APEX SILVER MINES LTD Form 424B3 June 30, 2005

QuickLinks -- Click here to rapidly navigate through this document PROSPECTUS SUPPLEMENT NO. 1 to Prospectus dated May 18, 2005 of

Filed Pursuant to Rule 424(b)(3) Registration No. 333-122037

Apex Silver Mines Limited

\$139,987,000

4% Convertible Senior Subordinated Notes Due 2024 and the Ordinary Shares Issuable Upon Conversion of the Notes

This prospectus supplement relates to resales of our 4% Convertible Senior Subordinated Notes due 2024 issued in a private offering in October and December 2004 and 4,891,229 ordinary shares, \$0.01 par value, issuable upon conversion of the notes, plus an indeterminate number of additional ordinary shares that may be issued from time to time upon conversion of the notes as a result of adjustments as described in the prospectus to which this prospectus supplement refers.

This prospectus supplement, which supplements our prospectus dated May 18, 2005, contains additional information about the selling securityholders.

You should read the prospectus supplement in conjunction with the prospectus. This prospectus supplement updates information in the prospectus and accordingly, to the extent inconsistent, the information in the prospectus supplement supersedes the information contained in the prospectus.

Investing in the securities offered in this prospectus involves risks. See "Risk Factors" beginning on page 7 of the prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement is June 30, 2005.

The information appearing under the section entitled "Selling Securityholders" in the prospectus is amended and restated by the information appearing below.

SELLING SECURITYHOLDERS

The notes were originally issued in a private offering to Initial Purchasers led by Citigroup Global Markets Inc. The Initial Purchasers have advised us that the notes were resold in transactions exempt from the registration requirements of the Securities Act to "qualified institutional buyers," as defined by Rule 144A under the Securities Act and outside the United States in reliance on Regulation S. Selling securityholders, including their transferees, pledgees, donees or successors, may from time to time offer and sell pursuant to this prospectus supplement and the underlying prospectus any or all of the notes and the ordinary shares into which the notes are convertible.

The following table sets forth additional information with respect to the selling securityholders, the principal amount of the notes and the number of ordinary shares into which the notes are convertible beneficially owned by such selling securityholders that may be offered pursuant to this prospectus supplement and the prospectus to which it refers. Unless set forth below, none of the selling securityholders has had within the past three years any material relationship with us or any of our predecessors or affiliates.

We have prepared the table based on information given to us by, or on behalf of, the selling securityholders on or before June 24, 2005. Since that date, the selling securityholders may have sold, transferred or otherwise disposed of all or a portion of their notes. The selling securityholders may offer all, some or none of the notes or ordinary shares into which the notes are convertible. For the purposes of calculating the amount of notes or number of shares beneficially owned after this offering, it is assumed that the selling securityholders will convert their entire principal amount of notes and that all of the ordinary shares issued upon conversion of the notes will be sold pursuant to this offering. The selling securityholders have informed us that they do not hold any of our ordinary shares other than the ordinary shares which may be issued upon conversion of the notes. Therefore, none of the selling securityholders will own any notes or ordinary shares following the consummation of the offering.

Information about the selling securityholders may change over time. Any changed information given to us by the selling securityholders will be set forth in additional prospectus supplements or amendments to the underlying prospectus if and when necessary.

	Principal Amount of Notes at Maturity		Number of Ordinary Shares	
Selling Securityholder	Beneficially Owned and Offered Hereby (\$)	Percentage of Notes Outstanding	Number of Ordinary Shares that may be sold(1)	Percentage of Outstanding Ordinary Shares(2)
Coastal Convertibles Ltd.(3)	500,000	*	17,470	*
Kamunting Street Master Fund, Ltd.(4)	4,000,000	2.86%	139,762	*
UBS AG London FBO USSY(5)	2,000,000	1.42%	69,881	*
UBS O'Connor LLC F/B/O O'Connor Global Convertible Arbitrage Master Limited(6)	1,000,000	*	34,940	*

Less than 1%.

Assumes conversion of all of the notes held by such holder at the initial conversion rate of 34.9406 ordinary shares for each \$1,000 in principal amount of the notes. This conversion rate is subject to adjustment as described in the prospectus under "Description of the Notes Conversion Rights." As a result, the number of ordinary shares issuable upon conversion of the notes may increase in the future. Further assumes that such holder does not hold any ordinary shares other than ordinary shares into which the notes are convertible.

- (2) Calculated based on 47,704,747 ordinary shares outstanding as of April 20, 2005. In calculating this amount for each holder, we treated as outstanding the number of ordinary shares issuable upon conversion of all of that holder's notes, but we did not assume conversion of any other holder's notes.
- (3)

 The selling securityholder has identified Harbor Capital as an entity with control over the selling securityholder. Jay Lurie and Elliot Sloyer are natural persons with control over Harbor Capital.
- (4) The selling securityholder has identified Kamunting Street Capital Management, L.P. as an entity with control over the selling securityholder. Kamunting Street Management, LLC is the general partner of Kamunting Street Capital Management, L.P. and its managing member is Allan Ten.
- (5) The selling securityholder has identified UBS AG, a publicly traded company, as an entity with control over the selling securityholder.
- (6) UBS O'Connor LLC F/B/O O'Connor Global Convertible Arbitrage Master Limited is a registered investment advisor and a wholly-owned subsidiary of UBS AG, a publicly traded company.

3

QuickLinks

SELLING SECURITYHOLDERS