

PAN AMERICAN SILVER CORP  
Form 6-K  
February 05, 2010

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SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16 of  
the Securities Exchange Act of 1934

For the month of, February  
Commission File Number 000-13727

2010

Pan American Silver Corp  
(Translation of registrant's name into English)

1500-625 Howe Street, Vancouver BC Canada V6C 2T6  
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40F:

Form	Form	X
20-F	40-F	

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Yes	No	X
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If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-\_\_\_\_\_



DOCUMENTS INCLUDED AS PART OF THIS REPORT

Document

- 1 Technical report entitled "Pan American Silver Corp: Navidad Project, Chubut Province, Argentina", dated February 4, 2010.
-



Pan American Silver Corp: Navidad Project, Chubut Province, Argentina

February 2010

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This report was prepared as a National Instrument 43-101 Technical Report, in accordance with Form 43-101F1, for Pan American Silver Corp. by Snowden. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Snowden's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended to be used by Pan American Silver Corp., subject to the terms and conditions of its contract with Snowden. That contract permits Pan American Silver Corp. to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

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## Summary

This Technical Report refers to the Navidad Project, an advanced stage silver-lead mineral exploration project located in Chubut Province, Argentina, owned by Pan American Silver Corp. (Pan American) through its subsidiary Aquiline Resources Inc. (Aquiline), who in turn conduct business in Argentina through its subsidiaries Minera Aquiline Argentina S.A. (Minera Aquiline), and Minera Argenta S. A.. Pan American is a silver mining company based in Canada and listed on the Toronto Stock Exchange (TSX:PAA) and on NASDAQ (PAAS).

The Supreme Court of British Columbia awarded ownership of the Navidad Project to Minera Aquiline on 14 July 2006 following a court case with IMA Exploration Inc. (IMA) where IMA was found to have breached a Confidentiality Agreement with Minera Normandy Argentina S.A. (Minera Normandy), then a subsidiary of Newmont Mining Corporation. Minera Normandy was subsequently acquired by Aquiline and its name was changed to Minera Aquiline. IMA appealed the trial court decision to the Appeal Court of British Columbia which denied the appeal in reasons for judgment dated 7 June 2007. In September 2007 IMA submitted an Application for Leave to Appeal to the Supreme Court of Canada. Sole ownership rights were granted to Aquiline by the Supreme Court of Canada on 20 December 2007, subject to Aquiline making payment to IMA which would reimburse the latter for its accrued exploration expenditures up to the July 2006 court decision. Aquiline's final payment to IMA was made on 8 February 2008 giving Aquiline full ownership of the Project.

On 14 October 2009, Pan American announced a friendly offer to acquire all of the issued and outstanding securities of Aquiline. On 7 December 2009, Pan American acquired approximately 85% of the issued and outstanding shares of Aquiline and extended its bid to 22 December 2009, and on that latter date, Pan American took up an additional approximately 7% of the issued and outstanding shares in the capital of Aquiline. Since the offer to acquire the Aquiline shares was accepted by holders of more than 90% of the Aquiline shares, on 23 December 2009, Pan American provided notice to the remaining shareholders of its intention to exercise its right to acquire the remaining issued and outstanding Aquiline shares pursuant to the compulsory acquisition provisions of the Business Corporation Act (Ontario). Pan American was deemed to have acquired the balance of the Aquiline shares not already owned by it pursuant to the compulsory acquisition on or about 22 January 2010.

As a result of its acquisition of Aquiline, Pan American is required to file a technical report on the Navidad Project pursuant to NI 43-101. This Technical Report is prepared to fulfil this requirement and is based on information disclosed in the Technical Report filed on SEDAR by Aquiline on 2 June 2009, and dated May 2009, amended June 2009 (Snowden, 2009). There are no other material changes to the Navidad Project to report aside from the acquisition of Aquiline by Pan American.

The June 2009 Technical Report (Snowden, 2009) disclosed recently updated Mineral Resources at the Calcite NW, Calcite Hill, Navidad Hill, Connector Zone, Galena Hill, Barite Hill, and Loma de La Plata, and disclosed the first Mineral Resource for Valle Esperanza at the Navidad Project. The amended report dated June 2009 included the assay results of independent samples selected by Snowden in April 2009, which were not available at the time of the original filing on SEDAR in May, 2009.

Mineral Resource estimates were reported at the Navidad Property (Table 1.1) effective April 2009. Tonnes and grades were reported above a cut-off grade of 50 g/t silver

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equivalent. To date, no analysis has been made to determine the economic cut-off grade that will ultimately be applied to the whole Navidad Project. Silver equivalence was calculated using three year rolling average prices for silver (\$12.52 per oz) and an approximate ten year rolling average price for lead (\$0.50 per lb). The following formula, which does not include any other factors such as variable metal recoveries, was applied to reach the silver equivalent value:  $AgEQ(g/t) = Ag(g/t) + (Pb(\%) \times 10,000/365)$ .

The deposit areas at Navidad occur within a sedimentary package known as the Cañadón Asfalto Formation hosting an intermediate volcanic rock identified as trachyandesite, referred to locally as latite. Lithologies described as the Cañadón Asfalto may occur both above and below intercalated bodies of latite. The entire sequence is interpreted to have been deposited within a lacustrine basin environment.

A group of eight individual deposits and six prospects have been identified at the project and seven of these have been the subject of previous Mineral Resource estimates (Snowden 2006a, Snowden 2006b, and Snowden, 2007). All of these deposits are either hosted in the latite unit itself or in the sedimentary sequence proximal to the latite. Base metals, principally lead and to a lesser extent copper, are typically present but are largely not significant in quantity except at Galena Hill. There has been virtually no gold detected to date.

Since the filing of the November 2007 Technical Report, additional geochemical and geophysical surveys plus 367 diamond drillholes totalling 92,540 m have been done on the Project. The geophysical surveys over the core area of the property have included gravity, deep-array pole-dipole IP, CSAMT, and a high definition ground magnetometer survey. At Navidad only the latter technique has shown some continued promise as an exploration guide through the interpretation of the detailed structural setting in the district.

The drilling programme continued to yield significant results during the past 18 months, and of particular significance is the discovery of the Valle Esperanza deposit which in this estimate contains in the Indicated category 12.2 Mt at a grade of 172 g/t Ag, above a cut-off grade of 50 g/t AgEQ. In the Inferred category, the deposit contains 10.8 Mt at a grade of 123 g/t Ag above the same cut-off grade. The grade, geometry, and depth of this deposit are such that underground mining is a potential option.

Early metallurgical testing of Galena Hill has proved that differential flotation was effective in producing a lead concentrate and silver-rich concentrate, although it was recommended significant work was required to increase overall silver recovery and improve the quality of the concentrate for sale. Subsequent analysis of the pyrite concentrate mineralogy (XPS, 2007) identified the potential to upgrade the concentrate by inserting cleaning and entrainment controls into the circuit such as froth washing and column flotation, that improve concentrate grades by a factor of 2.5.

Initial metallurgical testing of Loma de La Plata proved highly successful especially as recovery of silver exceeded 80% and the concentrate was high in silver (around 50 kg/t Ag), but low in lead with a combined base metal (copper plus lead) content of 15% to 25%. Subsequent efforts were directed at testing the variability of the deposit in support of a Preliminary Economic Assessment of Loma de La Plata only. The test work at both G&T and XPS concluded that Loma de La Plata ore responds well to flotation, with high recoveries and concentrate grades. A simple crushing, grinding, and single product

flotation concentrator was proposed for the PEA, and the concentrate sold to an offshore copper smelter with minor penalties for lead.

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With the discovery of Valle Esperanza and its similarity in mineralisation style to Loma de La Plata, metallurgical testing was expanded to incorporate deposits likely to produce a high-value silver concentrate with low lead content. Testing of Valle Esperanza and Barite Hill samples yielded satisfactory results, and as with Loma de La Plata, silver recoveries of 80% or better appear likely. The concentrate grades from Valle Esperanza are particularly high (over 50 kg/t Ag to 60 kg/t Ag), while those from Barite Hill are also satisfactory containing 20 kg/t Ag to 25 kg/t Ag. However, the individual concentrates contain high levels of penalty elements such as arsenic and antimony. Mr. Wells believes that Loma de La Plata, Barite Hill, and Valle Esperanza can all be treated in the same, simple, one-product concentrator.

The testing of Loma de La Plata is likely to be sufficient to support a Feasibility Study. A large quantity of core has been kept in sealed bags and is sufficient for a pilot plant test should this be considered necessary.

The Preliminary Economic Assessment of Loma de La Plata (Snowden, 2008), concluded the development of Loma de La Plata would deliver a pre-tax NPV at 7.5% of US\$135.6 million, and internal rate of return (IRR) of 22%, and a 25 month payback period.

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Table 1.1 Navidad April 2009 Mineral Resources reported above a cut-off grade of 50 g/t AgEQ

Deposit	Classification	Tonnes (Mt)	AgEQ g/t	Ag g/t	Pb%	Cu%	Contained Ag (Moz)	Contained Pb (Mlb)	Contained Cu (Mlb)
Calcite Hill NW	Measured	-	-	-	-	-	-	-	-
	Indicated	14.8	94	78	0.59	-	37	194	-
	Meas. + Ind.	14.8	94	78	0.59	-	37	194	-
	Inferred	14.6	74	52	0.82	-	24	265	-
Calcite Hill	Measured	-	-	-	-	-	-	-	-
	Indicated	17.5	115	100	0.55	-	56	212	-
	Meas. + Ind.	17.5	115	100	0.55	-	56	212	-
	Inferred	4.9	106	96	0.36	-	15	39	-
Navidad Hill	Measured	8.4	122	109	0.46	-	29	85	-
	Indicated	5.6	96	90	0.24	-	16	29	-
	Meas. + Ind.	14	112	101	0.37	-	45	114	-
	Inferred	1.8	81	70	0.41	-	4	16	-
Connector Zone	Measured	-	-	-	-	-	-	-	-
	Indicated	8.2	102	91	0.41	-	24	74	-
	Meas. + Ind.	8.2	102	91	0.41	-	24	74	-
	Inferred	9.9	88	74	0.49	-	24	107	-
Galena Hill	Measured	7	242	170	2.62	-	38	404	-
	Indicated	44.7	166	117	1.78	-	168	1,754	-
	Meas. + Ind.	51.7	176	124	1.89	-	206	2,158	-
	Inferred	1.7	116	80	1.35	-	4	50	-

## Pan American Silver Corp:

Deposit	Classification	Tonnes (Mt)	AgEQ g/t	Ag g/t	Pb%	Cu%	Contained Ag (Moz)	Contained Pb (Mlb)	Contained Cu (Mlb)
Barite Hill	Measured	-	-	-	-	-	-	-	-
	Indicated	7.7	161	153	0.28	-	-	38	48
	Meas. + Ind.	7.7	161	153	0.28	-	-	38	48
	Inferred	0.9	100	81	0.69	-	-	2	13
Loma de La Plata	Measured	-	-	-	-	-	-	-	-
	Indicated	29.1	172	169	0.09	0.05	0.05	158	58
	Meas. + Ind.	29.1	172	169	0.09	0.05	0.05	158	58
	Inferred	1.3	82	76	0.21	0.05	0.05	3	6
Valle Esperanza	Measured	-	-	-	-	-	-	-	-
Valle Esperanza	Indicated	12.2	178	172	0.21	-	-	68	56
	Meas. + Ind.	12.2	178	172	0.21	-	-	68	56
	Inferred	10.8	133	123	0.35	-	-	43	84
Total	Measured	15.4	177	137	1.44	-	0	67	489
	Indicated	139.8	147	126	0.79	0.05	0.05	565	2,425
	Meas. + Ind.	155.2	150	127	0.85	0.05	0.05	632	2,914
	Inferred	45.9	97	81	0.57	0.05	0.05	119	580

## Notes:

The most likely cut-off grade for these deposits is not known at this time and must be confirmed by the appropriate economic studies.

Silver equivalent grade values are calculated without consideration of variable metal recoveries for silver and lead. A silver price of US\$12.52/oz and lead price of US\$0.50/lb was used to derive an equivalence formula of  $AgEQ\ g/t = Ag\ g/t + (Pb\% \times 10,000 / 365)$ . Silver prices are based on a three-year rolling average and lead prices are based on an approximate ten-year rolling average.

The estimated metal content does not include any consideration of mining, mineral processing, or metallurgical recoveries.

Tonnes, ounces, and pounds have been rounded and this may have resulted in minor discrepancies in the totals.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. No Mineral Reserves have been estimated.

The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

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Measured and Indicated Mineral Resources silver ounces have increased by 40% since the November 2007 Mineral Resource estimate. This increase is mainly contributed by the upgrade of Inferred resources to Indicated resources, defined during infill drilling at Loma de La Plata. Valle Esperanza is now estimated to contain the largest Inferred resource of the Project. With additional infill drilling on 50 m sections at Valle Esperanza, the conversion rate of Inferred resources to Indicated resources is anticipated to be as high as that experienced at the other deposits at the Project.

No Mineral Reserves have been estimated at this time. Additional studies will be required to determine technical, economic, legal, environmental, socio-economic, and governmental factors. These modifying factors are normally included in a mining feasibility study and are a pre-requisite for conversion of Mineral Resources to, and reporting of, Mineral Reserves. The CIM Standards (CIM, 2005) describe completion of a Preliminary Feasibility Study as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves.

The following recommendations are made for the further advancement of the Project:

- Continue metallurgical definition of the deposits with particular emphasis on Galena Hill, which hosts 30% of the Indicated Resource silver ounces as well as 2,158 Mlb of lead in the Measured and Indicated categories.
- Using the Loma de La Plata Preliminary Economic Assessment study as a model, develop an expanded model to include Valle Esperanza and Barite Hill as sources of high-grade silver concentrates with relatively low base metal content.
- Develop a global Preliminary Economic Assessment that takes all deposits into consideration with emphasis on an optimum extended mine life.
- Continue selective exploration of the best targets in the core project area that have Loma de La Plata or Valle Esperanza type potential. The continued exploration in the extended Valle Esperanza Valley is one of the highest priority areas.
- Continue to evaluate and prioritise the various mining concessions that Pan American controls along the Gastre Fault structural trend.
- Continue to advance the Navidad environmental base line studies in anticipation of an eventual filing of the appropriate environmental impact statement (EIS). In the short term Pan American plans to engage an international-level consultant to conduct a baseline review and plan the outstanding baseline work to complete the environmental impact assessment (EIA) for the proposed mine. This consultant would conduct an independent evaluation and consult with the Chubut Provincial authorities. The consultant would then assist with baseline studies and ultimately be responsible for preparation of the mine EIA.
- Pan American should continue and increase efforts to explain and present the Navidad Project to the authorities in the Chubut Provincial government, especially stressing the benefits in

employment, infrastructure, and tax revenue that would accrue to the community if the authorities were to rescind legislation that currently prohibits open pit mining.

Pan American should continue to implement their proposed continuous improvement practices on diamond drilling, QAQC, sampling, density determinations, and resource modelling aspects at the Project, including:

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- Survey all drillholes regardless of their orientation, with the first measurement taken at the collar of the drillhole, to ensure that the spatial location of mineralisation is well defined.
- Continue to refine the effectiveness of the QAQC database through more accurate documentation of the QAQC sample type and the analytical method, and by following the recommendations made by Smee (2008); these recommendations are being implemented.
- Determine the density of drill core prior to splitting with a diamond saw to reduce the error in the calculation introduced by a small sample size. Samples should be coated with a material such as wax or varnish to prevent water retention in the sample from influencing the calculated specific gravity value. Samples should be selected according to a representative suite of lithologies, mineralisation, and alteration types, through spatially representative locations throughout the area covered by drilling. The representativity can be confirmed by consulting the number of density determinations tabulated by grade estimation domain for each deposit in Table 17.10, and increasing the number of density samples in domains with low sample numbers relative to the number of sample assays in the domain. Spatial representativity can be confirmed by plotting the location of specific gravity samples on the drillhole trace in plan and in section.
- Further refine the geological interpretation to incorporate all available geological information, including surface mapping (including the position of outcropping mineralisation), geophysical information, structural information, and core logging detail in digital, three dimensional format.
- Continue the modelling of fault interpretations for use in future resource estimations.
- Undertake a study of the differences between the oxide and sulphide zones for modelling in future resource estimations.

Snowden further recommends that Pan American undertake a drillhole spacing study at Loma de La Plata using conditional simulation to quantify the optimal drillhole spacing required to achieve a range of estimation qualities. Some close-spaced drilling should be performed in a representative mineralised domain to characterise the short-range behaviour of the mineralisation. Aquiline has already drilled 23 holes at Loma de La Plata in anticipation of such a drillhole spacing study. The outcome of this approach would be an understanding of the degree of grade estimation error associated with particular volumes of mineralisation for a range of drillhole spacing patterns. The grade estimation error and other important aspects of the project data, described in Section 17.10, are considered while assigning Mineral Resource confidence categories.

Pan American plans to proceed to an expanded Preliminary Economic Assessment (PEA) of the Navidad Project, using the Loma de La Plata PEA study published in October 2008 as a basis (Snowden, 2008), focussing on deposits that are likely to produce a high-value silver concentrate with low lead content and maximise the operational mine life. The study will utilise the updated resource models produced as part of this report, in addition to the metallurgical testing of Valle Esperanza and Barite Hill. A more detailed evaluation of the market for silver/copper concentrates is also required. In addition to examining open pit mining methods, those deposits with likely

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high strip ratio cutbacks such as Valle Esperanza, Loma de La Plata, and Barite Hill will be evaluated for extraction by underground methods.

More test work with fresh core samples is essential to take Barite Hill and Valle Esperanza to Feasibility Study level to enable Bond Mill work indices to be determined, further tailings settling tests and potential penalty elements including arsenic and antimony.

Further studies of Galena Hill will focus on developing a programme to test the metallurgical variability of the deposit including initial modelling of the geo-metallurgical domains and designing the drill programme for fresh samples. The design of the metallurgical test programme should incorporate opportunities for improving concentrate quality already identified.

Continued exploration in the company's land package in the Navidad district will be directed towards additional Jurassic-age basins in the Gastre structural corridor with Cañadón Asfalto lithologies. Geochemical sampling techniques should be effective tools to efficiently explore these basins. The distribution of associated potassic-style alteration such as adularia within the regional basins may be detected through the interpretation of the 2008 airborne radiometric survey.

Approximately US\$500,000 was expended per month in Argentina on the exploration programme and related activities for the Navidad Property in 2009. Pan American will continue exploration drilling on several open or new targets along the mineralised trends. Infill drilling is planned for Loma de la Plata, Valle Esperanza, Barite Hill, and Galena Hill during 2010. These drillholes will also provide new samples for metallurgical analysis. Additional condemnation and geotechnical drilling is planned for potential future infrastructure sites.

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## Introduction

This Technical Report has been prepared by Snowden Mining Industry Consultants Inc. (Snowden) for Pan American Silver Corp. (Pan American), in compliance with the disclosure requirements of Canadian National Instrument 43-101 (NI 43-101), to disclose relevant information about the Navidad Project. This information has resulted from the acquisition of Aquiline Resources Inc. (Aquiline) by Pan American. On 14 October 2009, Pan American announced a friendly offer to acquire all of the issued and outstanding securities of Aquiline. On 7 December 2009, Pan American acquired approximately 85% of the issued and outstanding shares of Aquiline and extended its bid to 22 December 2009, and on that latter date, Pan American took up an additional approximately 7% of the issued and outstanding shares in the capital of Aquiline. Since the offer to acquire the Aquiline shares was accepted by holders of more than 90% of the Aquiline shares, on 23 December 2009, Pan American provided notice to the remaining shareholders of its intention to exercise its right to acquire the remaining issued and outstanding Aquiline shares pursuant to the compulsory acquisition provisions of the Business Corporation Act (Ontario). Pursuant to the compulsory acquisition, Pan American has been deemed to have acquired the balance of the Aquiline shares not already owned by it on or about 22 January 2010.

As a result of its acquisition of Aquiline, Pan American is required to file a technical report on the Navidad Project pursuant to NI 43-101. This Technical Report is prepared to fulfil this requirement and is based on information disclosed in the Technical Report filed on SEDAR by Aquiline on 2 June 2009, and dated May 2009, amended June 2009 (Snowden, 2009). There are no other material changes to the Navidad Project to report aside from the acquisition of Aquiline by Pan American.

The June 2009 Technical Report (Snowden, 2009) was prepared to disclose information from additional Mineral Resource delineation drilling, Mineral Resource estimations, exploration drilling, and metallurgical test work completed since the previous Technical Reports (Snowden 2006a, Snowden 2006b, and Snowden, 2007). The June 2009 Technical Report was intended to disclose recently updated Mineral Resources at the Calcite NW, Calcite Hill, Navidad Hill, Connector Zone, Galena Hill, Barite Hill, Loma de La Plata, and Valle Esperanza deposits at the Navidad Project. The amended report dated June 2009 included the assay results of independent samples selected by Snowden in April 2009, which were not available at the time of the original filing on SEDAR in May, 2009.

The Supreme Court of British Columbia awarded ownership of the Navidad Project to Minera Aquiline on 14 July 2006 following a court case with IMA Exploration Inc. (IMA) where IMA was found to have breached a Confidentiality Agreement with Minera Normandy Argentina S.A. (Minera Normandy), then a subsidiary of Newmont Mining Corporation. Minera Normandy was subsequently acquired by Aquiline and its name was changed to Minera Aquiline. IMA appealed the trial court decision to the Appeal Court of British Columbia which denied the appeal in reasons for judgment dated 7 June 2007. In September 2007 IMA submitted an Application for Leave to Appeal to the Supreme Court of Canada. Sole ownership rights were granted to Aquiline by the Supreme Court of Canada on 20 December 2007, subject to Aquiline making payment to IMA which would reimburse the latter for its accrued exploration expenditures up to the July 2006 court decision. Aquiline's final payment to IMA was made on 8 February 2008 giving Aquiline full ownership of the Project.

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Pan American is a silver mining company based in Canada and listed on the Toronto Stock Exchange (TSX:PAA) and NASDAQ (PAAS).

Unless otherwise stated, information and data contained in this report or used in its preparation has been provided by Aquiline and Pan American. This Technical Report has been compiled from sources cited in the text by Ms. Pamela De Mark, P. Geo., Senior Consultant at Snowden, and under the supervision of Snowden by Mr. John J. Chulick, formerly Vice President of Exploration at Aquiline, Mr. Dean K. Williams, formerly Chief Geologist at Aquiline, Mr. Damian Spring, Chief Mining Engineer at Aquiline, and by John A. Wells, consultant metallurgist. Ms. De Mark, Mr. Chulick, Mr. Williams, Mr. Spring, and Mr. Wells are Qualified Persons as defined by NI 43-101. Ms. De Mark visited the Navidad Project site in September 2007 and in April 2009. The responsibilities of each author are provided in Table 2.1.

This report is intended to be used by Pan American subject to the terms and conditions of its contract with Snowden. That contract permits filing this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities laws any other use of this report by any third party is at that party's sole risk.

Reliance on the report may only be assessed and placed after due consideration of Snowden's scope of work, as described herein. This report is intended to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context. Any results or findings presented in this study, whether in full or excerpted, may not be reproduced or distributed in any form without Snowden's written authorisation.

Table 2.1 Responsibilities of each co-author

Author	Responsible for section/s
Dean K. Williams	7: Geological setting; 8: Deposit types
John J. Chulick	4: Property description and location; 6: History; 9: Mineralisation; 10: Exploration; 11: Drilling; 12: Sampling method and approach; 13: Sample preparation, analyses, and security; 15: Adjacent properties
John A. Wells	16: Mineral processing and metallurgical testing
Damian Spring	18: Other relevant data and information
Pamela De Mark	All other sections

Unless otherwise stated, all currencies are expressed in US dollars (\$). Coordinates for the Navidad Project grid, including drill coordinates referred to in this Technical Report are in the Gauss Kruger projection, Zone 2, relative to the Campo Inchauspe datum. Mining claims are registered using the Gauss Kruger projection, Zone 2, relative to the WGS 84 datum.



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Reliance on other experts

There has been no reliance on experts who are not Qualified Persons in the preparation of this report except for information cited in Section 15 regarding Adjacent Properties, where unverified information has been obtained from the company website of Patagonia Gold Plc. at [www.patagoniagold.com](http://www.patagoniagold.com).

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Property description and location

Information in this section has been sourced from Snowden (2009).

The Navidad Project is located in Gastre Department in the Province of Chubut, southern Argentina, at approximately 42°24' 54" S and 68°49' 12" W.

4.1 Land tenure

The Navidad Property is divided into four property claims (registration numbers 14340/04, 14341/04, 14902/06, and 14903/06), each of which is 2,500 ha in area. Additional Aquiline Property claims held or applied for in the name of Minera Argenta S. A. and Minera Aquiline Argentina S.A. in Chubut Province are shown in Table 4.1 and Table 4.2. A plan of the tenements held by Pan American in Chubut Province is shown in Figure 4.1.

In Argentina, exploration concessions are not physically surveyed or staked in the field, but are electronically filed using the Gauss Kruger coordinate system, zone (faja) 2, relative to the WGS 84 datum. There are three levels of mineral rights (which do not include surface rights):

- Cateo – an exploration permit granting any mineral discoveries on the cateo to the applicant. Cateos are measured in units of 500 ha, with a minimum of one unit (500 ha) and a maximum of 20 units (10,000 ha) granted to any holder. Cateo units must be reduced over time relative to the number of units held; the maximum duration for any granted cateo is three years. The holder may conduct prospecting, mapping, sampling, and geophysical surveys, and drilling and trenching after notifying the mining office of the exploration plan.
- Manifestacion de Descubrimiento (MD) – once mineralisation is discovered on a cateo, the cateo lease expires and the permit is upgraded to a manifestacion. The maximum area of a manifestacion is 7,000 ha. A basic environmental impact assessment, a physical survey, and boundary markers are required at this stage.
- Pertenencia – a lease allowing mining. A physical survey and boundary markers are required.

Snowden has not reviewed the land tenure situation and has not independently verified the legal status or ownership of the properties or any agreements that pertain to the Navidad Project. Land tenure aspects have been provided by Aquiline; Snowden has reviewed the information and believes it is reliable.

Table 4.1 Tenement details in Chubut Province operated as Minera Argenta S.A.

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Registration number	Property name	Area( ha)	Tenement type*	Property status*
14340/04	Navidad Este	2,500	MD	GMD; LL & MC IP
14341/04	Navidad Oeste	2,500	MD	GMD; LL & MC IP
14352/04	Pampa 1	2,975	MD	GMD; LL & MC IP

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Registration number	Property name	Area( ha)	Tenement type*	Property status*
14367/04	Colonia Este	1,596	MD	GMD; LL & MC IP
14368/04	Colonia Oeste	2,990	MD	GMD; LL & MC IP
14369/04	Sierra	3,469	MD	IP
14370/04	Sierra 1	2,856	MD	GMD
14446/05	Pampa III	2,500	MD	GMD; LL & MC IP
14731/05	Sierra Cacique II	3,025	MD	GMD; LL & MC IP
14732/05	Sierra Cacique I	3,025	MD	GMD; LL & MC IP
14742/05	Carlota 1	3,481	MD	IP
14830/06	Sierra Cacique III	3,484	MD	IP
14831/06	Sierra Oeste	3,105	MD	IP
14832/06	Colonia Este 1	1,622	MD	GMD
14833/06	Colonia Este 2	1,596	MD	IP
14834/06	Sierra Sur 1	2,840	MD	IP
14902/06	Navidad Este 1	2,500	MD	GMD; LL & MC IP
14903/06	Navidad Oeste 1	2,500	MD	GMD; LL & MC IP
15302/07	Trucha A	2,926	MD	IP
15303/07	Alamo A	2,990	MD	IP
15304/07	Mara A	2,486	MD	IP
15305/07	Mara B	2,486	MD	IP
15306/07	Condor C	2,024	MD	IP
15307/07	Condor D	1,957	MD	IP
15323/07	Trucha B	3,001	MD	IP
15426/08	Alamo B	4,752	MD	IP
15439/08	Mara C	2,486	MD	IP
15455/08	Puente 1	2,499	MD	IP
15456/08	Puente 2	2,499	MD	IP
15488/08	Carlota 3	3,448	MD	IP
15493/08	Nina 3	3,448	MD	IP
15525/08	Noelita	9,405	MD	IP

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15528/08	Julie	3,577	MD	IP
15529/08	Navidad 3	2,968	MD	IP
15530/08	Navidad II Oeste	2,748	MD	IP
15531/08	Navidad II Este	2,365	MD	IP
15532/08	Puente 3	6,624	MD	IP

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Registration number	Property name	Area( ha)	Tenement type*	Property status*
15545/09	Navidad 4	7,000	MD	IP
15550/09	Nuevo Condor	4,800	MD	GMD
15555/09	Los Loros	8,470	CA	IP

\*Tenement type codes:

CA = Cateo, exploration permit

MD = Discovery claim (Manifestacion de Descubrimiento), advanced exploration permit

\*Property status codes:

IP = In progress. Application submitted

LL = Labour legal, the legal declaration of work that proves existence of mineralisation. Initial process prior to sub-division into mining claims

GMD = Granted discovery claim (Manifestacion de Descubrimiento)

MC = Mining claims (Pertenenencias)

JV = Joint venture

Table 4.2 Tenement details in Chubut Province held in the name of Minera Aquiline Argentina S.A.

Registration number	Property name	Area( ha)	Tenement type*	Property status*
14170/03	Calquitas 1	5,165	MD	GMD; LL & MC IP
14171/03	Calquitas 2	5,150	MD	GMD; LL & MC IP
14728/05	Calquitas 3	6,472	MD	GMD
14729/05	Calquitas 4	4,111	MD	IP