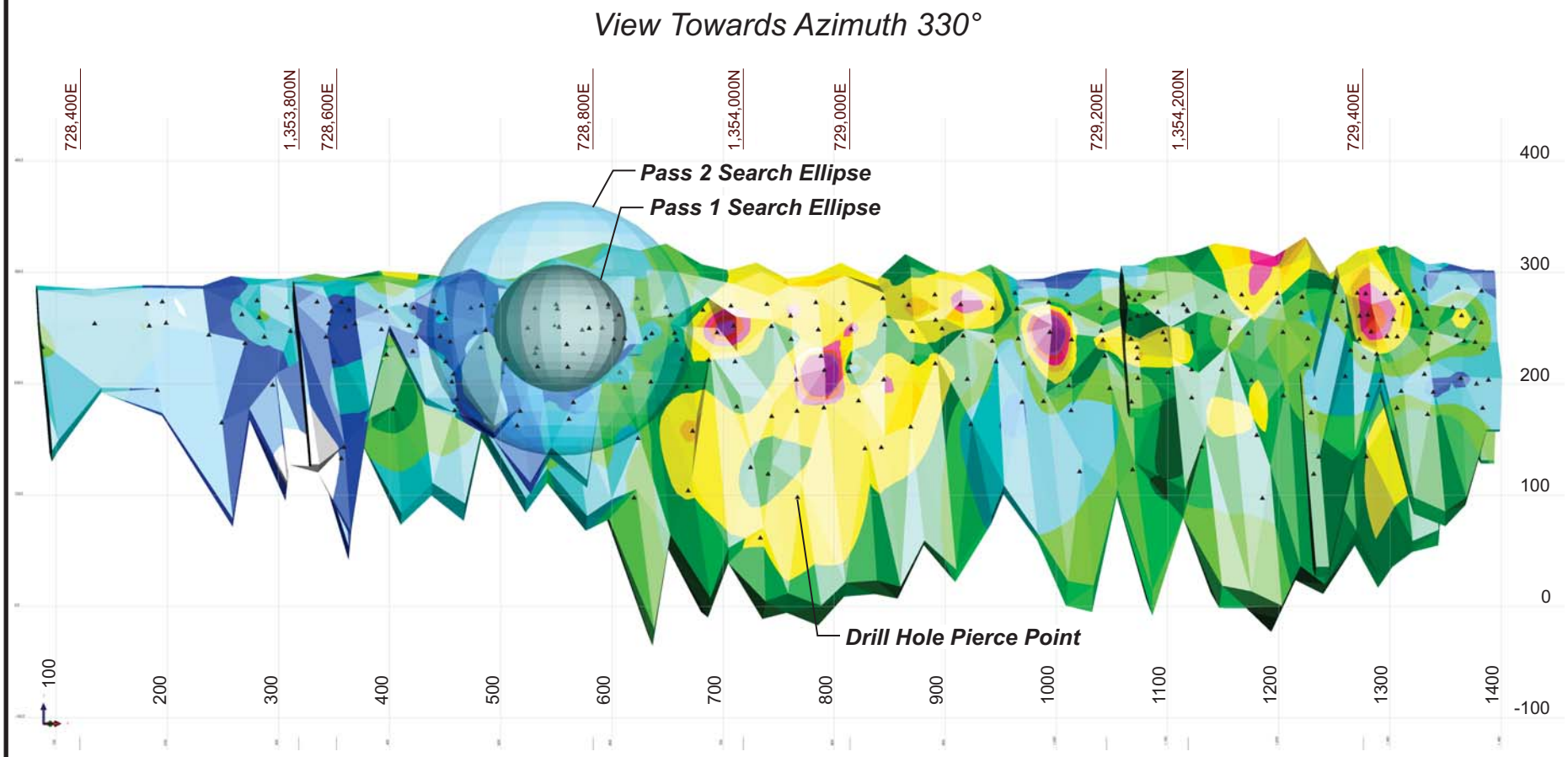


Figure 14-11

Gold Distribution (g/t Au):

> 1.8	0.8 - 1.0
1.6 - 1.8	0.6 - 0.8
1.4 - 1.6	0.4 - 0.6
1.2 - 1.4	0.2 - 0.4
1.0 - 1.2	< 0.2

0 50 100 150 200
Metres

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Longitudinal Projection of the Gold Values for the Test Area 2, North Model Area

January 2017

Source: RPA, 2016.

SOUTH MODEL AREA

Variography studies for the South model areas were carried out on composite samples from the Siga SW wireframe model. The mineralized zones contained within this sub-domain define gold mineralization along a strike length of approximately 3,700 m. The drill spacing that outlines the gold mineralization for this area is approximately 25 m x 50 m. Normal scores variograms were created to measure the spatial variability. The normal scores variogram models from this test area were back-transformed and the resulting parameters were used to estimate the gold grades in the remainder of the wireframe models in the South block model area. The geometries of the search ellipses were suitably modified to account for the specific orientations of the wireframe in question. The range of the major axis (along strike direction) was determined to be approximately 100 m at 90% of the sill with a range of almost 500 m at 100% of the sill.

Using a combined data set of the low grade and high grade composite values, RPA was able to generate an along-strike variogram with a range of approximately 60 m to 70 m.

As a cross-check of the selected variography parameters, RPA proceeded to examine the gold distribution for the test area by means of conventional longitudinal projections for the P11 and Siga SW portions of the South model area (Figures 14-12 and 14-13). Located at the northern portion of the South model area, the gold grades in the P11_450 Main sub-domain are seen to be distributed in a series of higher grade pods that exhibit a reasonable degree of continuity from section to section. In contrast, the higher gold grades in the Siga SW_450 Main sub-domain are much more discontinuous in their distribution.

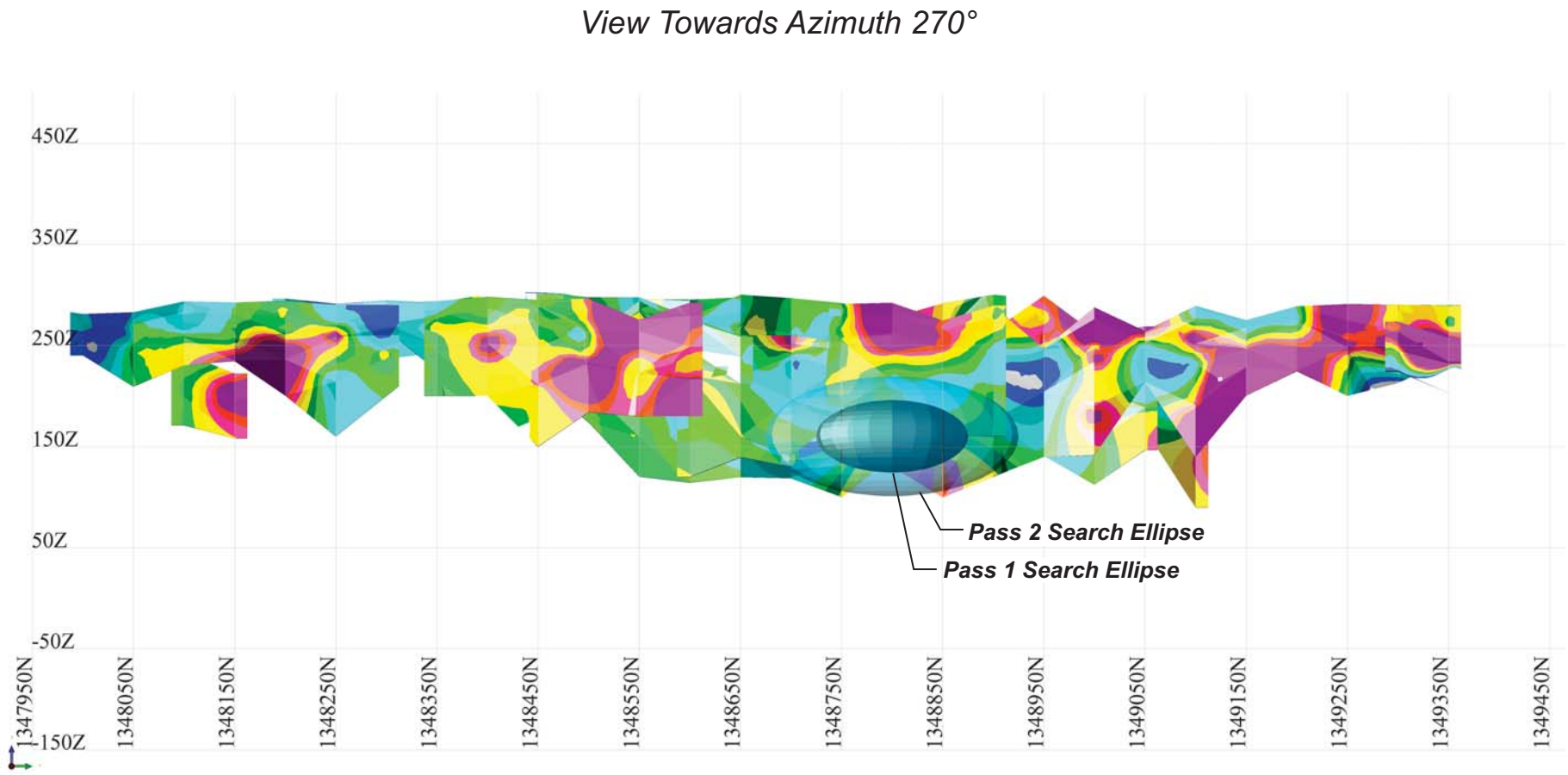


Figure 14-12

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Longitudinal Projection of the Gold Values for the P11_450 Main Wireframe, South Model Area

Gold Distribution (g/t Au):

> 1.8	0.8 - 1.0
1.6 - 1.8	0.6 - 0.8
1.4 - 1.6	0.4 - 0.6
1.2 - 1.4	0.2 - 0.4
1.0 - 1.2	< 0.2

0 50 100 150 200

Metres

January 2017

Source: RPA, 2016.

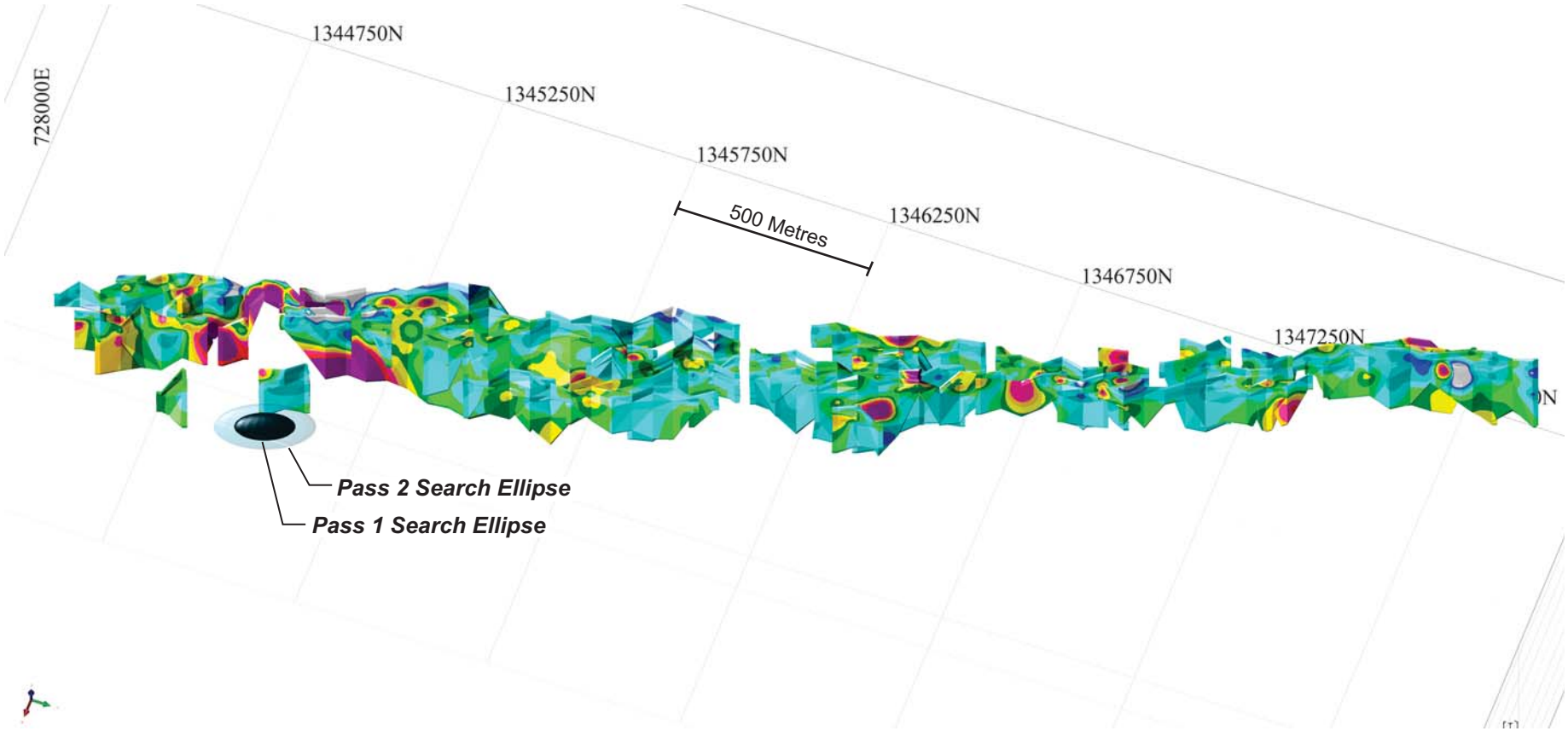


Figure 14-13

Gold Distribution (g/t Au):

> 1.8	0.8 - 1.0
1.6 - 1.8	0.6 - 0.8
1.4 - 1.6	0.4 - 0.6
1.2 - 1.4	0.2 - 0.4
1.0 - 1.2	< 0.2

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Longitudinal Projection of the Gold Values for the Siga SW 450 Main Wireframe, South Model Area

January 2017

Source: RPA, 2016.

OTHER AREAS

Given the relatively small number of drill holes that are available for the P16 model area, no variogram models were prepared for these mineralized wireframes. The variogram models for the Siga SW wireframe models were used to estimate the grades for this model area.

Variogram analyses were not carried out for the January 2017 estimate new low grade mineralization domains as RPA believes that those variograms would be nearly identical to the variograms of their associated models. A variogram for the unconstrained third domain would be irrelevant due to the widely spaced distribution and unconstrained nature of the data.

RPA recommends that examination of the gold distribution be carried out on a number of selected mineralized wireframes in the remaining areas of the North and South model areas, as knowledge gained from this exercise will improve the accuracy of the local estimate.

In-fill drilling to confirm the continuity of the gold grades in the high grade pods contained within the resource pit shell is warranted in the South model area. The information gained from this work will improve the variogram models in these areas and will improve the accuracy and level of confidence of the local estimate.

BLOCK MODEL CONSTRUCTION

Individual block models were created for each of the four model areas using a parent block size of 12.5 m (along strike) x four metres (across strike) x six metres (bench height) and sub-blocks that measured 6.25 m (along strike) x two metres (across strike) x three metres (bench height). The azimuths of each of the four block models were appropriately rotated so as to align with the overall strike of the mineralization within the given model area.

A number of attributes were created to store such information as host rock lithology, oxidation state, material density, estimated gold grades, wireframe code, prospect code, Mineral Resource classification, etc., for each block model area.

A summary of the block model extents of each of the four model areas is provided in Table 14-8.

TABLE 14-8 BLOCK MODEL EXTENTS
Orezone Gold Corporation – Bomboré Gold Project

Type	Y (northing)	X (easting)	Z (elevation)
	North Model Area:		
Minimum Coordinates	1,351,465	725,871	-100
Maximum Coordinates	1,357,065	728,123	332
Parent Block Size	12.5	4	6
Sub-Block Size	6.25	2	3
Rotation	0.0	0.0	+42.0 (clockwise)
	South Model Area:		
Minimum Coordinates	1,344,097.837	728,538.423	0
Maximum Coordinates	1,350,547.837	730,190.423	348
Parent Block Size	12.5	4	6
Sub-Block Size	6.25	2	3
Rotation	0.0	0.0	-20.0 (counter-clockwise)
	P16 Model Area:		
Minimum Coordinates	1,343,600	729,000	100
Maximum Coordinates	1,344,600	729,800	292
Parent Block Size	12.5	4	6
Sub-Block Size	6.25	2	3
Rotation	0.0	0.0	0.0
	P17 Model Area:		
Minimum Coordinates	1,342,350	729,800	100
Maximum Coordinates	1,346,712.5	730,800	292
Parent Block Size	12.5	4	6
Sub-Block Size	6.25	2	3
Rotation	0.0	0.0	0.0

Gold grades were estimated using the OK interpolation algorithm for the September 2016 estimate in the low grade and high grade mineralization domains in the North, South, and P16 model areas. The gold grades in the P17 model area were estimated using the ID^2 interpolation algorithm in both the 2016 and 2017 estimates. Gold grades were estimated using the OK interpolation algorithm for the January 2017 estimate within the new low grade mineralization domains in the North, South and P16 areas and using the ID^3 interpolation algorithm for the third domain in the North, South, P16 and P17 areas.

Hard boundaries were used to constrain the source composite files such that only those composite samples that are present within a specified wireframe were used to estimate block grades. Similarly, hard boundaries were used to constrain coding of the block model where only those blocks that are contained within the specified mineralized wireframe model were permitted to receive estimated gold grades. In the case of the third domain gold grades were estimated in all model areas using a two-step process using the ID^3 interpolation algorithm

which on the first step used only composites outside wireframes and above 0.2 g/t Au to flag blocks with a grade above 0.00 g/t Au from a minimum of two composites, then on the second step used all composites outside wireframes to estimate the gold grade of the previously flagged blocks.

RPA recommends that the gold grades for the North, South, and P16 model areas be estimated using Leapfrog, ID^3 and the nearest neighbour (NN) interpolation algorithms to provide a cross check of the accuracy of the initial grade estimate.

RPA recommends that the gold grades for the P17 model area be estimated using the NN interpolation algorithm to provide a cross check of the accuracy of the initial grade estimate.

A summary of the search strategies used for the mineralized wireframe domains in each of the four model areas is provided in Table 14-9; a summary of the search strategies used for the third domain by model area is provided in Table 14-10. A multiple-pass search strategy was used to estimate the block grades, and the sizes and orientations of the search ellipses for the first two passes for the North and South model areas are presented in Figures 14-10 through 14-13 above.

TABLE 14-9 SUMMARY OF VARIOGRAPHY AND INTERPOLATION PARAMETERS IN THE MINERALIZED WIREFRAMES DOMAINS
Orezone Gold Corporation – Bomboré Gold Project

Item	North	South	P16	P17
Variogram Model Type	Normal Scores	Normal Scores	Same as South	N/A
Nugget (C0)	0.29	0.24	Same as South	N/A
Sill (Pass No., C1)	1: 0.27 2: 0.27 3: 0.27	1: 0.441 2: 0.441 3: 0.441	Same as South	N/A
Sill (Pass No., C2)	1: 0.22 2: 0.22 3: 0.22	1: 0.19 2: 0.19 3: 0.19	Same as South	N/A
Sill (Pass No., C3)	1: 0.22 2: 0.22 3: 0.22	1: 0.129 2: 0.129 3: 0.129	Same as South	N/A
Interpolation Algorithm	Ordinary Kriging	Ordinary Kriging	Ordinary Kriging	Inverse Distance Squared
Ellipse Type	Octant	Octant	Octant	Octant

Item	North	South	P16	P17
Maximum Number of Adjacent Octants	1: 2 2: 4 3: Ellipsoid	1: 2 2: 4 3: Ellipsoid	1: 2 2: 4 3: Ellipsoid	1: 2 2: Ellipsoid
Orientation	Varies by wireframe	Varies by wireframe	Varies by wireframe	Varies by wireframe
Length of Major Axis (Pass No., m)	1: 60 2:120 3: 6,000	1: 75 2: 125 3: 300	1: 30 2: 60 3: 1000	1: 30 2: 60
Anisotropy Ratio (Major/Semi-Major)	1: 1 2: 1 3: 1	1: 2 2: 2 3: 2	1: 3 2: 3 3: 2	1: 1 2: 1
Anisotropy Ratio (Major/Minor)	1: 4 2: 4 3: 5	1: 4 2: 6 3: 6	1: 4.2 2: 6 3: 6	1: 8 2: 8
Minimum Number of Samples	1: 6 2: 4 3: 2	1: 4 2: 4 3: 2	1: 4 2: 2 3: 2	1: 5 2: 2
Maximum Number of Samples	1: 22 2: 16 3: 12	1: 22 2: 22 3: 16	1: 16 2: 12 3: 12	1: 10 2: 15
Maximum Number of Samples per Hole	1: 4 2: 4 3: 2	1: 4 2: 4 3: N/A	1: 4 2: 4 3: N/A	1: 3 2: N/A

TABLE 14-10 SUMMARY OF VARIOGRAPHY AND INTERPOLATION PARAMETERS IN THE THIRD DOMAIN
Orezone Gold Corporation – Bomboré Gold Project

Item	North	South	P16	P17
Interpolation Algorithm	Inverse Distance Cubed	Inverse Distance Cubed	Inverse Distance Cubed	Inverse Distance Cubed
Ellipse Type	Ellipse	Ellipse	Ellipse	Ellipse
Orientation	Varies by wireframe	Varies by wireframe	Varies by wireframe	Varies by wireframe
Length of Major Axis (Pass No., m)	1: 10 2:35	1: 10 2: 35	1: 10 2: 35	1: 10 2: 35
Anisotropy Ratio (Major/Semi-Major)	1: 0.666 2: 1	1: 0.666 2: 1	1: 0.666 2: 1	1: 0.666 2: 1
Anisotropy Ratio (Major/Minor)	1: 4 2: 14	1: 4 2: 14	1: 4 2: 14	1: 4 2: 14
Minimum Number of Samples (Block Tag)	1: 2 2: 2	1: 2 2: 2	1: 2 2: 2	1: 2 2: 2
Minimum Number of Samples (Block Estimate)	1: 3 2: 3	1: 3 2: 3	1: 3 2: 3	1: 3 2: 3
Maximum Number of Samples	1: 8	1: 8	1: 8	1: 8

Item	North	South	P16	P17
(Block Tag)	2: 10	2: 10	2: 10	2: 10
Maximum Number of Samples (Block Estimate)	1: 10 2: 10	1: 10 2: 10	1: 10 2:10	1: 10 2: 10
Maximum Number of Samples per Hole	1: 3 2: 3	1: 3 2: 3	1: 3 2: 3	1: 3 2: 3

BLOCK MODEL VALIDATION

RPA compared the mean values of the estimated block grades with the corresponding composite samples for selected wireframes from each of the four block models. No significant discrepancies were noticed.

Similarly, RPA created a number of swath plots for selected wireframes from each of the four block models. While some local variations were observed between the composite average grades and the block average grades, no material discrepancies were noted (Figures 14-14 to 14-21).

RPA also carried out a visual comparison of the estimated block grades relative to the contoured longitudinal gold grades for four selected areas located in the North and South model areas (Figures 14-22 to 14-25). The results of the visual examination suggest that local discrepancies are present between the contoured gold grades and the estimated block model grades. RPA attributes this in part to the differences in the methods used to estimate the gold grade distribution in each case, and in part to the density of the drill hole information, particularly in the South model area.

In RPA's opinion, the final block models provide a reasonable estimate of the distribution of the gold mineralization at the Project and are of suitable quality for use in estimation of the Mineral Resources.

FIGURE 14-14 SWATH PLOT BY NORTHING FOR THE P8/P9 HIGH GRADE DOMAINS, NORTH MODEL AREA

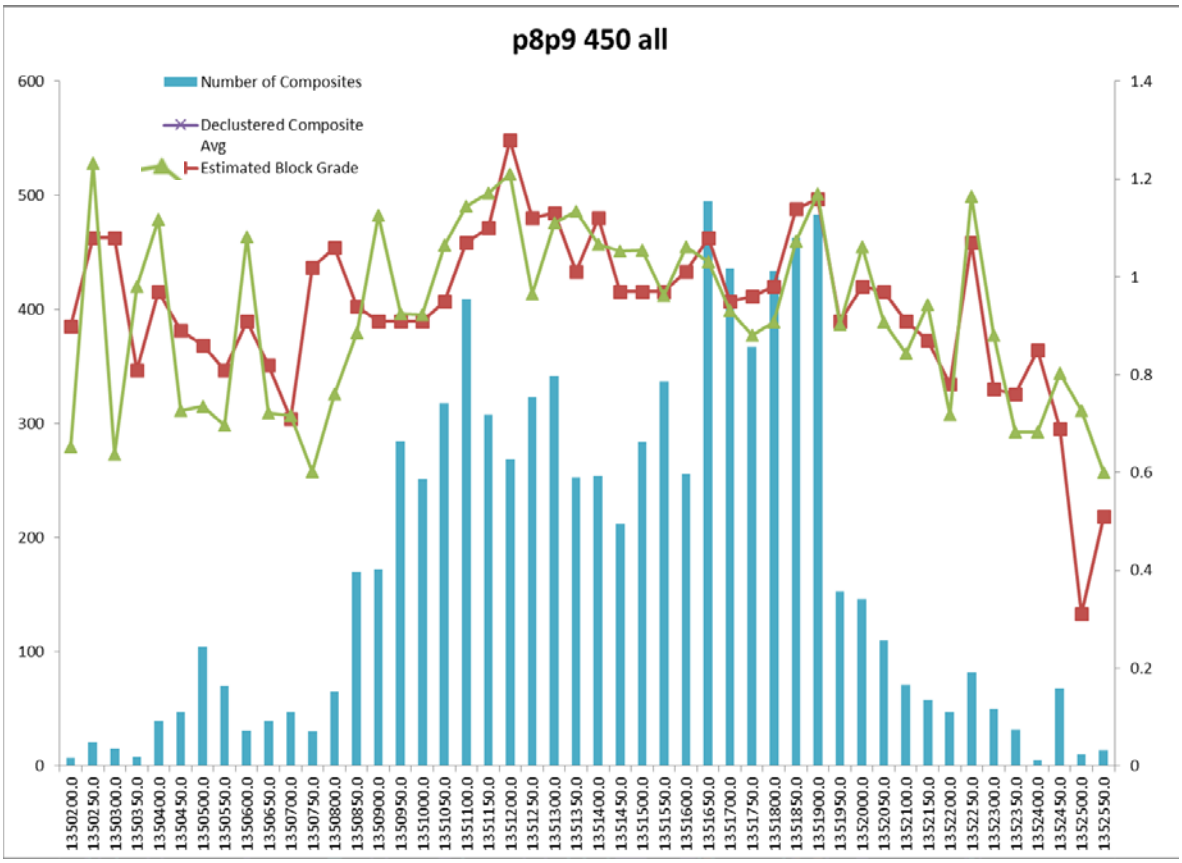


FIGURE 14-15 SWATH PLOT BY NORTHING FOR THE SIGA SW HIGH GRADE DOMAINS, SOUTH MODEL AREA

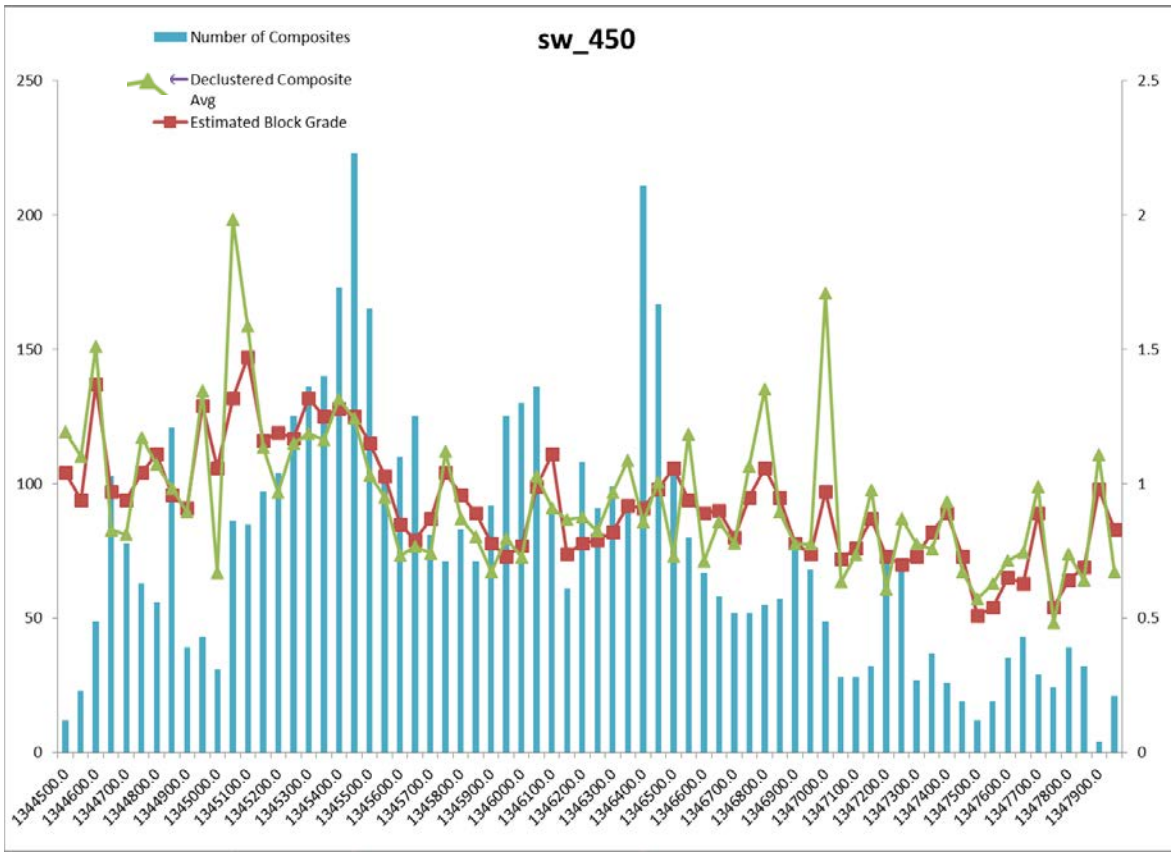


FIGURE 14-16 BOMBORÉ NORTH ZONE, NEW LOW GRADE DOMAIN SWATH PLOT (BY EASTINGS), ROTATED 40° ANTI-CLOCKWISE

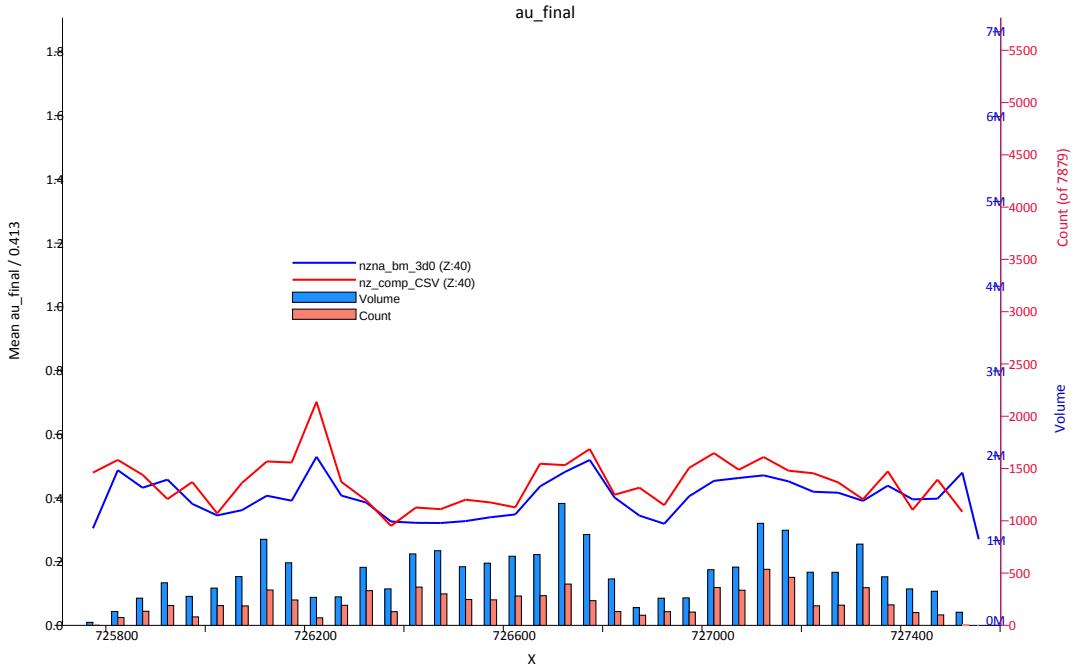


FIGURE 14-17 BOMBORÉ NORTH ZONE, NEW LOW GRADE DOMAIN SWATH PLOT (BY NORTHINGS), ROTATED 40° ANTI-CLOCKWISE

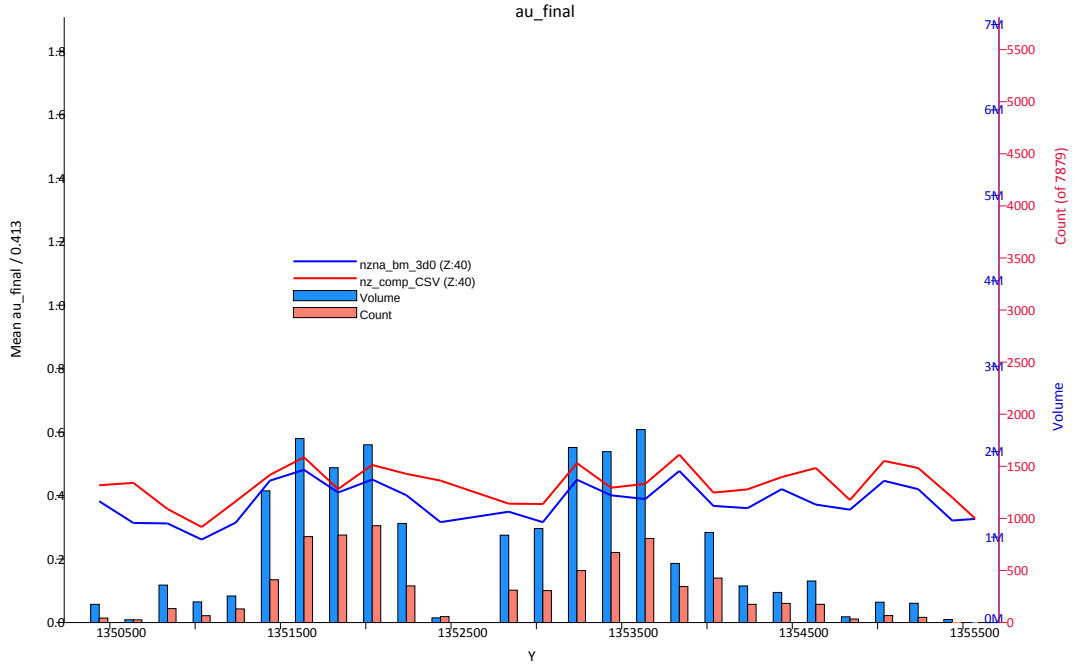


FIGURE 14-18 BOMBORÉ NORTH ZONE, NEW LOW GRADE DOMAIN SWATH PLOT (BY ELEVATION)

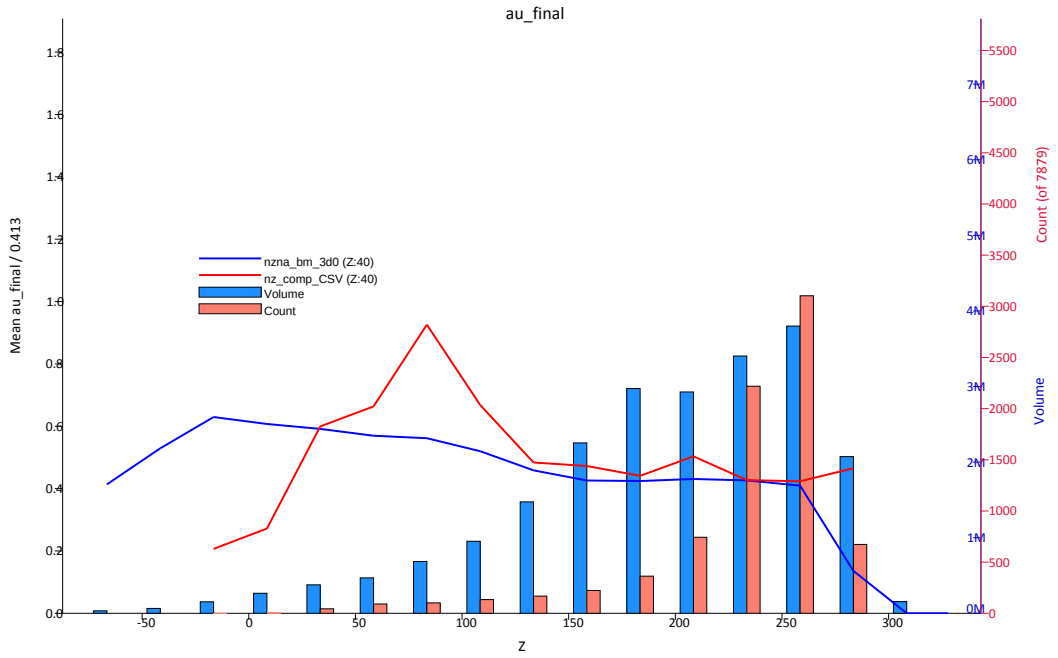


FIGURE 14-19 BOMBORÉ SOUTH ZONE, NEW LOW GRADE DOMAIN SWATH PLOT (BY EASTINGS), ROTATED 13° CLOCKWISE

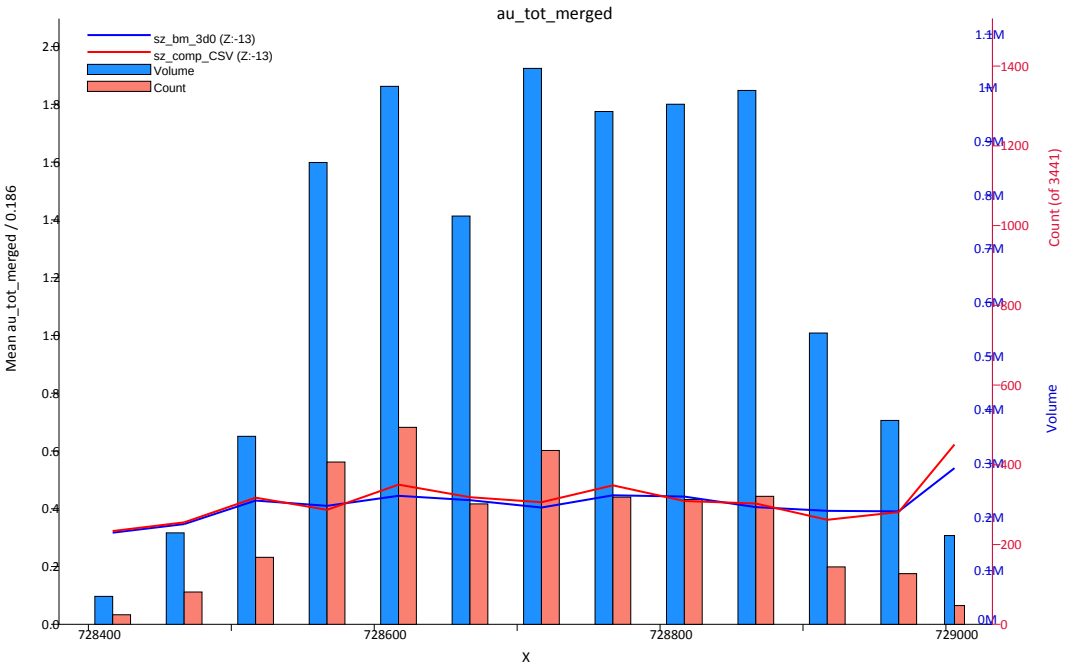


FIGURE 14-20 BOMBORÉ SOUTH ZONE, NEW LOW GRADE DOMAIN SWATH PLOT (BY NORTHINGS), ROTATED 13° CLOCKWISE

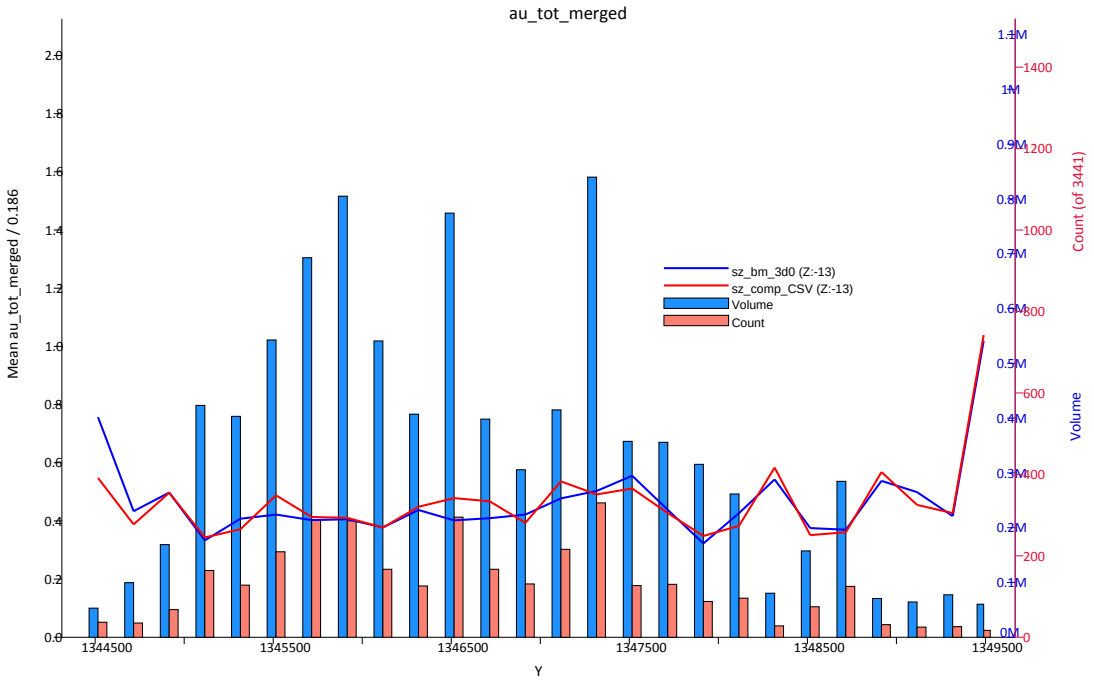
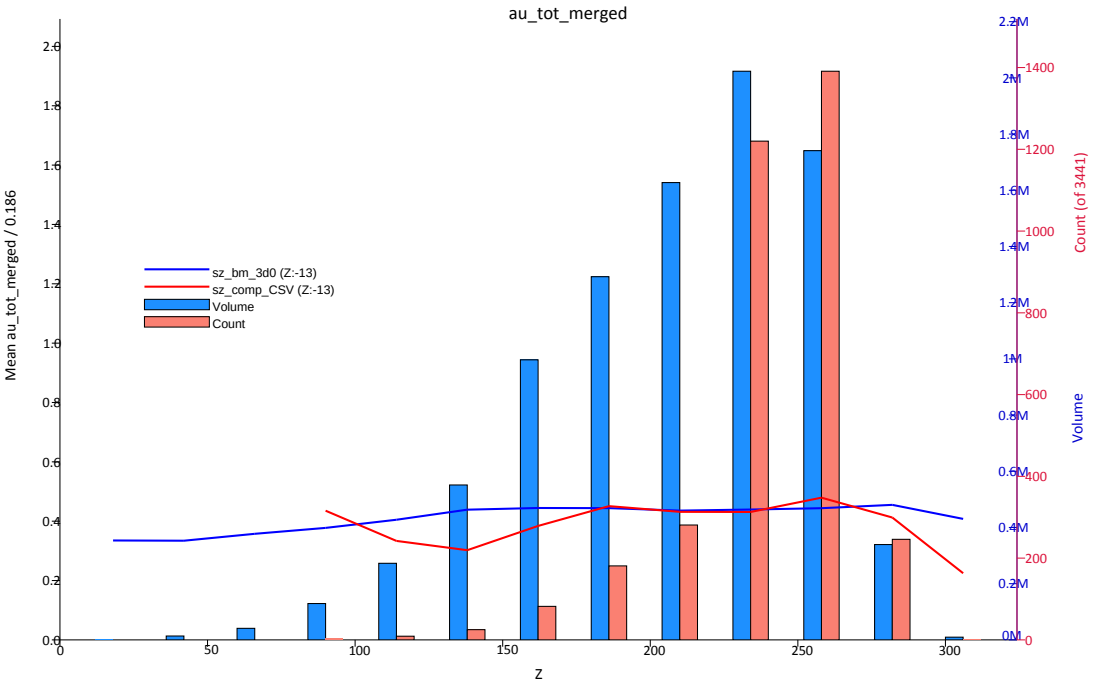


FIGURE 14-21 BOMBORÉ SOUTH ZONE, NEW LOW GRADE DOMAIN SWATH PLOT (BY ELEVATION)



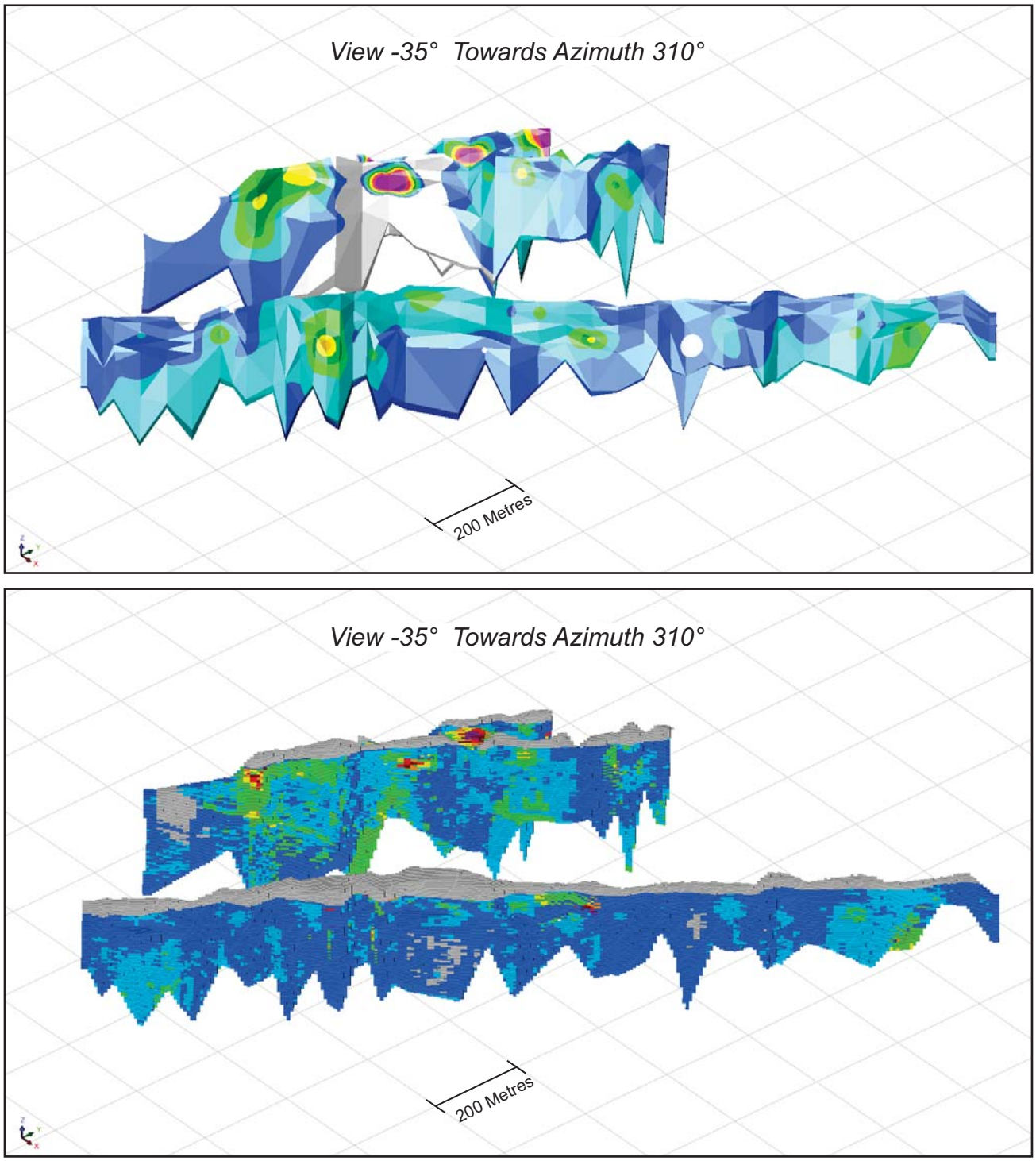


Figure 14-22

Gold Distribution (g/t Au):

> 1.8	0.8 - 1.0
1.6 - 1.8	0.6 - 0.8
1.4 - 1.6	0.4 - 0.6
1.2 - 1.4	0.2 - 0.4
1.0 - 1.2	< 0.2

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Comparison of Block Grades vs. Contoured Gold Grades

Test Area 1, North Model Area

January 2017

Source: RPA, 2016.

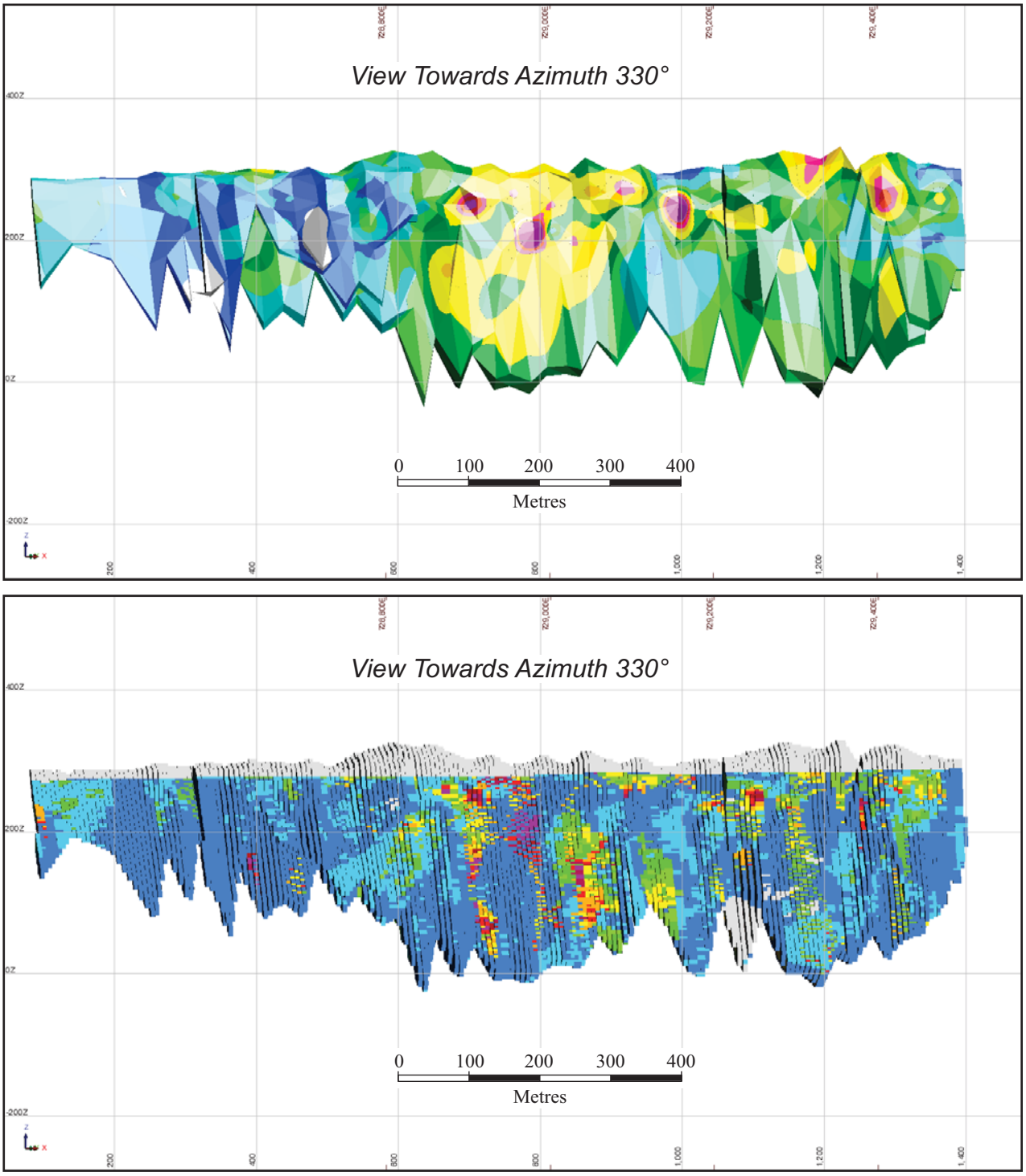


Figure 14-23

Gold Distribution (g/t Au):

> 1.8	0.8 - 1.0
1.6 - 1.8	0.6 - 0.8
1.4 - 1.6	0.4 - 0.6
1.2 - 1.4	0.2 - 0.4
1.0 - 1.2	< 0.2

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Comparison of Block Grades vs. Contoured Gold Grades

Test Area 2, North Model Area

January 2017

Source: RPA, 2016.

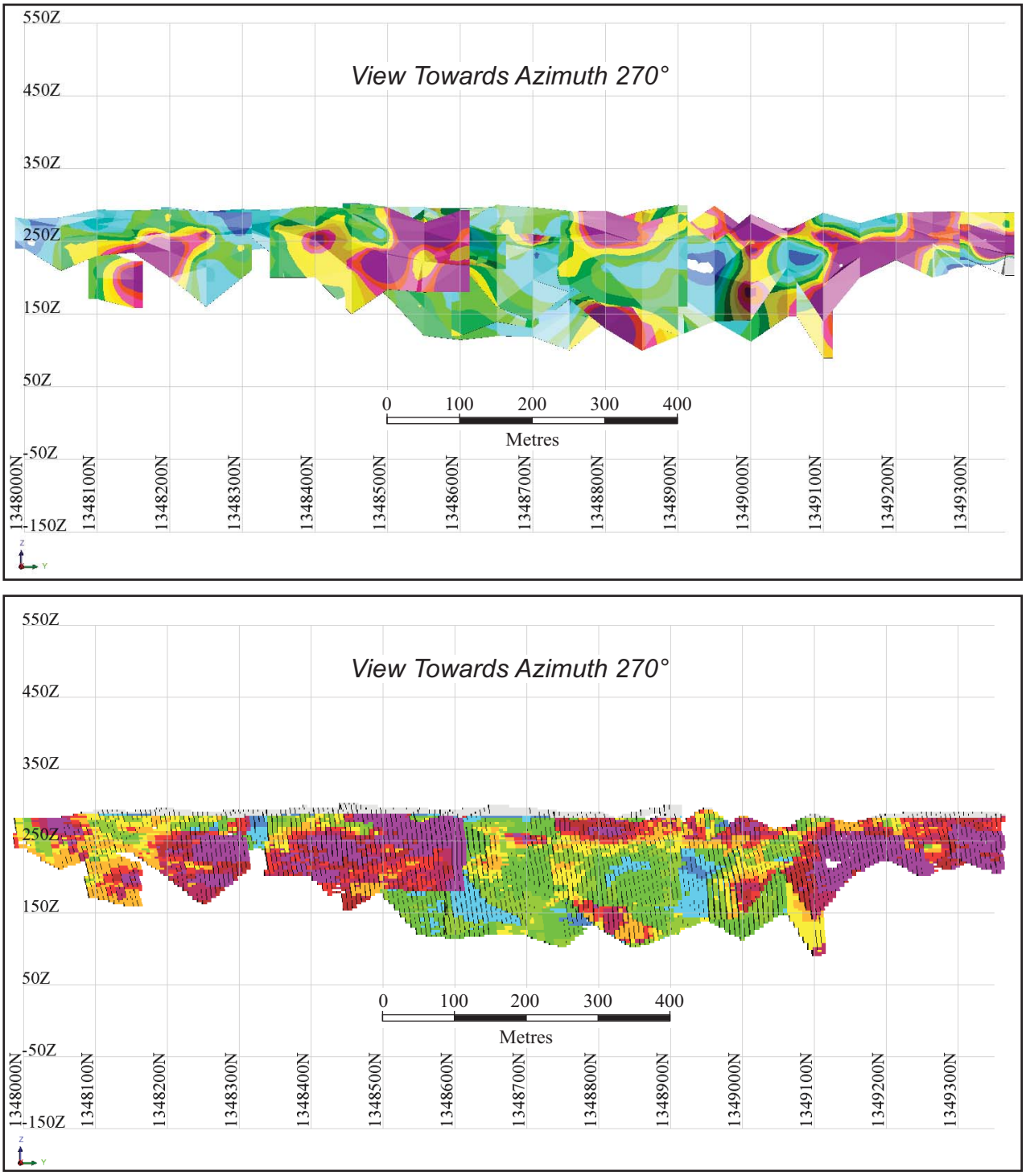


Figure 14-24

Gold Distribution (g/t Au):

> 1.8	0.8 - 1.0
1.6 - 1.8	0.6 - 0.8
1.4 - 1.6	0.4 - 0.6
1.2 - 1.4	0.2 - 0.4
1.0 - 1.2	< 0.2

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Comparisin of Block Grades vs. Contoured Gold Grades, P11_450 Main Sub-Domain, South Model Area

January 2017

Source: RPA, 2016.

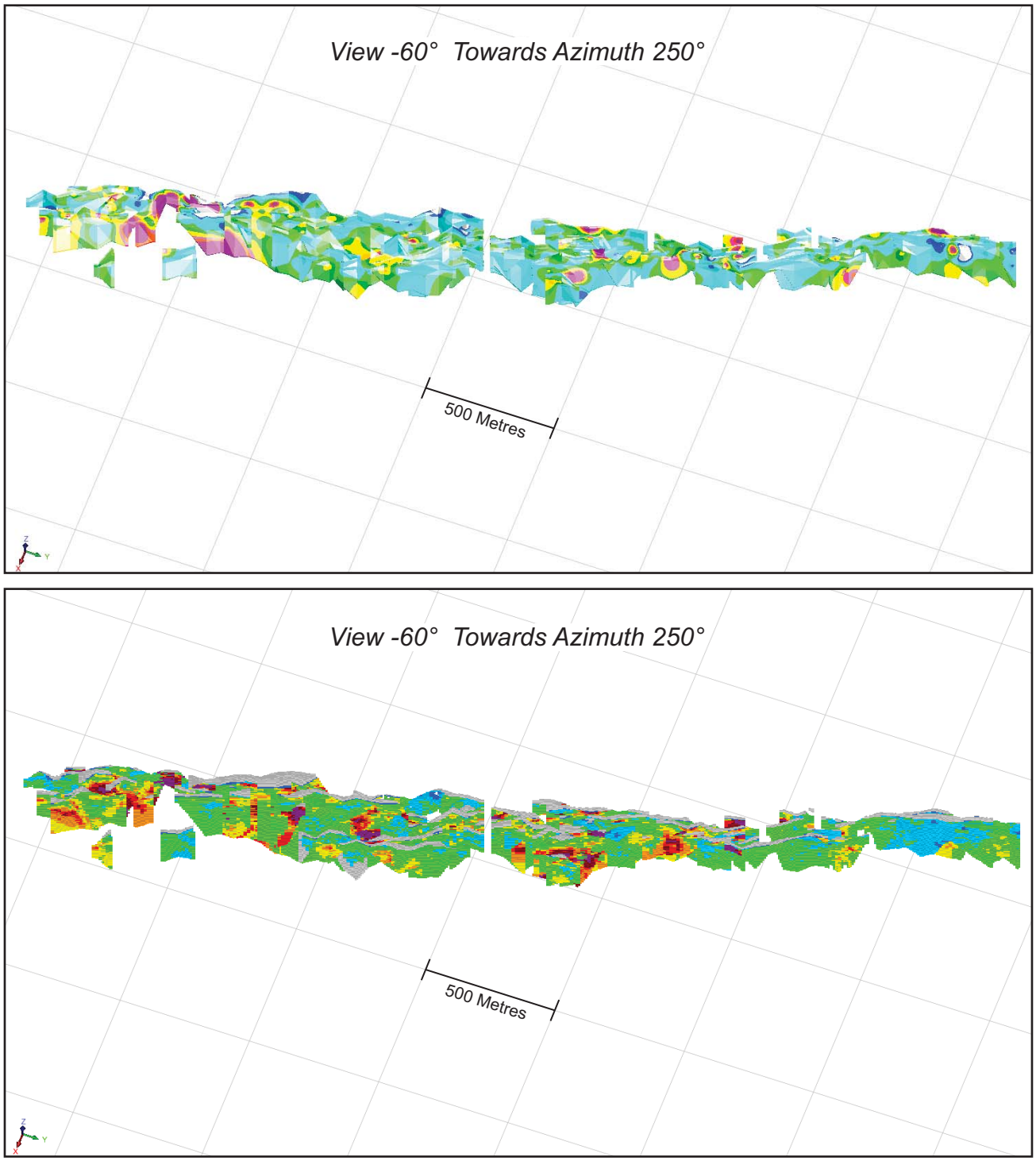


Figure 14-25

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Comparison of Block Grades vs. Contoured Gold Grades, Siga SW 450 Main Sub-Domain, South Model Area

January 2017

Source: RPA, 2016.

MINERAL RESOURCE CLASSIFICATION CRITERIA

Definitions for resource categories used in this report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories.

The four block models were classified by RPA in accordance with the definitions contained in CIM (2014). The mineralized material for each wireframe was classified into the Measured, Indicated, or Inferred Mineral Resource category on the basis of the density of drill hole information and the location of the open pit shells generated using the Whittle software package.

Variography studies by RPA and other workers indicate that the range of gold grade continuity is approximately 50 m at 90% to 100% of the variogram sill and approximately 25 m at 50% of the sill. These observations, combined with the existing drill spacing, deposit type, and geometric continuity of the mineralized zones, led to RPA's recommendation of assigning Measured to areas supported by approximately 25 m by 25 m spaced drilling and Indicated to areas with approximately 50 m by 25 m spaced drilling.

The classification criteria were coded into the four block models on a layer by layer basis that followed the level of the oxidation state of the host material. For the oxide and transition layers, the upper and lower units were grouped together into one layer for each unit. A 25 m thick layer representing the top of the fresh rock unit was coded into each of the four block models, and this was retained for classification purposes.

On the basis of these criteria, Measured Mineral Resources comprise that mineralized material that has been outlined with a drill hole density of a maximum of 25 m x 25 m. Indicated Mineral Resources comprise that mineralized material that has been outlined with a nominal drill hole density of 25 m x 50 m. Inferred Mineral Resources comprise the mineralized material that has been outlined with a nominal drill hole density of 100 m x 100 m and to within a depth of 100 m below the bottom of the drill hole coverage. Examples of the final classification of the mineralized material are presented in Figures 14-26 and 14-27.

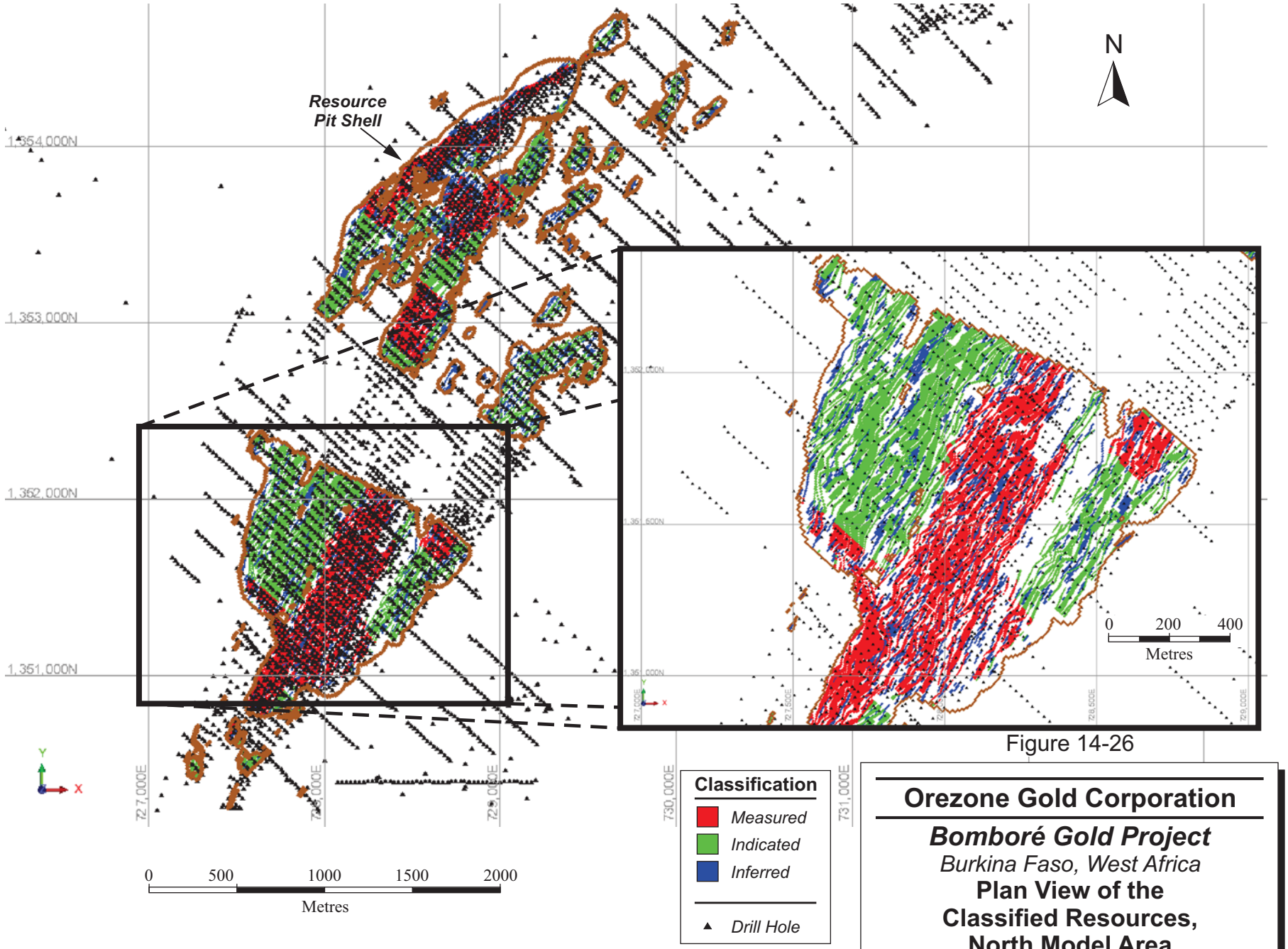


Figure 14-26

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Plan View of the Classified Resources, North Model Area

January 2017

Source: RPA, 2016.

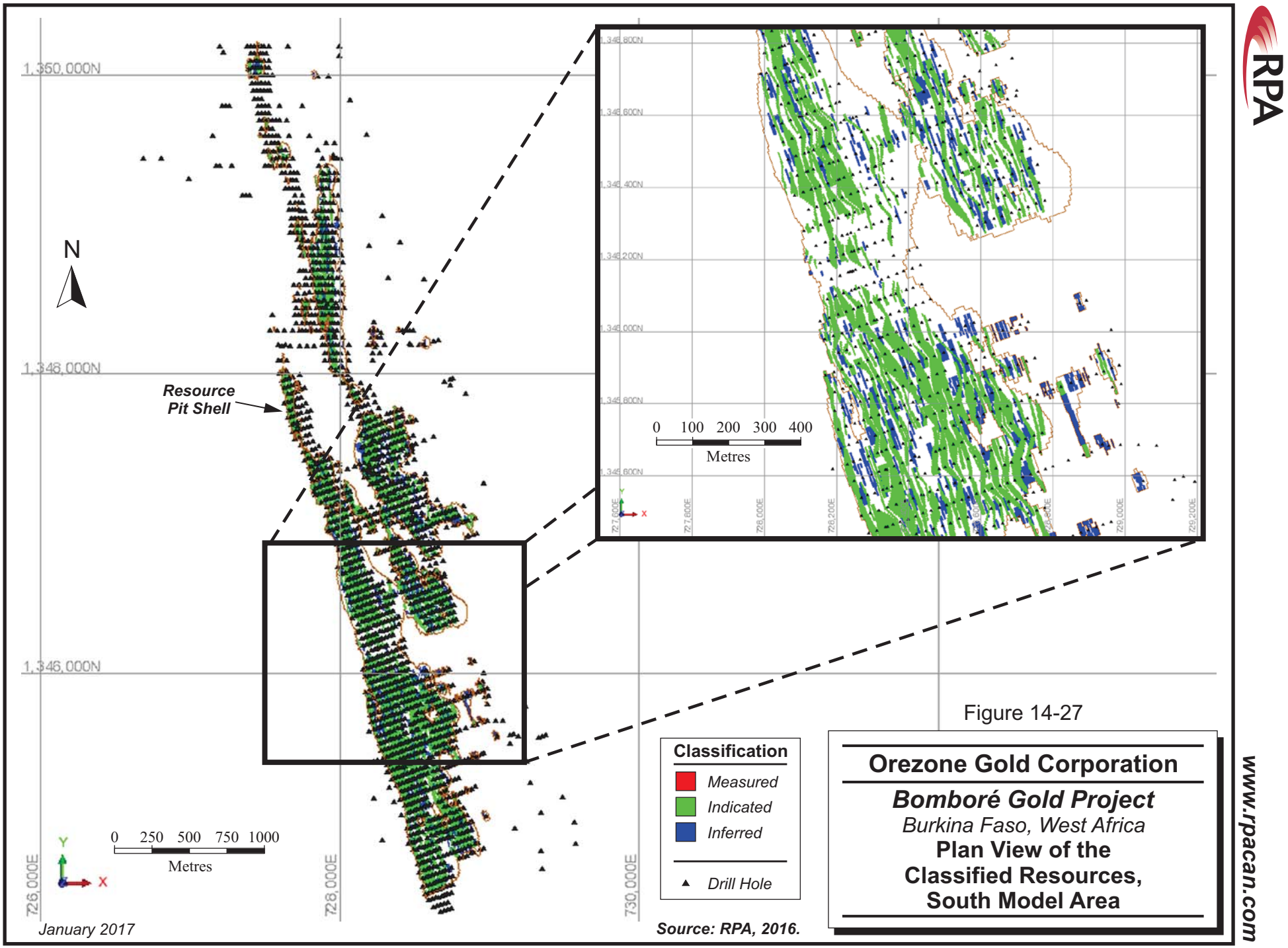


Figure 14-27

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Plan View of the Classified Resources, South Model Area

January 2017

Source: RPA, 2016.

RESPONSIBILITY FOR THE ESTIMATE

The estimate of the Mineral Resources for the Project presented in this report was prepared by Mr. Babacar Diouf, Consulting Mineral Resource Geologist, under the supervision of Mr. Pascal Marquis, Senior Vice President with Orezone. This work included the development of the geological model, block model, and the grade estimation. Mr. Reno Pressacco, M.Sc.(A), P.Geo., Principal Geologist with RPA, carried out audits, classified and reported the September 7, 2016 Mineral Resource estimate. Mr. Pressacco, Mr. José Texidor Carlsson, M.Sc., P.Geo., Senior Geologist with RPA, and Mr. Tudorel Ciuculescu, M.Sc., P.Geo, Senior Geologist with RPA, share responsibility for the current Mineral Resource estimate, which includes the addition of the new 391 low grade mineralized wireframe domains for the North and South areas and an unconstrained third domain for all four model areas to capture material remaining outside the September 2016 estimate wireframes.

CUT-OFF GRADE AND RESOURCE REPORTING

A number of cut-off grades were developed for the Project that reflect the varying processing costs and metallurgical recoveries of the different oxidation layers and the additional transportation costs for mineralized material that is located distant to the proposed processing plant (Table 14-11). A gold price of US$1,400 per ounce was used for all cut-off grades for reporting of the Mineral Resources.

Metal prices used for reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For mineral resources, metal prices used are slightly higher than those for reserves.

To fulfill the CIM Definitions requirement of “reasonable prospects for eventual economic extraction”, RPA prepared preliminary open pit shells to constrain the block models for resource reporting purposes. The preliminary pit shells were generated using Whittle software, and the assumptions are listed in Table 14-11.

Additional criteria to constrain the Mineral Resource statement included some “non-permitted” areas related to flood plains, environmentally sensitive areas, and mineralized areas being set aside for the benefit of local artisanal miners.

TABLE 14-11 WHITTLE PARAMETERS FOR RESOURCE PIT SHELLS
Orezone Gold Corporation – Bomboré Gold Project

Operating Parameter/Assumption	Units	Upper Saprolite & Regolith	Lower Saprolite	Upper Transition	Lower Transition	Fresh
Pit Wall Slopes:						
Maximum overall	Degrees	40	40	45	45	50
Mining Parameters:						
Waste Rock Mining Cost	$/t	1.30	1.30	1.60	1.60	1.75
"Ore" Mining Cost	$/t	2.45	2.45	2.75	2.75	2.75
Mining Recovery	%	97	97	97	97	95
Mining Dilution	%	3	3	3	3	5
Mining Dilution Grade	g/t Au	0.00	0.00	0.00	0.00	0.00
Processing Parameters:						
Process Cost	$/t	4.50	4.50	4.50	4.50	10.30
Re-handle Cost	$/t	0.25	0.25	0.25	0.25	0.25
Process Sustaining Cost	$/t	0.80	0.80	0.80	0.80	0.80
Recovery, Au	%	90.7	88.4	86.0	82.5	81.7
G&A Cost	$/t	1.80	1.80	1.80	1.80	1.25
Closure Cost	$/t	0.35	0.35	0.35	0.35	0.35
Revenue Parameters:						
Sale Price	US$/oz Au	1,400	1,400	1,400	1,400	1,400
Payable	% Au	99.9	99.9	99.9	99.9	99.9
Burkina Faso NSR: >US$1,300/oz Au	%	5.0	5.0	5.0	5.0	5.0
CSR	%	1.0	1.0	1.0	1.0	1.0
Selling Costs	US$/oz Au	2.50	2.50	2.50	2.50	2.50
North and South Estimated Cut-off Grade:	g/t Au	0.202	0.208	0.214	0.224	0.381
P16 and P17 Estimated Cut-off Grade:	g/t Au	0.216	0.222	0.228	0.239	0.396

The saprolite, transition, and fresh rock horizons have been split into upper and lower zones in the 2016 model. In the case of fresh rock, a single column is presented in Table 14-11, because values for the upper and lower fresh rock are identical.

In addition to Table 14-11 input parameters, RPA has applied incremental costs for mining depth and haul distance. The incremental mining cost for depth is an additional $0.025/t per 10 m vertical mined applied to all models. In the case of P16 and P17 models only, $0.50/t processed was added to account for the additional haulage distance to the proposed process facilities.

Assumptions for on-site diesel cost, heavy fuel oil (HFO) cost, and cost of electricity (HFO powered generators), which are significant input parameters to mining and processing operating costs, were $1.01/L, $0.59/L, and $0.14/kWhr, respectively.

MINERAL RESOURCE ESTIMATE

The Mineral Resources comprise those blocks that are classified into either the Measured, Indicated, or Inferred categories, contain estimated gold grades that are equal to or greater than those presented in Table 14-11, and are located within the respective resource pit shell.

At the estimated cut-off grades, Measured plus Indicated Mineral Resources are estimated to total 218.1 Mt at an average grade of 0.68 g/t Au for 4.77 million ounces of contained gold (Table 14-12). Using the same cut-off grades, Inferred Mineral Resources are estimated to total an additional 48.2 Mt at an average grade of 0.64 g/t Au for 994,000 ounces of contained gold.

TABLE 14-12 MINERAL RESOURCE STATEMENT AS OF JANUARY 5, 2017
Orezone Gold Corporation – Bomboré Gold Project

	Measured			Indicated			Measured + Indicated			Inferred		
	Tonnes	Grade	Gold	Tonnes	Grade	Gold	Tonnes	Grade	Gold	Tonnes	Grade	Gold
Material Type	Mt	g/t Au	koz	Mt	g/t Au	koz	Mt	g/t Au	koz	Mt	g/t Au	koz
Oxide+Tran HG	16.9	0.94	513	36.5	0.83	974	53.4	0.87	1,487	4.8	0.77	117
Oxide+Tran LG	18.5	0.33	196	50.1	0.33	531	68.6	0.33	727	16.4	0.29	151
Total Oxide+Tran	**35.4**	**0.62**	**709**	**86.7**	**0.54**	**1,505**	**122.0**	**0.56**	**2,214**	**21.2**	**0.39**	**268**
Fresh HG	2.3	118	87	68.7	0.96	2,121	71.0	0.97	2,208	20.1	0.97	630
Fresh LG	0.8	0.43	11	24.2	0.43	337	25.0	0.43	348	6.9	0.43	96
Total Fresh	**3.1**	**0.99**	**97**	**93.0**	**0.82**	**2,458**	**96.0**	**0.83**	**2,556**	**27.0**	**0.84**	**726**
Total HG	**19.2**	**0.97**	**600**	**105.3**	**0.91**	**3,095**	**124.5**	**0.92**	**3,695**	**24.9**	**0.93**	**747**
Total LG	**19.2**	**0.33**	**206**	**74.4**	**0.36**	**868**	**93.6**	**0.36**	**1,075**	**23.3**	**0.33**	**246**
Total HG+LG	**38.4**	**0.65**	**806**	**179.6**	**0.69**	**3,964**	**218.1**	**0.68**	**4,770**	**48.2**	**0.64**	**994**

Notes:
1. CIM definitions were followed for Mineral Resources.
2. HG indicates material above the higher grade cut-offs, LG indicates low grade material between the high grade and breakeven cut-off grades.
3. Mineral Resources are estimated at variable cut-off grades depending on weathering layer and location, and cut-off grades are approximately 0.2 g/t Au for oxide and transition material, and 0.38 g/t Au for fresh material.
4. Mineral Resources are estimated using a long-term gold price of US$1,400 per ounce.

5. A minimum mining width of approximately 3 m was used.
6. Bulk density varies by material type.
7. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
8. Numbers may not add due to rounding.

COMPARISON TO PREVIOUS ESTIMATE

Using similar cut-off grades to the September 7, 2016 Mineral Resource estimate for comparison purposes (Table 14-13), the results indicate that the tonnage and gold ounces contained in the 2016 overall combined Measured and Indicated (M&I) resource have been increased by 27% and 19%, respectively. The average gold grade has been reduced by 6% to 0.68 g/t. Within this the oxide and transition portion of the M&I resource tonnage and gold ounces have increased by 20% and 14% and the average gold grade has reduced by 5% to 0.56 g/t. The fresh rock (sulphide) M&I resource tonnage and gold ounces have been increased by 36% and 23% and the average gold grade has reduced by 10% to 0.83 g/t.

The increase in M&I resource is related to the new wireframes and the associated increase in pit shell depth allowing for recovery of material within previously defined wireframes. Approximately 60% of the Inferred resource increase is due to the new wireframes and the new pit shell allowing for slightly deeper access to existing wireframes, with the remaining 40% belonging to the third domain.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

TABLE 14-13 COMPARISON TO THE PREVIOUS MINERAL RESOURCE ESTIMATE

Orezone Gold Corporation – Bomboré Gold Project

Sept 2016 to Jan 2017	Cut-off Grade g/t Au	Measured Mineral Resource Tonnage Mt	Measured Grade g/t Au	Measured Contained koz Au	Indicated Mineral Resource Tonnage Mt	Indicated Grade g/t Au	Indicated Contained koz Au	Sub-Total Measured and Indicated Tonnage Mt	M&I Grade g/t Au	M&I Cont koz Au	Inferred Mineral Resource Tonnage Mt	Inferred Grade g/t Au	Inferred Contained koz Au
2016 Oxide+Trans	0.20	32.1	0.66	683	69.4	0.56	1,252	**101.6**	**0.59**	**1,935**	2.5	0.50	40
2017 Oxide+Trans	0.20	35.4	0.62	709	86.7	0.54	1,505	**122.0**	**0.56**	**2,214**	21.2	0.39	268
Difference		3.2	(0.04)	26	17.2	(0.02)	254	**20.5**	**(0.03)**	**279**	18.7	(0.11)	227
Percent Difference		10%	-6%	4%	25%	-4%	20%	**20%**	**-5%**	**14%**	748%	-21%	567%
2016 Fresh Total	0.38	8.4	0.95	256	62.0	0.91	1,818	**70.4**	**0.92**	**2,074**	21.8	0.77	539
2017 Fresh Total	0.38	3.1	0.99	97	93.0	0.82	2,458	**96.0**	**0.83**	**2,556**	27.0	0.84	726
Difference		(5.4)	0.05	(158)	31.0	(0.09)	641	**25.6**	**(0.09)**	**482**	5.2	0.07	187
Percent Difference		-64%	5%	-62%	50%	-10%	35%	**36%**	**-10%**	**23%**	24%	9%	35%
2016 All Layers Total	0.20 and 0.38	40.6	0.72	939	131.4	0.73	3,069	**172.0**	**0.73**	**4,008**	24.3	0.74	579
2017 All Layers Total	0.20 and 0.38	38.4	0.65	806	179.6	0.69	3,964	**218.1**	**0.68**	**4,770**	48.2	0.64	994
Difference		(2.1)	(0.07)	(133)	48.2	(0.04)	894	**46.1**	**(0.04)**	**762**	23.9	(0.10)	415
Percent Difference		-5%	-9%	-14%	37%	-6%	29%	**27%**	**-6%**	**19%**	99%	-14%	72%

15 MINERAL RESERVE ESTIMATE

There is no current Mineral Reserve estimate for the Project. A previous Mineral Reserve estimate for the Project was detailed in a FS level NI 43-101 Technical Report dated April 28, 2015, however, due to changes in the 2016 and 2017 Mineral Resource models, as described in an RPA Technical Report dated October 31, 2016 (RPA, 2016), the Mineral Reserve estimate cannot be relied on. RPA has been retained to complete a new Mineral Reserve estimate based on the current Mineral Resource estimate.

16 MINING METHODS

A conventional open pit mining scenario with excavators and haul trucks is envisioned for the Project, targeting gold resources in the saprolite and transition weathering horizons and potentially the fresh rock. Saprolite is assumed to be free digging material, while fresh rock would require a drill and blast cycle. Transition material is assumed to be a combination of free digging and requiring drill and blast.

The Project area is approximately 11 km north to south and approximately 3.7 km east to west. Within this area, the terrain is generally flat with minimal relief, however, there are a few areas with steep hills up to 60 m above the surrounding topography. These hills appear very pronounced against the horizon and have steep side slopes, with rounded tops and limited development of ridge strike length.

The local climate consists of a dry and wet season. It is common for rain to occur from April through October, however, the highest concentration of rainfall events occur between late June and late September, a period of approximately four months. On average, approximately 800 mm of rainfall occurs annually, typically in short bursts of heavy rain. Mining operations can be scheduled year round, with potential delays during heavy rain fall events expected.

Gold mineralization of economic interest would be dispatched to a processing facility, while waste material from the open pits would be dispatched to a number of locations proximal to the pits designated for waste material storage.

Golder Associates Inc. (Golder) in Reno, Nevada, USA, conducted several geotechnical studies for the Project including slope stabilities for potential open pits, waste dumps, stockpiles, tailings dams, and heap leach pads, as well as foundation designs for the process plant and Nobsin River Bridge. The following geotechnical studies have been completed by Golder:

- “DFS Pit Slope Design Recommendations for Saprolite, Bomboré Mine, Burkina Faso, 20 November 2014”

- "Feasibility Study for the Bomboré Project: Evaluation of OCR Slope Stability, 23 March 2015"
- "Feasibility Study for the Bomboré Project – Waste Dumps Classification & Stability Assessment, 4 June 2015"
- "Feasibility Study for the Bomboré Project – Stockpiles Classification & Stability Assessment, 4 June 2015"
- "Feasibility Study for the Bomboré Project: Bearing Capacity and Settlements of the Nobsin Bridge Foundation, February 2015"
- "Feasibility Study for the Bomboré Gold Project: Bearing Capacity and Settlements of Plant and Crusher, 13 February 2015"
- "DFS Hybrid Facility – Tailings Impoundment and Heap Leach Pad, 20 March 2015".

Hydrogeology studies for the Project have been conducted by Golder and are included in the following Golder reports published between 2013 and 2014:

- "Bomboré Project: Feasibility Level Pit Slope Design Report, April, 2013 – Section 3.9, Section 7.4 and Appendix B"
- "Site Investigation for Feasibility Level Geotechnical Study of the Tailings and Water Management Structures for the Bomboré Mine, April, 2013 – Section 4.3, Appendices I, J, K and L"
- "Field Investigation for Feasibility Level Design of Heap Leaching Pad and Associated Structures for the Bomboré Mining Project, July, 2014 – Section 4.3, Appendices H and I"

17 RECOVERY METHODS

Test work developed by KCA has indicated that the Bomboré ores are amenable to cyanide leaching for the recovery of gold and silver.

The Project will utilize a combined heap leach and CIL process. Ore will be crushed using a primary mineral sizer followed by a scrubber to wash and separate the fine clays from the coarse material. The clay and fines are treated in a CIL circuit while the clean sand and gravel material is heap leached conventionally (lime is added before the scrubber and before stacking for pH control) as a multiple lift heap constructed in eight-metre lifts. Approximately 15,581 tonnes of material per day will be processed with an estimated 49% of the material being delivered to the CIL and 51% to the heap leach (based on a washing efficiency of approximately 95%).

The mineralized material is relatively soft and very fine. The ore will be mined by standard open pit mining methods and crushed using a mineral sizer. The crushed material will be stockpiled, reclaimed, and conveyed to a rotary scrubber drum where the material is washed, breaking up and separating the clay. The scrubber discharges onto a double-deck vibrating screen; the screen oversize is transferred to either the scrubbed ore stockpile or to the pad cover stockpile where it will be further processed to be used as pad cover. The mid-size material from the screen is sent to the scrubbed ore stockpile and the undersize material is sent to a pair of cyclone feed tanks to be further classified. The slurry in the cyclone feed tanks is pumped to two fine material classifying systems operating in parallel; each classifying system includes two hydrocyclones and a duplex spiral classifier. Slurry is pumped to the hydrocyclones to remove most of the fines, which overflow to a pump box. The hydrocyclone underflow feeds the spiral classifiers, separating the +0.212 mm material to be transferred to the scrubbed ore stockpile from the -0.212 mm material, which overflows the spiral classifier weir and is combined with the fine material from the hydrocyclones. The 0.212 mm material is then pumped to a 41 m diameter pre-leach thickener. The thickener overflow solution is recycled back as wash water to the scrubber. The thickener underflow (48% solids) is diluted to 40% solids by weight by combining it with tailings decant solution before being sent to a five-stage CIL circuit with 20 hr retention time. The slurry from CIL is discharged into a tailings impoundment.

All of the +0.212 mm oversize material is stockpiled and then reclaimed using vibrating feeders. The reclaimed ore reports to the leach pad stacking system via overland conveyors. The stacking system will include mobile grasshopper conveyors, which feed a horizontal index conveyor, which feeds a radial stacker. The leach pad will be stacked in eight-metre lifts. Drip tubes will be used to irrigate the ore with a 75-day leach cycle. Pregnant solution will be sent to the scrubber feed tank where it will eventually be processed through the CIL circuit. Make-up cyanide for the heap leach circuit is added to the barren solution tank before being pumped to the active leach area of the heap.

Loaded carbon from the CIL will be stripped using a modified Zadra pressure-strip circuit in four-tonne batches. The circuit includes an acid wash circuit and carbon regeneration circuit.

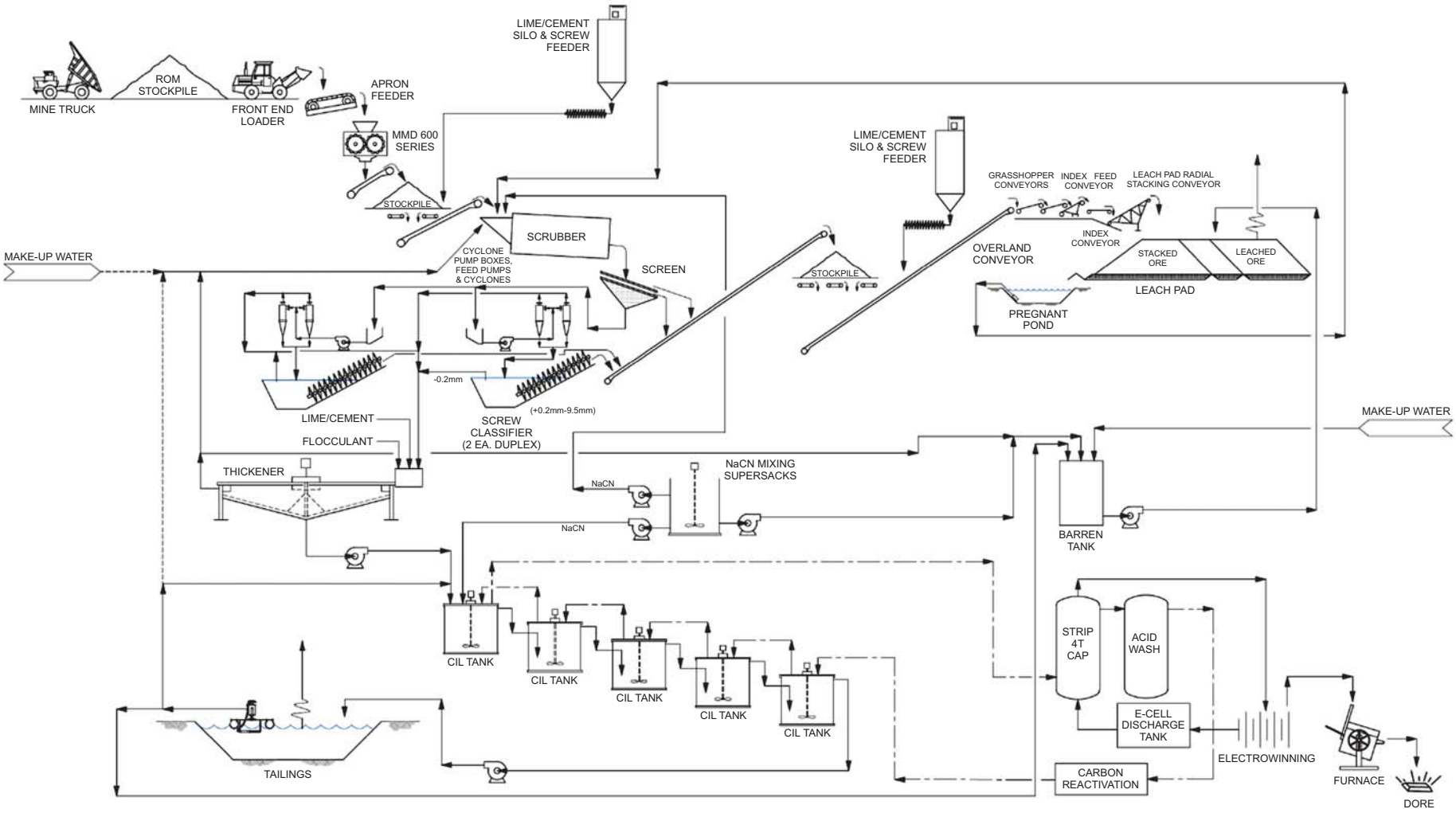
After being stripped from carbon, the gold will be plated on stainless steel-wool cathodes by electrowinning. The gold sludge will be washed from the steel wool, filtered, dried, and then smelted to produce doré bullion.

On site generators will be used to supply electric power to all elements of the process plant.

An excess solution pond is included to contain seasonal accumulations of leach solutions and/or upset conditions that cannot be managed during normal operations. The excess solution pond has been sized to handle the wet season accumulation. Excess solution will be returned to the barren tank as makeup solution.

The simplified process flow sheet is presented in Figure 17-1.

All the selected processes and equipment are established technologies used in gold processing plants.



Legend:

Process Flow Line *Intermittent Flow Line* *Carbon Flow Line*

Figure 17-1

Orezone Gold Corporation

Bomboré Gold Project

Burkina Faso, West Africa

Process Flow Sheet

January 2017

Source: Kappes, Cassidy & Associates, 2015.

Abridged design criteria for the Project are presented in Table 17-1. Information presented in the design criteria is based on the metallurgical test work performed, as well as information provided from separate studies for the Project.

The most important aspect of the design for the combined plant is that the plant be capable of handling variations in material types and the resultant material mass-split (both oversize and undersize). Design allowance has been made with respect to the oversize fraction going to the heap leach such that the conveyors can handle up to 87% of the total throughput as heap leach feed. Conversely, the thickener and slurry pump circuits can handle up to 72% of the throughput during times of very fine feed, however, under these conditions there will be reduced residence time in the CIL circuit.

With respect to residence time, the CIL circuit is designed for 20 hours and the scrubber and thickener add six hours. As cyanide is added to the scrubber, a total of 26 hours of residence time is included in the plant design.

TABLE 17-1 DESIGN CRITERIA – HEAP LEACH/CIL
Orezone Gold Corporation – Bomboré Project

GENERAL SITE CONDITIONS	
Country	Burkina Faso
Coordinates	Lat. 12º 13' North Long. 0º 54' West
Nearest Major Metropolitan Area	Ouagadougou
Elevation, MASL	259-332
Barometric Pressure at Plant Site, Nominal, kPa	100.6-101.2
Climate	Semi-Arid
Precipitation	
Average Annual, mm	770
Wet Year Total (1 in 100)	1,175
Dry Year Total (1 in 100)	526
Monthly Maximum	268
Design 24-hr Storm Event, 1 in 100 yr, mm	145
Pan Evaporation – Annual Average, mm	3,006
Dominant Wind Direction	WSW (Apr.-Oct.), ENE (Nov.-Mar.)
Maximum Average Wind Speed, km/h	2.9 to 14.0 km/h monthly averages, 79 km/h over 1 minute
Seismic Rating	
Class	C
Acceleration Coefficient, g	0.025
POWER	
Source	Generators

Generator Fuel	Heavy Fuel Oil (HFO)
Voltages	
Distribution	6,600 V, 50 Hz, 3 ph
Medium Voltage	6,600 V, 50 Hz, 3 ph
Low Voltage	380 V, 50 Hz, 3 ph 220 V, 50 Hz, 1 ph
Control Voltage	110 V, 50 Hz, 1 ph
Power Requirements	
Max Attached Power, MW	8.65
Max Power Consumption, kWh/t ore	7.32

DESIGN BASIS

Ore Capacity, tpa	5,500,000
Delivery to CIL, tpd (includes washing efficiency)	7,613 (48.9%)
Delivery to Heap Leach, tpd (includes washing efficiency)	7,968 (51.1%)
Mining, d/a	365
Operation, d/a	353
Operation, shifts/d	2
Operation, h/shift	12

METAL RECOVERY

Au, %	87
Ag, %	32

RUN-OF-MINE CHARACTERISTICS

Ore Types	Oxide Upper Saprolite (39%) Oxide Lower Saprolite (34%) Upper Transition Saprock (18%) Lower Transition Saprock (9%)
Ore Bulk Density, t/m^3	1.65
Specific Gravity	2.6-2.83
Moisture Content, % of Dry Ore Weight	6.5 Saprolite 2.8 Saprock
Angle of Repose, Degrees	37
Strip Ratio, Average	1.07

CRUSHING

Crusher Work Index, kWh/t	
Average	2.7 (Saprolite) 4.7 (Saprock)
Abrasion Index, g	0.066 (Saprolite) 0.066 (Saprock)
Operation, d/a	353
Operation, Shifts/d	2
Operation, h/Shift	12
Crushing Configuration	Single Stage Mineral Sizer, -75mm product to scrubber
Crushing Product Size, mm	-75

Crushing Availability Plus Utilization, %	80
Production Rate	15,581 tpd Average 812 t/h nominal 974 t/h design
Conveyor Design	20% More than Crushing Design
Conveyor Speed, m/s	2 (Max)
ROM Stockpile Capacity, t	150,000, split lobe (coarse/fine)
Primary Crusher Feed Method	Direct Dump and Loader Feed
Oversize Protection	None
Rock Breaker	No
Feed Hopper	Yes
Crushed Ore Stockpile, t	40,000 Conical

SCRUBBING AND CLASSIFYING

Scrubber Drum

Availability plus Utilization/Design Factor	90% / 1.2
% Solids	50%
Design, dry t/h	865
Diameter x Length, m	5.2 x 10
Motor, kW	1,300
Trommel Screen	None
Oversize Discharge Destination	Heap Leach
t/h Design @ 87% Oversize (all downstream conveyor sizing only)	752
Undersize Discharge Destination	Screw Classifier / CIL
t/h Design @ 72% fines (pump, thickener & pipe sizing only)	623

Scrubber Oversize Screen

Type	Vibrating Double Deck
Apertures, mm	Top: 25 Bottom: 9

Hydrocyclones

Quantity	4 (2 ea. per circuit)
Feed, dry t/h ea. design	154.1

Spiral Classifier

Qty.	2 (1 ea. per circuit)
Rate, Design, Dry t/h each	118
Rake Size	+ 65 mesh (0.212 mm)
Overflow Size	-65 mesh (0.212 mm)
Scrubbed Product Stockpile, t	3,200, Conical

HEAP LEACH CONVEYING AND STACKING

Availability / Design Factor	80% / 1.2
Stacking Rate, tpd	7,968 (includes washing efficiency)
Type	Mobile grasshopper conveyors which feed a horizontal index conveyor that feeds a radial stacker
Stacked Cell Width, m	75

Stacker Type	Radial Stacker
Lift Height, m	8
No. of Lifts	9
Max. Heap Height Phase 1, m	38
Max. Heap Height Phase 2, m	54
Max. Heap Height Phase 3, m	76
Surface Preparation After Stacking	Smooth with LGP Dozer
Crushed Ore Stacked Dry Density, t/m^3	1.51 (comp-Met-Solve)

HEAP LEACH AND SOLUTION STORAGE

Type	Multiple Lift, Single Use
Construction	3 Phases
Phase 1 Capacity	Two years of stacking
Ultimate Heap Capacity, Mt (includes Phase 3)	31.5
Liner System	single 1.5 mm HDPE liner on compacted low permeable soil with 500 mm crushed gravel drainage layer
No. of Leach Cycles	1
Leach Cycle Duration, days	75
Leaching Schedule	365 d/yr 24 hrs/d
Solution Application Rate, L/h/m^2	10
NaCN Consumption (heap)	0.4
24-hr Drain Down, L/t	90.1
Retained Solution, %	12.9

Storage Type

Pregnant Solution	Pond
Barren Solution	Tank
Excess Solution	Pond

Pregnant Solution Pond

Liner	1.5 mm HDPE Geomembrane upper liner and 1.5 mm HDPE secondary liner with geonet in-between over 300 mm compacted low permeable soil (k < 1 x 10^{-6}cm/sec)
Volume Sizing Basis	18-h draindown volume of heap solution

Pregnant Solution Pumps

Design Flow, m^3/h	560
Maximum Head, m TDH	40
Type	Submersible, ductile iron
Quantity, Installed / Operating / Standby	2 / 1 / 1

Barren Solution Tank

Configuration	Cylindrical, flat-bottom, open top
Volume, working, m^3	118

Barren Solution Pumps

Design Flow, m^3/h	560
Maximum Head, m TDH	105
Type	Horizontal Split-Case, ductile iron
Quantity, Installed / Operating / Standby	2 / 1 / 1

Excess Solution Pond

Liner	1.5 mm HDPE Geomembrane upper liner and 1.5 mm HDPE secondary liner with geonet in-between over 300 mm compacted low permeable soil ($k < 1 \times 10^{-6}$cm/sec)
Volume Sizing Basis	100-year wet year precipitation

Excess Solution Pumps

Design Flow, m^3/h	200
Maximum Head, m TDH	30
Type	Submersible
Quantity, Installed/Operating / Standby	1/1/0

CARBON IN LEACH (CIL)

Basis

Throughput, tpd nominal	7,613
Feed % Solids, Nominal	40
Flow Rate, m^3/h (nominal)	653
Leach Time, h	20
Total Residence Time (CIL + Thickener + Scrubber)	Minimum 24 h
NaCN Consumption, kg/t ore	0.165
NaCN Concentration, mg/L	250-300

CIL Tanks

Configuration	CIL Tanks in Series
Tanks Quantity	5
Retention Time, each, h	3.9
Active Volume per Tank, m^3	2,572
Dimensions, D x H, m	14.85 x 16.05
Agitator Type	Dual Axial Flow Impeller, Rubber Lined
Carbon Advance Rate, t/d	4
Carbon Loading, g/t	4,000

Interstage Screen

Type	Pump Type
Quantity per Tank	1

Carbon Advance Pumps

tonnes Per Batch	4
Pump Type	Vertical Recessed Impeller

Design Flow, m^3/h	34 @ 8 m TDH

THICKENING

Thickener

Type	High Rate
Nominal Feed Rate, dry t/h	352
Slurry Flow, Nominal, m^3/hr	1,099
Feed, % Solids	26.6% (Dilute to 10%)
Underflow, % Solids	48% max
Overflow Suspended Solids, Max., mg/L	200

Static Thickening Tests

Flocculent Dose, g/t	35-40
Recommended flocculent concentration prior to contact with pulp, g/l	0.1-0.2 Hychem AF304
Maximum Underflow Solids Conc., %	53 (lab) 48 (assumed field)
Minimum unit area at specified feed solids concentration and underflow density (conventional)	
10-15% Feed, m^2/MTPD	0.275-0.300

Dynamic (High Rate) Thickening Tests

Flocculent Dose, g/t	30-35
Recommended flocculent concentration prior to contact with pulp, g/l	0.1-0.2
Maximum Underflow Solids Conc., %	48-52
Design Basis Net Feed Loading, m^3/m^2h	4.80-5.30 (5.05 Avg.)
Predicted Overflow TSS Conc. Range, mg/l	150-250

High Fines Tests

Flocculent Dose, g/t	40-45
Recommended flocculent concentration prior to contact with pulp, g/l	0.1-0.2 Hychem AF304
Maximum Underflow Solids Conc., %	46-50
Minimum unit area at specified feed solids concentration and underflow density (conventional)	0.330-0.360 15-20% Feed, m^2/MTPD

Thickener Underflow Pumps

Type	Horizontal Centrifugal Slurry, Rubber Lined
Design Flow, m^3/h	778
Design Head, m TDH	25
Specific Gravity	1.42
Variable Speed, Yes/No	Yes
Quantity, Installed / Operating / Standby	2 / 1 / 1

Thickener Overflow Tank

Capacity, m^3	128
Dimensions, D x H, m	6.5 x 4.7

Thickener Overflow Pumps

Type	Horizontal Centrifugal

Design Flow, m^3/h	920
Design Head, m	15
Variable Speed, Yes/No	No
Quantity, Installed / Operating / Standby	2 / 1 / 1

TAILINGS

Slurry Solids Content, %	39.8
Specific Gravity	2.84
Dry Density, t/m^3	1.32
Tailings Impoundment Overall Side Slope, H:V	3.0
Tailings Impoundment Liner	Single 1.5 mm smooth HDPE liner
Ultimate Tailings Capacity, Mt (includes Phase 3)	33.5
Phase 1 Tailings Capacity	Two years of tailings distribution

RECOVERY CIRCUIT

General

Recovery Plant Type	Activated Carbon Desorption-Recovery
Operating Schedule	Two, 12-hr shifts per day, 365 days per year
Operating Availability	95%

Carbon Acid Wash

Type	Hydrochloric Acid
No. of vessels	1
Acid Wash Solution, % HCl by weight	3.0
Design Acid Solution Flow Rate	2 bed volumes/h
Acid Wash Temperature	Ambient
Wash Schedule	Every Batch
Washes/week, average	7
Acid Wash Time, hrs	4

Desorption (Strip)

Carbon Advance Rate, Design, tpd	4
Carbon Desorption Method	Hot Pressure Zadra Strip in Closed Circuit with Electrowinning
Strip Schedule, Batches/Week average	7
Elution Time, h	16-18
Elution Capacity, Design, t/strip	4
Carbon Advance Method	Pressure-Pot

Electrowinning & Refining Electrowinning Cells

Type	Stainless Steel Sludging
EW Cell Quantity	2
Solution Temperature, ^oC	75
Au + Ag Recovery per Pass	+/-70%
Cathode Type	Stainless Steel

Anode Type	Perforated/Solid SS Plate
Refinery Section	
Mercury Retort	None
Smelting Furnace	
Type	Tilting Furnace, Diesel Fired
Metal Production, kg Au+Ag/wk	120
Furnace working capacity, kg red brass	225
Melts per Week	Able to smelt in two 12-hr shifts/week max.
Pour Method System	Cascading Mold
Slag Handling	None
Flux Mixer	Portable electric cement mixer
Carbon Reactivation	
Type	Rotary Kiln, Diesel-Fired
Heat Rating, MJ/h	211
Capacity, kg Carbon/h	167
Retention Time at Temperature, minimum	10 min. @ 750°C
Regeneration Frequency	Every Elution
Kiln Off-Gas Scrubber	Wet Scrubber, sulfonated carbon columns
Quench Tank	
Type	Cylindrical, cone bottom 60°
Capacity, t Carbon	4
Material	Carbon Steel
Carbon Handling	
New Carbon Attritioning Tank	Shared with Quench Tank
Loaded Carbon Transfer Pump	
Carbon Concentration % Solids by Volume	20 to 25
Design Flow, m^3/h	40
Maximum Head, m TDH	25
Type	Horizontal Centrifugal Screw Type
Quantity, Installed / Operating / Standby	1 / 1 / 0
REAGENTS AND CONSUMABLES	
Sodium Cyanide (NaCN)	
Type	Briquettes
Packaging	Dry Bulk Container by Supplier
Specific Gravity	1.60
Bulk Density, t/m^3	0.75 to 0.90
Consumption, kg/t Ore	Heap: 0.4 CIL: 0.165
Consumption, tpa	2,183

Quicklime (CaO)

Consumption	
CIL, kg/t	1.5
Heap, kg/t	1.0
Overall, kg/t (92.5% added at scrubber)	1.19
Nominal, tpa	6,540
Storage Capacity, t	95

Activated Carbon

Type	Coconut Shell
Size, Mesh	6 x 12
Dry Bulk Density, t/m^3	0.48
Specific Gravity	1.5
Packaging	1,000 kg Bulk Bags
Consumption, % of Carbon Stripped	4.0
Consumption, tpa	58

Caustic (NaOH)

Form	Pellet or Pearls
Packaging	25 kg Bags
Consumption, tpa	28.9
Batch Size, kg NaOH	100

Hydrochloric Acid (HCl)

Form	28-32% HCl by Weight
Packaging	1,000 L Totes
Consumption, L per t Carbon Stripped	150
Consumption, m^3/a	217

Flocculant

Type	Hychem AF304
Form	Dry Powder in 25 kg Bags
Consumption, g/t, Nominal	35-40
Consumption, kg/a	100,770

Antiscalant

Type	D
Form	Liquid
Container	1 m^3 Tote Bins
Average Addition Rate, ppm	12
Addition Points	Barren and pregnant pump suctions
Consumption, Nominal, L/d	408

Fluxes

Flux Ratio, Kg flux/kg Au+Ag	2.4

FUEL (Strip Heating / Carbon Reactivation, Smelting Furnace)	
Type	Diesel Fuel (LFO)

COMPRESSED AIR

Process Air Compressors	
Type	Rotary Screw
Quantity, Installed/Operating /Standby	2/1/1
Installed Compressor Rating, Nm^3/h @ kPa	5,830 @ 210
Plant Air Compressor	
Free Air Delivery	460 m^3/h @ 690 kPa
Quantity, Installed/Operating/Standby	2/1/1

WATER SUPPLY

Source	OCR
LOM Average Makeup Water Requirement, m^3/h	254
Quality	Assumed not Potable

18 PROJECT INFRASTRUCTURE

The existing infrastructure at the Project used by the exploration group includes: a camp, core shack, light vehicle shop, and an 18,000 sample per month sample preparation facility. New infrastructure requirements envisioned for an operating mine include:

- open pits,
- open pit waste material storage areas,
- temporary mineralized stockpile areas,
- magazine and explosives storage sites,
- processing facilities,
- roads (access and bypass roads, haul roads, and bridges),
- workshops (truck maintenance and plant workshop),
- other buildings (mine and process offices, warehouse and administration office upgrade),
- fuel storage and distribution facilities,
- camp expansion (dormitories, recreation area, and kitchen),
- assay and metallurgical laboratories,
- a refinery building,
- electrical power supply, such as a heavy fuel oil (HFO) power plant,
- surface water management structures,
- communication systems,
- potable water and sewage systems.

19 MARKET STUDIES AND CONTRACTS

MARKETS

No market studies were completed in support of this Technical Report. Gold production can generally be sold to any of a number of financial institutions or refining houses at the then-current spot price for gold on public markets and therefore no market studies are required.

It is assumed that any gold produced at Bomboré will be of a specification comparable with other gold producers and as such, acceptable to all refineries.

CONTRACTS

No contracts are in place in support of this Technical Report.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

INTRODUCTION

The Project is administratively part of the Mogtedo department in the province of Ganzourgou, which is part of the Central Plateau Region of Burkina Faso. The Project site is located approximately 80 km east of Ouagadougou and is accessible by highway RN4 Ouagadougou – Fada N'Gourma.

The approach developed by Orezone throughout the various environmental and social studies that have been underway since 2009, especially in the context of the Environmental and Social Impact Assessment (ESIA) conducted from 2014 to 2015, emphasized stakeholder concerns and allowed integration of environmental and social aspects into the initial stages of the Project design. This approach maximized the Project's integration into the environment and has minimized its negative impacts, which has increased the environmental and social acceptability of the Project. In addition, this approach allowed better consideration of the social aspects arising from the resettlement of households that would be required due to an eventual mining project.

Burkina Faso has an established regulatory framework for environmental and social management for mining projects. These policies, laws, and regulations of Burkina Faso were taken into account during the implementation of the ESIA. The legal framework with respect to environmental and social aspects related to economic activities is supported by a number of Burkina Faso laws and decrees. These were all taken into consideration in Orezone's approach to develop protocol pertaining to the Project.

The Burkina Faso Mining Code (Law No. 036-2015/CNT) is administered by the MEMC and provides the legal framework for the mining industry in the country. The state owns title to all mineral rights and these rights are acquired through a map-based system by direct application to the MEMC. The Mining Code guarantees a stable fiscal regime for the life of any mine developed. It also guarantees stabilization of financial and customs regulations and rates during the operational period to reflect the rates in place at the date of signing. The Mining Code also states that no new taxes can be imposed with the exception of mining

duties, taxes, and royalties. The title holder can also benefit from any reductions of tax rates during the life of the operating licence.

In May 2016, Orezone received approval of its application for an environmental permit for the Project from Ministère de L'Environnement, de L'Économie Verte et du Changement Climatique with Arrêté No. 2016-0295/MEEVCC/CAB. On August 11, 2016, the Burkina Faso Council of Ministers also approved the Project in their Report from the Council of Ministers MC-RP No 029-2016 thereby granting the Project a mining permit.

REGULATORY AND INTERNATIONAL STANDARDS REQUIREMENTS

Burkina Faso has a regulatory framework for environmental and social management. The relevant policies, laws, and regulations of Burkina Faso were taken into account during the implementation of the ESIA.

POLICIES AND STRATEGIES FOR ENVIRONMENTAL PROTECTION

Since the early 1990s, Burkina Faso has developed numerous policies and strategies for the management of natural resources. A declaration of Mining Policy was formulated in 1995 that highlighted the importance of the private sector as an engine of economic development. Other policies on environmental protection include:

- Stratégie nationale de croissance accélérée et de développement durable (SCADD);
- Programme d'Action du Gouvernement pour l'Émergence et le Développement;
- Durable (PAGEDD 2011-2015);
- Stratégie de Développement Rural (SDR) 2015;
- Politique Nationale en matière d'Environnement (PNE);
- Plan d'Environnement pour le Développement Durable (PEDD);
- Politique Nationale de Sécurisation Foncière en Milieu Rural (PNSFMR);
- Programme d'Action Nationale d'Adaptation à la variabilité et aux changements climatiques (PANA).

LEGAL FRAMEWORK

The legal framework with respect to environmental and social aspects related to economic activities is supported by a number of laws and decrees:

- Environmental Code;
- Mining Code;
- Forest Code;
- Public Health Code;
- General Local Authorities Code;
- Act on Rural Land Tenure;
- Act on Agrarian and Land Reorganization;
- Law on Water Management;
- Act on Pastoralism;
- And few other relevant regulations:
- Decree No. 2007-853/PRES/PM/MCE/MECV/MATD dated December 26, 2007 on specific environmental regulations for the exercise of mining in Burkina Faso;
- Decree No. 2006-590/PRES/PM/MAHRH/MECV/MRA dated December 6, 2006 on the protection of aquatic ecosystems;
- Decree No. 2006-588/PRES/PM/MAHRH/MECV/MPAD/MFB/MS dated December 6, 2006 determining the perimeters of protection for water bodies and streams;
- Decree No. 2015-1187/PRES-TRANS/PM/MERH/MATD/MME/MS/MARHASA/MRA/MHU/MIDT/MCT dated October 22, 2015 on the scope, content, and procedure for Environmental Impact Assessment Study and Environmental Impact Instruction; and
- Decree No. 2001-185/PRES/PM/MEE dated May 7, 2001 on setting standards for discharges of pollutants into the air, water, and soil.
- Decree No. 2015-1205/PRES-TRANS/PM/MEF/MARHASA/MS/MRA/MICA/MME/MIDT/MATD dated October 28, 2015 on setting standards for discharges of used waters.

Other required permits, authorizations, or administrative procedures for a mining project could include:

- Permit for industrial exploitation
- Once in production, the opening of a fiduciary account for an amount equal to the mine reclamation closure and rehabilitation budget
- Authorization for the management of raw water
- Authorization for the collection of raw water for civil work
- Authorization for hydraulic work or dam
- Authorization for road construction

- Authorization for allotment of registered parcels on the resettlement sites.

BASELINE STUDIES

In 2014, Bureau d'Études des Géosciences des Énergies et de l'Environnement (BEGE) delivered a report (BEGE 2014) containing the results of the environmental baseline studies conducted since 2009 on the Project footprint. A new Terms of Reference (ToR) was prepared and sent to the Bureau National des Évaluations Environnementales (BUNEE) in July 2014 based on the changes to the Project. In parallel, updated environmental and social baseline studies were conducted. This baseline characterization of the physical, biological, and human components was done through different field missions that occurred during both the 2014 wet and dry seasons and until February 2015 for the human components. The data collected was used to describe the initial conditions of the natural environment and have been taken into account in the Project's design, ESIA, and Resettlement Action Plan (RAP).

COMMUNITY INFORMATION AND CONSULTATION PROGRAM

The stakeholder information and consultation process is an integral part of the ESIA process. To date, Orezone has put in place mechanisms and communication tools so that all those involved in, or affected by, the Project can freely express themselves. The information collected during these consultations has helped identify issues, risks, benefits, and opportunities in order for the Project to avoid, minimize, or offset negative impacts and enhance the positive ones. As part of the stakeholder information and consultation process, a Stakeholder Engagement Plan (SEP) was developed. Information concerning the Project was transmitted by information sheets and through meetings with administrative authorities, technical services, as well as representatives of the surrounding villages.

Many initiatives have been undertaken by Orezone to inform and consult with the affected communities as part of its exploration activities and preparation of the Project. These initiatives include:

- Establishment of a permanent team for environmental and community relations;
- Adoption of a Stakeholders Engagement Plan;
- Establishment of a grievance mechanism procedure;

- Adoption and implementation of a Sustainable Community Development Program;
- Several ad hoc meetings with authorities and other stakeholders.

A Provincial Compensation and Resettlement Committee of the people to be affected by the Project was set up by Arrêté No. 2013-010/MATS/RPCL/PGNZ/HC-ZRG dated May 28, 2013 and was officially activated on April 4, 2014. The first public meeting was held in July 2014 to discuss issues related to resettlement. In addition, Orezone has established, at early stages of the study, a community information and consultation mechanism which has been implemented throughout the ESIA process and Project development.

The main concerns raised during these communication activities included:

- Disturbance of subsistence activities;
- Compensation for the traditional land owners;
- Air, water, and soil degradation;
- Disruption of sacred sites;
- Women's loss of income from current artisanal mining;
- Access to jobs and training;
- Influx of foreign workers and spread of disease;
- Road safety and accident prevention;
- Closure plan and the safe take-over of the land by the local communities after the mine closure;
- Control and transparency during the implementation of the social and environmental compensation measures.

Orezone took into account these concerns expressed by the stakeholders and undertook specific actions to optimize the Project design presented in the ESIA in order to avoid these constraints. These actions led to a more balanced approach between the financial objectives of Orezone and the preservation and conservation of the environmental and social components which are part of sustainable development for the Project.

ANTICIPATED ENVIRONMENTAL AND SOCIAL IMPACTS

The methodology used to identify and analyze the environmental impacts of the Project is based on an approach recognized by the international funding agencies. This approach identifies the direct interactions between the mining activities considered impact sources and

the physical, biological, and human components. These interactions are customized according to Project-specific phases (pre-construction, construction, operation, and closure). All interactions identified are then analyzed on the basis of three criteria (intensity, extent, and duration) to obtain a global indicator, the importance of the impact. Three levels of the importance of the impact are then determined: minor, medium, and major.

The most significant anticipated impact of the Project would be the resettlement of the population currently living on the Project site. Although Orezone has assumed expropriation of the whole area within a 500 m buffer zone of the eventual mining site, the land could remain accessible for farming activities in the outer 250 m of this buffer zone, potentially reducing the loss of the Aménagement des Vallées de la Volta (AVV) fields and communal parcels.

The economic impact of a mining project at the local, regional, and national levels is usually positive. Beginning from the construction phase, direct and indirect jobs will be created, resulting in tangible economic benefits for both the local and regional communities. The Project will create hundreds of skilled and unskilled direct and indirect jobs, most of them awarded to Burkinabe workers. This job creation will increase household incomes and improve living conditions. In addition, the procurement of goods and services for the construction, operation, and closure of the mine will bring significant economic benefits to both local and regional businesses, the majority in terms of supplying food and/or various products.

The revenues generated by a mining operation increase the internal revenue of the country through taxes and royalties charged by the local authorities. These revenues should have a beneficial impact at the local and regional levels through increased investments in social and health services, and educational facilities.

In addition, Orezone supports a number of social programs for the displaced households, and in a broader context, local and regional communities. Orezone will allow small scale gold mining in the Project area by authorizing the operation of two artisanal sites within its current exploration licences. These sites were awarded to operators from the two existing artisanal mining villages of Sanam Yaar and Kagtenga.

A Risk Analysis is part of the development of any mining project to assess its environmental risks. Similar to any other heavy industrial activity, a mining project can be subject to critical situations such as spills, breakages, etc., that may result in a direct impact on the environment. The causes and consequences of each of these situations will be determined and the preventive and emergency measures to implement will be identified. The criteria considered for a risk assessment take into account the severity of events, the consequences, and the likelihood of an occurrence.

ACID ROCK DRAINAGE

Samples of Project waste rock, potential construction materials, heap leach solids, and tailings were subjected to laboratory geochemical tests to assess their potential to generate acid rock drainage (ARD) and leachable metals (ML).

The results of the ARD assessment were compared to the assessment criteria presented in the Global Acid Rock Drainage (GARD) Guide (INAP, 2009), a reference document on best practices related to mine waste characterization and ARD prediction, prevention, and mitigation measures. Results of the ML tests and process water chemistry were compared to the applicable effluent discharge guideline values specified in Section 2.0 of the International Finance Corporation (IFC)/World Bank Group EHS Guidelines for Mining (IFC, 2007).

WASTE ROCK AND CONSTRUCTION MATERIALS

The ARD/ML assessment of the waste rock focused on dominant rock types and weathering zones (oxide and transition) from the CFU, KT, Maga, P8/P9, P11, P16, P17, Siga East, West, and South prospects. A total of 57 waste rock samples were collected from exploration drill cores from within the open pit outline while the laterite was collected from a nearby borrow source. The results of the ARD/ML program to date are presented below.

All laterite, oxide (saprolite), and transition (saprock) units demonstrate little potential to generate ARD (non-Potential Acid Generating (PAG)) and are not expected to leach metals at concentrations above the Burkina Faso and IFC effluent guidelines. Therefore, laterite, saprolite, and saprock material are considered suitable as potential construction material for most rock types. However, saprock from the meta-sandstone (S3) unit at P8/P9 and Siga South indicated some potential to generate ARD and this material will not be used for any construction. As part of the long-term management of these waste materials, they will not

remain exposed to the atmosphere (i.e., will not be placed near the top or edge of a waste rock pile) to avoid “hot spots” of high ARD potential. Drainage from waste piles containing these materials will be monitored prior to discharge.

CIL TAILINGS AND HEAP LEACH SOLIDS

The Project tailings samples tested were sourced from both a non-acid generating (S at 0.1%) and sulphide head sample (S at 1.78%) master composite samples that were subjected to bench-scale laboratory testing with the CIL and HL process. Based on the metallurgical testing (see Section 13) the Bomboré proposed gold extraction scenario is a hybrid processing option of a CIL (52%) and HL (48%) circuits.

Tailings solids and process water subjected to geochemical testing were prepared during the metallurgical testing conducted on an oxide Master Composite (MC) sample containing 50% medium-grade and 50% high-grade materials. The oxide MC sample was subjected to a cyanidation process, after which a portion underwent cyanide destruction. The solids used for static testing were obtained from a portion of the materials subjected to cyanide destruction (CY142 and CY 149), while the process water chemistry comes from decanted water both cyanided but not treated and cyanided with cyanide destruction (CY149).

The oxide MC tailings sample has a low potential to generate ARD as demonstrated by neutral kinetic test results, however, arsenic exceeded the Burkina Faso Effluent Discharge Criteria (EDC). The process water reports total and weak acid dissociable (WAD) cyanide concentrations of 1.9 mg/L each, which is above the IFC effluent guidelines (1 and 0.5 mg/L, respectively) and the Burkina Faso EDC total CN guideline (0.1 mg/L). In addition, the arsenic and copper concentrations all exceed their applicable IFC effluent guidelines while arsenic and copper exceeded the Burkina Faso EDC.

Since the Project Tailings Management Facility (TMF) has been designed to be zero discharge, there should be no issues with effluent quality under dry conditions. During extreme rainfall events (the current design is for 1/100 year rainfall event), if the TMF storage capacity is exceeded and an effluent discharge is required, there is the possibility that the effluent could exceed both the EDC Total CN and arsenic effluent discharge criteria.

The tested solids are considered representative of the reactivity of the oxide ore subjected to cyanide heap leaching. Based on the current metallurgical testing (Section 13), the cyanide

charge that will be added to the heap leach facility for ore processing is currently 250 mg/L at an application rate of 10 L/h/m^2. Column tests revealed that rinse solutions will have low levels of contaminants. Since the heap leach facility will be fully lined and all pregnant liquor will be collected during operations, the potential for release of cyanide and metals to the environment will be minimal during the operational phase.

No cyanide destruction unit has been included in the process as cyanide destruction units are generally not included in the process when the TMF is lined and is designed for zero discharge.

21 CAPITAL AND OPERATING COSTS

This section is not applicable.

22 ECONOMIC ANALYSIS

This section is not applicable.

23 ADJACENT PROPERTIES

West African Resources' (WAF) Boulsa Project is adjacent to the Project. Within the Boulsa Project, there are many prospects at various stages of early exploration (Figure 23-1).

During 2013, WAF announced a discovery on its Moktedu prospect located only approximately four kilometres to the northeast of the Bomboré 1 permit, along a northeast-trending structure that is dipping steeply to the northwest. Moktedu may have some structural relation to the Bomboré resource.

WAF's Mankarga 5 prospect is located approximately 20 km to the southeast of the Project. A 2015 Prefeasibility Study reported combined oxide and sulphide resources at a cut-off grade of 0.5 g/t Au. Indicated Mineral Resources totalled 19 Mt at an average grade of 1.2 g/t Au for 0.74 million ounces of gold. Inferred Mineral Resource totalled 40 Mt at an average grade of 1.0 g/t Au for 1.35 million ounces of gold. WAF released an updated Mineral Resource statement with an effective date of September 14, 2016. Indicated Mineral Resources totalled 24 Mt at an average grade of 1.3 g/t Au for 0.98 million ounces of gold, and Inferred Mineral Resource totalled 26 Mt at an average grade of 1.2 g/t Au for 1.04 million ounces of gold (WAF, 2016).

RPA has not independently verified this information and this information is not necessarily indicative of the mineralization at the Project.

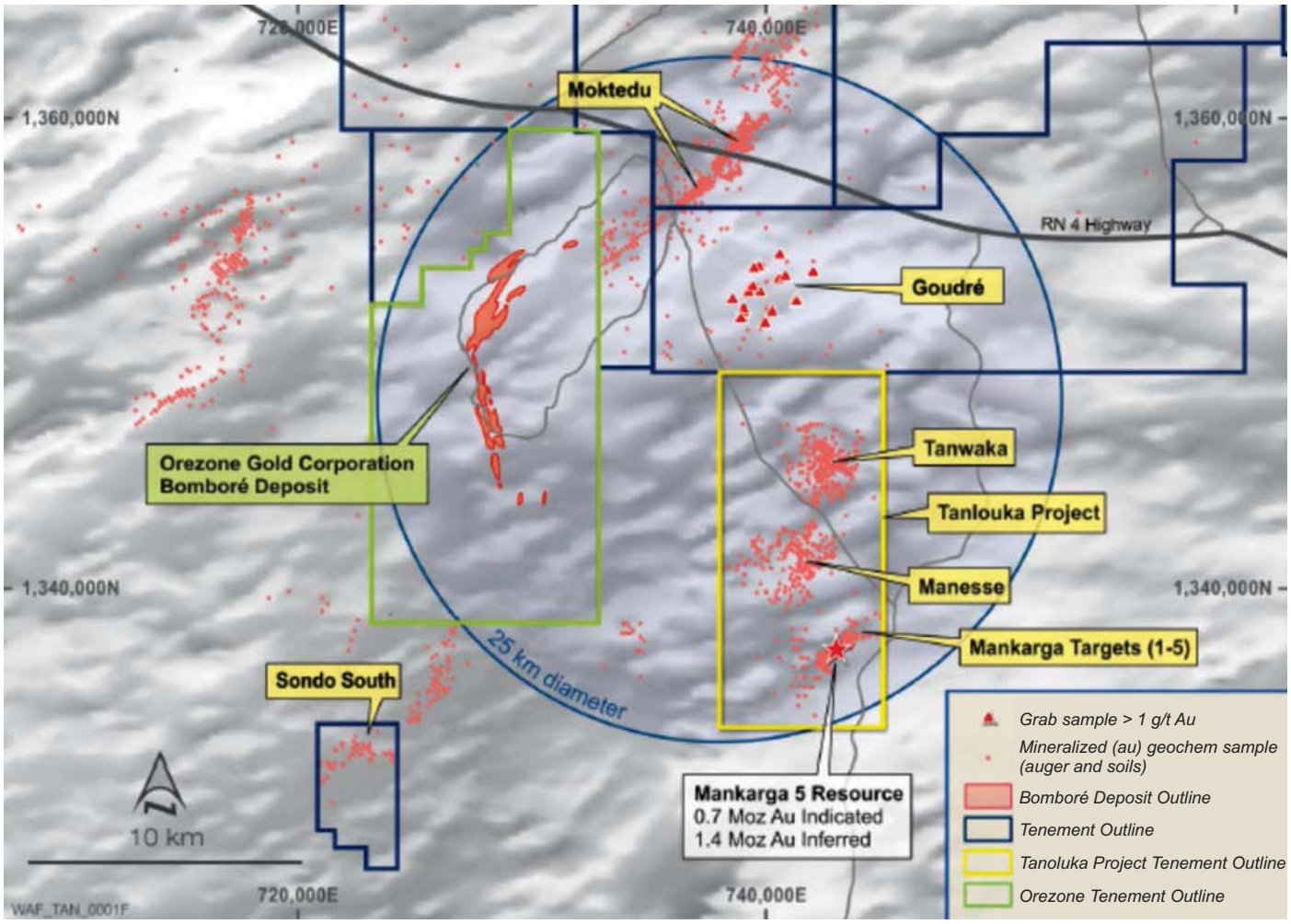


Figure 23-1

Orezone Gold Corporation

Bomboré Gold Project
Burkina Faso, West Africa
Adjacent Properties

January 2017

Source: Orezone, 2015.

24 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25 INTERPRETATION AND CONCLUSIONS

RPA offers the following conclusions:

GEOLOGY AND MINERAL RESOURCES

- The Bomboré gold deposit is a large structurally controlled orogenic gold deposit similar to deposits found elsewhere in late Proterozoic Birimian terranes of West Africa.
- Drilling has outlined mineralization with three-dimensional continuity, and size and grades that can potentially be extracted economically.
- Orezone's protocols for drilling, sampling, analysis, security, and database management meet industry standard practices.
- The drill hole database was verified by Orezone, RPA, and other consultants and is suitable for Mineral Resource and Mineral Reserve estimation work.
- In RPA's opinion, the January 5, 2017 Mineral Resource estimation work is in accordance with the CIM definitions and the results are reasonable.
- At a cut-off grade of 0.2 g/t Au for oxide and transition material and 0.38 g/t Au for fresh material, Measured plus Indicated Mineral Resources are estimated to total 218.10 million tonnes (Mt) at an average grade of 0.68 g/t Au for 4.8 million ounces of contained gold. At the same cut-off grades, Inferred Mineral Resources are estimated to total an additional 48.20 Mt at an average grade of 0.64 g/t Au for 994,000 ounces of contained gold.
- The updated Mineral Resource estimate has a slightly lower average grade compared to the September 7, 2016 Mineral Resource estimate due to the addition of 391 new low grade mineralized wireframes and a new unconstrained domain ("third domain") of selected assays above 0.20 g/t Au.
- The estimated contained metal is higher in the January 5, 2017 estimate as compared to the September 7, 2016 resource statement due to additional mineralized wireframes and the third domain, as well as a slightly deeper resource pit shell.
- RPA concurs that the updated resource model is a realistic representation of the mineralization within the wireframes and the new third domain.
- A number of mineralized drill hole intervals, though included within the database, remain beyond the limits of the mineralization wireframes. No tonnage or grade estimates were provided for these intersections at this stage.

MINING AND MINERAL RESERVES

- There is no current Mineral Reserve estimate for the Project. A previous Mineral Reserve estimate for the Project was detailed in an FS level NI 43-101 Technical Report dated April 28, 2015, however, due to changes in the 2016 and 2017 Mineral Resource model, as described in the October 31, 2016 and the current Technical Reports, the Mineral Reserve estimate cannot be relied on. RPA has been retained to complete a new Mineral Reserve estimate based on the current Mineral Resource estimate.

- There is sufficient advanced engineering data and new optimization studies available to complete a Mineral Reserve estimate without significant additional work.

- A conventional open pit mining scenario with excavators and haul trucks is envisioned for the Project, targeting the gold resources in the saprolite and transition weathering horizons as the initial phase, and the fresh rock as a potential second phase.

PROCESSING

- A sufficient level of metallurgical test work and flow sheet design has already been completed and indicate that Bomboré material is amenable to processing by the combined scrubbing/CIL and heap leaching method.

- Gold recoveries are reasonably high, consistently demonstrated, and the rates of recoveries are fairly rapid for oxide material. Reagent requirements are low to moderate.

- Based on the available leach test results and by applying appropriate deductions to estimate heap leach field recoveries from laboratory data, overall gold recovery is estimated to average 87% on oxides.

ENVIRONMENTAL STUDIES AND PERMITTING

- The Mining Code of Burkina Faso guarantees a stable fiscal regime for the life of any mine developed. It also guarantees stabilization of financial and customs regulations and rates during the period of operation to reflect the rates in place at the date of the approved Operating Permit. The Mining Code also states that no new taxes can be imposed with the exception of mining duties, taxes, and royalties.

- Orezone has already completed the ESIA and a RAP. In May 2016, Orezone received approval of its application for an environmental permit from Ministère de L'Environnement, de L'Économie Verte et du Changement Climatique. On August 11, 2016, the Bomboré Mining Permit was granted and is valid for the mine life.

- Other required permits and authorizations could include:
  - Permit for industrial exploitation
  - Once in production, the opening of a fiduciary account for an amount equal to the mine reclamation closure and rehabilitation budget
  - Authorization for the management of raw water
  - Authorization for the collection of raw water for civil work

- Authorization for hydraulic work or dam
- Authorization for road construction
- Authorization for allotment of registered parcels on the resettlement sites

26 RECOMMENDATIONS

The Property hosts a significant gold deposit and merits considerable exploration, engineering, and development work. The near-term primary objectives are to advance engineering work and improve the confidence in the Mineral Resource estimate.

RPA's recommendations are as follows:

MINERAL RESOURCE MODEL

- The use of a single grade threshold (of 0.2 g/t Au) for creation of mineralization envelopes would simplify the estimation process. RPA recommends that Orezone test this approach by re-running the grade estimate without the 0.45 g/t Au envelopes.

- In-fill drilling to confirm the continuity of the gold grades in the high grade pods contained within the resource pit shell is warranted in the South model area. The information gained from this work will improve the variogram models in these areas and will improve the accuracy and level of confidence of the local grade estimate.

- Complete a detailed study to determine the optimal grade control drill hole spacing. The selection of the test areas for these studies should be synchronized with the proposed mine production schedule to focus on the initial production period.

MINERAL RESERVES

- Mineral Reserves should be updated to reflect the updated Mineral Resource model.

PROCESSING

- Some test work evaluating the merit of utilizing alternative sizing equipment after scrubbing may provide additional operational optimization, but no further metallurgical test programs are envisioned.

ENVIRONMENTAL STUDIES AND PERMITTING

- The potential impact of the Project on the environment and community should be reviewed for the updated FS. The RAP might also require an update based on the project definition of the updated FS.

- Orezone should continue to actively participate in public consultations including the presentation of the updated FS results. Once the updated FS is completed, resettlement efforts and planning should be pursued aggressively to allow for resettlement activities to begin as soon as possible.

PROPOSED PROGRAM AND BUDGET

RPA has reviewed and concurs with Orezone's proposed budgets. The recommended Phase I program, to be initiated as soon as operationally practical, consists mainly of oxide grade reverse circulation (RC) validation drilling and oxide resource expansion RC drilling on the mining permit. Validation drilling will be focused on mineralization outside of the mineralized envelopes and resource expansion drilling will be focused on areas where there are gaps in the current drilling. Other drilling will include, resource expansion core and RC drilling on the Toéyoko Exploration Permit, ground geophysical surveying and exploration drilling on the exploration permit applications, and an update of the Mineral Reserve estimate based on the current Mineral Resource model. The budget for this program is US$617,750.

Details of the recommended Phase I program can be found in Table 26-1.

TABLE 26-1 PROPOSED PHASE I BUDGET
Orezone Gold Corporation – Bomboré Gold Project

Tenement	Program Phase I	Quantity	Budget (US$)
Mining Lease	North Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	1,500 m	60,000
	South Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	750 m	30,000
Toéyoko	P17S Metallurgical test work program		18,750
	P17S Resource Expansion Core Drilling Program	2,800 m	250,000
	P17S Resource Expansion RC Drilling Program	1,300 m	55,000
	Auger Drilling Program	1,675 m	36,000
	P13 RC Scout Drilling Program	1,850 m	80,000
Bomboré II	Auger Drilling Program	500 m	11,000
Bomboré III	Auger Drilling Program	300 m	5,000
	IP Surveys	26 km	72,000
TOTAL Phase I			**617,750**

Contingent upon the Phase I program results, a Phase II program consists of resource expansion RC drilling on the mining permit, resource expansion core and RC drilling on the Toéyoko Exploration Permit, and exploration drilling on the exploration permit applications. The budget for this Phase II exploration program is US$960,000 (Table 1-3).

TABLE 26-2 PROPOSED PHASE II EXPLORATION BUDGET
Orezone Gold Corporation – Bomboré Gold Project

Tenement	Program Phase II (Contingent on positive Phase I results)	Quantity	Budget (US$)
Mining Lease	North Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	5,000 m	205,000
	South Area - Oxide Resource Expansion RC Drilling (Gaps between Current Resource Pit Shells)	1,500 m	65,000
Toéyoko	P17S Resource Expansion Core Drilling Program	3,500 m	380,000
	P17S Resource Expansion RC Drilling Program	10 km	25,000
	P17 S IP Survey	10 km	25,000
	P13 Resistivity Survey	140 km	75,000
	P13 RC Definition Drilling Program	2,000 m	90,000
Bomboré II	RC Scout Drilling Program	1,000 m	30,000
Bomboré III	P17N Definition Drilling Program	2,000 m	65,000
TOTAL Phase II			**960,000**

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28 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Updated Mineral Resource Estimate for the Bomboré Gold Project, Burkina Faso, West Africa" and dated January 12, 2017, was prepared and signed by the following authors:

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Dated at Toronto, ON
January 12, 2017

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29 CERTIFICATE OF QUALIFIED PERSON

RENO PRESSACCO

I, Reno Pressacco, M.Sc.(A)., P.Geo., as an author of this report entitled “Technical Report on the Updated Mineral Resource Estimate for the Bomboré Gold Project, Burkina Faso, West Africa” prepared for Orezone Gold Corporation and dated January 12, 2017, do hereby certify that:

1. I am Principal Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON M5J 2H7.

2. I am a graduate of Cambrian College of Applied Arts and Technology, Sudbury, Ontario, in 1982 with a CET Diploma in Geological Technology, Lake Superior State College, Sault Ste. Marie, Michigan, in 1984, with a B.Sc. degree in Geology and McGill University, Montreal, Québec, in 1986 with a M.Sc.(A) degree in Mineral Exploration.

3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #939). I have worked as a geologist for a total of 30 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements, including preparation of Mineral Resource estimates and NI 43-101 Technical Reports.
    - Numerous assignments in North, Central and South America, Finland, Russia, Armenia and China in a variety of deposit types and in a variety of geological environments; commodities including Au, Ag, Cu, Zn, Pb, Ni, Mo, U, PGM and industrial minerals.
    - A senior position with an international consulting firm.

4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5. I have not visited the Bomboré Gold Project.

6. I share responsibility with my co-authors for Sections 1 to 3, 14, and 25 to 27 of the Technical Report.

7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8. I have prepared a previous NI 43-101 Technical Report, dated October 31, 2016, on the property that is the subject of the Technical Report.

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

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 12th day of January, 2017

(Signed & Sealed) *"Reno Pressacco"*

Reno Pressacco, M.Sc.(A)., P.Geo.

JOSÉ TEXIDOR CARLSSON

I, José Texidor Carlsson, P.Geo., as an author of this report entitled "Technical Report on the Updated Mineral Resource Estimate for the Bomboré Gold Project, Burkina Faso, West Africa" prepared for Orezone Gold Corporation and dated January 12, 2017, do hereby certify that:

1. I am Senior Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.

2. I am a graduate of University of Surrey, United Kingdom, in 1998 with a Master of Engineering, Electronic and Electrical degree and Acadia University, Nova Scotia, in 2007 with an M.Sc. degree in Geology.

3. I am registered as a Professional Geologist in the Province of Ontario (Reg.# 2143). I have worked as a geologist for a total of 10 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Mineral Resource estimation and NI 43-101 reporting
   - Supervision of exploration properties and active mines in Canada, Mexico, and South America
   - Experienced user of geological and resource modelling software

4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5. I have not visited the Bomboré Gold Project.

6. I share responsibility with my co-authors for Sections 1, 2, 14, and 25 to 27 of the Technical Report.

7. I am independent of the Issuer applying the test set out 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 the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contains/contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 12th day of January, 2017

(Signed & Sealed) "*José Texidor Carlsson*"

José Texidor Carlsson, M.Sc., P.Geo.

TUDOREL CIUCULESCU

I, Tudorel Ciuculescu, M.Sc., P.Geo., as an author of this report entitled “Technical Report on the Updated Mineral Resource Estimate for the Bomboré Gold Project, Burkina Faso, West Africa” prepared for Orezone Gold Corporation and dated January 12, 2017, do hereby certify that:

1. I am Senior Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.

2. I am a graduate of University of Bucharest with a B.Sc. degree in Geology in 2000 and University of Toronto with a M.Sc. degree in Geology in 2003.

3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #1882). I have worked as a geologist for a total of 14 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Preparation of Mineral Resource estimates.
   - Over 5 years of exploration experience in Canada and Chile.

4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5. I visited the Bomboré Gold Project on October 10 to 13, 2014.

6. I am responsible for Sections 4 to 12 and 23, and share responsibility with my co-authors for Sections 1 to 3, 14, and 25 to 27 of the Technical Report.

7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8. I have prepared a previous NI 43-101 Technical Report, dated October 31, 2016, on the property that is the subject of the Technical Report.

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

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 12th day of January, 2017

(Signed & Sealed) “*Tudorel Ciuculescu*”

Tudorel Ciuculescu, M.Sc., P.Geo.

GLEN A. EHASOO

I, Glen A. Ehasoo, P.Eng., as an author of this report entitled "Technical Report on the Updated Mineral Resource Estimate for the Bomboré Gold Project, Burkina Faso, West Africa" prepared for Orezone Gold Corporation and dated January 12, 2017, do hereby certify that:

1. I am a Principal Mining Engineer with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON, M5J 2H7.

2. I am a graduate of the University of British Columbia, Vancouver, British Columbia, in 1998 with a Bachelor of Applied Science in Mining & Mineral Processing Engineering.

3. I am registered as a Professional Engineer in the Province of British Columbia (Reg. #34935). I have worked as a mining engineer for 16 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Open pit operational experience in Canada and abroad;
   - Review and report as a consultant on open pit mining projects and operations in Canada and around the world for studies, audits, due diligence, and regulatory requirements;
   - Open pit mine planning and cost estimation;
   - Project cash flow modelling and economic analysis.

4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5. I visited the Bomboré Gold Project on June 20, 2014.

6. I am responsible for Sections 15, 16, 18, and 19 and share responsibility with my co-authors for Sections 1 to 3 and 25 to 27 of the Technical Report.

7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8. I have had prior involvement with the property that is the subject of the Technical Report as a co-author of the April 28, 2015 Feasibility Study and an author of the October 31, 2016 Technical Report.

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

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 12th day of January, 2017

(Signed & Sealed) "*Glen A. Ehasoo*"

Glen A. Ehasoo, P.Eng.

JEAN-SÉBASTIEN HOULE

I, Jean-Sebastien Houle P.Eng., as an author of this report entitled “Technical Report on the Updated Mineral Resource Estimate for the Bomboré Gold Project, Burkina Faso, West Africa” prepared for Orezone Gold Corporation and dated January 12, 2017, do hereby certify that:

1. I am Project Manager with WSP Canada Inc. with a business address at 171, Leger Street, Sherbrooke (Québec) Canada.

2. I am a graduate from Université Laval, Québec, Canada, with a Coop Bachelor’s degree in Mining and Mineral Processing Engineering obtained in 2000.

3. I am a member in good standing of Ordre des Ingénieurs du Québec (#129263). I have practiced my profession continuously since 2000. My relevant experience includes more than 13 years of experience in the mining industry, including environmental and social impact and permitting of mining projects, mainly for gold deposits.

4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5. I have not personally visited the Bomboré Gold Project.

6. I am responsible for Section 20 and relevant portions of Sections 1, 25, and 26 of the Technical Report.

7. I am independent of the issuer as described in Section 1.5 of NI 43-101.

8. I have prepared a previous NI 43-101 Technical Report, dated October 31, 2016, on the property that is the subject of the Technical Report.

9. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in the Technical Report.

10. I have read NI 43-101 and Form 43-101F1 and have prepared Sections {insert information] of the Technical Report in compliance with NI 43-101 and Form 43-101F1.

11. As of the date of this certificate, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 12th day of January, 2017

(Signed & Sealed) “*Jean-Sébastien Houle*”

Jean-Sébastien Houle, P.Eng.

Kappes, Cassiday & Associates

TIMOTHY D. SCOTT

I, Timothy D. Scott, as an author of this report entitled "NI 43-101 Technical Report on the Updated Mineral Resource Estimate for the Bombore Project", Burkina Faso, West Africa, prepared for Orezone dated January 12, 2017, do hereby certify that:

1. I am an independent consultant affiliated as an Associate with the firm of Kappes, Cassiday & Associates located at 7950 Security Circle, Reno, Nevada USA 89506 since 2006 and my personal address is 10521 Biriba Pl. Las Vegas, NV 89144.

2. I am a graduate of the Montana College of Mineral Science and Technology, and hold a B.Sc. Degree in Geological Engineering (1987).

3. I am a Registered Member in good standing of the Society of Mining, Metallurgy and Exploration (4153680RM). I have practiced my profession continuously since 1987 in all aspects of mineral processing and gold extraction; heap leaching; and design and construction of mineral processing and metals extraction facilities. I am a "Qualified Person" for the purposes of NI 43-101 by reason of my education, affiliation with a professional association as defined by NI 43-101 and past relevant work experience.

4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

5. I visited the Bombore Project on the 9th of July 2014.

6. I am independent of the issuer and related companies applying all of the tests in Section 1.5 of the National Instrument 43-101.

7. I am one of the authors of this Technical Report. I am responsible for preparation of Sections 13, 17, of the Technical Report. I am co-responsible for Section 1, 2, 3, and 25 to 27.

8. I have prepared a previous Technical Report, dated October 31, 2016, on the property that is the subject of the Technical Report.

9. As of the date of the certificate, to the best of my knowledge, information, and belief, the sections of Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101 and Form 43-101F1.

Dated this 12th day of January, 2017

(Signed and Sealed) "*Timothy D. Scott*"

Timothy D. Scott
Kappes, Cassiday & Associates