

Edgar Filing: IVANHOE MINES LTD - Form 6-K

IVANHOE MINES LTD  
Form 6-K  
June 09, 2004

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16 OF  
THE SECURITIES EXCHANGE ACT OF 1934

From: June 3, 2004

IVANHOE MINES LTD.

-----  
(Translation of Registrant's Name into English)

SUITE 654 - 999 CANADA PLACE, VANCOUVER, BRITISH COLUMBIA V6C 3E1  
-----

(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 40-F.)

Form 20-F [ ]                      Form 40-F [X]

(Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

Yes: [ ]                      No: [X]

(If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-\_\_\_\_\_.)

Enclosed:

Technical Report

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

IVANHOE MINES LTD.

DATE: June 3, 2004

By: /s/ Beverly A. Bartlett

-----  
BEVERLY A. BARTLETT  
Corporate Secretary

# Edgar Filing: IVANHOE MINES LTD - Form 6-K

(IVANHOE MINES LOGO)

## TECHNICAL REPORT

HUGO DUMMET - OYU TOLGOI, MONGOLIA

(IMAGES)

Prepared for:  
Ivanhoe Mines, Ltd.

by:  
Stephen J. Juras, PhD. P.Geo  
Vancouver, BC, Canada

Effective Date: 06 May 2004  
131294

Distribution List:  
Ivanhoe: 7 Copies  
AMEC: 2 Copies

(AMEC LOGO)

(AMEC LOGO)

## CERTIFICATE OF AUTHOR

Stephen J. Juras, P.Geo.  
111 Dunsmuir Street, Suite 400  
Vancouver, BC  
Tel: (604) 664-4349  
Fax: (604) 664-3057  
stephen.juras@amec.com

I, Stephen J. Juras, P.Geo., am a Professional Geoscientist, employed as Principal Geologist of AMEC Americas Limited and residing at 9030 161 Street in the City of Surrey in the Province of British Columbia.

I am a member of the Association of Professional Engineers and Geoscientists of British Columbia. I graduated from the University of Manitoba with a Bachelor of Science (Honours) degree in geology in 1978 and subsequently obtained a Master of Science degree in geology from the University of New Brunswick in 1981 and a Doctor of Philosophy degree in geology from the University of British Columbia in 1987.

I have practiced my profession continuously since 1987 and have been involved in: mineral exploration for copper, zinc, gold and silver in Canada and United States and in underground mine geology, ore control and resource modelling for copper, zinc, gold, silver, tungsten, platinum/palladium and industrial mineral properties in Canada, United States, Peru, Chile, Vietnam and Russia.

As a result of my experience and qualifications, I am a Qualified Person as defined in N.P. 43-101.

I am currently a Consulting Geologist and have been so since January 1998.

From March 24, 2004 until April 24, 2004 I visited the Oyu Tolgoi project in Mongolia. I also helped to direct the mineral estimation work for the Hugo deposit, Oyu Tolgoi project. This report was prepared under my direct

Edgar Filing: IVANHOE MINES LTD - Form 6-K

supervision.

I am not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in this report and that the omission to disclose would make this report misleading.

I am independent of Ivanhoe Mines Limited in accordance with the application of Section 1.5 of National Instrument 43-101.

AMEC Americas Limited  
111 Dunsmuir Street, Suite 400  
Vancouver, B.C. V6B 5W3  
Tel +1 604 664 3471  
Fax +1 604 664 3057  
www.amec.com

(AMEC LOGO)

I have read National Instrument 43-101 and Form 43-101FI and this report has been prepared in compliance with same.

Dated at Vancouver, British Columbia, this 3rd day of June 2004.

/s/ Stephen J. Juras  
----- (S.J. JURAS SEAL)  
Stephen J. Juras, Ph.D., P. Geo

2

(AMEC LOGO)

CONSENT OF QUALIFIED PERSON

TO: The securities regulatory authorities of each of the provinces and territories of Canada

I, Stephen Juras, Ph.D., P. Geo., do hereby consent to the filing of the technical report prepared for Ivanhoe Mines Limited and dated May 06, 2004 in respect of the Hugo deposit, Oyu Tolgoi project, Mongolia, and to the news release dated May 06, 2004 and material change report dated May 06, 2004, which are based on and are consistent with the information contained within the technical report.

I have read the written disclosure that was filed and do not have any reason to believe that there are any misrepresentations in the information that formed the basis for the technical report or that the written disclosure contained any misrepresentations of the information contained in the technical report.

DATED at this 3rd day of June 2004.

/s/ Stephen J. Juras  
----- (S.J. JURAS SEAL)  
Stephen J. Juras, Ph.D., P. Geo

AMEC Americas Limited  
111 Dunsmuir Street, Suite 400

# Edgar Filing: IVANHOE MINES LTD - Form 6-K

Vancouver, B.C. V6B 5W3  
Tel +1 604-664-3471  
Fax +1 604-664-3057

## IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report, in accordance with Form 43-101F1, for Ivanhoe Mines Limited (Ivanhoe) by AMEC Americas Limited (AMEC). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in AMEC'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 Ivanhoe, subject to the terms and conditions of its contract with AMEC. That contract permits Ivanhoe 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 laws, any other use of this report by any third party is at that party's sole risk.

(IVANHOE MINES LOGO) IVANHOE MINES LTD.  
TECHNICAL REPORT  
HUGO DUMMET DEPOSIT, OYU TOLGOI PROJECT, MONGOLIA

## CONTENTS

---

1.0	SUMMARY .....	
2.0	INTRODUCTION AND TERMS OF REFERENCE .....	
	2.1 Terms of Reference .....	
3.0	DISCLAIMER .....	
4.0	PROPERTY DESCRIPTION AND LOCATION .....	
5.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY.....	
6.0	HISTORY .....	
7.0	GEOLOGICAL SETTING .....	
8.0	DEPOSIT TYPES .....	
9.0	MINERALIZATION .....	
10.0	EXPLORATION .....	
11.0	DRILLING .....	
12.0	SAMPLING METHOD AND APPROACH .....	
13.0	SAMPLE PREPARATION, ANALYSES, AND SECURITY .....	
	13.1 Sample Preparation and Shipment .....	
	13.2 Assay Method .....	
	13.3 QA/QC Program .....	
14.0	DATA VERIFICATION .....	
15.0	ADJACENT PROPERTIES .....	
16.0	MINERAL PROCESSING AND METALLURGICAL TESTING .....	
17.0	MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES .....	
	17.1 Geologic Models .....	
	17.2 Exploratory Data Analysis .....	
	17.3 Evaluation of Outlier Grades .....	1
	17.4 Variography .....	1
	17.5 Model Set-up .....	1
	17.6 Estimation .....	1
	17.7 Mineral Resource Classification and Summary .....	1
18.0	OTHER RELEVANT DATA AND INFORMATION .....	
19.0	REQUIREMENTS FOR TECHNICAL REPORTS ON PRODUCTION AND DEVELOPMENT PROPERTIES.....	

# Edgar Filing: IVANHOE MINES LTD - Form 6-K

20.0 CONCLUSIONS AND RECOMMENDATIONS .....  
21.0 REFERENCES .....

JUNE 2004

PROJECT NO. 131294

TOC I

(AMEC LOGO)

(IVANHOE MINES LOGO) IVANHOE MINES LTD.  
TECHNICAL REPORT  
HUGO DUMMET DEPOSIT, OYU TOLGOI PROJECT, MONGOLIA

## TABLES

---

Table 1-1: Hugo Deposit, Oyu Tolgoi Project, Inferred Mineral Resource - 6 May 2004 ....  
Table 13-1: Percent Difference at the 90th Population Percentile (% Diff) of Duplicate Sample Analyses, Hugo Deposit, Oyu Tolgoi .....  
Table 17-1: Solids and Surfaces used for EDA and/or Grade Interpolation .....  
Table 17-2: Statistics - Copper Composites .....  
Table 17-3: Statistics - Gold Composites .....  
Table 17-4: Cu, Au, and Mo Variogram Parameters for Hugo South and North Deposits .....  
Table 17-5: Domain Codes .....  
Table 17-6: Gold Interpolation Domain Codes .....  
Table 17-7: Threshold Grades for Outlier Restriction .....  
Table 17-8: Global Comparison Results - Copper .....  
Table 17-9: Global Comparison Results - Gold .....  
Table 17-10: Hugo North Deposit Mineral Resource Summary - 6 May 2004 .....  
Table 17-11: Hugo South Deposit Mineral Resource Summary - 6 May 2004 .....  
Table 17-12: Combined Hugo Deposit Mineral Resource Summary - 6 May 2004 .....  
Table 17-13: Combined Hugo Deposit Mineral Resource by 120 m Elevation Slices .....

## FIGURES

---

Figure 13-1: SRM Failure Chart .....  
Figure 13-2: Blank Sample Results for Gold .....  
Figure 13-3: Blank Sample Results for Copper .....  
Figure 13-4: Relative Difference Scatter Plot, Hugo North Duplicate Samples - Copper (%)..  
Figure 13-5: Relative Difference Scatter Plot, Hugo South Duplicate Samples - Copper (%)..  
Figure 13-6: Relative Difference Scatter Plot, Hugo North Duplicate Samples - Gold (g/t)..  
Figure 13-7: Percentile Rank Plots, Hugo North Duplicate Samples - Copper (%).....  
Figure 13-8: Percentile Rank Plots, Hugo South Duplicate Samples - Copper (%).....  
Figure 13-9: Percentile Rank Plots, Hugo North Duplicate Samples - Gold (g/t).....  
Figure 17-1: Isometric View Looking East at the Dividing Plane between Hugo North and South Zone Boundary .....  
Figure 17-2: Histogram and CDF for Copper Comps in the Mineralized Grade Shells .....  
Figure 17-3: Histogram and CDF for Gold Comps in the Mineralized Grade Shells .....  
Figure 17-4: Contact Plot Example for Copper Composites in the 0.6% Shell across the North South Zone Boundary .....  
Figure 17-5: Block Model Definition .....  
Figure 17-6: Herco Validation Plot for Copper at North Hugo .....  
Figure 17-7: Herco Validation Plot for Copper at South Hugo .....  
Figure 17-8: Hugo North Grade by Northing Validation Plot .....  
Figure 17-9: Hugo North Grade by Easting Validation Plot .....  
Figure 17-10: Hugo North Grade by Elevation Validation Plot .....

Edgar Filing: IVANHOE MINES LTD - Form 6-K

Figure 17-11: Hugo South Grade by Northing Validation Plot .....
Figure 17-12: Hugo South Grade by Easting Validation Plot .....
Figure 17-13: Hugo South Grade by Elevation Validation Plot .....

JUNE 2004
PROJECT NO. 131294 TOC II (AMEC LOGO)

(IVANHOE MINES LOGO) IVANHOE MINES LTD.
TECHNICAL REPORT
HUGO DUMMET DEPOSIT, OYU TOLGOI PROJECT, MONGOLIA

APPENDICES

- A DRILLHOLE LIST AND PLAN MAP
B COMPOSITE LIST
C QA/QC
D EDA
E VARIOGRAPHY
F INTERPOLATION PARAMETERS
G BLOCK MODEL SECTIONS AND PLANS

JUNE 2004
PROJECT NO. 131294 TOC III (AMEC LOGO)

(IVANHOE MINES LOGO) IVANHOE MINES LTD.
TECHNICAL REPORT
HUGO DUMMET DEPOSIT, OYU TOLGOI PROJECT, MONGOLIA

1.0 SUMMARY

Ivanhoe Mines Ltd. (Ivanhoe) has asked AMEC Americas Limited (AMEC) to provide an updated independent mineral resource estimate and Qualified Person's review and Technical Report for the Hugo Dummet (Hugo) deposit of the Oyu Tolgoi project in Mongolia. The work entailed an estimate of mineral resources that conforms to the CIM Mineral Resource and Mineral Reserve definitions referred to in National Instrument (NI) 43-101, Standards of Disclosure for Mineral Projects. It also involved the preparation of an updated Technical Report as defined in NI 43-101 and in compliance with Form 43-101F1 (the "Technical Reports") to the previous Technical Report on the Hugo Deposit, Oyu Tolgoi Project, Mongolia, dated 21 November 2003. The only changes relative to the contents of that report are matters pertaining to the Hugo Dummet

## Edgar Filing: IVANHOE MINES LTD - Form 6-K

deposit (drill data and mineral resource estimate). Dr. Harry Parker, Ch. P.Geo., and Dr. Stephen Juras, P.Geo., directed the mineral resource estimation work and review of the geological data. Dr. Juras visited the project site from 24 March 2004 to 24 April 2004. Dr. Parker visited the site from 1 to 6 April 2004. Dr. Stephen Juras, P.Geo., an employee of AMEC, who was the Qualified Person responsible for preparing the previous Technical Report, served in the same capacity for this updated version.

The Oyu Tolgoi project is based on a deposit of copper-gold-molybdenum mineralization in a mid Palaeozoic Cu-Au porphyry system. The deposit is located in the Aimag (Province) of Omnogov, in the South Gobi region of Mongolia, about 530 km south of the capital city of Ulaanbaatar and 80 km north of the border with China. The Oyu Tolgoi project comprises Mining License 6709A, which covers an area of 8,496 ha. Ivanhoe has been granted the exclusive right to explore within the bounds of its exploration licence.

Oyu Tolgoi occurs in an early to mid Palaeozoic island arc environment, which is part of the Gurvansayhan terrane. The arc terrane is dominated by basaltic volcanics and intercalated volcanogenic sediments, intruded by pluton-size, hornblende-bearing granitoids of mainly quartz monzodiorite to possibly granitic composition. Carboniferous sedimentary rocks overlie this assemblage. Property geology consists of massive porphyritic augite basalt, which underlies much of the central part of the exploration block. Dacitic to andesitic ash flow tuffs, several hundred metres in thickness, overlie the augite basalt. The southern edge of a large body of hornblende granodiorite outcrops along the northern margin of the exploration block. A wide variety of felsic to mafic dykes is found throughout the exploration block and in drill holes. These include porphyritic quartz monzodiorite dykes that may be genetically related to the Cu-Au porphyry systems. Based on satellite imagery and geophysical interpretations, major structures trend N35E and N70E.

Four Cu-Au (Mo) porphyry deposits are identified within the project area: Southwest Oyu, South Oyu, Central Oyu, and Hugo. The work described in this Technical Report deals only with the Hugo deposit. This deposit is hosted by dacitic ash flow tuff overlying basaltic volcanics. Sedimentary rocks overlie the dacitic tuffs and cap the hydrothermal system.

JUNE 2004  
PROJECT NO. 131294

PAGE 1-1

(AMEC LOGO)

(IVANHOE MINES LOGO) IVANHOE MINES LTD.  
TECHNICAL REPORT  
HUGO DUMMET DEPOSIT, OYU TOLGOI PROJECT, MONGOLIA

High-grade copper (greater than 1%) occurs as bornite-chalcocite mineralization to the south and bornite-gold mineralization to the north. Surrounding the bornite-rich core, chalcopyrite dominates, followed laterally by a wide (hundreds of metres) pyrite-rich zone (10% pyrite) with minor enargite. The high-grade mineralization trends NE, becoming more northerly to the north, and extends over a strike length more than 2.0 km. Its shape is comparable to a gently north dipping elliptical pipe, about 200 m to 300 m in diameter.

## Edgar Filing: IVANHOE MINES LTD - Form 6-K

The database used to estimate the mineral resources for the Hugo deposit consists of rock samples and geological information from 219 core drill holes drilled by Ivanhoe between 2002 and April 2004. Samples from the drill programs were prepared for analysis at an on-site facility operated by SGS Mongolia LLC (SGS Mongolia). The samples were then shipped under the custody of Ivanhoe to Ulaanbaatar, where they were assayed at a facility operated by SGS Mongolia. Data transfer to the resource database was validated from original certificates through a 5% check of the database.

Ivanhoe employs a comprehensive QA/QC program. All sampling and QA/QC work is overseen on behalf of Ivanhoe by Dale A. Sketchley, M.Sc., P.Geo., a geological consultant. Each sample batch of 20 samples contains four or five quality control samples. The quality control samples comprise one duplicate split core sample and one uncrushed field blank, which are inserted prior to sample preparation; a reject or pulp preparation duplicate, which is inserted during sample preparation; and one or two reference material samples (one