First Majestic Silver Corp. La Encantada Silver Mine

Ocampo, Coahuila, Mexico,

NI 43-101 Technical Report on Mineral Resource and Mineral Reserve Update

La Encantada Silver Mine, Ocampo, Coahuila, Mexico

UTM zone 13R 737,389 E, 3,139, 533 N

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Peter Oshust, P.Geo.	Principal Geologist Amec Foster Wheeler Americas Limited

Effective date: December 31, 2015

CERTIFICATE OF QUALIFIED PERSON

Ramon Mendoza Reyes, P.Eng.
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I, Ramon Mendoza Reyes, P.Eng., am employed as Vice President Technical Services with First Majestic Silver Corp.

This certificate applies to the technical report entitled "Technical Report for the La Encantada Silver Mine, Ocampo, Coahuila, Mexico" that has an effective date of December 31, 2015 (the "Technical Report").

I graduated from the National Autonomous University of Mexico with a Bachelor of Mining Engineering degree in 1989, and also obtained a Master of Science degree in Mining and Earth Systems Engineering from the Colorado School of Mines in Golden, Colorado, in 2003.

I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, a member of the Canadian Institute of Mining, Metallurgy and Petroleum, and a member of the Association of Mining Engineers, Metallurgists and Geologists of Mexico.

I have practiced my profession continuously since 1990 and have been involved in precious and base metal sulphide mine projects and operations in Mexico, Canada, United States, Chile, Peru, and Argentina.

As a result of my education, qualifications and past relevant work experience in mine operations, mine planning, mine design, and mineral reserves estimates, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101).

I have visited the La Encantada Silver Mine on several occasions during 2014-2015. My most recent personal inspection of the property took place on June 24 to 26, 2015.

I am responsible for preparation of sections 1, 2, 3, 5, 6, 13, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25.5, 25.6, 26.6, 26.7 and section 27 of the Technical Report.

By reason of my employment with First Majestic Silver Corp., the indirect 100% owner of the La Encantada Silver Mine, I am not considered independent as that term is described in Section 1.5 of NI 43–101.

I have been involved in the La Encantada Silver Mine as supervisor and coordinator of all disciplines preparing information for integration into the Technical Report, including geology, mining and metallurgy since February, 2015.

I have read NI 43–101 and the Technical Report. I confirm that those sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the Technical Report, to the best of my knowledge, information and belief, those sections of the Technical Report for which I am responsible contain all scientific and technical information required to be disclosed in order to ensure the Technical Report is not misleading.

"Signed and sealed"

Ramon Mendoza Reyes, P.Eng.

Dated: March 15, 2016

CERTIFICATE OF QUALIFIED PERSON

Maria Elena Vazquez Jaimes, P.Geo.
Geological Database Manager, First Majestic Silver Corp.
925 West Georgia Street, Suite 1805
Vancouver, BC, Canada, V6C 3L2

I, Maria Elena Vazquez Jaimes, P.Geo., am employed as Geological Database Manager with First Majestic Silver Corp. since November 2013.

This certificate applies to the technical report entitled “Technical Report for the La Encantada Silver Mine, Ocampo, Coahuila, Mexico” that has an effective date of December 31, 2015 (the “Technical Report”).

I graduated from the National Autonomous University of Mexico with a Bachelor in Geological Engineering degree in 1995, and also obtained a Master of Science degree in Geology from the Ensenada Scientific Research Center and High Education, Ensenada, BC, Mexico, in 2000.

I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, and member of the Canadian Institute of Mining, Metallurgy and Petroleum.

I have practiced my profession continuously since 1995. As a Geologist and Geological Database manager, I have been involved in precious and base metal sulphide mine projects and operations in Canada, Mexico, Peru, Ecuador, and Argentina.

As a result of my education, qualifications and past relevant work experience in geological database management, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101).

I have visited the La Encantada Silver Mine on several occasions from 2013 to 2015. My most recent personal inspection of the property took place from August 18 to 21, 2015.

I am responsible for preparation of sections 11 and 12 of the Technical Report.

By reason of my employment with First Majestic Silver Corp., the 100% indirect owner of the La Encantada Silver Mine, I am not considered independent as that term is described in Section 1.5 of NI 43–101.

I have been involved in the La Encantada Silver Mine as geological database manager for the resource estimation work and for the integration of sections 11 and 12 of Technical Report since November 2013.

I have read NI 43–101 and the Technical Report. I confirm that those sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the Technical Report, to the best of my knowledge, information and belief, those sections of the Technical Report for which I am responsible contain all scientific and technical information required to be disclosed in order to ensure the Technical Report is not misleading.

“Signed and sealed”

Maria Elena Vazquez Jaimes

Dated: March 15, 2016

CERTIFICATE OF QUALIFIED PERSON

Jesus M. Velador Beltran, MMSA QP Geology
Director of Exploration, First Majestic Silver Corp.
Fanny Anitua 2700, Col. Los Angeles
Durango, Dgo. Mexico, 34076

I, Jesus M. Velador Beltran, MMSA QP, am employed as Director of Exploration with First Majestic Silver Corp. This certificate applies to the technical report entitled “Technical Report for the La Encantada Silver Mine, Ocampo, Coahuila, Mexico” that has an effective date of December 31, 2015 (the “Technical Report”).

I graduated from the Autonomous University of Chihuahua with a Bachelor of Geological Engineering degree in 1998, obtained a Master of Science degree in Geology from the University of Texas at El Paso, El Paso Texas in 2003, and obtained a Philosophical Doctorate degree in Geology from the New Mexico Institute of Mining and Technology, Socorro New Mexico, in 2010.

I am a member of the Mining and Metallurgical Society of America with Qualified Professional Geology status, a member of the Society of Economic Geologists, a member of the Geological Society of America, and a member of the Association of Mining Engineers, Metallurgists and Geologists of Mexico. I have practiced my profession continuously since 1999 and have been involved in exploration, geological modelling, mineral resource estimation of narrow veins and carbonate replacement deposits, and evaluation of precious and base metal sulphide prospects, projects and operations in Mexico.

As a result of my education, qualifications and past relevant work experience in exploration, geology, resource estimation of narrow vein precious metal deposits and evaluation of mineral projects, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I have visited the La Encantada Silver Mine on several occasions during 2013, 2014 and 2015. My most recent personal inspection of the property took place November 2 and 3, 2015.

I am responsible for preparation of sections 4, 7, 8, 9, 10, 14.1 to 14.5, 23, 25.1, 25.2, 25.3, 26.1, 26.2, 26.3 and 26.5 of the Technical Report.

By reason of my employment with First Majestic Silver Corp., the 100% indirect owner of the La Encantada Silver Mine, I am not considered independent as that term is described in Section 1.5 of NI 43–101.

I have been involved in the La Encantada Silver Mine as supervisor and coordinator of exploration, geology and resource estimation disciplines preparing information for integration into the Technical Report since April, 2014.

I have read NI 43–101 and the Technical Report. I confirm that those sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the Technical Report, to the best of my knowledge, information and belief, those sections of the Technical Report for which I am responsible contain all scientific and technical information required to be disclosed in order to ensure the Technical Report is not misleading.

“Signed and sealed”

Jesus M. Velador Beltran, MMSA QP Geology

Dated: March 15, 2016

CERTIFICATE OF QUALIFIED PERSON

Peter Oshust P.Geo.
Principal Geologist, Amec Foster Wheeler Americas Limited
111 Dunsmuir Street, Suite 400
Vancouver, BC, Canada V6B 5W3

I, Peter Oshust, P.Geo., am employed as a Principal Geologist with Amec Foster Wheeler Americas Limited.

This certificate applies to the technical report entitled "Technical Report for the La Encantada Silver Mine, Ocampo, Coahuila, Mexico" that has an effective date of December 31, 2015 (the "Technical Report").

I am a member of the Association of Professional Engineers and Geoscientists of British Columbia and of the Association of Professional Geoscientists of Ontario. I graduated from Brandon University with a Bachelor of Science (Specialist) degree in Geology and Economics in 1987.

I have practiced in my profession since 1988 and have been involved in geological modelling and resource estimation for a variety of base and precious metals and diamond deposits across North and South America, and in Asia, since 2001. Prior to the La Encantada Mine, I was involved in the geological modelling and resource estimation of the La Guitarra Silver Mine in Mexico State and the Ocampo Mine in Chihuahua State.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I did not visit the La Encantada Mine.

I am responsible for preparation of Sub-sections 1.4.1, 2.4.2, 14.6, 25.4, 26.4, and 26.5.1 of the Technical Report.

I am independent of First Majestic Silver Corp. as independence is described by Section 1.5 of NI 43–101.

I have had no previous involvement with the La Encantada project.

I have read NI 43–101, and the sections of this Technical Report that I am responsible for have been prepared in compliance with that Instrument.

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

"Signed and sealed"

Peter Oshust, P.Geo.

Dated: March 15, 2016

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1 Summary

This Technical Report was prepared by First Majestic Silver Corp. ("First Majestic") in compliance with the disclosure requirements of National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") to release current technical information and updated estimates of Mineral Resources and Mineral Reserves in the La Encantada Silver Mine.

1.1 Property Description and Ownership

This Technical Report refers to the La Encantada Silver Mine (the "Property" or "La Encantada"), which consists of an underground silver producing mine and two processing facilities located in the municipality of Melchor Ocampo, in the State of Coahuila, Mexico. The La Encantada Silver Mine is owned and operated by Minera La Encantada S.A de C.V. ("MLE"), which is a wholly-owned indirect subsidiary of First Majestic Silver Corp. held through its Mexican holding company, Corporación First Majestic, S.A. de C.V.

The Property is comprised of 22 mining exploitation concessions covering 4,076 hectares (10,072 acres). The rights on all of the concessions expire after 2030 but they can be extended for an additional 50-year period beyond their current expiry dates. Additionally, First Majestic owns land surface rights through purchase, covering a total of 2,237 hectares. With the purpose of securing potential water sources, in March, 2015, First Majestic acquired adjacent surface rights covering an additional 19,114 hectares.

1.2 Geology and Mineralization

La Encantada is located within the Sierra Madre Oriental physiographic province which consists of a thick sequence of calcareous rocks of Jurassic-Cretaceous age. The thin skinned Laramide deformation folded and thrusted the carbonate sequence and Eocene-Oligocene magmatism favored the emplacement of stocks and dikes of intermediate to felsic composition mainly along faults and fold axes. The emplacement of the intrusions in the thick carbonate-sequence favored the formation of the La Encantada high-temperature Carbonate Replacement Deposits ("CRD").

Silver mineralization at La Encantada occurs in various deposit styles such as skarn, manto, chimney, breccia pipe and veins. Sulphide mineralization consisting mainly of sphalerite, galena and acanthite occurs deep in the system associated with skarn at the contact with granodiorite whereas a complex mixture of Fe, Zn, Pb, and Mn oxides bearing native silver and acanthite occur distal with respect to the intrusive contact in manto, chimney, breccia pipe and vein deposits. Recent exploration works at La Encantada property show that the potential is open laterally for oxides and at depth for sulphide replacements. In addition, magnetic anomalies within the property suggest the presence of additional intrusion centers that could have developed other high temperature CRD.

1.3 Status of Exploration, Development, and Operations

Exploration at La Encantada employs prospecting, surface and underground mapping, sampling and drilling (underground and surface). First Majestic has determined that the most effective underground exploration practice at La Encantada is a combination of drilling and development due to the complexity of the mineralized bodies.

October 2008 has been selected as the initial cut-off of the drilling information after identifying the relevant drill-holes that support the geological modeling and resources estimation prepared for La Encantada deposits in this Report. Between October 2008 and December 2015, several diamond drilling campaigns have been carried out at La Encantada. Total drilling during the period amounted to 89,426 metres in 591 diamond drill-holes; 68,371 metres were drilled underground in 469 holes and 21,056 metres were drilled on surface in 122 holes. The most important underground areas drilled in this period of time include the NE-trending system of veins (Buenos Aires, Azul y Oro, 990, 990-2, El Regalo and San Francisco dike), the San Javier and Milagros breccias area (San Javier breccia, Milagros breccia, Milagros intrusion and Nucleo), the Ojuelas manto and the skarn dome. Surface drilling has been carried out on the tailings deposits and over geophysical anomalies.

La Encantada is a producing mine, with a crushing and grinding circuit built to a capacity of 3,000 tpd, and a 4,000 tpd capacity cyanidation leaching circuit equipped to process fresh underground ore and old tailings amenable to be reprocessed. The prevailing mining method is overhand cut-and-fill in use for mining the Veins Systems, small mantos and other minor deposits. A variant of inclined caving is being implemented in the San Javier and Milagros Breccias; current development is focused on preparation of this mining method as well as developing some sectors of the Veins System.

1.4 Mineral Resource and Mineral Reserve Estimates

Mineral Resources from La Encantada were classified in order of increasing geological confidence into Inferred, Indicated and Measured categories as defined by the "CIM Definition Standards – For Mineral Resources and Mineral Reserves" in 2014, whose definitions are incorporated by reference into NI 43-101.

Mineral Resources for the Veins System, other minor deposits, the San Javier and Milagros breccias area, and the Tailings Deposit No. 4 have been estimated by First Majestic under the supervision of Jesus Velador, PhD, MMSA.

Estimates for the San Javier and Milagros breccias area are based on exploration results and channel sampling programs from the 2008 to 2014 exploration campaigns and upon geologically constrained block models.

Mineral Resources for the Tailings Deposit No. 4 is based on the 2015 drilling campaign and upon a 3D block model of the deposit.

Mineral Resources for Veins System and other minor deposits have been estimated based on exploration results and chip and channel sampling programs from 2008 to 2015, using the polygonal method to construct longitudinal sections of the vein shoots or deposits.

1.4.1 Mineral Resource Ojuelas area

Mineral Resources for the Ojuelas area have been estimated for First Majestic by Amec Foster Wheeler Americas Limited ("Amec Foster Wheeler") under the supervision of Peter Oshust, P.Geo. The estimates are based on exploration results from the 2014 and 2015 drilling campaigns and upon geologically constrained block models.

1.4.2 Mineral Resource summary

Table 1-1 and Table 1-2 show the consolidated Mineral Resources for La Encantada. The tabulation includes material classified as measured, indicated, and inferred using metal prices of $18.50 USD/oz of silver for the San Javier and Milagros breccias area, Veins System and other minor deposits, $17.50 USD/oz of silver for the Tailings Deposit No. 4, and $19.50 USD/oz of silver and $0.95 USD/lb of lead for the Ojuelas deposit. The Mineral Resources reported herein have an effective date of December 31, 2015. The Mineral Resources reported herein are inclusive of Mineral Reserves.

Table 1-1: La Encantada Silver Mine Consolidated Measured and Indicated Mineral Resources, with an effective date of December 31, 2015
(estimates prepared under the supervision of Jesus M. Velador Beltran, MMSA QP Geology for First Majestic with the exception of Ojuelas deposit which was prepared under the supervision of Peter Oshust, P.Geo., Principal Geologist for Amec Foster Wheeler)

Measured and Indicated Mineral Resources

Area	Category	Mineral Type	k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Ag-Eq (k Oz)
Veins System and other Minor Deposits	Measured (UG)	Oxides	283	267	-	267	2,433	2,433
	Indicated (UG)	Oxides	356	310	-	310	3,549	3,549
	Total Measured and Indicated (UG)	Oxides	639	291	-	291	5,982	5,982
San Javier and Milagros Breccias	Measured (UG)	Oxides	-	-	-	-	-	-
	Indicated (UG)	Oxides	498	290	-	290	4,649	4,649
	Total Measured and Indicated (UG)	Oxides	498	290	-	290	4,649	4,649
Ojuelas	Measured (UG)	Oxides	-	-	-	-	-	-
	Indicated (UG)	Oxides	734	246	4.07	325	5,795	7,662
	Total Measured and Indicated (UG)	Oxides	734	246	4.07	325	5,795	7,662
Tailings Deposit No. 4	Measured (Tailings)	Oxides	-	-	-	-	-	-
	Indicated (Tailings)	Oxides	4,222	110	-	110	14,931	14,931
	Total Measured and Indicated (Tailings)	Oxides	4,222	110	-	110	14,931	14,931

Mine	Category	Mineral Type	k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Ag-Eq (k Oz)
LA ENCANTADA	Measured (UG)	Oxides	283	267	-	267	2,433	2,433
	Indicated (UG)	Oxides	854	299	-	299	8,198	8,198
	Indicated (UG)	Sulphides	734	246	4.07	325	5,795	7,662
	Indicated (Tailings)	Oxides	4,222	110	-	110	14,931	14,931
	Total Measured and Indicated (UG + Tailings)	Oxides	6,093	160	0.49	170	31,357	33,224

(1) Mineral Resources have been classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").
(2) Silver prices considered for all deposits was $18.50 USD/oz, with the exception of Ojuelas which used $19.50 USD/oz Ag and $0.95 USD/lb Pb.
(3) Cut-off grade considered for the Veins System and other minor deposits, and the San Javier and Milagros Breccias was 130 g/t Ag, cut-off grade for Ojuelas was 135 g/t Ag-Eq, and cut-off grade for Tailings Deposit No. 4 was 85 g/t Ag. Cut-off estimates are based on actual and budgeted operating and sustaining costs.
(4) Metallurgical recovery of silver was assumed 58% for the Veins System and other minor deposits and the San Javier and Milagros Breccias.
(5) Metallurgical recovery used for Ojuelas was 67% for silver and 60% for lead.
(6) Metallurgical recovery used for Tailings Deposit No. 4 followed a constant tail approach, which for 85 g/t Ag results in 53% recovery of Ag.
(7) Metal payable used for the Veins System and other minor deposits, the San Javier and Milagros Breccias, and Tailings Deposit No. 4 was 99.6%.
(8) Metal payable used for Ojuelas was 95% for silver and 95% for lead.
(9) Silver equivalent grade for Ojuelas is estimated as:
Ag-Eq = Ag Grade + (Pb Grade x Pb Recovery x Pb Payable x Pb Price x 2204.62) / (Ag Recovery x Ag Payable x Ag Price / 31.1035).
(10) Tonnage is expressed in thousands of tonnes, silver content in thousands of ounces and lead content in thousands of pounds.
(11) Totals may not add up due to rounding.
(12) Measured an Indicated Mineral Resources are reported inclusive or Mineral Reserves.
(13) Mineral Resources estimates for the San Javier and Milagros Breccia, Vein Systems and other minor deposits, and Tailings Deposit No. 4 were prepared under the supervision of Jesus M. Velador Beltran, MMSA QP Geology for First Majestic; estimates for the Ojuelas area were prepared under the supervision of Peter Oshust, P.Geo. of Amec Foster Wheeler Americas Ltd.

Table 1-2: La Encantada Silver Mine Consolidated Inferred Mineral Resources, with an effective date of December 31, 2015

Area	Category	Mineral Type	k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Ag-Eq (k Oz)
Veins System and other Minor Deposits	Inferred (UG)	Oxides	456	285	-	285	4,173	4,173
San Javier and Milagros Breccias	Inferred (UG)	Oxides	415	199	-	199	2,656	2,656
Ojuelas	Inferred (UG)	Oxides - Flotation	35	292	0.78	305	325	340
Mine	**Category**	**Mineral Type**	**k tonnes**	**Ag (g/t)**	**Pb (%)**	**Ag-Eq (g/t)**	**Ag (k Oz)**	**Ag-Eq (k Oz)**
LA ENCANTADA	Inferred (UG)	Oxides	905	246	0.03	246	7,154	7,169

(1) Mineral Resources have been classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").
(2) Silver prices considered for all deposits was $18.50 USD/oz, with the exception of Ojuelas which used $19.50 USD/oz Ag and $0.95 USD/lb Pb.
(3) Cut-off grade considered for the Veins System and other minor deposits, and the San Javier and Milagros Breccias was 130 g/t Ag, cut-off grade for Ojuelas was 135 g/t Ag-Eq, and cut-off grade for Tailings Deposit No. 4 was 85 g/t Ag. Cut-off estimates are based on actual and budgeted operating and sustaining costs.
(4) Metallurgical recovery of silver was assumed 58% for the Veins System and other minor deposits and the San Javier and Milagros Breccias.
(5) Metallurgical recovery used for Ojuelas was 67% for silver and 60% for lead.
(6) Metallurgical recovery used for Tailings Deposit No. 4 followed a constant tail approach, which for 85 g/t Ag results in 53% recovery of Ag.
(7) Metal payable used for the Veins System and other minor deposits, the San Javier and Milagros Breccias, and Tailings Deposit No. 4 was 99.6%.
(8) Metal payable used for Ojuelas was 95% for silver and 95% for lead.
(9) Silver equivalent grade for Ojuelas is estimated as:
Ag-Eq = Ag Grade + (Pb Grade x Pb Recovery x Pb Payable x Pb Price x 2204.62) / (Ag Recovery x Ag Payable x Ag Price / 31.1035).
(10) Tonnage is expressed in thousands of tonnes, silver content in thousands of ounces and lead content in thousands of pounds.
(11) Totals may not add up due to rounding.
(12) Mineral Resources estimates for the San Javier and Milagros Breccia, Vein Systems and other minor deposits, and Tailings Deposit No. 4 were prepared under the supervision of Jesus M. Velador Beltran, MMSA QP Geology for First Majestic; estimates for the Ojuelas area were prepared under the supervision of Peter Oshust, P.Geo. of Amec Foster Wheeler Americas Ltd.

1.4.3 Mineral Reserves summary

MLE has all necessary permits for current mining and processing operations, including an operating license, a water use permit, an Environmental Impact Authorization ("EIA") for the La Encantada underground mine and two processing plants, and for the operation and expansion of tailings management facilities.

Mineral Reserves are the economically mineable portion of the Measured or Indicated Mineral Resources. Mineral Reserves were estimated by First Majestic under the supervision and review of Ramon Mendoza Reyes, P.Eng., Vice President, Technical Services of First Majestic, who is a Qualified Person as that term is defined by NI 43-101.

Mineral Reserves are estimated after applying modifying factors to the mineable areas. The modifying factors considered in La Encantada mine and the Ojuelas project include: dilution, stoping extraction factors, and mining losses, referred to in this Technical Report as mining recovery. Mineral Reserves for La Encantada as of December 31, 2015, comprise of material classified as Proven and Probable Reserves using metal prices of $17.50 USD/oz of silver for the San Javier and Milagros breccias area, Veins System and other minor deposits, and for the Tailings Deposit No. 4; and $18.00 USD/oz of silver and $0.90 USD/lb of lead for the Ojuelas deposit. Table 1-3 shows the Mineral Reserves for La Encantada as of December 31, 2015.

Table 1-3: La Encantada Silver Mine Consolidated Mineral Reserves, with an effective date of December 31, 2015.
(estimates prepared under the supervision of Ramon Mendoza Reyes, P.Eng. QP Mining for First Majestic)

Area	Category	Material Type	k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Ag-Eq (k Oz)
Veins System and other Minor Deposits	Proven (UG)	Oxides	251	247	-	247	1,991	1,991
	Probable (UG)	Oxides	389	274	-	274	3,427	3,427
	Total Proven and Probable (UG)	Oxides	639	264	-	264	5,419	5,419
San Javier and Milagros Breccias	Proven (UG)	Oxides	-	-	-	-	-	-
	Probable (UG)	Oxides	1,084	192	-	192	6,693	6,693
	Total Proven and Probable (UG)	Oxides	1,084	192	-	192	6,693	6,693
Ojuelas	Proven (UG)	Oxides - Flotation	-	-	-	-	-	-
	Probable (UG)	Oxides - Flotation	809	147	2.35	196	3,817	5,093
	Total Proven and Probable (UG)	Oxides - Flotation	809	147	2.35	196	3,817	5,093
Tailings Deposit No. 4	Proven (Tailings)	Oxides	-	-	-	-	-	-
	Probable (Tailings)	Oxides	4,138	110	-	110	14,633	14,633
	Total Proven and Probable (Tailings)	Oxides	4,138	110	-	110	14,633	14,633

Mine	Category	Mineral Type	k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Ag-Eq (k Oz)
LA ENCANTADA	Proven (UG)	Oxides	251	247	-	247	1,991	1,991
	Probable (UG)	Oxides	1,473	214	-	214	10,120	10,120
	Probable (UG)	Oxides - Flotation	809	147	2.35	196	3,817	5,093
	Probable (Tailings)	Tailings	4,138	110	-	110	14,633	14,633
	Total Proven and Probable (UG)	All Material	6,670	143	0.29	148	30,561	31,837

(1) Mineral Reserves have been classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").
(2) Metal prices considered for Vein System and other minor deposits, San Javier and Milagros Breccias and Tailings Deposit No. 4 was $17.50 USD/oz Ag, and for Ojuelas were $18.00 USD/oz Ag, $0.90 USD/lb Pb.
(3) Cut-off grade considered for the Veins System and other minor deposits, and the San Javier and Milagros Breccias was 140 g/t Ag and is based on actual and estimated operating and sustaining costs.
(4) Cut-off considered for Ojuelas was a NSR $53.91/t and is based on estimated operating cost, sustaining costs and the production schedule ran in PCBC.
(5) Cut-off grade considered for Tailings Deposit No. 4 was 85 g/t Ag and is based on estimated operating cost and sustaining costs.
(6) Silver metallurgical recovery used was 58% for the Veins System and other minor deposits, and the San Javier and Milagros Breccias.
(7) Metallurgical recovery used for Ojuelas was 67% for silver and 60% for lead.
(8) Metallurgical recovery used for Tailings Deposit No. 4 followed a constant tail approach, which for 85 g/t Ag results in 53% recovery of Ag.
(9) Metal payable used for the Veins System and other minor deposits, the San Javier and Milagros Breccias and Tailings Deposit No. 4 was 99.6%.
(10) Metal payable used for Ojuelas was 95% for silver and 95% for lead.
(11) Silver equivalent grade is estimated as:
Ag-Eq = Ag Grade + [(Pb Grade x Pb Recovery x Pb Payable x Pb Price x 2204.62)] / (Ag Recovery x Ag Payable x Ag Price / 31.1035).
(12) Dilution for Veins System and other minor deposits was estimated at 15%, dilution for San Javier and Milagros Breccias was estimated at 40%, dilution for Ojuleas was estimated at 20% and dilution for Tailing Deposit No. 4 was estimated at 3%.
(13) Tonnage is expressed in thousands of tonnes, metal content is expressed in thousands of ounces.
(14) Totals may not add up due to rounding.
(15) Mineral Reserves estimates were prepared under supervision of Ramon Mendoza Reyes, P.Eng. QP Mining for First Majestic.

1.5 Conclusions and Recommendations

First Majestic has been operating La Encantada since November, 2006, and currently processes 3,000 tpd. In 2014, the Company processed a total of 721 k tonnes of ore with average silver head grade of 282 g/t, and produced a total 3.71 M ounces of silver. In 2015, the Company processed a total of 852 k tonnes of ore with average silver head grade of 161 g/t, and produced a total 2.53 M ounces of silver.

Between 2008 and 2015, First Majestic drilled 89,426 metres in 591 diamond drill-holes. Most of the drilling during 2015 has been focused on infill and delineation of known mineralization as well as definition of the mineral resource of the Ojuelas area.

Mineral Resources for the San Javier and Milagros breccias area have been estimated by First Majestic on geologically constrained block models. Mineral Resources for the Vein Systems areas have been estimated by First Majestic using polygonal methods. Mineral Resources for the Tailings Deposit No. 4 have been estimated by First Majestic using a surveyed 3D model of the deposit and its corresponding block model.

Mineral Resources for the Ojuelas area have been estimated for First Majestic by Amec Foster Wheeler under the supervision of Peter Oshust, P.Geo., upon geologically constrained block models.

MLE has all necessary permits for current mining and processing operations. Mineral Resources reported herein are inclusive of Mineral Reserves. Mineral Reserves were estimated after incorporating modifying factors, such as dilution and extraction factors, to the mineable blocks. Mineral Reserves were estimated by First Majestic under the supervision and review of Ramon Mendoza Reyes, P.Eng.

Recommendations include: improvements to the resource estimates of the known deposits, exploration potential in La Encantada, development of the Ojuelas deposit and improvement to the roasting/cyanidation processing of the Tailings Deposit No. 4. For more details on these recommendations, refer to Section 26 of this report.

2 Introduction

2.1 Technical Report Issuer

The La Encantada Silver Mine ("La Encantada") is owned and operated by Minera La Encantada S.A de C.V. ("MLE") which is an indirect wholly owned subsidiary of First Majestic Silver Corp. ("First Majestic"). First Majestic acquired control of the La Encantada Silver Mine through the acquisition of all of the issued and outstanding common shares of Desmin S.A. de C.V. ("Desmin") on November 1, 2006, followed by the 100% acquisition of Minera La Encantada, S.A. de C.V. from Penoles in March 2007.

First Majestic is a publicly listed company incorporated in Canada with limited liability under the legislation of the Province of British Columbia. The Company is in the business of silver production, development, exploration, and acquisition of mineral properties with a focus on silver production in Mexico. The Company's shares trade on the New York Stock Exchange under the symbol "AG", on the Toronto Stock Exchange under the symbol "FR", on the Frankfurt Stock Exchange under the symbol "FMV", and on the Mexican Stock Exchange under the symbol "AG".

The La Encantada Silver Mine comprises an operating underground mine, two processing plants and five tailings management facilities.

2.2 Terms of Reference

This Technical Report was prepared by First Majestic in accordance with the disclosure requirements of NI 43-101 to release technical information about the La Encantada Silver Mine, its current operating conditions, and updated estimates of Mineral Resources and Mineral Reserves.

In general, information that required updating from previous technical reports, included most of the information related to:

- the Processing Plant No. 2 which includes a cyanidation circuit where all of the mill feed is currently processed;
- the mine plans for San Javier Breccia, Milagros Breccia and Ojuelas, which are based on variants of caving mining methods for extraction of the mineralized material;
- the potential to re-process material from the Tailings Deposit No. 4, using a chlorination roasting preparation and a subsequent agitated cyanidation stage that allows the recovery of some of the manganese encapsulated silver; as well as,

- the potential reconditioning of the flotation circuit in processing Plant No. 1 for the recovery of silver and lead contained in the Ojuelas deposit.

The effective date of this Technical Report is December 31, 2015 which represents the cut-off date for the scientific and technical information used in the Report. The effective date of the Mineral Resources and Mineral Reserves estimates included in this Technical Report is December 31, 2015.

2.3 Sources of Information

For the purposes of the Technical Report, all information, data, and figures contained or used in its integration have been provided by First Majestic, unless otherwise stated. Portions of the general information and geology descriptions from previous reports were suitable for inclusion in the Report. See also Section 27 of this Technical Report for references.

The Mineral Resource estimates for the Veins System and other minor deposits, San Javier and Milagros breccias area, and Tailings Deposit No. 4 were prepared by First Majestic. The Mineral Resource estimate for the Ojuelas area was prepared by Amec Foster Wheeler. The Mineral Reserves estimates for all areas were prepared under the supervision of First Majestic.

Previously filed technical reports and studies on the Property include the following:

- *Technical Report for the La Encantada Silver Mine, Coahuila State, México, amended and restated February 26, 2009*. Prepared for First Majestic Silver by Richard Addison, PE and Leonel Lopez, CPG of Pincock, Allen & Holt (the “2009 Technical Report”).
- *Technical Report for the La Encantada Silver Mine, Coahuila State, México, dated July 24, 2007*. Prepared for First Majestic Silver by Richard Addison, PE, and Leonel Lopez, CPG, of Pincock, Allen & Holt (the “2007 Technical Report”).

The Property’s infill and delineation drilling program is ongoing as of the effective date of the Report. Where applicable, results received to date from this recent drilling activity have generally corroborated the updated resource models.

2.4 Qualified Persons and Site Visits

This Technical Report has been prepared by employees of First Majestic under the supervision of Ramon Mendoza Reyes, P.Eng. Vice President of Technical Services, Jesus M. Velador Beltran, PhD, MMSA QP Geology, Director of Exploration, and Maria E. Vazquez Jaimes, P.Geo., Geological Database Manager. The Mineral Resource estimate for the Ojuelas area was prepared by Amec Foster Wheeler under the supervision of Peter Oshust, P.Geo.

Table 2-1 below shows the list of Qualified Persons contributing to the listed sections of the Report, their affiliation and area of expertise and the dates of the relevant site visits to the Property.

Table 2-1: List of Qualified Persons

Author	Company	Area of Expertise	Sections Responsibility	Site Visits
Ramon Mendoza Reyes	First Majestic	Mining, Reserve estimates	Sections 1, 2, 3, 5, 6, 13, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25.5, 25.6, 26.6, 26.7 and 27	Several occasions during 2014 and 2015. Most recent inspection on June 24 to 26, 2015
Jesus M. Velador Beltran	First Majestic	Geology Exploration	Sections 4, 7, 8, 9, 10, 14.1 to 14.5, 23, 25.1, 25.2, 25.3, 26.1, 26.2, 26.3 and 26.5	Several occasions during 2013, 2014 and 2015. Most recent inspection on November 2 to 3, 2015
Maria E. Vazquez Jaimes	First Majestic	Database Management	Sections 11 and 12	Several occasions during 2013, 2014 and 2015. Most recent inspection on August 18 to 21, 2015
Peter Oshust	Amec Foster Wheeler	Resource modeling, Resource estimates	Sub-sections 1.4, 1.5, 2.4.2, 14.6, 25.4, 26.4, and 26.5.1	Mr. Oshust has not visited the property. Amec Foster Wheeler geological personnel have visited the property several times since 2013, the most recent between June 24 and 26, 2015.

2.4.1 First Majestic Employees Site Visits

Mr. Ramon Mendoza visited the La Encantada property on several occasions during 2014 and 2015; during these visits he coordinated the integration of information for Mineral Resource and Mineral Reserves estimates. Information including but not limited to: mining methods, productivity, operating and capital costs, metallurgical investigations and metallurgical recoveries. During the most recent visit on the June 24 and 26, 2015, he supervised the geotechnical assessment of the Ojuelas, and San Javier and Milagros breccias area as part of the design process, and reviewed the production depletion estimates of all the operating areas of the La Encantada mine.

Mr. Jesus Velador visited the La Encantada property on several occasions during 2013, 2014 and 2015. During these visits, he reviewed and coordinated drilling, core logging, interpretation and integration of data for geological modeling, and Mineral Resource estimates. During the most recent visits on July 2 to 6, 2015 and November 2 to 3, 2015, he conducted field visits to the Ojuelas exploration drilling sites, the 535 cross cut in the Ojuelas deposit, and the San Javier and Milagros breccias area, and he inspected drill core from Ojuelas with special emphasis on mineralization, alteration, structures and paragenesis.

Ms. Maria Elena Vazquez visited the site on several occasions from December 2013 to August 2015, conducting database audits and observing exploration practices to support mineral resource estimates. During the most recent visit, between August 18 and 21, 2015 she carried out data verification and observed ongoing exploration practices including quality control procedures.

2.4.2 Amec Foster Wheeler Site Visits

An Amec Foster Wheeler Principal Geologist visited the property between June 24 to 26, 2015. During this visit he reviewed drilling, logging, and sampling procedures, and assay quality control procedures. While at site he also reviewed several drill core intersections of the Ojuelas deposit, and observed the Ojuelas mantos mineralization in underground workings.

2.5 Units and Currency and Abbreviations

Units of measurement are metric. All costs are expressed in United States dollars unless otherwise noted. Only common and standard abbreviations were used wherever possible. A list of abbreviations used is as follows:

Distances:	mm – millimetre
	cm – centimetre
	m – metre
	km – kilometre
	masl – metres above sea level
Areas:	m^2 – square metre
	ha – hectare
	km^2 – square kilometre
Weights:	oz – troy ounces
	k oz – 1,000 troy ounces
	lb - pound

	g – grams
	kg – kilograms
	t – tonne (1,000 kg)
	kt – 1,000 tonnes
	Mt – 1,000,000 tonnes
Time:	min – minute
	hr – hour
	op hr – operating hour
	d – day
	yr – year
Volume/Flow:	m^3– cubic metre
	m^3/hr – cubic metres per hour
	cu yd – cubic yards
Assay/Grade:	g/t – grams per tonne
	g/L – grams per litre
	ppm – parts per million
	ppb - parts per billion
Currency:	$ - United States dollar
Other:	tpd – tonnes per day
	ktpd – 1,000 tonnes per day
	Mtpa - 1,000,000 tonnes per year
	kW – kilowatt
	MW – megawatt
	kVA – kilovolt-ampere
	MVA – Megavolt-ampere
	kWh – kilowatt hour
	MWh – megawatt hour
	°C – degrees Celsius
	Ag – silver
	Au – gold
	Pb – lead
	Zn – zinc
	Cu – copper
	Mn - manganese
	Ag-Eq – silver equivalent

3 Reliance on Other Experts

First Majestic qualified persons' opinion contained herein is based on information provided to them by other First Majestic employees and consultants. The qualified persons used their experience to guide and supervise the work performed for the integration of this information, and to determine if the information was suitable for inclusion in the Report.

Peter Oshust of Amec Foster Wheeler has fully relied upon, and disclaims responsibility for information regarding environmental, permitting, legal, title, taxation, socio-economic, marketing and political factors provided through by First Majestic's experts through the following document: Letter from Rafael Araujo Esquivel on Mining Concessions and Surface Agreements status dated November 30, 2015.

Information in this document has been used in Section 14 of the Report in consideration of factors that might materially affect the Ojuelas Mineral Resource estimate.

4 Property Description and Location

4.1 Property Location

The La Encantada Silver Mine is a producing mine located in the north western portion of the State of Coahuila, in northern México in the municipality of Villa de Ocampo, in the State of Coahuila, Mexico; approximately 120 kilometres east from the city of Melchor Múzquiz, Coahuila and approximately 120 kilometres north from the town of Ocampo, Coahuila. The mine is located in the northern part of the Sierra Madre Oriental physiographic province, where the elevations vary from 1,000 metres above sea-level on the lower valleys, to over 3,500 metres above sea-level in the highest ranges. Mountain ranges in the area are generally oriented north-west. La Encantada lies within a region of desert climate with meteoric water precipitation ranging between 10 millimetres and 20 millimetres per year.

Access to the mine is primarily by charter airplane from Durango city (about two hours flying time), or from the city of Torreón, Coahuila (about 1:15 hours flying time). The Company operates its own private airstrip at the La Encantada mine. The airstrip is paved, 1,200 metres long by 17 metres wide, and located at 1,300 metres above sea-level. Driving time from the city of Melchor Múzquiz is approximately 2.5 hours by asphalt road, about five hours from the town of Ocampo and about eight hours from the international airport in Torreón city (Figure 4-1).

The mine portal is located at approximately 102°32’10”W Longitude and 28°22’13”N Latitude, at an elevation of approximately 1,775 metres above sea-level. The processing Plant No. 1 is located at 102° 34' 26" W and 28° 22' 11" N, at an elevation of 1640 metres above sea-level. The processing Plant No. 2 is located at 102° 33' 40" W and 28° 21' 34" N, at an elevation of 1,745 metres above sea-level.

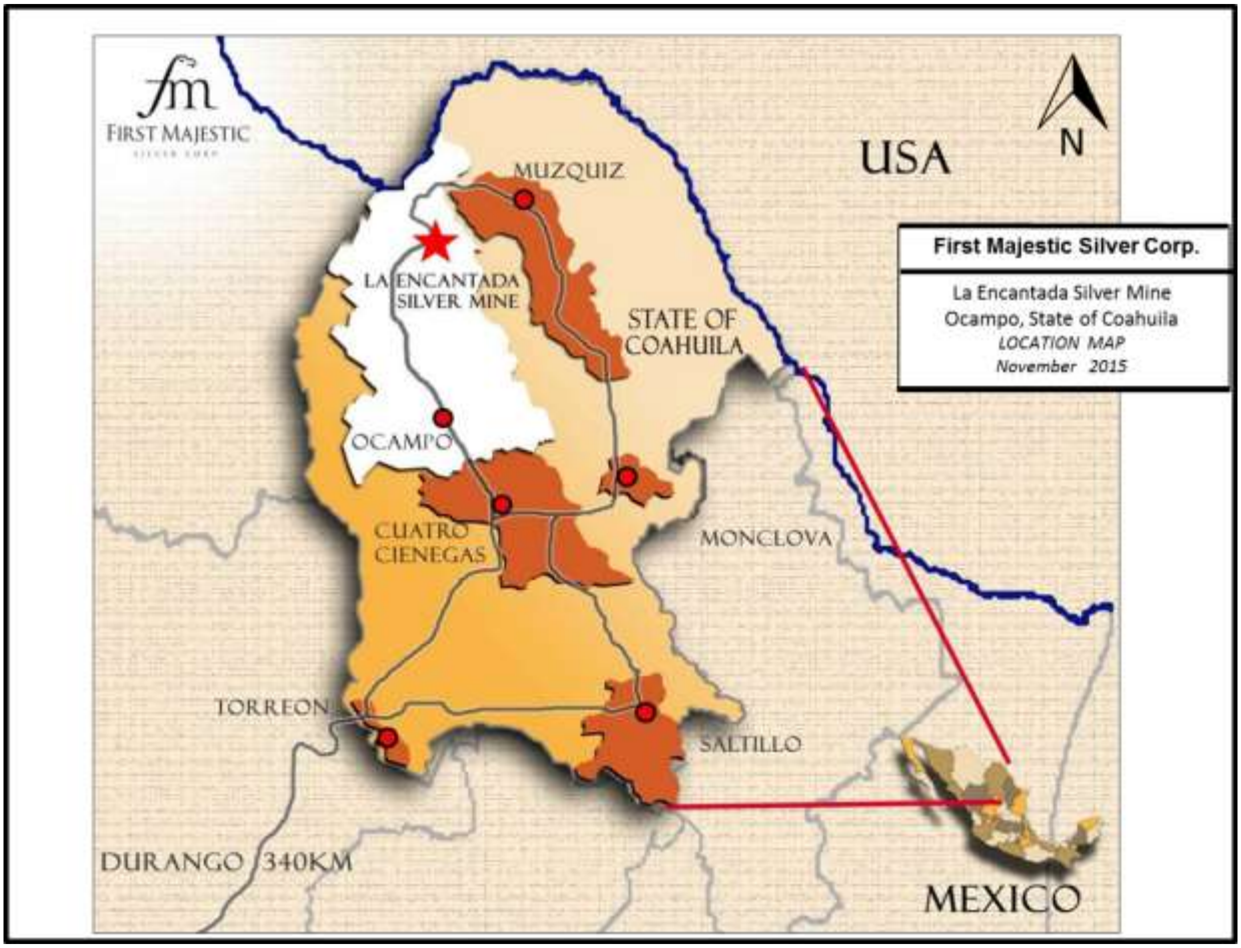


Figure 4-1: Location map of La Encantada Silver Mine

4.2 Mining Concessions

In Mexico, mining concessions are granted by the Economy Ministry, and these are considered exploitation concessions with a 50-year term. Mining concessions have an annual minimum investment to complete, and an annual mining rights fee to be paid to keep the concessions effective. Valid mining concessions can be renewed for an additional 50-year term as long as the mine is active. According to Mr. Rafael Araujo, technical representative for First Majestic (Perito Minero), all 22 concessions are currently in good standing. Of the La Encantada concessions, the oldest were granted in 1983 and the most recent in 2007. Table 4-1 shows a detailed list of the concessions with covered surface and current expiration dates. There are no royalties in effect over First Majestic's concessions at La Encantada.

The Property is comprised of 22 exploitation concessions covering 4,076 hectares (10,072 acres), which are operated and owned by Minera La Encantada. All of the mining concessions are located within the Municipality of Villa de Ocampo (Figure 4-2).

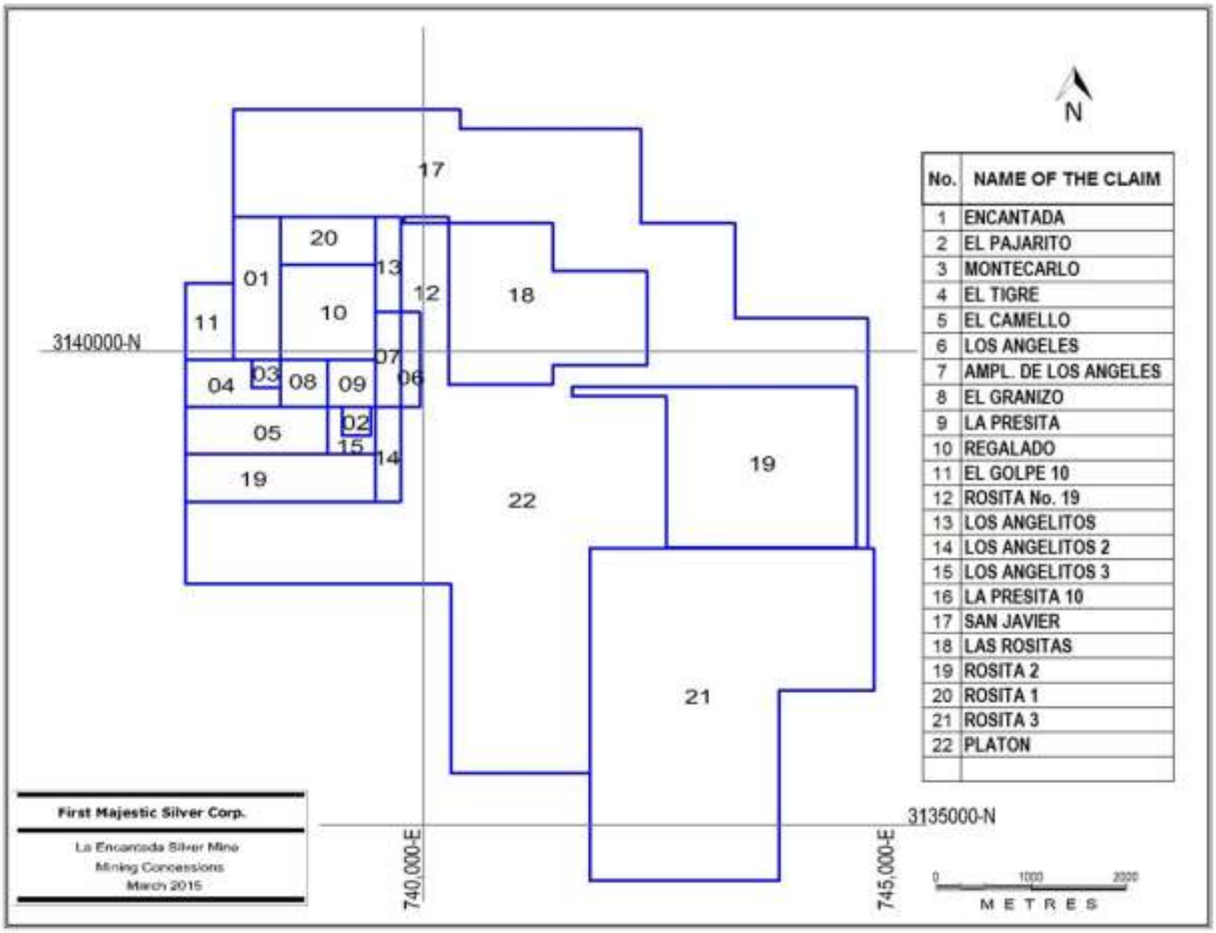


Figure 4-2: Minera La Encantada Mining Concessions

Table 4-1: List of Minera La Encantada Mining Concessions

No.	Mining Concession	Title	Expiry Date	Surface Hectares	Status
1	ENCANTADA	143943	26-Aug-65	75	Valid
2	EL PAJARITO	167061	28-Aug-30	9	Valid
3	MONTECARLO	167062	28-Aug-30	9	Valid
4	EL TIGRE	167065	28-Aug-30	41	Valid
5	EL CAMELLO	167066	28-Aug-30	75	Valid
6	LOS ANGELES	167067	28-Aug-30	20	Valid
7	AMPL. DE LOS ANGELES	167068	28-Aug-30	27.23	Valid
8	EL GRANIZO	167069	28-Aug-30	25	Valid
9	LA PRESITA	167070	28-Aug-30	25	Valid
10	REGALADO	167071	28-Aug-30	100	Valid
11	EL GOLPE 10	178385	6-Aug-36	40	Valid
12	ROSITA No. 19	189752	5-Dec-40	79.9525	Valid
13	LOS ANGELITOS	189758	5-Dec-40	27.23	Valid
14	LOS ANGELITOS 2	189759	5-Dec-40	27.23	Valid
15	LOS ANGELITOS 3	190341	5-Dec-40	16	Valid
16	LA PRESITA 10	194878	29-Jul-42	100	Valid
17	SAN JAVIER	217855	26-Aug-52	3.0227	Valid
18	LAS ROSITAS	227288	1-Jun-56	287	Valid
19	ROSITA 2	230228	1-Aug-57	350	Valid
20	ROSITA 1	232026	9-Jun-58	50	Valid
21	ROSITA 3	232027	9-Jun-58	850	Valid
22	PLATON	232832	29-Oct-58	1839.2696	Valid

4.3 Surface Rights

Surface rights in the area of the mining concessions are held both privately and through group ownership either as communal lands, or Ejido lands.

According to deeds, MLE owns surface rights covering 2,237 hectares on the “Canon del Regalado” properties. These properties were acquired by the previous owner of MLE from a third party. This surface covers the following features: access to the mining complex, mine portals, grinding mill and flotation plant (Plant No. 1), cyanidation plant (Plant No. 2), tailings management facilities, the mine camp, offices, and an airstrip.

In 2011, Ejido Tenochtitlan, an MLE neighbor, initiated a lawsuit against MLE claiming to own a portion of the above property covering 1,097 hectares. This lawsuit is on-going and both parties have presented exhibits in court. Based on the legitimate land titles and exhibits needed to defend the rights, MLE is expecting a favourable outcome and to retain ownership of the total surface rights of 2,237 hectares. Should Ejido Tenochtitlan obtain a resolution in their favour, negotiations will be needed for compensation of the 1,097 hectares. The first of three trial instance sentences is expected within three to six months, and the duration of this trial is estimated at approximately two to three years before a final court judgement is reached.

MLE also holds 19,114 hectares of surface rights, “Cielo Norteno” or “Rancho El Granizo” property to the North-East of the mine covering an area with water rights. Figure 4-3 shows the map of La Encantada Surface Rights.

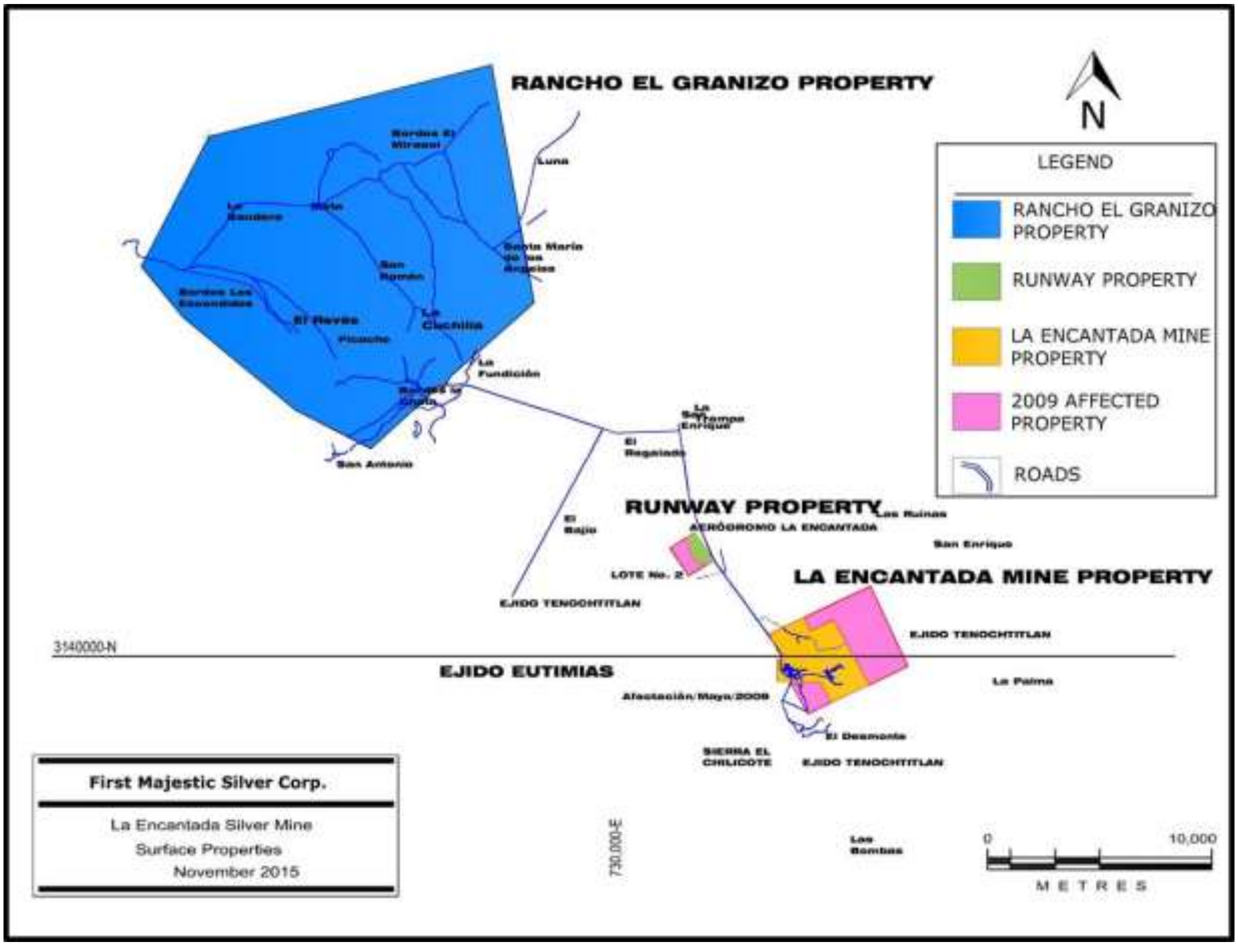


Figure 4-3: Map of Minera La Encantada Surface Rights

4.4 Permits and Other Liabilities

MLE has all necessary permits for current mining and processing operations, including an operating license, a mine water use permit, an Environmental Impact Authorization ("EIA") for the La Encantada mine, processing plants and tailings management facilities, and a permit for power generation.

Also included is a recently obtained EIA for the expansion and operation of the crushing and grinding facilities known as Plant No. 1.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

Access to the mine is primarily by charter airplane from Durango city (about two hours flying time), or from Torreón city (about 1:15 hours flying time). The Company operates its own private airstrip at the La Encantada mine. The airstrip is paved, 1,200 metres long by 17 metres wide, and located at 1,300 metres above sea-level. Driving time from the city of Múzquiz is approximately 2.5 hours, and about four to five hours from the city of Ocampo. The mine is able to be accessed and operate all-year round.

5.2 Climate

Climate at La Encantada is semi-hot and dry desert. Annual average temperatures range from 10°C to 22°C, with a high of 30°C and a low of 2°C. Days with recorded freezing temperature range from 20 to 40 days during the year. Annual average rainfall varies from 10 millimetres to 400 millimetres with most of the rain occurring during the summer months in short rainstorms. Predominant winds are from the north-east.

5.3 Local Resources and Infrastructure

La Encantada's remote location has required the construction of substantial infrastructure, which has been developed during a long period of active operation by the mine's previous owners, Peñoles and Compañía Minera Los Angeles. La Encantada consists of 180 houses for accommodation of employees, offices, warehouses, a recreational club, restaurants, three guest houses, a school, a church, a hospital, water wells and an airstrip.

Power supply to the mine, processing facilities and camp site is from diesel and natural gas generators provided by First Majestic. Drinkable water supply is also provided by First Majestic. First Majestic has installed a satellite communication system with internet telephone. Hand held radios are carried by supervisors, managers and vehicle operators for communication. Most of the supplies and labour required for the operation are sourced from the city of Múzquiz, Coahuila, or directly from suppliers.

5.4 Physiography

The La Encantada mine is located on a mountain range that corresponds to a symmetrical anticline (La Encantada range). The La Encantada mountain range runs for about 45 kilometres in the NW-SE direction, and has elevations that vary from about 1,500 metres to over 2,400 metres. The range is affected by a regional NW trending normal fault zone (La Encantada – Norias fault) that puts into contact the Aurora (Albian) and the Georgetown (Upper Albian) Formations. The area is also affected by a series of subsidiary NW and NE trending faults.

6 History

Historical information on exploration activities is presented in Section 9 and 10 of this report.

6.1 Mining in La Encantada through 2006

Exploration activities in La Encantada area were initiated in 1956 by the Mexican company Compañía Minera Los Angeles, S.A. de C.V. In 1956, the San José and Guadalupe deposits located to the north of the La Escondida breccia pipe deposit were discovered and developed, and the underground operation was known as El Plomo mine. At the end of that year, the San Francisco Vein was discovered, and a year later mining workings commenced in the 800, El Socorro and 8 de Enero ore bodies. In 1963, the most productive ore deposit, La Prieta was discovered along with the mineralized area of San Javier.

In 1967, Peñoles and Tormex established a joint venture partnership (Minera La Encantada) to acquire and develop the La Encantada project. A magnetic-separation plant was installed in July, 1973 and replaced five years later by a flotation processing plant. At the same time, the 660 ore body and the high-grade manto zones between 635 and 710 levels were discovered as part of ore deposits such as chimneys, contact irregular bodies, mantos and vein-type deposits.

In July, 2004, Peñoles awarded a contract to operate the La Encantada mine, including the processing plant, and all mine infrastructure facilities to the private Mexican company Desmín, S.A. de C.V ("Desmin"). Desmin operated the mine and processing plant at a 25 percent capacity until November 1, 2006 when First Majestic purchased all of the outstanding shares of Desmin. Subsequently, First Majestic reached an agreement to acquire all of the outstanding shares of Minera La Encantada from Peñoles.

6.2 Corporate History

The terms of the agreement between First Majestic and Peñoles included royalty payments to Peñoles of up to 11 percent on the net smelter return, except for production from the concessions of San Javier and Las Rositas. First Majestic purchased the royalty from Peñoles in 2007. First Majestic is now the sole owner of the La Encantada Silver Mine and all its assets, including mineral rights, surface rights position, water rights, processing plants and ancillary facilities.

From November, 2006 to June, 2010, First Majestic operated the 1,000 tpd flotation plant which was refurbished after the purchase of Desmin in order for the La Encantada to achieve designed throughput. All production during this period was from the flotation plant and was in the form of a lead-silver concentrate.

6.3 First Majestic 2009 Expansion

Shortly after acquiring the La Encantada Silver Mine, First Majestic commenced a plan to construct a cyanidation plant with a capacity of 3,750 tpd. Construction of the cyanidation plant commenced in July, 2008 and was inaugurated on November 18, 2009. Commissioning of this facility commenced at that time, resulting in commercial production being achieved on April 1, 2010. Full production capacity was reached in the fourth quarter of 2010. During 2011, several modifications were made to the cyanidation plant increasing its capacity to 4,000 tpd. Commencing in November, 2009, the cyanidation plant began producing precipitates and silver doré bars. The flotation circuit was placed in care-and-maintenance in June, 2010, except for the crushing and grinding areas, which remain in operation. Since that time, the La Encantada operation has been producing only doré bars.

During the period of 2010 to 2013, First Majestic processed a blend of fresh ore from the underground and old tailings deposited from the flotation circuit. The highest throughput was registered during 2012, when the plant processed an average of 1,400 tpd of fresh ore plus 2,800 tpd of old tailings, with monthly peaks reaching 4,600 tpd of total plant feed. Starting in 2014, silver market price conditions precluded the re-processing of tailings, and only production from underground workings was fed to the mill and the cyanidation plant.

6.4 First Majestic 2015 Expansion

In December, 2014, First Majestic began a plant expansion initiative to bring the crushing and grinding capacity to 3,000 tpd. A new ball mill, a tertiary crusher, two vibrating screens and a series of conveyor belts were installed over a period of six months. The plant expansion was completed by the end of May 2015 allowing for the ramp up to 3,000 tpd in July 2015. At the same time, mine developments in the San Javier breccia, Milagros breccia, and 310 ore body were initiated to prepare these new production areas to implement a variant of a caving mining method, which is typically a low-cost, bulk mining method used in large tonnage deposits.

6.5 Modern Mining Production Statistics

Mine production figures in tonnes since 2007 are presented in Figure 6-1 and silver metal produced is shown in Figure 6-2.

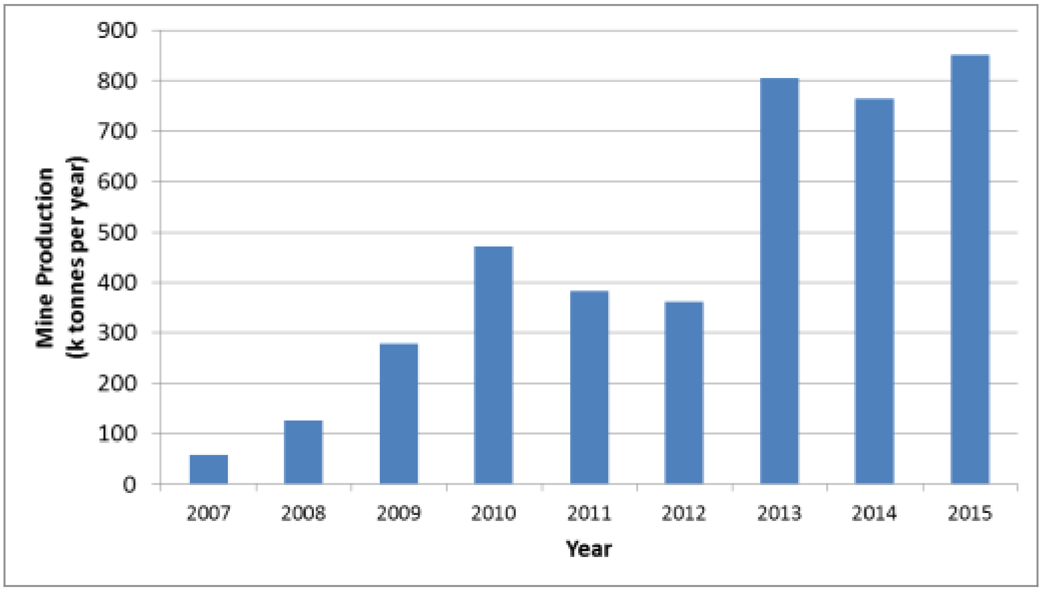


Figure 6-1: Mine production since 2007

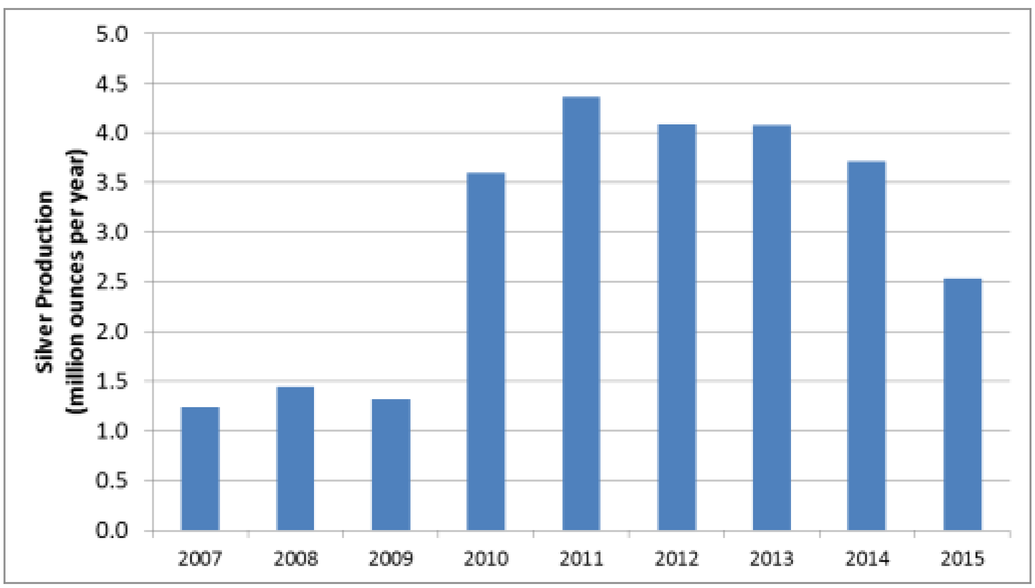


Figure 6-2: Silver production since 2007

7 Geological Setting and Mineralization

The following interpretations regarding the regional and local geology are based on internal reports, published documents, thesis and work done by First Majestic geologists. The La Encantada property consists of vein, manto, breccia pipe and chimney deposits with concentrations of silver, lead, iron and zinc in oxidized mineralization, enclosed by calcareous sedimentary formations of Cretaceous age. Additionally, at deeper levels, there is sulphide mineralization in skarn with zinc and silver concentrations associated with a granodiorite intrusion.

7.1 Regional Geology and Stratigraphy

The La Encantada property is located in the Sierra La Encantada, a NW-trending mountain range, located in the northern part of Coahuila within the Sierra Madre Oriental fold and thrust belt. The Sierra Madre Oriental extends in a south-southeasterly direction for about 1,500 km, between longitudes 101°W and 108°W from the U.S.-Mexican border in the north to approximately latitude 20°N in the south. In Coahuila, the Sierra Madre Oriental encompasses wide flat alluvial plains separated by long thin N-S to WNW-trending ranges. Further discussions about the Sierra Madre Oriental province in this report will be restricted to the Coahuila state unless otherwise stated.

There are two models for the tectonic and stratigraphic history of the basement in Mexico, which divide the basement into a mosaic of tectono-stratigraphic terranes bounded by mapped and/or interpreted shears or sutures. The names of Coahuila and Coahuiltecano terrane were proposed by Campa and Coney (1983) and Sedlock et al. (1993), respectively, for the Paleozoic basement of the northeastern portion of Mexico beneath most of Coahuila, Nuevo Leon and Tamaulipas. Figure 7-1 shows the Sierra Madre Oriental province and the Coahuiltecano terrane and other terranes of Mexico as defined by Sedlock et al. (1993).

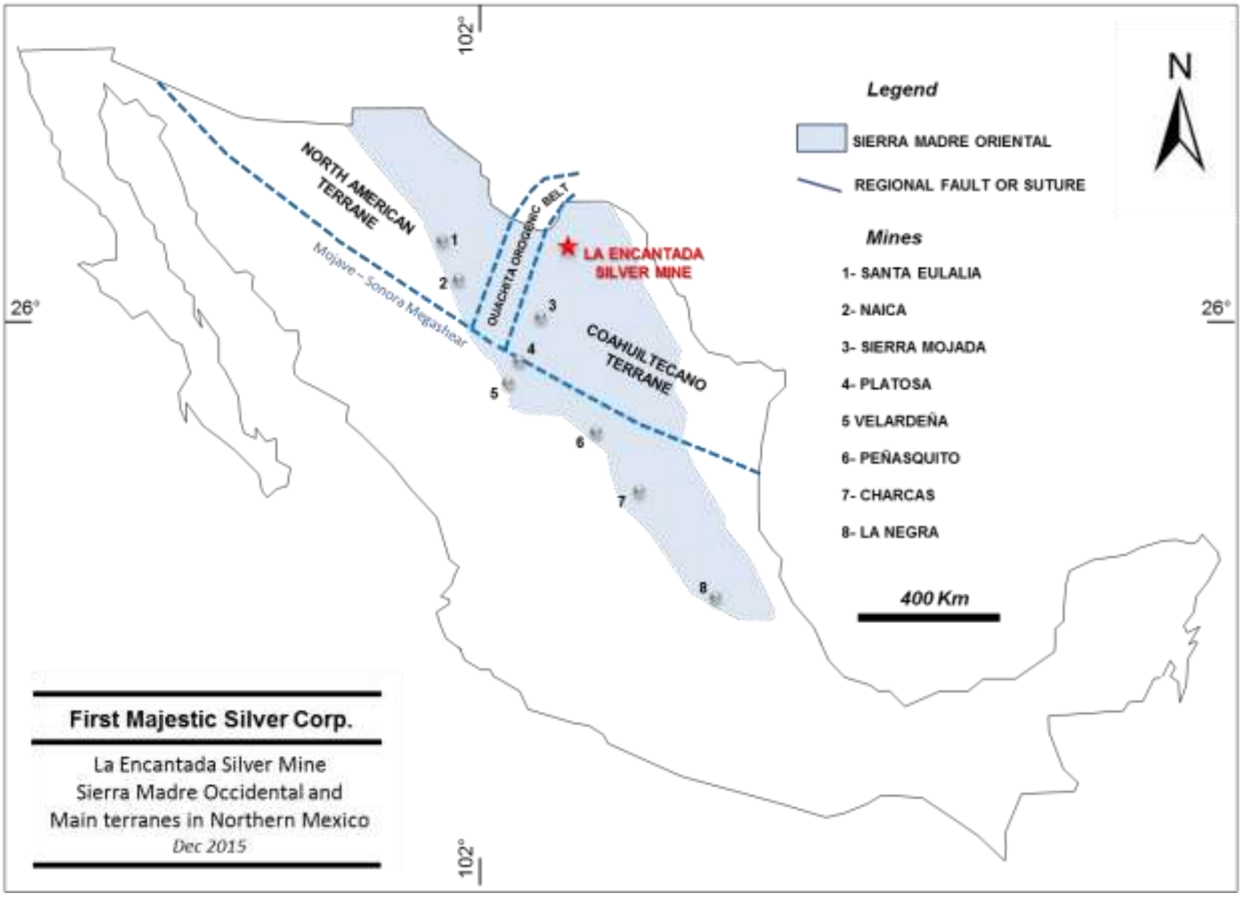


Figure 7-1: Map of Mexico showing the Sierra Madre Oriental physiography

The Coahuiltecano terrane consists of Paleozoic low-grade metamorphic rocks, and Paleozoic arc-derived flysch and arc-related volcanic rocks that were intruded by Triassic calc-alkalic plutons, and overlapped by Late Jurassic and Cretaceous platform rocks that cover most of the terrane. According to Sedlock et al. (1993), it is not clear whether the Paleozoic metamorphic, flysch and volcanic rocks correspond to the forearc and arc of the Gondwana supercontinent that collided with southern North America during the Ouachita orogeny, or alternatively, whether they form part of an accreted arc fragment that is exotic with respect to Gondwana; i.e. autochthonous vs. allochthonous origin.

Paleogeographic features that were relevant for the post Paleozoic stratigraphic and tectonic evolution of the region include the Burro-Peyotes Peninsula, the Coahuila Block, and the Sabinas Basin. The Sabinas basin was a graben limited by the Coahuila Block to the south, and the Burro–Peyotes Peninsula to the north. Between the Jurassic and the Cretaceous, the basin served as a catchment for the deposition of a ~6,000-m-thick sequence of siliciclastics, carbonates and evaporites (González-Sánchez et al., 2008). The Jurassic-Cretaceous sediments were deposited unconformably on top of the Paleozoic and Triassic rocks of the Coahuiltecano terrane. The main hosts of mineralization at La Encantada and other mines and prospects in the region are the Lower-Upper Cretaceous Cupido, La Peña and Aurora formations deposited within the Sabinas Basin.

Formation of the Sabinas Basin started in the Permo-Triasic during the Ouachita-Maraton orogeny. Its opening is linked to the opening and evolution of the Gulf of Mexico that started between the Late Triassic and Middle Jurassic due to the separation of North America from South America and Africa; the breakup of Pangea (Sedlock et al., 1993). Reactivation of the San Marcos fault in the Late Jurassic that accommodated N-NE crustal extension also contributed to the development and growth of the basin (Chavez-Cabello et al., 2007). The San Marcos fault is a 300 km long crustal structure that separates the Coahuila block from the Coahuila fold belt.

Northeast-southwest oriented compression during the Cretaceous to early Tertiary (thin skinned Laramide Orogeny) deformed the Mesozoic sedimentary rocks laying on top of the Coahuiltecano terrane into a series of roughly parallel N-NW trending folds and faults, which consequently gave rise to the Sierra Madre Oriental, i.e. the Mexican fold thrust belt. Later extension in the mid to late Tertiary reactivated and reopened Laramide age and older faults, including the structures bounding the Coahuila Platform and the Burro-Peyotes Peninsula (San Marcos and La Babia faults, respectively), and developed further northwest-southeast oriented faults.

The mid-Tertiary extension event was accompanied by widespread magmatism, with the newly reopened faults acting as conduits allowing intrusion emplacement (granitic, monzonitic and granodioritic stocks) at shallow levels within the structurally prepared Mesozoic carbonate sequence. Some intrusions produced important skarn-type mineralization in the contact with Cretaceous limestones, and some of them were exposed to erosion due to widespread uplift and block faulting during the Pliocene.

In summary, the geologic history of the province initiated in the Permian-Triassic with the Ouachita-Marathon orogenic event, followed closely by Late Triassic to Middle Jurassic rifting of Pangaea, subsequent opening of the Gulf of Mexico (tied to the formation of the Sabinas basin), passive-margin development through the Late Cretaceous, and Laramide foreland deformation (emplacement of intrusions) through the early Tertiary (Goldhammer, 1999).

7.2 Regional Structures

The Sierra Madre Oriental is made up of a series of N and NW-trending anticlinal ranges and faults. Folds and faults in the Sierra Madre Oriental were formed during the Laramide Orogeny between the Late Cretaceous and Early Tertiary. Other older and major structures cutting through the Paleozoic basement of Northern Mexico were probably reactivated during the Laramide Orogeny and during the Post-Laramide, Eocene-Oligocene extensional tectonics. Two major or crustal structures were important in the formation and growth of the Sabinas Basin: the NW-trending San Marcos fault to the south, separating the Coahuila block from the Sabinas Basin, and the NW-trending La Babia fault to the north, which separated the Burro-Peyotes Peninsula from the basin (Figure 7-2). Crustal scale structures are generally proposed as favorable structural settings for the localization of mineral deposits. La Encantada property lies along the projection of the La Babia fault-lineament. Examples of mineral deposits laying on top of, or in the proximity of crustal faults include Sierra Mojada (Silver Bull Resources Inc.), which lies right on the San Marcos Fault, and Platosa (Excellon Resources Inc.) lying along a major NW-trending structure on the western margin of the Coahuila block (Stockhausen, 2012, Megaw et al., 1988). Other important districts such as Santa Eulalia and Naica lie in a similar structural setting within the Chihuahua through (Ruiz et al., 1986; Megaw et al., 1988).

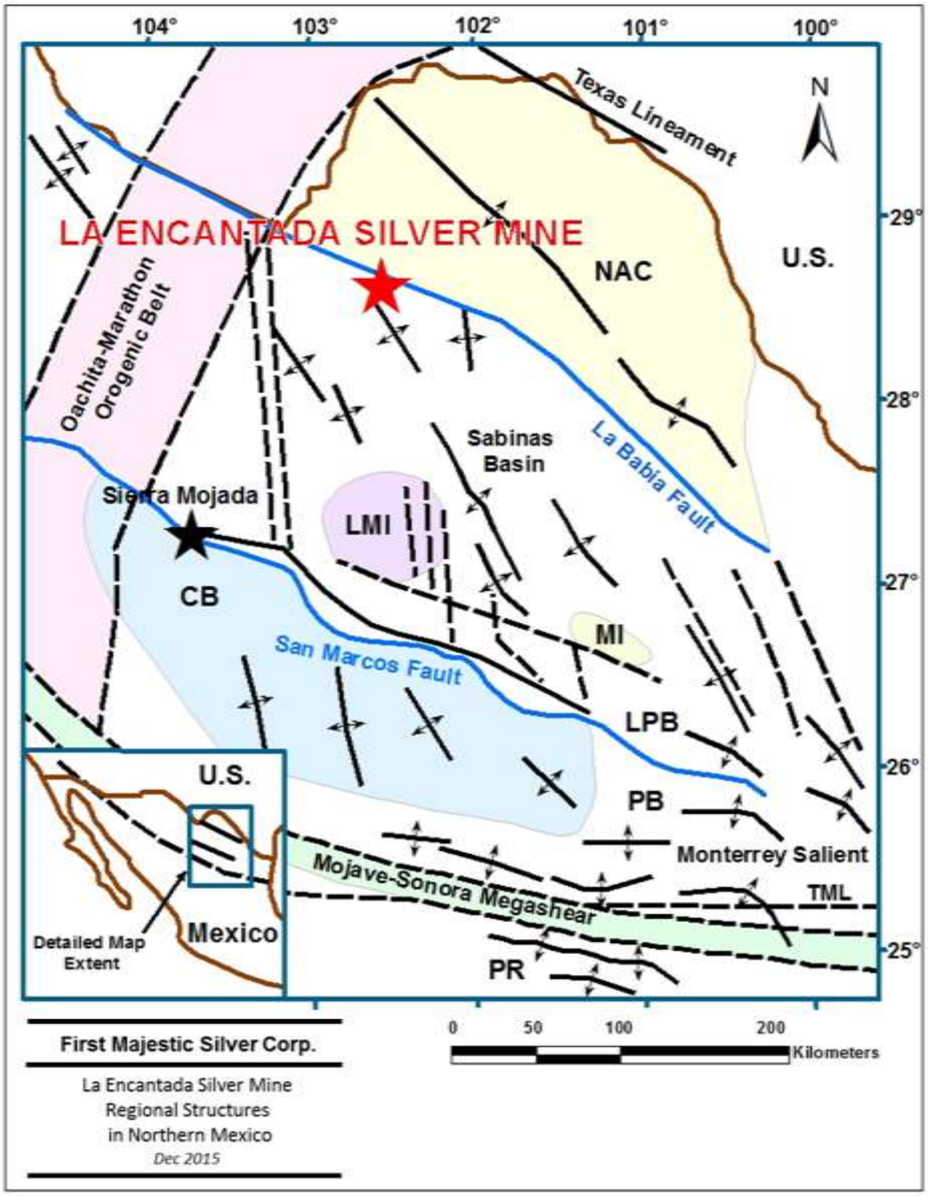


Figure 7-2: Map of northern Coahuila showing the Sabinas basin and the regional La Babia and San Marcos faults.

7.3 Local Geology and Stratigraphy

The stratigraphic section at La Encantada property consists of marine sedimentary rocks of platform environment that were deposited in the Sabinas basin between the Lower Cretaceous and the Upper Cretaceous. The base of the stratigraphic section consists of the Cupido Formation (Fm.) of Hauterivian-Early Aptian age. This formation consists of thin-bedded limestones and dolostones, but the formation has not been recognized in the mine either with underground developments or with drilling; the formation crops out outside the property in the La Vasca range approximately 30 Km NW from the mine, and in the Puerto Rico prospect 120 Km NNW very close to the U.S.-Mexican border.

La Peña Fm. of Late Aptian age overlays the Cupido Fm., and consists of approximately 54 metres of thin-bedded black shales interlayered with black bituminous carbonaceous limestones (Lozano, 1981). Losej and Beals (1977) carried out a detail study of the stratigraphy and biostratigraphy at La Encantada property, and described the unit at the bottom of the sequence as a calcilutite (fossiliferous micrite and sparsely fossiliferous biomicrite) containing abundant colomiella Mexicana as diagnostic microfossil.

Conformably overlying the La Pena Formation is the Aurora Formation (Early-Middle Albian), a 452-m-thick sequence consisting of a lower unit of medium to massive bedded calcilutites and minor calcarenites becoming more distinctively medium bedded calcispaerula bearing to locally cherty calcisiltites in the upper section (Lozej and Beals, 1977; Lozano, 1981). The middle part of the limestone sequence consists mainly of dense, thick-bedded, grayish calcilutite, which forms most of the Sierra de La Encantada cliff faces, but no distinctive lithologic marker unit is readily recognizable in the field within the Aurora limestone, apart from the upper, packed, Calcisphaerula-bearing calcisiltites (Lozej and Beals, 1977). Distinctive micro fossils of the Aurora Fm. include phithonela ovalis in the upper part, calcisphaerula innominata in the middle part, and colomiella in the bottom part of the formation (Lozej and Beals, 1977). Figure 7-3 shows a panoramic view of La Encantada range with Aurora formation.

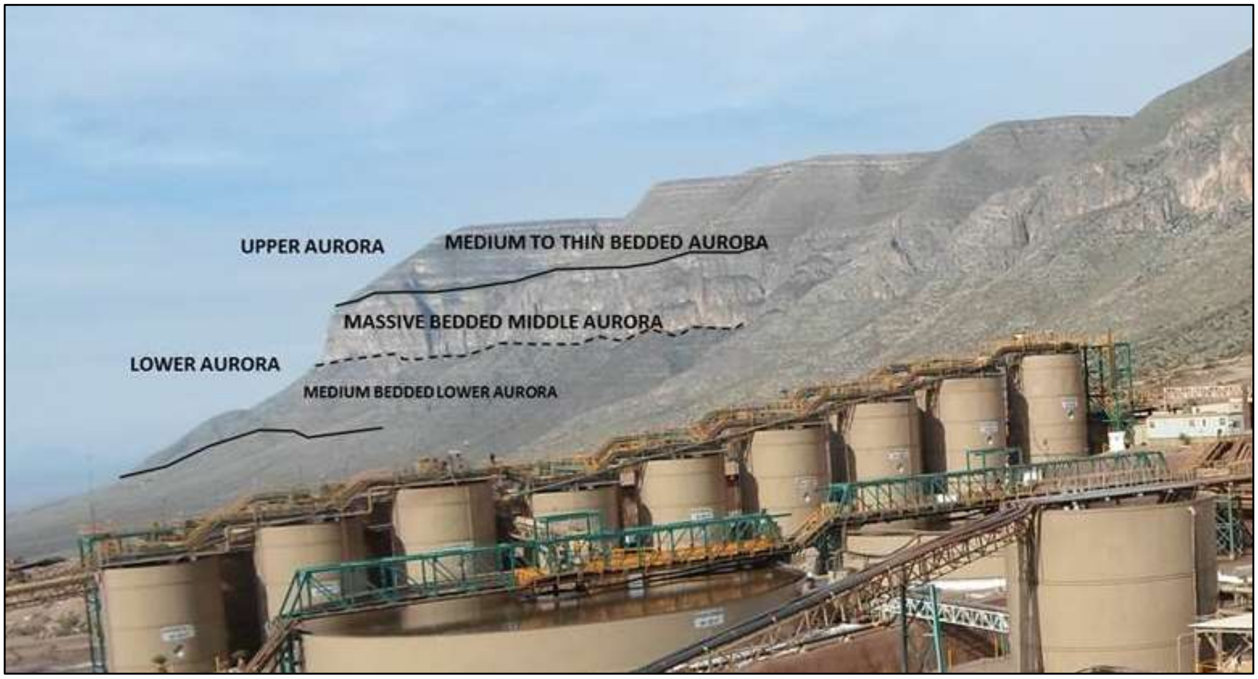


Figure 7-3: Panoramic picture of La Encantada showing the Aurora formation in the background.

Conformably overlying the Aurora Formation are fairly distinctive thin-bedded limestones of middle Albian-lower Cenomanian age of the Cuesta del Cura Formation. This formation consists of 250-350 metres of oolitic limestones with abundant chert nodules and lenses. The formation becomes argillaceous upward (intercalation of calcisitite and calcarenite), and is distinguished by the presence of the microfossil heterohelix (Lozej and Beals, 1977).

Thin-bedded (30 cm) alternating shales and limestones correlative with the Del Rio Formation, and medium-bedded (60-70 cm) limestones similar to those of the Buda Formation conformably overlie the Cuesta del Cura Formation; their precise thicknesses in the mine area are unknown, but estimated thicknesses are approximately 45 m for the Del Rio Formation and 100 m for the Buda Formation (Diaz, 1987). Figure 7-4 is the property geologic map showing the main outcropping units and structures.

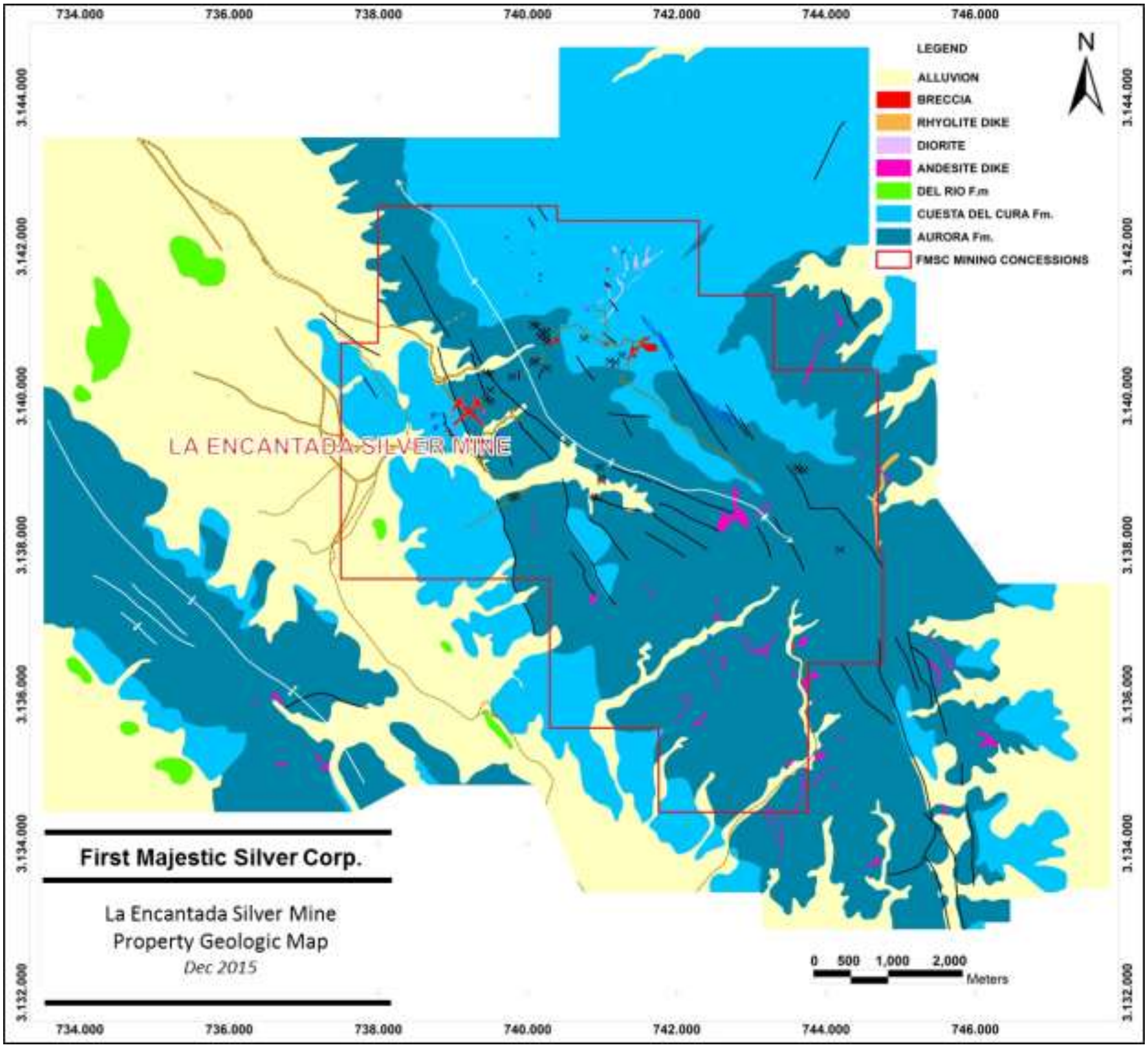


Figure 7-4: Geologic Map of La Encantada property

A granodiorite stock, and rhyolite and andesite-basalt dikes of Eocene-Oligocene age intrude the Cretaceous age sedimentary rocks. The granodiorite is known from drill-holes below the La Prieta Chimney area (the skarn dome area) and from underground developments at the Milagros area. Figure 7-5 shows a picture of the granodiorite intrusion. Magnetometric and drill hole data suggests that the intrusion is big, and more or less with sub-horizontal attitude (Solano, 1991). The intrusion consists of feldspars, quartz, and ferromagnesian minerals (hornblende), and commonly shows retrograde alteration consisting of epidote, chlorite and tremolite along fractures and disseminated in the matrix. Localized silicification and higher temperature potassic alteration has been also observed, mainly affecting the matrix. The intrusion developed irregular skarn, hornfels and marble aureoles in what is called the skarn dome area right below the mined out La Prieta chimney, and in the Milagros area. Because of its spatial relation with the skarn alteration and mineralization, it is believed that the intrusion is genetically linked to the Ag, Pb and Zn mineralization in the property. Whole-rock K/Ar dating of the hydrothermally altered granodiorite yielded a chronological age of 27 Ma (Diaz, 1987). We suggest that the K/Ar age reported by Diaz (1987) should be interpreted as a minimum age of intrusion emplacement, since later hydrothermal alteration and/or thermal disturbances (caused by emplacement of younger stocks and dikes) can open the K bearing minerals to ^{40}Ar scape which causes a partial or total resetting of the age of the rock. Age determinations by the K/Ar method in a fresh quartzmonzonite intrusion in La Vasca prospect located 30 km NW from la Encantada reported 52 Ma, whereas other intrusions in northern Coahuila reported ages between 30 Ma and 35 Ma (Kiyokawa, 1977). The Eocene-Oligocene age range of the intrusions in northern Coahuila suggest that magmatic and hydrothermal activity prevailed in the region for at least 25 my. Figure 7-6 shows the stratigraphic column at La Encantada property.

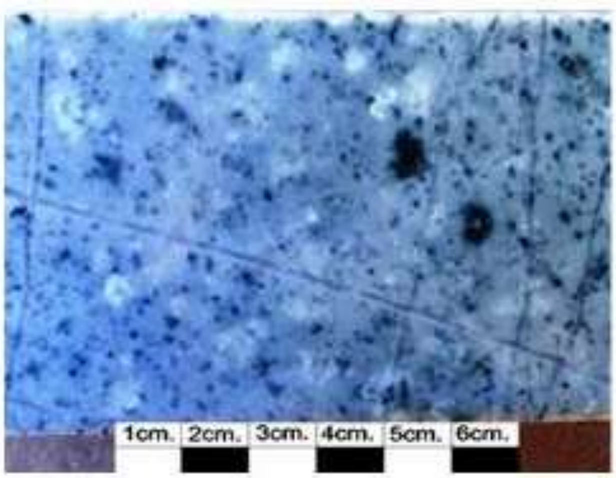


Figure 7-5: Pictures showing textures of the granodiorite intrusion

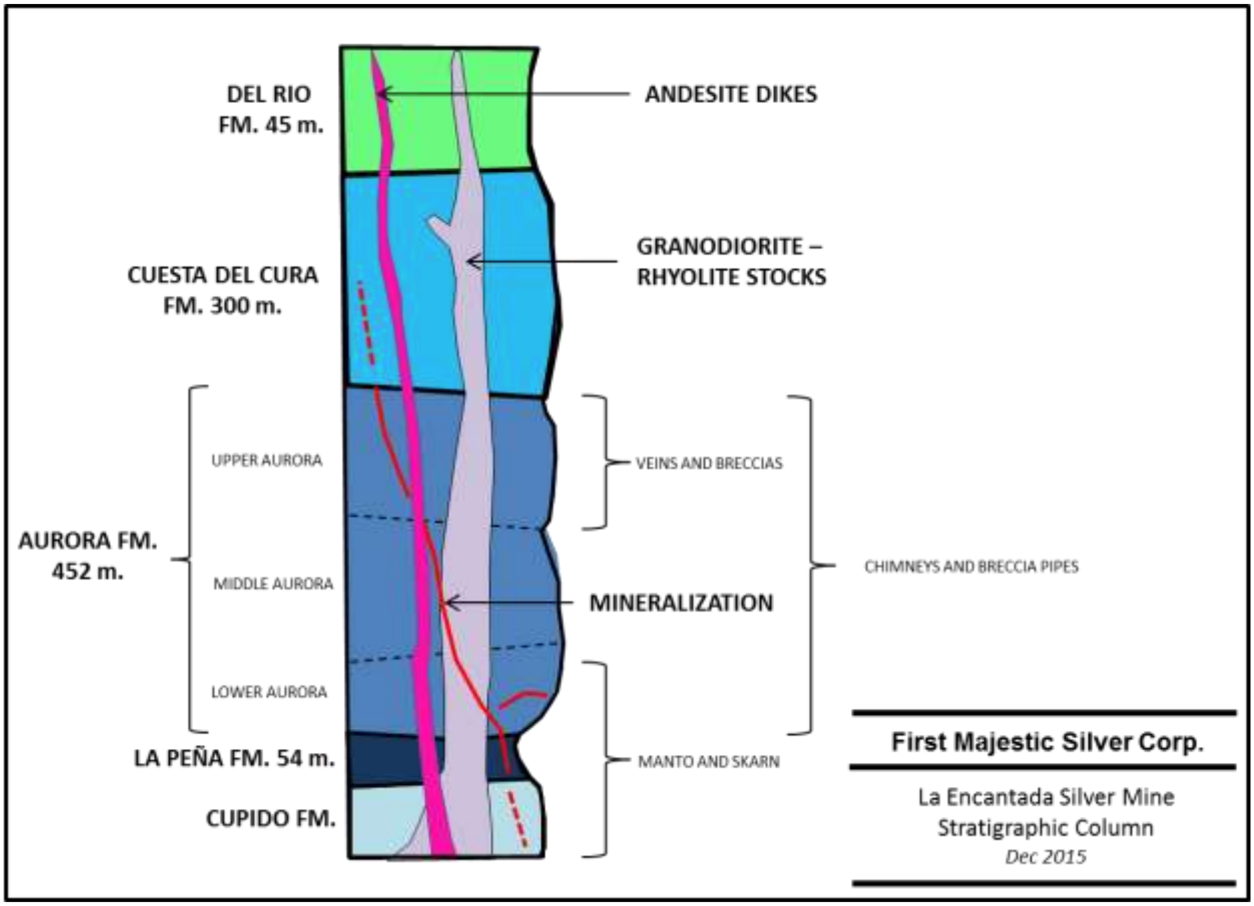


Figure 7-6: Stratigraphic column of the La Encantada property

7.4 Structural Geology

In June 2014, First Majestic retained the services of Telluris Consulting Ltd. to review the structural geology of La Encantada. Structural data at La Encantada seems to fit with the tectonic evolution defined in other parts of northern Mexico which is likely to comprise four deformation events (Starling, 2014):

1. ENE-WSW compression (D1) related to the early stages of the Laramide orogeny (~80 - 60 Ma) and which produced NNW-trending open upright folds and low-angle shears/thrusts sub-parallel to bedding. The D1 event is likely to have generated the initial structural pattern to the La Encantada district, with the central NE fault zone (San Francisco zone and sub-parallel structures) having developed as a steep tear/transfer fault which appears to have been initially dextral in shear sense. NNW structures, especially

thrusts were also formed and are seen controlling some ore shoots where reactivated along the San Francisco trend.

2. NNE-SSW oriented compression and contractional deformation (D2) that is likely related to changes in plate velocities and directions of movement during opening of the Atlantic (~60-40 Ma). D2 also marked the change from “thin-skinned” (i.e. cover rocks only) fold-thrust deformation to "thick-skinned" deformation (including the basement), along with reactivation of many basement structures and terrane boundaries as strike-slip shear zones. At La Encantada this is seen as a phase of sinistral (or sinistral transpressional) shear along the NE San Francisco corridor associated with the development of NNE tensional faults or veins, along with a conjugate set of steep fault sets along NNW and ENE strikes. The open fractures that host the NE-trending system of veins were developed during D2.

3. Post-Laramide orogenic relaxation in the form of NNE-SSW regional extension (D3), which is seen throughout Mexico and the southern USA.

4. Early- to main-stage Basin and Range ENE-WSW extension (D4) that produced NNW-trending normal faults and tilting in the regions of higher degrees of crustal thinning.

Structurally, La Encantada lies on the southwestern flank of the NW-trending Sierra de La Encantada anticlinorium; the mines occur along a series of NE-trending faults and fractures which cut obliquely across the regional N-NW-trending anticlinorium. The beds on the flanks of the Sierra de La Encantada dip 30° to 40° with local vertical and overturned strata (Lozej and Beals, 1977), and in the mine dip from 20° to 30° to the west. Block faulting cuts the anticlinal structures of Sierra de La Encantada. A regional N 26° W-striking fault, traceable for 38 km, cuts the anticlinorium southwest of the mine (Baker, 1927, Diaz, 1987). This fault possibly reflects reactivation of Paleozoic basement faults during the Laramide orogeny and may be associated with the crustal scale La Babia fault.

In the mine area, most of the faults are normal, and the main systems strike N15°W - N30°W and N50°E - N80°E. Northwest-trending faults form two grabens bounded by the Romo-Maria Isabel and San Juan-San Jose faults which contain the central mineralized bodies (La Prieta - La Escondida, 660, Ojuelas and the Skarn Dome). The NW and NE structural systems predate mineralization, and field observations underground and on surface suggest that the NE-trending structures are older than the NW-trending faults. Multiple phases of fracturing associated with uplift and igneous intrusions might have added complexity to the structural regime.

The most important ore-controlling structures appear to be the NE-trending faults and fractures which seem to control the localization of chimneys and vein shoots at the intersection with the NW trending structures. Major NW-NNW trending faults such as the main La Encantada front-range fault (forming the clift) do not appear to be mineralized; either they are younger than mineralization or they are older reactivated faults that were sealed to fluid passage. Fractures without apparent movement of the opposing surfaces, and therefore of minor tectonic significance, at surface at least, seem to retain their dilatancy long enough to allow mineralizing fluids to surface (Losej and Beales, 1977).

7.5 Mineralization

La Encantada is a good example of high-temperature carbonate-hosted Ag-Pb-Zn, intrusion-centered mineralized system. These deposits are referred to as CRD (Carbonate Replacement Deposits) and occur in thick carbonate-dominant Jurassic-Cretaceous basinal sedimentary sequences floored by Paleozoic or older crust (Megaw et al., 1988); e.g. the Chihuahua through and the Coahuila basin.

The principal structural elements in CRDs include faults, fractures, fissures, fold axes, breccia zones, and intrusive contacts. Ore fluids are interpreted to migrate vertically and laterally along these interconnected structures, and mineralization occurs by fluid diffusion into, and reaction with, the enclosing carbonate rocks (Megaw et al., 1988). At La Encantada, mineralization is dominantly controlled by N60°E and N30°W striking faults and fractures. Mineralization in this type of deposits occurs immediately below permeability barriers that appear to confine mineralizing solutions to adjacent carbonate units without themselves becoming mineralized (Megaw et al., 1988). The upper argillaceous member of Cuesta del Cura Fm. and the alternating shales and limestones that rest on top of Cuesta del Cura may have acted as a permeable barrier.

Mineralization at La Encantada occurs in bodies with geometries that vary from tabular vein, manto, chimney, breccia pipe and irregular replacements. Structural controls on mineralization included intrusive contacts, faults, fold axes, fractures, fissures, and cavern zones. Intrusive contacts and intrusion-related faults are the most important controls in the skarn, whereas regional faults, folds, and fracture systems are dominant controls on mantos, chimneys and veins. Detail field studies at Santa Eulalia and La Encantada showed that metal-depositing processes within carbonate packages are often influenced by thin shaly partings, stylolites, and carbonates of different grain size (Megaw et al., 1988). Stylolites are common in the Aurora Fm., which in combination with some of the structural controls mentioned above, may have favored the deposition of mineralized mantos and vein shoots. Based on K/Ar radiometric age determinations performed on intrusions in NE Coahuila (Kiyokawa, 1977, Diaz, 1987), it is proposed that the age of mineralization at La Encantada can be restricted between 52 Ma (Eocene; age of porphyry type mineralization in eastern Mexico) and 27 Ma (Oligocene; age epithermal mineralization in Mexico). It is possible that La Encantada is a long lived magmatic-hydrothermal system that has seen several mineralizing events between the Eocene and the Oligocene. Detailed geochronology and thermochronology studies are needed to determine more accurate age dates for mineralization, magmatism and hydrothermal activity.

Silver minerals such as native silver and acanthite occur associated with a complex mixture of Zn, Pb, Fe and Mn oxides in mantos, veins, breccias and chimneys; silver rich chimneys such as the La Prieta and Escondida were mined in the past by Peñoles. Native silver and acanthite also occur associated with sulphides in skarn below the La Prieta-660-Ojuelas oxide bodies. The most common oxides are hematite, goethite, jarosite, argento-jarosite, cerussite, anglesite, zincite, pyrolusite, hemimorphite, smithsonite, willemite, malachite and brochanthite. Oxide minerals at La Encantada are secondary phase products of the strong supergene oxidation of primary sulphides; the deep oxidation level (>500 metres vertical extent of oxidation) of the La Encantada deposits suggests that the region has remained arid (deep water table) for thousands of years. A long period of oxidation favored total transformation of sulphides into secondary Fe, Zn, Pb Cu oxides and native silver; native silver is an oxidation product of acanthite. The sulphide minerals, pyrite, magnetite, marmatite (iron-rich sphalerite), galena, chalcopyrite, covellite and acanthite occur in the skarn dome area (below La Prieta-660-Ojuelas bodies), deep in the Milagros area and in pockets within the Ojuelas manto; sulphides are preserved in small impermeable pockets.

7.5.1 Mantos

Beaty et. al. (1990) defined Manto as a subhorizontal, tabular or elongate replacement of rock (typically limestone or dolostone) by sulphide-rich ore that is commonly confined to a single stratum (strata bound), but it is not stratiform. Manto type deposits at La Encantada are strongly oxidized and occur in the Aurora formation and at the contact between Aurora and skarn at elevations between the 1,450 and the 1,635 levels. The historic 660 manto (already depleted) occurs around the margin of the contact between the Aurora limestone and the skarn, and some of the mineralization occurs in the hanging wall of a N20°W dipping 62°E fault. According to field observations and interpretations made by Starling in 1992, E-W trending extensional fractures occur at the hanging wall of the N20°W fault which favor the mineralization of the 660 manto. The recently explored Ojuelas manto is another good example of manto at the contact between Aurora and skarn (Figure 7-7). The manto has irregular shape, dips 40° east in average and has thickness that varies from 2 metres to 45 metres. Portions of the Ojuelas manto occur totally within the Arora formation, other parts at the contact Aurora-skarn where the protolith of the skarn was clearly La Peña (Figure 7-8 and Figure 7-9). Around the Ojuelas manto, the Aurora formation is intensively fractured, forming an envelope of crackle breccia with hematite staining along fractures. Figure 7-10 shows the crackle breccia and oxide manto at the 535 cross cut.

Ojuelas sits between the elevations 1,450 and 1,550 at the hanging wall of the Escondida fault. The Escondida fault hosts an andesitic dike and separates Ojuelas FW (Foot Wall), the historic 660 manto and the Ojuelas manto. Smaller mantos, such as the San Jose, San Juan and Guadalupe, occur between the 1,635 and the 1,900 elevations in the skarn dome area. Other small mantos developed along bedding planes are associated with NE-trending veins in the Azul y Oro-Buenos Aires area. Shallower mantos located nearby the skarn dome display strong brecciation and filling fabrics, whereas deeper mantos (e.g., 660 and Ojuelas) may have formed due to replacement of the limestone and skarn. Mineralogical studies done on samples of the Ojuelas manto by means of petrographic microscope report the presence of quartz, feldspar, hematite, goethite, pyrite, calcite, anglesite, heterolite (complex zinc oxide), and complex lead oxides with manganese, galena, sphalerite and native silver. Megascopic observations on core samples in combination with the use of Terraspec ASD ® reported hematite, goethite, jarosite, anglesite, cerussite, zincite, pyrolusite, kaolinite, smectite, epidote, sphalerite, galena and native silver in that order of abundance.

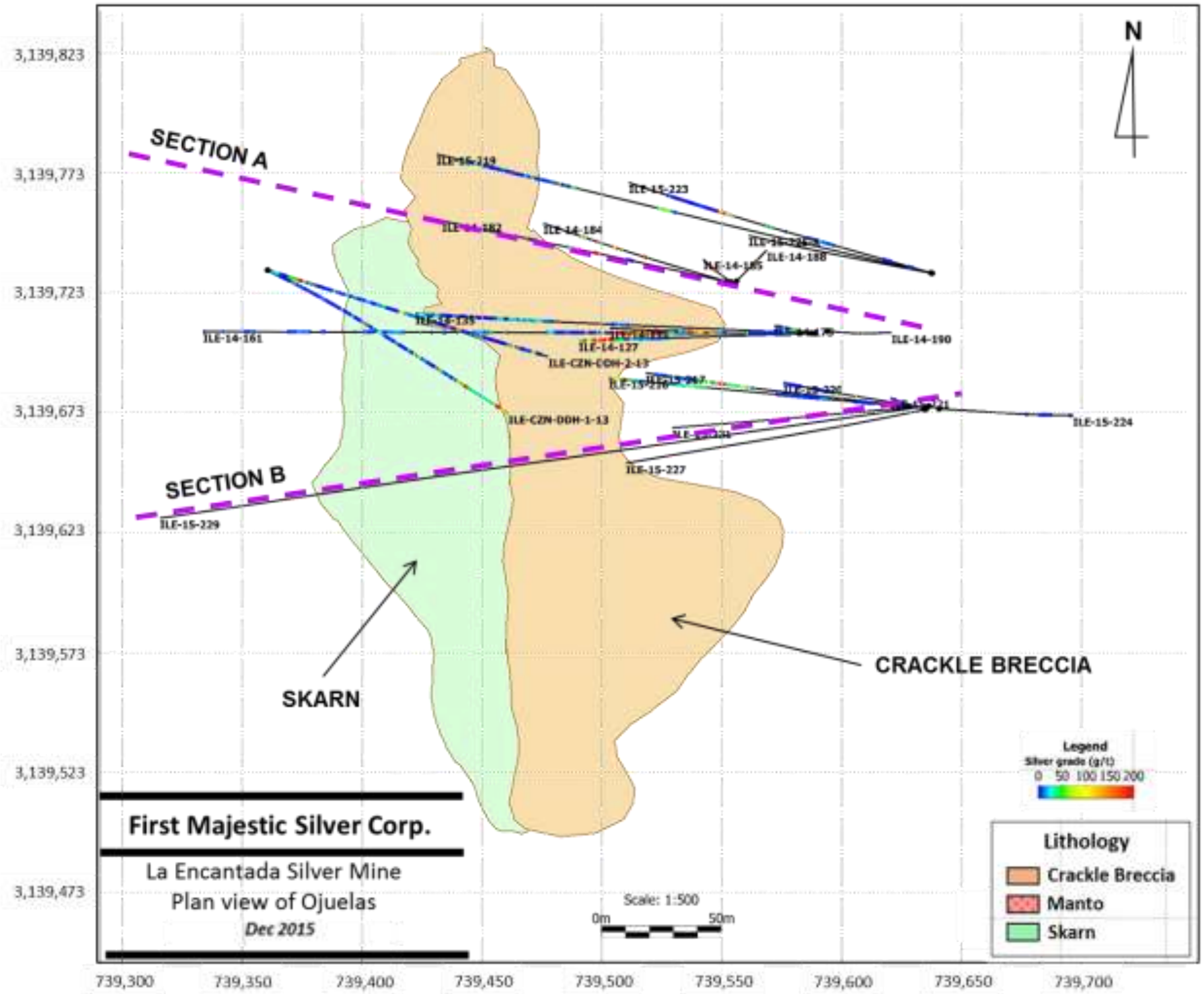


Figure 7-7: Plan view showing drill-holes at Ojuelas

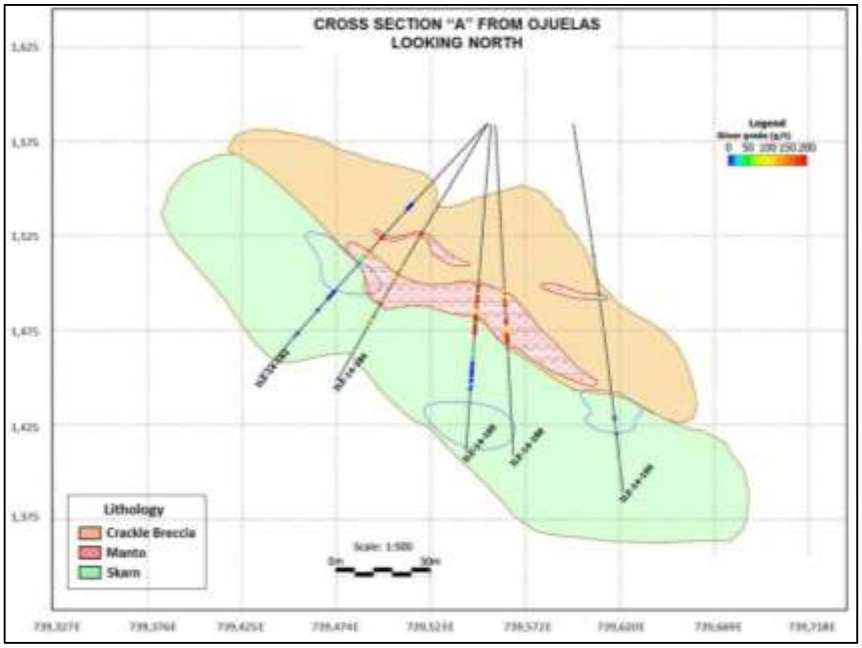


Figure 7-8: Cross section “A” showing the Ojuelas mantos enveloped by the crackle breccia.

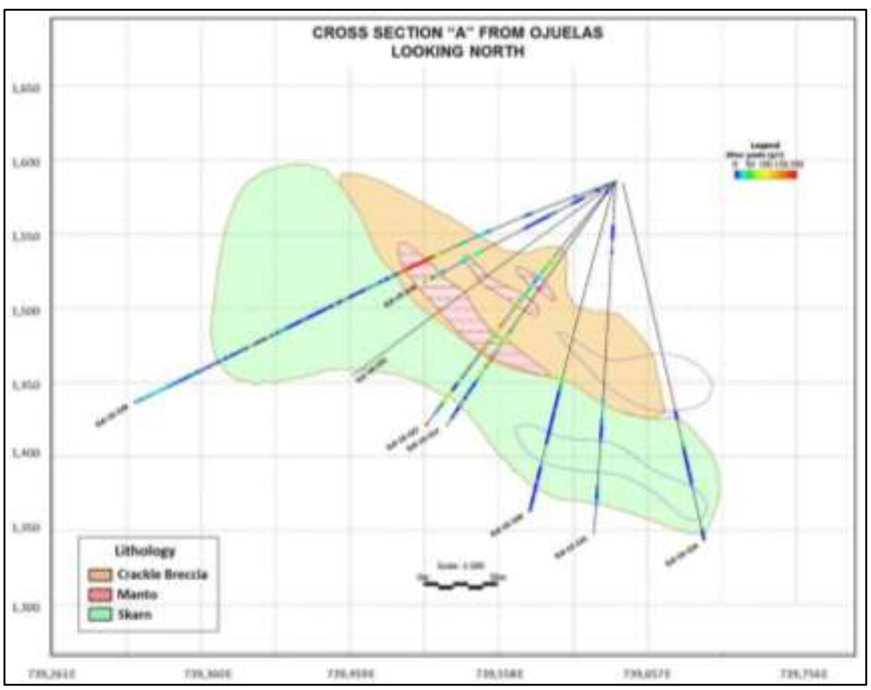


Figure 7-9: Cross section “B” showing the Ojuelas mantos enveloped by the crackle breccia.

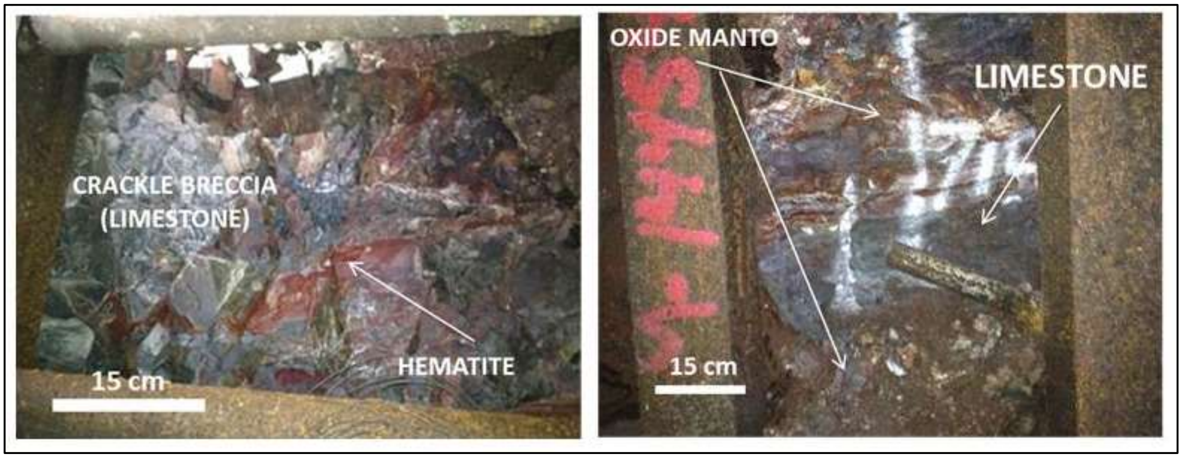


Figure 7-10: Pictures of the crackle breccia and oxide Manto at the 535 cross cut.

7.5.2 Skarn Dome

Below the 660 and Ojuelas mantos, and therefore below the historic La Prieta chimney, lies a granodiorite intrusion that has developed skarn, hornfels and marble alteration mainly in the La Peña formation. The geometry of the skarn is poorly defined with drilling and underground developments at the 660 and Ojuelas mantos, but underground and surface drilling has confirmed 700 metres of lateral extent in the NNE direction. Megascopically, the skarn is mainly constituted of the prograde minerals diopside (Ca-Mg rich pyroxene; which gives a light green colour to the rock), sparse grossularite-andradite (Ca-Al and Ca-Fe rich garnet respectively), and the retrograde minerals epidote (Ca-Al-Fe), tremolite-actonilite (Ca-Mg-Fe), chlorite, calcite and white phyllosilicates. Sulphide minerals present in the skarn as disseminations or in narrow and sparse veins include, sphalerite, magnetite, pyrite, galena, chalcopyrite, covelite and acanthite. Analysis of hydrated retrograde alteration was carried out in some core of the skarn using the spectral photometer Terraspec ASD ®. Terraspec results indicate the presence of epidote, Mg-rich chlorite, Fe-rich chlorite, montmorillonite (smectite) and kaolinite in the retrograde alteration and goethite-hematite as secondary oxides. The hornfels is characterized by a weaker pyroxene alteration which is evidenced by the change in colour from green (characteristic of the skarn), to gray-light green colour. Other than the light green colour, the hornfels is distinguished from unaltered rock by its high hardness. Sparse marble is found in some hole intercepts were it has been observed to have light and sugary texture made up of recrystallized carbonates. Figure 7-11 shows pictures of the skarn and marble.

Figure 7-11: Pictures of the skarn and marble.

7.5.3 San Javier and Milagros breccias area

The San Javier and Milagros breccias area consists of a quartzmonzonite stock bounded by two pipe like breccias: the San Javier and the Milagros breccias. The Milagros intrusion is known to extend from the 1,400 m elevation (diamond drill holes) to near surface at the 2,000 m elevation. The San Javier breccia is a poorly consolidated and predominantly clast-supported breccia consisting of angulose-sub rounded limestone fragments (monomictic breccia) ranging in size from tens of centimetres to several metres. Some of the clasts are recrystallized or replaced by iron and manganese oxides, and the matrix is usually fine grained oxidized comminuted rock. An interpretation about the origin of this breccia is complex, but due to its monomictic character and lack of matrix, we speculate that it was formed due to collapse. In contradistinction with San Javier, the Milagros breccia is a Matrix supported breccia consisting of limestone and intrusive clasts (polymictic breccia) varying in size from centimetres to tens of centimetres. Figure 7-12 shows pictures of the Milagros breccia. The Matrix of Milagros is made up of fine-grained and oxidized-comminuted rock. Most rock fragments in this breccia are rounded to sub-rounded which suggests higher energy during formation; we speculate that the origin of this breccia may be explosive (Phreato-magmatic explosion). In both breccias the oxidized matrix contributes to the silver values. Additionally, the oxides in the Milagros breccia are generally banded and cut by late WNW dip-slip faults that indicate a stage of post-mineralization NS to NNE extension.

Figure 7-12: Pictures of the Milagros breccia at the 1,750 level and surface

7.5.4 System of NE-trending Veins

Vein type deposits occur in the Azul y Oro-Buenos Aires and San Francisco areas. The veins of the Azul y Oro-Buenos Aires area are open space-filling veins along NE-trending extensional fractures; from east to west, the area consists of the Buenos Aires, El Regalo, Azul y Oro, 990 and 990-2 veins. NW-trending faults intersect the NE-trending veins, which occasionally favors the development of pipe like chimneys or vein shoots. Mineralogically, the veins consist mainly of siderite, manganiferous calcite, calcite, hematite, goethite, pyrolusite, acanthite and native silver. Vein mineralization occurs commonly between the 1,750 and the 1,950 masl elevations although greater vertical extents are encountered particularly at the intersections of the veins with the NW-trending structures; veins typically pinch and swell, and vein thickness typically varies between a few centimetres to eight metres. The San Francisco vein consists of a highly oxidized and argillized andesitic dike that has been mineralized. Mineralization at the San Francisco vein occurs disseminated in the altered dike and at the contacts of the dike with the Aurora limestone.

7.6 Alteration

The highest temperature alteration recognized in the property is potassic alteration that is observed in drill-core as patches of potassium feldspar replacing the matrix of the granodiorite stock in the skarn dome area. Curvilinear vitreous-quartz veins are also observed in some core samples from the granodiorite, which are analogous to the A-type veins described by Gustafson and Hunt (1975) in Cu-porphyry deposits. Potassic alteration and the presence of the A-type quartz veins suggests that the stock was the thermal source in at La Encantada, which coincides with speculations previously made by Diaz, (1987) and Starling (1992).

Prograde calc-silicate alteration, consisting mainly of grossularite-andradite, pyroxene (diopside) and wollastonite, gives rise to skarn and hornfels which are distributed on top and around the granodiorite stock. This alteration is observed in underground developments and core below the

1,635 masl elevation, and due to its close association with the stock, it supports the hypothesis that the gronodiorite stock might be the thermal source. Lower temperature retrograde alteration consisting mainly of epidote, tremolite-actinolite, calcite, white phyllosilicates and chlorite, overlaps the prograde calc-silicate alteration in the skarn and hornfels and partially penetrates the granodiorite stock. Analysis performed with the Terraspec ASD ® on skarn and intrusive core-samples report the presence of kaolinite, smectite, sericite (fine-grained muscovite), chlorite, epidote, calcite, siderite and traces of dickite which may all pertain to the retrograde alteration assemblage.

The latest and lowest temperature alteration observed at La Encantada is supergene oxidation. Supergene oxidation penetrates down to the 1,535 masl elevation, which suggests that the region has been arid for a long time causing the water table to stay low. The main products of oxidation are hematite, goethite, jarosite, cerussite, anglesite, zincite, malachite, brochanthite, and native silver. Manganese oxides (pyrolusite and psilomelane) are present in all deposits away from the skarn dome, and their concentrations are significantly high (up to 14%), particularly in the system of NE-trending veins. This manganese oxidation is not an alteration per se, but a late stage mineralization event. Hydrothermal systems and other CRD deposits are characterized by deposition of manganese late in the life of the hydrothermal system and distal with respect to the thermal source; i.e. higher in elevation or laterally distal. Manganese oxide alteration surrounds the peripheries of Santa Eulalia and is the most distal mineralization at Cerro San Pedro (Megaw, 1988). Distal manganese mineralization is also observed in epithermal districts such as Fresnillo. The higher concentrations of manganese in the veins suggests that they were probably late stage and distal with respect to the source. On the other hand, meteoric water in the supergene environment is capable of leaching and mobilizing several metals such as zinc, copper and silver but it is incapable of leaching manganese. Immobility of manganese by supergene processes may have caused a relative increase in manganese concentration with respect to the more mobile metals such as zinc and silver at La Encantada.

8 Deposit Types

La Encantada property hosts silver mineralization in a variety of deposits, from underground-epigenetic deposits (chimneys, breccia pipe, manto, vein and skarn) to artificial over-ground deposits (tailings). However, the following descriptions will be limited to the epigenetic deposits.

The epigenetic deposits at La Encantada are high temperature carbonate replacements in skarn and limestone. Replacement deposits are characterized by shallowly-dipping irregular shaped pods, lenses, and roughly tabular masses of oxides parallel or sub-parallel to the host stratigraphy. Irregular tabular bodies dipping at angles less than 45° are referred as mantos. Near vertical deposits with more or less circular, oval or irregular elongate shapes are referred to as chimneys and breccia pipes. Tabular sub-vertical deposits are referred to as veins, and sometimes they contain small chimneys at the intersection of NW trending faults and fractures; veins have a NE preferential orientation. Skarn, larger mantos, chimneys and breccia deposits are proximal to the main granodiorite apophysis, whereas veins, small chimneys, small breccias and small mantos occur distal with respect to the main intrusions; the stock below the skarn dome and the Milagros intrusion. Narrow andesite to basalt-andesite dikes are hosted along some of the NE trending faults, and some bear silver mineralization, e.g. the San Francisco dike and the great dike.

Figure 8-1 is a composite longitudinal section showing the variety of deposit types occurring at La Encantada. In general, the more proximal manto, chimney and skarn deposits of La Encantada can be described as CRD-type, whereas the more distal veins can be described as mesothermal open space-filling veins. Cumulatively, skarn, manto, chimney, breccia pipe and vein deposits represent a continuum of hydrothermal deposits centered on an intrusion (thermal source). Figure 8-2 is a schematic genetic model showing the variety of deposits that can occur associated with an intrusion.

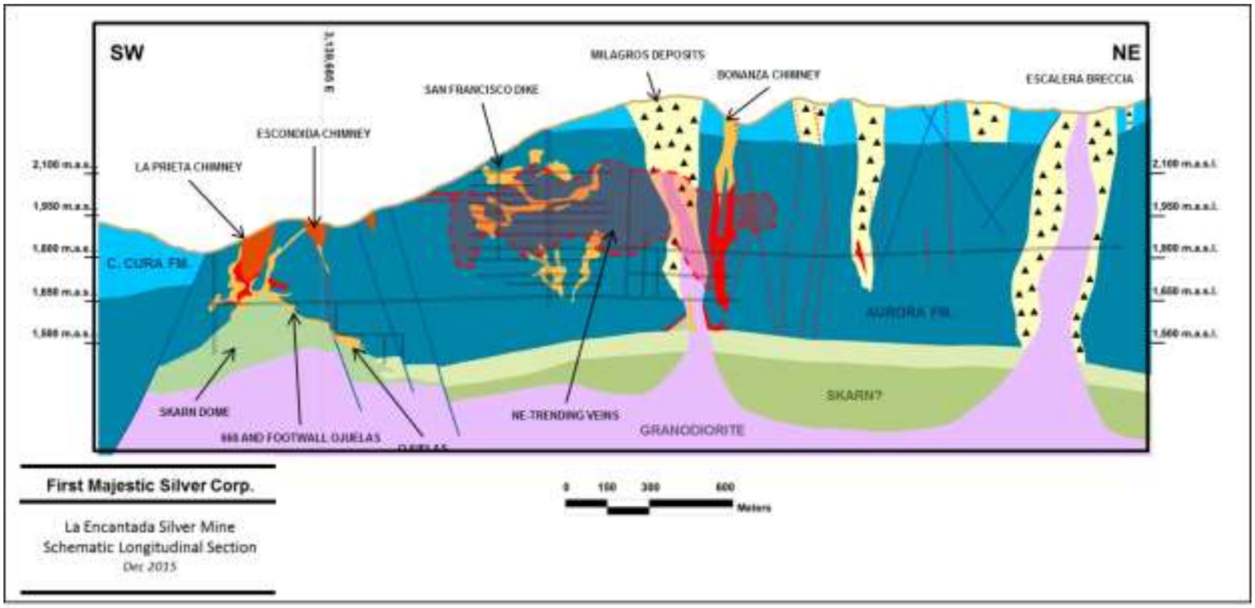


Figure 8-1: Composite longitudinal section showing the variety of deposit types occurring at La Encantada.

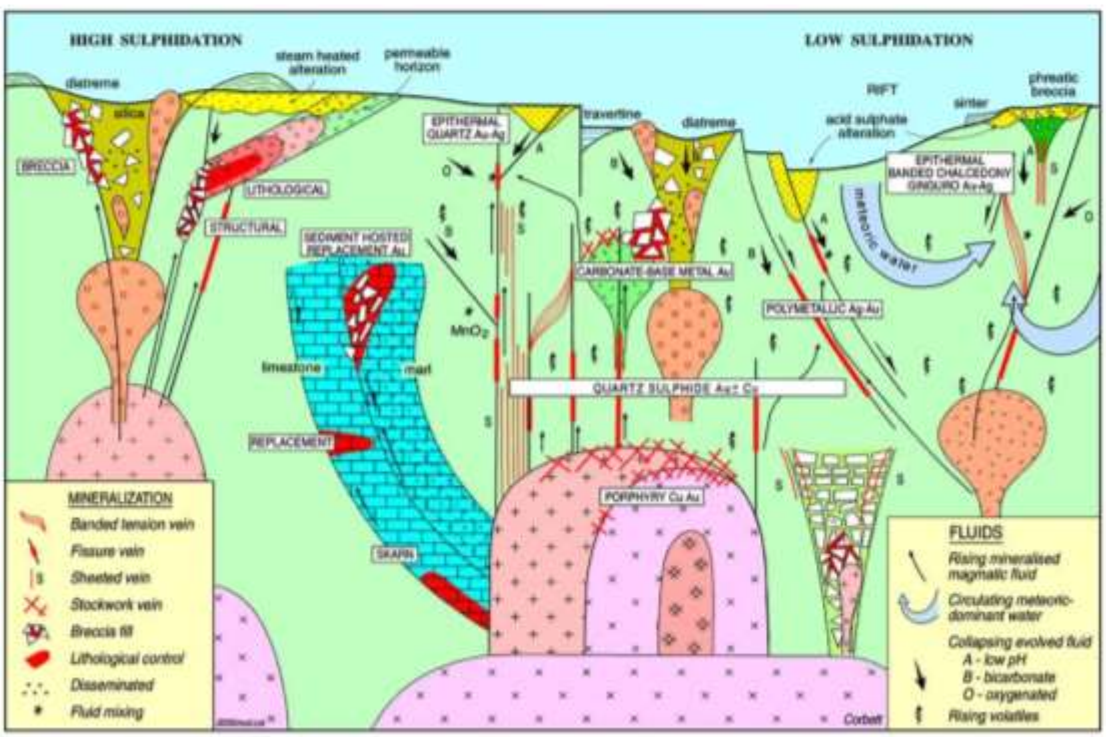


Figure 8-2: Schematic genetic model with intrusion associated deposits (Corbett, 2013)

9 Exploration

Exploration work completed at La Encantada property since September, 2008 includes geological mapping, geochemical sampling, NSAMT Geophysical Survey, acquisition and processing of regional aeromagnetic data, and diamond drilling with detailed core logging.

Diamond drilling core sampling methods and samples quality is presented under section 11 of this report.

Geological mapping, geochemical sampling and geochemistry have been performed on surface at the El Camello area, Anomaly B, La Escalera and El Plomo. Surface drilling has been carried out at Ojuelas, El Camello, El Plomo, La Escalera and other areas with magnetic and NSAMT anomalies. Near-mine exploration has been carried out in bodies such as Buenos Aires, 990, 990-2, Milagros breccia, San Javier breccia, San Francisco dike and the Ojuelas manto (Figure 9-1). First Majestic has determined that the most effective underground exploration practice at La Encantada is a combination of drilling and development due to the complexity of the mineralized bodies. Similar underground exploration practices apply to other CRD deposits such as those of the Santa Eulalia district in Chihuahua.

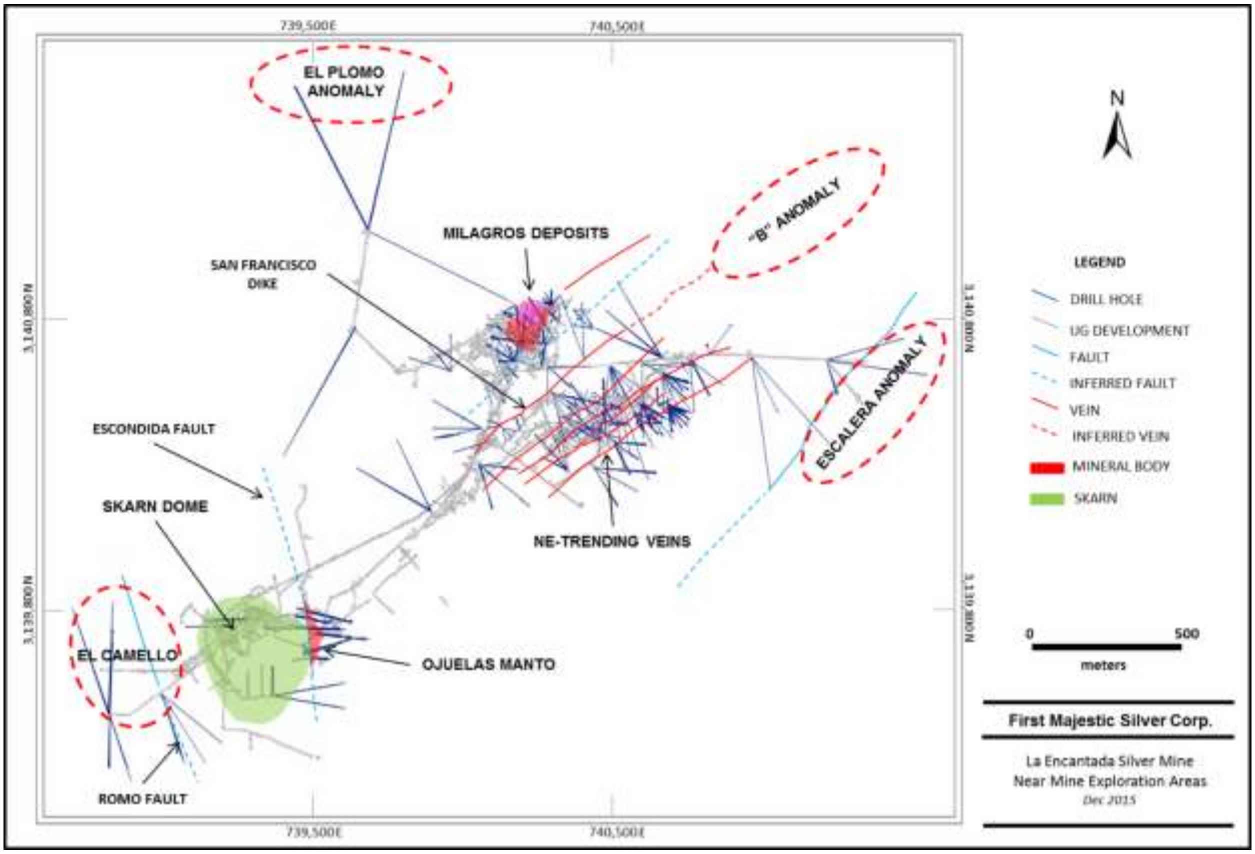


Figure 9-1: Map showing the main near-mine exploration areas and underground drilling

9.1 Geophysical Survey

9.1.1 Magnetic Surveys

In 1994, Peñoles carried out an aeromagnetic survey over La Encantada property which resolved five different magnetic highs; one of the magnetic anomalies lies on top of the skarn dome. From top to bottom the skarn dome area contains the La Prieta chimney, 660-body, the Ojuelas manto and the skarn that rests on top of the granodiorite intrusion. The other four anomalies were referred to by Peñoles as A, B, C and D anomalies and they occur within four kilometres of the mine along a NNW-trend. Several mapping and geochemical surveys were carried out by Peñoles' geologists on those anomalies in the following years. The magnetic anomalies defined by Peñoles lead First Majestic to conduct other geophysical works between 2008 and 2010. In 2009, First Majestic acquired regional aeromagnetic data from the SGM and retained the services of Instituto Potosino de Investigación Cientifica y Tecnología (IPICYT) to perform processing of the raw aeromagnetic data. The digital data was collected by the CRM (now SGM), between 1975 and 1976 with flight lines oriented NE-SW, line spacing of 1,000 metres and altitude of 450 metres with respect to the terrain. The IPICYT processed the raw data and prepared RTP (Reduction to Pole), Analytical Signal and vertical gradient maps in order to be able to identify intrusions and regional faults and fractures in an area of 27,861 km2 around La Encantada mine. Figure 9-2 shows the RTP map prepared by IPICYT around La Encantada area, the map shows sharp magnetic highs over La Minerva and La Vasca intrusions. In general, the processing of the regional aeromagnetic data resolved mostly magnetic highs over regional intrusions and magnetic lineaments along regional structures outside the La Encantada property; the resolution of the survey is low but the main objective of this work was to detect additional intrusions and structures at regional scale.

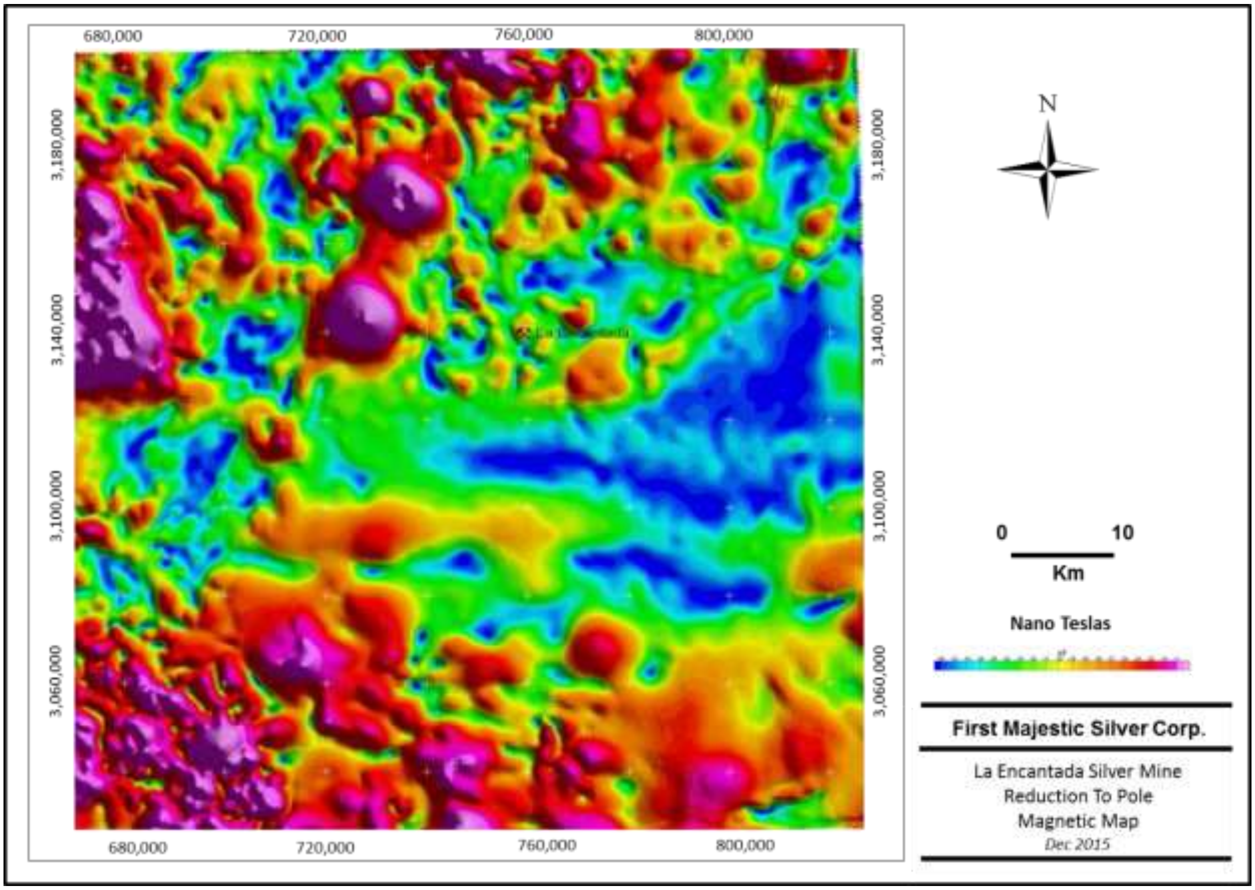


Figure 9-2: RTP map showing magnetic highs around La Encantada area

9.1.2 Natural Source Audio Magneto Telluric Survey

In 2008, First Majestic hired Zonge Engineering and Research Organization (Zonge) to conduct a Natural Source Audio-Frequency Magneto Telluric survey (NSAMT) over the A, B, C and D magnetic highs, La Escalera breccia and the Plomo anomaly. The study comprised twenty eight lines totaling 30.25 line kilometres over the anomalies. A station spacing of either 25 or 50 m was used for all of the E-W oriented survey lines. The NSAMT is an electromagnetic geophysical method for inferring the earth's subsurface electrical conductivity from measurements of natural geomagnetic and geoelectric field variations at the earth's surface. Solar energy and lightning induce electric currents that cause variations in the earth's magnetic field, generating telluric currents. Thus, the primary goal of the survey was to assess the conductivity-resistivity properties of the subsurface in order to obtain general geologic information and to identify target areas susceptible to being mineralized. According to Zonge, the overall NSAMT data quality was considered fair to good. In some areas, data quality was degraded somewhat due to the vicinity of the nearby La Encantada mine and its associated culture. In particular, the Escalera, Anomaly B, and El Plomo surveyed areas have somewhat poorer data quality than the other areas; however, Zonge still considered the inversion models to be reliable, with only a slight decrease in resolution. Figure 9-3 shows the location of the NSAMT lines surveyed over the magnetic highs defined by Peñoles in 1994. Lines in blue represent sections that are shown further.

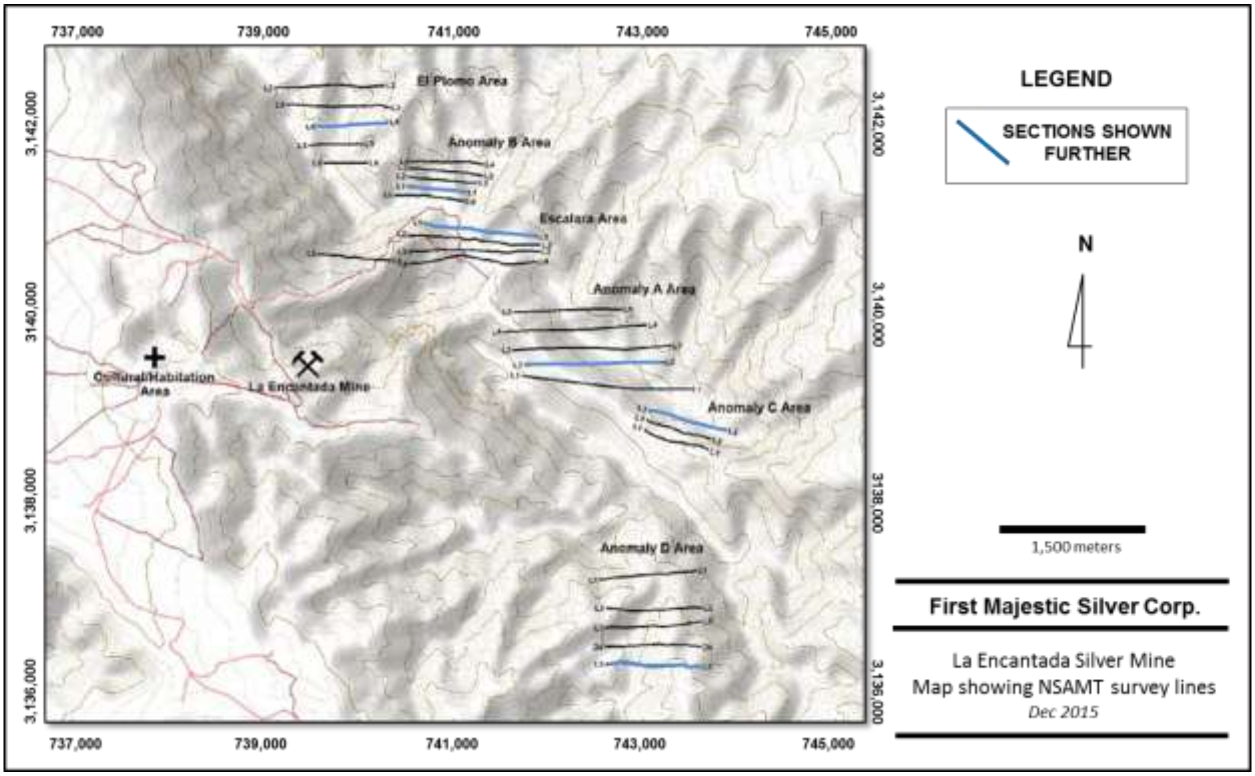


Figure 9-3: Map showing the location of the NSAMT survey lines

The survey resolved conductivity anomalies in the different areas, and some of them were tested with drilling between 2010 and 2012. For example, in anomaly A, the study resolved a structure that appears as slightly dipping (or concentric with topography) layers or zones that are cut intermittently by narrow vertical conductive features indicative of vertical faults or fractures in the shallow and mid depth range. The conductive feature generally mimics the surface topography (Figure 9-4). Two diamond drill-holes were drilled in this anomaly for a total of 1,225 metres. The holes did not intercept silver mineralization, but did intercept andesitic dikes and breccias although it is not certain whether the lithologies have some relation to the conductive anomalies.

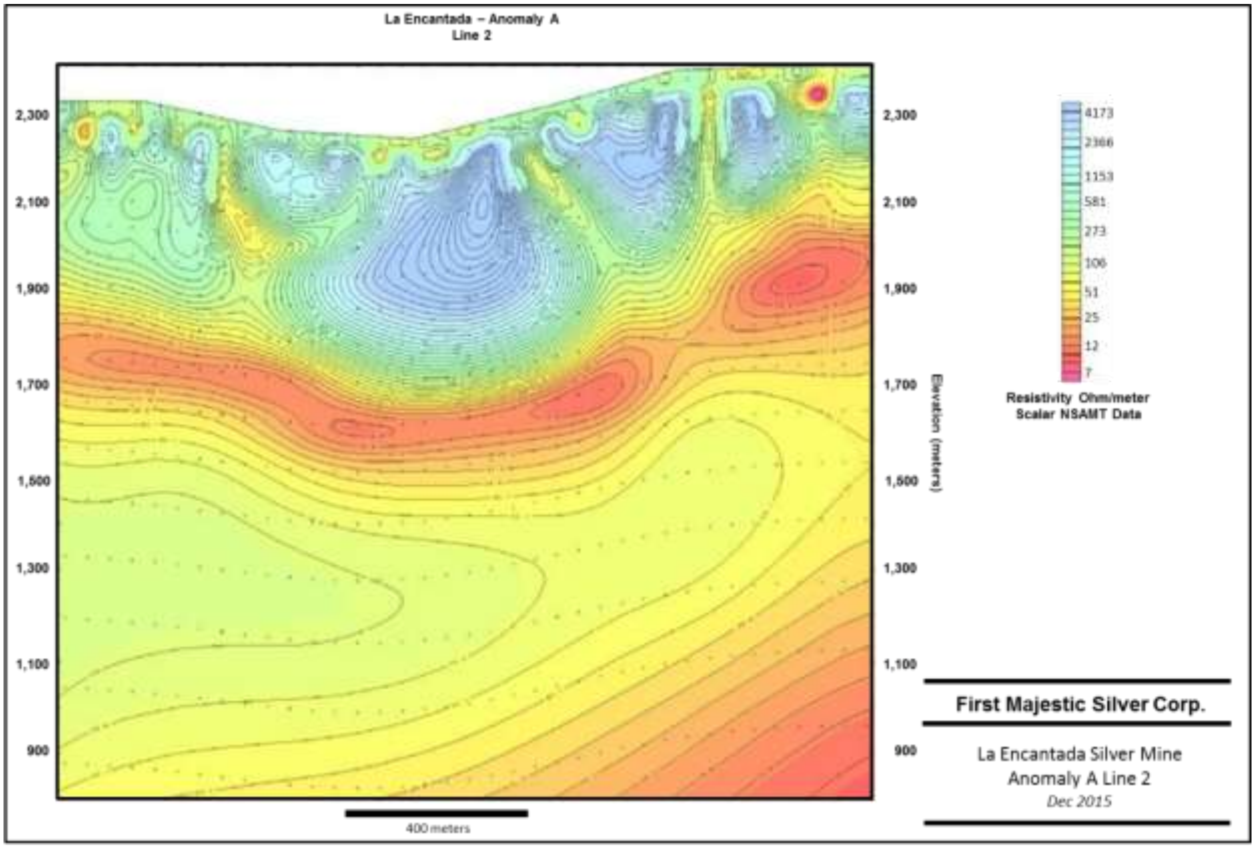


Figure 9-4: NSAMT section across anomaly A

In anomaly B, the data quality was somewhat degraded due to the mine proximity. Both lateral and vertical resolution are reduced, but according to Zonge the data is still of sufficient quality to be interpretable. Most of the lines in the anomaly show a steep vertical gradient along with a change in resistivity character that may indicate a major fault. One other feature of note is a shallow, very conductive feature seen on Line 4 between stations 600-650 with a fairly steep vertical gradient below this extending to depth, which may indicate a very conductive fault zone in this area. Of caution, however, is that this feature could be due to cultural/external noise effects, because the low resistivity values are observed for the most part along an entire spread of stations at this location (Figure 9-5). A total of 1,263 metres were drilled in this area but the results were negative.

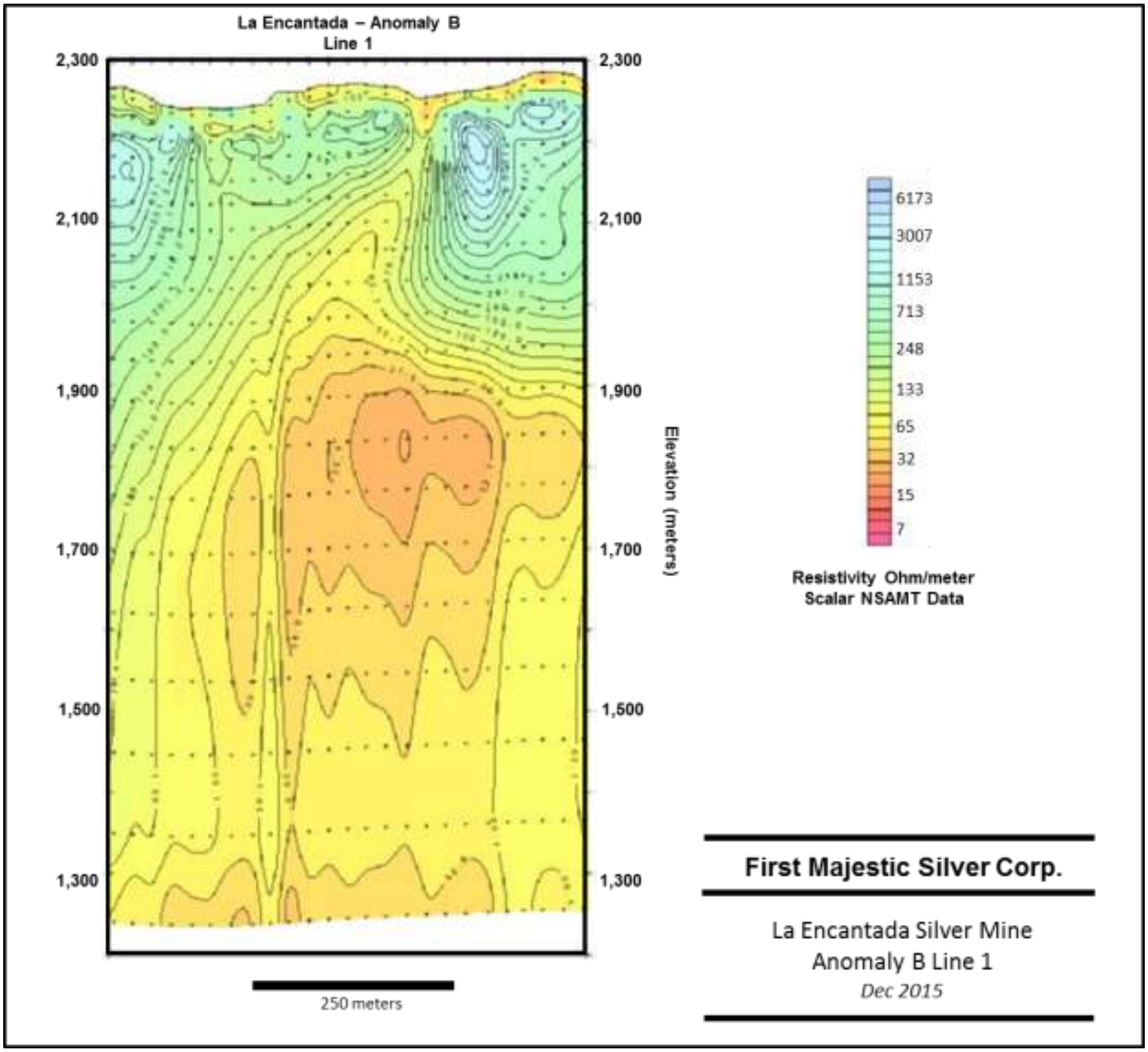


Figure 9-5: NSAMT section across anomaly B

Lines on Anomaly C over the La Palma area show a resistivity structure very similar to that observed in Anomaly A. Additionally, a deep conductor in this area appears to be truncated around midline; it is less prominent or absent on the eastern part of the Anomaly C lines (Figure 9-6). This observation, however, may be due to the orientation of the Anomaly C lines, which are more along strike of apparent geologic structure. Three holes were drilled for a total of 1,476 metres which intercepted only a limestone clast-supported breccia with anomalous Ag, Cu, Fe, Mn, Pb, Zn and Hg values.

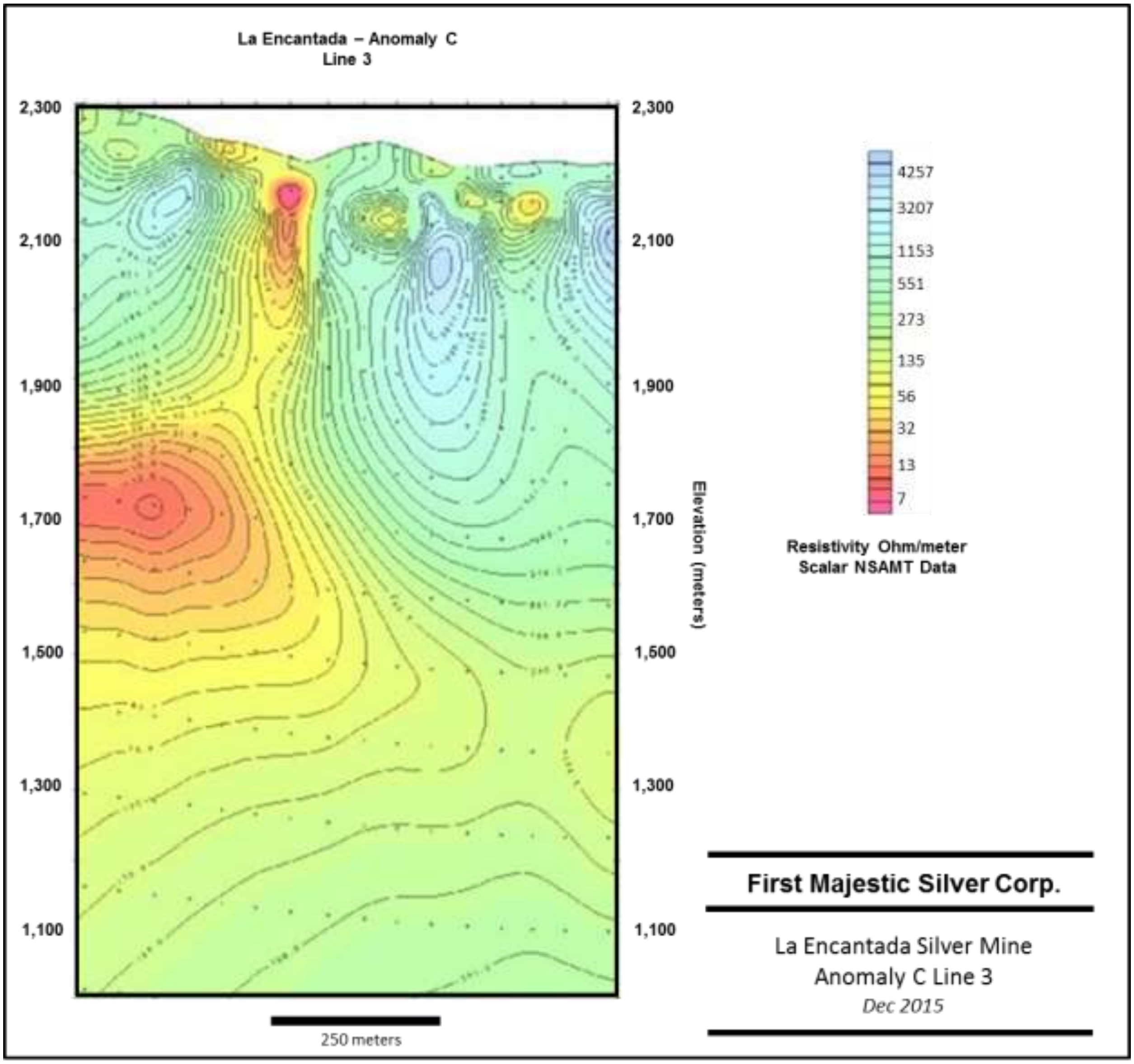


Figure 9-6: NSAMT section across anomaly C

At El Plomo anomaly the model sections indicate a subsurface resistivity structure similar to that observed at Anomaly B. One feature of interest is located at about Station 475 on Line 2 (Figure 9-7). Here a narrow high resistivity dike-like feature is observed from fairly deep in the section extending upward to the near surface.

Adjacent to this are two steep vertical gradients with vertical conductors extending to depth. A total of 2,057 metres were drilled in six holes at El Plomo. The drill-holes did not intercept silver mineralization, although they confirm that the resistivity anomaly corresponds to a quartz-siderite vein hosted in a fault zone.

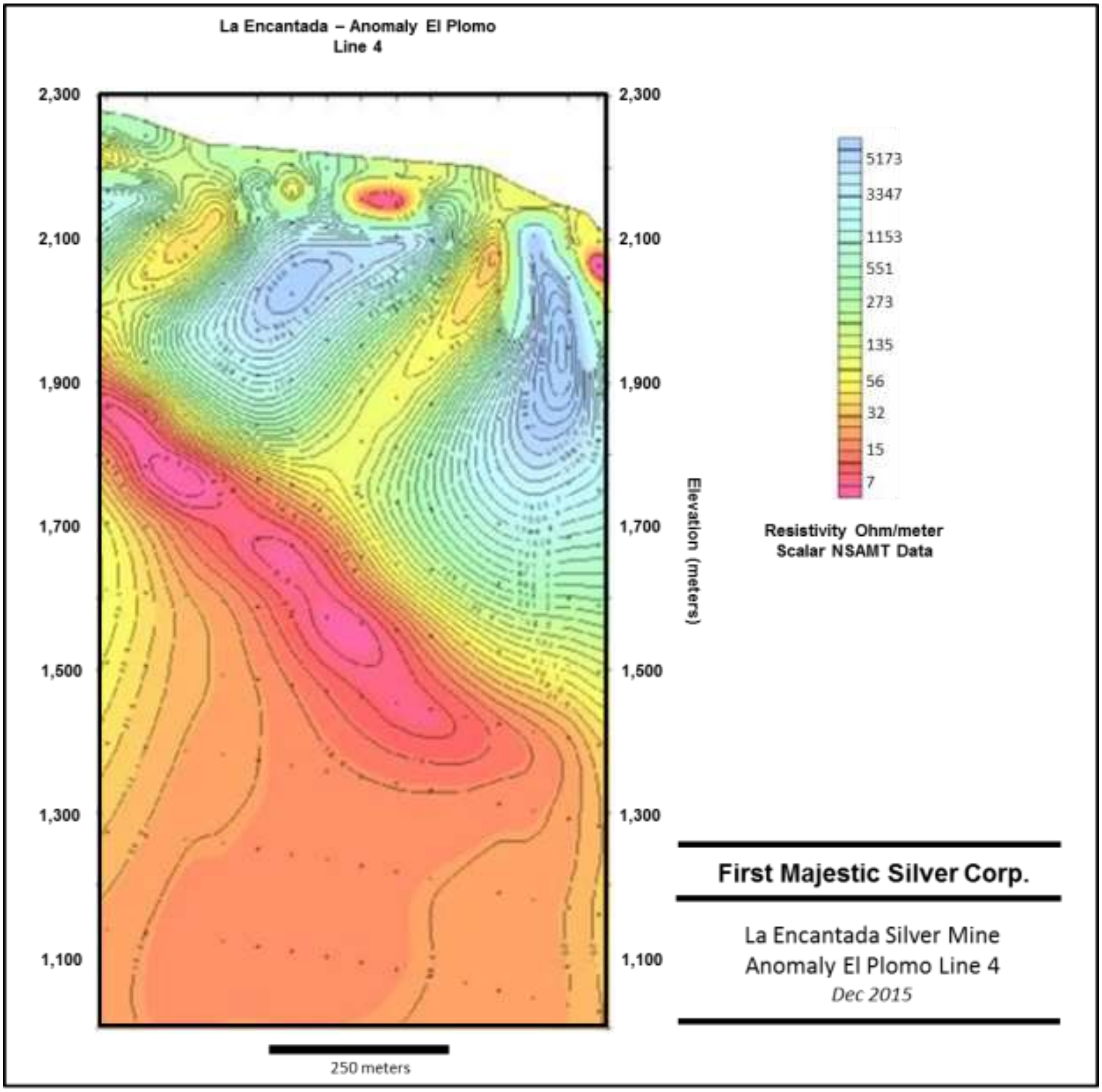


Figure 9-7: NSAMT section across anomaly El Plomo

At La Escalera the data was somewhat noisy, however, Zonge concluded that it had good enough quality for a satisfactory interpretation. The data shows a fairly consistent subsurface resistivity anomaly, with a moderately conductive shallow layer (20-50 metres thick) and a thick mid-depth range resistor (from about 100 metres depth to 600-800 metres depth). Below the thick resistor is a thin, very conductive layer or contact (5-25 ohm-m) that grades into low to moderate resistivity to the base of the model sections (Figure 9-8). A total of 1,240 metres were drilled at La Escalera area in three holes but the results were negative.

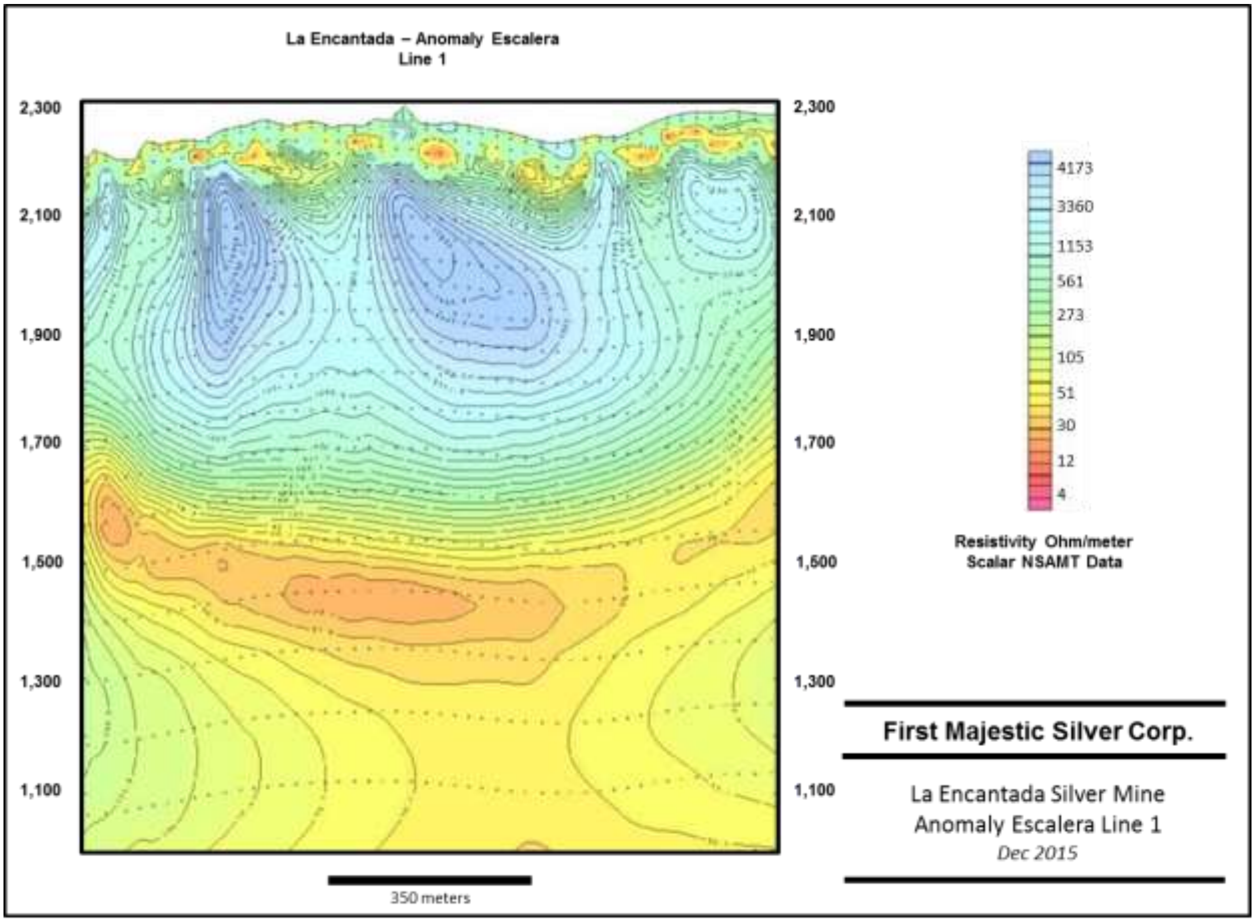


Figure 9-8: NSAMT section across anomaly La Escalera

The primary goal of the NSAMT survey was to assess the subsurface resistivity structure in the area east of the La Encantada mine. Except for one area (El Camello), survey data from six other sites, including Anomaly A, Anomaly B, Anomaly C, Anomaly D, Escalera, and El Plomo was of sufficient quality and resolution to provide reasonable geologic interpretations from the observed resistivity models.

9.2 Geological Mapping

Surface geological mapping at scales 1:1000 and 1:2000 combined with rock sampling have been carried out over some of the geophysical anomalies prior to drilling at El Camello area. The El Camello area contains multiple calcite, siderite and manganiferous calcite veins and veinlets anomalous in silver. A total of 1,133 metres were drilled in three holes at El Camello. Hole EC-05 intercepted skarn mineralization with significant, silver, zinc and lead values, and we interpret that this intercept confirms the southward continuity of the skarn that occurs below the Ojuelas manto. Further surface drilling is planned to explore the continuity of the skarn between EC-05 and the Ojuelas manto. Additionally, detailed geologic mapping and channel sampling of faces and backs at the 1:500 scale is carried out underground in drifts, stopes and cross cuts.

10 Drilling

10.1 Drilling campaigns

October 2008 has been selected as the initial cut-off of the drilling information after identifying the relevant drill-holes that support the geological modeling and resources estimation for La Encantada deposits in this Technical Report. Between October 2008 and December 2015, several diamond drilling campaigns have been carried out at La Encantada. Total drilling during this period amounts to 89,426 metres in 591 diamond drill-holes; 68,371 metres were drilled underground in 469 holes, and 21,056 metres were drilled on surface in 122 holes. In this period, approximately 30,000 metres were drilled underground by First Majestic with its own rigs and personnel, and the remainder was drilled using contractors. Since 2008, diamond drilling has been carried out by First Majestic and various contractors using rigs that recover core with varying diameters including TT46 (36.4 mm), NQ (47.6 mm), and HQ (63.5 mm). The primary areas drilled on surface include Anomaly A, Anomaly B, El Plomo, La Escalera, El Camello and the tailings deposits. The most important underground areas drilled in the same period of time include the NE-trending system of veins (Buenos Aires, Azul y Oro, 990, 990-2, El Regalo, San Francisco dike and La Escalera), the San Javier and Milagros breccias area (San Javier breccia, Milagros breccia, Milagros intrusion and Nucleo), the Ojuelas manto, and the skarn dome (Figure 10-1. In 2014, First Majestic established the use of HQ diameter barrels for all exploration holes in the Ojuelas manto and the Milagros-San Javier breccias, in order to recover a larger sample amount and to improve recoveries. Table 10-1 shows a summary of the holes drilled between October 1, 2008 and October 31, 2015.

Table 10-1: Summary of drilling at La Encantada between October 1, 2008 and October 31, 2015

Year	Meters	Holes
Q4 2008	2,107	7
2009	2,528	10
2010	7,126	48
2011	11,837	44
2012	19,390	109
2013	15,835	167
2014	19,337	125
2015	11,266	81
Total	89,426	591

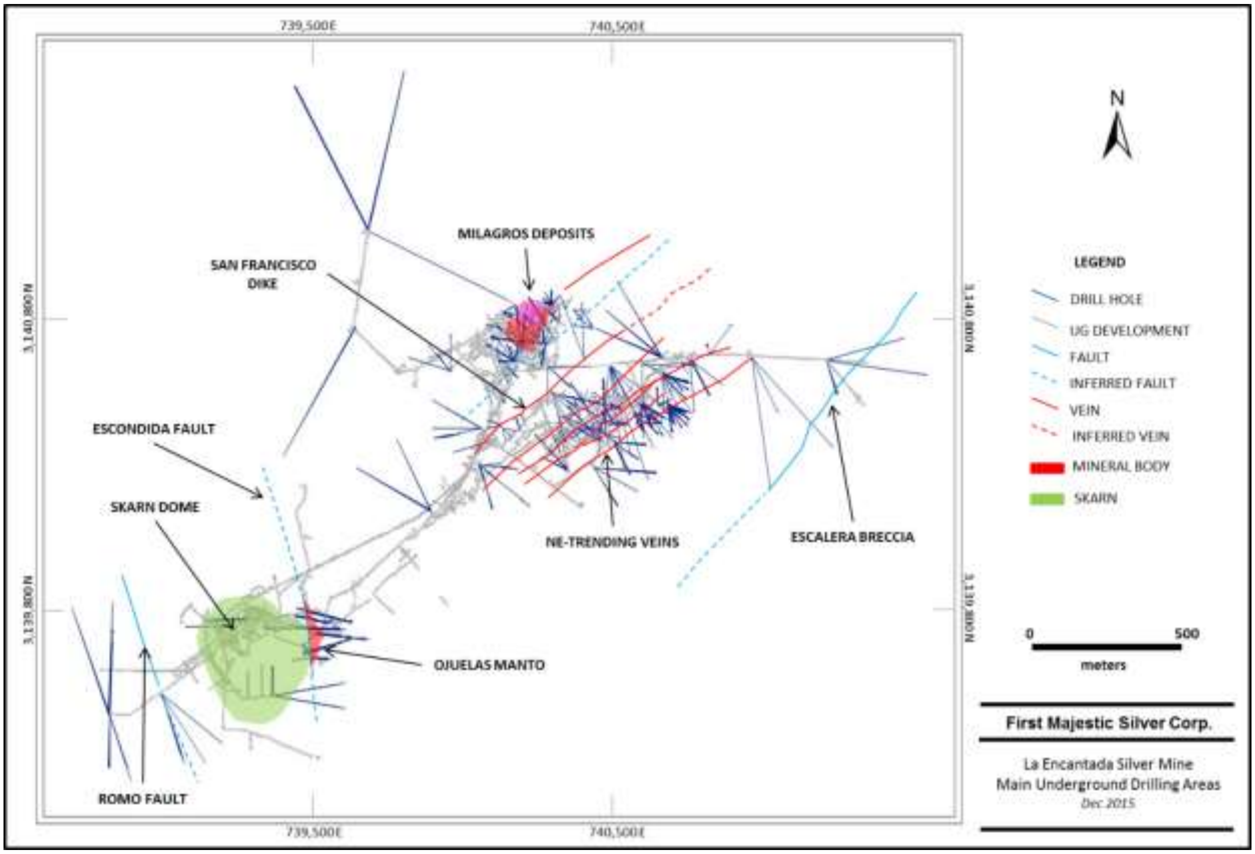


Figure 10-1: La Encantada Silver Mine, underground drill-hole location map

10.2 Drilling categories

First Majestic categorizes drill-holes into “delineation holes” (used to guide and support mine developments), “infill holes” (to improve the quality of known resources) and “exploration holes” (to add new resources). Figure 10-2 shows the classification of diamond drill-holes used by First Majestic. The core diameters used for drilling at La Encantada are TT46, NQ and HQ. The TT46 diameter is generally used only for delineation holes, whereas the bigger NQ and HQ diameters are used for infill and exploration holes. No reverse circulation (“RC”) drilling has been carried out by First Majestic. First Majestic drills most of the delineation holes using its own rigs and workforce, whereas it uses contractors for most infill and exploration holes.

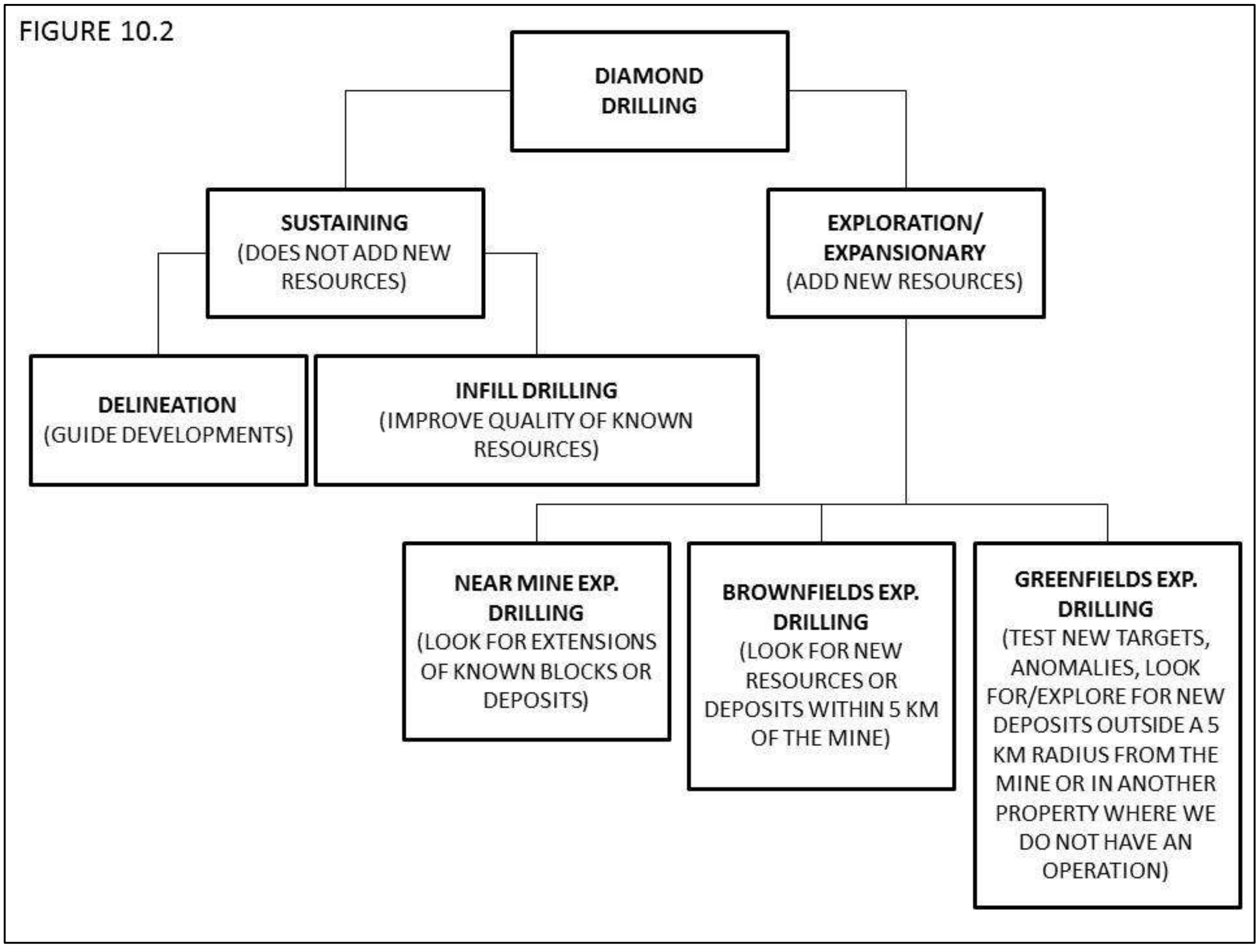


Figure 10-2: Diamond drilling classification used by First Majestic Silver Corp.

10.3 Core Handling and Storage

The standard practice followed by First Majestic's drillers, and contractors under First Majestic supervision, is:

1. extract the core every 3.05 metres (length of one drilling rod, "the runs"), place the core onto a sample collector that matches the length of the run
2. break the core when necessary to ensure pieces match the length of the core box
3. mark the core using a coloured pencil at the place where it was broken
4. place the core into the core boxes, and then place a wooden block at the end of the run with the total depth of the hole and core length recovered in the run
5. once full, the core box is closed with a top lid and stacked for transportation.

Core boxes from underground drilling are transported and delivered to the core shed by drillers at the end of every shift (drillers work under 12-hour shifts). In the case of surface drilling, the exploration geologist collects the core boxes every morning from the drilling station and transports them to the core shed. In both cases, the core boxes are properly closed and the box lids are secured with raffia fiber or rubber bands to prevent core from falling out of the box during transportation. The condition of the boxes, depth marks and core are checked by one of the exploration geologists prior to core logging. Once the core boxes have been checked, the core is logged (geotechnical and lithological logging) and sampled, and afterward the core boxes are placed on racks within the secure environment of the core shed. Upon acquisition of La Encantada, First Majestic built a new core shed with approximate capacity of 100,000 metres of core. First Majestic intends to increase the core storage capacity to about 130,000 metres by rebuilding an old core shed originally built by Peñoles.

10.4 Data Collection

Data collected at La Encantada includes collar surveys, downhole surveys, logging (lithology, alteration, mineralization, structure, sampling, etc.), specific gravity (SG), and geotechnical information. The data collection practices employed by First Majestic are consistent with mining industry standard exploration and operational practices.

10.4.1 Collar Survey

Drill-hole collars from campaigns prior to 2014 were surveyed by First Majestic surveyors using a Trimble S3 total station with accuracy of 2” in angular measurements, and 3 mm in distance. In late 2013, First Majestic hired the contractor “Topografia y Construcción” (Topcon) to survey the mine and hole-collars. Between late 2013 and 2014, Topcon re-surveyed some historic hole-collars, most of the collars from the 2013 drilling campaign, and surveyed all of the collars from the 2014 drilling campaign. Topcon used a Sokkia 630 RK total station with accuracy of 6” in angular measurements, and 3 mm in distance. Hole-collars from the 2015 drilling campaign were surveyed by First Majestic surveyors using a Trimble S3 total station. In all cases, the collected information include X, Y, Z coordinates, azimuth and dip angle. Surveyors prepare certificates with collar data that are further archived and made available to users in the mine server.

10.4.2 Down-hole Survey

Down-hole trajectory data for holes drilled between 2013 and the effective date of this report was measured using multi-shot DeviTool™ PeeWee and single-shot FLEXIT™ surveying instruments, which report survey depth in metres, azimuth in degrees, dip in degrees, temperature in Celsius, and magnetic field in nanoteslas. Measurements were collected every 30 metres on average. The typical precision for these instruments is +/- 0.25° for dip and +/- 0.35° for azimuth. A correction equal to 6.48° to the east is added to every azimuth reading to compensate for magnetic declination. The observed average deviation in dip and azimuth for holes drilled between 2013 and 2015 was less than two degrees in both cases. Down-hole surveys were carried out by the drillers under the supervision of First Majestic geologists.

10.4.3 Logging and Sampling

Core logging and sampling were conducted by First Majestic geologists. Prior to core logging and sampling, the geologist labels depth intervals on core boxes and lids, and checks that the wooden blocks (depth markers) are set at the appropriate depth in the core box. The geologist then estimates the Rock Quality Designation (RQD) and core recovery, describes geology (lithology, mineralogy, alteration, structures, etc.), takes photographs of core boxes, and then proceeds to sampling for assaying and Specific Gravity (SG). Samples for SG determination measuring 15 cm in average, and being representative of every lithology, are cut prior to assay sampling in order to use the whole core to obtain better precision. For assaying, core is split in half with a diamond saw; half of the core is sent for assaying, and the other half is preserved in the core box. Prior to sampling, the geologist makes sure that all the core pieces are in place and that there is no bias at the time the core is cut. Sample intervals are variable between 1.0 metre and 3.0 metres, with most sample intervals averaging 1.5 metres. The length of samples may be less than average to honor geologic contacts and narrow mineralized structures, or may be bigger than average in wide zones that are visibly barren or homogeneous in terms of lithology and alteration, or in fault zones with poor recoveries. Sample intervals are marked on core and on the box honoring lithology, mineralization and alteration. Quality control samples consisting of coarse blanks, pulp blanks, field duplicates, coarse duplicates, pulp duplicates and pulp standards with four different silver grades were inserted in the sample stream prior to shipping to the primary laboratory. Pulp checks and coarse checks were also sent to a secondary laboratory. For more details on the QAQC procedures and results refer to Item 11 (Sample Preparation, Analysis and Security).

10.4.4 Specific Gravity and Bulk Density

Specific Gravity (SG) determinations were made by First Majestic geologists on core samples using the water immersion method that was implemented in 2013. Whole core samples measuring 15 cm on average were weighed first in air, then wrapped with kleen pack (kp) plastic, weighed again in air (air kp), and finally weighed under water (kp H_2O). The formula used for calculation of SG is shown below:

$$SG = \frac{W_{dry\ weight}}{(W_{air\ kp} - W_{kpH_2O}) - (W_{air\ kp} - W_{air}) / _{Kleen\ pack\ density}}$$

The bulk density was determined for partially consolidated fragments of tailings material. Consolidated fragments were coated with wax and the density was determined by the water immersion method at the Central Laboratory. The method consists on drying and weighting consolidated fragments of tailings material, then the samples are coated with wax and weighted again. The weight and volume of the coating wax is estimated in order to account for it in the final calculation of the bulk density. The bulk density is determined by the water immersion method by collecting and weighting the volume of water displaced by the sample, the volume of the coating wax is subtracted from the volume of displaced water to determine the sample volume and the bulk density is determined using the following formula:

$$B.D= \frac{sample\ weitht\ (grams)}{sample\ volume\ (cm^3)}$$

Additionally, First Majestic performed a field experiment as a check to the previous method by obtaining one cubic metre of tailings material and weighting the sample. Then the sample weight (tonnes) was divided by the volume (1 m^3). Sample humidity was determined to be 7.6% and was accounted for in the calculation of the bulk density. A bulk density of 1.98 t/m^3 was determined with this experiment which is slightly lower than the average 2.05 g/cm^3 determined with the water immersion method described above. The QP considers that 1.98 t/m^3 is a minimum since the sample was collected from the top layer of material which is expected to be less consolidated than the rest of the material at depth, therefore the 2.05 g/cm^3 was selected as the preferred value for bulk density.

10.4.5 Core Recovery and Geotechnical Logging

Core recoveries are estimated by geologists at the core shed. The process consists of assembling or putting back together pieces of core, measuring the real core length recovered and then recording the recovered lengths per drill run on paper. After the recoveries are recorded on paper, the information is transcribed into a spreadsheet template where the percent recoveries are calculated by dividing the measured length of core recovered over the length of the drill run. In the third quarter of 2013, First Majestic implemented the use of double barrel and increased supervision of drillers in order to maximize core recoveries, particularly in non-competent material such as argillically altered bodies. Core recovery and Rock Quality Designation (RQD) is estimated for every drill-hole. In January, 2015 First Majestic implemented a more detailed core logging procedure that includes determination of rock hardness, fracture density, fracture orientation, and other conditions of the fractures such as spacing of fracture planes (Js) and roughness of planes (Jc), in order to calculate the Rock Mass Rating; Bieniawski, 1989 (RMR). Additionally, the Company determined the resistance of the rock to compression, or Intact Rock Strength (IRS). Geotechnical core logging and determination of RMR and IRS values were performed for all the holes drilled in 2015, and for holes drilled in 2014 at the Ojuelas and Milagros areas. The logged data was initially recorded in hard copy format and then transcribed into electronic spread-sheets for estimation of rock quality. Point Load Tests (PLT) were also carried out for 19 core samples from the Ojuelas area at Cesia Ingeniería, in Hermosillo, Mexico.

11 Sample Preparation, Analyses and Security

Prior to 2013, samples supporting Mineral Resources were submitted to the La Encantada mine laboratory for preparation and analysis. Between August, 2013 and February, 2014, samples were submitted to the First Majestic Central Analytical Laboratory (Central Lab) and to the SGS Mineral's Durango Mexico laboratory (SGS). Starting in March 2014, all samples supporting Mineral Resource estimation were submitted to SGS. During this period, check samples were submitted to Inspectorate in Durango, Mexico for sample preparation, and to ACME in Vancouver, British Columbia, Canada for analysis. La Encantada lab and the Central Lab are owned and operated by First Majestic; the Central Lab is located at La Parrilla Silver Mine, Durango, Mexico. Since late 2013, the Central Lab has been working under a quality assurance program based on ISO 9001:2008, and international certification was obtained in May 2015. SGS, Inspectorate and ACME are independent accredited certified laboratories.

The following subsections describe the sample preparation, analytical laboratories and analysis procedures in terms of pre and post-2013 processes.

11.1 Pre-2013 Channel Sampling Method

11.1.1 Core Sampling

Pre-2013, drill core was logged and sampled by the geologist in the core logging facility located at La Encantada mine site. There are limited documented procedures regarding the core sampling methodology; however, intervals recorded in the lithology logs indicate that, where mineralization was visually identified, this was sampled and assayed. Half of the core was sent for analysis at the La Encantada laboratory, and the other half was retained for further investigations.

11.1.2 Chip Sampling

Pre-2013 underground chip samples were collected to support grade control and Mineral Resource estimation. Chip sample lines were spaced from two to three metres intervals. Sample lengths were one metre or less, and along a sample line, depending on geologic features. Samples were chipped from the back of the drift perpendicular to the vein structures and across the breccia zones. Samples were collected in a canvas tarp before being bagged and submitted to the La Encantada laboratory. Each sample weighed approximately four kilograms. Occasionally, the drift was completely enclosed by the structural zone, and the full thickness of the vein or structure was not sampled. All sampling lines were marked by the geologist and numbered on the drift's walls for orientation and identification.

11.2 Post -2013 Sampling Method

11.2.1 Core Sampling

During logging, geologists mark the drill core intervals to be sampled while respecting lithological contacts, mineralization, alteration and structural features. Samples taken are from 30 cm to one metre in length, with the exception of samples with low recovery, in which case a sample with length greater than one metre is collected. Samples with a maximum length of three metres are taken between mineralized areas, until un-mineralized material is evident for more than 10 metres. During 2013 and 2014 drill core diameter was NQ (47.6 mm), and in 2015, it was changed to HQ (63.5 mm), except in areas where the ground conditions were poor.

All drill core intervals selected for sampling are cut in half. One half of the core is retained in the core box for further inspection and the other half is placed in sample bags for shipment to the laboratory. Samples are split using an electrical saw under supervision of the logging geologist. Sample tickets displaying the sample number are stapled into the core box beside the sampled interval, and a copy is inserted into the sample bag. Sample bags are sealed to prevent contamination during handling and transportation.

11.2.2 Channel Sampling

In 2013, First Majestic commenced a new methodology for channel sampling to support resource estimation and exploration targets. Channel sampling is conducted under the supervision of a mine geologist; the process is described below:

- Rock surface is properly washed with water prior to sampling.
- Sample lines are marked on the drift’s walls and through the back face, usually every 12 metres. Sample limits respect vein/wall rock contacts and/or textural/mineralogical variations.
- A six-centimetre wide by four-centimetre deep channel is created. Channel samples are marked along the channel with paint. The sample lengths applied range from 0.15 to 1.5 metres within mineralized or altered material, and from 1.0 to 1.5 metres in weakly altered to visibly barren material. The channel samples are first cut with a handheld diamond saw, then the sample is chipped to fragments of less than six centimetres with a hand held percussion hammer to achieve a good representation. The fragments are collected using a canvas tarp and deposited in numbered bags. These samples are sent to the SGS laboratory in Durango.
- The location coordinates from each channel sample are surveyed from a referenced survey peg.

11.2.3 Chip Sampling

Chip sampling is still standard practice for ore control and to support resource estimation in areas with large drilling spacing. The underground sampling process includes collecting chip samples from every three metre advance on a heading, and every three metres along the backs of every third stope lift. Chip samples are generally at least two metres long and often, but not always, include barren or silver-poor shoulder samples. Lithology boundaries are respected. The sampling procedure includes:

- Delineating sample intervals with paint before sampling
- Chipping the interval with a hammer
- Collecting the dislodged sample material from a tarp laid on the floor

11.3 Pre-2013 Sample Preparation and Analysis

11.3.1 Pre-2013 La Encantada Assay Laboratory

La Encantada laboratory (LE lab) is the on-site laboratory at the La Encantada Silver Mine.

From the period of 2008-2013, sample preparation for analysis at the LE lab included drying, crushing in a jaw crusher to 100% passing 3/8", splitting with a riffle to 300 g samples, and pulverizing in a disk pulveriser to 100 mesh. After preparation, the pulps were sent to be assayed and the rejects were sent to the core storage facility. The sample batch received from the preparation lab was manually renumbered and pulps were split in two sub-samples. The two sub-samples were prepared as follows:

- 10 g sample for fire assay silver with gravimetric finish
- 1 g sample for a three acid digestion atomic absorption analysis for Fe, Zn, Pb, Cu, Cd, and Mn

The silver fire assay detection limit was reported as 3 g/t Ag, a function of the smallest sized doré bead that can be picked up with tweezers. Detection limits for wet assays were not reported.

11.4 Post-2013 Sample Preparation and Analysis

11.4.1 2013-2015 SGS Laboratory

SGS in an independent accredited certified laboratory located in Durango, Mexico.

Samples at SGS are prepared using the PRP89 preparation method. This method is described as follows:

- Drying at temperature of 100° C for six to eight hours, or until the sample weight is constant
- All sample crushing to 75% passing to 2mm using a Rocklabs Boyd Crusher or Terminator jaw crushers
- Splitting a 250 g sub-sample using a riffle splitter
- Pulverizing to 85% passing 75 microns using a Labtech ESSA LM2 pulveriser. About 100g is used for analysis and laboratory internal quality control.

The analytical methods for the samples submitted to SGS laboratory are listed in Table 11-1.

All samples were analyzed by AAS21E and ICP14B for silver. Over limit AAS21E Ag results were also analyzed by FAG313. Since April 2014, AAS21E samples returning greater than 270 g/t Ag were analyzed by FAA313 to ensure there is overlapping in reporting between the fire assay and the acid digestion methods.

Over limit results of manganese, lead and zinc primary analyzed by ICP14B were subsequently analyzed by ICP90Q. Zinc and lead over limits by ICP90Q were further analyzed by CON12V and CON11V.

All coarse reject and pulp reject material is stored at SGS for 90 days. After this period, pulps and rejects are sent back to La Encantada Mine where they are stored in a secured core-shed.

Table 11-1: SGS Analytical Methods and Detection Limits

Code	Element	Limits	Description
FAA313	Au	0.01 g/t	30 g, Fire Assay, AAS finish.
AAS21E	Ag	0.5-300 g/t (2013) 0.5-270 g/t (2014) 0.3-270 g/t	2 g, 3-Acid digest, AAS finish. Samples with over detection limits results are analyzed by FAG313.
FAG313*	Ag	10-1,000,000 g/t (2013-2014) 5-3,000 g/t (2015)	30 g, Fire Assay Gravimetric finish. Used only for AAS21E, Ag upper detection limits.
ICP14B	Ag	2-100	.25 g, 2-acid/aqua regia digestion/ICP-AES package
ICP14B	multi-element	Range from 0.5-10,000 ppm	0.25 g, 2-Acid/aqua regia digestion/ICP-AES package.
ICP90Q**	Mn	0.01%	0.20 g, Sodium Peroxide Fusion/ICP-AES Package. Used only for ICP14B, Mn over range.
	Pb	0.05%	0.20 g, Sodium Peroxide Fusion/ICP-AES Package. Used only for ICP14B, Pb over range.
	Zn	0.05%	0.20 g, Sodium Peroxide Fusion/ICP-AES Package. Used only for ICP14B, Zn over range.
CON12V	Zn	5-65%	Titration, Used only for ICP90Q over range
CON11V	Pb	10-70%	Titration, Used only for ICP90Q over range

* AAS21E over limit analysis; ** ICP14B over limit analysis

11.4.2 2013-2014 First Majestic Central Assay Laboratory

Samples at Central Lab are prepared using the following procedure:

- Drying at temperature of 100^{o} C for eight hours
- Crushing to 80% passing 1/8 inch using a jaw crusher
- Splitting a 200 g subsample using a riffle splitter
- Pulverizing to 80% passing 106 µm using a pulveriser

The analytical methods for the samples submitted to the Central Lab are listed in Table 11-2.

Table 11-2: Central Lab Analytical Methods and Detection Limits

Code	Element	Limits	Description
ASAG-13	Au	0.01 g/t	20 g Fire Assay AAS finish.
ASAG-13	Ag	0.3 g/t	20 g Fire Assay with gravimetric finish.
ICPAW-20	Multi element	0.001%-60%	0.25 g 2-acid/aqua regia digestion/ICP-AES.
AWAA-100*	Multi element	0.002%	2-acid digestion finish by atomic absorption.

* ICPAW-20 over limit analysis

All samples were analyzed for Ag and Au by ASAG-13 and by ICPAW-20. Over limit ICPAW-20 results were also analyzed by AWAA-100.

11.4.3 2013-2015 Inspectorate and ACME

Since 2013, a check program has been in practice for samples supporting resource estimation. Check samples such as coarse and pulp rejects from SGS are submitted to Inspectorate in Durango, Mexico for sample preparation, and to ACME in Vancouver, British Columbia, Canada for analysis. Both laboratories are independent certified laboratories and operate under Bureau, Veritas Mineral Laboratories (BVML). BVML holds a global certification for Quality ISO9001:2008, and ISO/IEC 17025:2005.

At the Inspectorate laboratory, samples are crushed in a jaw crusher to 70% passing 10 mesh (2 mm) (PRP70-250), and a 250 g riffle split sample of the crushed material is pulverized in a mild-steel pulveriser to 85% passing -200 mesh (75 μm) (PUL85). After the samples are prepared, Inspectorate sends the pulps to be analyzed at the ACME laboratory in Vancouver, BC, Canada.

The analytical methods for the samples submitted to ACME are listed in Table 11-3

Table 11-3: ACME Analytical Methods and Detection Limits

Code	Element	Limits	Description
WGHT	Wt.	N/A	Weight sample
FA430	Au	0.005 ppm	Lead collection Fire-Assay Fusion-AAS Finish
MA401, MA402	Ag	1 ppm	Ag by 4 acid, AAS finish
AR330	Multi-elements including Pb, Mn, Zn		30 element, aqua regia, ICP finish
FA530	Ag	50 ppm	Ag by 30 g fire Assay Grav Finish-Over limit method
AR410	Pb, Zn	1-1000 ppm	0.1 g/100 ml aqua regia, AAS Finish Ore Grade-over limit
GC816	Zn	0.01%-100%	Zinc Assay by Classical Titration in Duplicate. Over limit method
AQ300	Multi-elements including Pb, Mn, Zn		1:1:1 aqua regia digestion ICP-ES analysis
AQ374	Pb, Zn,Mn	0.01%	1:1:1 aqua regia digestion ICP-ES Finish. Over limit method

All samples are analyzed by 4-acid AAS finish and aqua regia ICP finish for silver. Over limit Ag results are also analyzed by fire assay gravimetric finish. Lead, zinc and manganese are analyzed by aqua regia digestion ICP-ES (AQ300). Over limit lead and zinc results by AQ300 are also analyzed also by aqua regia (AQ374 and AR 410). Over limit lead and zinc results from aqua regia (AR410) are analyzed by Tritation Method (GC816).

11.4.4 2013-2015 La Encantada Laboratory

Since August 2013, core and chip samples have been analyzed for Ag, Pb, Fe, Zn, Cu, Cd, and Mn following similar preparation and analytical procedures as used at Central Lab. Sample preparation practice includes sample weighting, crushing to 1.3 cm (1/2”) size, 500 g sample split, crushing to 10-mesh (1/8”) size, drying at 120°C, pulverizing to -100 mesh, and homogenization. Samples are analyzed by ASAG-13 for Ag and by AWAA-100 for Mn, Fe, Cu, Pb and Zn.

11.5 Pre-2013 Sample Security

Prior to 2013, channel samples were kept in secured storage at La Encantada laboratory for a short period before being disposed and recycled in the La Encantada processing plant. Samples were attended by laboratory personnel.

11.6 Post-2013 Sample Security

Drill core samples taken from 2013 to present day are stored in a secure core processing and storage warehouse at the La Encantada mine prior to their shipment to the sample processing laboratories. All of the samples are securely sealed and chain of custody documents are issued for all shipments. The analytical results from these samples are received by authorized First Majestic personnel using secure digital transfer transmissions, and these results are restricted to qualified First Majestic personnel prior to their publication.

Upon completion of the drilling programs, the diamond drill core and assay sample rejects are catalogued and securely stored in the core storage facility at the La Encantada Silver mine site.

Chip samples are kept for seven days in a secured area at La Encantada laboratory facility. After this period, samples are recycled in the cyanidation circuit.

11.7 Pre-2013 Quality Assurance and Quality Control

There is limited information regarding quality control and quality assurance practices prior to 2013, however, in the 2007 and updated 2008 Technical Reports, PAH reported a check program to evaluate sample quality control for the 2006 and 2008 chip samples. During this period, La Encantada personnel sent 10 to 30 chip samples each month to Inspectorate in Reno, Nevada for duplicate checks. The check program concluded that the average correlations between La Encantada laboratory and Inspectorate were excellent from grades 432 to 1,492 g/t. However, results from Inspectorate showed low bias compared to La Encantada laboratory results. In the opinion of PAH, the difference could be attributed to sample preparation, or related to the nature of the oxidized mineralization. PAH recommended the implementation of a strict program of quality control by introducing blanks and standard samples as well as duplicates. A quality control and quality assurance was implemented by First Majestic in the second half of 2013 for core and channel samples.

11.8 Post-2013 Quality Assurance and Quality Control

La Encantada personnel implemented a quality control system for laboratory assaying procedures, including the insertion of duplicates, standards, blanks and checks for core and channel samples. Insertion rates are shown in Table 11-4.

Table 11-4: Insertion Rates 2013-2015 Drilling Programs

Sample Type	Sample Frequency	Insertion Rate
Field Duplicate	1 of 50	2%
Coarse Duplicate	1 of 50	2%
Pulp Duplicate	1 of 50	2%
Low Grade Standard	1 of 50	2%
Medium Grade Standard	1 of 50	2%
High Grade Standard	1 of 50	2%
Cut-Off Grade Standard	1 of 50	2%
Pulp Blank	Between Mineralized areas	2%
Coarse Blank	Between mineralized areas after pulp blank	2%
Pulp Check	1 of 50	2%
Coarse Check	1 of 50	2%

Field, pulp and coarse duplicates are used to assess laboratory precision. Target thresholds for acceptable precision are as follows:

- 90% of pulp duplicate pairs having absolute relative differences <10%
- 90% of coarse reject duplicate pairs having absolute relative differences <20%
- 90% of field duplicate pairs having absolute relative differences <30%

Absolute Relative Difference Cumulative Frequency charts (ARDCF), Max-Min and a Practical detection Limit chart were prepared to evaluate laboratory precision.

Standard Reference Materials (SRMs) are used to assess laboratory accuracy for Ag.

Accuracy is assessed in terms of bias between the assayed value of the standard and the calculated best value for the standard. Target threshold for accuracy is as follows:

- <± 5% – acceptable
- <± 10% – marginal
- >± 10% – unacceptable

Standard samples results are plotted in date sequence performance charts to investigate for outliers below or above the 3X STD lines.

Pulp and coarse blank reference materials are used to assess contamination during sample preparation and analysis. The assessment is done using date sequence performance and previous samples versus blank charts from pulp and coarse blanks. The threshold limits are two times the lower detection limit reported by the laboratory, and five times the practical detection limit. The Practical Detection Limit (PDL) is the grade threshold at which the absolute relative difference of each pulp duplicate pair regularly exceeds 100%, and represents the precision achieved by the laboratory. Since the PDL is obtained from pulp duplicates, only the PDL threshold for blanks is applied for SGS sample results.

Check samples are used to assess for biases between primary and secondary laboratories. Reduce Major Axis (RMA) analysis was used to calculate bias. Typical thresholds for mineral resources are good if absolute bias is less than 5%, questionable if bias is between 5% and 10% and unacceptable if bias is more than 10%. Bias is calculated in terms of the RMA regression line slope.

The following sections describe the precision, contamination and check assessment for the results obtained from 2013 to 2015 drilling campaigns.

11.8.1 Assessment of Laboratory Precision

Between 2013 and 2015, field, pulp and coarse duplicates from core and channel samples were used to assess laboratory precision at SGS. In 2014, only core field duplicates were used to confirm primary results at the Central Lab. The insertion rate for each type of duplicates sent to SGS was 2%, and 1% for field duplicates sent to Central Lab.

Reasonable precision was achieved for pulp and coarse duplicate results by Ag-AAS21E at SGS from core and channel samples. Field duplicates results from Central Lab and SGS achieved precision above 30% ARD.

Figure 11-1 and Figure 11-2 show the absolute relative difference plot for pulp and coarse duplicates, Ag results between 100 and 300 g/t (AAS21E).

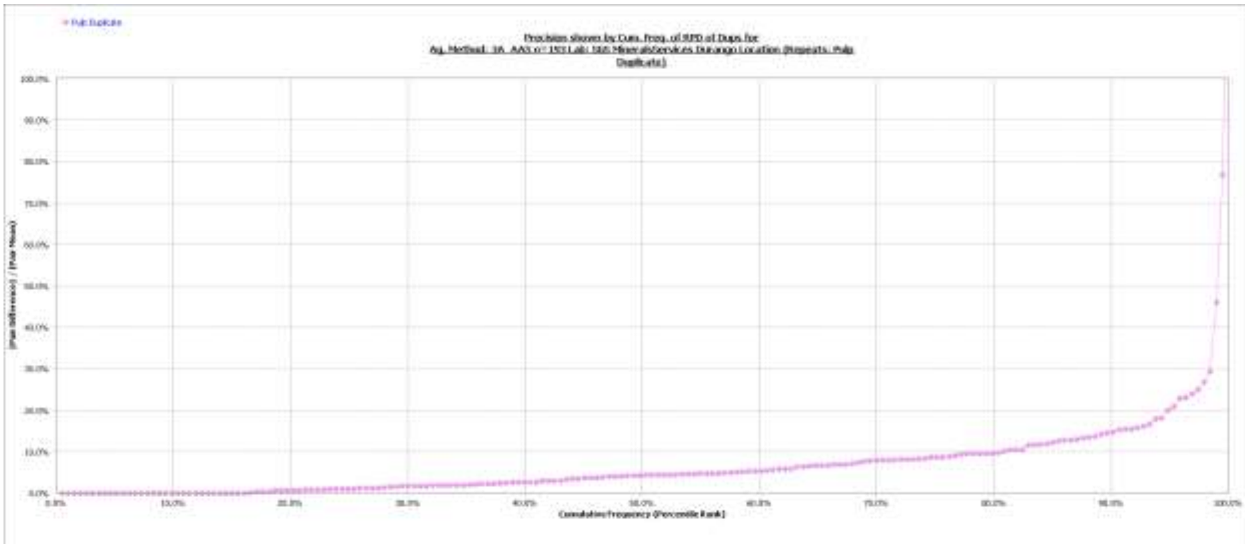


Figure 11-1: ARDCG plot Pulp Duplicates. SGS results by Ag-AAS21E. 2013-2015 Drilling Campaign

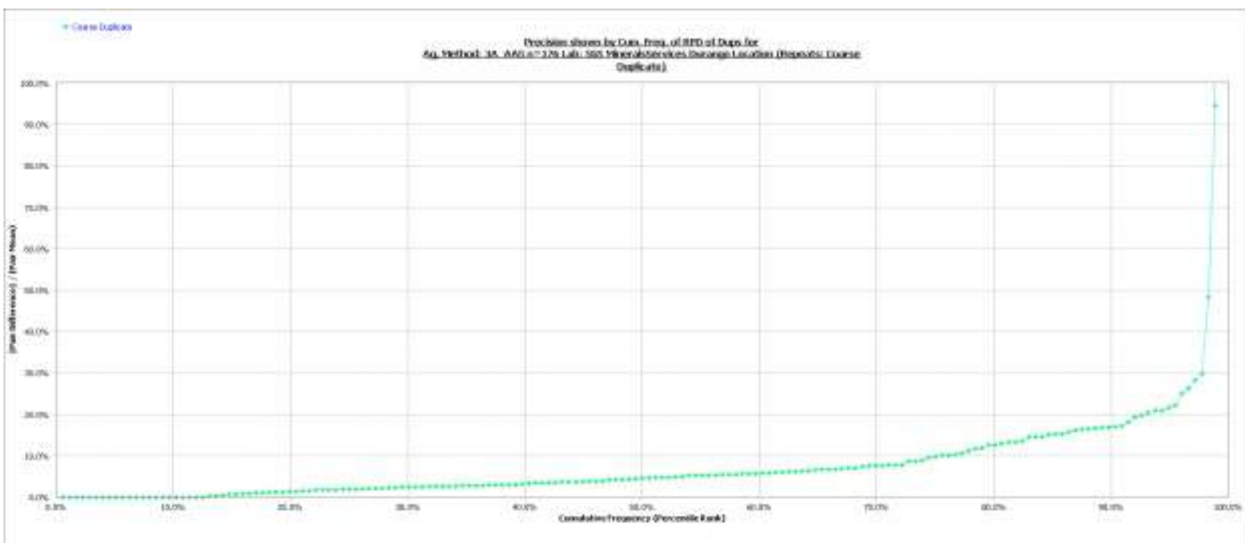


Figure 11-2: ARDCG plot Coarse Duplicates. SGS results by Ag-AAS21E. 2013-2015 Drilling Campaign

During the precision assessment, a few pair results with significant absolute difference were identified and investigated for transcription errors or errors in the analysis. After investigation, First Majestic confirmed the suspects were not related to errors in the analysis or sample swaps.

11.8.2 Assessment of Laboratory Accuracy

Standard Reference Materials (SRMs) were inserted from 2013 to 2015 in the core sample batches submitted to the Central Lab and SGS laboratories. Standard samples were also inserted in the channel sample stream submitted to SGS in 2014. The insertion rate of each standard type during this period was 2%.

The standard material was obtained from underground deposits from La Parrilla Mine. Six SRMs were prepared and submitted for a round robin analysis carried out at the Central Lab. One standard was prepared and submitted for round robin analysis by SGS. The SRMs and the best values used between 2013 and 2014 are shown in Table 11-5.

From 2013 to 2014, high, medium and low standards results from SGS and Central Lab showed a bias ranging from 1% to 5%.

During the quality control program, only a few sample suspects were found. The suspects were related to either laboratory errors or sample swaps. After investigation, sample swaps were corrected in the database and samples with probable analytical errors were submitted for re-assay.

Table 11-5: Standard Reference Materials and Best Values (2014)

Standards 2014	BV (Best Value) Ag ppm
STD ALTA LEY (high grade)	452
SMO1-B-LP (low grade)	90
SMO1-M-LP (medium grade)	116
SMO2-A-LP (SMO1-A-LP) (medium grade)	149
SMO2-B-LE (low grade)	65
SMO2-B-LP (SMO1A-B-LP) (low grade)	49
SMO3-M-LE (medium grade)	287

In 2015, four SRMs representing low, medium, high and cut-off grades were collected from the underground mine deposits at La Encantada. The materials were submitted to Inspectorate laboratory in Durango for homogenization, and to ACME in Vancouver for analysis. The SRMs were sent to round robin analysis to confirm the expected value. First Majestic is currently certifying these values with the assistance of independent consultants. To assess bias of the 2015 sample results, these standards were inserted in the sample stream. To calculate bias, the expected value was obtained from the average results of six participant laboratories from the round robin analysis.

The SRMs and the expected grades used in the 2015 sampling campaigns are shown in Table 11-6.

Using the expected values in table 11.5-3, all standards have bias between -2% and 3%. There were only two sample swaps during the assessed period.

Table 11-6: Standard Reference Materials and Expected Values (2015)

Standards 2015	Expected Value Ag ppm
SRM_BAJA_LEOX_14 (low grade)	66
SRM_Cutoff_LEOX_14 (cut-off grade)	113
SRM_Media_LEOX_14 (medium grade)	161
SRM_Alta_LEOX_14 (high grade)	640

11.8.3 Assessment of Laboratory Contamination

Blank material was collected by geologists at La Encantada mine and prepared by the Central Lab to assess carry-over contamination and sample mix-ups during sample preparation and analysis for silver. The materials were obtained from limestone rock located in creek banks nearby La Encantada mine, by purchasing industrial rocks, and from industrial silica sand used at the processing plant at La Encantada.

Between 2013 and 2014, two coarse and two pulp blanks were inserted in the sample stream submitted to SGS and one pulp blank inserted in the samples submitted to Central Lab. The sample insertion rate for blanks during this period was 4% for each type of blank.

Contamination at SGS is acceptable during this period from both channel and core sample results. One pulp blank material (SM2-BLANK-LP) was found not sufficiently devoid of Ag, and not suitable for assessing contamination for AAS21E results. The expected contamination threshold for the other pulp blank (SMO2-0-LE) was achieved, and no significant contamination was evident. Acceptable contamination was achieved for blanks submitted to the Central Lab during this period.

In 2015, First Majestic assessed contamination at SGS, Central Lab and at ACME. One coarse and two pulp blank materials from the silica sand were inserted in the sample stream. The sample insertion rate for coarse and pulp blanks during this period was 2% and 4% respectively. Contamination at SGS for coarse and pulp duplicates is acceptable during this period. Small carry-over contamination is presented in pulp and coarse blanks submitted to the Central Lab. Since internal certified laboratory blanks generally had results below or near the detection limits suggesting no carry-over contamination, the contamination was related to poorly prepared materials. Sample swaps occurred occasionally during sample preparation by the geologists at La Encantada. These sample swaps were investigated and fixed.

11.8.4 Check Assessment

Between 2014 and 2015 drilling campaigns, coarse and pulp checks from SGS rejected samples were submitted to ACME. Checks were used to assess primary laboratory accuracy by checking for biases between SGS and ACME results. The insertion rate in this period for each check type was 3%. Between one and two pulp duplicates, two coarse blanks, four pulp blanks, and eight standards were inserted into the check samples submitted to ACME in 2015.

The slope calculated from the RMA chart for pulp and coarse checks results from all checks submitted between 2014 and 2015 indicates 1% and -1% bias respectively for Ag and -5% bias for Zn. An RMA plot for pulp and coarse check samples with silver results from the Ojuelas 2015 drill program is shown in Figure 11-3 and Figure 11-4.

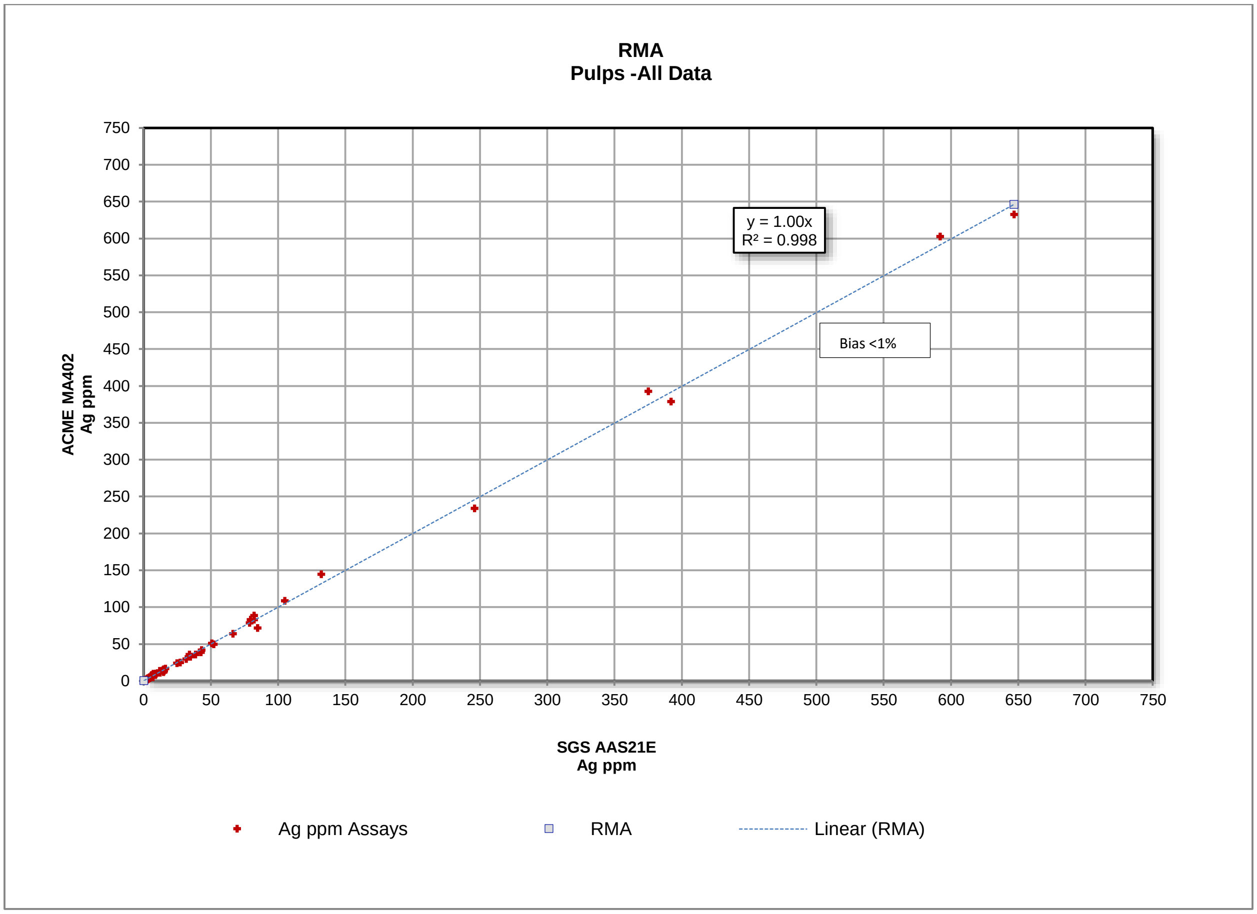


Figure 11-3: RMA plot for pulp checks. 2015 drilling campaign. Ojuelas Results

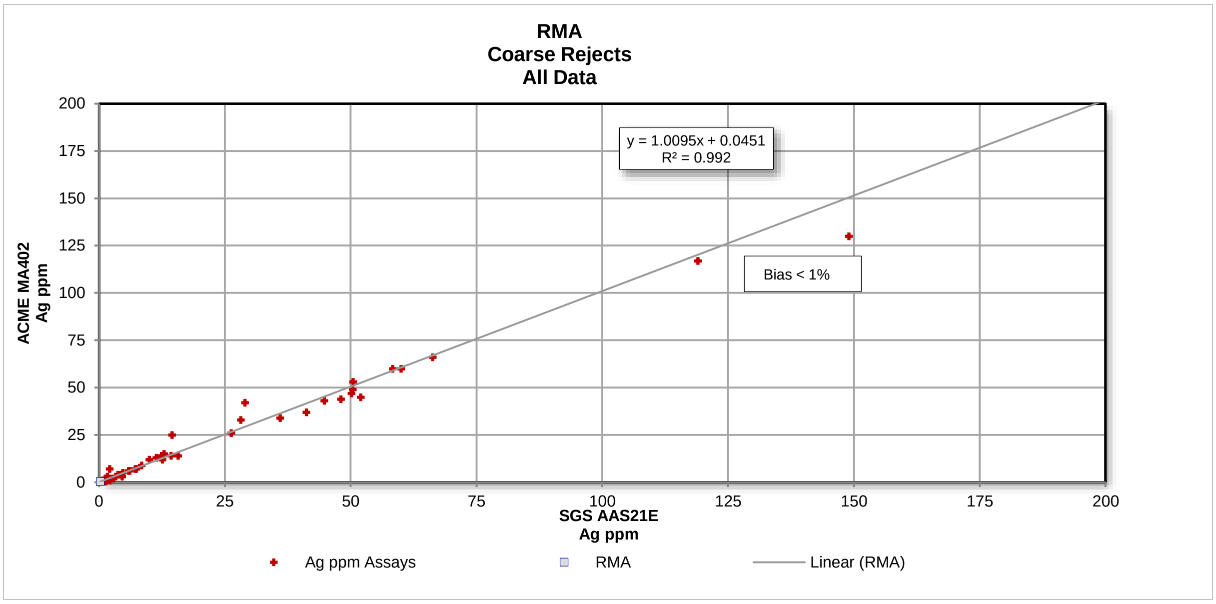


Figure 11-4: RMA plot for coarse checks. 2015 drilling campaign. Ojuelas Results

Control samples submitted with the checks samples showed no material precision, accuracy, or contamination issues.

11.9 Comments on Section 11

Pre-2013, channel and core samples were used mostly for grade control and also to support resource estimation. During this period, assays were obtained from the La Encantada Laboratory and results were confirmed by a limited check program.

Starting from the second half of 2013, core and channel sampling methods to support resource estimation have been prepared and assayed according to current industry standards. A quality control program has been implemented to assess reliability of assay results. Assay results by SGS achieved acceptable precision and accuracy, and no contamination was evident during sample preparation and analysis at SGS. The between-laboratories bias with checks results from SGS and ACME is acceptable. Reasonable precision was not achieved with field duplicates from core and channel samples with Ag results by ASAG-13 from Central Lab, and Ag by Ag-AAS21E from SGS. The low precision for field duplicates could be attributed to the sample's heterogeneous composition.

Assay results from the Central Lab were supported by a quality control program between 2013 and 2014. Assessment of these results showed relatively low precision for results by ASAG-13, but no significant bias or contamination. Currently, First Majestic is running a sampling program in order to investigate precision at the Central Lab.

Current core sample storage procedures and storage areas are consistent with current industry standards.

It is the QP's opinion that the QA/QC program from pre-2013 drilling and sampling campaigns has limitations, and caution should be applied before assigning high levels of confidence to related data. Despite the limited QA/QC program, spot checks have been carried out recently by the mine geologists to compare previous sampling data with recent samples, and the results are generally consistent with the estimated grades. The QP has not performed these checks and is relying on the mine geologists of La Encantada.

Channel and core samples from the pre-2013 sampling campaigns have a limited influence on current resource estimates based on the fact that most of the resources supported by these samples have been mined. It is estimated that pre-2013 samples represent about 34% of the total number of samples, and support approximately 10% of the total La Encantada resources distributed in veins, minor deposits and portions of the Milagros deposits above the 1,650 metre elevation.

Pre-2013 channel and core samples are not only considered to have a relatively low impact on the current resources, but also a relatively low risk. Previous resource estimates have supported mine production, for the period between Q4-2008 and Q3-2015, of approximately 3.45 million tonnes, with average grade of 260 g/t Ag of material extracted from underground deposits.

In spite of the relatively low impact and low risk of these Pre-2013 samples, the Company's Qualified Persons recommend that lower confidence in these samples should be considered; more restrictive interpolations parameters should be applied to the Veins System, other Minor Deposits, and the Milagros deposits; and more conservative modifying parameters for estimating mineral reserves should be applied.

Sample methods and preparation, analysis, and security are applied following best practices in the industry, and the quality of analytical data collected from 2013 to 2015 is sufficiently reliable to support the 2015 resource estimation. First Majestic continues enforcing and improving these practices for resource estimations.

12 Data verification

Before 2008, data verification work was performed by PAH for the 2007 Technical Report. The data verification from PAH consisted of verification for assay checks of production concentrates at La Encantada laboratory, and concentrates assays reported by the MET-MEX Peñoles smelter in 2007. PAH concluded that results from check assaying were reasonable with appropriate preparation procedures, and that the sample results appeared to be reasonably representative of the deposit mineralization and usable with acceptable confidence in the resource estimation.

Collar positions, representative chip sample locations, and assay results from 2008 and 2013 drilling campaigns were obtained from plan maps and cross sections prepared by the First Majestic engineering department. Verification consisted of comparing collar and sample coordinates with the current underground surface and interpreted geology. Locations with significant displacements were discarded in the database. Assay results were not verified.

Verification of results from 2013 through 2015 consisted of:

- Database integrity;
- Verification for transcription errors;
- Verification of collar and channel locations;
- Down hole survey deviations; and
- Conducting site visits to check core, sample security and location.

12.1 Databases

La Encantada resource database is located in First Majestic's terminal server located in Monterrey, Mexico. The drill-hole database is in MS SQL and chip data is in MS Excel. The SQL database is based on the Maxwell Database scheme and contains drilling and channel data from 2008 and 2010 to 2015, from the Ojuelas, Milagros (Intrusive and Breccias), and Vein System areas, with closure date of September 14, 2015. Before April 2015, core logging data was written on paper or captured into Excel spreadsheets. Subsequently, core logging data has been captured directly using LogChief™, a core logging software provided by Maxwell GeoServices. Data captured from 2013 to 2015 in Excel files and LogChief™ was imported into SQL using DataShed™, or directly into Access for data verification. Historical chip assay data is kept in Autocad and Excel files, and First Majestic is currently transferring this data into the SQL database.

Assays results from SGS and ACME laboratories are received by e-mail in electronic formats, and copies of the certificates are also obtained from their secured websites.

Electronic and paper core logs contain core intervals for main lithology, veins, structures, minerals and alteration, RQD, core recovery, and geotechnical data. Paper copies of core logs, driller's reports, sample tags, density and assay certificates are filed at La Encantada Mine. Table 12-1 shows the quantity of records contained in the resource database, with a closure date of September 14, 2015.

Table 12-1: Number of Records. 2015 Resource Estimation Database (closure date September 14, 2015)

Drilling Areas	**DHCollar records**	**DHSurvey records**	**DHLithology records**	**DHAssay records**
OJUELAS MANTO	32	199	911	3266
OJUELAS SKARN	2	6	55	269
MILAGROS BRECCIA	8	33	176	383
SAN JAVIER BRECCIA	15	54	302	938
CUERPO 300	7	36	205	575
MILAGROS INTRUSIVE	32	95	707	3869
TAILINGS (2015)	31	80	62	328
BUENOS AIRES	64	102	1237	1240
El Regalo, Azul y Oro, 990, 990-2				170
Channel samples and Chip samples	**Samples and Assays**			
Milagros breccias and other areas* (pre-2013)	3,156			
Chip Samples (2014-2015)	868			
Milagros Breccia (2014)	90			
Ojuelas (2014)	52			

* Cuerpo 141, Manto200, Bonanaza Vein, 990-2 Vein, Azul y Oro Vein, Bonanza Dike, Buenos Aires Vein, Polvorin Cimney, Ore Body 432, Cedrito Dike, Stope 325, 990 Vein, San Francisco Dike, Ojuelas del bajo, El Regalo Vein.

12.2 Collar Survey Verification

All collars from 2014-2015 were checked for data entry errors by comparing collar locations and elevations reported in the survey certificates issued by the First Majestic Engineering department. No errors were found in this check.

Early collars and channel samples (pre-2013) were obtained from historical development mining maps with underground features surveyed in local coordinates and converted to WGS84 coordinate system by applying a graphic transformation method.

First Majestic did a comparison of the collar elevations from underground collars recorded in the database, to the projected elevation of the collars on underground topographic surface. The purpose of this comparison was to confirm if the collar elevations reasonably reflect the modelled topographic features. Plan views and cross sections were built with collars and underground surveys to check for collar location and elevation. Differences above three metres in elevation and 1.5 metre displacements from the east and north, relative to the underground surface were investigated for transcription errors. The coordinates from holes ILE-14-191 and ILE-14-192 from Milagros area were not confirmed, consequently, these two drill-holes were discarded from the resource estimation. No transcription errors from coordinates originally surveyed in WGS84 were found in the database.

12.3 Down-Hole Survey Verification

Magnetic Azimuths for the 2014 drill-holes were obtained using a Flex-It multi-shot tool, and for the 2015 drill-holes using DeviTool™ PeeWee, a magnetic multi-shot tool. The magnetic azimuths were converted to true north azimuths by adding the magnetic declination 6.48° to the magnetic azimuth. All down-hole survey records were checked for anomalous measurements that could cause unusual kinks or bends in the drill-holes. Azimuths from the unusual kinks were checked to confirm transcription errors. All transcriptions errors were corrected in the database. Drill-holes from drilling campaigns prior to 2014 were not surveyed for down-hole deviations.

12.4 Sample Intervals Verification

First Majestic carried out a 5% transcription errors check on 2013-2015 drill-hole sample intervals by comparing the intervals recorded in the database with the original logs and sample tags. The selected intervals were also verified against the existing core. About 2% of errors were found in records from 2013 to 2014. The errors were associated to intervals outside the economic zones and were corrected in the database. A database is considered free of errors if the reviewed intervals have an error rate less than 1%.

12.5 Assay Verification

First Majestic carried out a random 5% verification of assay results records in the resource database for the elements Ag, Mn, Pb, and Zn. Sample numbers and results were verified against electronic copies and final laboratory reports in PDF from SGS and Inspectorate. No errors were found in this comparison.

First Majestic carried out a verification of 10% of the Ag assay results and 5% of Ag assay results above the cutoff grade (130 g/t) of chip samples assayed at the La Encantada Laboratory. Sample numbers and assay results were verified against electronic copies from La Encantada Laboratory reports. No errors were found in this comparison.

12.6 Density Verification

First Majestic completed density measurements from the 2014 to 2015 core from the Ojuelas, Milagros, and Buenos Aires areas. Densities were recorded directly into MS Excel. To verify the density results, density control samples such as duplicates, checks, and standards readings were inserted. Density sampling and density determination procedures are described in Section 10 of this report. All sample intervals and density determinations were verified for transcription errors. Errors detected during the QAQC procedures, and verification for transcription errors were directly corrected in the Excel tables and the data is considered free of transcription errors.

12.7 Site Visits

Maria Elena Vazquez conducted site visits to La Encantada Silver Mine on several occasions from December 2013 to August 2015. The purpose of these visits was to verify all data available to support the 2015 resource estimation, as well as to do an inspection of the core from various drilling campaigns. In the last site visit in August 2015, Vazquez also observed core handling, logging and sampling practices carried out by geologists at La Encantada. Vazquez concluded that the core and reject samples were kept in a safe and protected area according to industry standards, and that the geologists follow current industry practices for exploration data collection and sampling.

12.8 Comments on section 12

Collar coordinates, down-hole surveys, lithology, sample and intervals, densities and assay results from drill-holes, and sample data used for the 2015 resource estimation were verified. The data was obtained during drilling and channel sampling periods before 2013 and from 2013 to 2015.

In the opinion of the QP, and based on the results on the database verification performed by First Majestic, collar coordinates, down-hole surveys, lithology, densities and assay data from 2013 to

2015 drilling and sampling campaigns are considered sufficiently free of error and adequate to support Mineral Resource estimation, and the collected data adequately reflects deposit dimensions, true widths of the mineralization and deposit styles from Ojuelas, San Javier and Milagros breccias, Milagros Intrusive, Buenos Aires, and Tailings Deposit No. 4.

From the total number of samples used in the resource estimates, approximately 34% are pre-2013 and they support resources in minor deposits such as San Francisco dike, Azul y Oro vein, 990 vein, 990-2 vein, Polvorin chimney, Manto 200 and portions of the San Javier and Milagros breccias above the 1,650 elevation. It is estimated that pre-2013 samples support approximately 10% of the total resources. Verification of historical data from channel and core samples from drilling periods before 2013 has limitations, and caution should be applied in assigning a high level of confidence to this data. However, improved methodologies currently applied for data collection, sampling, and assay procedures increase the confidence in recently acquired data.

13 Metallurgical Testing

Metallurgical testing at La Encantada Silver Mine is performed periodically and includes mineralogical investigation and metallurgical testing.

In order to determine the metallurgic behaviour of the mineralized material fed into the Process Plant No. 2, two types of samples are taken:

- Monthly composites samples
- Short term mining samples

The samples are sent to the Central Lab for additional testing.

13.1 Mineralogical Investigations

In order to identify and estimate the distribution of different minerals in the plant feed, First Majestic has undertaken a series of mineralogical characterization tests performed on polished thick sections. A total of six samples have been analysed in two institutions; five of the samples were analysed by CM5 Consultores Metalurgicos (CM5) in San Luis Potosi, Mexico, in 2015. CM5 utilized a petrographic microscope to analyse the polished thick sections. The other sample was analysed at SGS Lakefield in 2011, utilising a QEMSCAN (Quantitative Evaluation of Minerals by Scanning electron microscopy).

The major mineralogical species that are found in the ore are shown in Figure 13-1, and are listed as follows in the order from major to minor in their relative proportion: Calcite (CaCO3), Hematite (Fe_2O_3), Quartz (SiO_2), Pyrolusite (MnO_2), Feldspar ($KAlSiO_3O_8$-$NaAlSi_3O_8$), Bauxite (AlO(OH)), Fluorite (CaF_2), Anglesite ($PbSO_4$), Nepheline ($(Na,K)AlSiO_4$), Goethite (FeO(OH)), Dolomite ($CaMg(CO_3)_2$), Plumbojarosite ($Pb(Fe_3(OH)_6(SO_4)_2)_2$), Cerussite ($PbCO_3$) and Native Silver (Ag).

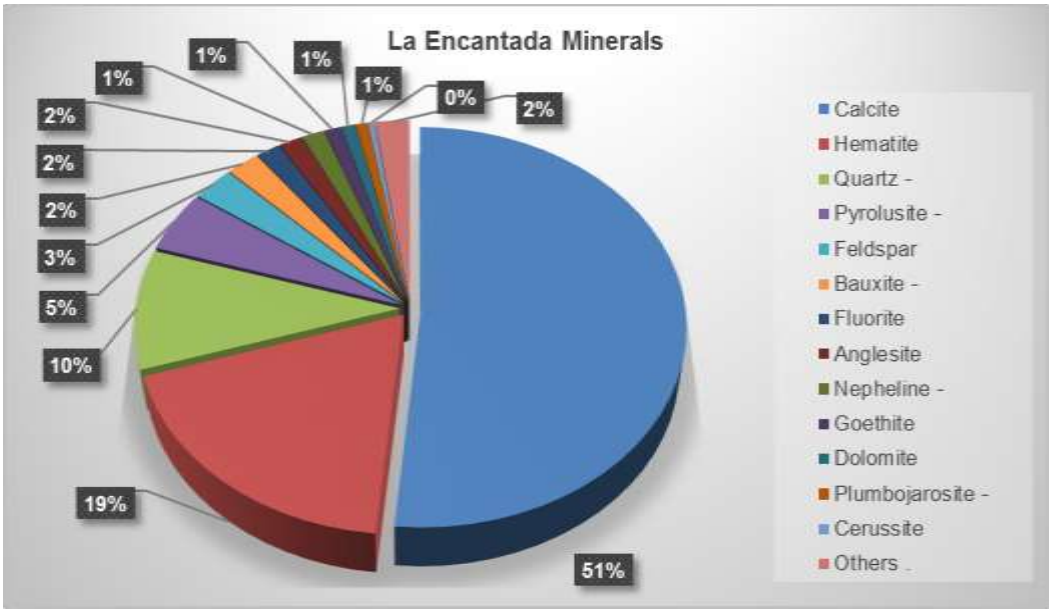


Figure 13-1: Typical Distribution of Minerals in La Encantada

13.2 Monthly Composites Samples

A sample is taken from the material fed into the mills each operating shift. A representative amount from each sample is taken based on the milled tonnage of each shift, and a monthly composite is accumulated.

The monthly composite sample is prepared by the plant's metallurgist with the support of the La Encantada laboratory staff, and this sample is forwarded to the Central Lab for metallurgical testing.

One of the objectives of this program is the compilation of a database to enable assessment of the relationship between the results of the metallurgical tests in the Central Lab, and the actual performance of the industrial cyanidation plant of La Encantada. Figure 13-2 below shows the correlation between the mill performance and the Central Lab monthly composite results in terms of metallurgical recovery for silver. Although slightly dispersed, the results show no significant bias; therefore the lab results are considered representative.

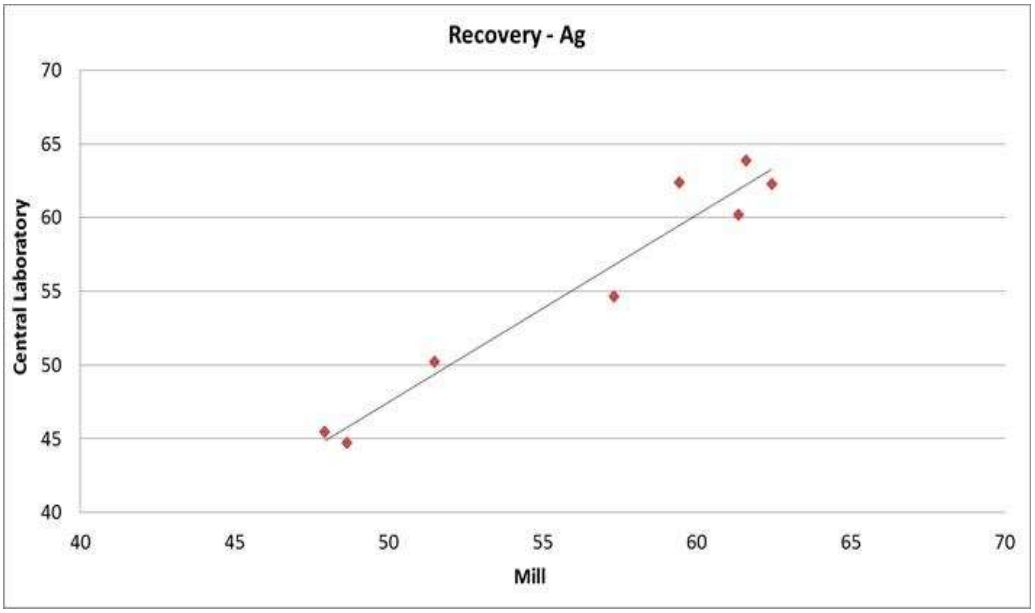


Figure 13-2: Metallurgical Recovery comparison between the processing plant and the Central Lab tests

13.3 Short Term Mining Samples

Each month, in accordance with the 3-month rolling mining plan as prepared by the Planning Department personnel, staff from the Geology Department collects samples from areas that are to be mined to supply feed to the processing plant. These samples are denoted "Geometallurgical Samples", and are sent to the Central Lab each month for metallurgical testing.

With the results of these tests, a database is established and analyses are performed to investigate the relationship between the metallurgical performances of the samples, grouped by the different geological domains identified in the mine. This information facilitates the projection of the metallurgical behaviour of the mineralized material that will be fed to the plant in subsequent months.

13.4 Long term Mining Samples (drill-hole samples)

During the 2015 drilling campaign, samples from the Ojuelas mineral deposit were collected by First Majestic exploration staff. The objective of this investigation was to assess the metallurgical performance of the different areas of the deposit by running tests in the Central Lab. Similarly, 31 composite samples were received from the drilling of the Tailings Deposit No. 4.

The information obtained facilitated the projection of the metallurgical behaviour of the mineralized material that will be fed to the plant in the long term.

13.5 Metallurgical Investigation

13.5.1 Sample Preparation

Once samples arrive at the Central Lab, they undergo sample reception, drying, and preparation to minus 10-mesh before grinding tests are then subsequently carried out.

13.5.2 Grindability Testing

Since February, 2013, First Majestic has been running tests on both monthly composites samples and short term mining samples received from La Encantada, in order to estimate the Bond Ball Work Index ("BWi"). Figure 13-3 shows the results of the grindability tests for the period of February, 2013 to March, 2015. The average BWi for the monthly composites of this period was 10.2 kWh/ton. Bond Work Index average for the short-term metallurgical samples was 9.5 kWh/ton, which is similar to the BWi of the monthly composites.

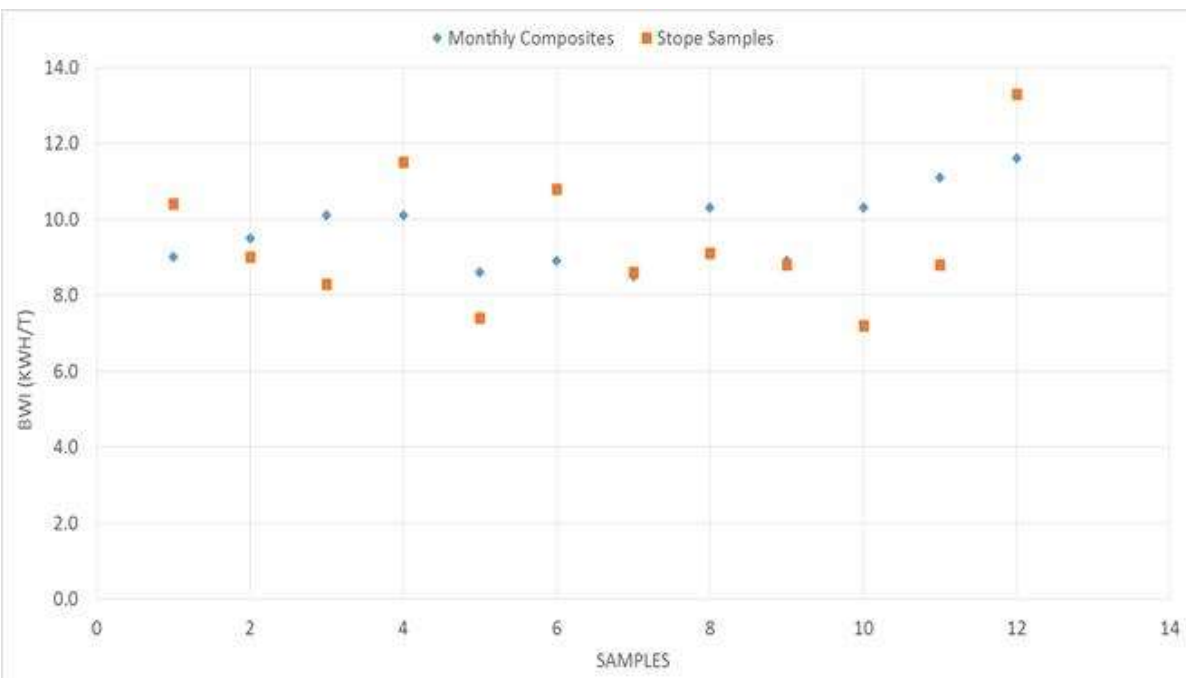


Figure 13-3: Grindability Test Results for Different Samples of La Encantada Mine

13.5.3 Monthly Composites Samples Testing

In addition to the analysis of repeatability for the metallurgical recovery of silver, for each monthly composite, depending on the problems or needs experienced during the precedent months, a series of tests is developed that may include the following:

- Standard Cyanidation: under similar conditions to those in the plant (grinding size, addition of reagents and cyanidation times)
- Testing with different reagents
- Testing with different grinding sizes
- Roasting – Cyanidation Testing

Results are shared with plant operation personnel to facilitate continuous improvement initiatives.

13.5.4 Short Term Mining Samples Testing

Figure 13-4 shows the results of short term mining sample tests for the period of October 2014 to April 2015. In general, a similar behaviour is observed in the recovery of silver between the actual mill performance and the short term mining samples, also known as geometallurgical samples.

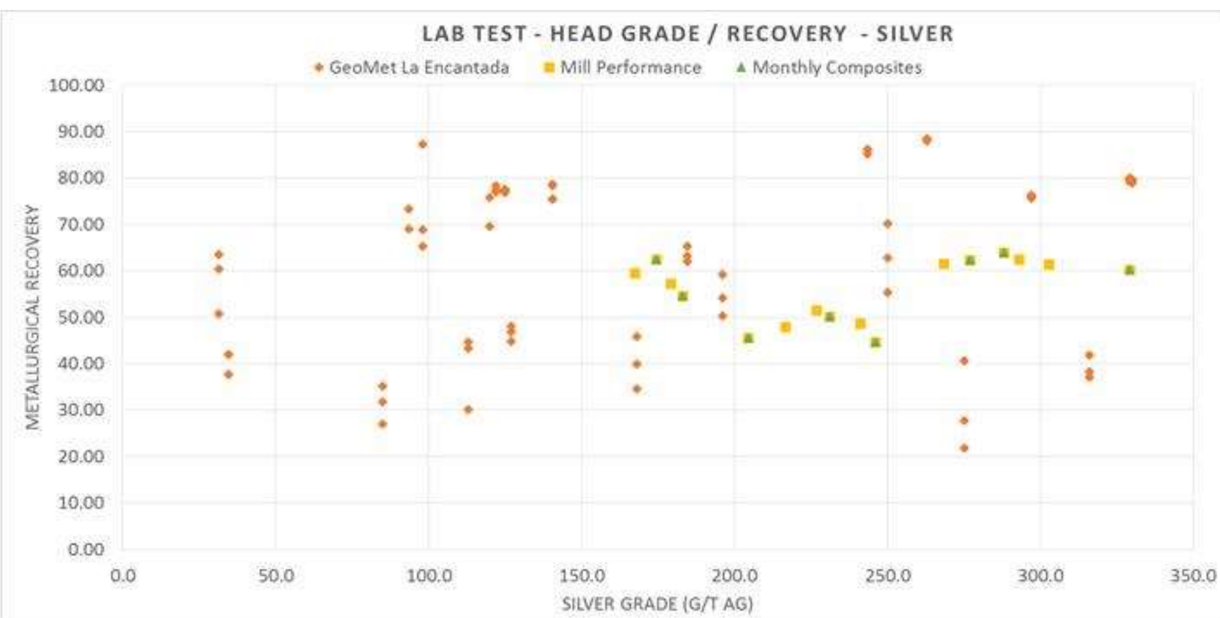


Figure 13-4: Silver Recovery for Short Term Mining Samples

In La Encantada, manganese is associated with the refractory behaviour of the silver minerals. In some cases there is a correlation between Mn and Ag recovery, as seen in Figure 13-5. The higher the Mn grade, the lower the recovery.

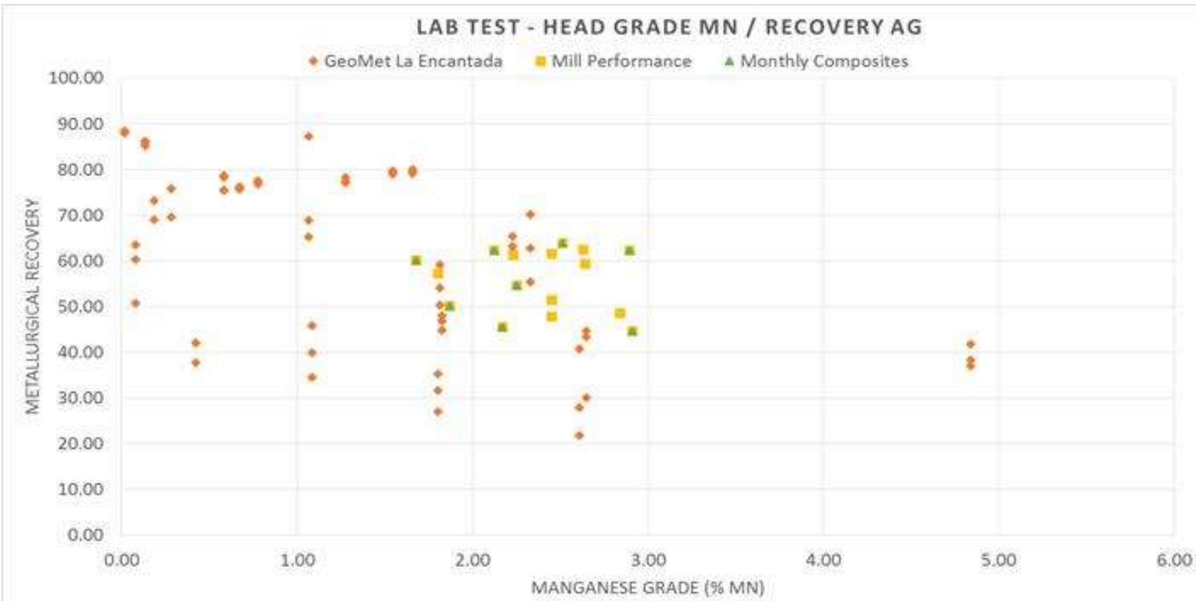


Figure 13-5: Silver Recovery vs Manganese Grade for Short Term Mining Samples

13.5.5 Long Term Mining Samples Testing

Metallurgical testing for long term mining samples has been focused on two projects. In both cases the Central Lab has received drill-hole samples.

The first project is Ojuelas, which is a mineral deposit containing Ag and Pb. The second project is the Tailings Deposit No. 4, which was drilled in 2015.

13.5.6 Additional Metallurgical Testing

Several alternatives to Cyanide Leaching have been studied in the last five years:

- Addition of liquid oxygen and lead nitrate in Cyanidation
- Acid leaching prior to Cyanidation
- Chlorination Roasting
- Use of new reagents

13.5.6.1 Addition of liquid oxygen and lead nitrate in Cyanidation

Sulphides such as Pyrite, Pyrrhotite or Arsenopyrite, as well as Zinc and Iron oxides, are high cyanide and oxygen consumers, decreasing Ag extraction and increasing operation costs.

The addition of Lead Nitrate conducts the oxidation of some of the Sulphides mentioned above. As oxygen is fundamental in the silver leaching reaction, a metallurgical testing program adding liquid oxygen into the slurry was carried out.

Results were not satisfactory, with silver recovery remaining essentially the same in all cases. First Majestic believes that sulphides in La Encantada are not a determining factor in silver leaching due to the low concentration of any type of sulphides in the ore.

13.5.6.2 Acid Leaching prior to Cyanidation (Use of Sulphur Dioxide)

Sulphur dioxide is a very effective reducer. It was injected into stirred slurry, and the chemical reaction produces hyposulfurous acid, which dissolves some of the manganese. Manganese is present mainly as pyrolusite (MnO_2), and some silver may be encapsulated by pyrolusite.

After acid leaching, silver is leached by cyanidation, reaching acceptable recoveries.

A two-stage process is undertaken prior to cyanide leaching:

- Manganese removal by acid leaching
- Neutralization and alkalization of slurry

Work testing has been carried out in three different laboratories and at three different levels:

- Bench scale: in the La Encantada Metallurgical Lab, at the Central Lab and at Hazen Research in Denver
- Pilot Plant scale: at Hazen Research
- Full scale: at the La Encantada processing plant, which features a 500 tpd plant built for this purpose

Two types of ore were tested: mine fresh ore, and old tailings. Silver extraction was increased from 50% to 74% for mine fresh ore, and from 40% to 62% for old tailings.

Metallurgical results were satisfactory; however, sulphur dioxide consumption was very high, and therefore the cost of sulphur dioxide was higher than the value of the recovered silver.

13.5.6.3 Chloridizing Roasting

An investigation into the possibility of increasing silver recovery in mineralized material associated with manganese was carried out. The mineralized material was subjected to a roasting process under a reducing atmosphere at 850°C, in order to facilitate the reduction of manganese and the oxidation of carbon, expressed by the following formula:

$$MnO_2 + CO \rightarrow MnO + CO_2$$

To help produce the reaction, several reagents were mixed with the mineralized material before roasting: sodium sulfite (Na_2SO_3), a carbon source such as charcoal or coke; and sodium chloride (NaCl), which produces easily dissolvable silver chlorides. After roasting, the mineralized material is leached with cyanide.

Roasting and leaching was tested in bench lab during 2014, the main operating parameters were defined, and in 2015, a pilot plant scale testing campaign was performed. The pilot plant testwork showed that recovery increased from 10%-15% before roasting, to 60%-70% after roasting, and also helped defining the main combustion parameters for sizing the roasting kiln, as well as estimating the fuel consumption rates. Optimization work is planned in heat recovery arrangements, to minimize fuel consumption and increase the economics of this project.

13.5.6.4 Use of new reagents

In the search for new reagents that could help increase silver recovery, biopolymers were tested and added two hours prior to cyanide addition. Results were not successful, and silver recovery remained the same with or without its addition.

14 Mineral Resource Estimates

14.1 Mineral Resource Estimates – San Javier and Milagros breccias area, Veins System, other Minor Deposits, and Tailings Deposit No. 4

Mineral Resources at La Encantada property were estimated internally by First Majestic by constructing wireframes and block models for the San Javier and Milagros breccias area, and the Tailings Deposit No. 4. Resources for the Veins System and other minor deposits such as Buenos Aires, Azul y Oro, 990, 990-2, and San Francisco were estimated using a polygonal method.

Mineral Resources from La Encantada deposits were classified in order of increasing geological confidence into Inferred, Indicated and Measured categories as defined by the "CIM Definition Standards – For Mineral Resources and Mineral Reserves" on May 10, 2014, in compliance with NI 43-101. CIM Mineral Resource definitions are given below:

A Mineral Resource is 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. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not to verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

14.1.1 Reasonable Prospect for Eventual Economic Extraction

The Mineral Resources estimated by First Majestic for La Encantada deposits: San Javier and Milagros breccias area, the Veins System and other minor deposits have been assessed for reasonable prospects for eventual economic extraction using a cut-off grade of 130 g/t Ag, estimated using assumptions based on operating cost, metallurgical recovery and the silver price shown in Table 14-1. These economic assumptions result in a value cut-off of approximately $81.50/t.

Table 14-1: Summary of main economic assumptions that underlie the resource estimates

Concept	Units	Value
Silver Price	$/oz Ag	18.50
Silver Recovery	%	58.00
Silver Payable	%	99.60
Operating Cost	$/t	46.00
Cut-off grade	g/t Ag	130

The Mineral Resources estimated by First Majestic for the Tailings Deposit No. 4 have been assessed for reasonable prospects for eventual economic extraction using a cut-off grade of 85 g/t Ag, estimated using assumptions based on operating cost, metallurgical recovery and the silver price shown in Table 14-2.

Table 14-2: Main economic assumptions for estimating cut-off for the Tailings Deposit No. 4

Concept	Units	Value
Silver Price	$/oz Ag	17.50
Silver Recovery	%	53.30
Silver Payable	%	99.60
Operating Cost	$/t	25.40
Cut-off grade	g/t Ag	85

14.2 Mineral Resources in Veins System and other Minor Deposits

Mineral Resources for the Veins System and other Minor Deposits have been estimated by First Majestic using a polygonal method supported by channel samples across mineralization, diamond drill-holes and underground mapping. The polygonal method herein described was used to construct longitudinal sections of vein shoots and small chimney like bodies. The Mineral Resource estimates herein are based on channel samples, drill-hole intercepts and underground geologic mapping carried out between October 2008, and the effective date of this report.

Cross and longitudinal sections are interpreted using drill-hole data, mine maps and channel samples. Polygons of Measured Resources are projected vertically (up and down) 12.5 metres, or less, away from mine levels that have channel sample lines. Indicated Resources are projected a maximum of 25 metres away from mine levels with channel sample lines, from drill-hole intercepts, or from the limit of the measured-resource polygons only if there is continuity of mineralization as indicated by drilling information or by mine levels with sample lines reporting economic grades at widths greater than 0.7 metres. Inferred resources are projected 50 metres or less from drill-hole intercepts or polygons of indicated resources; in most cases, inferred resources are projected only 30 metres away from indicated resources. Drill-hole spacing varies generally from 15 to 75 metres in zones of measured and indicated resources, whereas channel sample lines are spaced between 1.5 and 3.0 metres in those mine levels with measured or indicated resources. Figures 14.1 to 14.5 show longitudinal sections for Buenos Aires, Azul y Oro, 990, 990-2 and San Francisco vein deposits.

Once the polygons for Measured, Indicated and Inferred resources are drawn on longitudinal sections (using BRISCAD Pro V12 © software), the area, average width, volume and weighted mean grade is calculated for every polygon using electronic spread-sheets. Capping grades are defined by analyzing cumulative frequency histograms; the grade at the 95 percentile is selected and capping is done per sample before compositing by length of channel line or drill-hole intercept; i.e. capping of outlier grades is done before calculation of the weighted mean grades. Tonnage is calculated using the calculated volume and the average SG of every deposit; an average SG of 2.5 has been used for veins and 2.7 for mantos and chimneys. Once the tonnage is calculated, the metallic contents (measured in ounces) are calculated using the weighted mean grades and the conversion factor of 31.1035 g/oz. Table 14-3 shows the list of each deposit with its estimated capping grade.

Table 14-3: List of deposits for which the resource estimate was done applying the polygonal method

Name	Type or geometry	Capping (Ag g/t)
San Francisco dike	Vein	975
Buenos Aires vein	Vein	825
990 vein	Vein	950
Azul y Oro vein	Vein	1000
Cedrito dike	Vein	875
Bonanza dike	Vein	725
832 body	Chimney	1850
990-2 vein	Vein	725
Polvorin chimney	Chimney	800
El Regalo vein	Vein	850
Footwall Ojuelas	Manto	475
325 body	Vein	350
Bonanza vein	Vein	500
200 manto	Manto	500
El Regalo breccia	Breccia	850

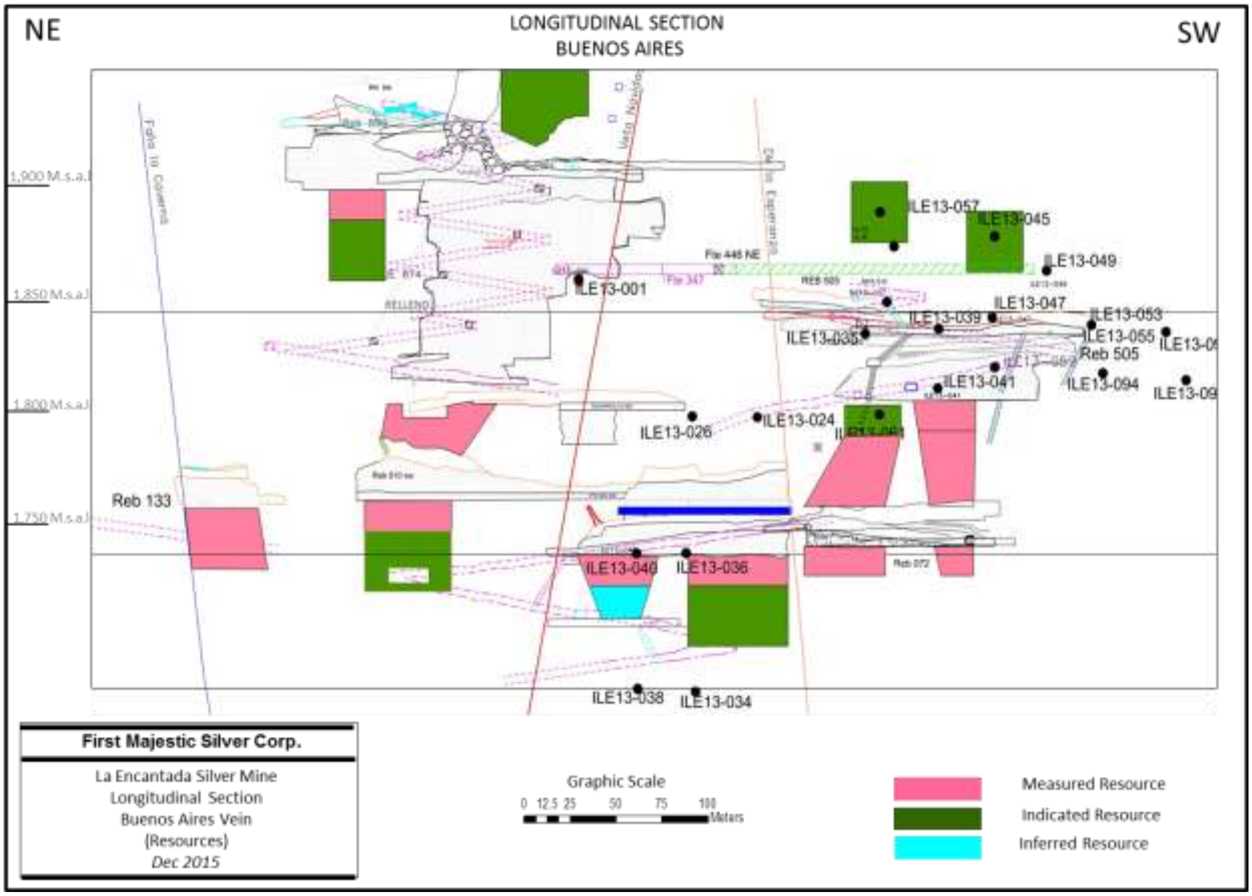


Figure 14-1: Longitudinal Section Buenos Aires Vein

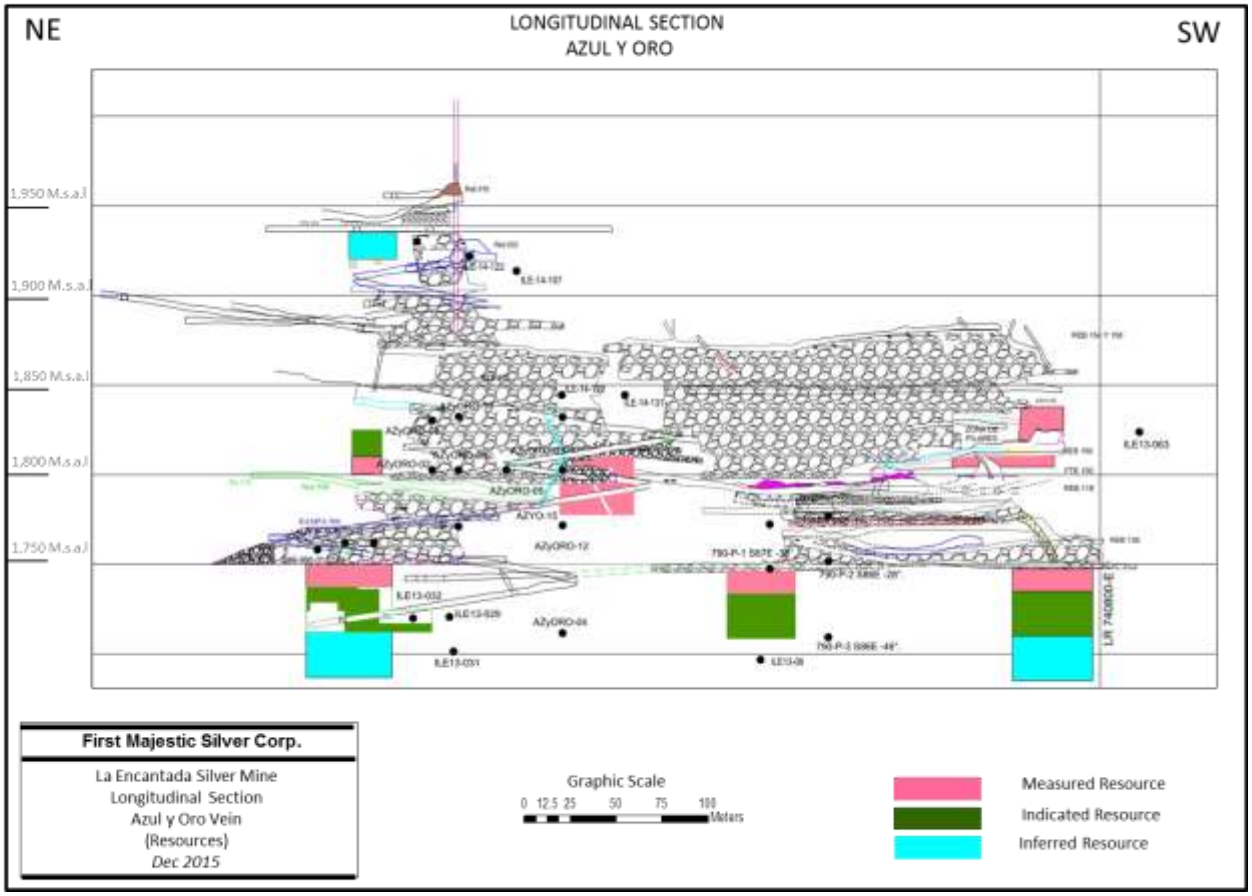


Figure 14-2: Longitudinal Section Azul y Oro Vein

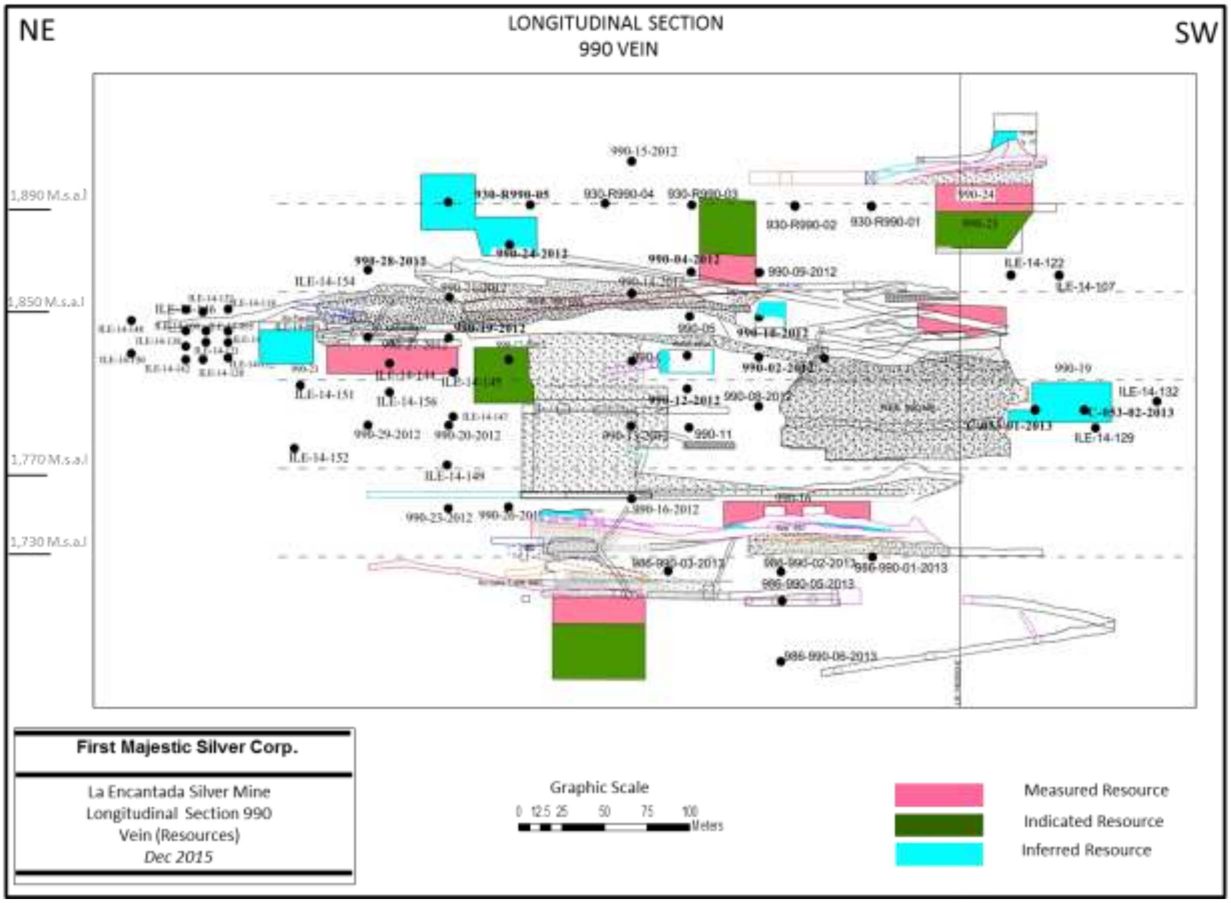


Figure 14-3: Longitudinal Section 990 Vein

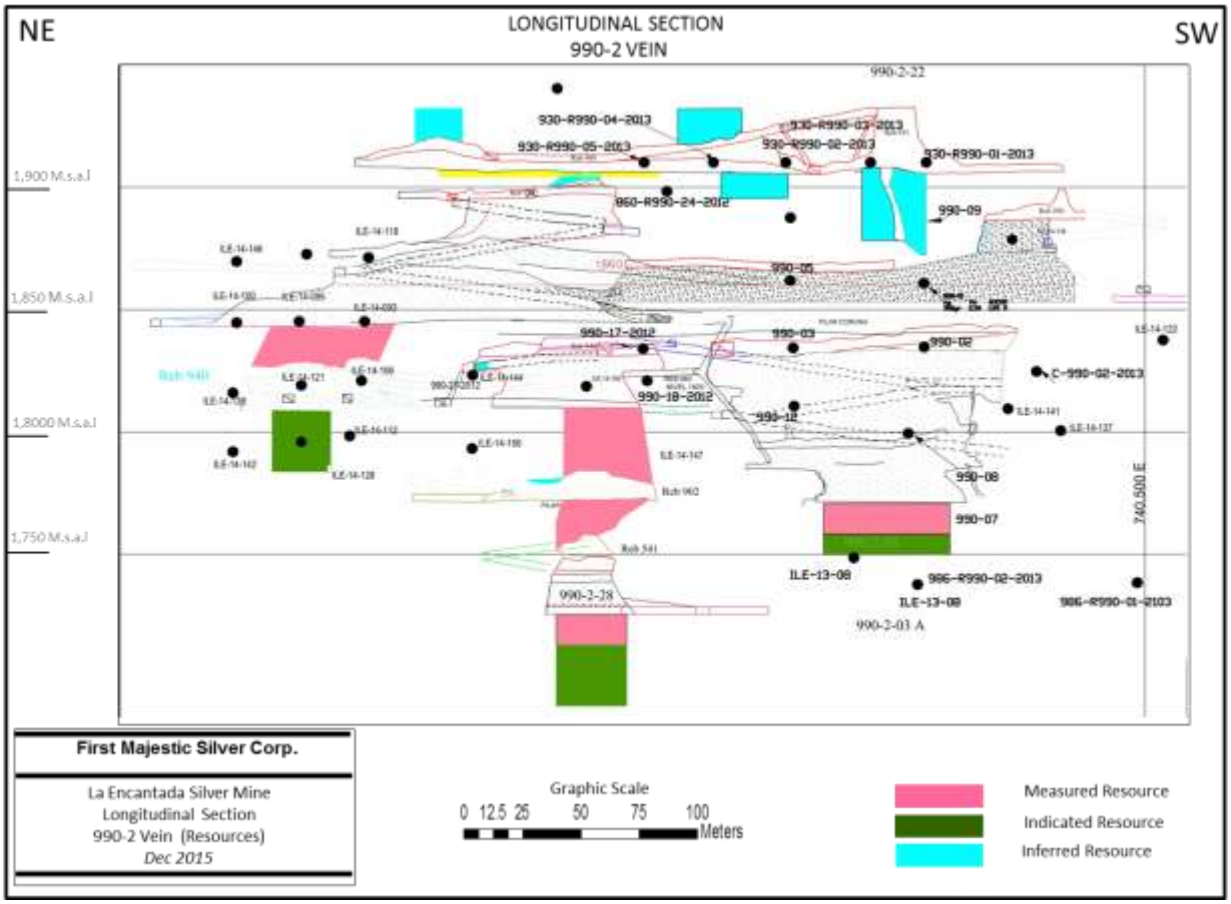


Figure 14-4: Longitudinal Section 990-2 Vein

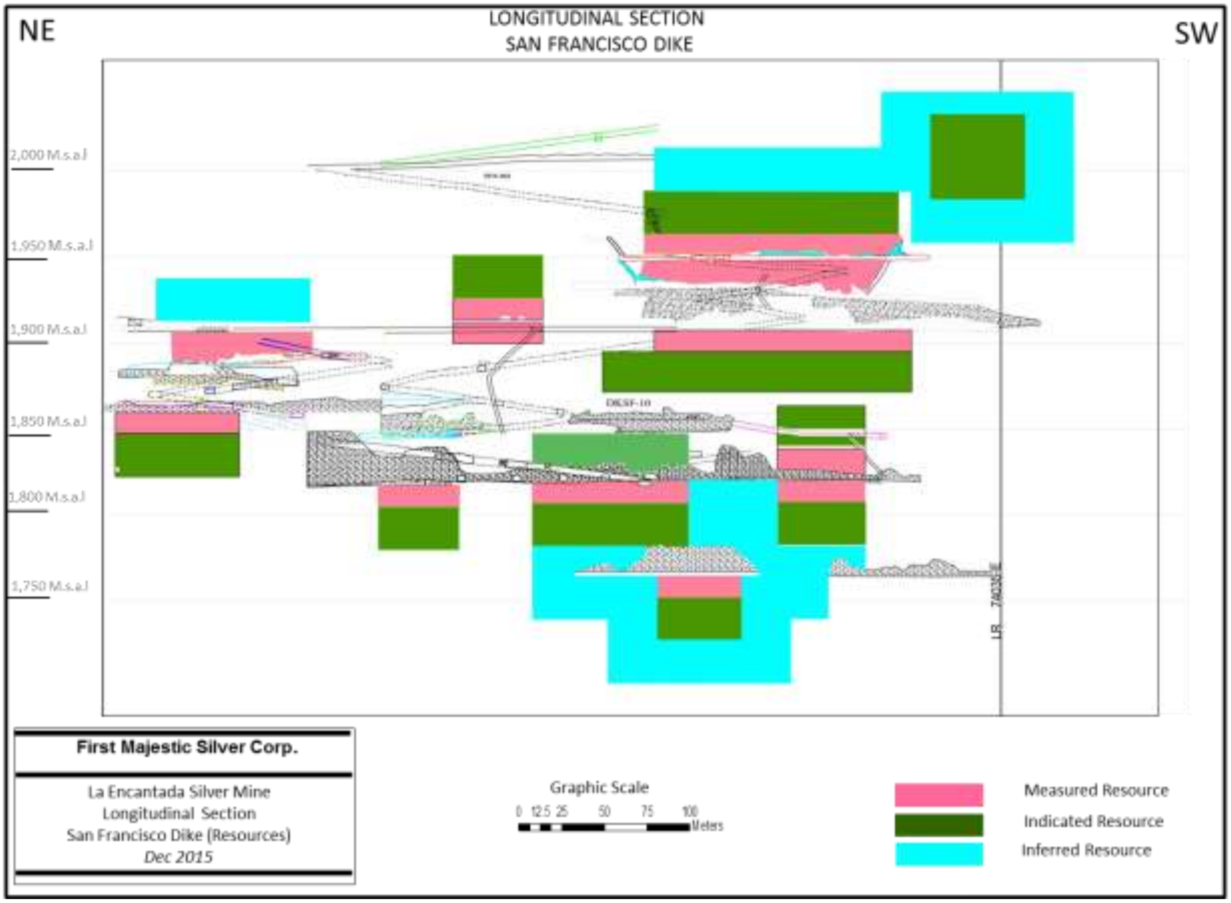


Figure 14-5: Longitudinal Section San Francisco Dike

14.2.1 Mineral Resource Statement for Veins and Other Small Deposits

The Mineral Resource is classified in accordance with the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 10, 2014).

Table 14-4 shows the estimated Measured, Indicated and Inferred Mineral Resources for the Veins System and other Minor Deposits at La Encantada Silver Mine.

Table 14-4: Mineral Resources in Veins System and other Minor Deposits

Category	Mineral type	k tonnes	Ag (g/t)	Ag (k Oz)
Measured (UG)	Oxides	269	267	2307
Indicated (UG)	Oxides	378	308	3735
Total	Oxides	647	291	6042

Category	Mineral type	k tonnes	Ag (g/t)	Ag (k Oz)
Inferred (UG)	Oxides	392	281	3542
Total	Oxides	392	281	3542

Notes:

1. Mineral resources are reported for polygonal blocks. Assumptions include: commodity price of US$19.50/oz for Ag; 99.6% payable metal from refinery; process recovery of 58% for Ag; mining cost of US$15.00/t, processing cost of $US19.40/t, indirect costs of US$5.50/t, process sustaining capital of US$3.30/t, and G&A costs of US$2.70/t.

2. Assumptions include 100% mining recovery, and internal dilution considering a 2 m minimum mining width.

14.3 Mineral Resource in the San Javier and Milagros breccias area

Three-dimensional wireframe models of the San Javier breccia, Milagros breccia, Milagros intrusion and Nucleo deposit were constructed in GEOVIA Surpac™ 6.6.1 using lithological information from level plans and cross sections. These four deposits are referred as San Javier and Milagros breccias area in this report. Three-dimensional models were prepared using the information obtained from 53 diamond drill-holes and 2,348 samples completed from 2012 September 3, 2015.

A block model was constructed in GEOVIA GEMS™ software with block dimensions of 5m x 5m x 5m. Silver grades were interpolated by ordinary kriging (OK) in two passes mainly. Blocks were classified based on a combination of factors including the average distance of samples used, slope of regression, kriging variance and number of holes. Validation of the estimated block model revealed no significant global or local grade biases.

14.3.1 Geological Wireframe Models

Wireframe models of the main lithological units at the San Javier and Milagros breccias area were constructed by First Majestic geologists in GEOVIA Surpac™ 6.6.1 using lithological information from level plans and cross sections. Table 14-5 shows the list of names and codes of the lithological solids.

Table 14-5: Lithological Codes for Block Grade Estimation

Wireframe	Block Code	Colour
San Javier Breccia	200	
Milagros Breccia	300	
Milagros Intrusive	400	
Nucleo	600	
Limestone	100	

Figure 14-6 shows the 3D wireframes created for the San Javier and Milagros breccias area.

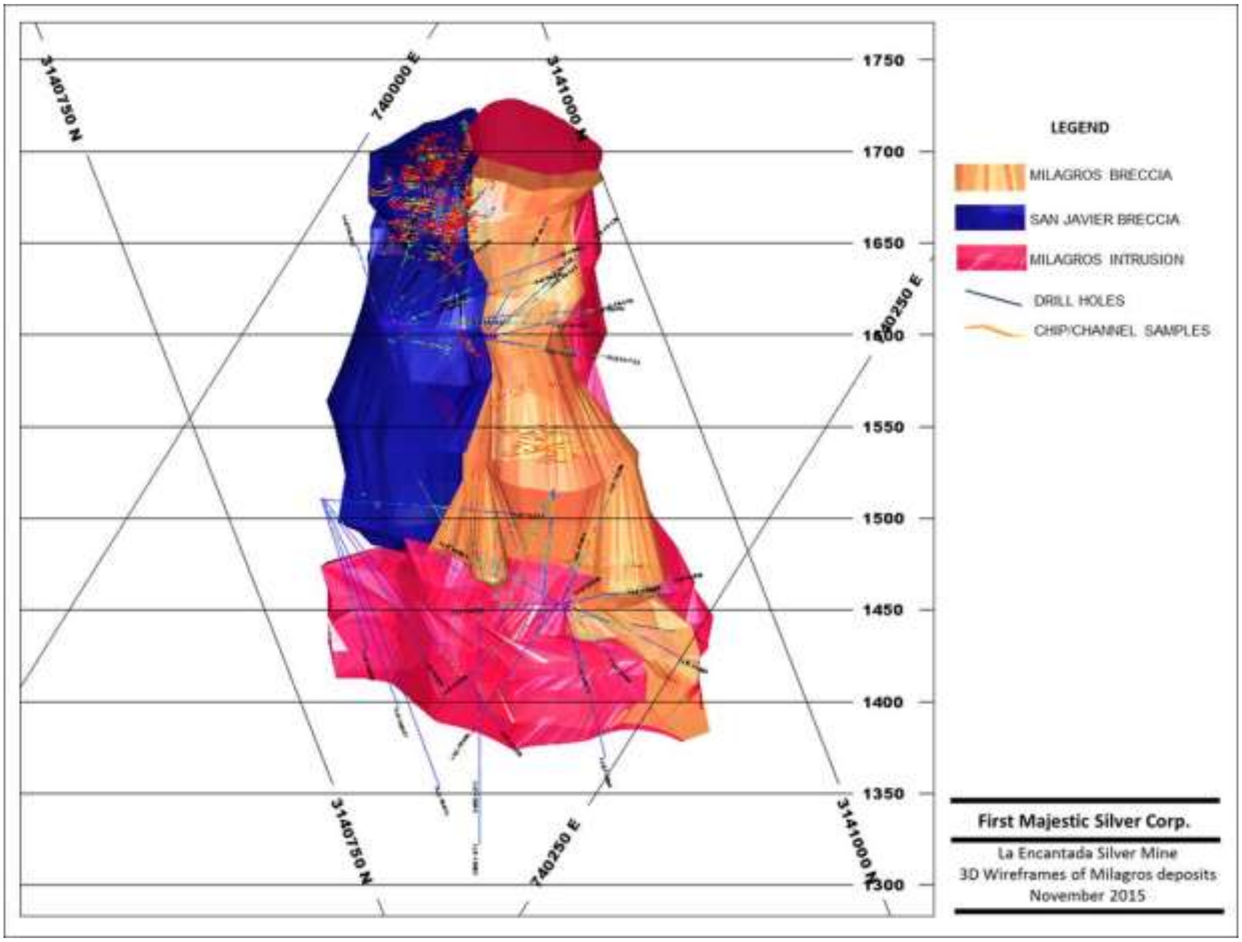


Figure 14-6: Three dimensional wireframes of the Milagros deposits

14.3.2 Statistical Analysis

A total of 5,725 sample intervals with Ag assays inside established domains were used for the statistical analysis.

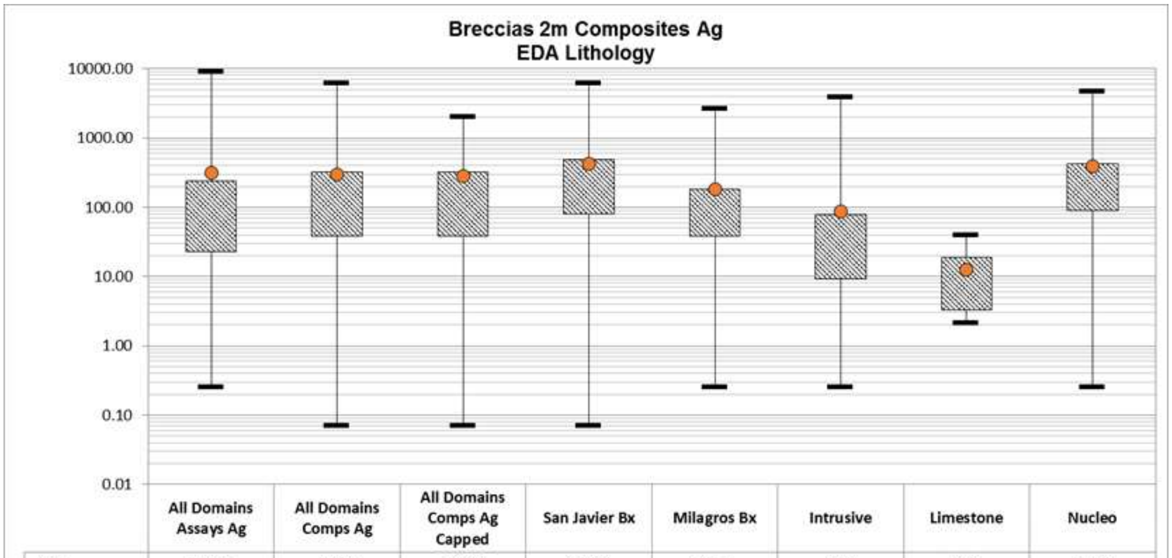
Drill core assay intervals for Ag composited down-hole to a fixed length of two metres respecting the boundaries of each lithological wireframe. Last intervals composites were created when lengths were greater than one metre.

For the non-sampled core intervals a default background value of 0.25 g/t was applied for Ag. The background values correspond to the lower assay detection limit for the grade element. The assignment of background grades to un-sampled intervals assures that composites are available to prevent extrapolation in areas of negligible mineralization during block grade estimation. In a small number of cases, for example, where drill core recovery was lost, the background value was assigned where mineralization may have occurred.

Box plots for uncapped Ag composites grouped by solid lithology compared to all domains were prepared (Figure 14-7). Histograms and probability plots by domains of uncapped Ag composites by lithology are presented in Figures 14-8 to 14-15.

The difference in mean Ag grade between the main mineralized San Javier Breccia and surrounding intrusive rocks is high. The difference is less significant when compared the intrusion to Milagros Breccia. Nucleo is a small area west to San Javier Breccia and it is also high grade.

The analyses of histograms, box plots and scatter plots and spatial graphical inspection show reasonable definition of the stationary domains in general. However, further investigation of Milagros-Intrusion and Nucleo-San Javier contacts are recommended.



	All Domains Assays Ag	All Domains Comps Ag	All Domains Comps Ag Capped	San Javier Bx	Milagros Bx	Intrusive	Limestone	Nucleo
Q1	23.08	38.45	38.45	81.00	38.35	9.28	3.33	89.09
Min	0.25	0.07	0.07	0.07	0.25	0.25	2.12	0.25
Mean	312.913	298.63	279.84	427.53	180.70	87.13	12.49	395.40
Max	9133.00	6224.00	2000.00	6224.00	2656.28	3828.00	39.69	4731.00
Q3	242.27	320.00	320.00	493.00	180.48	78.98	19.08	426.92
Median	77.88	120.00	120.00	217.56	88.30	34.95	5.98	193.04
Standard Dev.	512.48	500.60	407.95	596.54	289.52	230.93	13.41	567.37
Variance	262,636.40	250,595.92	166,419.45	355,865.31	83,823.90	53,326.76	179.77	321,908.46
CV	1.64	1.68	1.46	1.40	1.60	2.65	1.07	1.43
NSamples	5725	4592	4592	2303	988	920	8	373

Figure 14-7: Box plots and Summary Statistics for Ag by Lithology and all domains.

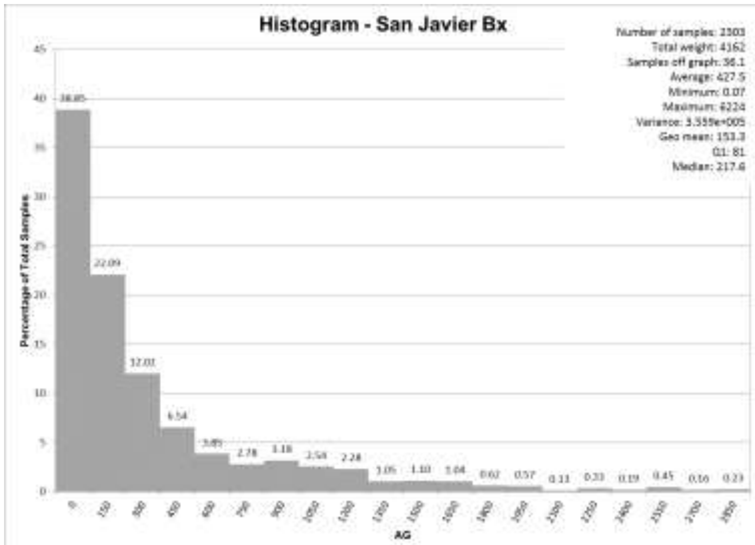


Figure 14-8: Probability Plot – San Javier Breccia

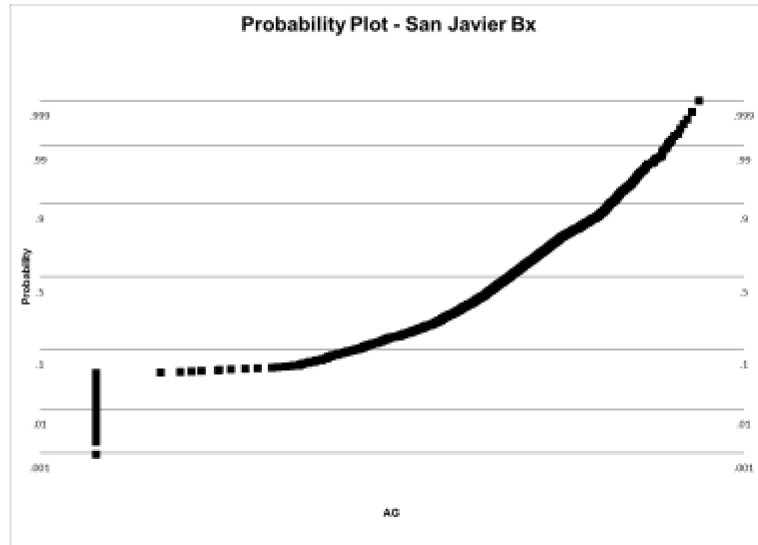


Figure 14-9: Histogram – San Javier Breccia

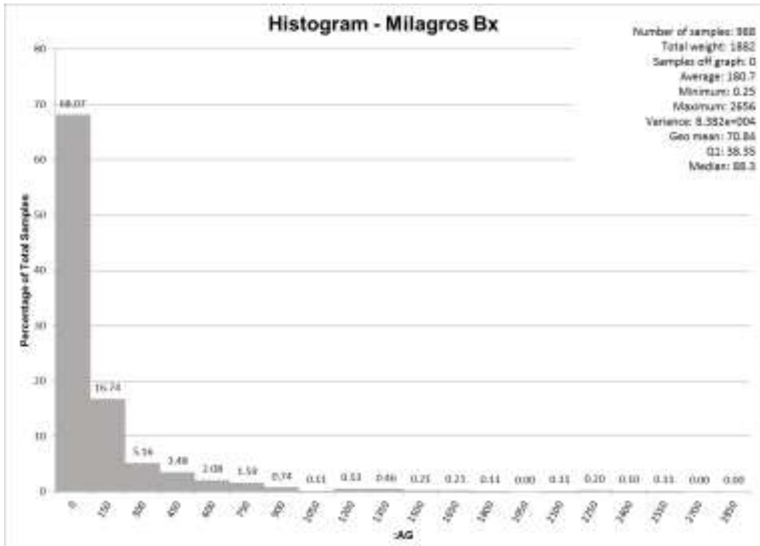


Figure 14-10: Histogram – Milagros Breccia

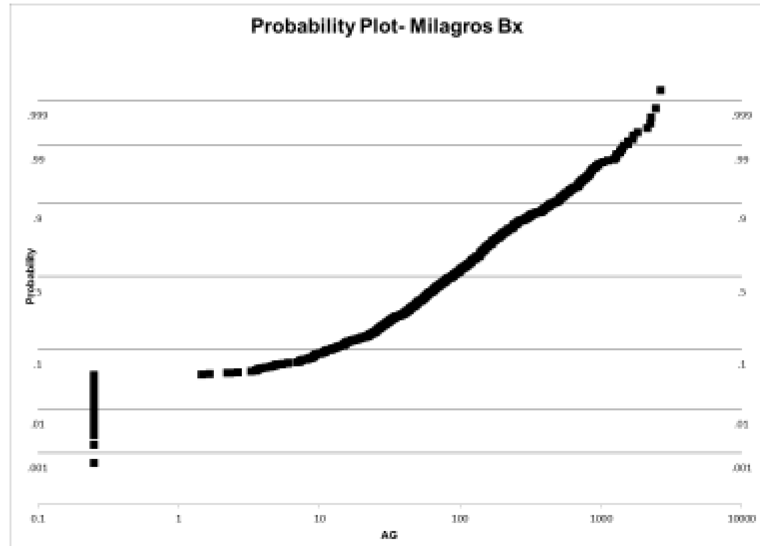


Figure 14-11: Probability Plot – Milagros Breccia

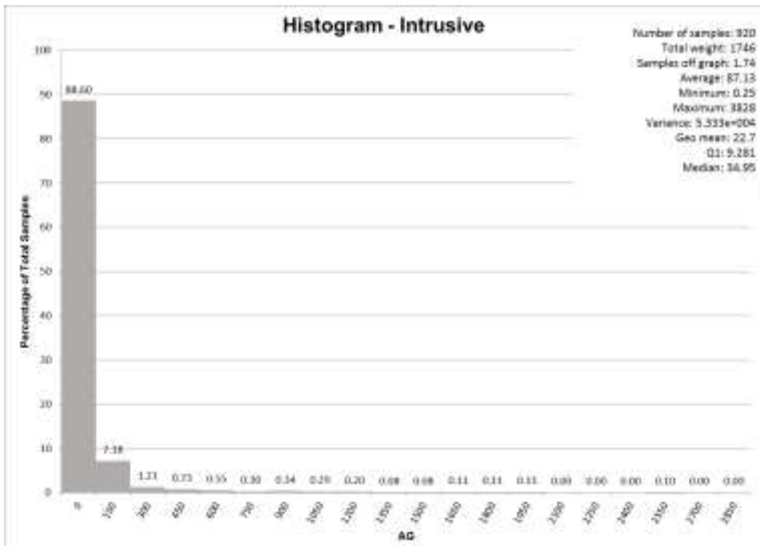


Figure 14-12: Histogram – Milagros Intrusive

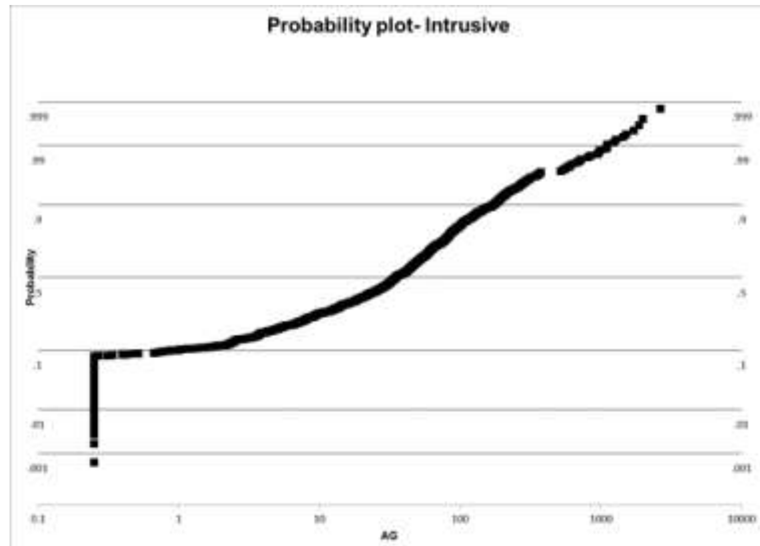


Figure 14-13: Probability Plot – Milagros Intrusive

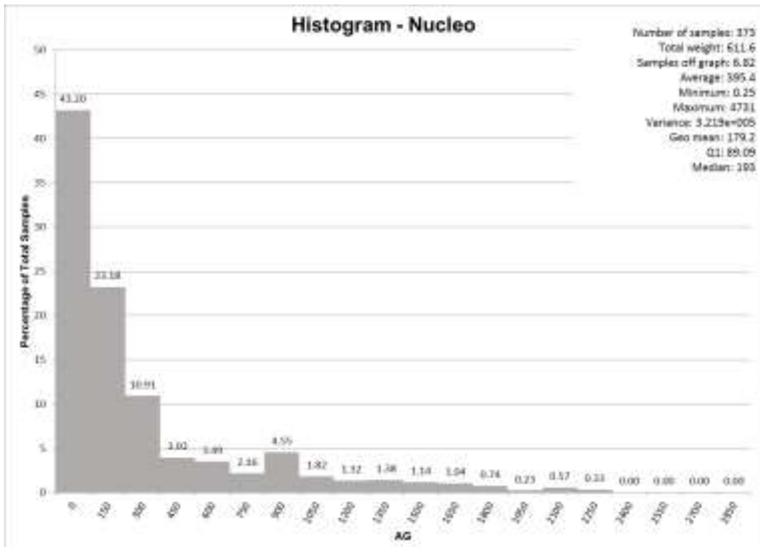


Figure 14-14: Histogram Nucleo

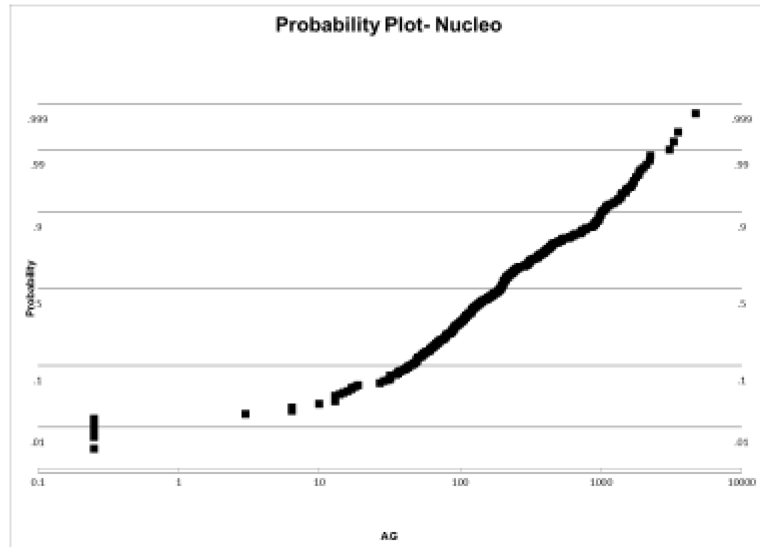


Figure 14-15: Probability Plot - Nucleo

Contact analyses plots were prepared for Ag in order to investigate the nature of the contacts of the San Javier and Milagros Breccias with the intrusive. The contact plot provided in Figure 14-16 shows soft boundary condition between Milagros Breccia and Milagros Intrusive. The boundary between San Javier Breccia and Milagros Intrusion is gradational closer to the contact but the expected lower values in the intrusive become more visible 15m from the contact. San Javier Breccia and Nucleo also have soft boundaries. The results of this analyses served as a guideline for the estimation strategy in terms of samples to be used while interpolating each domain.

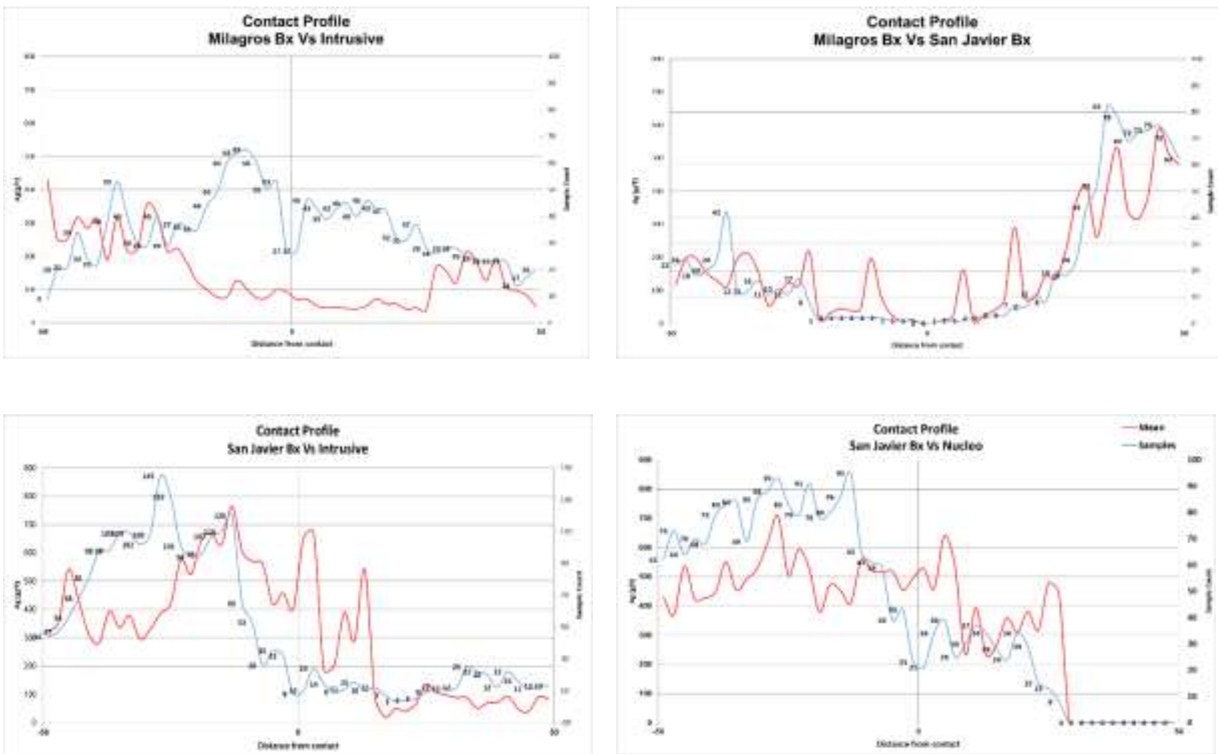


Figure 14-16: Lithological contact plots for Ag

14.3.3 Capping

Capping values were determined with the inspection of histograms, probability plots and percentile analyses. Proposed Ag threshold is summarized in Table 14-6.

Table 14-6 : Ag composite capping statistics

Domain	Count	Uncapped Statistics			Capped Statistics			
		Capping	Mean	CV	Capped %	Mean	CV	Metal Loss
Breccia Javier	2303	2000	433.3	1.4	2.50%	407.2	1.2	9%
Breccia Milagros	988	1000	183.1	1.6	1%	169.3	1.3	9%
Nucleo	373	2000	393.4	1.4	1%	374.0	1.2	6%
Intrusive	920	1000	90.4	2.6	1%	80.8	1.9	13%

*Mean is not declustered and not weight averaged by length

The number of composites identified for capping and the predicted contained metal reduction is considered reasonable. The capping thresholds values indicated by outlier analysis were used for capping in the strict sense, and lower high-grade thresholds were used for search restriction during block grade estimation in order to reduce the influence of high grades.

14.3.4 Variography

Variogram maps, down-the-hole, and directional correlograms, were prepared for Ag composites. The directional correlograms were computed for all sample inside the domain subdivided by upper and lower domains due to the amount of sample and geometry of the mineralization. In addition, a directional variogram analysis was performed in the upper San Javier breccia. Figure 14-17 shows these geostatistical domains.

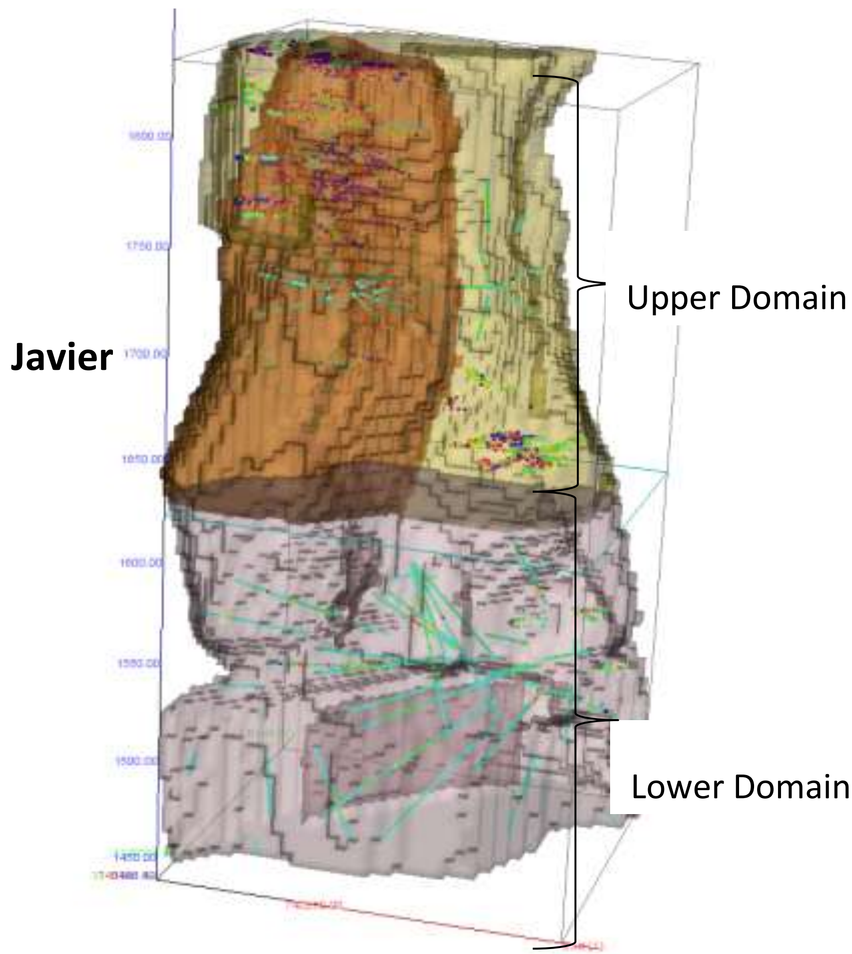


Figure 14-17: 3D representation of the domains used for Variography.

Two spherical structures plus nugget effect were used to fit experimental correlograms. A summary of the variogram parameters is provided in Table 14-7.

Table 14-7: A Summary of Variogram Parameters

Variogram	Nugget C0	C1	C2	Type	Rotation (°)			Range 1st Structure (m)			Range 2nd Structure (m)		
					Az	Plunge	Dip	Major	Semi-Major	Minor	Major	Semi-Major	Minor
Ag - Lower	0.3	0.25	0.45	Spherical	247	0	-82	10	7	4	40	30	15
Ag - Upper	0.3	0.4	0.3	Spherical	187	10	40	4	4	2.5	30	30	15
Ag - Javier	0.3	0.25	0.45	Spherical	310	-22	90	8	6	3	45	35	30

14.3.5 Block Model Dimensions

A single block model for the four domains was created, though the block model was constrained by the domains in order to carry out independent geostatistics and grade interpolation. The block model dimensions and block size are presented in Table 14-8.

Table 14-8: Block Model Dimensions

Breccias Block Model Dimensions			
	X	Y	Z
Minimum Coordinates	740,000	3,140,600	1,330
Maximum Coordinates	740,500	3,141,000	1,860
Block Extents (m)	500	400	530
Block Size (m)	5	5	5
Non Rotated Bolck Model and No Sub-blocks			

14.3.6 Block Model Assignments

Blocks were codified according to the 3D lithology domains as shown in Table 14.9. Each block was labeled with a single domain code if at least 50% of the block was inside the solid. The volume of each domain solid was compared with the volume of the blocks in each particular domain and a difference of ±0.3% was obtained. No sub-blocks were created in the model.

The Specific Gravity (SG) in each domain is shown in Table 14-9. SG was calculated by averaging the density measurements obtained by the water immersion methodology.

Table 14-9: Block Model Domains and Specific Gravity (SG)

Domain	Block Code	SG
San Javier Breccia	200	2.51
Milagros Breccia	300	2.53
Milagros Intrusive	400	2.47
Nucleo	600	2.51

14.3.7 Block Model Grade Estimate

Block grades for Ag were estimated using Ordinary Kriging (OK). Interpolation was carried out inside the lithological domains subdivided into upper and lower portion in order to account for the change in geometry of the ore bodies (pipe upper and sigmoidal aligned 70NE in the lower part), anisotropy and search direction.

A multiple pass estimation approach (up to three) was used with each successive pass having greater search distances and less restrictive sample selection requirements. The rotation angles of the search ellipse are the same for each pass.

This deposit is known for its high grade pockets and in order to prevent the extrapolation of high grades into distal blocks, a two-block search limit (10 metres) was applied to these outliers (> Ag 300 g/t) during block grade estimation.

The estimations were done separately, per domain, using different parameters according to the spatial distribution of the data inside each domain. Table 14-10 shows the summary of the parameters used in the grade interpolation for Ag.

Table 14-10: Parameters Interpolation by domain

Domain	Pass	Az	Dip	Plunge	Major	Semi-Major	Minor	Min	Max	Max comp/hole	X,Y,Z	Ag g/t threshold	Distance X,Y,Z	used
Lower Intrusive	1	247	0	-82	45	30	15	5	25	2	3X3X3	400	10x10x10	400,401
	2	247	0	-82	90	60	30	3	15	2	3X3X3	400	10x10x10	400,401
Lower Javier	1	247	0	-82	45	30	15	5	25	2	3X3X3	400	10x10x10	200,400
	2	247	0	-82	90	60	30	3	15	2	3X3X3	400	10x10x10	200,400,201
Lower Milagros	1	247	0	-82	45	30	15	5	25	2	3X3X3	400	10x10x10	300,301
	2	247	0	-82	90	60	30	3	15	2	3X3X3	400	10x10x10	300,301
Upper Intrusive	1	187	10	40	40	35	20	5	25	2	3X3X3	400	10x10x10	400,401
	2	187	10	40	80	70	30	3	15	2	3X3X3	200	10x10x10	400,401
	3	187	10	40	100	100	50	3	15		3X3X3	200	10x10x10	400,401
Upper Javier	1	310	-22	90	45	35	30	5	25	2	3X3X3	300	10x10x10	201,600
	2	310	-22	90	90	70	40	3	25	2	3X3X3	300	10x10x10	201
Upper Milagros	1	187	10	40	40	35	20	5	25	2	3X3X3	400	10x10x10	301,300,401
	2	187	10	40	80	70	30	3	25	2	3X3X3	200	10x10x10	301,300,401
Nucleo	1	310	-22	90	45	35	30	5	25	2	3X3X3	300	10x10x10	600

14.3.8 Block Model Validation

Visual validation was done by comparing grades in composites vs grades in blocks and by observing the vertical and lateral influence of composites on blocks using plans and cross sections at 5 metre intervals. Figures 14-18 to Figure 14-22 show plan and sections with the comparative composites and block grade. Figure 14-22 shows a 3D block model.

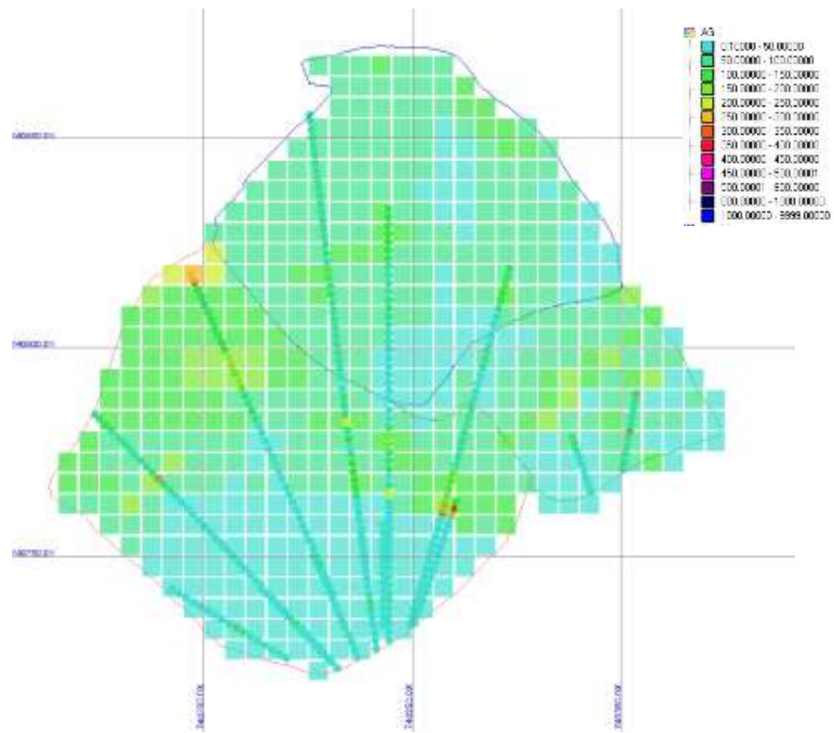


Figure 14-18: Block Model showing Ag grades, all domains vs. composites. Plan view at 1735m elevation

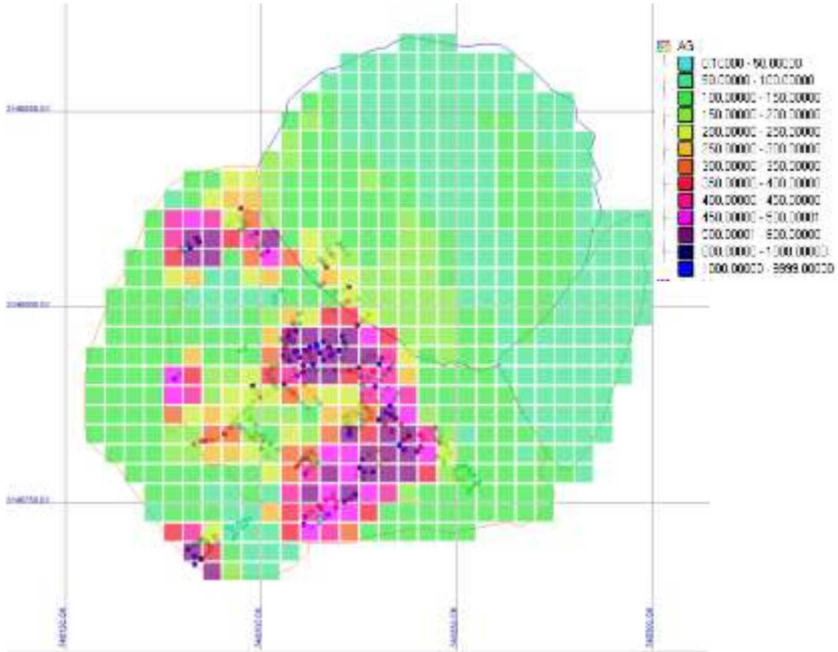


Figure 14-19: Block Model showing Ag grades, all domains vs. composites. Plan view at 1795 m elevation

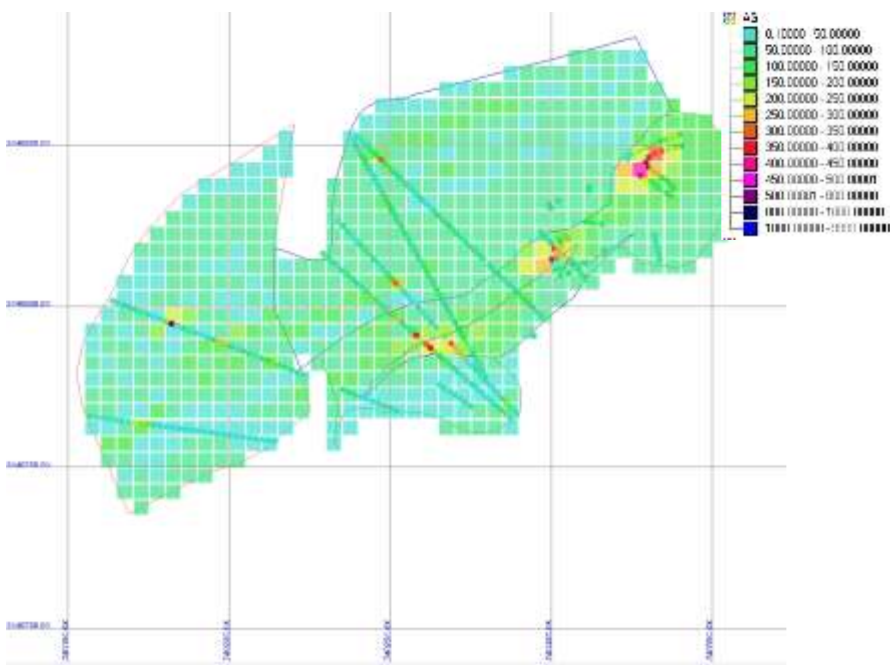


Figure 14-20: Block Model showing Ag grades, all domains vs. composites. Plan view at 1565m elevation

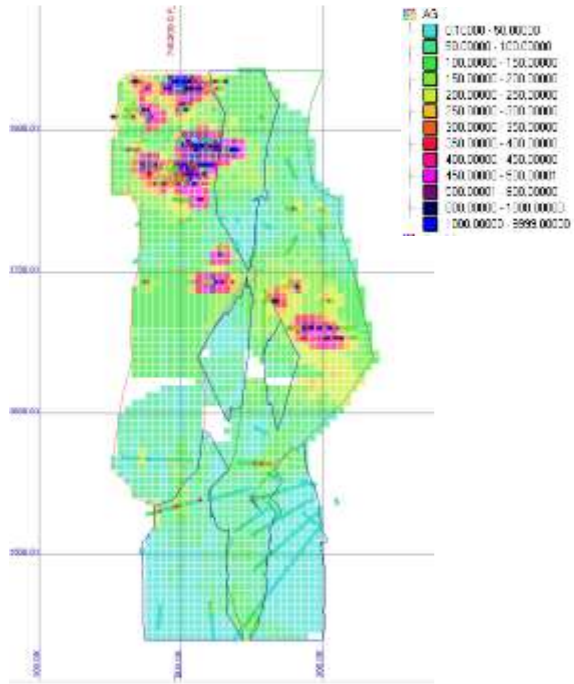


Figure 14-21: Block Model showing Ag grades, all domains vs. composites. N-S Section 740,205 E

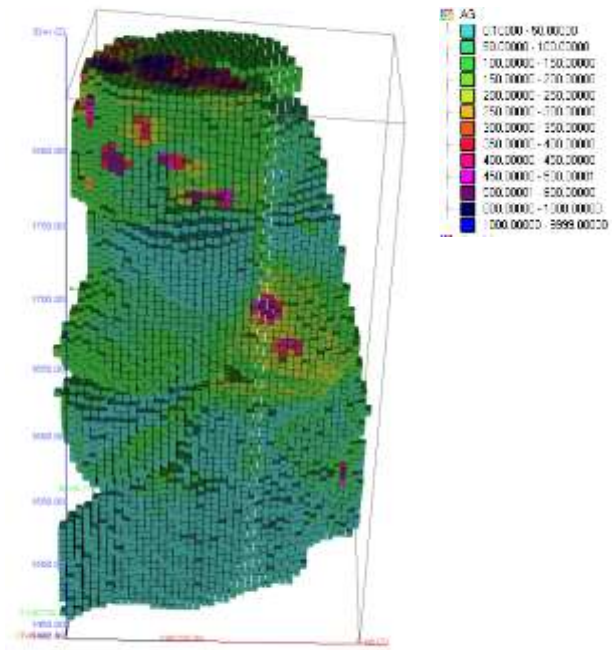


Figure 14-22: 3D view of the Block Model with all domains

Validation was also performed by comparing grade profiles for the OK estimates and composites in the E-W, N-S and vertical (Z axis) directions (Table 14-24). Swath intervals are 10m in all directions.

The grade profiles are generally in good agreement. The swath plots indicate that no systematic local bias has been introduced in the block grade estimate.

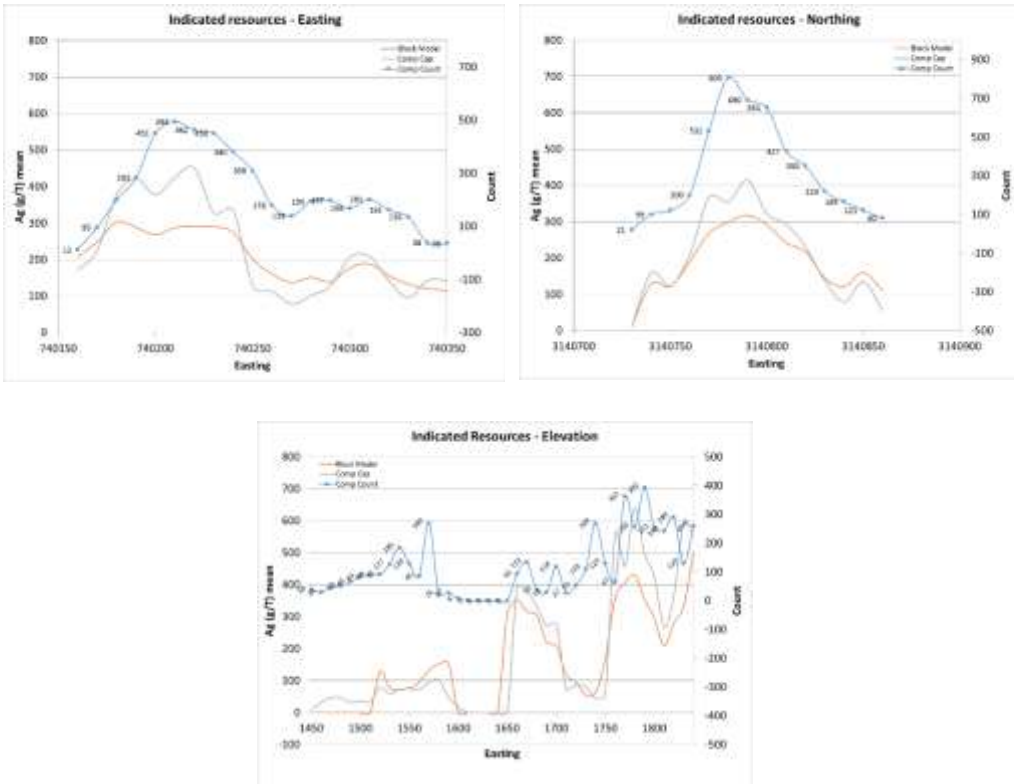


Figure 14-23: Ag OK swath Plots for indicated resources

Global bias check was investigated by comparing the average Ordinary Kriging estimated grades with Nearest Neighbor (NN) estimates. The NN grade model is a declustered composite grade distribution and provides a globally unbiased estimate of the average value when no cut-off grade is imposed. Results show differences in mean Ag grade between the OK and NN model is less than 5% (106g/t for OK compared to 112g/t for NN).

14.3.9 Mineral Resource Classification

The Mineral Resource is classified in accordance with the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (10 May, 2014).

The following general criteria for classification of mineral resources at Milagros deposit were established:

Measured Mineral Resources:

- No Measured Mineral Resource was defined

Indicated Mineral Resources:

- Average drill-hole spacing of less than or equal to 30m
- Slope of regression greater than 70%
- Number of samples greater than 10

Inferred Mineral Resources:

- Average drill-hole spacing of less than or equal to 60m
- Slope of regression greater than 60%
- Number of samples greater than 4

The resulting classification map and supporting grade composites were inspected on vertical sections and plan views. Illustrations of the mineral resource classification are shown in plan view at elevation 1,740 m (Figure 14-24), and in 3D (Figure 14-25).

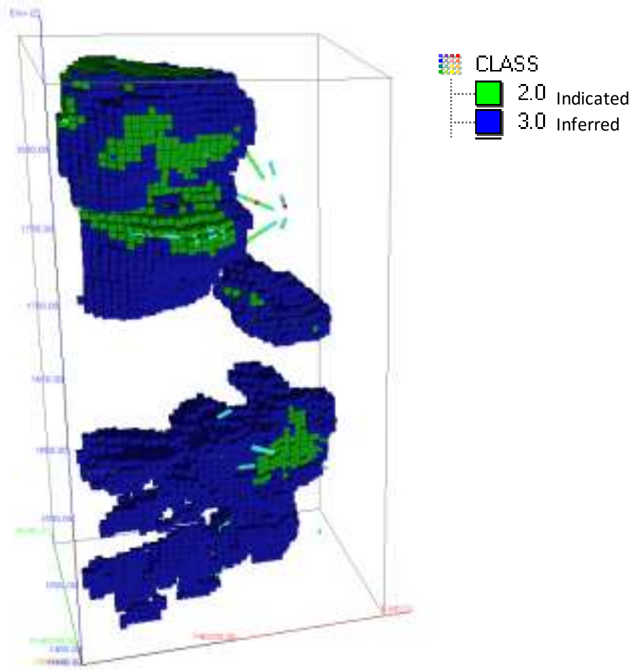


Figure 14-24: Resource Classification for the Milagros domains in 3D

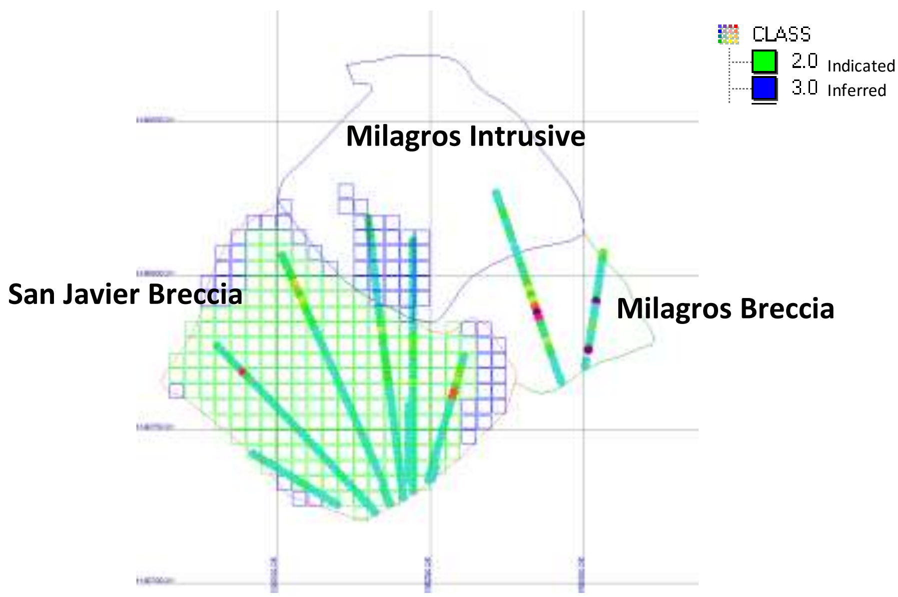


Figure 14-25: Resource Classification for the Milagros domains. Plan view at elevation 1740 m.

14.3.10 San Javier and Milagros Breccias Area Mineral Resource Statement

Mineral Resources have been classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101")

Table 14-11 provides the Indicated and Inferred Mineral Resource Estimates for the four domains. There are no Measured Resources reported for the San Javier and Milagros Breccias Area.

Table 14-11: Mineral Resource Statement with an Effective Date of December 2015

Area	Category	Mineral Type	k tonnes	Ag (g/t)	Ag (k Oz)
San Javier and Milagros Breccias	Measured (UG)	Oxides	-	-	-
	Indicated (UG)	Oxides	498	290	4,649
	Total Measured and Indicated (UG)	Oxides	498	290	4,649
	Inferred (UG)	Oxides	415	199	2,656

1. The area known as San Javier and Milagros Breccias also includes Milagros Intrusive and Nucleo domains.
2. Metal price considered for all deposits was $18.50 USD/oz Ag
3. Cut-off grade considered was 130g/t of Ag. Cut-off estimates are based on actual and budgeted operating and sustaining costs.
4. Metallurgical recovery of silver was assumed 58%
5. Metal payable used for silver was 99.6%
6. Tonnage is expressed in thousands of tonnes and silver content in thousands of ounces
7. Mineral Resources estimates for the San Javier Breccia, Milagros Breccia, Milagros Intrusive and Nucleo were prepared under supervision of Jesus M. Velador Beltran, MMSA QP Geology for First Majestic.

14.4 Mineral Resources in the Tailings Deposit No. 4

Resource estimation for the Tailings Deposit No. 4 is based on 995 metres of drilling distributed across 31 holes, drilled with a core recovery rig using a reamer tube that allowed an average recovery of over 80% of the tailings material. Drill-hole spacing was 50 metres, and all of the collars were surveyed. In addition, a description of the color and grain size of the material was carried out, and sampling was done systematically down the hole at three metres intervals.

14.4.1 Wireframe Model

The wireframe model for the tailings deposit was constructed utilizing two surfaces: the base of the tailings surveyed on the original terrain, and the surface of the deposit as determined by the surveying of control points and the hole-collars. The surveyed surfaces were joined to create the solid of the deposit in order to constrain the interpolations within the block model. Figure 14-26 shows the wireframe model of the tailings deposit and drill-hole collars.

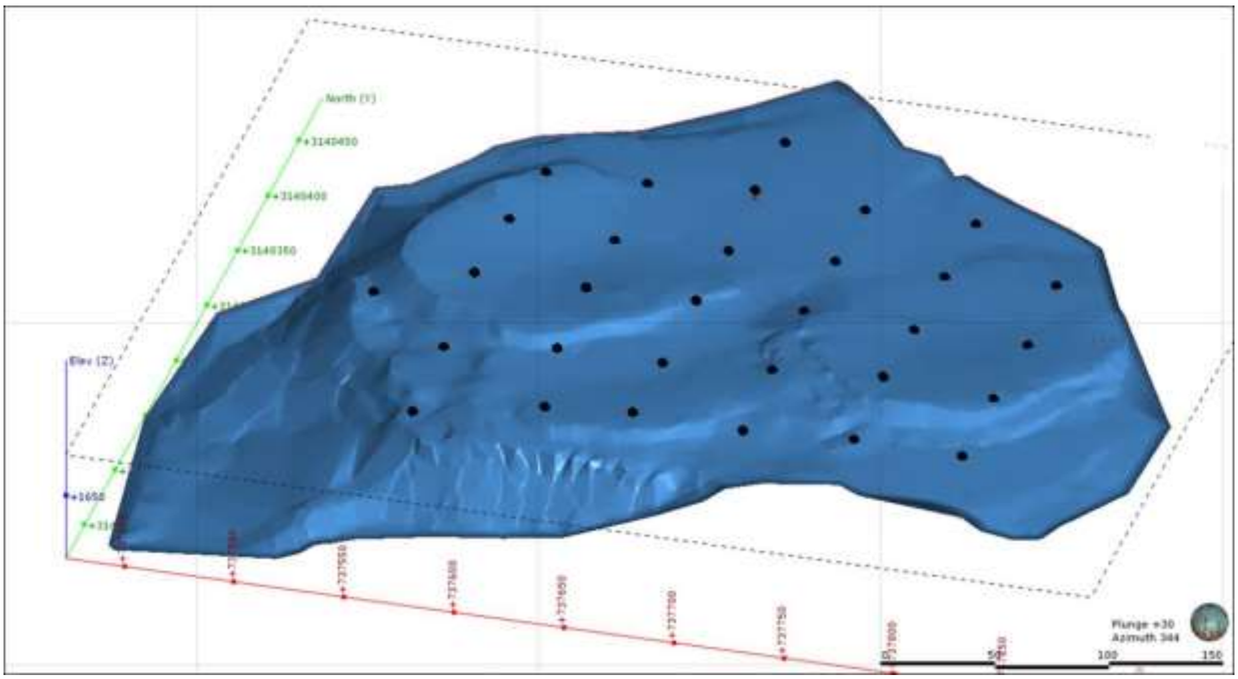


Figure 14-26: Wireframe model for the Tailings Deposit No. 4.

14.4.2 Sample Intervals and Composites

Data from 31 vertical drill-holes with an average depth of 32 metres and assay data for Ag (g/t) were used for the statistical analysis. Sampling down the hole was carried out systematically with most sample intervals having a fixed length of three metres except at the bottom of the holes where sample length was variable. Descriptive statistics for sample intervals were obtained using the Maptek Vulcan® v9.00 software. Histograms and low coefficient of variation shows a close to normal grade distribution. Table 14-12 presents Ag (g/t) basic statistics.

Table 14-12: Descriptive Statistics of Assays

	Sample Number	Total Length	Min	Max	Std. Dev	Coef. Of variation
Ag	327	959.65	65	248	17	0.15

Drill core assay intervals for Ag were composited down-hole in Vulcan™ to a fixed length of 3.0 m from the top of the drill-holes. These composites were used in grade estimation. Composite intervals at the ends of the holes with lengths less than 1.5 m were appended to the previous composite.

14.4.3 Capping

During the exploratory data analyses only one outlier was observed with Ag grade of 248 g/t (Figure 14-27). The outlier was capped to an average value of 111 g/t Ag.

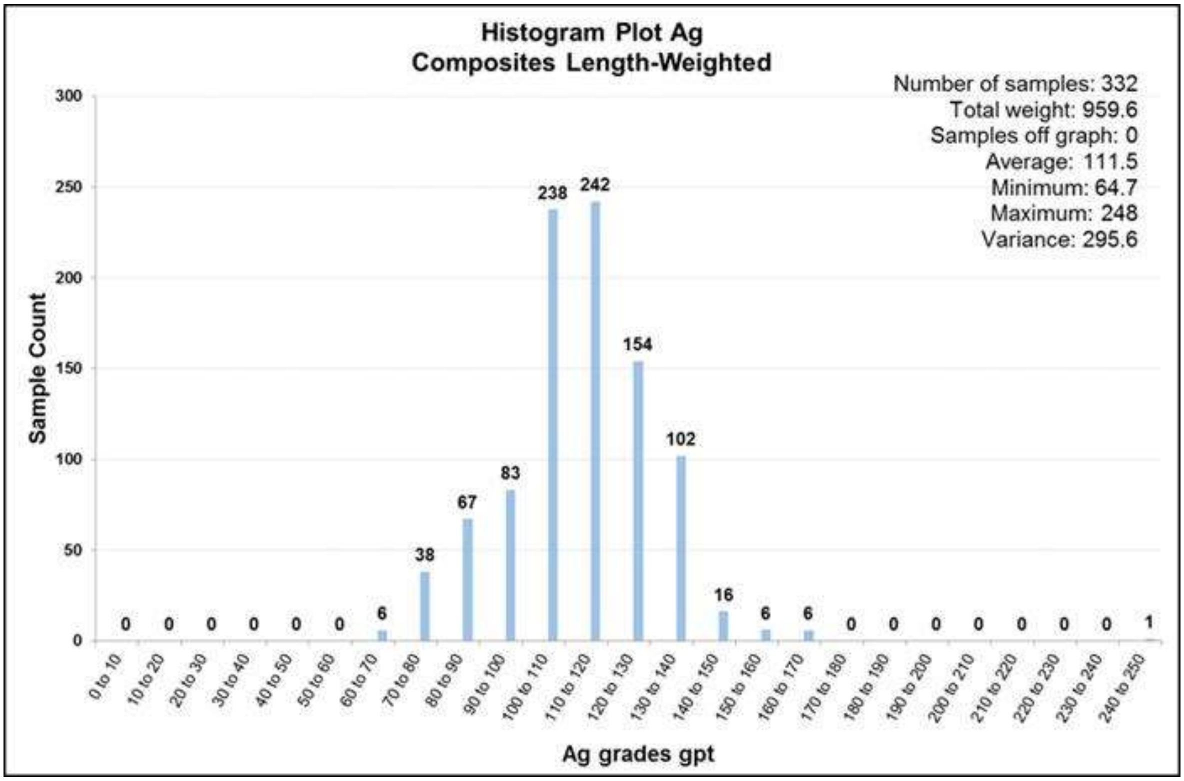


Figure 14-27: Histogram for Ag composites

Table 14-13 compares the basic statistics between composites and capped composite. The table shows that there are no differences between the capped and un-capped statistics since only one outlier was found.

Table 14-13: Summary of Statistics from Weighted Composites vs. Weighted Capped Composite.

	Number of samples	Total length (m)	Min	Max	Average	Std. Dev	Coef. of variance
Ag	332	959.65	65	248	111	17	0.15
Ag Capped	332	959.65	65	168	111	16	0.15

14.4.4 Variography

Variogram maps, down-the-hole, and directional correlograms, were prepared for Ag composites. The directional correlograms were computed from all data. Two spherical structures plus nugget effect were used to fit experimental correlograms. A summary of the variogram parameters is provided in Table 14-14.

The anisotropies apparent in the variograms for Ag is geologically reasonable with the nature of tailings deposit.

The anisotropy azimuth and dip directions after rotation are provided in Table 14-14 and the major axis variogram for Ag is shown on Figure 14-28.

Table 14-14: A Summary of Variogram Parameters

Variogram	Nugget C0	C1	C2	Type	Rotation (°)			Range 1st Structure (m)			Range 2nd Structure (m)		
					Strike	Plunge	Dip	Major	Semi-Major	Minor	Major	Semi-Major	Minor
Ag	0.1	0.45	0.45	Sph	110	0	0	60	30	13	180	90	40

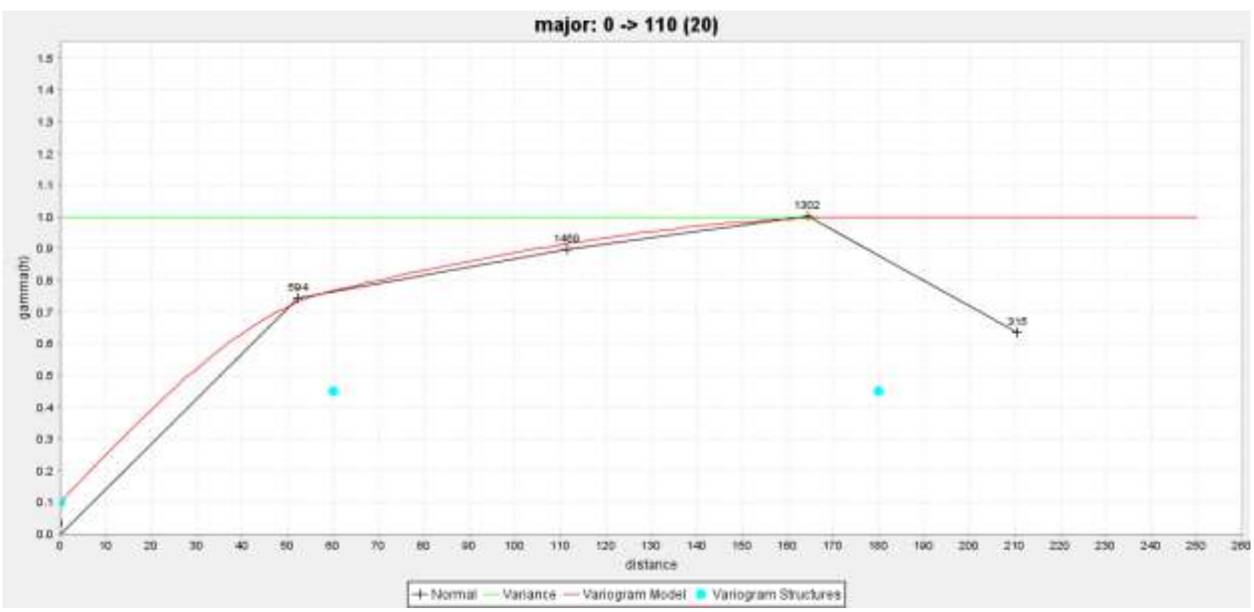


Figure 14-28: Directional Variogram at the major axis for Ag composites

14.4.5 Block Model Dimensions

A non-rotated block model with interpolations constrained by the wireframe model was created using Maptek Vulcan® v9.00. Table 14-15 shows the dimensions of the block model.

Table 14-15: Block Model Dimensions

Tailings Deposit No. 4 Block Model Dimensions			
	X	**Y**	**Z**
Minimum Coordinates	737,400	3,140,000	1,610
Maximum Coordinates	737,940	3,140,504	1,700
Block Extents (m)	540	504	90
Block Size (m)	12	12	12
Non Rotated Block Model and No Sub-blocks			

14.4.6 Block Model Assignments: Domain and Specific Gravity

Blocks were codified inside the 3D wireframe created for the tailings deposit. Calculated volumes for the wireframe and the codified blocks inside the wireframe were compared and a minimal difference of ±0.05% was obtained between the two, which indicates good correlation between the codified blocks and wireframe model. No sub-blocks were created for this estimate, instead a partial percentage attribute was created to weight the volumes of the blocks inside the tailings solids.

Specific gravity for core samples from the tailings deposit were determined at the Central Lab using the water displacement method (refer to Section 10 of this report for more details). An average specific gravity of 2.05 was estimated for the deposit.

14.4.7 Block Grade Estimation

The Ag block grade values was interpolated using an ordinary kriging (OK) estimator. Due to the geometry and homogeneity nature of the tailing, a one pass estimation approach was enough to interpolate most tailings blocks.

A summary of the Ag estimation plan is provided in Table 14-16.

Table 14-16: A Summary of the Block Grade Estimation Plan for Ag

Parameters		Pass 1
Rotation	Az	110
	Dip	0
	Plunge	0
Search Distance	Major	250
	Semi-Major	200
	Minor	20
Sample selection	Min	5
	Max	25
	Max comp/hole	3
Block Discretization	X,Y,Z	4X4X4

14.4.8 Model Validation

Visual validation involved inspection of composite silver grades and block grades on vertical sections and plan views (Figure 14-29 and Figure 14-30). The block model grades generally honour the composite data well, and grade extrapolation is controlled where sufficient data exists.

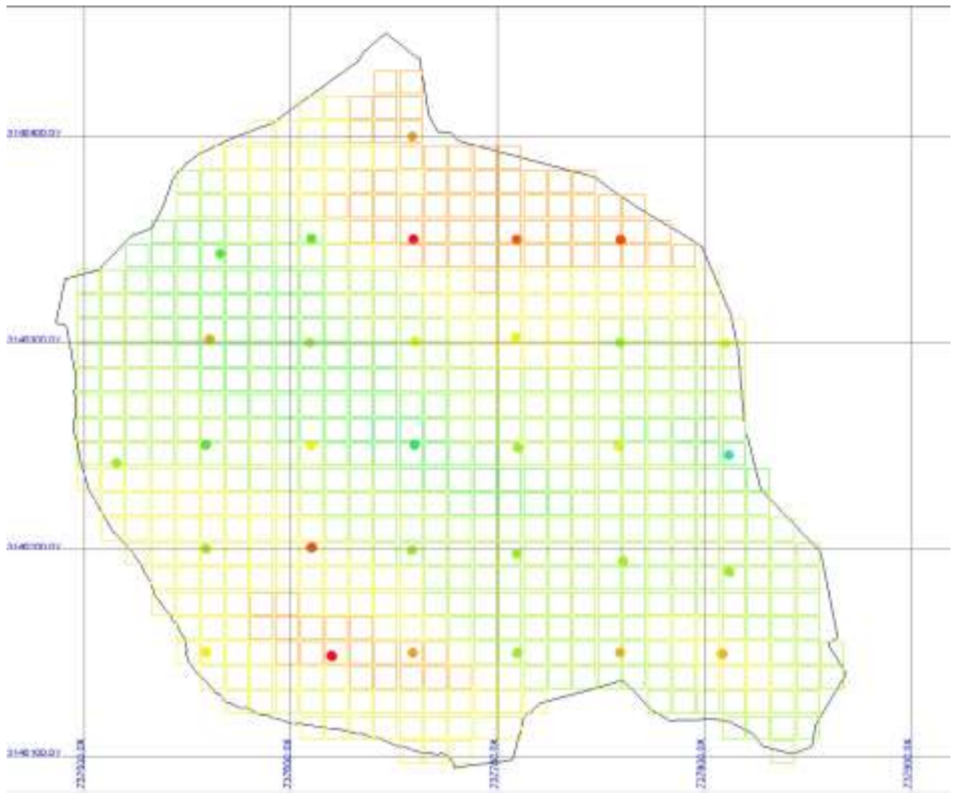


Figure 14-29: Plan view comparing composite grades and block grades at elevation 1,670m

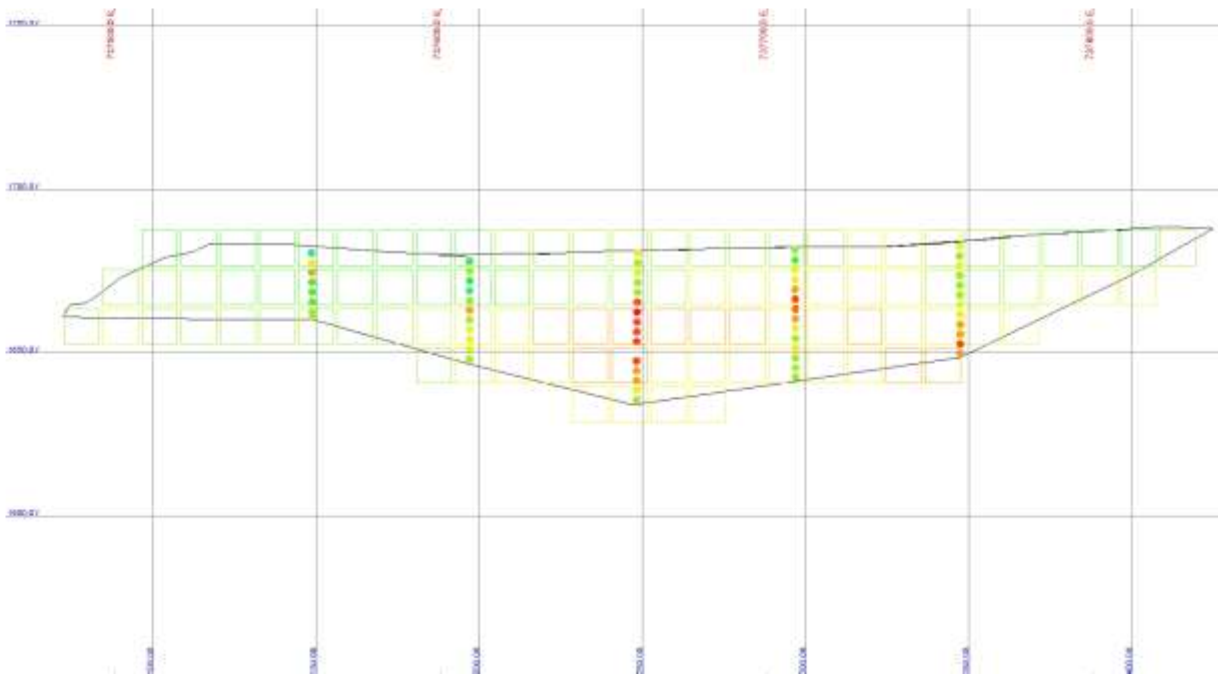


Figure 14-30: Cross section looking north and comparing composite grades vs block grades at N 3,140,366 m

Validation was also performed by comparing grade profiles for the OK and NN block estimates. Swath plots were prepared to compare the methods and composites in the E-W, N-S and vertical (Z axis) directions. Swath intervals are 50 m in both the northerly and easterly directions, and 10 m vertically.

The grade profiles are generally in good agreement. The swath plots indicate that no systematic local bias has been introduced in the block grade estimate (Figure 14-31).

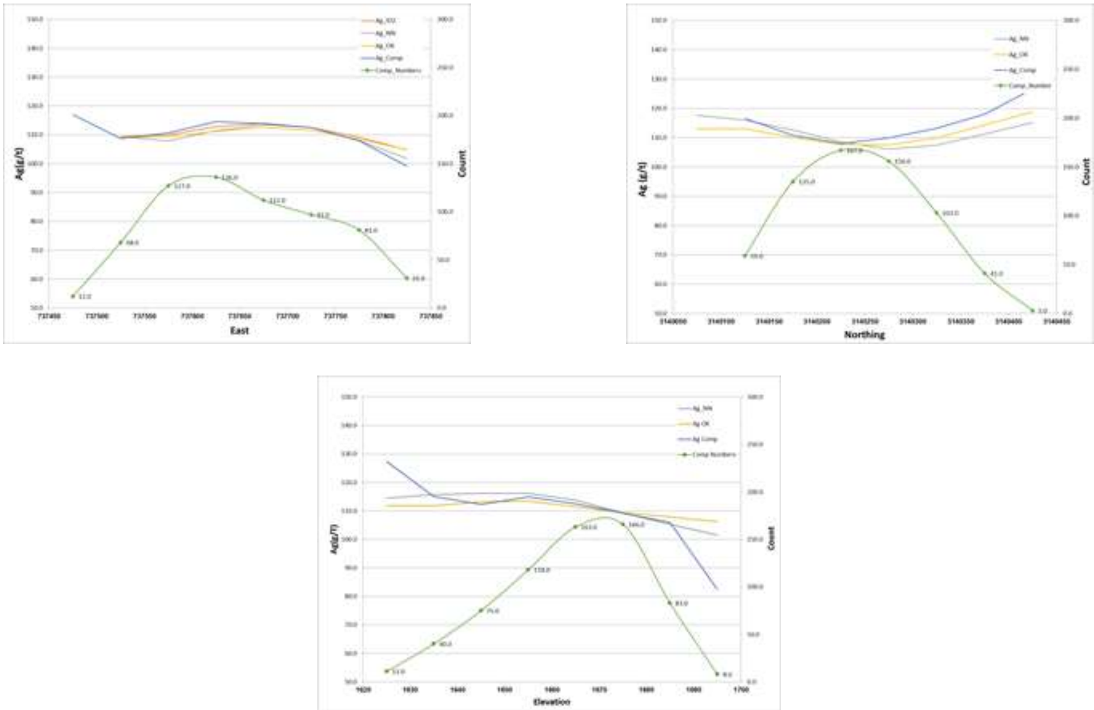


Figure 14-31: Ag (g/t) Swath Plots

Descriptive statistics was also used to validate the model and the results are shown on Table 14-17. The statistics show good comparison between composites and blocks.

Table 14-17: Summary of Ag statistics for composites and blocks.

	Comp Ag (g/t)	Blocks Ag (g/t)
Number of samples	332.0	2,317.0
Minimum value	64.7	86.4
Maximum value	168.0	138.2
Mean	111.3	110.0
Median	112.0	110.8
Variance	274.9	68.3
Standard Deviation	16.6	8.3

14.4.9 Resource Classification

The Mineral Resource is classified in accordance with the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 10, 2014).

The following general criteria for classification of mineral resources at the tailings deposit were established:

Measured Mineral Resources:

- No Measured Mineral Resource was defined

Indicated Mineral Resources:

- Average drill-hole spacing of less than or equal to 60m
- Slope of regression greater than 80%
- Blocks inside a post processing indicated solid created based on the above criteria

The resulting classification map and supporting grade composites were inspected on vertical sections and plan views. Illustrations of the mineral resource classification are shown in plan view at elevation 1,670m (Figure 14-32), and in vertical section view at 3,140,306 N (Figure 14-33).

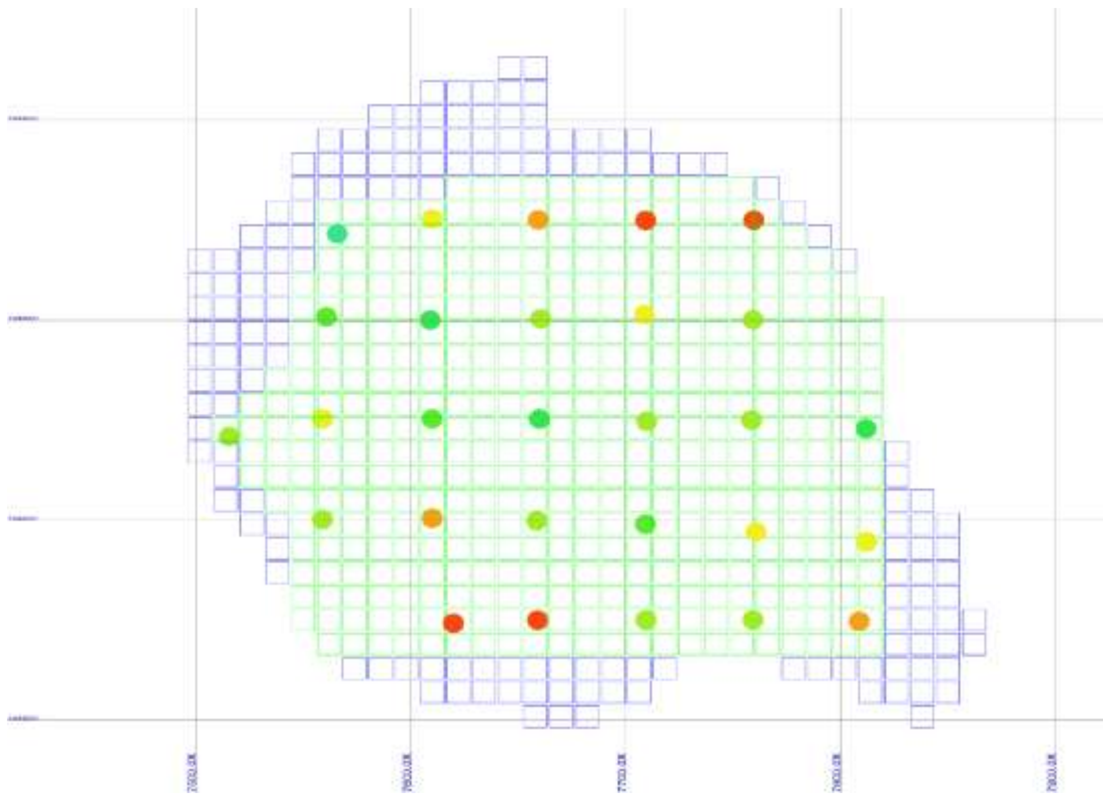


Figure 14-32: Plan View of Mineral Resource Classification at elevation 1670m showing indicated resource in green.

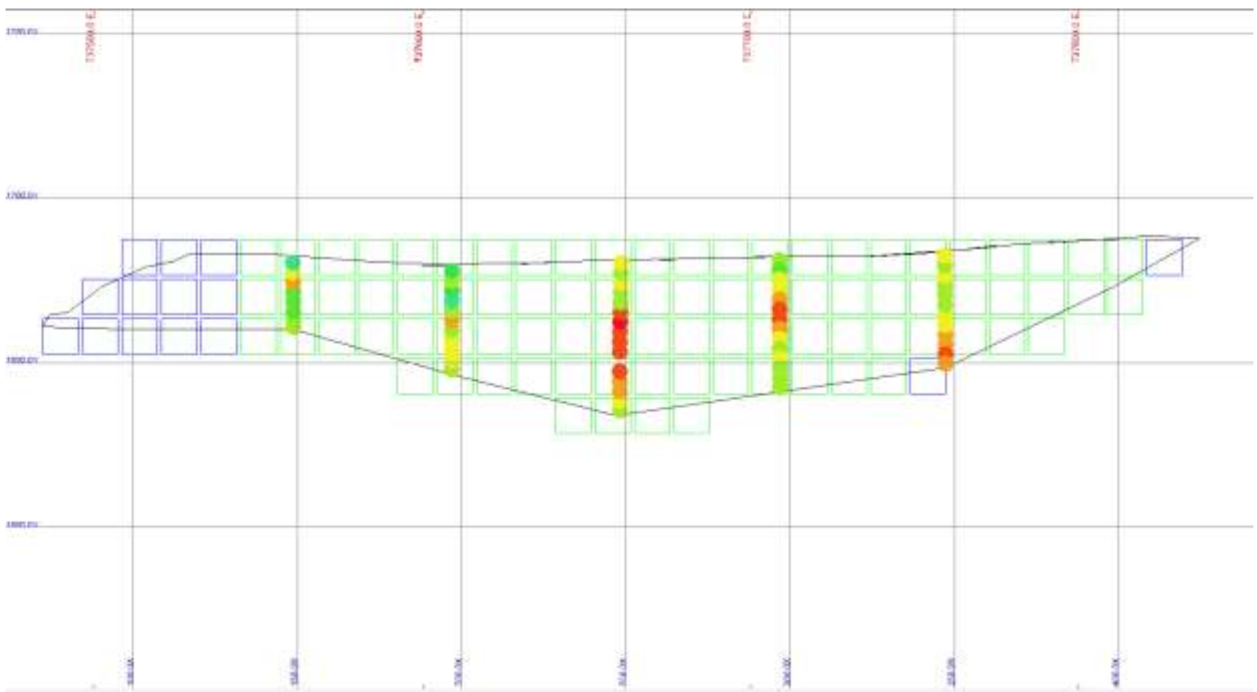


Figure 14-33: Cross section of Mineral Resource Classification at elevation 1670m showing indicated resource in green in respect to composites and tailings solids.

14.4.10 Tailings Deposit No. 4 Mineral Resource Statement

The Mineral Resource is classified in accordance with the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (10 May, 2014).

Table 14-18 shows the Indicated Mineral Resource Estimation for the Tailings Deposit No. 4.

Table 14-18: Mineral Resource Statement for the Tailings Deposit No 4. Based on a 85 g/t Ag cut-off, Effective Date 31 December 2015, Jesus M. Velador B., QP Geology

Area	Category	Mineral Type	k tonnes	Ag (g/t)	Ag (k Oz)
Tailings Deposit No. 4	Indicated	Oxides	4,222	110	14,931
	Total	Oxides	4,222	110	14,931

Notes:

8. Assumptions include: commodity prices of $17.50/oz for Ag; 99.6% payable metal from refinery; a constant tail approach to determine the process recovery, which for 85 g/t Ag results in a recovery of 53% for Ag; reclaiming cost of $1.50/t, processing cost of $US19.33/t, indirect costs of US$3.14/t, process sustaining capital of US$0.11/t, and G&A costs of US$0.98/t.
9. Bulk density was estimated at 2.05 t/m^3
10. Modifying factors for mining recovery and dilution were not considered in the resource estimate

Table 14-19 shows the sensitivity of the Tailings Deposit No. 4 Mineral Resource to changes in cut-off grade.

Table 14-19: Sensitivity of the Tailings Deposit No. 4 Mineral Resource to changes in cut-off grade.

Cuttoff Ag (g/t)	Tonnage kton	Ag (g/t)	Ag (Koz)
55	4,222	110	14,931
65	4,222	110	14,931
75	4,222	110	14,931
85	4,222	110	14,931
95	4,067	111	14,454
105	2,957	114	10,868
115	1,223	120	4,713

14.5 QP Comment on Mineral Resource Estimates prepared by First Majestic

Mineral Resources for veins, small mantos and minor chimneys for La Encantada property were estimated by the traditional method using plans and sections. Channel samples and drill-hole data was used for the resource estimation of these deposits. Mineral Resources for the San Javier breccia, Milagros breccia, Milagros intrusion and Nucleo (San Javier and Milagros breccias areas) were estimated by constructing 3D wireframe and block models. Channel samples and drill-hole data were used for the resource estimates of the San Javier and Milagros breccias areas. Channel samples tend to be selective (grade can be biased high), and are assayed at the mine Lab which is not certified and has limited QAQC capabilities, therefore First Majestic imposed strict and conservative parameters for grade estimation and resource classification. First Majestic believes that strict and conservative measures for grade estimation and resource classification overcome some of the risks imposed by utilising the channel samples. The drill-hole data used in the estimates, including the tailings deposits, was verified, and QAQC standards are considered to be at or above industry practices, although core recoveries are below 100% particularly for the tailings and breccias. Core recoveries below 100% could bias the silver grades low if high grade oxide material is lost at the time of drilling. Therefore, it is possible that some of the high bias effects due to channel sample selectivity are cancelled out by the low bias effects imposed by the washing out of values during drilling. First Majestic believes that the risks imposed by the channel samples and core recoveries could not materially impact this resource estimate. First Majestic is not aware of any environmental, permitting, legal, title, taxation, socio-economic or political factor that could materially affect the resource estimate.

14.6 Mineral Resource Estimates – Ojuelas

Geological logging and results from sampling of diamond drill core from 27 diamond drill cores totalling 5,821 m, completed to July 29, 2015, by the Company geologists were used as the basis for the preparation of three dimensional models of lithological units and grade envelopes. Of these diamond drill-holes, 23 had sample intervals used for estimation purposes. First Majestic geologists prepared interpretations of Skarn (Sk), Oxide Crackle Breccia (OxCk), Manto (Mto), and La Pena (LP) lithological units on east-west vertical sections, which they then used to prepare 3D wireframe models using Leapfrog Geo™ software. Amec Foster Wheeler modelled the western and eastern dykes, and silver (Ag), lead (Pb), and zinc (Zn) grade envelopes, using the implicit modelling tools in Leapfrog Geo™.

A block model was constructed in Vulcan™ software with block dimensions of 5 m × 5 m x 5 m high. Ag, Pb, and Zn grades were interpolated into the Sk, OxCk, and Mto blocks by ordinary kriging (OK) in three passes. Blocks in the La Pena limestone, diorite dykes, and country rock are considered to be diluting material at zero grade. Blocks were classified based on a combination of factors including the average distance to the nearest composites and their occurrence within the inclined cave stope constraining shape, and the understanding of mining and metallurgy for the material. Validation of the estimated block model revealed no significant global or local grade biases. While Zn block grades were estimated, they were not subjected to the full rigour of validation and were therefore not reported.

14.6.1 Geological Wireframe Models

14.6.1.1 Lithological Wireframe Models

Wireframe models of the main lithological units at the Ojuelas deposit were constructed in Leapfrog Geo™ software based on cross sectional interpretations by First Majestic staff. Amec Foster Wheeler reviewed the lithology wireframes and found them to be acceptable for mineral resource estimation use. Amec Foster Wheeler remodelled the westernmost (Western) and easternmost (Eastern) diorite dykes in the deposit area in Leapfrog Geo™, in order to better align the modelled dykes to drill-hole intervals. First Majestic geologists reviewed and approved these modifications.

Five principal lithologies were modelled to facilitate block grade estimation. The list of logging codes is provided in Table 14-20. Intrusive rock and un-mineralized limestone units were assigned to country rock (CR). A view of the lithological model is provided in Figure 14-34.

Table 14-20: Lithological Codes for Block Grade Estimation

Description	Lithology (LFLG)	Lithology Code (LFLG_N)	Colour
Country Rock	CR	99	
La Pena Limestone	Klp	2	
Skarn	Sk	4	
Oxidized Crackle Breccia	OxCk	6	
Manto	Mto	7	
Dyke	Dk	9	

LFLG and LFLG_N are block model variable names indicating back-tagged lithology from wireframes

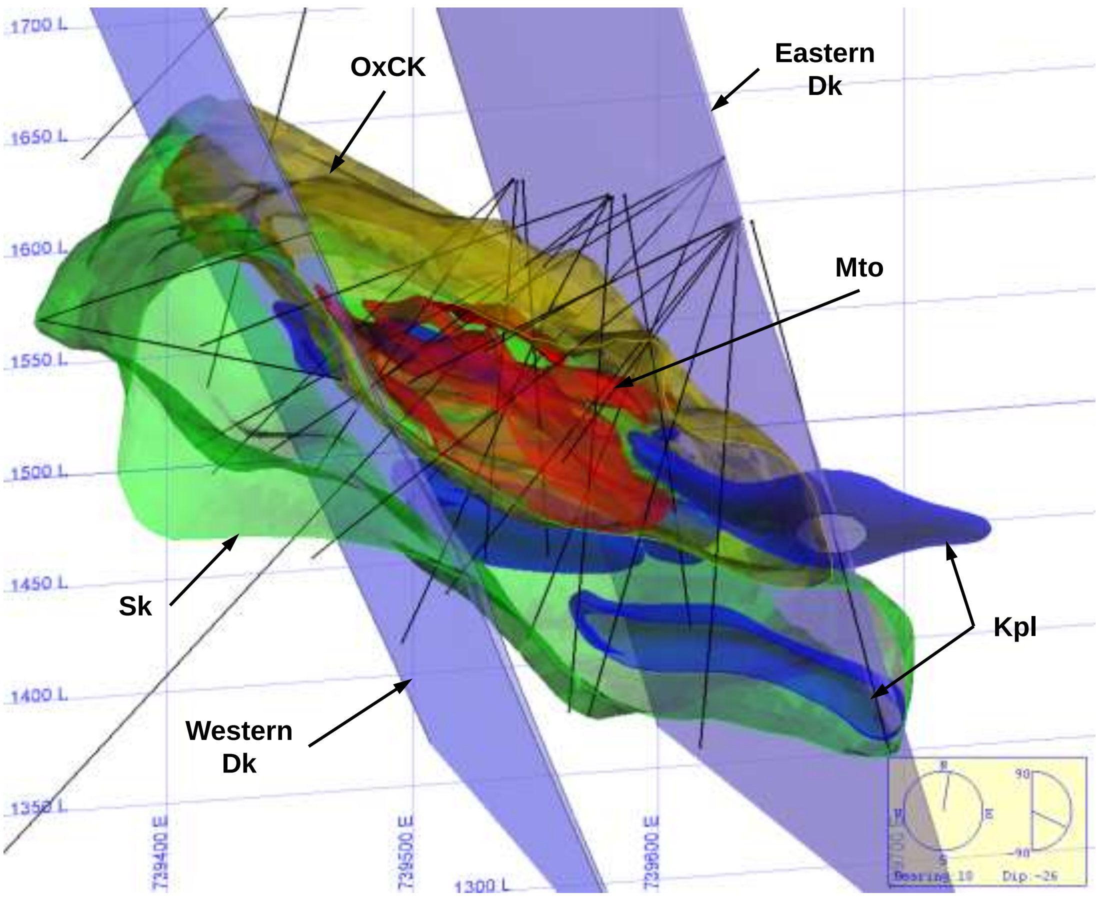


Figure 14-34: Lithological Model. View Looking NNE at 3,139,660 N

14.6.2 Structural Wireframe Models

Several dykes associated with structures were modelled by FM. Amec Foster Wheeler simplified the First Majestic model to two main dykes; the Eastern and Western. The diorite dykes are interpreted as post-mineralization intrusions filling steep NNW-SSE dipping normal faults:

- Eastern dyke 74° → 067°
- Western dyke 68° → 077°

14.6.3 Grade Shell Wireframe Models

Wireframe models at 100 g/t Ag and the 1% Pb thresholds were constructed in Leapfrog Geo™ using implicit modelling functionality. The selection of the Ag and Pb grade thresholds for modelling were based on visual inspection of the spatial and statistical grade distributions, as well as considering economic constraints. The original assay intervals were composited to 2 m down-the-hole in Leapfrog™. These composites were only used in the generation of the grade shell. A graphic of both the 100 g/t Ag and the 1% Pb grade shell wireframes is provided in section view in Figure 14-35. The 1% Pb grade shell wireframe overlaps and extends above the 100 g/t Ag shell.

A silver equivalent (Ag-Eq) wireframe grade shell was also constructed in the same manner for use in data analysis, but was not used in the block grade estimation. The Ag-Eq wireframe was constructed using a threshold of 100 g/t Aq-Eq based on a silver equivalent formula of:

Ag-Eq = Ag g/t + (Pb% x 32*)

* Accounts for metals prices of US$19.00/oz for Ag and US1.50/lb for Pb metal prices and mill recoveries of 85% for Ag and 80% for Pb.

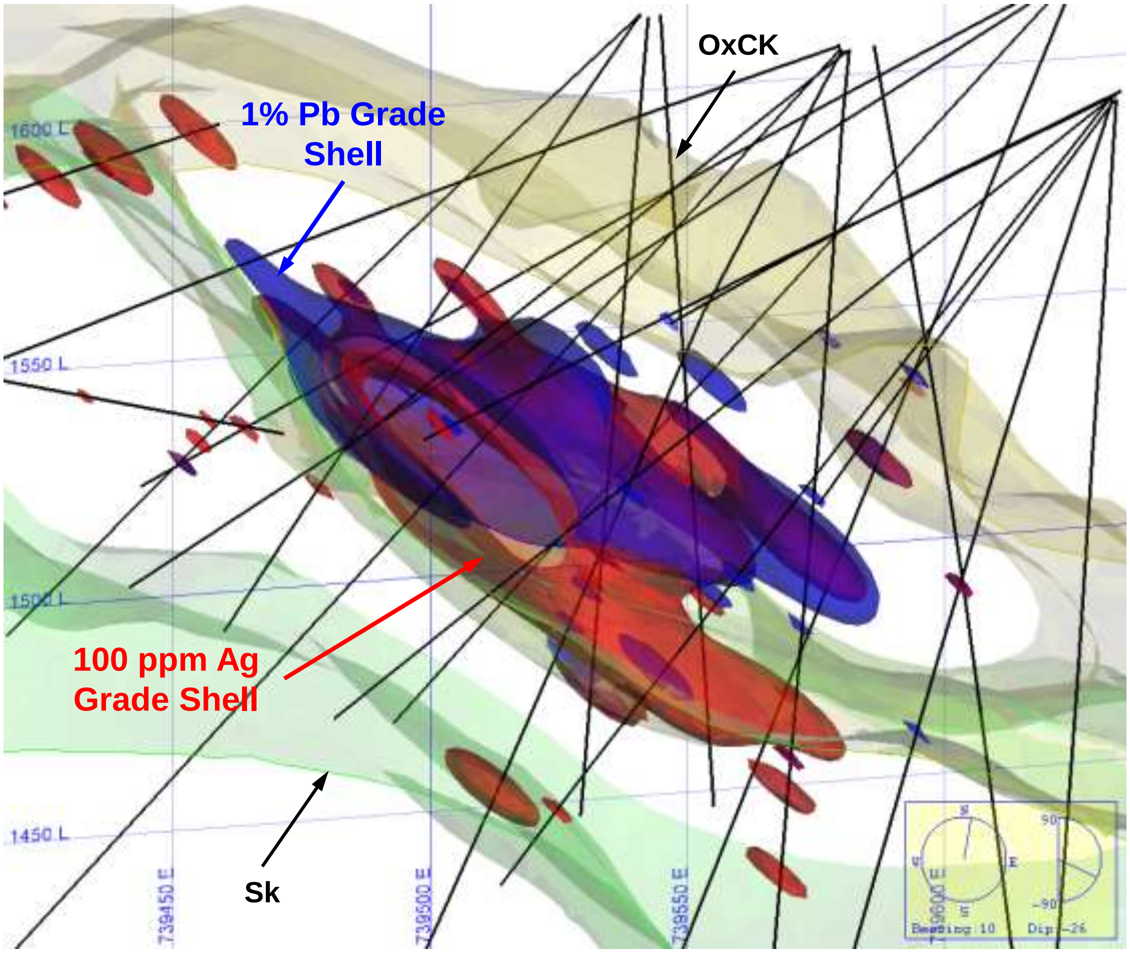


Figure 14-35: Section View of the 100 g/t Ag Shell (red) and 1% Pb Shell (blue) Looking NNE at section 3,139,660 N. Figure prepared by Amec Foster Wheeler

14.6.4 Assay Compositing

Drill core assay intervals for Ag and Pb were composited down-hole in Vulcan™ to a fixed length of 2.0 m from the top of the drill-holes. These composites were used in grade estimation. Composite intervals were not broken at geological boundaries. Composite intervals at the ends of the holes with lengths less than 1 m were appended to the previous composite.

Composite intervals for non-sampled core were created during the compositing process. The resulting composite intervals were assigned a default background value for each grade element. The non-sampled intervals are generally within the Intrusive units, Aurora Limestone, and La Pena Limestone units. The background values are one half the lower assay detection limit for the grade element. The assignment of background grades to un-sampled intervals assures that composites are available to prevent extrapolation in areas of negligible mineralization during block grade estimation. In a small number of cases, for example, where drill core recovery was lost, the background value was assigned where mineralization may have occurred. Amec Foster Wheeler is of the opinion that the small number of composite intervals that this represents is not material to the resource estimate.

The default background values assigned to composites created for un-sampled intervals are as follows:

- Ag – 0.15 g/t
- Pb – 0.0002%

The composites were assigned a lithology flag code (LFLG) and lithology flag number (LFLG_N) based on a majority rule, tagged from the five principal lithology wireframes shown in Table 14-20. The composite intervals were also back-tagged with a grade shell code for 100 g/t Ag (ag_gs) and 1% Pb (pb_gs), coded as 2 for inside the grade shell, and 1 for outside. The back-tagged codes are used during grade estimation.

Back-tagging of composite intervals typically results in some mis-tagging at boundaries. Checks were made to ensure back-tagging worked as expected and that the amount of mis-tagging at the geological boundaries is reasonable. Several mis-tagged intervals were identified. These were addressed through the estimation plan discussed in Section 14.6.12.

14.6.5 Exploratory Data Analysis

Exploratory data analysis (EDA), including preparation of box plots, histograms and probability plots, swath plots, scattergrams, outlier analysis, and variography was undertaken to help develop an estimation plan for block grade estimation. An EDA envelope enclosing the drill-hole information in the main deposit area of interest was defined to eliminate spatial outliers not relevant to the analysis. Figure 14-36 shows the EDA envelope in relation to the drill-holes coloured for Ag grade composites.

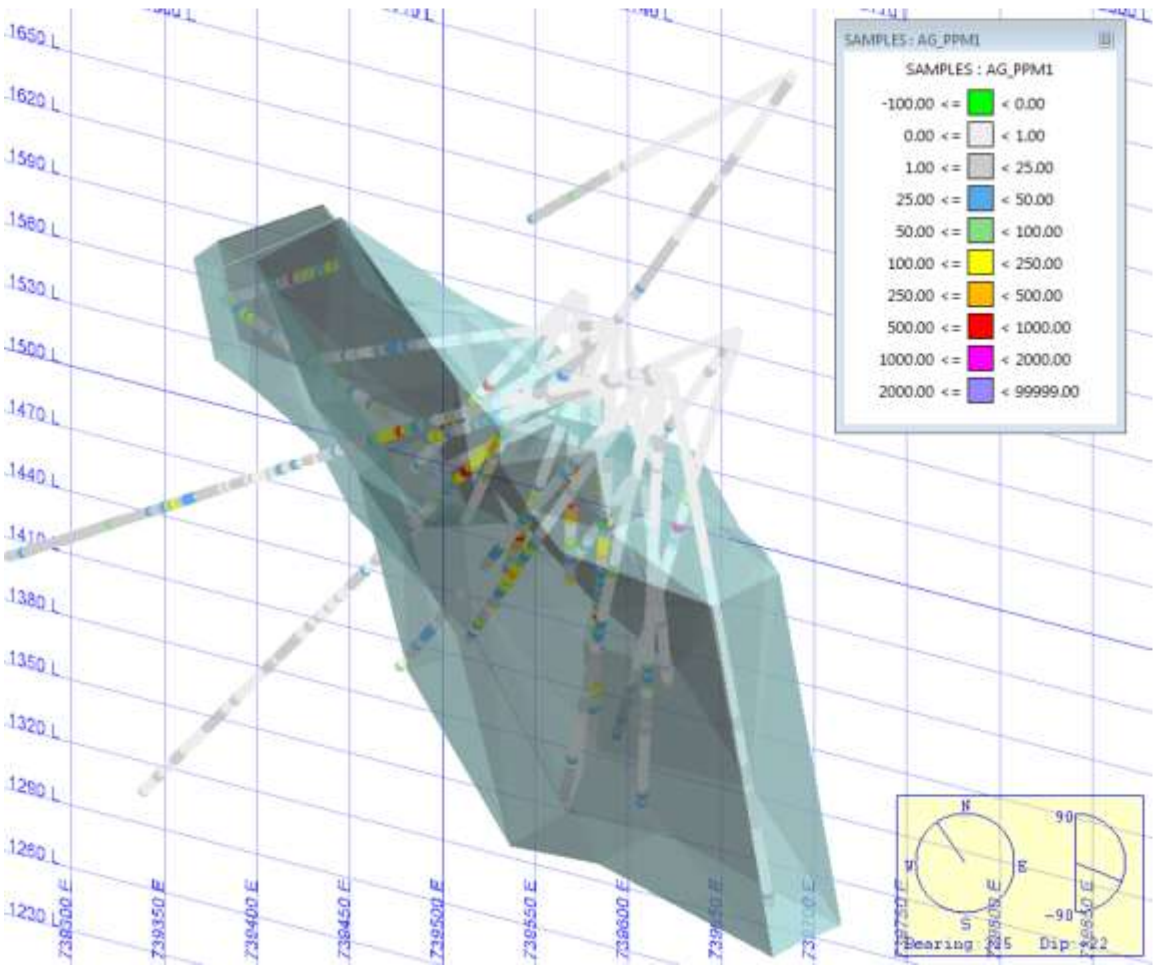


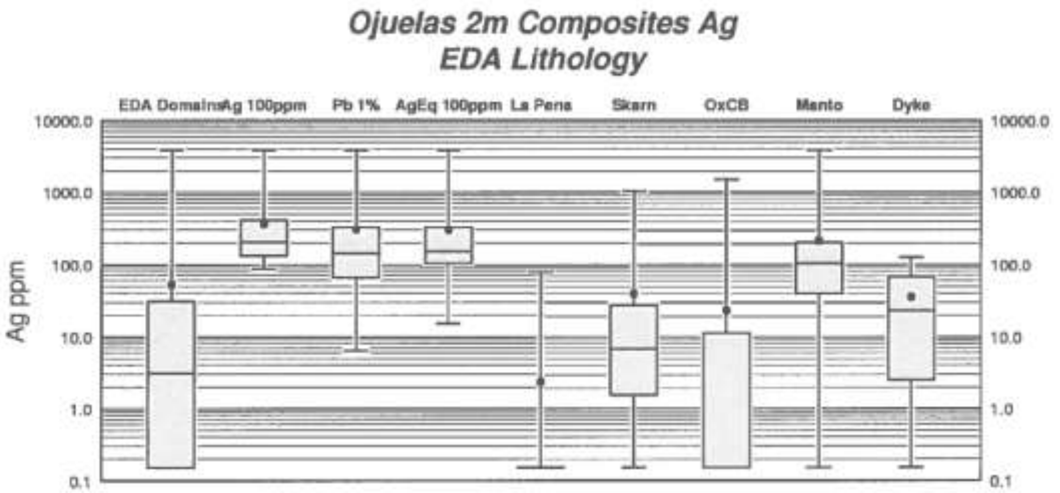
Figure 14-36: Oblique Section View of the EDA Envelope. View Looking Northwest at 3,139,700 N

14.6.5.1 Box Plots

Box plots for uncapped Ag and Pb composites grouped by back-tagged lithology and, Cu and Pb, grade shells were prepared.

The Ag box plot is shown in Figure 14-37. The difference in mean Ag grade between the main mineralized lithology, Mto, and surrounding lithologies is high. OxCk and Sk lithologies contain higher grade mineralization in areas generally proximal to the Mto. The La Pena Limestone (Klp) and Dyke (Dk) are generally un-mineralized. High grade composites in these two lithologies are outliers, and are due to wireframing inaccuracies resulting in mis-flagging of composite lithology. The mis-flagged outliers are managed in the estimation plan discussed in Section 14.6.12.

The grade distribution inside the 100 g/t Ag grade shell contains only one composite below 100 g/t and has a low CV for a precious metal grade distribution.

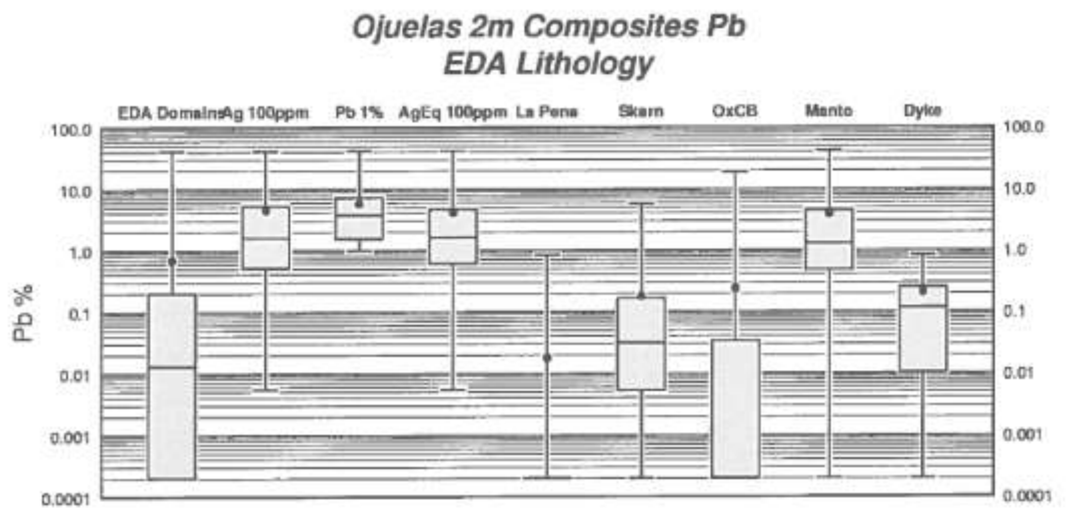


	EDA Domains	Ag 100ppm	Pb 1%	AgEq 100ppm	La Pena	Skarn	OxCB	Manto	Dyke	
No. of data	1154	135	114	171	117	431	430	154	22	No. of data
Mean	52.68	360.18	305.18	299.47	2.37	39.45	23.37	212.59	35.70	Mean
Maximum	3810.29	3810.29	3810.29	3810.29	78.36	1031.52	1541.02	3810.29	125.76	Maximum
U.Quartile	30.85	412.12	330.01	326.56	0.15	27.99	11.20	198.86	66.62	U.Quartile
Median	3.13	203.54	145.70	153.82	0.15	6.84	0.15	104.55	23.47	Median
L.Quartile	0.15	132.89	66.16	105.17	0.15	1.57	0.15	39.57	2.52	L.Quartile
Minimum	0.15	88.39	6.51	15.16	0.15	0.15	0.15	0.15	0.15	Minimum
Variance	36735.22	214571.89	248071.91	183264.56	114.18	10708.39	12500.89	179969.27	1569.90	Variance
CV	3.64	1.29	1.63	1.43	4.52	2.62	4.78	2.00	1.11	CV
Skewness	11.22	4.63	4.55	4.99	5.63	5.64	10.07	5.90	1.04	Skewness

Figure 14-37: Box plots and Summary Statistics for Uncapped Ag by Lithology and Grade Shell

The Pb box plot is shown in Figure 14-38. The difference in mean Pb grade between the Mto and surrounding lithologies is high. OxCk and Sk lithologies contain higher grade mineralization in areas generally proximal to the Mto. La Pena Limestone and Dyke are generally un-mineralized.

The 1% Pb grade shell contains only one composite slightly below 1% and has a low coefficient of variation (CV).



	EDA Domains	Ag 100ppm	Pb 1%	AgEq 100ppm	La Pena	Skarn	OxCB	Manto	Dyke	
No. of data	1154	135	114	171	117	431	430	154	22	No. of data
Mean	0.6816	4.5141	5.7550	4.1199	0.0178	0.1782	0.2396	3.9034	0.2074	Mean
Maximum	41.6418	41.6418	41.6418	41.6418	0.8391	5.8178	18.7100	41.6418	0.8269	Maximum
U.Quartile	0.1994	5.2920	7.3180	4.6416	0.0002	0.1661	0.0335	4.4841	0.2500	U.Quartile
Median	0.0130	1.5795	3.6901	1.6295	0.0002	0.0312	0.0002	1.2860	0.1141	Median
L.Quartile	0.0002	0.5133	1.5616	0.6034	0.0002	0.0053	0.0002	0.4760	0.0103	L.Quartile
Minimum	0.0002	0.0054	0.9810	0.0054	0.0002	0.0002	0.0002	0.0002	0.0002	Minimum
Variance	7.2231	42.8178	41.5601	35.3916	0.0085	0.2117	1.4475	37.5503	0.0669	Variance
CV	3.9430	1.4496	1.1202	1.4440	5.1749	2.5824	5.0211	1.5699	1.2474	CV
Skewness	7.5188	2.4992	2.5144	2.8002	7.2914	7.1483	10.3963	2.8410	1.4605	Skewness

Figure 14-38: Box plots and Summary Statistics for Uncapped Pb by Lithology and Grade Shell

14.6.5.2 Scattergrams

Scattergrams of Ag versus Pb within both the Ag and Pb grade shells, as displayed in Figure 14-39, show moderate correlation, indicating separate grade shells for estimation purposes is preferred.

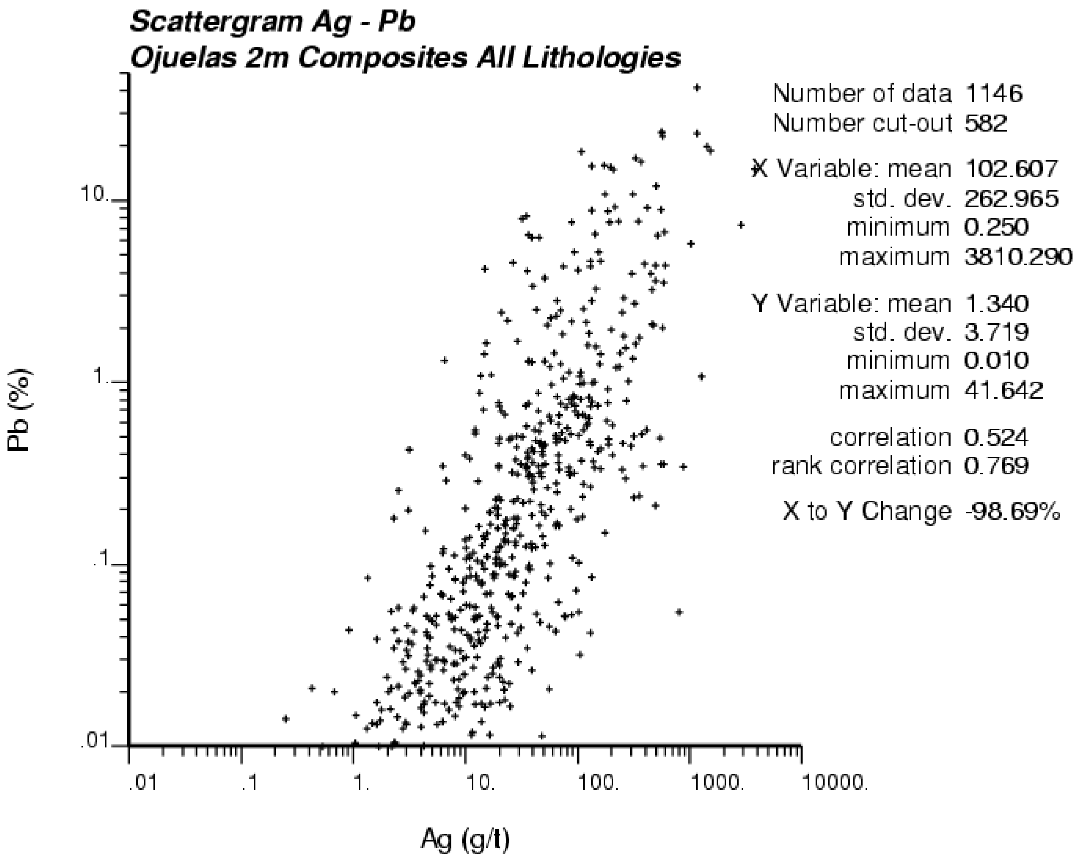


Figure 14-39: Scattergram for Ag to Pb in All Lithologies

14.6.5.3 Histograms and Probability Plots

Histograms and probability plots were prepared for Ag and Pb composites. The plots were grouped as either outside or inside the Ag and Pb grade shells. Ag plots shown in Figure 14-40 and Figure 14-41 demonstrate marked differences in mean grades inside and outside of the Ag grade shells.

The Ag grade distribution inside the 100 g/t Ag grade shells is positively skewed, is near lognormal, and the coefficient of variation is low.

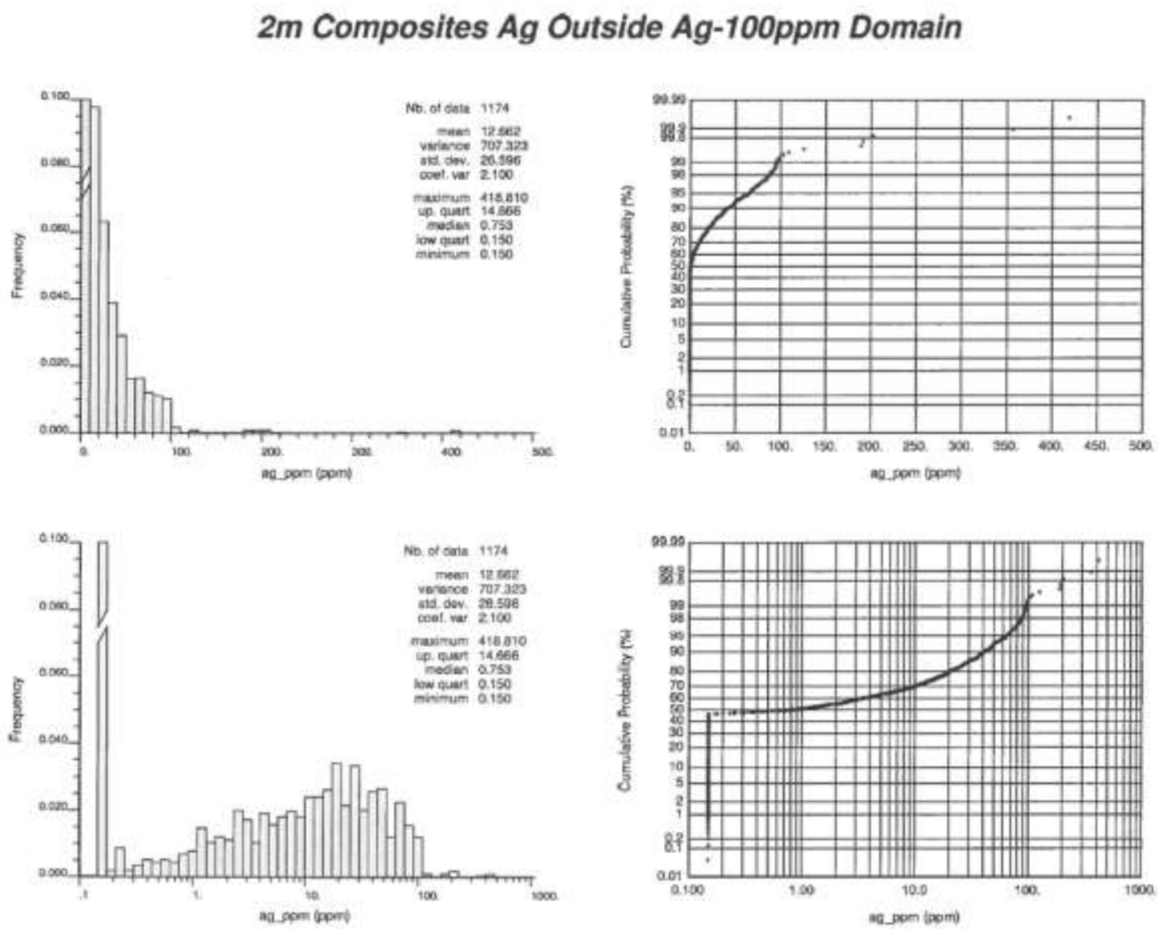


Figure 14-40: Arithmetic and Logarithmic Histograms and Probability Plots of Uncapped Ag Composites Outside of the Ag Grade Shell

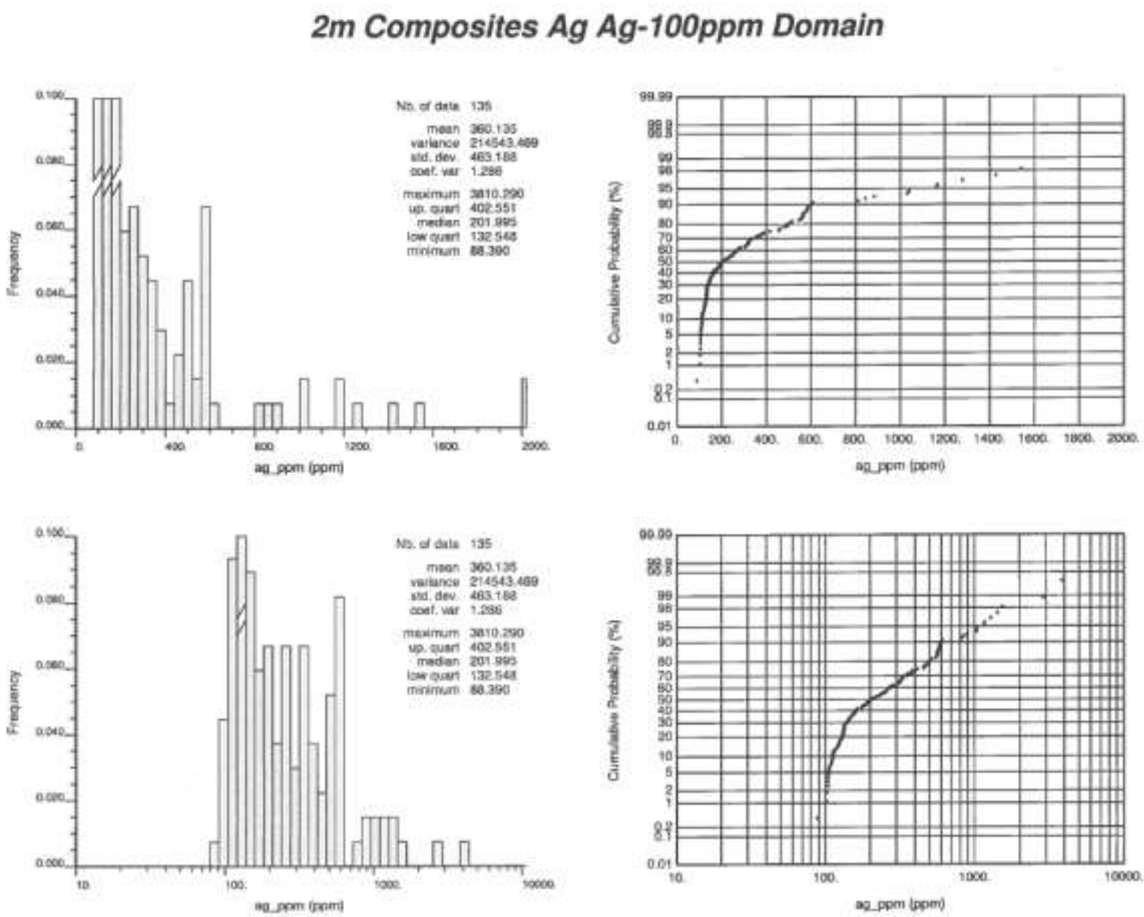


Figure 14-41: Arithmetic and Logarithmic Histograms and Probability Plots of Uncapped Ag Composites inside the Ag Grade Shell.

The histograms and probability plots of the uncapped zinc composites (not shown) within the Ag and Pb grade shells are also positively skewed and have low coefficients of variation. The summary statistics for Ag and Pb inside the respective grade shells are provided in Table 14-21.

Table 14-21: Summary Statistics Uncapped Composites inside the Respective Grade Shells

Metal	Count	Mean	CV	Min	Max
Ag (ppm)	1154	52.68	3.64	0.15	3810.29
Pb (%)	1154	0.68	3.94	0.00	41.64

14.6.5.4 Swath Plots

Swath plots were prepared in three directions for Ag and Pb composites. The Ag and Pb composite swath plots are provided in Section 14.6.13.4 together with those of the nearest-neighbour (NN) interpolation and ordinary kriged (OK) block grade distributions. No significant grade trends were observed that would negatively impact variography and block grade estimation.

14.6.5.5 Contact Analysis

Contact plots were prepared for Ag composites grouped inside or outside the 100 g/t Ag grade shell, and for Pb composites inside or outside the Pb 1% grade shell. The contact plot provided in Figure 14-42 shows hard boundary conditions.

Lithological boundaries were also tested with contact plots Estimation boundaries between Mto inside and outside of the grade shells and between Mto and Sk inside the grade shells were treated as soft in order to maintain and reflect geological continuity.

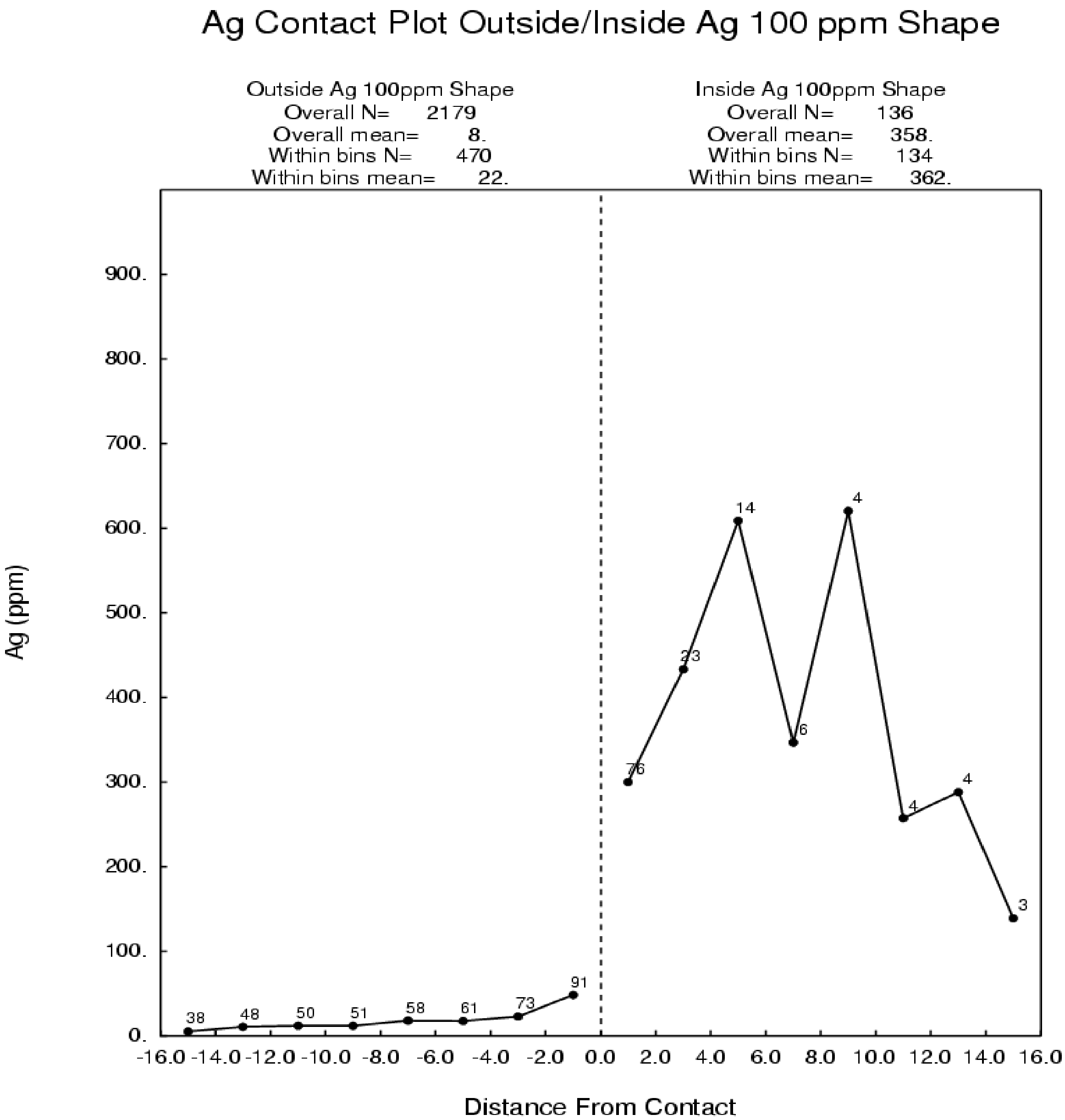


Figure 14-42: Ag Grade Composite Contact Plot From Outside to Inside the 100g/t Ag Grade Shell Boundary.

14.6.6 QP Comment

Box plots and histograms support the use of grade constraints for Ag at the 100 g/t Ag grade shell boundary. The contact plot suggests limited sharing of composites across the outside of the Ag and Pb grade shapes is warranted.

Grade distribution supports the use of a linear grade interpolation method such as ordinary kriging for Ag and Pb.

14.6.7 Outlier Analysis and Capping Thresholds

Outlier analysis was completed on the Ag and Pb composites inside and outside the 100 g/t Ag grade shell and the 1% Pb grade shell, respectively. The analysis included inspection of histograms, probability plots, cutting statistics, and decile analysis. Summary composite statistics and proposed capping thresholds are summarized for Ag and Pb in Table 14-22 and Table 14-23.

Country rock (CR) is waste that is undifferentiated, essentially barren, Intrusive or Aurora Limestone. CR in the composite database is material that was not tagged within a modelled lithology wireframe. The capping value for Ag in CR is 30 g/t. Pb 0.5%

The low number of composites identified for capping is considered appropriate. The predicted metal reduction due to the proposed capping thresholds of all metals is also reasonable.

Table 14-22: Ag Grade Composite Capping Choice and Statistics

Metal: Ag (ppm)		Uncapped Statistics			Capped Statistics				
					Samples Capped				
Domain	Count	Capping Value	Mean	CV	Number	Percent	Mean	CV	Metal Loss
Inside Ag 100ppm Grade Shell	135	2000	360.14	1.29	2	1.5%	340.21	1.01	7%
Outside Ag 100ppm Grade Shell	1174	100	12.62	2.10	8	0.7%	12.01	1.78	5%

Note: Capped and uncapped statistics are not declustered

Table 14-23: Pb Grade Composite Capping Choice and Statistics

Metal: Pb (%)		Uncapped Statistics			Capped Statistics				
					Samples Capped				
Domain	Count	Capping Value	Mean	CV	Number	Percent	Mean	CV	Metal Loss
Inside Pb 1% Grade Shell	116	20.0	5.90	1.10	5	4.3%	5.59	0.97	5%
Outside Pb 1% Grade Shell	1193	2.5	0.11	3.29	3	0.3%	0.11	2.50	6%

Note: Capped and uncapped statistics are not declustered

The capping thresholds values indicated by outlier analysis were used for both capping in the strict sense, and for outlier search restriction during block grade estimation. Outlier restriction was chosen in certain cases in order to retain grade variability in estimated blocks, while reducing possible bias in the deposit through reducing the influence of outliers as discussed in Section 14.6.12.

14.6.8 Variography

Variogram maps, down-the-hole, and directional correlograms, were prepared for Ag and Pb uncapped composites. The directional correlograms were computed from all data within the EDA envelope ignoring the grade shells. Two exponential structures (with practical ranges as output by Sage2001™) plus nugget effect were used to fit experimental correlograms. A summary of the variogram parameters is provided in Table 14-24.

The anisotropies apparent in the variograms for all metals are geologically reasonable, are generally similar to the anisotropy observed in the grade shells, and reflect the anisotropy observed in the oxidized Mto.

The anisotropy azimuth and dip directions after rotation are provided in Table 14-25.

Table 14-24: A Summary of Variogram Parameters

Variogram	Nugget C0	C1	C2	Type	Rotation (°)			Range 1st Structure (m)			Range 2nd Structure (m)		
								Major	Semi-Major	Minor	Major	Semi-Major	Minor
					Z	X	Y	Y	X	Z	Y	X	Z
Ag	0.3	0.325	0.375	Exp	53	-32	38	7.3	9.7	6.4	127.7	63.0	24.8
Pb	0.2	0.428	0.372	Exp	51	-32	28	10.1	8.1	21.4	145.9	58.0	27.7

Note: RH Rotation about the Z Axis
RH Rotation about the X Axis
LH Rotation about the Y Axis *GSLIB Rotation Conventions
Rotations for the first and second structures are the same

Table 14-25: The Rotated Variogram Azimuth and Dip Directions

Variogram	Major (Y)		Semi - Major (X)		Minor (Z)	
	Azimuth	Dip	Azimuth	Dip	Azimuth	Dip
Ag	53	-32	165	-31	108	42
Pb	51	-32	157	-24	97	48

14.6.9 Block Model Dimensions

A block model was prepared in Vulcan™ for grade estimation. The block model consists of non-rotated regular blocks. The block model framework parameters are listed in Table 14-26.

Table 14-26: Block Model Dimensions

Axis	Origin*	Block Size (m)	No. of Blocks	Model Extension (m)
X	739,300	5	90	450
Y	3,139,450	5	90	450
Z	1,300	5	70	350

Note: *Origin is defined as the bottom southwest corner of the model, located at the lowest combined northing and easting coordinates and the lowest elevation (masl).

14.6.10 Block Model Assignments

14.6.10.1 Lithology and Grade Shells

Blocks were assigned lithology and grade shell codes using the wireframes prepared in Leapfrog™, and block assignment was based on majority rule. Wireframe and block volumes for the Mto, Ag, and Pb grade shell wireframes were compared and showed good agreement, within 0.8%.

Block estimation domain codes were calculated by script using the following formulation:

Grade Shell Code x 100 + LFLG_N Code

14.6.11 Specific Gravity

Blocks were assigned a dry bulk density value based on the mean value of specific gravity (SG) measurements of the main lithological domains as shown in Table 14-27.

Table 14-27: Specific Gravity Measurements by Lithology

Rock Type	Count	Mean	Max	Min
Unk	8	2.75	3.36	2.38
Bx	11	2.47	2.74	2.17
Dk	6	2.63	2.85	2.47
Frc	2	3.02	3.12	2.91
Ft	3	2.44	2.59	2.21
Int	35	2.41	2.63	2.13
Ka	36	2.60	2.77	2.37
Klp	14	2.76	3.37	2.53
Mto	34	2.80	4.14	2.03
OxCk	29	2.67	3.18	2.39
Sk	95	3.04	3.80	2.10
Vn	15	2.59	2.67	2.46
All	288	2.76	4.14	2.03

The mean SG for Aurora Limestone (Ka) was used for all country rock including Intrusive (Int).

14.6.12 Block Model Grade Estimate

The Ag and Pb block grade values for the main mineralized rock types were interpolated using an ordinary kriging (OK) estimator. A three-pass estimation approach was used with each successive pass having greater search distances and less restrictive sample selection requirements. Simple kriging (SK) in a single pass was used for Dk and CR. The background values for Ag and Pb were used for the stationary mean and block grade default for SK to ensure that all blocks were filled with a non-zero grade value.

Seven well-mineralized Ag composite intervals identified on or near the boundary of Manto (Mto) were back-tagged as Skarn (Sk) or Oxidized Crackle Breccia (OxCk) from the wireframes. A similar number of Pb composite intervals were observed. These intervals are outliers in the grade distributions for Sk and OxCk. The intervals are appropriately captured in the grade shells, and in order to prevent the extrapolation of high grades into distal blocks, a one-block search limit was applied to these outliers during block grade estimation. Notwithstanding these mitigating actions, Amec Foster Wheeler recommends, for future resource updates, that wireframes used in block grade estimation are snapped to drill-hole intervals to improve segregation of composites located at domain boundaries.

A combination of soft and firm boundaries were used for Ag and Pb block grade estimation based on the contact analysis discussed in Section 14.6.5.5. Boundary sharing conditions for Ag and Pb block grade estimates are summarized in Table 14-28. The domain codes listed in Table 14-28 are the same as those referenced in the estimation plan parameter tables, Table 14-29 and Table 14-30 presented below.

Table 14-28: Domain Boundary Conditions for Ag and Pb

Domain	Domain Code	102	104	204	106	206	107	207
La Pena Limestone	102		Firm	Firm	Firm	Firm	Firm	Firm
Outside Gradeshell Skarn	104	Firm		Firm	Firm	Firm	Firm	Firm
Inside Gradeshell Skarn	204	Firm	Firm		Firm	Firm	Firm	Soft
Outside Gradeshell Ox Crackle Breccia	106	Firm	Firm	Firm		Firm	Firm	Firm
Inside Gradeshell Ox Crackle Breccia	206	Firm	Firm	Firm	Firm		Firm	Firm
Outside Gradeshell Manto	107	Firm	Firm	Firm	Firm	Firm		Soft
Inside Gradeshell Manto	207	Firm	Firm	Soft	Firm	Firm	Soft	

The rotation angles of the search ellipse for all grade elements are the same for each pass. The correlograms used for sample weighting during kriging are those modelled for each grade element. An anisotropic search with weighted distances was used for sample selection in the first estimation pass. The anisotropic weighting factors are the ratios of the distances in the major, semi-major and minor directions. An anisotropic search ellipse with true distances was used for the second and third passes. Outlier search restrictions, in addition to capping, were applied in order to mitigate high grade “blow-outs”. A summary of the Ag estimation plan is provided in Table 14-29, and for Pb in Table 14-30.

Table 14-29: A Summary of the Block Grade Estimation Plan for Ag

		Ag Outside 100 ppm Grade Shell			Ag Inside 100 ppm Grade Shell		
		Pass 1	Pass 2	Pass 3	Pass 1	Pass 2	Pass 3
Rotation (Vulcan LRL)	About Z	53	53	53	53	53	53
	About X	-32	-32	-32	-32	-32	-32
	About Y	-38	-38	-38	-38	-38	-38
Search Distance	Major (Rotated Y)	30	60	240	30	60	240
	Semi - Major (Rotated X)	30	60	240	30	60	240
	Minor (Rotated Z)	10	20	80	10	20	80
Grade Sample Selection	Minimum Composites	9	6	3	9	6	3
	Maximum Composites	21	15	9	21	15	9
	Maximum Comps/Hole	3	3	3	3	3	3
	Implicit Minimum Holes	3	2	1	3	2	1
	Implicit Maximum Holes	7	5	3	7	5	3
Block Descritization	X,Y,Z	3	3	3	3	3	3
Outlier Search Restriction	Ag Estimation Domain	9, 102	9, 102	9, 102	204, 207	204, 207	204, 207
	Ag ppm Threshold	10.0	10.0	10.0	2000.0	2000.0	2000.0
	Distance X,Y,Z	5, 5, 5	5, 5, 5	5, 5, 5	5, 5, 5	5, 5, 5	5, 5, 5
	Ag Estimation Domain	99	99	99	206	206	206
	Ag ppm Threshold	30.0	30.0	30.0	1000.0	1000.0	1000.0
	Distance X,Y,Z	5, 5, 5	5, 5, 5	5, 5, 5	5, 5, 5	5, 5, 5	5, 5, 5
Soft Boundary Condition	Ag Estimation Domain to Share	107, 207	107, 207	107, 207	204, 207	204, 207	204, 207
	Distance X,Y,Z	30, 30, 10	60, 60, 20	240, 240, 80	30, 30, 10	60, 60, 20	240, 240, 80
	Rotation X,Y,Z	53, -32, -38	53, -32, -38	53, -32, -38	53, -32, -38	53, -32, -38	53, -32, -38
Firm Boundary Condition	Ag Estimation Domain to Share	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204,
	Distance X,Y,Z	10, 10, 5	10, 10, 5	10, 10, 5	10, 10, 5	10, 10, 5	10, 10, 5
	Rotation X,Y,Z	53, -32, -38	53, -32, -38	53, -32, -38	53, -32, -38	53, -32, -38	53, -32, -38

* See Table 14-28 for domain code descriptions. Code 9 is for Dykes and 99 is for Country Rock.

Table 14-30: A Summary of the Block Grade Estimation Plan for Pb

		Pb Outside 1 % Pb Grade Shell			Pb Inside 1 % Pb Grade Shell		
		Pass 1	Pass 2	Pass 3	Pass 1	Pass 2	Pass 3
Rotation (Vulcan LRL)	About Z	51	51	51	51	51	51
	About X	-32	-32	-32	-32	-32	-32
	About Y	-28	-28	-28	-28	-28	-28
Search Distance	Major (Rotated Y)	30	60	240	30	60	240
	Semi - Major (Rotated X)	30	60	240	30	60	240
	Minor (Rotated Z)	10	20	80	10	20	80
Grade Sample Selection	Minimum Composites	9	6	3	9	6	3
	Maximum Composites	21	15	9	21	15	9
	Maximum Comps/Hole	3	3	3	3	3	3
	Implicit Minimum Holes	3	2	1	3	2	1
	Implicit Maximum Holes	7	5	3	7	5	3
Block Descritization	X,Y,Z	3	3	3	3	3	3
Outlier Search Restriction	Pb Estimation Domain	9, 99	9, 99	9, 99	204, 206, 207	204, 206, 207	204, 206, 207
	Pb % Threshold	0.5	0.5	0.5	20.0	20.0	20.0
	Distance X,Y,Z	5	5	5	5	5	5
	Pb Estimation Domain	102	102	102	N/A	N/A	N/A
	Pb % Threshold	0.2	0.2	0.2			
	Distance X,Y,Z	5, 5, 5	5, 5, 5	5, 5, 5			
Soft Boundary Condition	Pb Estimation Domain to Share	107, 207	107, 207	107, 207	204, 207	204, 207	204, 207
	Distance X,Y,Z	30, 30, 10	60, 60, 20	240, 240, 80	30, 30, 10	60, 60, 20	240, 240, 80
	Rotation X,Y,Z	51, -32, -28	51, -32, -28	51, -32, -28	51, -32, -28	51, -32, -28	51, -32, -28
Firm Boundary Condition	Pb Estimation Domain to Share	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204,	9, 99, 102, 104, 106, 107, 204, 206, 207	9, 99, 102, 104, 106, 107, 204, 206, 207	9, 99, 102, 104, 106, 107, 204, 206, 207
	Distance X,Y,Z	10, 10, 5	10, 10, 5	10, 10, 5	10, 10, 5	10, 10, 5	10, 10, 5
	Rotation X,Y,Z	51, -32, -28	51, -32, -28	51, -32, -28	51, -32, -28	51, -32, -28	51, -32, -28

See Table 14-28 for domain code descriptions. Code 9 is for Dykes and 99 is for Country Rock

14.6.13 Block Model Validation

The block model grade estimates were validated by visual inspection comparing composite grades to block grades as well as statistical checks.

14.6.13.1 Visual Validation

Visual validation involved inspection of composite grades and block grades on vertical sections and plan views. The modelled lithology wireframes, 100 g/t Ag grade shell, and block grades are shown in vertical section view at 3,139,700 N in Figure 14-43, in vertical section looking west at 739,550 E in Figure 14-44, and in plan view at 1,500 masl in Figure 14-45. The viewing corridor is 25m (±12.5m) wide. The block model grades generally honour the composite data well, and grade extrapolation is controlled where sufficient data exists.

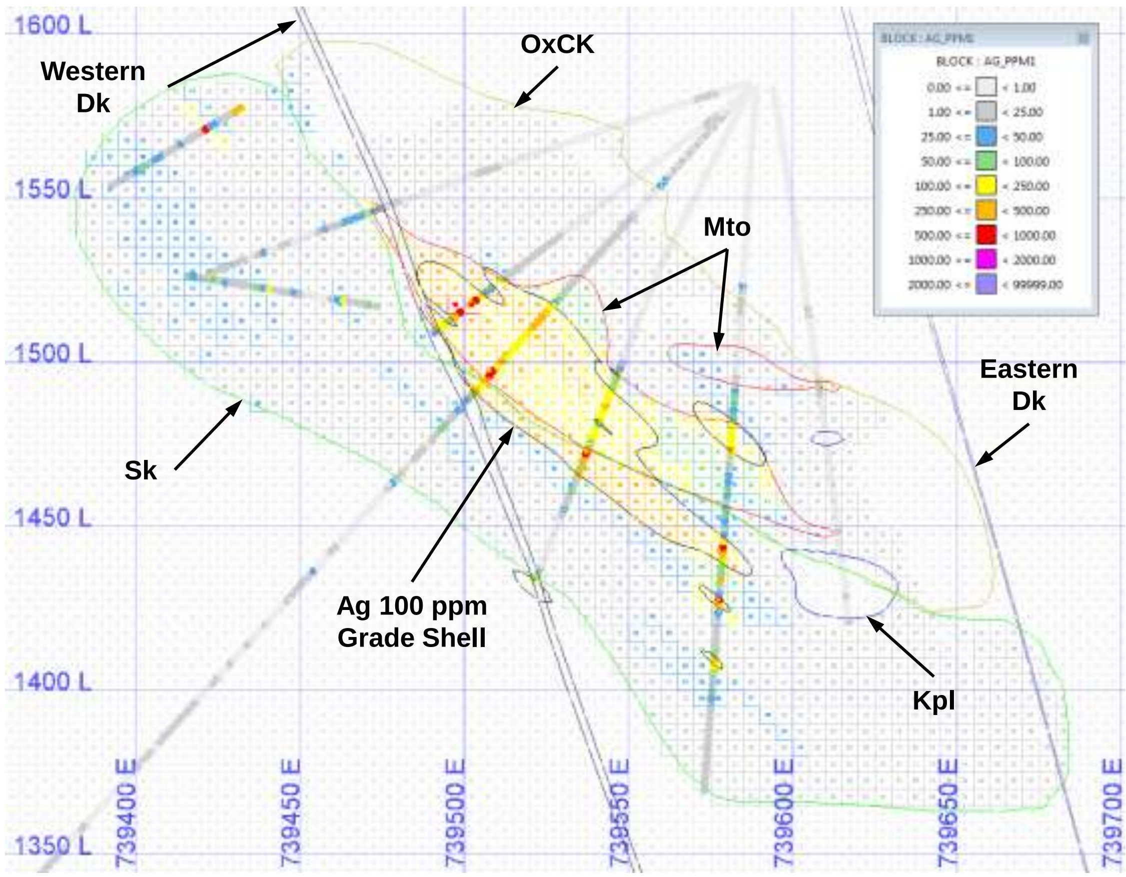


Figure 14-43: A Vertical Cross Section View of Ag Block Grades and Composites at 3,139,700 N. Figure prepared by Amec Foster Wheeler

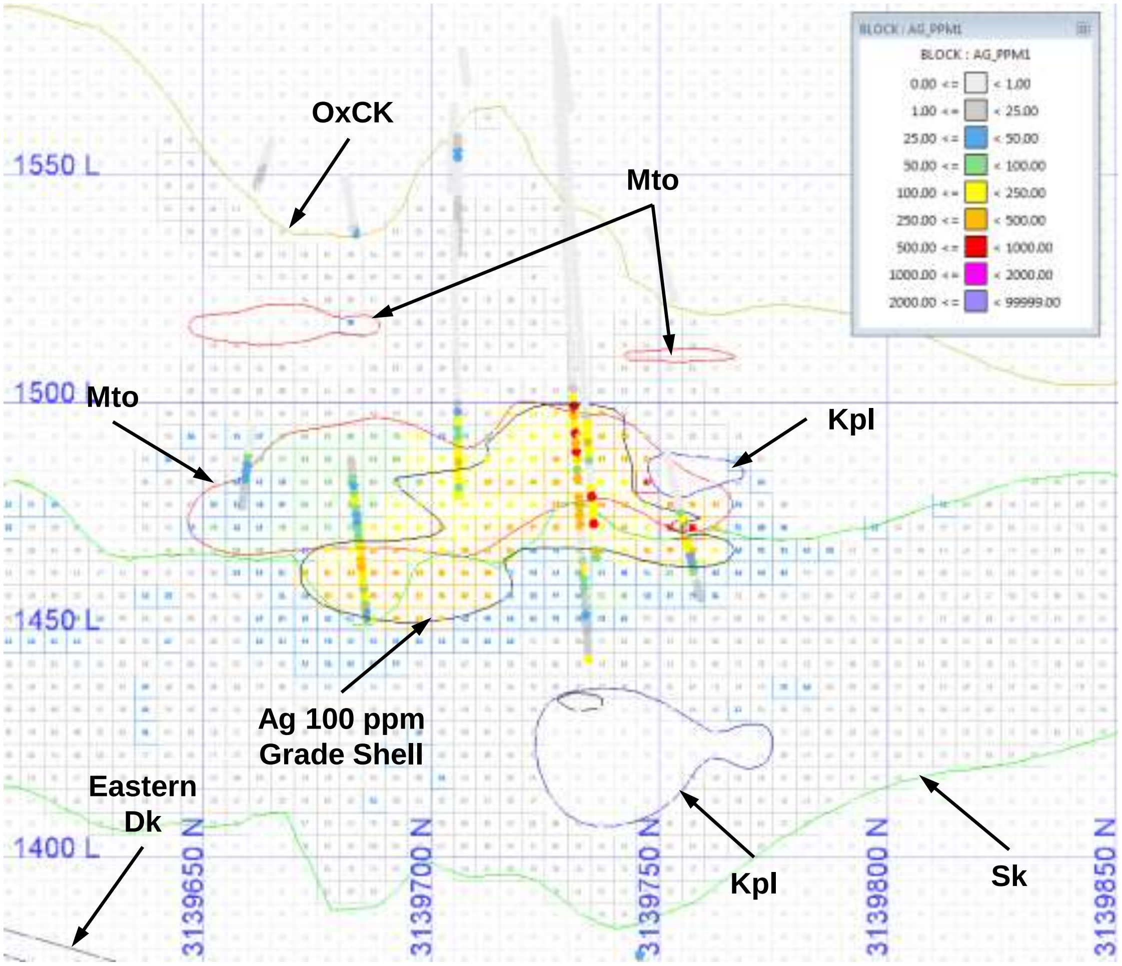


Figure 14-44: A Vertical Long Section View of Ag Block Grades and Composites at 739,550 E. Figure prepared by Amec Foster Wheeler

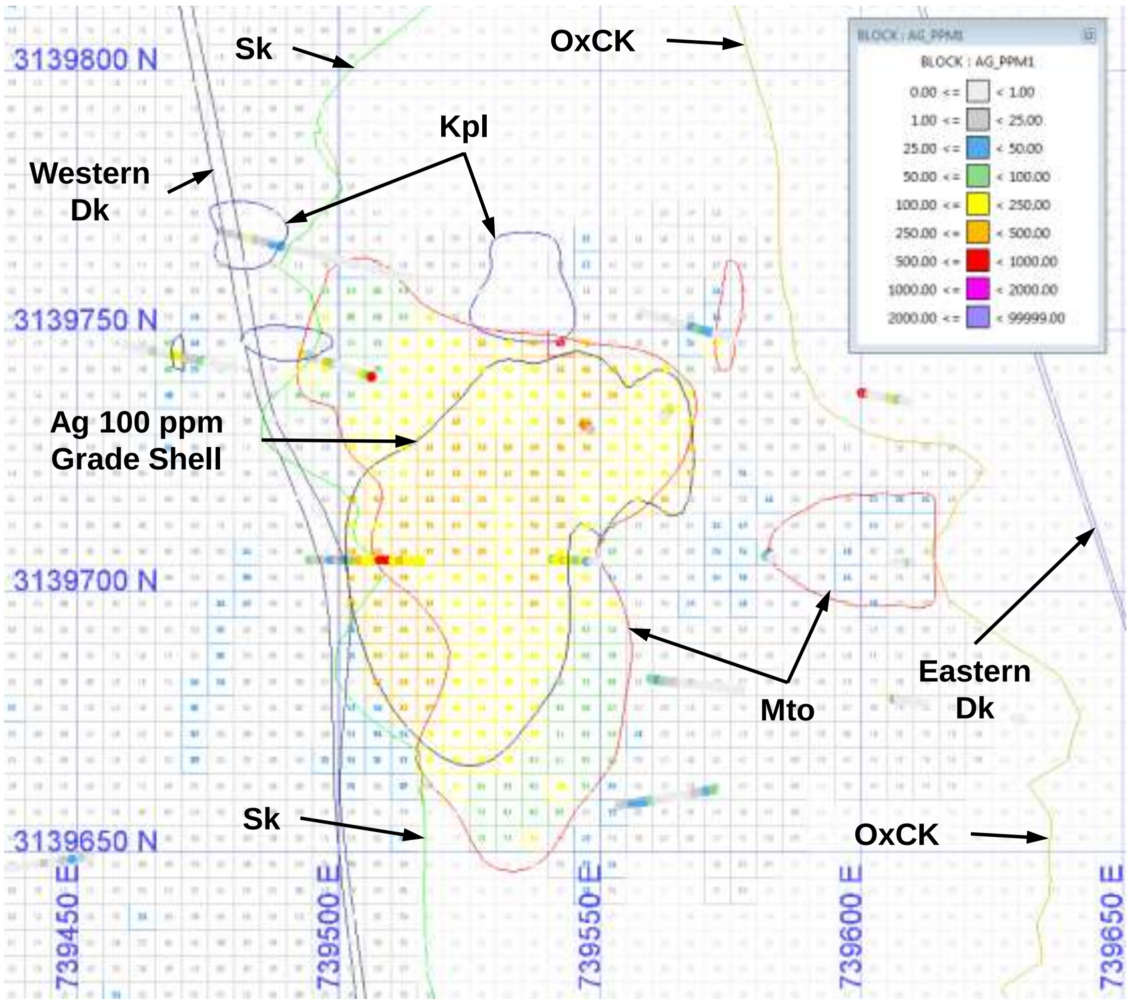


Figure 14-45: A Plan View of Ag Block Grades and Composites at 1,500 masl. Figure prepared by Amec Foster Wheeler

14.6.13.2 Global Grade Bias Check

Block grade estimates were checked for global bias by comparing the average block grades (with no cut-off) with those obtained from NN model estimates. The NN grade model is a declustered composite grade distribution and provides a globally unbiased estimate of the average value when no cut-off grade is imposed. Results summarized in Table 14-31 show relative differences in mean Ag grade between the OK and NN model is less than 1%.

Table 14-31: The Global Bias Check

Ag Capped - Inside EDA Envelope Excluding CR and Dk			
OK Firm Boundary Model 5m x 5m x 5m Blocks		NN Firm Boundary Model 5m x 5m x 5m Blocks	
Block Count	Mean	Block Count	Mean
27,799	31.44	55,577	31.49

14.6.13.3 Predicted Metal Loss from Capping and Outlier Restriction

A comparison of global mean grades of capped and uncapped OK models in Table 14-32 shows that the amount of metal removed by capping and restriction is lower than the expected metal reduction predicted in the capping study. This is due to the decision to not cap outliers, but to use outlier restriction for values above the capping value determined in the capping study. Outlier restriction was chosen over capping in order to retain grade variability in the deposit, while reducing possible bias in the deposit through reducing the influence of outliers. Amec Foster Wheeler is of the opinion that the final metal loss is acceptable and is not a material risk.

Table 14-32: Ag and Pb Metal Loss Due to Grade Capping

Metal	Domain	Uncapped		Capped		Metal Loss
		Count	Mean	Count	Mean	
Ag	All Lithologies, Except Dyke and CR	27,799	34.1173	27,799	32.84	3.76%
	Manto within EDA Envelope	2379	185.30	2379	183.68	0.87%
	Ag 100ppm Gradeshell within EDA Envelope	1,536	255.60	1,536	254.59	0.40%
Pb	All Lithologies, Except Dyke and CR	27,799	0.45	27,799	0.44	2.15%
	Manto within EDA Envelope	2379	3.5882	2379	3.50	2.53%
	Pb 1% Gradeshell within EDA Envelope	1241	5.0164	1241	4.95	1.39%

14.6.13.4 Local Grade Bias Check

Swath plots were prepared to compare grade profiles for the OK and NN block estimates, and composites in east-west, north-south, and vertical swaths or increments. Swath intervals are 25 m in both the northerly and easterly directions, and 10 m vertically. The comparison was limited to blocks flagged as Klp, Sk, OxCk, and Mto, within the EDA envelope, which are considered to be reasonably well informed during estimation.

Swath plots for Ag and Pb are provided in Figure 14-46 and Figure 14-47. The grade profiles are generally in good agreement. As expected, the OK and NN grade profiles diverge slightly where block counts fall. The swath plots indicate that no systematic local bias has been introduced in the block grade estimate.

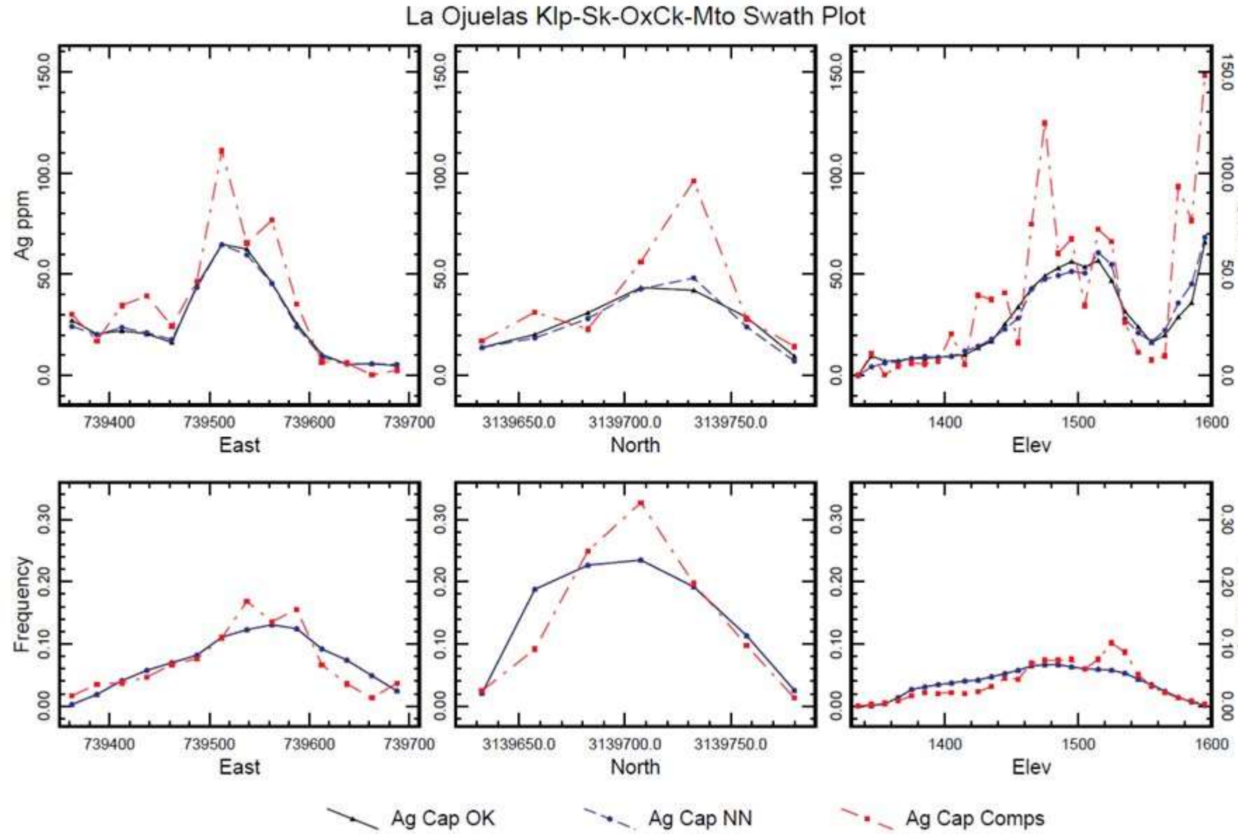


Figure 14-46: Pb Swath Plots
Figure prepared by Amec Foster Wheeler

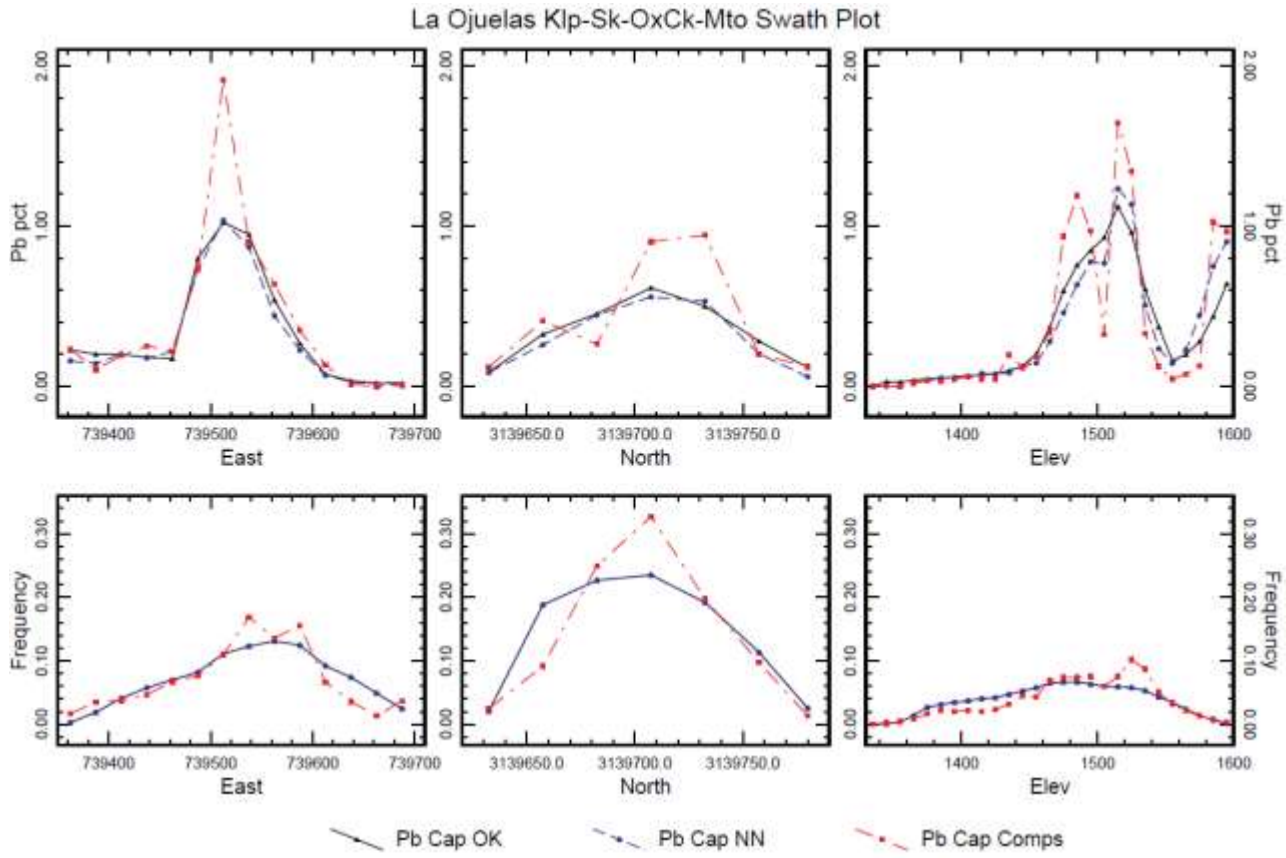


Figure 14-47: Pb Swath Plots
Figure prepared by Amec Foster Wheeler

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14.6.14 Reasonable Prospects for Eventual Economic Extraction

To assess reasonable prospects for eventual economic extraction, Amec Foster Wheeler assumed that the Ojuelas deposit would be mined utilizing inclined caving underground mining methods under a conceptual scenario of 2,000 tonnes per day using conventional flotation to produce an Ag-Pb concentrate.

14.6.14.1 Silver-Equivalent Formulation

The major payable metal at the Ojuelas deposit is Ag. The deposit also contains payable Pb. First Majestic used technical and economic criteria to develop formulas that combine the two payable metals into a silver-equivalent value (Ag-Eq). Two separate Ag-Eq formulas were developed, one for oxidized material (OxCk-Mto) and another for skarn material (Sk), due to different recovery assumptions (Table 14-33).

The general formulation for Ag-Eq:

$$\text{Ag-Eq} = \text{Ag (g/t)} + (\text{Pb (\%)} \times \text{RevRat})$$

Where:

$$\text{RevRat} = \frac{\text{lb / Pb \% x \% Mill Recovery Pb x \% Refinery Payable Pb x (RevPb - TCRC Pb)}}{\text{oz / Ag g/t x \% Mill Recovery Ag x \% Refinery Payable Ag x (RevAg - TCRC Ag)}}$$

Where:
RevPb = US$0.95/lb
RevAg = US$19.50/oz
TCRC = Treatment Costs and Refining Costs

The formulations for Ag-Eq for OxCk-Mto and Sk:

$$\text{Ag-Eq OxCk-Mto} = \text{Ag (g/t)} + (\text{Pb (\%)} \times 19.45)$$

$$\text{Ag-Eq Sk} = \text{Ag (g/t)} + (\text{Pb (\%)} \times 16.70)$$

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14.6.14.2 Constraining Stope Shape

A conceptual stope shape based on the inclined block caving mining method was developed by First Majestic from Ag-Eq block grades using the Vulcan Stope Analyser™ tool. The inclined cave method was selected as providing the best constraining envelopes for reasonable prospects of eventual economic extraction. Economic and technical inputs included orebody geometry, metal prices, mill recoveries and, mining, processing, G&A, transportation, smelting, and refining costs (Table 14-33). Two inclined cave stopes were processed separately, one in oxidized material (Mto and OxCk) and another in skarn material, due to different cost and recovery assumptions.

Amec Foster Wheeler is of the opinion that the economic and technical assumptions are reasonable.

Table 14-33: Economic and Technical Assumptions Used to Prepare the Constraining Stope

Description	Unit	OxCk-Mto	Sk
Stope Geometry (X x Y x Z)	m	10 x 10 x 25	10 x 10 x 25
Mining Cost (including Sustaining Capital)	$/t Ore	22.00	30.00
Processing Cost	$/t Ore	16.50	18.50
Indirect Cost	$/t Ore	4.85	4.85
Sustaining Capital - Processing	$/t Ore	4.30	4.30
G&A Costs	$/t Ore	2.50	2.50
Total Cost	$/t Ore	50.15	60.15
Silver Recovery in Mill	%	67	67
Payable Silver from Smelter	%	95	95
Lead Recovery in Mill	%	60	60
Payable Lead from Smelter	%	95	95
Silver Price	$/oz	19.50	19.50
TCRC Ag	$/oz	1.50	1.50
Net Silver Price	$/oz	18.00	18.00
Lead Price	$/lb	0.95	0.95
TCRC Pb	$/lb	0.38	0.38
Net Lead Price	$/lb	0.57	0.57
Ag-Eq Marginal Cut-off Grade	Ag g/t	135	170

14.6.15 Mineral Resource Classification

The Mineral Resource is classified in accordance with the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 10, 2014).

The following general criteria for classification of mineral resources at the Ojuelas deposit were established:

Inferred Mineral Resources:

- Average drill-hole spacing of less than or equal to 70 m

Indicated Mineral Resources:

- Average drill-hole spacing of less than or equal to 40 m
- Blocks inside the inclined cave stope constraining shape

Measured Mineral Resources:

- No Measured Mineral Resource was defined

Inclined caving is a non-selective mining method; all of the material within the shape may be extracted. In addition, 85% of the blocks within the inclined cave stope constraining shape have an average drill-hole spacing of 40 m or less. Therefore, the drill-hole spacing of the blocks inside the stope is deemed sufficient to classify the blocks as Indicated Mineral Resources.

The confidence in the mining method and metallurgical recoveries for Sk are not considered to be sufficiently well understood to meet Indicated confidence classification. In addition, the Dk, Klp, and CR blocks are deemed diluting material at zero grade. Therefore, all blocks in Sk, Dk, Klp, and CR lithologies are considered to be Inferred Mineral Resources.

The resulting classification map and supporting grade composites were inspected on vertical sections and plan views. An illustration of the mineral resource classification with the modelled lithology wireframes, and 100 g/t Ag grade shell are shown in plan view at 1500 masl in Figure 14-48, and in vertical section view at 3,139,700 N in Figure 14-49.

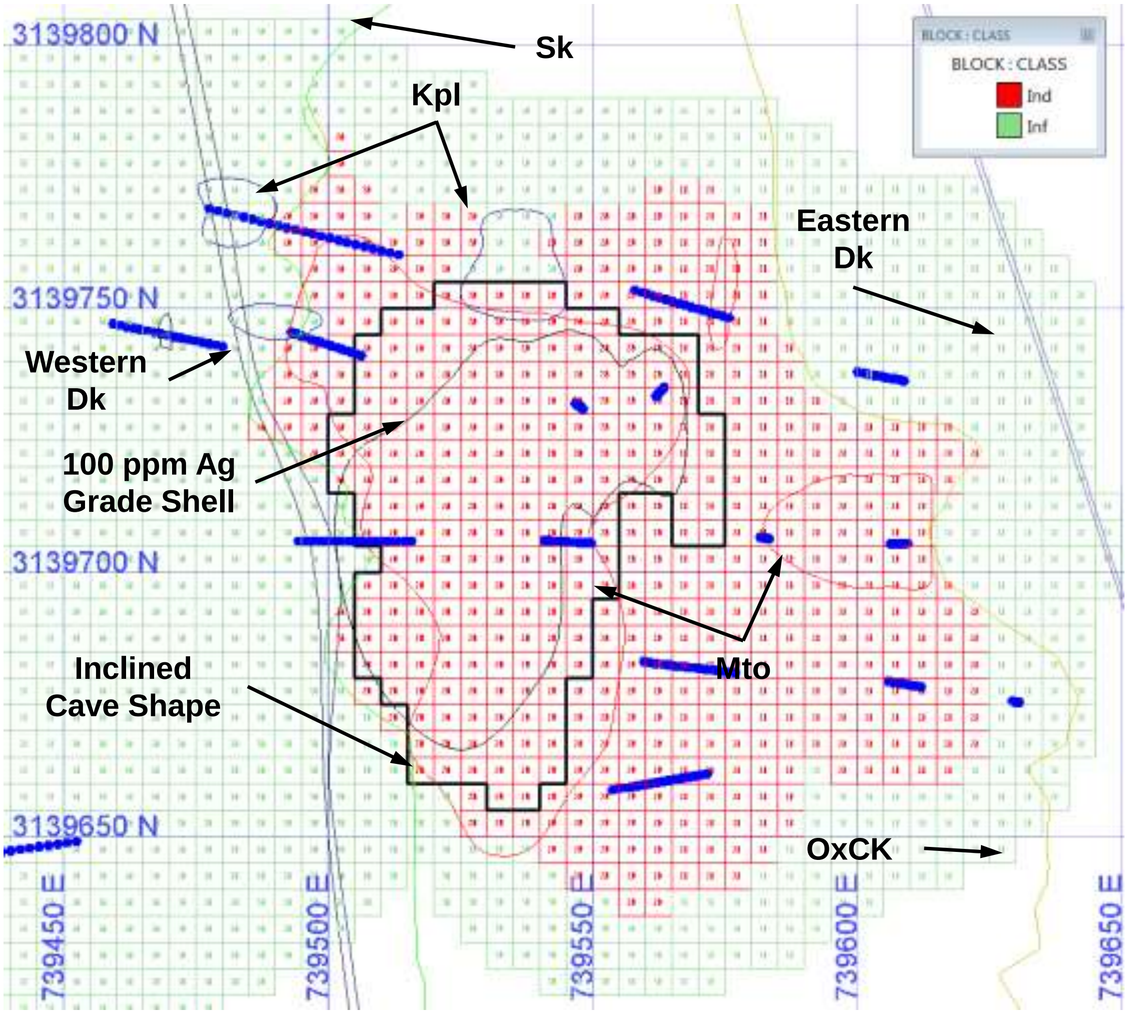

Figure 14-48: A Plan View of Mineral Resource Classification at 1,500 masl. Grade Composites in Blue. Figure prepared by Amec Foster Wheeler

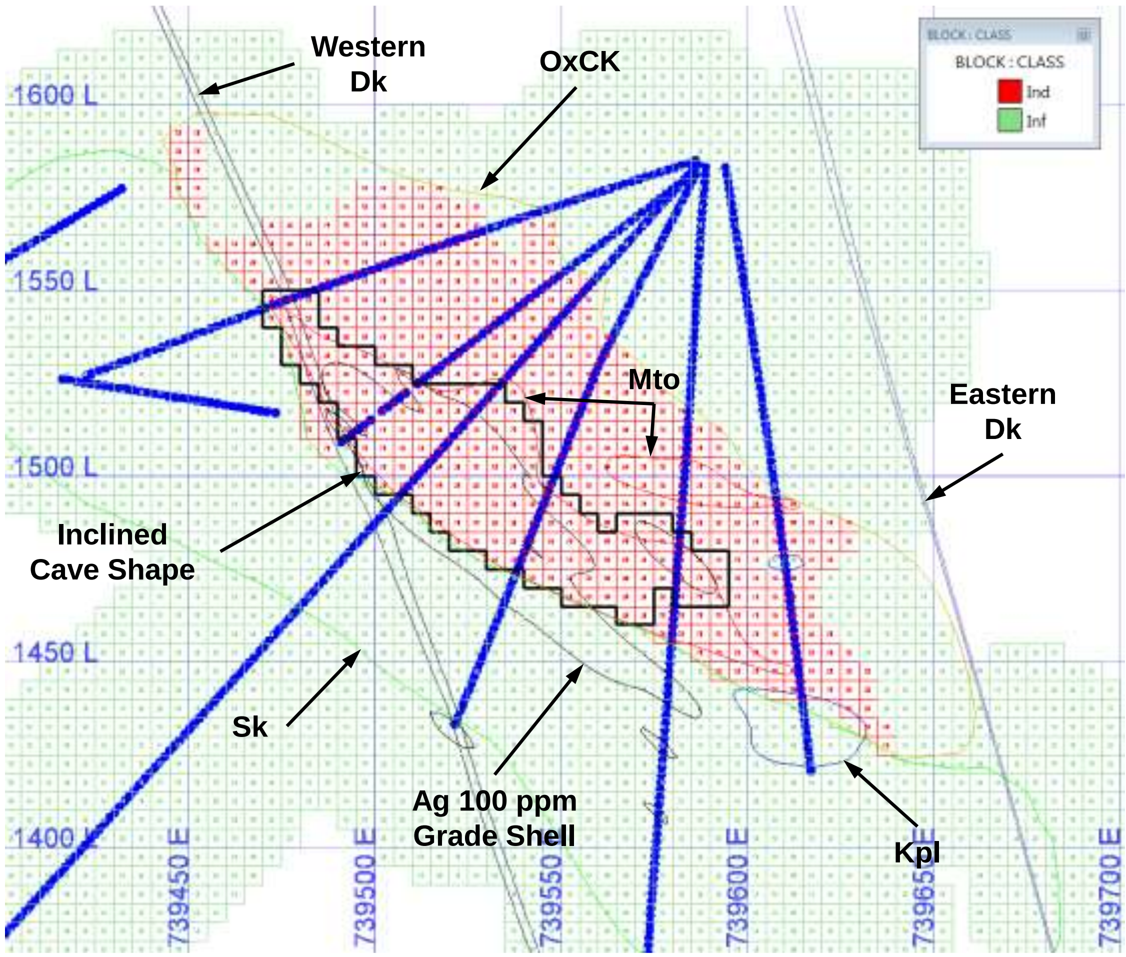

Figure 14-49: A Vertical Cross Section of Mineral Resource Classification at 3,139,700 N. Figure prepared by Amec Foster Wheeler

14.6.16 Ojuelas Mineral Resource Statement

The Mineral Resources for the oxidized material and skarn are reported separately in Table 14-34 and Table 14-35.

Table 14-34: Mineral Resource Statement for the Ojuelas Deposit Oxidized Material Based on a 135 g/t Ag-Eq Cut-off, Effective Date December 31, 2015, Peter Oshust, P Geo

	Tonnage	Grade			Contained Metal		
Classification	(Kt)	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (Moz)	Pb (Mlb)	Ag-Eq (Moz)
Indicated	734.2	245.5	4.07	324.58	5.8	65.9	7.7

Notes:

1. Mineral resources are reported within a constraining stope shape developed using the Vulcan™ Stope Analyser. Assumptions include: commodity prices of US$19.50/oz for Ag and US$0.95/lb for Pb; 95% payable metal from smelter; process recoveries of 67% for Ag and 60% for Pb; mining cost of US$22.00/T, processing cost of $US16.50/T, indirect costs of US$4.85/T, process sustaining capital of US$4.30/T, and G&A costs of US$2.50/T; TCRC of US$1.50/oz for Ag and US$0.38/lb for Pb
2. Assumptions include 100% mining recovery
3. An external mining dilution factor was not considered during this resource estimation
4. Internal dilution within a 5m x 5m x 5m SMU was considered

Table 14-35: Mineral Resource Statement for the Ojuelas Deposit Skarn Material Based on a 170 g/t Ag-Eq Cut-off, Effective Date December 31, 2015, Peter Oshust, P Geo

	Tonnage	Grade			Contained Metal		
Classification	(Kt)	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (Moz)	Pb (Mlb)	Ag-Eq (Moz)
Inferred	34.6	292.4	0.78	305.45	0.3	0.6	0.3

Notes:

1. Mineral resources are reported within a constraining stope shape developed using the Vulcan™ Stope Analyser. Assumptions include: commodity prices of US$19.50/oz for Ag and US$0.95/lb for Pb; 95% payable metal from smelter; process recoveries of 67% for Ag and 60% for Pb; mining cost of US$30.00/T, processing cost of $US18.50/T, indirect costs of US$4.85/T, process sustaining capital of US$4.30/T, and G&A costs of US$2.50/T; TCRC of US$1.50/oz for Ag and US$0.38/lb for Pb
2. Assumptions include 100% mining recovery
3. An external mining dilution factor was not considered during this resource estimation
4. Internal dilution within a 5m x 5m x 5m SMU was considered

Table 14-36 shows the sensitivity of the Ojuelas Mineral Resource oxidized material to changes in Ag-Eq cut-off grade. Table 14-37 shows the sensitivity of the Ojuelas Mineral Resource skarn material to changes in Ag-Eq cut-off grade.

Table 14-36: Sensitivity of the Ojuelas Deposit Oxidized Material Mineral Resource to Changes in the Cut-off Grade

Indicated Mineral Resources

Cutoff	Tonnage	Grade			Contained Metal		
Ag-Eq (g/t)	(Kt)	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (Moz)	Pb (Mlb)	Ag-Eq (Moz)
50	835.7	222.6	3.90	298.5	5.98	71.85	8.02
75	827.3	224.4	3.93	300.9	5.97	71.68	8.00
100	810.0	227.9	3.98	305.4	5.94	71.07	7.95
115	782.3	234.2	4.02	312.3	5.89	69.34	7.86
135	**734.2**	**245.5**	**4.07**	**324.6**	**5.80**	**65.88**	**7.66**
150	692.5	254.7	4.15	335.5	5.67	63.36	7.47
170	643.4	266.3	4.25	349.0	5.51	60.29	7.22
190	607.4	275.0	4.32	358.9	5.37	57.85	7.01
200	592.1	278.5	4.35	363.2	5.30	56.79	6.91

Note: Base case is in bold text

Table 14-37: Sensitivity of the Ojuelas Deposit Skarn Material Mineral Resource to Changes in the Cut-off Grade

Inferred Mineral Resources

Cutoff	Tonnage	Grade			Contained Metal		
Ag-Eq (g/t)	(Kt)	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (Moz)	Pb (Mlb)	Ag-Eq (Moz)
50	37.2	276.0	0.75	288.6	0.33	0.62	0.35
75	35.3	287.7	0.78	300.7	0.33	0.61	0.34
100	34.6	292.4	0.78	305.5	0.33	0.59	0.34
115	34.6	292.4	0.78	305.5	0.33	0.59	0.34
135	34.6	292.4	0.78	305.5	0.33	0.59	0.34
150	34.6	292.4	0.78	305.5	0.33	0.59	0.34
170	**34.6**	**292.4**	**0.78**	**305.5**	**0.33**	**0.59**	**0.34**
190	34.2	293.8	0.78	306.9	0.32	0.59	0.34
200	33.8	295.0	0.79	308.2	0.32	0.59	0.34

Note: Base case is in bold text

14.6.17 QP Comment on Ojuelas Resource Model

Other than the risks identified elsewhere in the report, Amec Foster Wheeler is not aware of any environmental, permitting, legal, title, taxation, socio-economic or political factors that could materially affect the Mineral Resource estimate.

Amec Foster Wheeler has reached the following conclusions:

- The construction of the Ojuelas Resource Model has followed current CIM Definition Standards for Mineral Resources and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines.
- The modeling and grade estimation process used is appropriate for a skarn style Ag-Pb-Zn deposit and the resource model is suitable to support mine planning for a large-scale underground bulk mining scenario.

AMEC Foster Wheeler makes the following recommendations:

- The deterministic lithological wireframe models were developed from the interpretation of drill-hole data on vertical section views in one direction only (north-looking sections). Amec Foster Wheeler recommends that, in future, for deterministic models, interpretations are done in three directions.
- The digitized polygons representing the lithological interpretation on vertical sections were not snapped to the drill-hole intervals. The wireframe boundaries created from the lithological polygons were therefore somewhat misaligned to the drill-hole intervals. This introduced some error in the back-flagging of lithology codes to grade composites. The back-tagging errors were mitigated by capping and outlier restriction. Amec Foster Wheeler recommends that for future resource updates, care is taken to ensure that polygons describing lithological or grade shell boundaries are snapped to drill-hole intervals.
- Grade shells were developed using the implicit modelling tools in Leapfrog™ whereas, deterministic interpretation and modelling was used for lithology. This resulted in areas where the grade shell and lithological model of the main mineralized unit, the Mto, are different. While the geologists have observed mineralization outside of the Mto, it would be beneficial if the same interpretation and modelling method is used for lithology and grade shells. Amec Foster Wheeler recommends that, for future resource updates, the

same method is used to interpret and model the lithology and grade shells to ensure as close agreement as is reasonable between the two volumes.

- First Majestic geologists have interpreted and modelled several diorite dykes. The dykes are believed to have been emplaced along geological structures which are likely to be normal faults. Amec Foster Wheeler believes that there may be additional unrecognized normal faults along which offsets have occurred. These offsets may affect the boundaries, hence the volumes, of the modelled mineralized units affecting the predicted resource tonnage. Amec Foster Wheeler recommends that, for future resource updates, that a geological structural model is developed in conjunction with the interpretation and modelling of the diorite dykes which could be then be used to inform the modeling of the lithological shapes and grade shells.

Pending grade sample assays from two holes, and information from six additional completed holes, were received following the database cut-off date of July 29, 2015. Amec Foster Wheeler reviewed the additional data and makes the following conclusions and recommendations:

- The new data acquired in the area of the model confirms the model and block grade estimate.
- The new data will improve the mineral resource confidence classification.
- Step-out drilling suggests that there is upside potential to the mineralization to the south of the modelled deposit.
- Amec Foster Wheeler recommends that additional infill drilling of six to nine holes is completed followed by a Mineral Resource update to confirm the upside potential to the deposit.

15 Mineral Reserves Estimates

15.1 Conversion of Mineral Resources to Mineral Reserves

A Mineral Reserve is the economically mineable portion of a Measured or Indicated Mineral Resource. To convert Mineral Resources to Mineral Reserves, the resource blocks are interrogated by applying economic criteria as well as geometric constraints based on the mining method envisioned. Mineable blocks are defined by following this process.

Mineral Reserves are estimated after applying modifying factors to the mineable blocks. The modifying factors considered at La Encantada mine include dilution and extraction factors, in addition to mining losses, referred to in this Technical Report as mining recovery.

15.1.1 Dilution

Mined material that is extracted and delivered to the processing plant is known as run-of-mine material (ROM). ROM material includes dilution, which is material below cut-off grade or waste material which is involuntarily added to the mined mineralized material. This can be due to the mining width being greater than the vein width, weak ground conditions, or due to over-break of hanging-wall and foot-wall after blasting as a result of the mining method used, i.e. cut-and-fill, over-digging of floors, and/or misrouted loads.

Based on historical records and reconciliation practices at La Encantada mine, dilution resulting from the cut and fill method is estimated at 15%, and the grade of the diluting material is estimated at 10% of the grade of the corresponding minable block.

In the areas where caving methods are planned, the grade of the diluting material is taken from the grade contained in the corresponding block of the estimated block model. If the diluting material is taken from outside the inferred resources, all metal grades of the diluting material are considered zero. Dilution for San Javier and Milagros Breccias area was estimated at approximately 40%, and dilution for Ojuelas was estimated at 20% based on results of the caving model.

15.1.2 Mining Recovery

Extraction factors are estimated by analyzing the minable blocks and taking into consideration their geometry and position against the access ramp and the designed sublevels. Most underground mining methods require the consideration of pillars between excavations to reduce the risk of ground collapse. In La Encantada mine, the mining method utilized in the veins systems is overhand cut-and-fill, which requires the consideration of horizontal pillars between extraction levels, known as crown pillars. The height of the crown pillars in La Encantada mine range between 3 to 5 metres depending on ground conditions and thickness of the veins. This geometric condition is considered when estimating reserves for the minable blocks that are planned for extraction by cut-and-fill.

Mining losses occur when the geometry of the stopes are unable to follow the orientation and dip of the mineralized portions of the veins, or when operational conditions preclude the recovery of the mineralized material contained in the minable blocks. Based on historical records at La Encantada mine, mining losses are estimated at 5% of the minable blocks of Measured or Indicated Mineral Resources after consideration of the mining pillars when the cut-and-fill mining method is planned.

The mining blocks planned for extraction by caving are reduced by rib pillars left between the undercut level and the extraction level, and are further reduced by a nominal 0.5% in consideration of operational losses.

15.2 Cut-off Grade Estimate

Cut-off grade estimates used for conversion of resources to reserves incorporates the following main components:

- Metal prices
- Metallurgical recoveries
- Smelting and refining terms
- Operating costs

15.2.1 Metal Prices

Metal prices considered for La Encantada mineral reserves estimates were: $17.50 per ounce of silver for all deposits, with the exception of Ojuelas where an NSR of $53.91/t was utilized.

The silver price used in this analysis is lower in comparison to the 3-year trailing average of approximately $21.50 per ounce of silver as of mid-August, 2015 when the cut-off grade estimates were prepared.

15.2.2 Metallurgical recoveries

ROM material from the Breccias and Vein Systems has been processed by cyanidation since November, 2009. Metallurgical recoveries used for cut-off grade estimates of these areas were based on plant performance records. Metallurgical recovery of silver was set to 58%, which is the average for the period of January to August, 2015 as depicted in Figure 15-1.

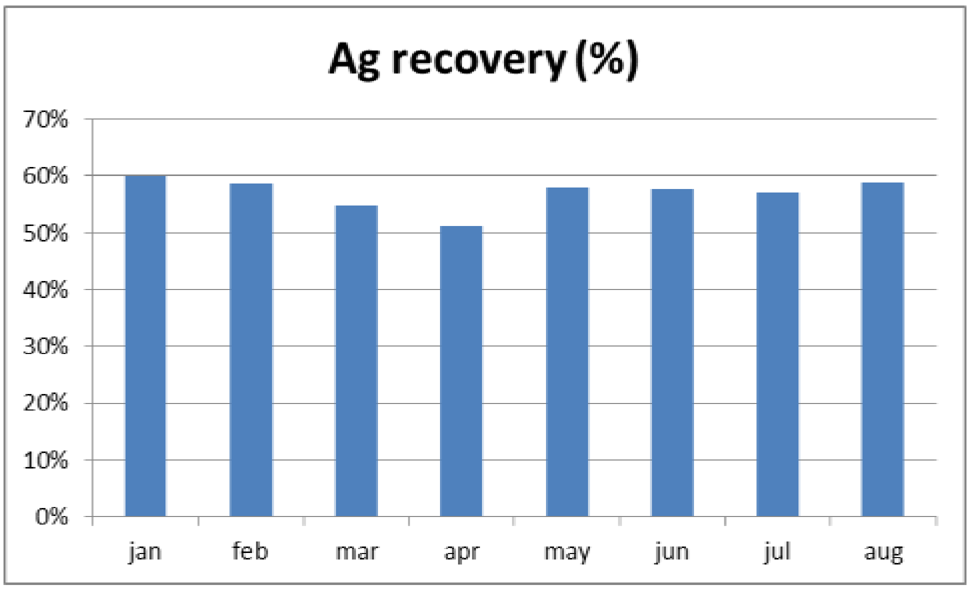

Figure 15-1: Metallurgical Recovery for Silver during 2015

Based on metallurgical testing carried out during 2015, it has been assumed that ore from the Ojuelas deposit will be treated by a flotation concentration process. Metallurgical recovery for silver contained in the Ojuelas deposit was set to 67%, similarly, recovery for lead was set to 60%.

15.2.3 Smelting and refining terms

Refining terms are taken from current sale contracts of doré produced from the cyanidation process. Refining charges, payable terms and transport and insurance costs add $0.23 per ounce of silver contained in the doré.

A Net Smelting Return (NSR) model was prepared to estimate the net payment for the silver and lead contents in a concentrate from the Ojuelas deposit. In terms of cost, the treatment and refining charges, payable terms and transport and insurance costs add $2.33 per ounce of silver contained in the concentrate, and $0.37 per pound of lead contained in the concentrate. These costs were referenced from similar contracts of the Company.

15.2.4 Operating costs

Actual mine operating costs from January-August, 2015, and consideration of the 2015 operating budget were used to derive the cut-off grade of the Veins System, other minor deposits and Breccias. Mine operating costs for Ojuelas were derived from analogies with similar type of caving operations.

Operating costs for the cyanidation process were based on actual costs obtained during the period of May to July 2015, after the expansion of the grinding mill was completed.

Operating costs for the flotation process were based on internal estimates and benchmarking with other First Majestic operations.

15.3 Economic Constraints

The cut-off grade for all the mineable areas to be processed by cyanidation is based on silver grade only.

The cut-off grade for the Ojuelas deposit was derived from the NSR model prepared with the parameters described above, and it was used only to assist the development of a resource constraining wireframe to define the boundary between ore and waste materials. This wireframe was then used to set up the preliminary mine layout development. For this purpose, the grades of silver and lead were expressed in terms of silver-equivalent. The silver equivalent formula used was:

Ag-Eq = Ag Grade + (Pb Grade * Pb Recovery * Pb Payable * Pb Price) / (Ag Recovery * Ag Payable * Ag Price)

Ag-Eq = Ag Grade + (Pb Grade * 0.60 * 0.95 * 0.90) / (0.67 * 0.95 * 18)

The resulting cut-off grades for constraining the Measured and Indicated Resources were 140 g/t Ag for the cyanidation processed ore, and 140 g/t Ag-Eq for the Ojuelas deposit.

Table 15-1 lists the economic parameters utilized to estimate the cut-off grade for constraining reserves in the three main operating areas of La Encantada.

Table 15-1: La Encantada economic parameters for cut-off estimates

Concept / Area	Units	Veins System and other minor deposits	San Javier and Milagros Breccias	Tailings	Ojuelas
Mining Method		Cut-and-Fill	Sublevel Caving	Open Cast	Inclined Caving and Block Caving
Process		Cyanidation	Cyanidation	Roasting/Cyanidation	Flotation
Product		Dore	Dore	Dore	Ag-Pb Concentrates
Metallurgical Recovery					
Silver	%	58%	58%	65%	67%
Lead	%	0%	0%	0%	60%
Smelting and Refining					
Silver	$/oz Ag	0.23	0.23	0.23	2.33
Lead	$/lb Pb	-	-	-	0.37
Costs					
Mining	$/t	12.85	11.84	1.50	10.76
Processing	$/t	19.36	19.36	28.00	16.80
Indirect	$/t	5.49	5.49	4.85	5.49
G&A	$/t	2.70	2.70	2.50	2.70
Subtotal	**$/t**	**40.40**	**39.39**	**36.85**	**35.75**
Sustaining Plant & Infrastructure	$/t	3.26	3.26	3.50	3.26
Sustaining Development	$/t	2.50	3.50	-	8.50
Infill Exploration	$/t	0.55	0.55	-	0.25
Closure Cost Allocation	$/t	0.34	0.34	0.34	0.34
Subtotal	**$/t**	**6.64**	**7.64**	**3.84**	**12.35**
Total Cost per Tonne	**$/t**	**47.05**	**47.03**	**40.69**	**48.10**
Cut-off Grade for Reserves Constraining (rounded)		**140 g/t Ag**	**140 g/t Ag**	**110 g/t Ag**	**140 g/t Ag-Eq**

The mineable reserve for the Ojuelas cave mining project was estimated after developing the production schedule that models the caving column draw using the PCBC block cave scheduling package from GEOVIA®. This is required to better estimate the interaction between draws and the incoming dilution inherent to the caving method planned.

PCBC uses a Net Smelter Return (NSR) value to estimate the Mineral Reserves. The NSR values are inclusive of mining dilution and recovery, as well as recovery losses in both the on-site processing and off-site smelter. The values are based on the metal prices and other parameters shown in Table 15-1. The optimum NSR value selected for Ojuelas was $53.91 per tonne.

15.4 Geometric Constraints

The geometric constraints used for the delineation of practical mining shapes take into consideration the mining method planned. For the Veins System and other minor deposits, which are planned to be extracted by cut-and-fill, the blocks of Measured and Indicated Resources were analyzed in longitudinal sections. The area was modified using CAD software, taking into account the accessibility and requirements for crown pillars. The resulting area was used to estimate the tonnage by applying the average thickness and the average density of the block. Figure 15-2 shows an example of the resource blocks and consideration to access and pillars. Modifying factors for dilution and mining recovery were applied.

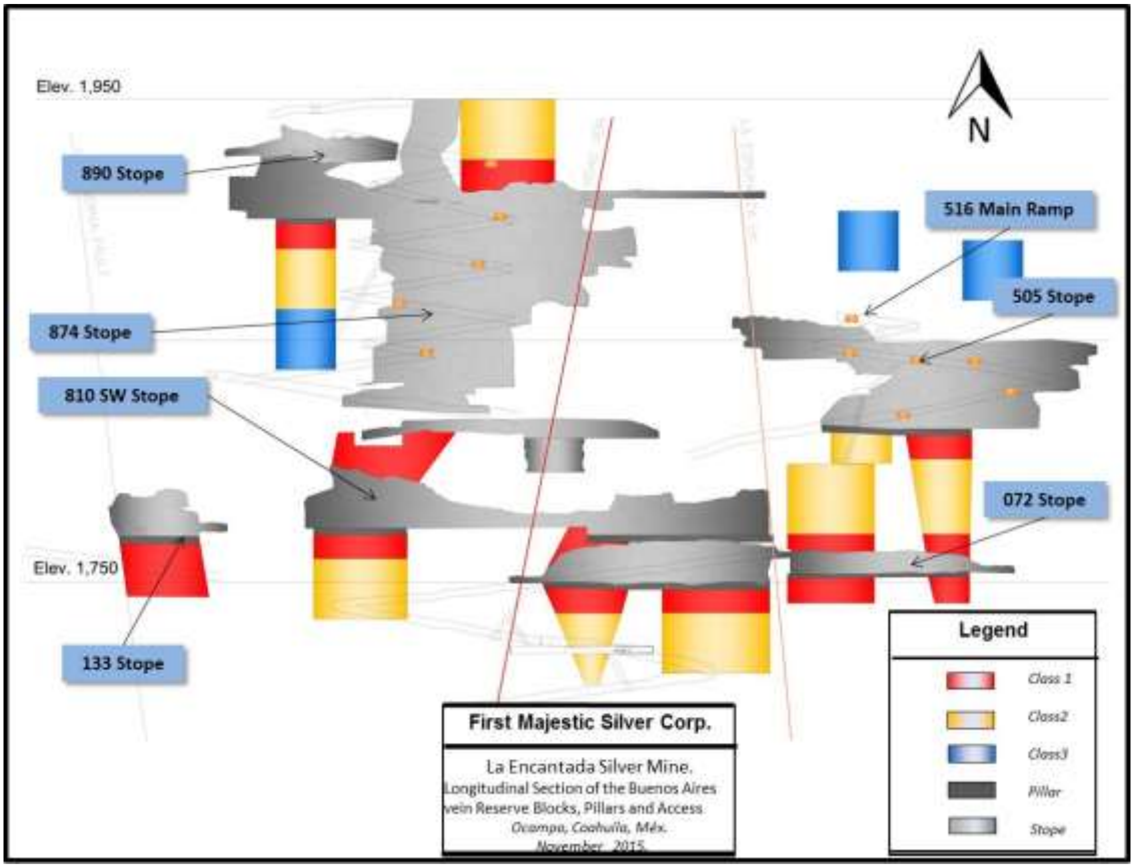

Figure 15-2: Longitudinal Section of the Buenos Aires vein showing the reserve blocks after considering pillars and access.

Dimensions of the constraining shapes for the San Javier and Milagros breccias area, and the Ojuelas deposit were considered a minimum of 10 metres wide, a minimum of 10 metres long and a minimum of 25 metres high. These assumptions are based on the different variants of the caving mining method employed or envisioned for these deposits. Figures 15-3 and 15-4 show schematics of the constraining shapes for San Javier and Milagros Breccias and Ojuelas.

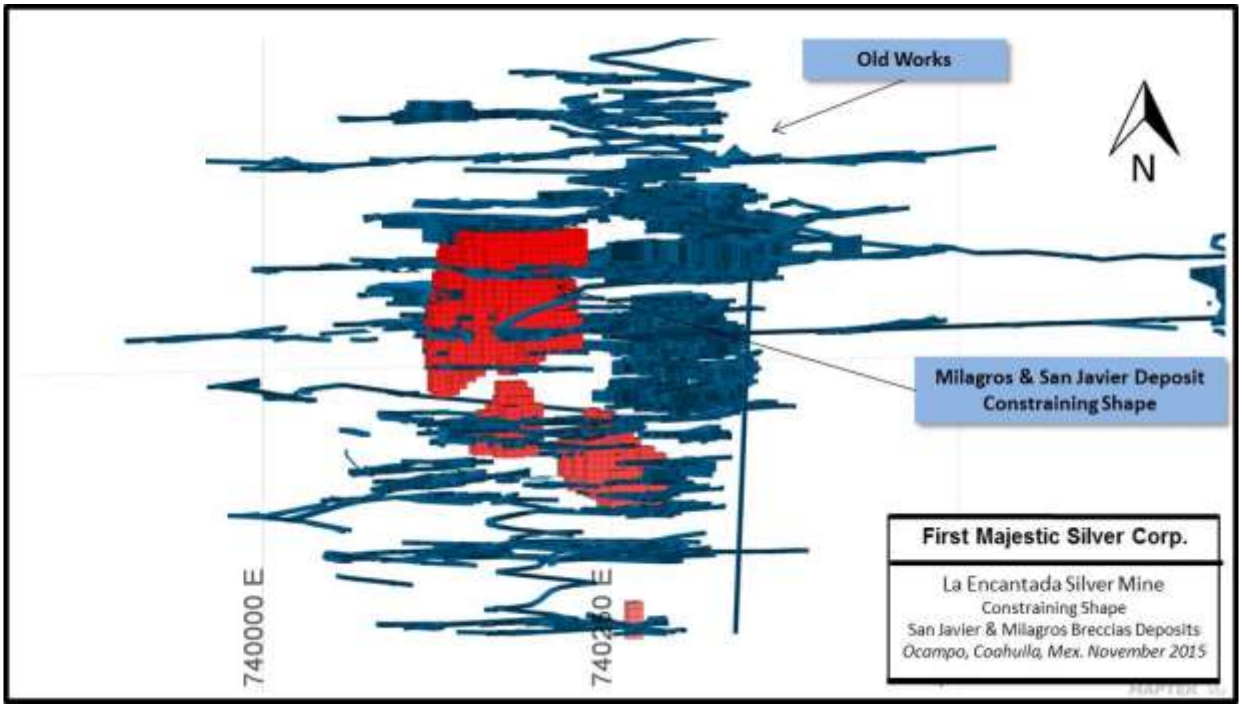

Figure 15-3: Longitudinal projection of the San Javier and Milagros breccias area showing the constraining shape for reserve estimation.

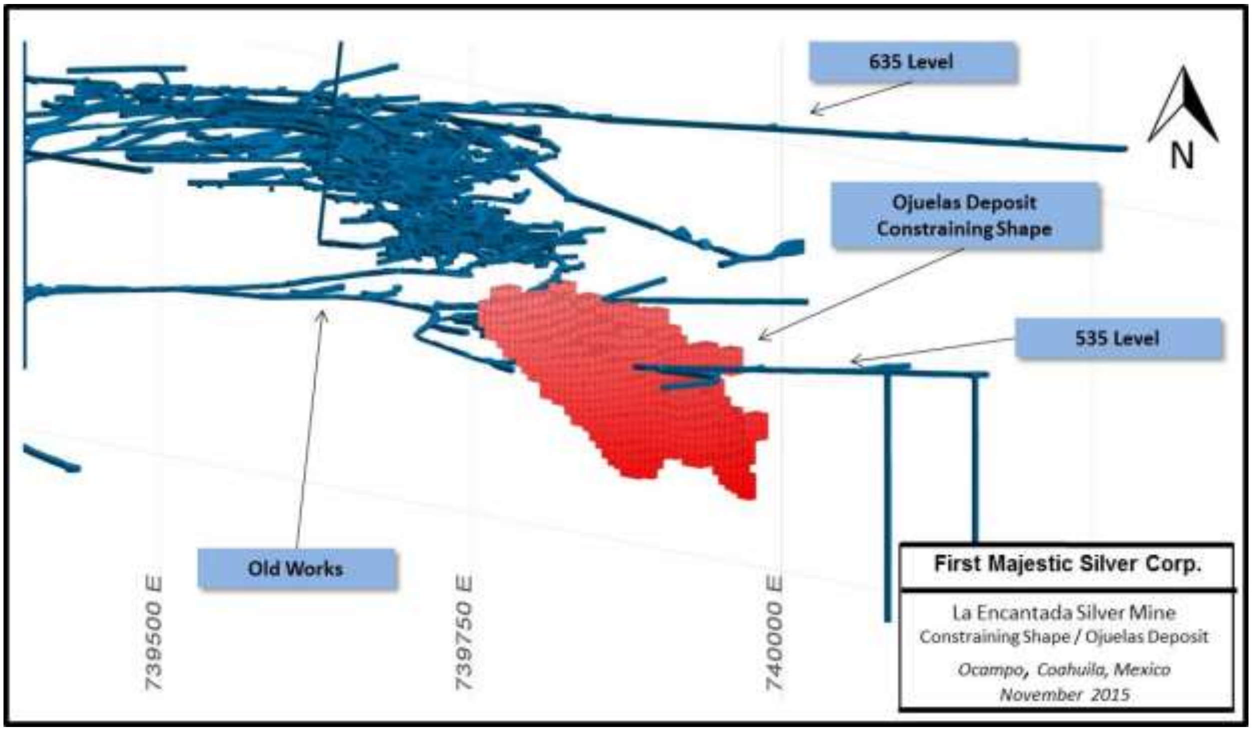

Figure 15-4: Longitudinal projection of the Ojuelas deposit showing the constraining shape for reserve estimation.

15.5 Mineral Reserves Estimates

An inventory of minable material from the different deposits that conforms to the minimum geometric constraints, while satisfying the economic constraints, was completed. This inventory was modified by applying the modifying factors described above.

Table 15-2 shows the tabulation of Mineral Reserves for the La Encantada mine as of October 31, 2015.

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Table 15-2: La Encantada Silver Mine Consolidated Mineral Reserves, with an effective date of December 31, 2015.

Area	Category	Material Type	k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Ag-Eq (k Oz)
Veins System and other Minor Deposits	Proven (UG)	Oxides	251	247	-	247	1,991	1,991
	Probable (UG)	Oxides	389	274	-	274	3,427	3,427
	Total Proven and Probable (UG)	Oxides	639	264	-	264	5,419	5,419
San Javier and Milagros Breccias	Proven (UG)	Oxides	-	-	-	-	-	-
	Probable (UG)	Oxides	1,084	192	-	192	6,693	6,693
	Total Proven and Probable (UG)	Oxides	1,084	192	-	192	6,693	6,693
Ojuelas	Proven (UG)	Oxides - Flotation	-	-	-	-	-	-
	Probable (UG)	Oxides - Flotation	809	147	2.35	196	3,817	5,093
	Total Proven and Probable (UG)	Oxides - Flotation	809	147	2.35	196	3,817	5,093
Tailings Deposit No. 4	Proven (Tailings)	Oxides	-	-	-	-	-	-
	Probable (Tailings)	Oxides	4,138	110	-	110	14,633	14,633
	Total Proven and Probable (Tailings)	Oxides	4,138	110	-	110	14,633	14,633

Mine	Category	Mineral Type	k tonnes	Ag (g/t)	Pb (%)	Ag-Eq (g/t)	Ag (k Oz)	Ag-Eq (k Oz)
LA ENCANTADA	Proven (UG)	Oxides	251	247	-	247	1,991	1,991
	Probable (UG)	Oxides	1,473	214	-	214	10,120	10,120
	Probable (UG)	Oxides - Flotation	809	147	2.35	196	3,817	5,093
	Probable (Tailings)	Tailings	4,138	110	-	110	14,633	14,633
	Total Proven and Probable (UG)	All Material	6,670	143	0.29	148	30,561	31,837

(1) Mineral Reserves have been classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference into National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").
(2) Metal prices considered for Vein System and other minor deposits, San Javier and Milagros Breccias and Tailings Deposit No. 4 was $17.50 USD/oz Ag, and for Ojuelas were $18.00 USD/oz Ag, $0.90 USD/lb Pb.
(3) Cut-off grade considered for the Veins System and other minor deposits, and the San Javier and Milagros Breccias was 140 g/t Ag and is based on actual and estimated operating and sustaining costs.
(4) Cut-off considered for Ojuelas was a NSR $53.91/t and is based on estimated operating cost, sustaining costs and the production schedule ran in PCBC.
(5) Cut-off grade considered for Tailings Deposit No. 4 was 85 g/t Ag and is based on estimated operating cost and sustaining costs.
(6) Silver metallurgical recovery used was 58% for the Veins System and other minor deposits, and the San Javier and Milagros Breccias.
(7) Metallurgical recovery used for Ojuelas was 67% for silver and 60% for lead.
(8) Metallurgical recovery used for Tailings Deposit No. 4 followed a constant tail approach, which for 85 g/t Ag results in 53% recovery of Ag.
(9) Metal payable used for the Veins System and other minor deposits, the San Javier and Milagros Breccias and Tailings Deposit No. 4 was 99.6%.
(10) Metal payable used for Ojuelas was 95% for silver and 95% for lead.
(11) Silver equivalent grade is estimated as:
Ag-Eq = Ag Grade + [(Pb Grade x Pb Recovery x Pb Payable x Pb Price x 2204.62)] / (Ag Recovery x Ag Payable x Ag Price / 31.1035).
(12) Dilution for Veins System and other minor deposits was estimated at 15%, dilution for San Javier and Milagros Breccias was estimated at 40%, dilution for Ojuleas was estimated at 20% and dilution for Tailing Deposit No. 4 was estimated at 3%.
(13) Tonnage is expressed in thousands of tonnes, metal content is expressed in thousands of ounces.
(14) Totals may not add up due to rounding.
(15) Mineral Reserves estimates were prepared under supervision of Ramon Mendoza Reyes, P.Eng. QP Mining for First Majestic.

16 Mining Methods

16.1 Overhand cut-and-fill

Mining the Veins System and other minor deposits at La Encantada is undertaken using primarily the conventional overhand cut-and-fill mining method. Ramps are driven into the orebodies, and stopes are developed from sill drifts driven in the ore zones and slashed out the full width of the ore.

Mining operations at La Encantada mine are partially mechanized. Drilling of access drifts and ramps is carried out using hydraulic jumbos, and most of the headings and cut-and-fill stoping is accomplished using pneumatic hand-held jackleg machines.

The cut-and-fill stoping cycle is started with blast holes drilled using hand-held jackleg drills, followed by blasting using conventional mining explosives. After blasting, LHD's are used to muck the blasted ore. The cut and fill stopes range between 50 to 150 m in length along strike, and extend between levels which are typically spaced 15 to 30 m apart vertically. Each cut is 2.5 to 3.0 m in height. Depending on ground conditions, the blast holes are drilled either upward or horizontally. Waste and mineralized material below cut-off grade is blasted down and used as backfill as needed. Figure 16-1 shows a schematic of the overhand cut-and fill mining method.

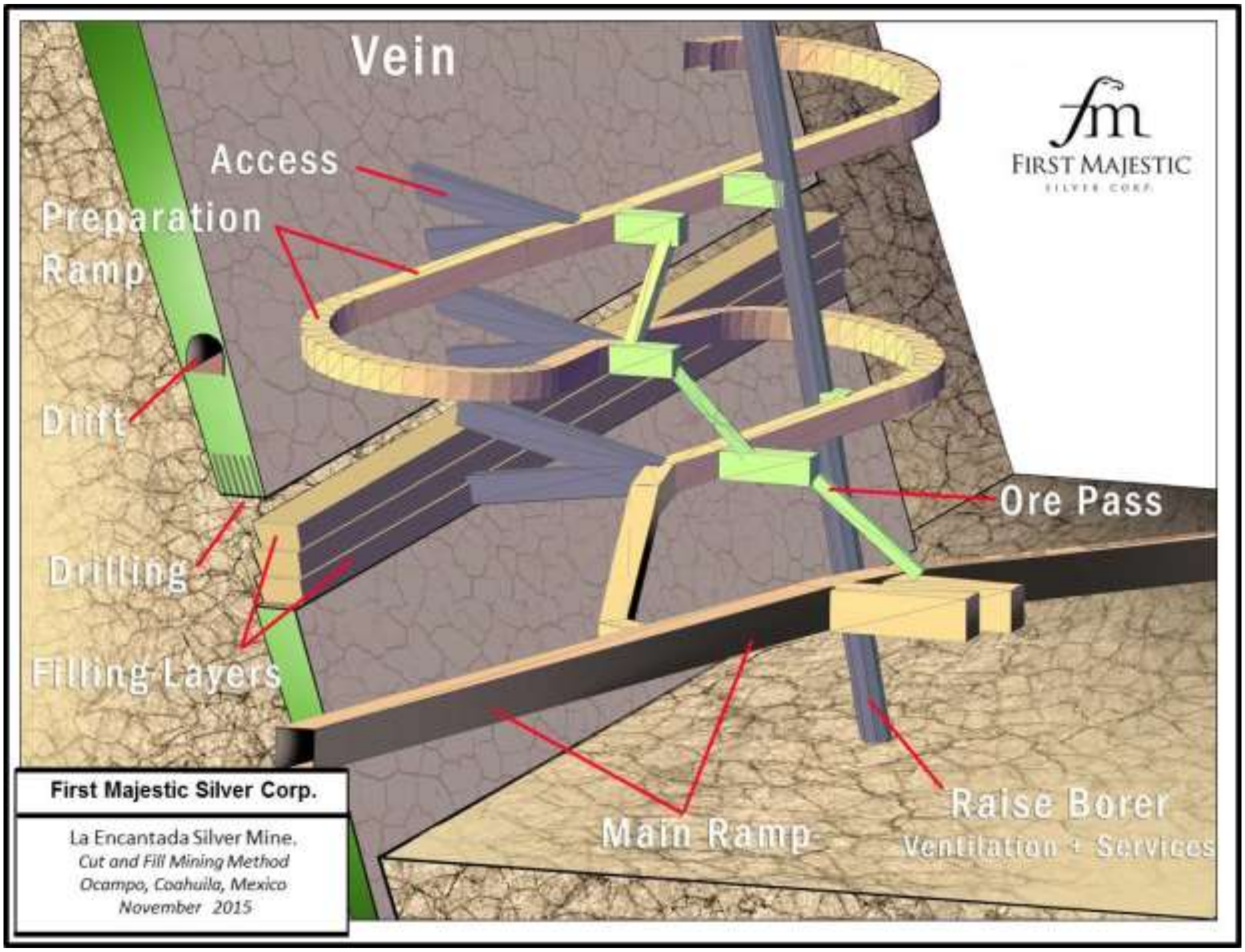

Figure 16-1: Schematic of the overhand cut-and-fill mining method utilized in La Encantada

The minimum mining width is 2.0 m, and planned dilution is included in the mine design, which varies according to the ground conditions, vein width, and the dip of the vein. The dilution factors range from 5% to 20%, with an average of approximately 10%. Mined areas are measured to compare the width of the vein and the width of the cut on a regular basis; as mining advances, this comparison is used as means of reconciliation and to build the historical database of the dilution and mining recovery factors. Sills and access drifts are excavated at 2.5 m wide by 3.0 m high, cross-cuts and access ramps to the stopes are excavated 3.0 m wide by 3.0 m high, and main access ramps are excavated 4.0 m wide by 4.5 m high.

Conventional diesel haul trucks are used for haulage of the ore to the ROM pad located close to the primary crusher site.

Employee and material movement in and out of the mine is via the mine portal driven into the side of the mountain, or from the Maria Isabel shaft.

16.2 Inclined Caving in San Javier and Milagros Breccias

16.2.1 San Javier and Milagros Breccias Area Geology

The Milagros breccia is characterized by being a supporting matrix and a soil type. The breccia's matrix is totally altered to sandy-clay soil. Clasts contained in this breccia correspond to polymictic fragments of intrusive, limestone, marble and fragments of mineralized breccias. The material is observed humid by its clay constituents.

San Javier breccia is characterized by being a supportive clast and by presenting a breccia-like rock behavior. The matrix of this rock is totally altered to clayey sand soil from 20% to 30%. Clasts in this breccia are from limestone. Presence of blocks from different sizes, and empty or mineralized cavities can be found in this breccia. A significant increase of rock clasts is found in comparison to the Milagros breccia.

The limestone where the breccias are emplaced is characterized by a sub-horizontal stratification with roughness and fresh structures, except in affected areas by weathering where this feature degrades.

16.2.2 San Javier and Milagros Breccias Area Geotechnical Characterization

Rock Quality for San Javier and Milagros breccias was assessed by deriving the Geological Strength Index (GSI), Rock Mass Rating (RMR) Bienawski and RMR Laubscher parameters. A modification for the RMR Laubscher, the Mining Rock Mass Rating (MRMR), was used as the base for the mining method selection and mine design.

According to the geological features, the Milagros breccia can be defined by the GSI index (30-35) as a disintegrated rock in fair condition, characterized by having a fine clayey sand matrix and small portions of clasts. The matrix is soft and can be penetrated with moderate ease by the tip of a hammer. Figure 16-2 is an example of the Milagros Breccia.

Figure 16-2: Image of the Milagros Breccia

The San Javier Breccia can be defined according to the GSI index as a disintegrated rock in fair condition as it is well interlocked. A 90-metre high natural cavity is found in the upper zone of the breccia. Due to the low matrix content, a better cavability can be expected. However, in this case, the fragment's size distribution is controlled by the clast size; where in some cases clasts are observed having large sizes (over 1 m^3). Figure 16-3 is an example of the San Javier Breccia.

Figure 16-3: Image of the San Javier Breccia

According to the GSI index (60-65), limestone can be defined as a fractured rock with blocks in good condition as it is well interlocked. See Figure 16-4.

Figure 16-4: Limestone hosting the Milagros and San Javier Breccias.

Based on the geological description and field mapping, the rock mass qualities for the geotechnical units were obtained. The applied adjustments to the RMR Laubscher parameter considered blasting, weathering, induced stress, and structure orientation. Table 16-1 shows the Rock Mass Quality for the distinct units.

Table 16-1: Rock Mass Quality for Breccias

Rock Unit	GSI			RQD	RMR Bieniawski						RMR LAUBSCHER					
	Structure	Condition	Ranking		RCS	RQD	Esp	J.C	Water	PTJE	IRS	FF	JC	PTJE	ADJ.	MRMR
Bx Milagros	D	F	30-35	0	0	3	10	11	15	39	1	10	23	34	0.6	**21**
Bx San Javier	BD	G	40-50	20-40	1	3	15	15	15	49	1	12	24	37	0.6	**23**
Intrusive Milagros	B	F	50-55	75	7	17	10	11	15	60	8	26	16	50	0.7	**34**
Limestone	VB	G	50-55	50-60	4	13	8	21	15	61	5	21	26	52	0.7	**35**

Based on the geotechnical characteristics and the geometry of the breccias, First Majestic has started the implementation of a variant of Inclined Caving for the San Javier and Milagros breccias. This configuration allows the extraction of ore by building draw-points at different elevations, starting from the outside of the deposits and working inwards as the lower levels are developed.

Based on the constraining shapes generated for resource constraining, two main blocks have been identified, the first to be extracted is a block for the San Javier breccia with bottom elevation 1,740 masl. A second block has been delimited in the Milagros breccia with bottom elevation 1,550 masl. An isometric view of these areas is shown in Figure 16-5.

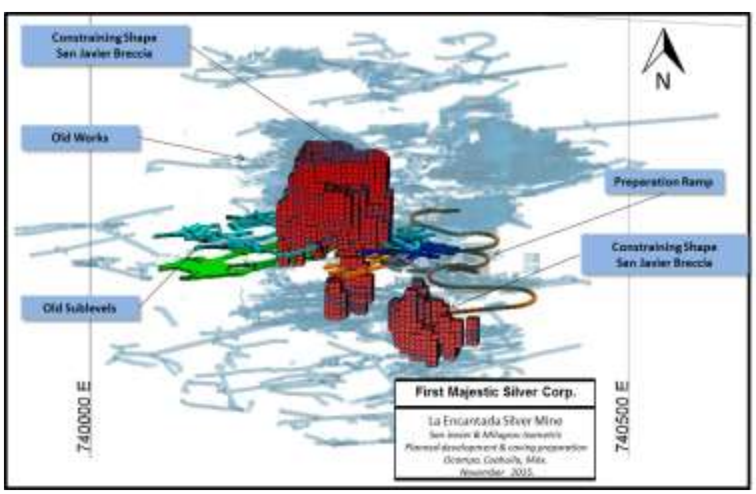

Figure 16-5: Schematic view of the San Javier and Milagros Breccias constraining shapes

Design of a typical Inclined Caving layout in the San Javier and Milagros breccias is shown in Figure 16-6.

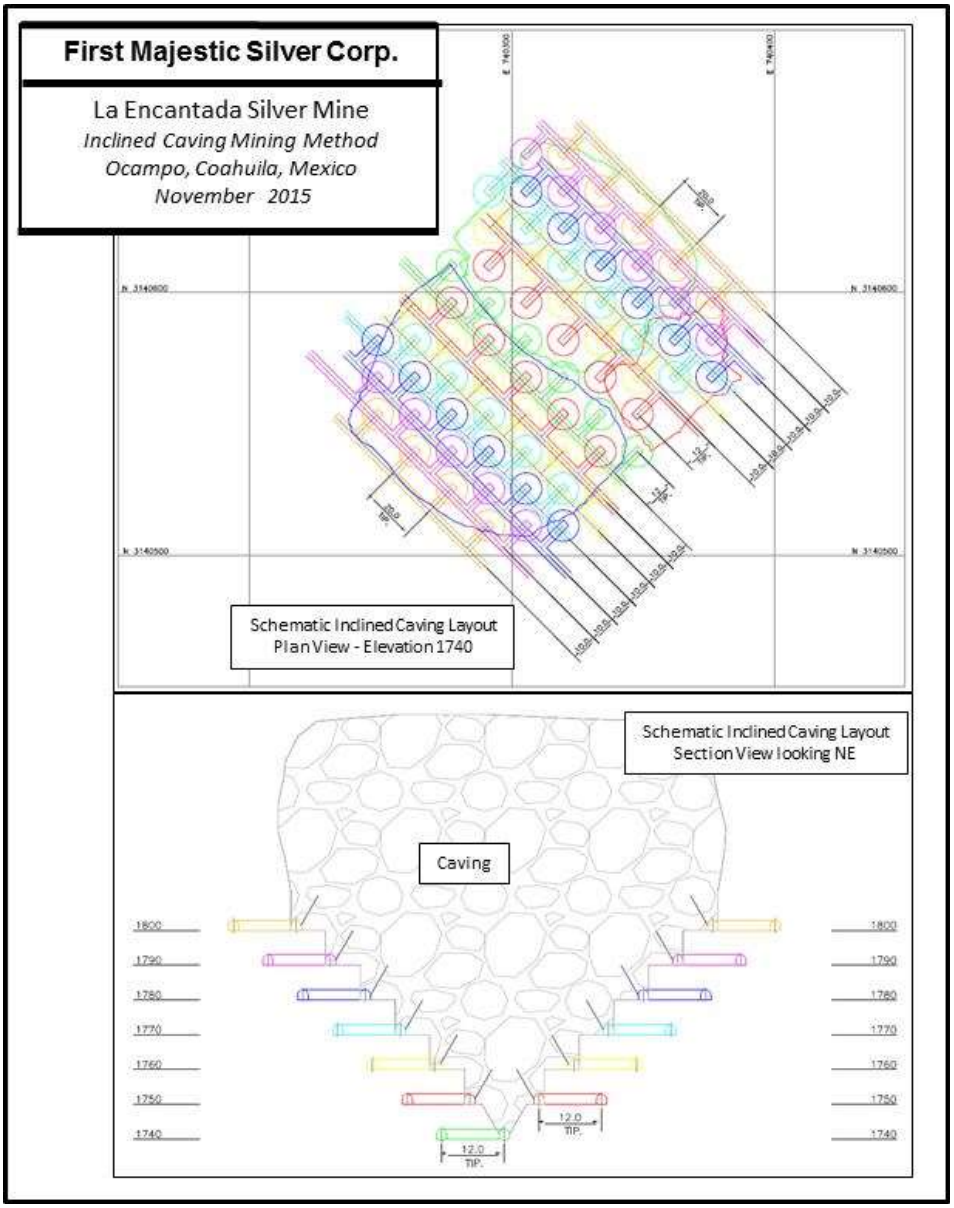

Figure 16-6: Schematic Inclined Caving layout in the San Javier and Milagros Breccias

16.3 Caving in Ojuelas

16.3.1 Ojuelas Deposit Geology

The mineralized zone of Ojuelas deposit encompasses a manto type deposit of 50 to 60 m mineralization thickness, over an approximate length of 100 m at North-South strike, and an approximately 100 m vertical extent. The mineralization generally dips east about 30 to 45 degrees at the upper portion of the ore zone, and transitions to a relatively flatter dip at the lower zone. The lower portion of the mineralized zone is relatively thicker, at approximately 60 to 80 m.

The mineralized oxide mantos zone (OZ) sits in between the Western and Eastern Dykes structures. The dykes are interpreted as post-mineralization intrusions. The footwall rock is formed by skarn mineralization, and the underlying hanging-wall rock is formed by crackle breccia and limestone rocks.

16.3.2 Ojuelas Deposit Geotechnical Properties

Observations completed on the Ojuelas drill core suggested that the foot-wall area (FW) has the best rock quality in the area, followed by the rock quality in the hanging-wall area (HW). The Ojuelas ore zone has the lowest rock quality and is friable, as shown in Figure 16-7 below.

Figure 16-7: Rock Quality of Ojuelas ore zone (darker brown materials)

A preliminary review and analysis of the geotechnical database suggested that the Rock Mass Rating (RMR) for HW, OZ and FW fall within a "moderate" RMR range of 20 to 40. This condition indicates that mining infrastructure development should be placed in the better ground area of the FW to provide more stable openings, whereas the friable OZ and the fractured HW rock indicate that a caving application should be considered.

The Rock Substance Strength (RSS), using an assumed average unconfined compressive strength (UCS) of 75 MPa for the limestone (most common rock type throughout all zones), is estimated to fall within a "very weak" rating (<5) for the three zones (HW, OZ, FW). Table 16-2 presents the summary of RSS. These values are subject to change as more updated geotechnical information becomes available.

Table 16-2: RSS summarized values for Ojuelas Mineralized Zone

Limestone UCS assumed to be 75MPa

k1: 2	k2: 1.5	0.002777	density			
Area	**Elevation**	**Depth**	**s1**	**s2**	**s3**	**UCS/s1**
Surface	1873	1	0.05	0.04	0.03	1376.78
Top of OZ	1595	278	15.14	11.36	7.57	4.95
25m Intervals	1570	303	16.51	12.38	8.25	4.54
	1545	328	17.87	13.40	8.93	4.2
	1520	353	19.23	14.42	9.61	3.9
	1495	378	20.59	15.44	10.30	3.64
	1470	403	21.95	16.47	10.98	3.42
	1445	428	23.32	17.49	11.66	3.22
	1420	453	24.68	18.51	12.34	3.04
	1395	478	26.04	19.53	13.02	2.88
	1370	503	27.40	20.55	13.70	2.74
Bottom of OZ	1345	528	28.76	21.57	14.38	2.61

16.3.3 Mining Method Selection

A review was carried out to assess the applicability of the possible mining methods, including caving and non-caving methods, to mine the Ojuelas deposit. Their applicability was scored using the University of British Columbia mining method selection matrix, or UBC method, to narrow down the potential methods that are appropriate given the characteristics of the orebody and country rocks.

Based on a selection matrix, Block Caving, Sublevel Caving and Cut and Fill mining methods were the top three methods identified, in that order. Due to the geometry of the Ojuelas orebody, applying a standalone block caving or sublevel caving method could negatively impact the economics of the project, therefore, a combination of inclined caving and block caving methods is proposed as one of the methods to be further evaluated in mining the Ojuelas deposit. The upper zone, which has a moderate dipping and thin mineralization zone, will be mined with the incline caving method, whereas the lower portion that has a flatter dipping and thicker mineralization will be mined with a block caving method. The mining will be done in a top-down fashion.

Inclined caving uses block caving principles with a truncated sub-level caving mining layout. The cave is initiated by undercutting the orebody at the inclined footwall area. The caving is advanced downward. The principles of gravity flows and draw interactions applied in block caving and sublevel caving are also applied in this mining method. Once all of the ore in the sublevels has been extracted, the block cave will be initiated at the bottom to remove the remainder of the reserve.

16.3.4 Ojuelas Preliminary Cavability Assessment

To determine cavability and to estimate the minimum hydraulic radius (HR) required to initiate cave propagation in Ojuelas, two empirical methods have been used: Laubscher's Cave Stability Graph Method (Laubscher, 1990), using Mining Rock Mass Rating (MRMR), and the Extended Mathew's Stability Graph Method (Mawdesley et. al., 2001) using modified Stability Number (N').

In this assessment, a preliminary determination of minimum HR required for caving to initiate has been performed. Barton's rock quality value (Q') and MRMR for the hanging-wall (HW), the ore-zone (OZ), and the foot-wall (FW) were assessed for the 13 holes geotechnically logged using methods which are consistent with ISRM suggested methods for determining rock mass quality.

The MRMR values from the logged data have been plotted on the Laubscher Cave Mining Stability graph as shown in Figure 16-8, to obtain corresponding HR for each zone.

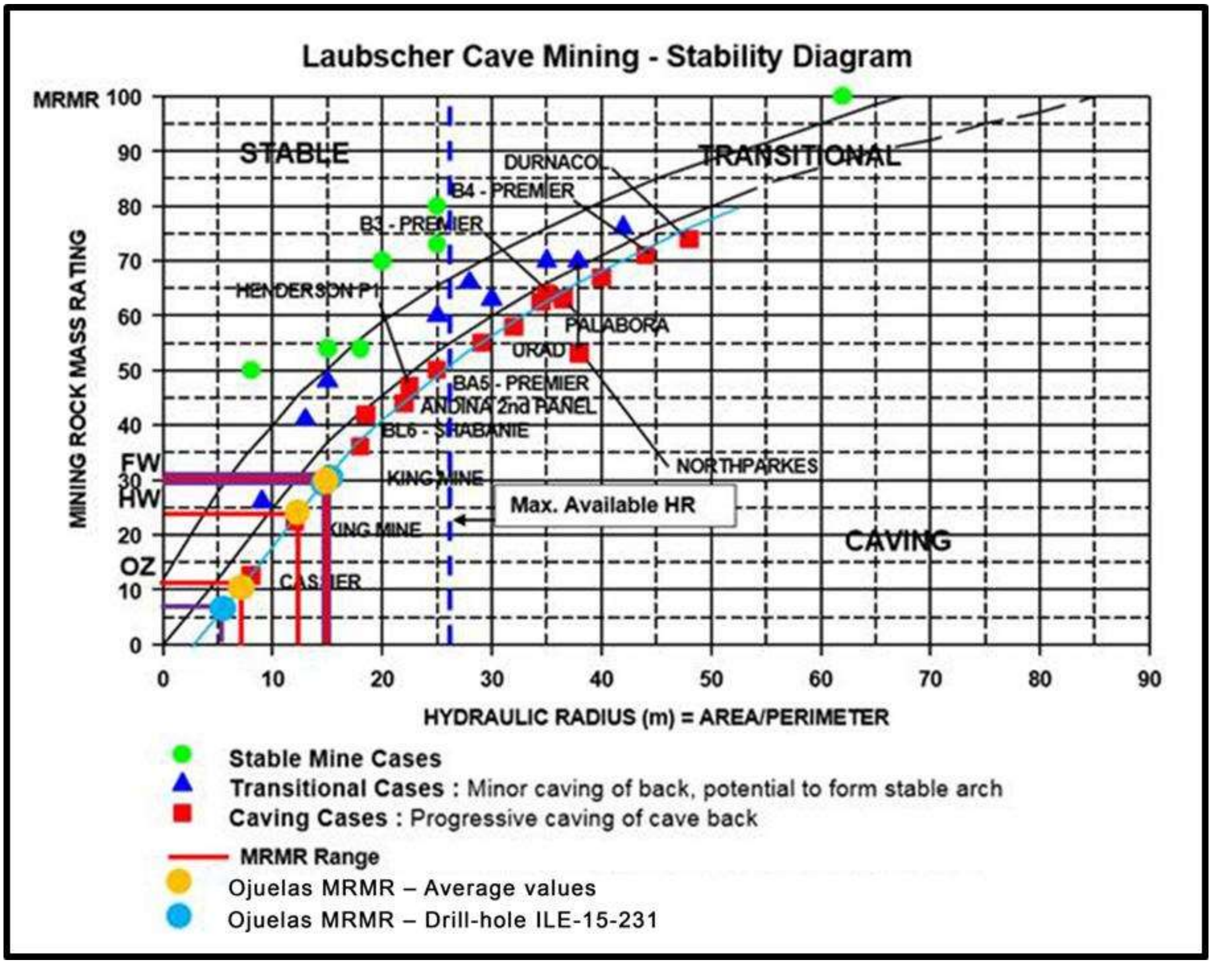

Figure 16-8: Laubscher Cave Mining Stability Graph for the Ojuelas Deposit

According to the Laubscher method, the minimum required HR for cave propagation ranges in the HW from 12 to 15 m, in the OZ from 6 to 7 m and the FW is 15 m. The HR in the Laubscher method is the minimum HR of the back that must be opened to initiate self-sustained caving.

Based on the current Ojuelas deposit model, the maximum available HR for the complete foot-print (in plan view) is 26.5 m, which is obviously significantly higher than the minimum required. Figure 16-9 shows a plan view of Ojuelas footprint and the estimation of the HR. However, it is also important to note that the HR at individual undercut levels may not meet the minimum requirement, and hence self-sustained caving at those levels may not occur until a certain number of levels are opened up and minimum HR is reached.

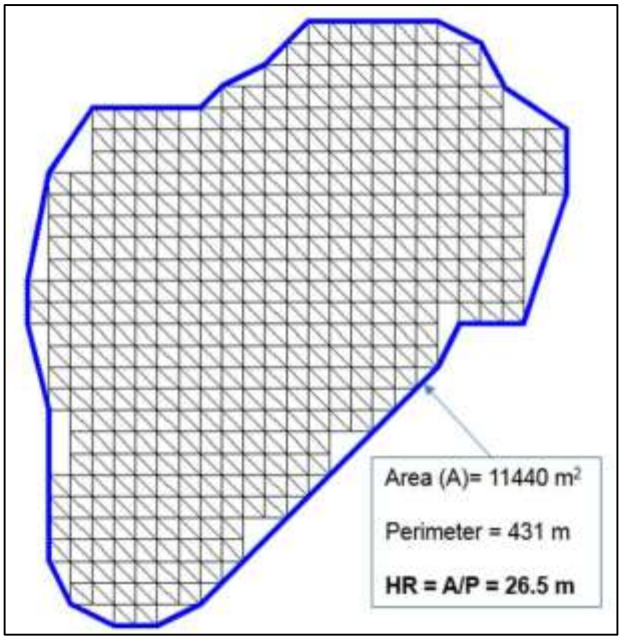

Figure 16-9: Plan view foot-print of the Ojuelas orebody and estimated Hydraulic Radius

16.3.5 Ojuelas Mine Design

The Ojuelas mining levels are approximately 300 m below surface. The deposit is designed to be mined with a combination of incline caving and block caving methods, with incline caving to be used for mining the upper portion of the deposit, and conventional block caving to be used to mine the lower portion of the deposit. Mining is sequenced in a top-down approach. A total of 67 drawpoints are planned to be developed within the current footprint, accessed from six mining levels. Maptek's Vulcan® software was used in developing the mine design. Figure 16-10 presents the combination of Incline Caving and Block Caving methods.

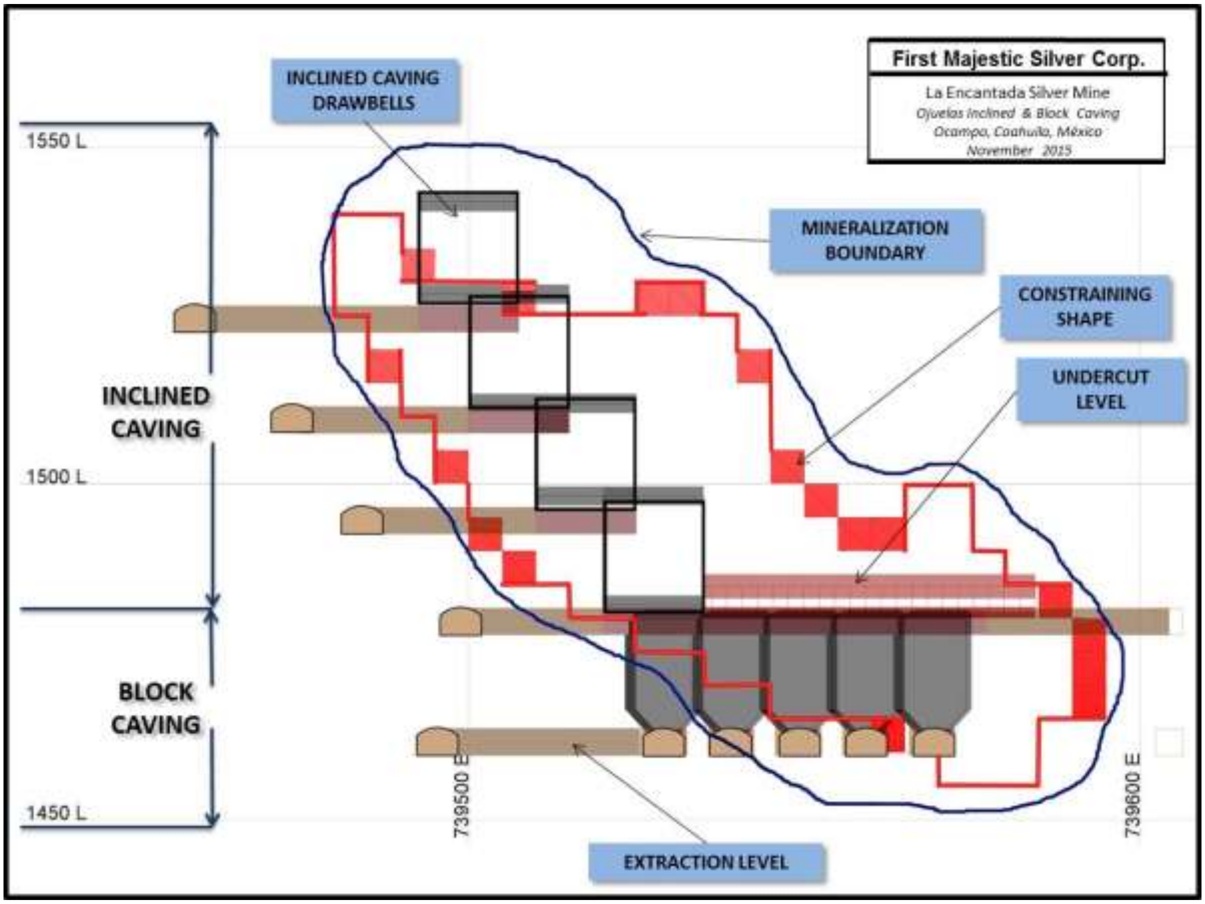

Figure 16-10: Section View for the combined Incline Caving and Block Caving Methods

The mine design consists of 5.1 km of lateral development and 1.2 km of vertical development. The incline cave mining level starts at 1,522 masl and ends at 1,477 masl, with 15 m sub-level intervals. The ore will be extracted from draw points that are spaced at 10 m intervals. The incline cave mining will transition to block cave mining at 1,477 masl, where incline caving's draw bell blasting will continue as block caving's undercut blasting. A 50-degree chevron shape is used to manage the undercut blasting to minimize the abutment stress working on the cave fronts. The extraction level of the block cave mining will be developed at 1,459 masl, and this level can be accessed from the FW side of the orebody. Beneath the extraction level, another smaller incline cave or sublevel cave mining footprint will be developed to mine out the remaining economical ore zone, and also to extract the high grade pillar at the extraction level. An overview of the Ojuelas mine layout is shown in Figure 16-11.

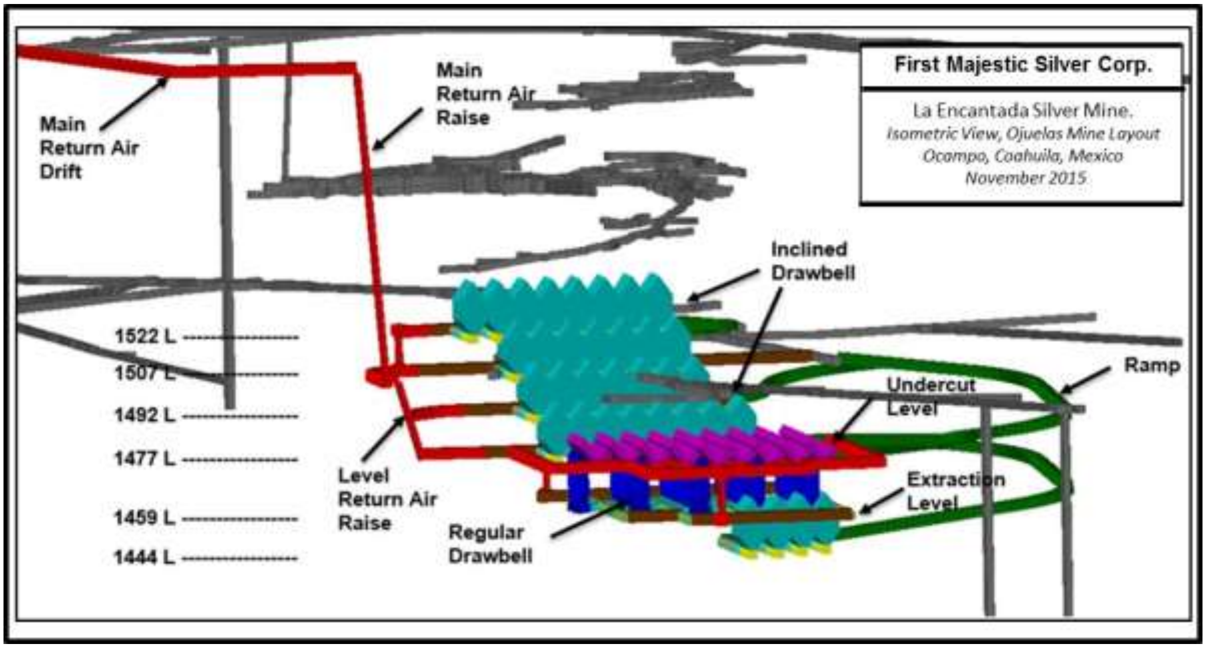

Figure 16-11: Isometric View, Ojuelas Mine Layout

16.4 Reclaiming of Tailings Deposit No. 4

The tailings deposit No. 4 consists of paste material that has been stacked on surface, close to the cyanidation Plant No. 2. To be reclaimed, surface mining equipment will be used: a dozer for loosening and pushing the material to the loading front, a front-end-loader to reclaim and haulage trucks to transport the material to the roasting plant, which is planned to be located close to the cyanidation plant. Planned extraction rate is 2,000 tpd.

16.5 Mine Infrastructure

The main access to the current mine operation is the Guadalupe ramp portal, a trackless adit at the 1,870 elevation. This working has been enlarged to approximately 4.5 by 5.0 metres in cross-section, to accommodate 20-tonne capacity highway-type dump trucks for ore and waste haulage from the mine. Figure 16-12 shows an image of the Guadalupe ramp portal.

The southern-most María Isabel Shaft is L-shaped with a manway cut-out, and it is equipped with two in-balance 3.7-t capacity skips, and a man cage. The man cage capacity is about 15 people. The furnishings in the shaft are all constructed of steel, including dividers. The guides for the ore skips are cables, and the guides for the man cage are steel H-beams. The main air lines and electric power cables into the mine are installed in the manway compartment of the María Isabel Shaft. The María Isabel ore hoist is a 500-hp Canadian Ingersoll-Rand 2-drum hoist, and the man-hoist is a Vulcan 125-hp 1-drum hoist.

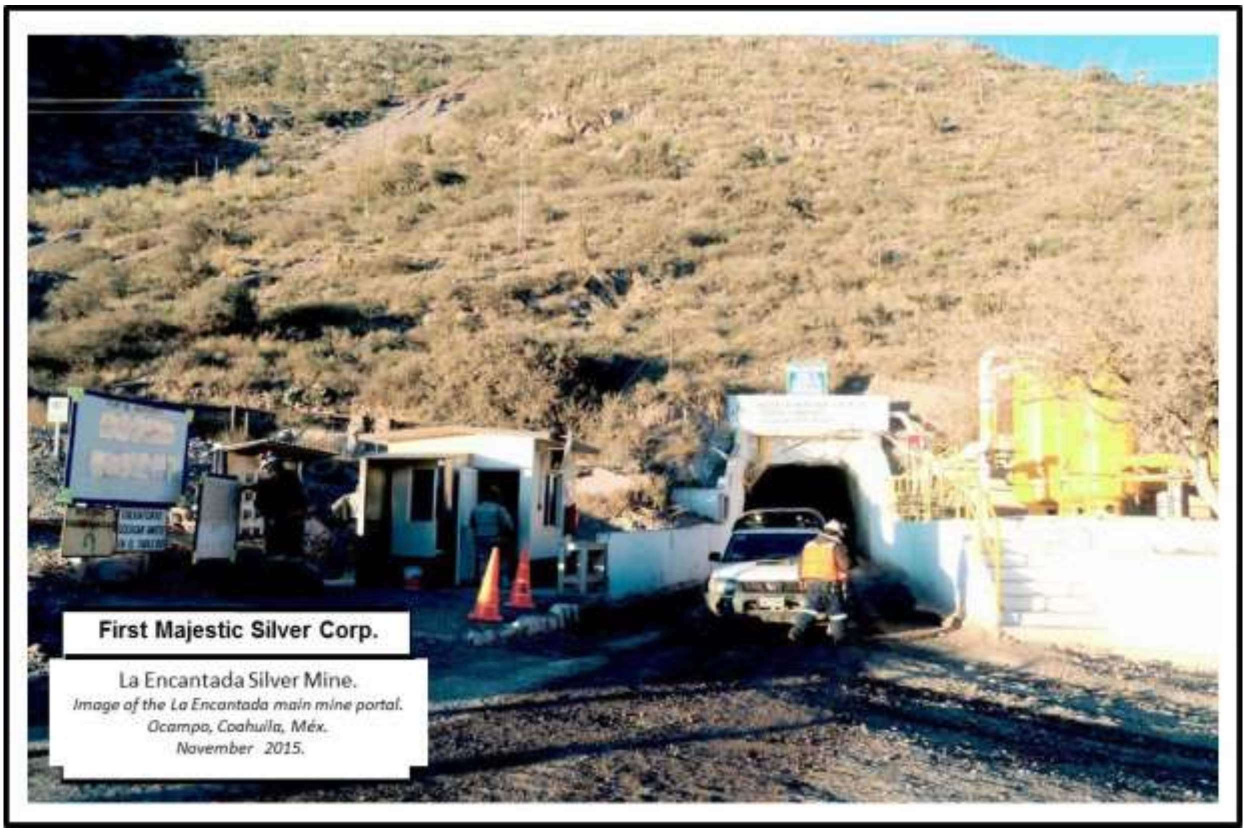

Figure 16-12: Guadalupe Ramp Portal

Two shafts were sunk by Peñoles, the Maria Isabel and the San Francisco shafts, mainly for the development and extraction of the Escondida and La Prieta chimneys. The Maria Isabel shaft continues to be used by FM, while the San Francisco shaft is in care and maintenance. The collar elevations of both shafts, which are situated only about 100 metres apart, are 1,800 masl for the María Isabel, and 1,805 masl for the San Francisco, and the depths of both are about 300 metres. Figure 16-13 shows an image of the Maria Isabel shaft.

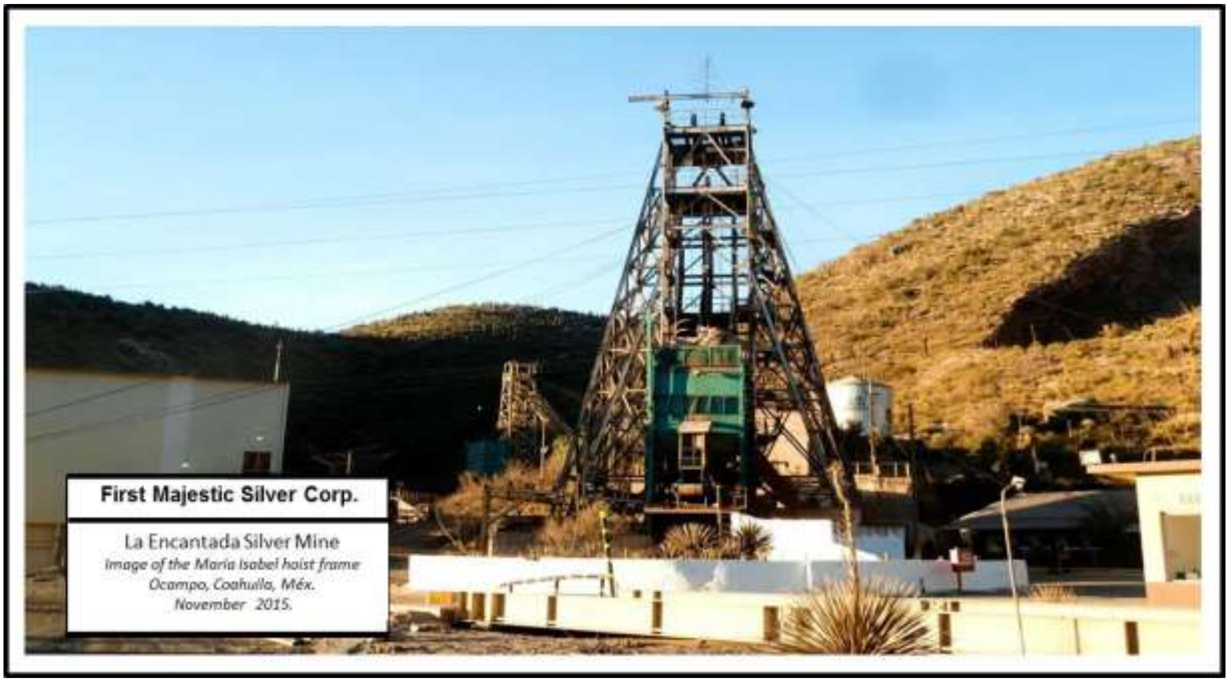

Figure 16-13: Maria Isabel shaft head-frame

The main pumping station for the mine is located on the San Francisco Shaft, and the mine pump lines are located in the shaft near the emergency manway.

Extensive underground workings have been developed at La Encantada to connect the various parts of the mine, as well as to explore and mine mineralized zones. Drifts and ramps are driven with a cross-sectional area of about 3.0 by 3.0 metres, and some of these drifts and ramps are enlarged to accommodate the larger dump trucks. These workings extend along a 4km-long mineralized structural zone, providing access for low-profile diesel mobile equipment up to the 2,035 level and down to the 1,535 level. (Figure 16-14).

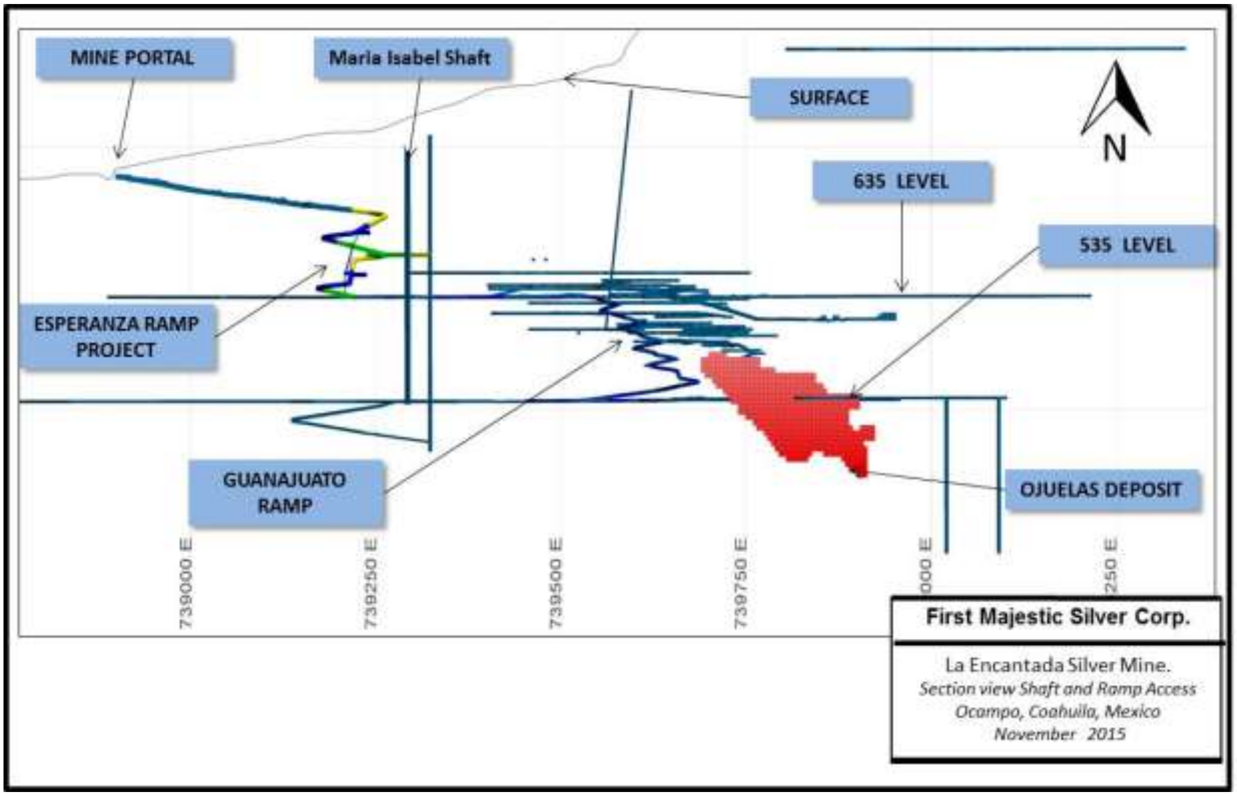

Figure 16-14: Section view showing the main ramp and shaft to access the La Encantada workings

Drifts and ramps are planned to access the different mineralized zones. Development in waste for access and preparation totals approximately 11 kilometres over the life-of-mine ("LOM"). The mine plan accounts for a development rate of approximately 4,500 metres per year. The excavated waste is retained inside the mine as backfill in the stopes. Waste encountered while mining cut-and-fill stopes is blasted and left in the stope as backfill. No excess waste rock is anticipated.

Most areas of the mine are unsupported, but in several places, shotcrete and/or rock bolts and wire mesh, or combinations of the same have been installed. In poor ground condition areas, it has been necessary to install steel arches with timber lagging. Most of the short raises (<60 metres) are excavated by conventional methods, and most raises are driven at a cross-section area of about 1.5 by 1.5 metres. Ore and waste pass raises, and ventilation raises have been developed by raise boring contractors.

16.6 Production Schedule

The Life-of-Mine plan (LOM) is based on an annual processing rate of 0.66 million tonnes of plant feed of mineralized material from Reserves, corresponding to 2,000 tpd for 330 working-days/year, plus the feed of 2,000 tpd of material from the Tailings Deposit No. 4 to bre re-processed in the cyanidation plant after roasting. Considering the Mineral Reserves presented in Section 15.5, this represents a mine life of 8.5 years when considering the re-processing of the Tailings Deposit No. 4.

La Encantada has a track record of converting mineral resources to mineral reserves by means of exploration drilling and by drifting along the mineralized structures, and therefore the projected mine life may increase. At the time of the integration of this report, exploration in Ojuelas was ongoing and preliminary results are showing potential to increase the volume of the resource and improve the mineral resource confidence classification. These results indicate a potential positive impact on the Ojuelas deposit. Further testing and design work will continue, looking to increase the reserve estimates.

The production forecast for Ojuelas was developed using the PCBC block cave scheduling package in Geovia® software. PCBC is industry-recognized software that has been widely used to estimate production and grade profiles from different caving mines or projects around the world. The base case production schedule for Ojuelas is set at 2,000 tpd.

16.7 Manpower and Mining Fleet

La Encantada is an owner-operated mine, with working roster of seven days a week, two 12-hour shifts per day. Workforce is available from the communities near the city of Melchor Muzquiz, and standard rosters are 14-days in by 7-days off. Workforce totals 640 at La Encantada, including 290 unionized workers, 110 employees, and 240 contractors.

Drilling for development in waste and ore is carried out using electro-hydraulic jumbos or hand-held jacklegs. Drilling for long-hole stoping and inclined caving is carried out by a hydraulic production drill.

Loading and tramming is done with diesel-powered, low profile front-end loaders (load-haul-dumps, or LHD’s), and haulage is usually with highway-type diesel rear-dump trucks, or battery powered rail haulage trains.

The mining fleet currently in operation at La Encantada is listed in Table 16-2. A sustaining capital allocation is in place to replace the equipment when it reaches the end of its useful life.

Table 16-3: Mining Fleet

Equipment	Brand	Model	Capacity	Qty
Toro LHD	Sandvik	LH 203	2 cubic yards	8
Toro LHD	Sandvik	LH 307	3.5 cubic yards	9
Wagner LHD	Wagner		3.5 cubic yards	1
Truck	Sandvik	TH 315	15 t	3
Truck	Sandvik	EJC 416	16 t	1
Truck	Sandvik	EJC 417	17 t	2
Locomotive	Plymouth		8 t	3
Locomotive	Sandvik		10 t	2
Jumbo	Sandvik	DD 210		2
Jumbo	Sandvik	DD 311		1
Production Drill	Sandvik	Solo DL 431		1
Production Drill	Boart Longyear	Stope Mate		2
Jacklegs				+30
Generator	SDMO		57 kW	2
Generator	SMD		175 kW	1

17 Recovery Methods

17.1 Cyanidation Processing

The mill at the La Encantada cyanidation plant processes silver minerals through a leaching method producing doré bars. The installed plant capacity of the processing plant is 3,000 tpd for the crushing/grinding area, and 4,500 tpd for the cyanidation circuit.

17.1.1 Process Flowsheet

The processing plant flowsheet consists of three-stage crushing, ball mill grinding, a leaching circuit, and a Merrill-Crowe system, followed by smelting of the precipitate and final tailings filtration (Figure 17-1 and Figure 17-2).

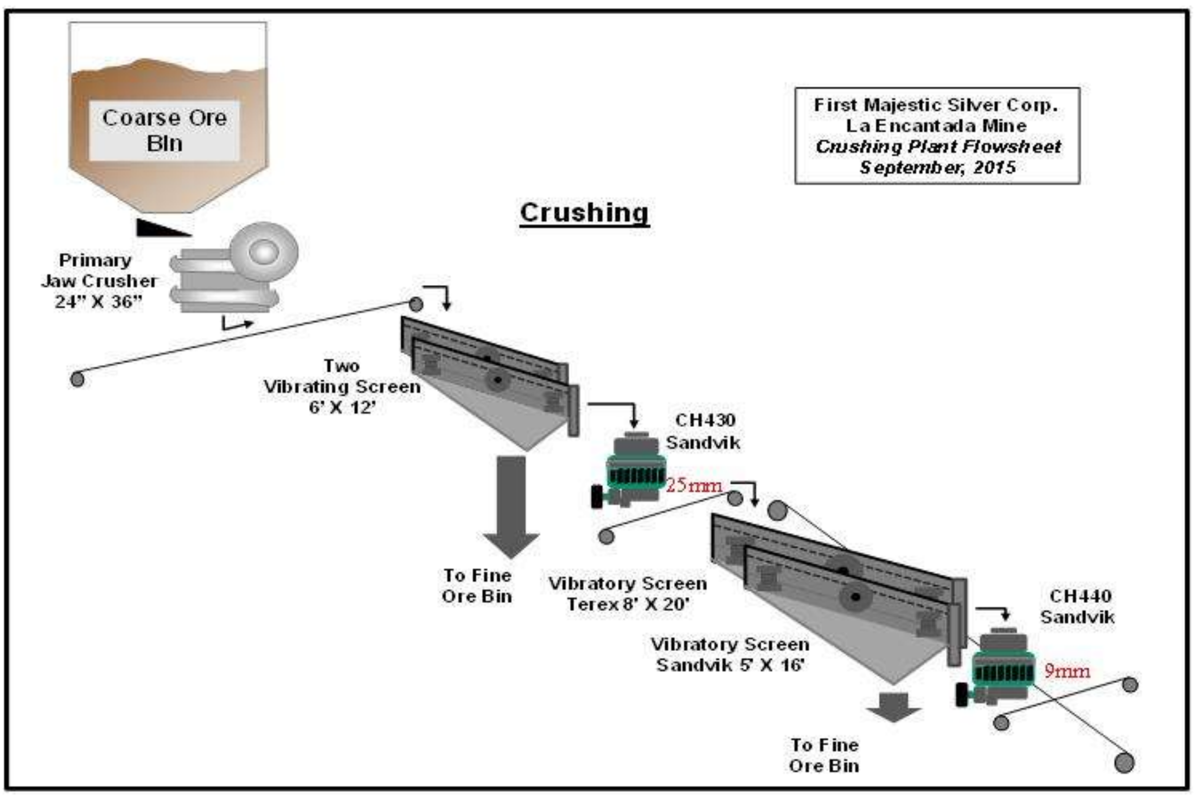

Figure 17-1: La Encantada Schematic Crushing Plant Flowsheet

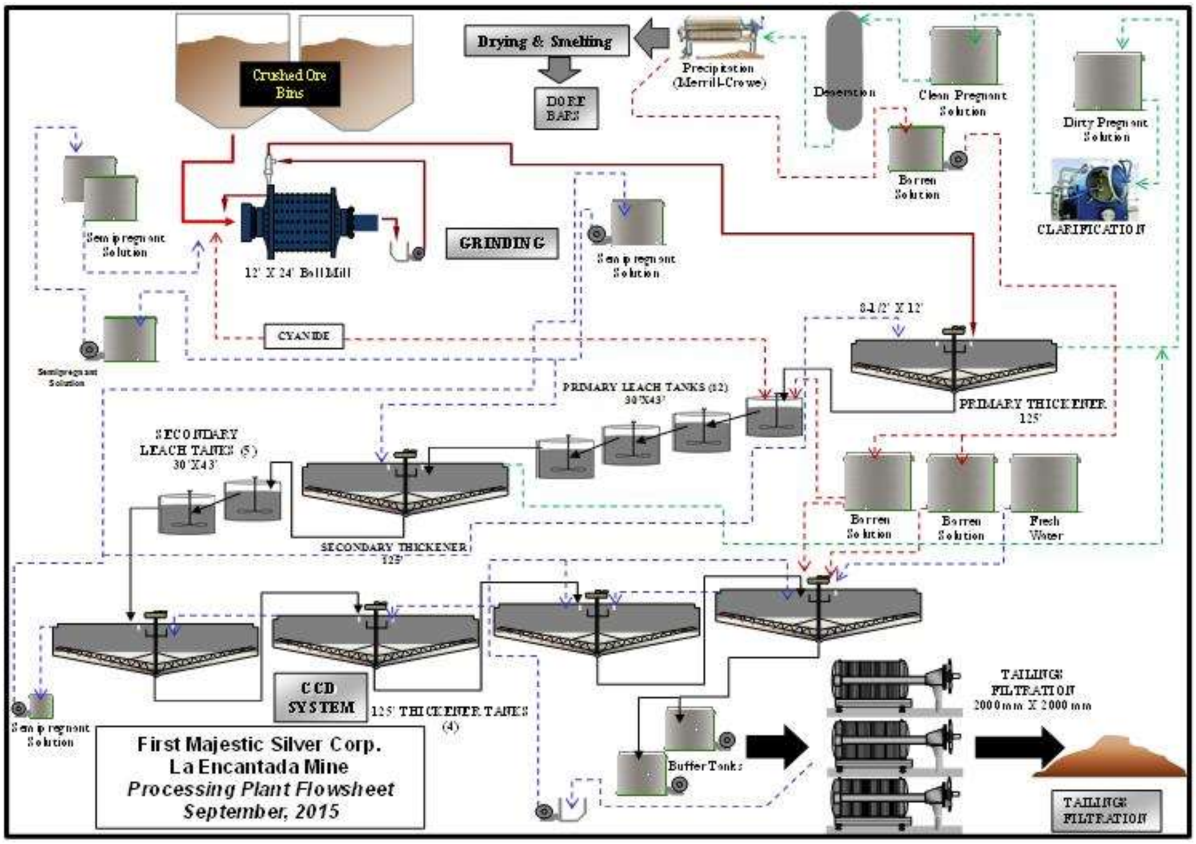

Figure 17-2: La Encantada Cyanidation Plant Flowsheet

17.2 Cyanidation Plant Configuration

The processing plant is divided into two parts: Plant No. 1 and Plant No. 2. Plant No. 1 is comprised of crushing and grinding circuits, while Plant No. 2 is comprised of leach tanks, counter-current tanks (CCD), Merrill-Crowe section, smelting furnace, and tailings filtration. Figure 17-3 and Figure 17-4 show the La Encantada comminution plant and leach plant.

Figure 17-3: General View of Plant No. 1 (crushing and grinding)

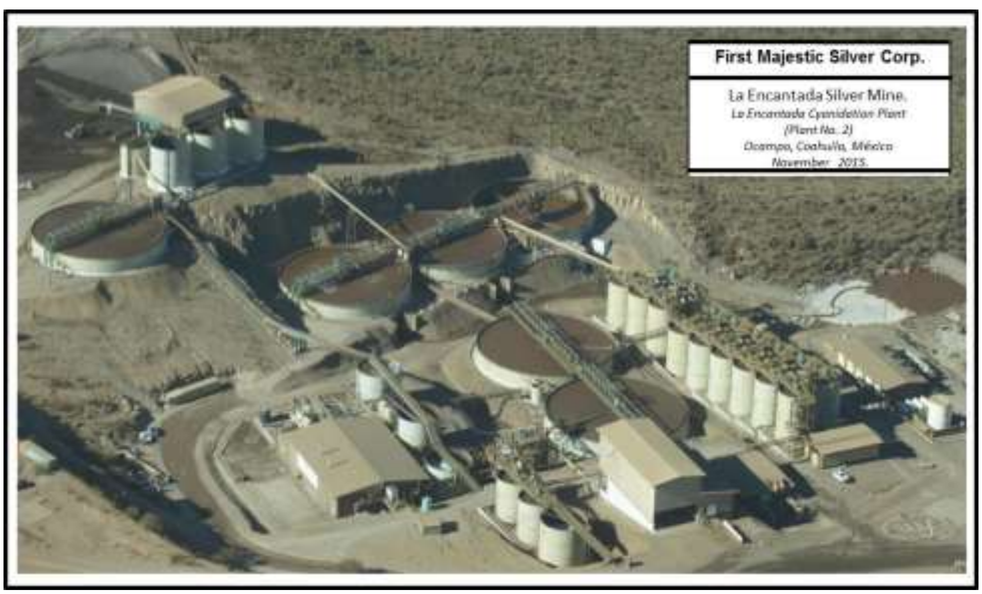

Figure 17-4: Panoramic view of the La Encantada Leach Plant No. 2

17.2.1 Plant Feed

ROM material delivered from the mine is dumped into a steel-made coarse ore bin of 300 tonne capacity. The coarse ore bin is equipped with a steel rail grizzly in its upper part. The grizzly has openings of 12” x 12”; oversize material is reduced in size using a hydraulic hammer.

17.2.2 Crushing

The coarse ore bin has a lower discharge chute that discharges into a vibrating feeder grizzly of 4” opening. The -12” + 4” material is fed into a 24” x 36” primary jaw crusher, and reduced to a minus 3” to 3-½”. This product is transported by a 30” wide belt conveyor to the two primary vibrating screens.

These screens have only one sieve with an aperture of 3/8” x 3/8”. The lower discharge of the screens contains material from 80 to 90% minus 1/4” (6,350 µm).

The upper discharge of the vibrating screens flows into the CH430 Sandvik secondary crusher, which reduces the size to minus 1”. Product from this secondary crusher discharges in a 30” conveyor.

The lower discharge of the vibrating screen is transported through a conveyor (width 30”) and discharged into the fine ore bin, constructed of steel plates with about 3,000 tonne capacity. The fine ore material is considered 80% to 90% minus 1/4” with average moisture of 3 to 4%.

Crushing plant capacity is 3,000 tpd in 18 operating hours.

17.2.3 Grinding

The grinding section is comprised of two ball mill circuits: a recently installed Metso ball mill and the two ball mills previously used, which are currently maintained as back-up. Current grinding capacity is of 125 tpd. The dimensions and sizes of the equipment are:

- 12’ x 24’ Metso Mill (1800 HP)
- D-26” Krebs cyclones, and
- 10”x8” 250 HP Envirotech pumps
- two back-up ball mills 9-1/2’ x 11’ and 9’ x 12’

The fine ore is discharged through three chutes onto a conveyor (width 36”), which is equipped with a Ramsey cell used to record the mill feed tonnage.

The ball mill is equipped with a cyclone classification system and a pair of pumps (one in operation, the second on stand-by). The mill uses a gradient which consists of three different sizes of ball: 2-1/2”, 2” and 1-1/2”.

The average percentages of solids that are handled at each point of the circuit are as follows: mill discharge 78%, coarse ore cyclone 81%, and fine ore cyclone 35%. The final milled product is approximately 75% at minus 200 mesh, equivalent to a P80 of 90 µm. The product of the grinding circuit is pumped to the Plant No. 2 (8”X6” 200 HP Envirotech pump) and fed into the primary thickener.

17.2.4 Sampling

Sample cutting is conducted every 15 minutes from material in the conveyor which feeds the mill. A sample is composited for every 12-hour shift, and the samples are prepared and assayed in the La Encantada laboratory. Utilizing information from the samples, a daily balance is calculated, which shows the silver grade and the metal content of the material fed to the plant and tailings, as well as the pregnant and barren solutions.

17.2.5 Cyanide Leaching Circuit

The following reagent dosages are added to the process:

- Cyanide is prepared at 1,400 ppm and is fed in at three points of addition: into the mill, and into the 6th and 13th tanks. Cyanide consumption is 1.0 kg/tonne.
- There are two preparation tanks for lime, one in Plant No. 1 and another in Plant No. 2. A total of 3,000 kg/day of lime is added into the mill (Plant No. 1). The same amount is added in the primary and intermediate thickeners in Plant No. 2. Lime is prepared as a suspension (whitewash).

Cyclone overflow is pumped to the Plant 2 and fed into the 125’ Primary Thickener. Primary thickener underflow is pumped to a series of twelve 30’ X 43’ agitated leach tanks, to complete 50 hours leaching time, which is considered the first leaching stage.

Overflow from the 12th leach tank goes to the intermediate thickener, which recovers the pregnant liquor in the overflow while the underflow is pumped to the second leaching stage. This involves five 30' X 43' agitated leach tanks, which complete 22 more hours of residence time. Most of the volume of the overflow solution from the intermediate thickener goes to the primary thickener, producing the pregnant solution which is fed to the Merrill Crowe system.

Slurry from the last agitated tank feeds the CCD thickeners. There are a series of four 125' thickener tanks. Underflow from tank #4 feeds a storage tank which doses the slurry to the three final tailings filters. Tailings filters have a 2000 mm square section and 139 plates each. Final tailings are discharged at 16% moisture, and deposited on a tailings deposit.

CCD final overflow solution is pumped to the grinding circuit located in Plant 1. Slurry density of thickener underflow ranges from 48% to 55%. Leaching circuit capacity is 125 tph (3,000 tpd) for 72 hours of residence time. Thickening capacity is 177 tpd.

Samples from plant ore feed are taken with a branded automatic sampler, while the final tailings slurry sample is taken with a home-made automatic sampler. Pregnant and barren solutions are taken using automatic home-made samplers. Samples are taken by dripping, and all the samples are sent to the La Encantada laboratory to be analyzed. Solids are analysed for: Ag, Pb, Zn, Fe, Cu and Mn, while solutions are analysed for Ag, Pb and Cu. The production balance is calculated solely with the silver tests.

17.2.6 Merrill-Crowe and Precipitate Handling

Pregnant Solution is sent to a 1,200 m^3 storage tank called “Dirty Pregnant Solution”, which is filtered and clarified through three autojet pressure clarifiers. Product from the autojet filters is then stored into a 1,200 m^3 tank called “Clean Pregnant Solution”. This solution is then pumped through a tower with two deaerator cylinders in order to remove dissolved oxygen, which goes from 7 ppm to less than 1 ppm O_2.

After deaeration, pregnant solution is pumped to three 1,500 mm press filters. Before being pumped, zinc dust is added to the solution in order to carry out a precipitation reaction. Zinc consumption is 1.5 kg per kg of doré.

Daily production of pregnant solution is approximately 18,000 m^3 with a grade of 12 ppm Ag. Merrill Crowe capacity is approximately 550 kg doré per day.

Precipitates are dried and then smelted in two induction furnaces, producing 23 kg doré bars with a purity of 80 to 90%. Doré bars are weighted and packaged before sending to the client.

17.2.7 Tailings Management

Filtered tailings are ultimately deposited in a deposit dam. The tailings facilities are continually reviewed and expansions are engineered and constructed by First Majestic's independent consultants to ensure geotechnical stability.

Recycled water accounts for 90% of the plant requirements, and only 10% is made up of fresh water. All fresh water that feeds the plant comes from a series of wells located in the First Majestic property. Fresh water usage in the plant is estimated at 529 m^3/day (6 liter/second).

17.3 Flotation Process

Ojuelas ore is planned to be processed by flotation. The ore has been tested at the First Majestic Central Lab, and all the samples received have been tested by cyanide leaching and flotation, in order to determine the most suitable process. The majority of the test results show that flotation is more suitable for the Ojuelas ore.

17.3.1 Process Flowsheet

The flotation processing approach has been considered as follows:

- Crushing plant: the existing plant has enough capacity to treat a planned 2,000 tpd feed from Ojuelas.
- The processing plant flowsheet consists of three-stage crushing, ball mill grinding, sulphides and oxides flotation, and final tailings filtration (Figure 17-5).

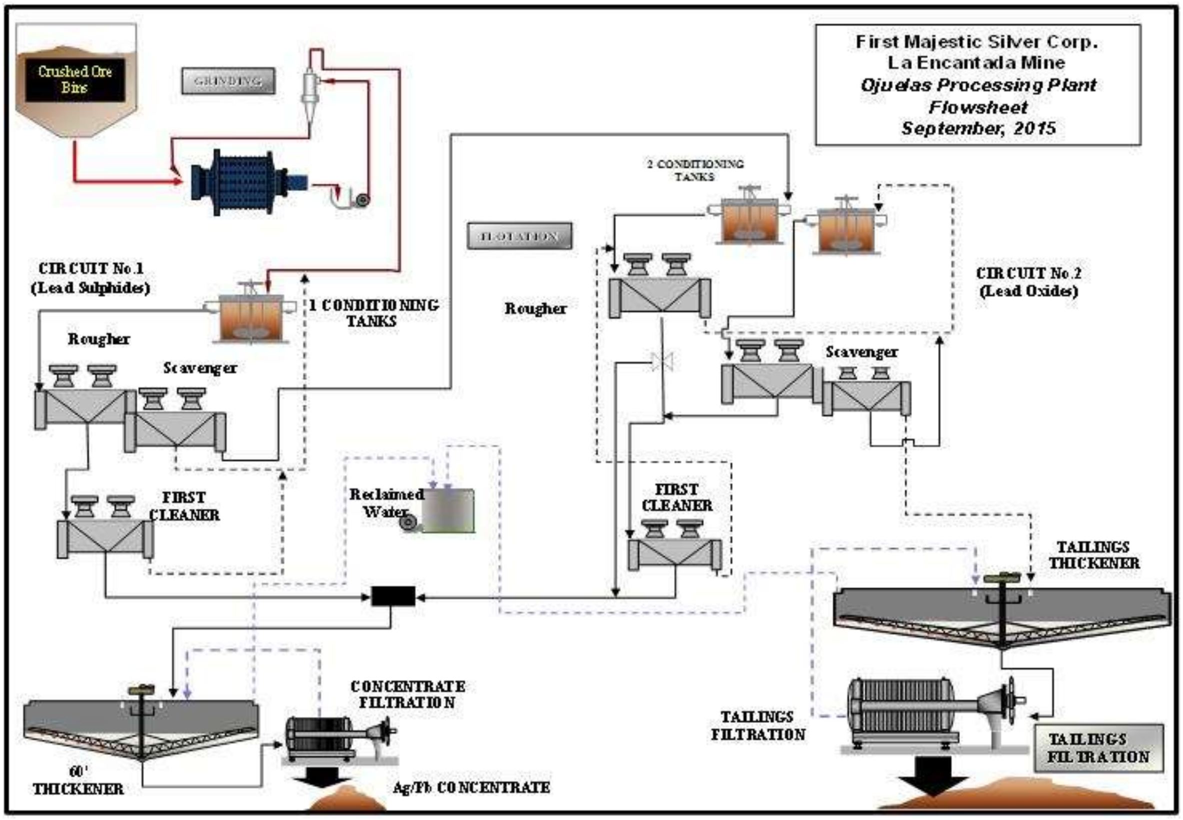

Figure 17-5: Flotation Plant Flowsheet

17.3.2 Flotation Plant Configuration

The flotation plant is considered to be comprised of crushing, grinding and flotation circuits. Figure 17-6 shows the flotation plant general arrangement.

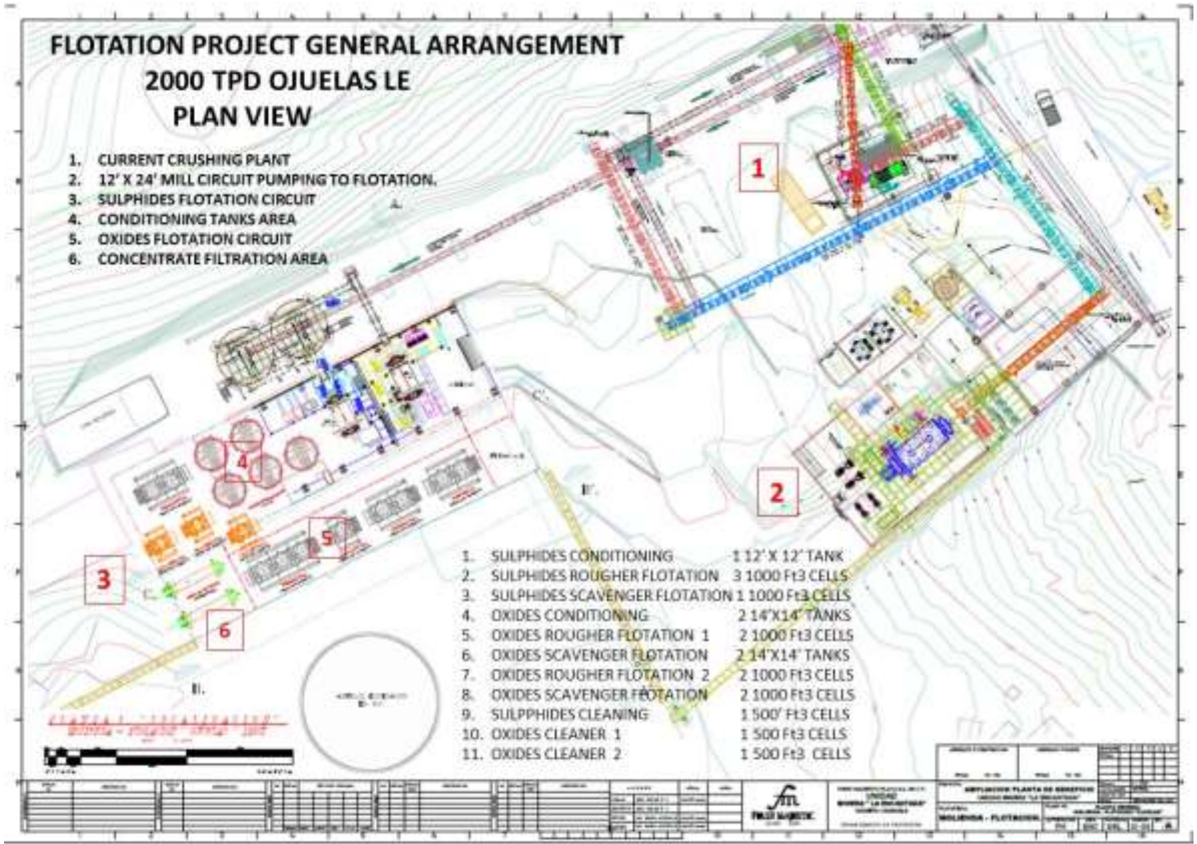

Figure 17-6: Flotation Plant Arrangement

17.3.2.1 Plant Feed

ROM material will be delivered from the mine and dumped into a steel-made coarse ore bin of 300 tonne capacity. The coarse ore bin is equipped with a steel rail grizzly in its upper part. The grizzly has openings of 12" x 12"; oversize material is reduced in size using a hydraulic hammer.

17.3.2.2 Crushing

The crushing circuit is the same than the one which is being used for the current leaching process.

17.3.2.3 Grinding

When the Ojuelas processing starts, the 12’ X 24’ Metso mill will be used for this purpose; while the two back-up mills (9-1/2’X11’ & 9’X12’) will be used for the leaching plant.

The following reagents will be added in the grinding circuit, prior to flotation: Promoter 404, 10g/t and Aerofloat 31, 10 g/t.

17.3.2.4 Flotation

The flotation section will have 2 circuits: sulphides and oxides.

Sulphides conditioning: a collector (potassium amylic xanthate) will be added to the grinding product in the conditioning tank. A frothing reagent will also be added to the conditioning discharge.

The discharge from the conditioning tank will flow by gravity toward to three rougher flotation cells; each cell will have a capacity of 1,000 ft^3. Concentrate from these three cells will flow to a cleaner flotation stage. Overflow will be considered the sulphides final concentrate and will be sent directly to the concentrate thickener.

Tailings from the three rougher cells will be pumped into the next flotation step: scavenger. The scavenger stage will be comprised of one 500 ft^3 cell. Concentrate from this cell will be pumped to the sulphides conditioning circuit as circulating load.

Tailings from the scavenger stage will be considered head of the oxides flotation circuit. The oxides flotation circuit will be comprised of five 1,000 ft^3 cells as rougher (2) and scavenger (3) stages. Reagents in the oxides circuit include: sodium sulphide (Na_2S), potassium amylic xanthate and sodium bicarbonate.

The concentrate of the two rougher cells will flow to a cleaner flotation stage. Overflow will be considered the oxides final concentrate and will be sent directly to the concentrate thickener to be mixed into the tank with the sulphides concentrate.

Samples will be taken in the flotation circuits using automatic samplers: plant feed, final concentrates and tailings will be sampled with cuts taken every 15 minutes. Samples will be sent to the La Encantada mine laboratory to be analyzed for: Ag, Au, Mn, Pb, Zn, Fe, Cu and As. Production balance will be calculated with the silver assays.

17.3.2.5 Concentrate Handling

Final concentrate, comprised of the sulphides-oxides concentrates composite will be pumped into a 60 feet thickener tank with a thickening area of 2,830 ft^2.

Density of the thickener tank discharge is expected at approximately 48% solids. The thickened material will be sent to two press filters with 45 plates of 1.5m x 1.5m each. Humidity of the filtered concentrate is expected of approximately 10 to 12%.

Water overflow from the thickener will be recovered and pumped into a general water recovery tank. The water recovered in the filter returns to the concentrate thickener to be recovered by its overflow.

The filtered concentrate will be stored in a pad located at the bottom of the filter. The concentrate will be shipped in 30 to 25 tonne trucks to the client’s storage facility. Each truck will be weighted and sampled accordingly.

17.3.2.6 Tailings Management

Final tailings will be filtered in three 2m by 2m press filters. Filtered tailings will be ultimately deposited in a tailings management facility.

17.4 Chloridizing Roasting

Chloridizing roasting is a process that has been used for the treatment of refractory ores. It operates by changing the silver bearing minerals enclosed in manganese carbonates compounds into a porous calcine with silver chlorides, which allows the silver to be leached by cyanide.

In the last three years, First Majestic has been developing a process to recover silver contained in the La Encantada paste tailings. The process is summarized as follows: the ore is preheated and then roasted to 850°C in a reduction environment, which is facilitated by mixing the tailings with salt (NaCl) and sodium sulphite (Na_2SO_3). Roasting is completed after approximately 20 minutes. The heat decarbonates the manganese carbonate into manganese dioxide, and further reduces the higher oxides of manganese to the lower oxides such as manganese oxide (MnO).

After reduction takes place, the mixture of tailings and salt, in contact with hot air produces favourable conditions for chloridization. The roasted ore is then processed by cyanidation following current practices at La Encantada.

Given the presence of mineral coal in the region close to La Encantada, First Majestic believes that pulverized coal injection (PCI) would be an adequate source of fuel for the roasting process.

17.4.1 Roasting Plant Components

The roasting plant is designed to be built with the following main components: a coal pulveriser and injection system, a rotary pre-heater, a pulverized coal burner, air fans, a rotary kiln, cooler plates, and a dust and emissions control system.

Figure 17-7 shows an image of the prototype pilot plant built for testing. Results of these tests were used to: confirm metallurgical recovery of silver, optimize roasting operational parameters, to assist developing a full scale layout, and to provide data for estimating operating and capital costs.

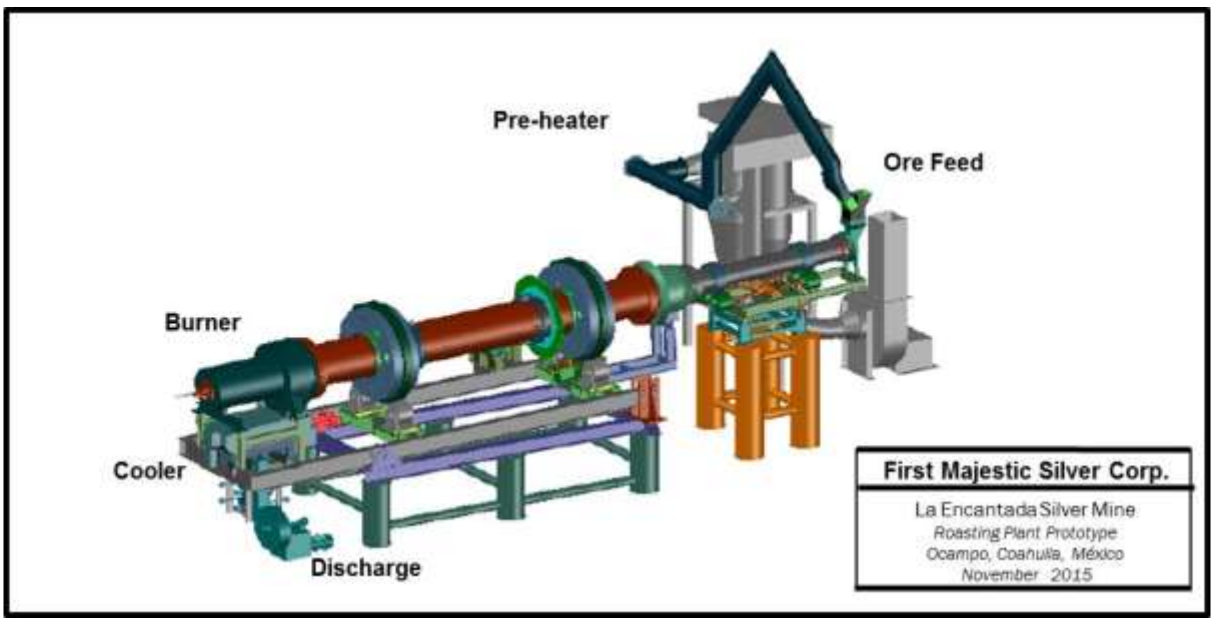

Figure 17-7: Roasting Plant Prototype

18 Project Infrastructure

18.1 General Infrastructure

The operation's support facilities, located near the Plant No. 1, include administrative offices, a medical clinic, warehouse, assay laboratory, core shed, power generation plant, fuel storage facilities, mine compressor building, surface maintenance shop, mine dry, water storage tanks, contractor offices and security guard shack. Figure 18-1 shows an aerial view of the La Encantada facilities.

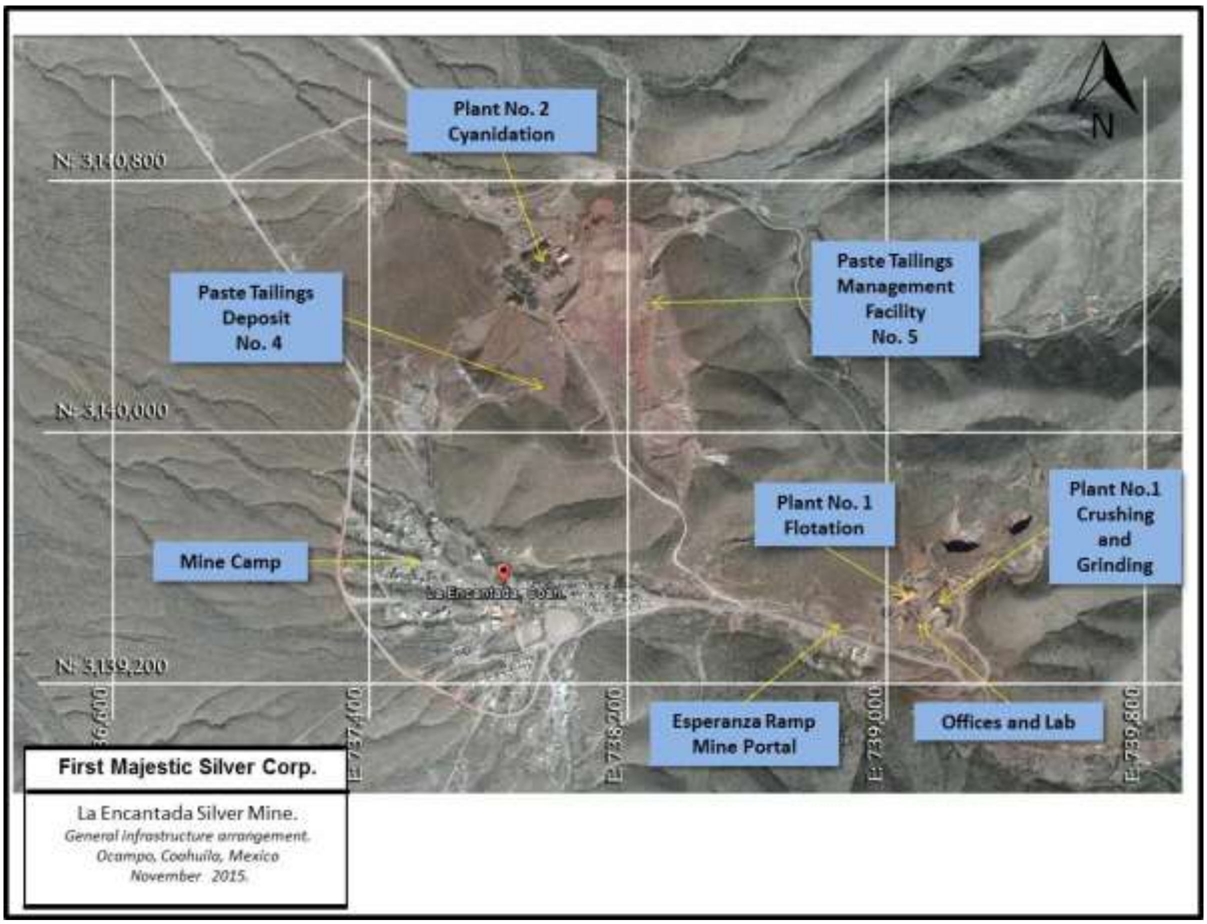

Figure 18-1: General Infrastructure Arrangement

The Maintenance Department operates from the surface shops, and also from an underground shop (840 level), located near the center of the mine. Road maintenance is done with a fleet of company tractors, road grader and wheel loaders. Dump trucks for ore haulage and road maintenance vehicles are contracted locally. The Company has a passenger bus for transporting operations personnel to and from the city of Melchor Muzquiz, place of residence of most workers.

Communications to and from La Encantada is via satellite, both for wireless internet information systems, and for the voice system. La Encantada has a site radio system for instant communications between all Supervisors and Managers, and all surface vehicle operators also have radio communication capabilities.

18.2 Mine Camp

The Company facilities include a town previously constructed by Peñoles, which holds 180 housing units for workers and staff. There is also a kitchen/dining room for salaried staff and accommodations for some contractor managers and visitors, union offices, a primary school, a church, a general store and recreational facilities.

18.3 Air Strip and Roads

There is an FMS owned airstrip located in the broad valley to the northwest of the mine site. This strip is suitable for light planes, and is used for flying-in supplies or for transporting mine personnel, visitors, doré and others to and from La Encantada and other nearby locations. The airstrip is 1,200 metres long, 17 metres wide, and has a gravel surface.

The site is connected with the national highway system, and although in a remote location, La Encantada is reasonably accessible. Access to the mine from the city of Melchor Muzquiz, Coahuila, which lies to the northeast of La Encantada, is via a 45 km gravel road, and then another 170 kilometres on a paved highway.

18.4 Power and water

The electric power for the operation and supporting infrastructure is generated on-site. The power generation plant consists of five CAT 3516 diesel-powered motor generators with a capacity of 1.64 MW each. In addition, there are two CAT 175 diesel-powered motor generators with a capacity of 2.52 MW. Power consumption is presently about 3,700 megawatts per month.

First Majestic recently installed a new generation set consisting of four MTU natural gas generators, each with a capacity of 1,550 kW. This measure will allow for reduced gas emissions and a reduction in energy costs of approximately 20%. At the time of writing this report, testing was underway and continuous operation is expected to commence early in Q2-2016.

Potable water for the offices and employee housing is obtained from a well in the mine, which penetrates below the water table. Industrial water for the mine and plant is obtained from a series of wells located about 25 kilometres from the site. This water is pumped to site and stored in a number of storage tanks located throughout the plant and mine site.

19 Market Studies and Contracts

Silver is a precious metal that is desirable as jewellery and for investment purposes, and it is also an important industrial commodity. Silver has a unique combination of characteristics including durability, malleability, ductility, conductivity, reflectivity, and anti-bacterial properties, which makes it valuable in numerous industrial applications including circuit boards, electrical wiring, superconductors, brazing and soldering, mirror and window coatings, electroplating, chemical catalysts, pharmaceuticals, filtration systems, solar panels, batteries, televisions, household appliances, and automobiles.

Silver as a global commodity is predominantly traded on the London Bullion Market ("LBM") and Comex in New York. The LBM is the global hub of over-the-counter trading in silver, and is the metal's main physical market. Here, a bidding process results in a daily reference price fixed by three global banks known as the fix. Comex, in contrast, is a futures and options exchange. It is here that most fund activity is focused. Silver is quoted in US dollars per troy ounce.

Silver produced at La Encantada is sold by the Company using a small number of international metal brokers who buy from the Company and act as intermediaries between the Company and the London Bullion Market. The physical silver doré bars, usually containing greater than 90% of silver with some gold and other impurities, are delivered to one of three refineries where doré bars are refined to commercially marketable 99.9% pure silver bars. Refining of doré bars is a fraction of the cost of smelting concentrates for silver, as measured on a per silver ounce basis.

The Company delivers its production via a combination of private aircrafts and armoured cars to a number of refineries, and once they have refined the silver to commercial grade, the refineries then transfer the silver to the physical market for the consumption of the silver. The Company transfers risk of ownership at the time it delivers its doré to the refineries, and in turn receives immediate assignment of provisional contained metals to its brokerage accounts.

There is a final settlement process to settle any variances based on the outturn of the refined metal. Doré is turned out usually within 25 to 30 calendar days, and any final variances in assays are settled at that time through the refiner, assigning any liquidation differences to the metal brokers. The Company normally receives 95% of the value of its sales of doré on delivery to the refinery, with final settlements upon outturn of the refined metals, less processing costs.

First Majestic's senior management in Vancouver, Europe and México negotiate sales contracts. Contracts with refining companies as well as metals brokers and traders are tendered and re-negotiated as required. First Majestic continually reviews its cost structures and relationships with refining companies and metal traders in order to maintain the most competitive pricing possible, while not remaining completely dependent on any single smelter, refiner or trader.

First Majestic holds commercial contracts with smelters, including sales contracts for silver-lead concentrates similar to the concentrate envisioned for Ojuelas. Commercial terms for this case were extrapolated making adjustments for freight and insurance, according to the La Encantada location relative to the delivery point.

20 Environmental Studies, Permitting and Social or Community Impact

20.1 Environmental Compliance in Mexico

Mining in Mexico is primarily regulated by Federal laws, though some areas require state or local approval. The principal agency promulgating environmental standards and regulating environmental matters in Mexico is the Secretary of Environment and Natural Resources (SEMARNAT). There are Federal delegations or state agencies of SEMARNAT.

An Environmental Impact Manifest (MIA) must be prepared for submittal to SEMARNAT before applying for a license for a mining operation. The MIA must include an analysis of local climate, air quality, water, soil, vegetation, wildlife and cultural resources in the project area, as well as a socioeconomic impact assessment. The Unique Environmental License (LAU) is based on an approved MIA and is required before the start of an industrial operation.

A permit must also be obtained from SEMERNAT for Risk Analysis (RA). A study must be conducted to identify and assess the potential environmental releases and risks, and to develop a plan to prevent and mitigate risks, and to respond to potential environmental emergencies. A strong emphasis is placed on the storage and handling of hazardous materials such as chemical reagents, fuel and tailings.

The Federal Prosecutor for the Protection of the Environment (PROFEPA) is the responsible body for enforcement, public participation and environmental education. After receiving an operation license, an agreement is setup between the operating company and the PROFEPA in order to follow-up on obligations, commitments and monitoring preventive activities.

A division of SEMARNAT, the National Water Commission (CONAGUA) is the authority over all water related matters including activities which may impact surface water supply or quality, such as water use permits and fees, diversion of surface waters, constructions in significant drainages, or water discharge.

In Mexico, all land has a designated use. The majority of the land covering the La Encantada Silver Mine's mining claims is designated as agricultural or forest land. A Change of Land Use (CUS) permit is required for all areas of production, and for potential areas of expanded production. The CUS study is based on federal forestry laws and regulations, and requires an in depth analysis of the current use of the land, and native flora and fauna, as well as an evaluation of the current and proposed uses of the land and their impact on the environment. The study requires that agreements exist with all affected surface rights holders, and that an acceptable reclamation and restoration plan is in place.

The National Commission for the Protected Natural Areas (CONANP) is the agency responsible for planning, research, development and conservation of the national protected areas. If an industrial activity is planned close to one of the protected areas, an assessment and permit from the CONANP is required.

An Accident Prevention Program (PPA) is a study based on the risk analysis, and is a compendium of general and specific protocols tailored to the operations, aimed at prevention and response to hazardous conditions.

Mexican regulations require the National Institute of Anthropology and History (INAH) to review the project plans prior to construction, and to inspect the project area for historic and archeological resources.

20.2 Pre-existent Environmental Conditions

La Encantada is a mine with a complex historical background. Mining activity started in the 1950's, and since that time several enterprises have operated in the area. As such, the vicinity had already been affected by mining industrial activity before FMS began operations in the area in late 2006.

The areas primarily impacted are: underground workings, vacant surface mine infrastructure in the form of old mining camp, tailings management facilities, waste management facilities, and low grade mineralized material stockpiles.

20.3 Relevant Environmental Impact Aspects

20.3.1 La Encantada Wastewater Discharge

Currently, La Encantada mine does not discharge residual water to the environment. Therefore, there are no wastewater discharge concession titles. Sanitary water is conducted through pipelines to the treatment plant built in 2010 by FMS. From the treatment plant, water is pumped to the cyanidation process in Plant No. 2. The wastewater treatment and water control is necessary to comply with the maximum limits established by the Mexican environmental agencies, particularly the official norm: NOM-001-Semarnat-1996. As water is limited in the region, wastewater control at La Encantada is a positive factor and helps to reduce the fresh water requirements for the mill process.

20.3.2 Processed Water Management

The operation of tailings press filters allows for the recycling of up to 85% of the water utilized in the mill process. There is no underground water discharge, and an underground water well is used to supply water to the mine camp and offices for domestic services.

20.3.3 Tailings Deposits No. 1, 2 and 3

The reclaiming of tailings from these deposits for re-processing occurred from 2008 to 2013. This practice is currently on hold due to lower metal prices.

20.3.4 Tailings Deposit No. 4

The Tailings Deposit No. 4 was constructed in 2008 in anticipation of the processing capacity expansion First Majestic started in 2008, and although it continues operation, it's nearing the end of its useful life. This facility has been constructed by placing and spreading paste tailings product from the cyanidation circuit in a beached configuration. The potential failure of the dam is considered a low risk due to the low humidity contained in the paste, and the compaction gained by the spreading practice. A potential failure could occur only if a torrential rain enters directly into the deposit, and is not deflected by the system of pluvial channels. This is also considered low risk because La Encantada is located in a semi-desert environment. Nevertheless, a failure could originate serious impacts to seasonal creeks; therefore, FMS has started a campaign of reinforcement of the curtain and terrace conformation in order to increase stability according to the geotechnical design. Reclamation plans include covering the top and slopes with soil to promote reforestation in medium term, and final reforestation prior to the site closure. The reprocessing of these tailings is still a possibility, pending better market conditions, and the environmental permit allows an eventual reclaiming of the tailings for reprocessing.

20.3.5 Tailing Management Facility No. 5

Authorization for the construction of a new tailings management facility was obtained in April, 2015. It has been designed as a paste tailings deposit which will be built on top of the historical tailings management facilities No. 1 and 2 which previously operated during Peñoles' time. The new paste tailings management facility was initiated in September, 2015, lift #1 of this facility was completed in November, 2015. It is estimated that this facility will have a life of six years, with a paste tailings storage capacity of 8.5 million tonnes.

20.3.6 Processing Plant No. 1

Processing Plant No. 1 was built and operated as a flotation circuit plant. The flotation circuit is not currently in use, and only the crushing and grinding sections and pumping systems are operating.

20.4 Environmental Management Program

An Environmental Management System for La Encantada is in the development and implementation stage. This system is based on the international norm ISO 14001:2004 and incorporates the requirements to obtain the Clean Industry Certification, issued by SEMANART through PROFEPA.

20.4.1 Summary of Relevant Environmental Obligations

The following is a description of the principal obligations relating to environmental matters for La Encantada Silver Mine.

- Yearly operation licence (COA). This is a report submitted annually, which contains environmental information on the impact of the operation of the mine in regards to water, air, waste discharge, materials, and production.
- Hazardous waste declaration. This is an official document that controls the handling, storage and final disposal of hazardous waste from the mining operation.
- Water usage right. A quarterly payment for water usage is required.
- Monitoring plan for water, air, waste discharge and noise. This plan is prepared in accordance with the different authorizations and conditions of the Official Mexican Norms.
- Power generation. A quarterly report on electricity generation is required as well as an annual payment for supervision of the CRE (Energy Regulatory Commission).

20.5 Permitting

20.5.1 Current Permits

La Encantada is an operating mine, and as such it currently holds all major environmental permits and licenses required by the Mexican authorities to carry out mineral extracting activities. Table 20-1 contains a list of the major permits issued to La Encantada.

Table 20-1: Major Permits issued to La Encantada

Permit	Number	Authority	Status	Date Granted	Validity Period
Environmental License	SGPA/ 1091/COAH/2007	SEMARNAT	Current	Sep. 2007	Indefinite
Groundwater use permit	BOO.E.21.1.-2470/2008	CONAGUA	Current	Oct. 2008	Indefinite
Permit for the self-supply of electricity (power generation)	E/134/AUT/99	CRE	Current	August 2013	Indefinite
Authorization for Purchase, Use and Storage of Explosives for Mining Activities	3678-Coahuila	SEDENA	Current	Yearly renewals Jan. 2015	Yearly renewals Dec. 2015
Environmental Impact Authorization for the rehabilitation of historical tailings management facilities # 1, 2 and 3, as well as to build the paste tailings management facility # 5	S.G.P.A./496/COAH/2015	SEMARNAT	Current	March 2015	6.5 years for construction and operation
Environmental Impact Authorization for building a processing plant with metallurgical	S.G.P.A.-DGIRA-DG.1292.08	SEMARNAT	Expired	April 2008	7 years operation

Permit	Number	Authority	Status	Date Granted	Validity Period
activities, including tailings management for the La Encantada Silver Mine site.					
Authorization for industrial land use in La Encantada for building a dynamic leaching plant and tailings management facility for the La Encantada Silver Mine site	SGPA-UARN/581/COAH/2008	SEMARNAT	Expired	June 2008	1 years

20.5.2 Permits in Process

The following is a list of the permits in process for La Encantada Silver Mine:

- Request to CONAGUA for the renovation of La Encantada Water Wells Certification.
- Request to CONAGUA to drill two exploratory wells with the objective of replacing two wells of brackish water.

20.6 Status of the relations with local communities

To the extent known, there are no social issues that could materially impact the Company's ability to conduct exploration and mining activities in the district; on this respect, the Company relies on its relationship with the local communities, labour unions, and the government regulators, which are presently businesslike and amicable.

The surface land litigation presented in Section 4.3 of this report does not compromise the ability to operate, but could result in negotiations which may imply a payment for the land if the litigation resolution is not in favor of the Company's interests.

20.7 Mine Closure Plan

The plan for restoration and closure of the La Encantada mining site is based on the policies and terms documented in the commitments established in the Asset Retirement Obligations (ARO). The restoration plan includes an estimate of the investment that will be required for the support and execution of those works and activities that will return the land to a predetermined state once the activities associated with the mining operation have ceased.

As at December 31 2015, an amount of $3.625 million has been recorded as a decommissioning liability for La Encantada and is based on the following considerations:

- Underground mines and associated installations
- Processing plant and above ground associated installations
- Tailings management facilities
- Ancillary service buildings (offices, general service infrastructure, shops)
- Waste rock management facilities

21 Capital and Operating Costs

21.1 Capital Costs

La Encantada Silver mine has been under FMS operation since late 2006. The sustaining capital expenditures are budgeted on an as-required basis, established on actual conditions of the mine and the processing plant infrastructure.

Sustaining capital expenditures will be mostly allocated for on-going development, infill drilling, mine equipment rebuilding, major overhauls or replacements, plant maintenance and on-going refurbishing, and for tailings management facilities expansion as needed.

Currently, the mine is developing the access to new mining blocks in the San Javier and Milagros breccias, and continuing the implementation of a variation of an inclined caving mining method.

Estimated sustaining capital expenditures for the life of mine plan are assumed to average $5.7 million per annum, including infill exploration drilling.

The amount of exploration conducted to find new targets with the objective of expanding the existing mineral reserves will be dependent on the success of exploration and diamond drilling programs. Table 21-1 shows a summary of the sustaining and expansionary capital expenditures estimated for La Encantada.

Table 21-1: Estimated Capital Expenditures

La Encantada Silver Mine		**Year**									
Capital Expenditure		**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
Sustaining	**k$/year**	**4,592**	**4,325**	**6,115**	**4,137**	**2,000**	**2,000**	**2,000**	**2,000**	**-**	**27,168**
Exploration	k$/year	647	500	500	500	-	-	-	-	-	**2,147**
Development	k$/year	1,941	1,625	2,615	637	-	-	-	-	-	**6,817**
PPE - Mine	k$/year	750	750	750	500	-	-	-	-	-	**2,750**
PPE - Plant	k$/year	1,254	1,450	2,250	2,500	2,000	2,000	2,000	2,000	-	**15,454**
Expansionary	**k$/year**	**7,750**	**16,460**	**3,315**	**825**	**-**	**-**	**-**	**-**	**-**	**28,349**
Exploration	k$/year	933	1,000	1,000	500	-	-	-	-	-	**3,433**
Development	k$/year	256	2,997	2,315	325	-	-	-	-	-	**5,892**
PPE - Mine	k$/year	-	3,140	-	-	-	-	-	-	-	**3,140**
PPE - Flotation Plant	k$/year	61	7,000	-	-	-	-	-	-	-	**7,061**
PPE - Roasting	k$/year	6,500	2,323	-	-	-	-	-	-	-	**8,823**

21.1.1 Roasting

Expansionary capital expenditures for the roasting plant include an estimate of $8.82M for the design, manufacturing and installation of process equipment, tailings feed and fuel handling facilities. These estimates are based on quotations, prepared by a competent third party, for the design, manufacturing and erection of the roasting furnace and its satellite components. This expenditure is dependent of an investment decision to be made by the Company, after additional detailed engineering and design is completed to increase the level of confidence of these estimates.

21.1.2 Ojuelas

Expansionary capital expenditures include an estimate of $12.85M for access and development of the Ojuelas deposit, additional mining equipment, and an allocation for refurbishing the flotation processing circuit. These estimates are based on internal estimates prepared by First Majestic construction staff, under the supervision of the QP. This expenditure is dependent of an investment decision to be made by the Company, after additional detailed engineering studies and designs are completed to increase the level of confidence of these estimates.

21.2 Operating Costs

A summary of current operating costs in La Encantada are shown in Table 21-2. The assumptions of operating costs over the life-of-mine are justified on the basis of the current and planned operating costs at the mine, and on a plant feed capacity of 660,000 tonnes per annum for the cyanidation circuit and an average capacity of 400,000 tonnes per annum for the flotation circuit.

In La Encantada there are a number of initiatives for cost reduction including migration of fuel for power generation from diesel to natural gas, optimization of the development layouts, and renegotiation of development and haulage contracts with suppliers.

Table 21-2: Operating Costs Summary

Concept	Annual Cost Estimate (M$)	Unit Cost Estimate ($/t processed)
Drill & Blast	1.47	1.40
Mucking and Hauling	1.78	1.70
Mining Services	0.40	0.38
Mine Maintenance	1.98	1.89
General & Admin. Mine	0.85	0.81
Subtotal Mine	**6.48**	**6.17**
Crushing	0.53	0.50
Grinding	2.74	2.61
Cyanidation Processing	4.87	4.64
Precipitation and Smelting	5.86	5.58
Tailings	0.75	0.71
Plant Maintenance	2.73	2.60
General & Admin. Plant	0.39	0.37
Subtotal Plant	**17.87**	**17.02**
Administration	2.71	2.58
Geology & Engineering	0.70	0.67
Laboratory	0.74	0.70
Mine Camp	0.54	0.51
HSE	0.83	0.79
Subtotal Indirect	**5.52**	**5.26**
Total Operation Cost	**29.87**	**28.45**

Table 21-3 shows a schedule of the operating costs estimated over the life of mine for La Encantada. The portion of the operating costs at La Encantada that are based in Mexican pesos is approximately 87%, with the balance of 13% of the operating costs based on US dollars. The exchange rate used in this report was MXN $16.50 / USD $1.00.

Table 21-3: Operating Costs Schedule

La Encantada Silver Mine		Year								
		2016	2017	2018	2019	2020	2021	2022	2023	2024
Fixed Cost	**k$/year**	**8,779**	**8,772**	**9,522**	**9,522**	**7,150**	**6,000**	**6,000**	**6,000**	**3,700**
Variable Cost Mining (Cyan)	**$/t cyan**	**3.95**	**7.54**	**2.44**	**1.81**	**1.50**	**1.50**	**1.50**	**1.50**	**1.50**
Variable Cost Mining (Flot)	**$/t flot**	**-**	**6.89**	**6.89**	**3.70**	**-**	**-**	**-**	**-**	**-**
Variable Cost Processing	**$/t total**	**10.87**	**10.75**	**9.59**	**9.71**	**10.84**	**10.84**	**10.84**	**10.84**	**10.84**
Indirect Cost	**$/t total**	**3.36**	**3.36**	**3.36**	**3.36**	**3.36**	**2.50**	**2.00**	**2.00**	**2.00**
Total Cost	**$/t total**	**31.48**	**34.92**	**23.37**	**22.85**	**25.03**	**22.43**	**21.93**	**21.93**	**24.79**
Mining										
Fixed Cost - Mining	k$/year	1,906	1,900	1,900	1,900	950	200	200	200	200
Veins and other minor deposits	$/t	11.20	11.20	-	-	-	-	-	-	-
Breccias	$/t	4.00	4.00	4.00	4.00	-	-	-	-	-
Ojuelas	$/t	-	6.89	6.89	3.70	-	-	-	-	-
Tailings	$/t	-	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Total Mining	$/t	6.84	10.42	3.95	3.48	2.94	1.80	1.80	1.80	2.15
Processing										
Fixed Cost - Processing	k$/year	5,251	5,250	6,000	6,000	5,000	5,000	5,000	5,000	3,000
Cyanidation	$/t	10.87	10.80	10.00	10.00	9.50	9.50	9.50	9.50	9.50
Flotation	$/t	-	7.70	7.70	7.70	7.70	-	-	-	-
Roasting	$/t	-	10.84	10.84	10.84	10.84	10.84	10.84	10.84	10.84
Total Processing	$/t	18.83	18.70	14.34	14.99	18.41	18.41	18.41	18.41	20.53
Indirect										
Fixed Cost - Indirect	k$/year	1,622	1,622	1,622	1,622	1,200	800	800	800	500
Indirect	$/t	3.36	3.36	3.36	3.36	3.36	2.50	2.00	2.00	2.00
Total Indirect	$/t	5.82	5.82	4.64	4.79	5.18	3.71	3.21	3.21	3.62

22 Economic Analysis

First Majestic prepared an economic analysis of the La Encantada operations using an after-tax economic model. The analysis is based on US dollars and does not incorporate any adjustment for inflation or exchange rate fluctuations. This analysis does not include sunk costs related to previous capital expenditures in relation to current operating conditions and infrastructure at La Encantada.

The main economic assumptions are shown in Table 22-1.

Table 22-1: Main Economic Parameters

La Encantada Silver Mine		Year			
Main economic parameters		**2016**	**2017**	**2018**	**2019 - 2023**
Cyanidation					
Silver metal payable	%	99.6	99.6	99.6	99.6
Flotation					
Silver metal payable	%	95.0	95.0	95.0	95.0
Lead metal payable	%	95.0	95.0	95.0	95.0
Revenue					
Silver price	$/oz Ag	15.50	17.25	17.50	18.50
Lead price	$/lb Pb	0.85	0.90	0.90	0.90
Silver refining cost - Doré	$/oz Ag	0.27	0.27	0.27	0.27
Silver refining cost - Conc.	$/oz Ag	1.50	1.50	1.50	1.50
Lead treatment charge - Conc.	$/t conc.	248	248	248	248
Silver selling cost - Doré	$/oz Ag	0.17	0.17	0.17	0.17
Lead selling costs - Conc.	$/t conc.	56	56	56	56
Exchange Rate	MXN/USD	16.50	16.50	16.50	16.50
Discount rate	%	5.0%			

A silver price of $15.50 per ounce was utilized in the Life of Mine model for the current year 2016 and increased to a long term silver price of $18.50 per ounce in years 2019 to 2024. Lead price considered for 2016 was assumed at $0.85/lb Pb and was assumed to revert to a long term price of $0.90/lb Pb by 2017. La Encantada operating costs that are based in Mexican pesos is approximately 87%, with the balance of 13% of the operating costs based on US dollars. The exchange rate used in this analysis was MXN $16.50 / USD $1.00.

Metal payable, silver refining, lead concentrate treatment charges, and products selling costs are based on similar selling conditions currently in use by First Majestic and its clients.

Depreciation was considered at a flat 5-year period after the investment, a royalty of 0.5% over silver sales, a mining tax of 7.5% for the environmental fund, and an average flat income tax rate of 30% was assumed based on current and projected financial performance. No financing costs were included in the analysis, alternatively, a discount rate of 5% was assumed for the net present value analysis.

This analysis generated a net present value of $28.6M. Payback of the investment is estimated at 2.5 years and the internal rate of return of cash flows is estimated at 51%. Table 22-2 exhibits a summary of the cash flow analysis for La Encantada.

A sensitivity analysis was carried out on silver price, operating costs and capital costs. Results of this analysis shows that the La Encantada operation is more sensitive to fluctuations in the silver price and then followed by operating costs with variations on the capital cost producing a lesser impact. Figure 22-1shows the results of this analysis.

A sensitivity analysis on the net present value was prepared varying the discount rate, result is exhibited in Figure 22-2.

Table 22-2: Cash-flow analysis

La Encantada Silver Mine		Year									
Cash-flow Analysis		**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
ROM Mine Production	**kt**	**660**	**660**	**1,264**	**1,136**	**660**	**660**	**660**	**660**	**310**	**6,670**
Silver grade	**g/t Ag**	**241**	**205**	**133**	**129**	**110**	**110**	**110**	**110**	**110**	**140**
Lead grade	**% Pb**	**-**	**0.02**	**0.78**	**0.80**	**-**	**-**	**-**	**-**	**-**	**0.29**
Silver Recovery	**%**	**60.0**	**59.9**	**60.5**	**62.5**	**64.0**	**64.0**	**64.0**	**64.0**	**64.0**	**62.3**
Lead Recovery	**%**	**-**	**47.0**	**53.0**	**53.0**	**-**	**-**	**-**	**-**	**-**	**52.9**
Cyanidation											
Plant Feed	kt	660	649	320	94	-	-	-	-	-	**1,723**
Silver grade	g/t Ag	241	207	162	162	-	-	-	-	-	**209**
Silver Recovery	%	60.0	60.0	58.0	58.0	-	-	-	-		**60**
Silver metal recovered	M oz Ag	3.07	2.59	0.97	0.28	-	-	-	-	-	**6.91**
Silver metal payable	%	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	**99.6**
Silver metal payable	M oz Ag	3.05	2.58	0.96	0.28	-	-	-	-	-	**6.88**
Flotation											
Plant Feed	kt	-	11	416	382	-	-	-	-	-	**809**
Silver grade	g/t Ag	-	84	141	155	-	-	-	-	-	**147**
Lead grade	%	-	1.32	2.36	2.38	-	-	-	-	-	**2.35**
Silver Recovery	%	-	53.0	58.0	61.0	-	-	-	-		**59.3**
Lead Recovery	%	-	47.0	53.0	53.0	-	-	-	-		**52.9**
Silver metal recovered	M oz Ag	-	0.02	1.09	1.16	-	-	-	-	-	**2.27**
Silver metal payable	%	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	**95.0**
Silver metal payable	M oz Ag	-	0.01	1.04	1.10	-	-	-	-	-	**2.16**
Lead metal recovered	M lb Pb	-	0.15	11.47	10.62	-	-	-	-	-	**22.23**
Lead metal payable	%	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	**95.0**
Lead metal payable	M lb Pb	-	0.14	10.89	10.09	-	-	-	-	-	**21.12**
Lead concentration ratio		-	64.4	32.0	31.7	-	-	-	-	-	**32.3**
Lead concentrate produced	k t	-	0.17	13.00	12.04	-	-	-	-	-	**25.21**
Roasting / Cyanidation											
Plant Feed	kt	-	-	528	660	660	660	660	660	310	**4,138**
Silver grade	g/t Ag	-	-	110	110	110	110	110	110	110	**110**
Silver Recovery	%	-	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	**64.0**
Silver metal recovered	M oz Ag	-	-	1.20	1.49	1.49	1.49	1.49	1.49	0.70	**9.36**
Silver metal payable	%	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
Silver metal payable	M oz Ag	-	-	1.19	1.49	1.49	1.49	1.49	1.49	0.70	**9.33**
Revenue											
Silver in Doré payable	M oz Ag	3.05	2.58	2.15	1.77	1.49	1.49	1.49	1.49	0.70	**16.21**
Silver in concentrates payable	M oz Ag	-	0.01	1.04	1.10	-	-	-	-	-	**2.16**
Lead in concentrates payable	M lb Pb	-	0.14	10.89	10.09	-	-	-	-	-	**21.12**
Silver price	$/oz Ag	15.50	17.25	17.50	18.50	18.50	18.50	18.50	18.50	18.50	
Lead price	$/lb Pb	0.85	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Silver refining cost - Doré	$/oz Ag	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	
Silver refining cost - Conc.	$/oz Ag	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	
Lead treatment charge - Conc.	$/t conc.	248	248	248	248	248	248	248	248	248	
Silver selling cost - Doré	$/oz Ag	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	
Lead selling costs - Conc.	$/t conc.	56	56	56	56	56	56	56	56	56	
NSR Silver in dore	M $	46.02	43.38	36.72	31.98	26.88	26.88	26.88	26.88	12.61	**278.24**
NSR Silver in Conc.	M $	-	0.23	16.62	18.74	-	-	-	-	-	**35.60**
NSR Lead in Conc.	M $	-	0.08	5.85	5.41	-	-	-	-	-	**11.33**
NSR	M $	46.02	43.69	59.19	56.14	26.88	26.88	26.88	26.88	12.61	**325.17**
Operating Costs											
Mining Cost	M $	4.51	6.88	4.99	3.96	1.94	1.19	1.19	1.19	0.66	**26.51**
Processing Cost	M $	12.43	12.35	18.13	17.04	12.15	12.15	12.15	12.15	6.36	**114.90**
Indirect Cost	M $	3.84	3.84	5.87	5.44	3.42	2.45	2.12	2.12	1.12	**30.22**
G&A	M$	4.58	3.89	4.79	4.31	2.23	2.23	2.23	2.23	1.05	**27.54**
Total Cost	M $	25.36	26.96	33.77	30.74	19.74	18.03	17.70	17.70	9.19	**199.17**
Gross Margin	M $	20.66	16.73	25.42	25.40	7.14	8.86	9.19	9.19	3.42	**126.00**
Precious Metals Royalty	M $	0.23	0.22	0.27	0.25	0.13	0.13	0.13	0.13	0.06	**1.57**
Depreciation of new investments	M $	-	2.47	6.63	8.51	9.50	9.90	7.84	4.08	2.19	**51.12**
Earning before taxes	M $	20.43	14.04	18.52	16.63	-2.50	-1.18	1.22	4.97	1.23	**73.37**
Mining Tax	M $	1.53	1.05	1.39	1.25	-	-	0.09	0.37	0.09	**5.78**
Income Tax	M $	5.67	3.90	5.14	4.62	-	-	0.34	1.38	0.34	**21.38**
Net Earnings	M $	13.23	9.09	11.99	10.77	-2.50	-1.18	0.79	3.22	0.89	**46.30**
Add-back depreciation	M $	-	2.47	6.63	8.51	9.50	9.90	7.84	4.08	2.19	**51.12**
Cash-flow from operations	M $	13.23	11.56	18.62	19.28	7.00	8.72	8.62	7.30	3.08	**97.42**
Capex											
Sustaining capital expenditures	M $	4.59	4.33	6.11	4.14	2.00	2.00	2.00	2.00	-	**27.17**
Expansionary capital expenditures	M $	7.75	16.46	3.31	0.83	-	-	-	-	-	**28.35**
Reclamation costs	M $	-	-	-	-	-	-	-	-	4.38	**4.38**
Total Capex	M $	12.34	20.78	9.43	4.96	2.00	2.00	2.00	2.00	4.38	**59.89**
Net Cash-Flow	**M $**	**0.89**	**-9.22**	**9.19**	**14.32**	**5.00**	**6.72**	**6.62**	**5.30**	**-1.29**	**37.53**
Cumulative Net Cash-Flow	**M $**	**0.89**	**-8.33**	**0.86**	**15.17**	**20.18**	**26.90**	**33.52**	**38.82**	**37.53**	

NPV @5%	**M $**	**28.59**

NPV of expansionary investment @5%	**M $**	**-25.85**								
Cashflow from operations and sustaining	**M $**	**8.64**	**7.24**	**12.50**	**15.14**	**5.00**	**6.72**	**6.62**	**5.30**	**-1.29**
Regularized cashflow	**M $**	**-17.21**	**7.24**	**12.50**	**15.14**	**5.00**	**6.72**	**6.62**	**5.30**	**-1.29**
IRR	**%**	**51%**								

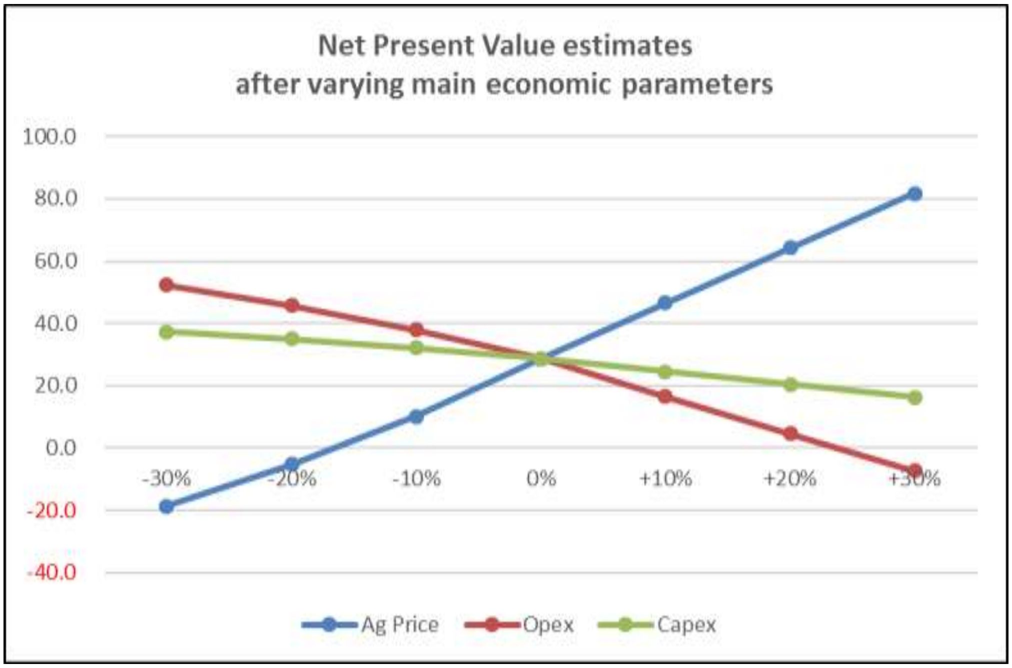

Figure 22-1: Sensitivity Analysis on main economic parameters

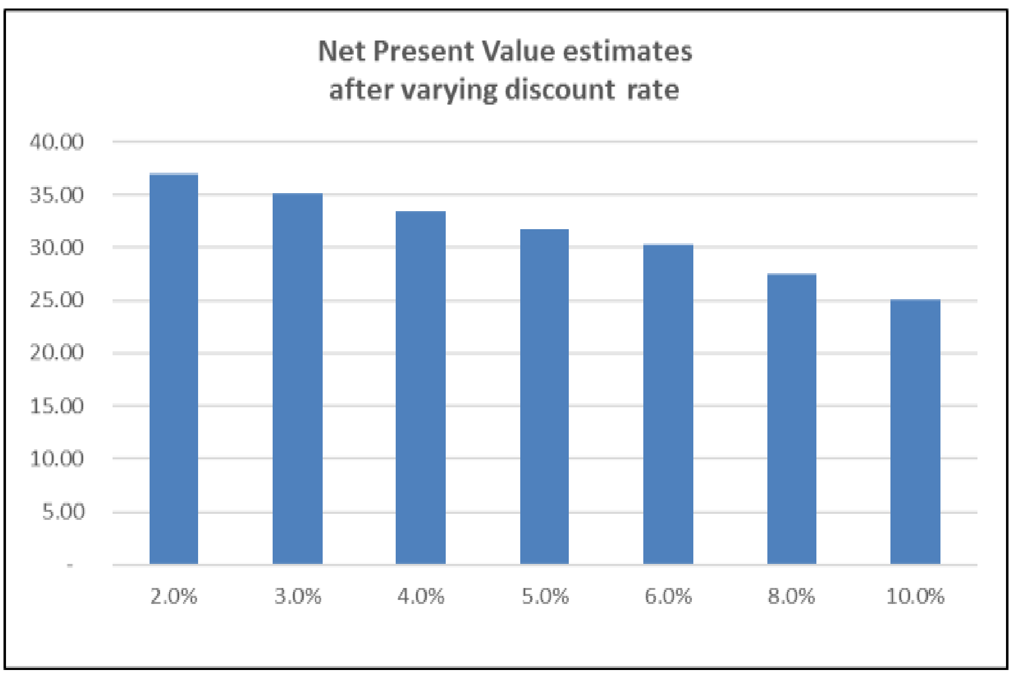

Figure 22-2: Sensitivity Analysis on discount rate

23 Adjacent properties

There are no adjacent properties from which exploration and or mining activities would provide a better understanding of La Encantada mineral deposits.

24 Other Relevant Data and Information

There is no other relevant data or information to be contained in the Technical Report.

25 Interpretation and Conclusions

25.1 Veins System and other Minor Deposits Mineral Resource Estimate

Mineral Resources for Veins System and other Minor Deposits have been estimated by First Majestic using a polygonal method supported by channel samples across mineralization, diamond drill-holes and underground mapping. The Company QP's conclude that the resources estimated for these minor deposits are suitable to support mine planning by selective underground over-hand cut-and-fill methods.

25.2 San Javier and Milagros Breccias Area Mineral Resource Estimate

Modeling and grade estimation for the Milagros breccia, San Javier breccia, Milagros intrusion and Nucleo were prepared internally by First Majestic by constructing wireframes and block models. Wireframes were constructed using lithological information from level plans, cross sections and assay information from diamond drill holes and channel samples from mine workings.

Grade estimation was done conservatively by restricting the interpolation, and by capping silver grades of composites and blocks. The modeling process used is appropriate for breccia pipe-like deposits, and the estimated grades are consistent with current production head grades from pilot-producing areas at the San Javier breccia. The Company QP's conclude that the resource model is suitable to support mine planning by underground bulk mining methods.

25.3 Tailings Deposit No. 4 Mineral Resource Estimate

Modeling and grade estimation were carried out internally by First Majestic by constructing the wireframe and a block model. The wireframe model for the tailings deposit was constructed utilizing the surface of the base of the tailings surveyed on the original terrain, and the surface of the deposit as determined by the surveying of control points and hole-collars. A non-rotated block model and grade interpolations were constrained by the created wireframe model. The Company QP's conclude that the resource model is suitable to support mine planning by surface bulk mining methods.

25.4 Ojuelas Mineral Resource Estimate

Amec Foster Wheeler has reached the following conclusions:

The construction of the Ojuelas Resource Model has followed current CIM Definition Standards for Mineral Resources, and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines.

The modeling and grade estimation process used is appropriate for a skarn style Ag-Pb-Zn deposit, and the resource model is suitable to support mine planning for a large-scale underground bulk mining scenario.

25.5 Mineral Reserve Estimates

There are several aspects that could increase the life of the mine while maintaining current production levels, including the conversion of inferred resources into reserves, and the production from areas not included in reserves. The historic conversion factor of inferred mineral resources into mineral reserves has been registered at approximately 50%. The production of material from areas not in reserves accounts for approximately 30% in the last two years. Provided that the exploration programs are maintained at current levels and the development of adjacent undrilled areas with economic potential is maintained, there is a possibility that the mine life can be extended.

25.6 Risks

Mineral resource and mineral reserve estimates are based on assumptions that included mining, metallurgical, and economic parameters including operating costs, taxation and metal prices. Other considerations include the ability to continue utilizing the existing infrastructure, preservation of the permit to operate, the availability of labour, and the business relationship with the union and neighboring surface owners. In the best opinion of the Company’s Qualified Persons, there are no known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors or risks that could materially affect the ability to extract the mineral resources and mineral reserves at La Encantada.

Increasing dilution, increasing costs, reduced mining recovery, reduced metallurgical recovery, presence of deleterious elements, and taxation and lower metal prices will have a negative impact on the quantity of estimated mineral resources and mineral reserves. Nevertheless, other than the typical fluctuations in the metal prices, there are no other known factors that may have a material impact on the estimate of mineral resources and mineral reserves at La Encantada.

26 Recommendations

26.1 Veins System and other Minor Deposits Mineral Resource Estimate

Mineral Resources for veins and other minor deposits have been estimated using a polygonal method. Resource estimation using the polygonal method is still a regular practice in some small mines in Mexico. The Company's Qualified Persons recommend that resource estimation practices be improved by using plans, sections, drilling data and channel samples to construct wireframe and block models for veins and minor deposits. Further infill drilling along with detailed structural interpretations are also recommended since these veins and minor deposits tend to pinch and swell, and be irregular in shape.

First Majestic estimates the cost of an infill drilling program at $1.55 M, and this estimate includes the following items:

- drilling and sampling of 40 drill-holes for approximately 12,000 metres $ 1.45 M
- geological modeling and resource and reserves estimates studies $ 100,000

26.2 San Javier and Milagros Breccias Area Mineral Resource Estimate

The mineral resource estimate for the San Javier breccia is supported by drilling data and selective channel samples, mostly between the 1,650 and 1,840 elevations. The mineral resource estimate for the Milagros breccia is supported mostly by drilling below the 1,600 elevation. The Company's Qualified Persons recommend that additional infill drilling be carried at the San Javier and Milagros breccias area. Additional drilling data will improve the confidence of the mineral resource estimate and improve mineral classification.

Since 2013, First Majestic has been implementing best industry practices in data collection procedures (geologic core logging, SG determination, etc.), as well as QA/QC protocols and data verification practices. The Company's Qualified Persons recommend that these improved exploration practices are maintained in future drilling campaigns. Additionally, other practices such as geotechnical and geometallurgical classifications should be improved.

First Majestic estimates the cost of an infill drilling program at $825,000, and this estimate includes the following items:

- drilling and sampling of 20 drill-holes for approximately 12,000 metres $ 725,000

- geological modeling and resource and reserves estimates studies $ 100,000

26.3 Tailings Deposit # 4 Mineral Resource Estimate

Average recoveries of tailings material using a conventional diamond drill rig reached 80%. The Company's Qualified Persons recommend that if further drilling of the tailings deposit is needed, it should be carried out using sonic drilling to maximize material recovery.

First Majestic estimates the cost of a sonic drilling program at $700,000, and this estimate includes the following items:

- drilling and sampling of 40 drill-holes for approximately 1,200 metres $ 600,000
- geological modeling, resource and reserves estimates studies $ 100,000

26.4 Ojuelas Mineral Resource Estimate

AMEC Foster Wheeler makes the following recommendations:

- The deterministic lithological wireframe models were developed from the interpretation of drill-hole data on vertical section views in one direction only (north-looking sections). Amec Foster Wheeler recommends that, in future, for deterministic models, interpretations are done in three directions.
- The digitized polygons representing the lithological interpretation on vertical sections were not snapped to the drill-hole intervals. The wireframe boundaries created from the lithological polygons were therefore somewhat misaligned to the drill-hole intervals. This introduced some error in the back-flagging of lithology codes to grade composites. The back-tagging errors were mitigated by capping and outlier restriction. Amec Foster Wheeler recommends that for future resource updates, care is taken to ensure that polygons describing lithological or grade shell boundaries are snapped to drill-hole intervals.
- Grade shells were developed using the implicit modelling tools in Leapfrog™ whereas, deterministic interpretation and modelling was used for lithology. This resulted in areas where the grade shell and lithological model of the main mineralized unit, the Mto, are different. While the geologists have observed mineralization outside of the Mto, it would be beneficial if the same interpretation and modelling method is used for lithology and grade shells. Amec Foster Wheeler recommends that, for future resource updates, the

same method is used to interpret and model the lithology and grade shells to ensure as close agreement as is reasonable between the two volumes.

- First Majestic geologists have interpreted and modelled several diorite dykes. The dykes are believed to have been emplaced along geological structures which are likely to be normal faults. Amec Foster Wheeler believes that there may be additional unrecognized normal faults along which offsets have occurred. These offsets may affect the boundaries, hence the volumes, of the modelled mineralized units affecting the predicted resource tonnage. Amec Foster Wheeler recommends that, for future resource updates, that a geological structural model is developed in conjunction with the interpretation and modelling of the diorite dykes which could be then used to inform the modeling of the lithological shapes and grade shells.

Pending grade sample assays from two holes, and information from six additional completed holes, were received following the database cut-off date of 29 July, 2015. Amec Foster Wheeler reviewed the additional data and makes the following conclusions and recommendations:

- The new data acquired in the area of the model confirms the model and block grade estimate.
- The new data will improve the mineral resource confidence classification.
- Step-out drilling suggests that there is upside potential to the mineralization to the south of the modelled deposit.
- Amec Foster Wheeler recommends that additional infill drilling of six to nine holes is completed followed by a Mineral Resource update to confirm the upside potential to the deposit.

26.5 Exploration Potential

The Company's Qualified Persons are of the opinion that La Encantada property has the potential for hosting additional resources at the skarn dome south of Ojuelas, in vein type deposits at the "B" anomaly (Great Dike) located NE of the NE-trending veins, and in skarn replacements-type deposits below the 1,400 elevation in the Milagros area.

26.5.1 Ojuelas Exploration Potential

Amec Foster Wheeler recommends that additional infill drilling of six to nine holes is completed followed by a Mineral Resource update to confirm the upside potential to the deposit.

First Majestic estimates the cost of an exploration program of about 3,000 m at $500,000, and this estimate includes the following items:

- drilling and sampling $ 400,000
- geological modeling and engineering $ 100,000

26.5.2 Skarn Dome Exploration Potential

A previous drill intercept from hole EC-05, which was suspended while still encountering mineralization approximately 500 metres southwest of the Ojuelas deposit, intersected 1.7 metres of 244 g/t silver highlighting the potential to build additional Resources in this area.

The Company's Qualified Persons recommend that additional step out drilling southwest of Ojuelas be completed to explore the potential of massive sulphide replacements, which appear to be located between the skarn below Ojuelas and the mineralized skarn intercepted by hole EC-05. First Majestic estimates the cost of an exploration program at $520,000 which includes:

- 4,500 metres of diamond drilling and core sampling $450,000
- Drilling sites construction $ 20,000
- Core logging and geological modeling and engineering $ 50,000

26.5.3 "B" anomaly Exploration Potential

The "B" anomaly was identified over outcropping andesite dikes by an airborne magnetic survey carried out in the 1990's by the previous owner of La Encantada. The andesite dikes contain anomalous silver values and occur along the trend of the San Francisco dike. First Majestic commissioned Zonge Engineering to carry out an NSAMT survey that defined a resistivity anomaly indicative of a major fault and drill. Additionally, First Majestic drilled two holes with negative results. The Company's Qualified Persons recommend that detailed mapping and channel sampling be carried out in order to understand the structural controls on mineralization, and to then prepare a drilling program. First Majestic estimates the cost of an exploration program at $565,000, which includes:

- surface mapping and sampling $ 50,000
- environmental studies and permitting $ 15,000
- 4,500 metres of drilling and core sampling $ 450,000
- Core logging and geological modeling $ 50,000

26.5.4 Milagros Area Exploration Potential

The presence of an elongate stock trending NE and connecting the skarn dome and the intrusion at the Milagros area is suggested by the airborne magnetic data. Therefore, First Majestic believes that there is an upside potential at depth for additional skarn-type mineralization between the skarn dome and the Milagros area. The Company's Qualified Persons recommend that deeper drilling be carried out below the 1,400 elevation at the Milagros area, in order to explore for skarn type mineralization. First Majestic estimates the cost of testing this target at $270,000, which includes:

- 2,000 metres of drilling and core sampling $ 250,000
- Core logging and geological modeling $ 20,000

26.6 Ojuelas Development

Exploration, geological modeling and pre-feasibility level design work have been conducted to define the Ojuelas deposit. A caving mining method has been selected as a viable option, and preliminary results indicate potential reduction of the operating costs, and potential increase of the profitability of the project with further investigation in the following areas:

- Optimization of the development layout based on the recommended update of the geological model to capture recent exploration data and assays results
- Optimization of the production profile by modeling the drawbells blasting and mucking independently of the caving column drawing sequence
- Optimization of the flotation process to increase metallurgical recovery of silver and lead
- Metallurgical investigation of the recovery and production of saleable concentrate of zinc

The Company's Qualified Persons recommend that prior to the development of the Ojuelas deposit and the refurbishing of the flotation processing plant, a comprehensive optimization program be initiated addressing the points indicated above, to potentially increase the profitability of the project. The cost for an optimization program of Ojuelas is estimated at $550,000, including the following elements:

- Mining optimization studies $ 100,000
- Processing optimization studies $ 150,000
- Zinc metallurgical investigation $ 300,000

26.7 Roasting/Cyanidation Process

The Company has carried out leaching optimization studies and pilot plant scale test-work on refractory tailings, where the silver bearing material associated with manganese carbonates has been pre-treated by roasting. The purpose of roasting the tailings is to promote the reduction of manganese carbonates into oxides, producing a cyanide leach amenable porous calcine.

Roasting of 26 tonnes of material from Tailings Deposit No. 4 was performed at a 1:20 scale pilot plant. At the time of the writing of this report, preliminary leaching tests indicate an increase in recovery of silver from 10%-15% for non-roasted material to 60-70% silver recovery for roasted material. In addition, silver leaching kinetics appears to be accelerated from 72 hours to 24-36 hours.

The Company's Qualified Persons recommend that prior to submitting the project for construction approval, a fuel optimization investigation be completed to define the best fuel source for the roasting pre-treatment, and that detailed engineering is developed to better define the capital and operating costs of this process. The cost for the fuel optimization investigation and detailed roasting engineering is estimated at $150,000; including the following elements:

- Fuel optimization investigation $ 25,000
- Roasting detailed engineering $ 125,000

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