

- [Home](#)
- [About Us](#)
 - [Profile](#)
 - [Mission, Vision & Values](#)
 - [Management](#)
 - [Board of Directors](#)
 - [Corporate Governance](#)
 - [Corporate Directory](#)
- [Projects](#)
 - [Overview](#)
 - [Angostura](#)
 - [Satellite Projects](#)
 - [Other Regional Prospects](#)
 - [NI 43-101 Resources](#)
- [Investor Relations](#)
 - [Overview](#)
 - [Financial Reports](#)
 - [Presentations](#)
 - [Conferences](#)
 - [Stock Performance](#)
 - [Share Structure](#)
 - [Analyst Coverage](#)
 - [Contact Investor Relations](#)
 - [Email Alerts](#)
- [News](#)
- [Sustainability](#)
 - [Overview](#)
 - [Community](#)
 - [Environment](#)
 - [Health & Safety](#)
- [EduCenter](#)
 - [Colombia](#)

[Eco Oro Resources](#)

- [Contact](#)
- [Site Map](#)

Projects

- [Overview](#)
- [Angostura](#)
- [Satellite Projects](#)
- [Other Regional Prospects](#)
- [NI 43-101 Resources](#)

Developing a Multi-Million Ounce Gold-Silver Deposit in Colombia

Angostura

Highlights of the Angostura Underground Project are as follows:

- Underground-only operation will have a much smaller surface footprint than the open pit mine.
- Higher-grade veins contain approximately 2.7 million gold equivalent ounces (90% gold) recoverable by underground mining methods.
- Updated PEA estimates annual production of 222,000 to 303,000 gold equivalent ounces for 10 years with an average annual production rate of 269,000 gold equivalent ounces.
- The deposit remains open at depth.
- The site is accessible year-round by road or helicopter.
- Existing infrastructure includes a major power grid and water access.

- Numerous satellite projects yet to be advanced: Móngora, La Plata, Armenia and Violetal.

Eco Oro has completed more than 350,000 meters of drilling and 3,000 meters of underground development to December 2011. Historically, there were seven drilling areas within Angostura that corresponded roughly with the deposit's structural domains. Eco Oro is currently focusing on higher-grade structures within the Veta de Barro, Cristo Rey, Central, Los Laches and Silencio domains as these are believed to have the greatest potential to increase the underground resource.

In 2010-2011, an 18-hole drill program designed to test the extent of higher-grade mineralized structures confirmed the presence of mineralization along strike and down dip. Sixteen of the 18 holes contain a total of 52 intercepts of greater than 2 g/t Au with a weighted average grade of 4.4 g/t Au and 19.7 g/t Ag.

A first phase infill drilling program comprising 45,000 meters commenced in June 2011 and is expected to be completed in 2012. The program is designed to upgrade inferred mineral resource estimates into the indicated mineral resource category and identify continuity of higher-grade proximal structures that can be included in the estimate. Following this first phase program, an additional infill drilling program will focus on better defining the structures for underground mining. Drilling is expected to be completed in stages that reflect priorities in the mining sequence, with the current focus on the central core of the Angostura deposit.

Reserves and Resources

Based on drilling to May 2011, Angostura contains an indicated mineral resource of 30.6 million tonnes grading 3.1 g/t Au and 14.8 g/t Ag and an inferred resource of 22.2 million tonnes grading 3.0 g/t Au and 15.6 g/t Ag using a gold cut-off grade of 1.5 g/t Au.

The resource estimate is based on information from 973 drill holes, more than 300,000 meters of drilling and almost 200,000 gold samples. A total of 191 mineralized structures were included in the model. To reduce dilution, wireframes were snapped to a cut-off grade of 2 g/t Au for structures up to 2 meters thickness. For structures with thickness greater than 2 meters, wireframes were snapped to a cut-off grade of 1.5 g/t Au bearing in mind the possibility of using different underground exploitation methods in different thicknesses of higher grade structures.

**Mineral Resource Estimate by Material Type
(cut-off grade 1.5 g/t Au)**

Material Type	Indicated			Inferred		
	Ton (Mt)	Au (g/t)	Ag (g/t)	Ton (Mt)	Au (g/t)	Ag (g/t)
Oxides	2.09	2.85	8.96	1.00	2.71	16.00
Transitionals	7.33	3.15	18.25	1.97	2.87	18.60
Sulfides	21.20	3.10	14.24	19.26	3.05	15.32
Total	30.62	3.09	14.84	22.24	3.02	15.64

For further details regarding the resource estimate, see the [news release dated February 23, 2012](#) and [technical report dated March 23, 2012](#), which are available on this website.

Updated Preliminary Economic Assessment (PEA)

In February 2012, Eco Oro disclosed the results of an Updated PEA for an underground operation at the Angostura Project, which PEA is supported by a National Instrument 43-101 compliant technical report dated March 23, 2012 prepared by Golder Associates Inc., TWP Sudamérica S.A., Schlumberger Water Services and Knight Piésold Consulting Ltd.

The Updated PEA incorporates the evaluation of four alternatives for processing including sale of concentrate, roasting, bio-oxidation (BIOX) and pressure oxidation (POX) as well as an agitated tank leach for oxides and transitional resources. The Updated PEA also addresses variation in the ability to mine selectively by evaluating both higher grade (3.0 g/t Au equivalent cut-off) and lower grade scenarios (2.0 g/t Au equivalent cut-off). The base case scenario is based on US\$1200 per ounce gold and a cut-off grade of 2.5 g/t Au equivalent.

Highlights of the base case scenario for Angostura are as follows:

- All four alternatives for concentrates produce positive returns with BIOX being the most economically beneficial.
- Total recovery of 2.7 million gold equivalent ounces (90% gold).
- Production between 222,000 and 303,000 gold equivalent ounces per annum for 10 years with average annual production of 269,000 ounces.
- Cash costs of US\$494 per ounce (total costs of US\$702 per ounce) over the life of mine including silver by-product credits.
- Estimated initial capital cost of US\$529 million.
- Sustaining capital cost of US\$117 million.
- Post-tax net present value (5% discount) of US\$334 million.
- Post-tax internal rate of return of 14.8%.
- Payback in 5.5 years.
- Mine life of 10 years at 6,000 tonnes production per day.

For further details regarding the Updated PEA, see the [news release dated February 23, 2012](#) and the [technical report dated March 23, 2012](#), which are available on this website.

Drilling and Exploration

An infill drilling program was completed from June 2011 to September 2012 and included a deep drilling program designed to better delineate some of the attractive inferred resources at depth. This drill program provides a better geometric definition of the mineralized structures, required for planning of the underground mine design, and has contributed to a more robust resource model for underground development of the Angostura deposit.

Results from the first 40 holes totaling 17,836 meters are available [here](#). Detailed maps of these drill hole locations are available [here](#). A full discussion of these results can be obtained in the [news release dated November 30, 2011](#).

Results from the subsequent 56 holes totaling 22,983 meters are available [here](#). Detailed maps of these drill hole locations are available [here](#). A full discussion of these results can be obtained in the [news release dated February 6, 2013](#).

In 2012 the infill drilling was concentrated in the western limit of the Angostura deposit going from the Diamante area through to the Silencio area, with one hole each drilled in Veta de Barro and La Alta. Results confirm higher gold grades in the infill areas than was encountered from the wider spaced drilling previously completed. Of this drilling, geotechnical and hydro geological drilling programs totaled 3,231 m in 18 holes, of which 2,714 m in eight holes were used in both geotechnical and infill programs.

Results from the infill drilling program reinforce management's expectation that the deposit has the continuity of mineralized zones and high grades required for underground mining, as well as demonstrating further upside potential at depth. Results from the geotechnical and hydro geological drilling will provide valuable information, which will ensure that Eco Oro effectively addresses any associated safety and environmental concerns of the surrounding community.

Frederick Felder, P.Geo, a consultant to Eco Oro and a qualified person as that term is defined in National Instrument 43-101, has reviewed, and verified the technical information contained herein.

Related Links

[Updated PEA](#) [Angostura Project](#)

- [Home](#)
- [About Us](#)
- [Projects](#)
- [Investor Relations](#)
- [News](#)
- [Sustainability](#)
- [EduCenter](#)
- [Disclaimer](#)