Northgate Minerals CORP Form SC 13G/A February 12, 2010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 5)\*

		NORTHGATE MIN.	ERALS CORPORATION
	(N	ame of Issuer)	
		Common Shares	
	(Title of	Class of Securitie	s)
		666416102	
	(CU	SIP Number)  December 31,	2009
	(Date of Event Whic	h Requires Filing	of this Statement)
	ck the appropriate box to designated:	ate the rule pursu	ant to which this
	[X] Rule 13d-1(b)		
	[_] Rule 13d-1(c)		
	[_] Rule 13d-1(d)		
ini and	e remainder of this cover page sitial filing on this form with red for any subsequent amendment coed disclosures provided in a prior	espect to the subjoontaining informat	ect class of securities,
deem Act of t	information required in the remained to be "filed" for the purpose of 1934 ("Act") or otherwise subthe Act but shall be subject to the Notes).	e of Section 18 of bject to the liabi	the Securities Exchange lities of that section
 CUSI	IP NO. 666416102	 13G	  Page 2 of 8 Pages
(1)	NAMES OF REPORTING PERSONS. I.R.S. IDENTIFICATION NOS. O	F ABOVE PERSONS (e:	ntities only).
	Renaissance Technologies LLC	26-0385758	
(2)	CHECK THE APPROPRIATE BOX IF A  (a) [_]  (b) [_]	MEMBER OF A GROUP	(SEE INSTRUCTIONS):

(1)		
(4)	CITIZENSHIP OR PLACE OF ORGANIZAT	ION
	Delaware	
		(5) SOLE VOTING POWER
	NUMBER OF SHARES BENEFICIALLY OWNED	15,656,000
	BY EACH REPORTING PERSON WITH:	(6) SHARED VOTING POWER
		0
		(7) SOLE DISPOSITIVE POWER
		16,823,900
		(8) SHARED DISPOSITIVE POWER
		3,542,600
(9)	AGGREGATE AMOUNT BENEFICIALLY OW	NED BY EACH REPORTING PERSON
	20,366,	500
	CHECK BOX IF THE AGGREGATE AMOUN	T IN ROW (9) EXCLUDES CERTAIN SHARES
 (11)	PERCENT OF CLASS REPRESENTED BY	
(,	7.01%	
 (12)	TYPE OF REPORTING PERSON (SEE IN	STRUCTIONS)
	IA	
	Page ====================================	2 of 8 pages
====  CUS		13G Page 3 of 8 Page
		13G Page 3 of 8 Page
	IP NO. 666416102  NAMES OF REPORTING PERSONS.	13G Page 3 of 8 Page
(1)	IP NO. 666416102  NAMES OF REPORTING PERSONS.  I.R.S. IDENTIFICATION NOS. OF A	13G Page 3 of 8 Page

	(E) COLE VOTING DOWED
	(5) SOLE VOTING POWER
NUMBER OF SHARES BENEFICIALLY OWNED	15,656,000
BY EACH REPORTING PERSON WITH:	(6) SHARED VOTING POWER
	0
	(7) SOLE DISPOSITIVE POWER
	16,823,900
	(8) SHARED DISPOSITIVE POWER
	3,542,600
9) AGGREGATE AMOUNT BENE	FICIALLY OWNED BY EACH REPORTING PERSON
	20,366,500
(10) CHECK BOX IF THE AGGR	
(SEE INSTRUCTIONS)	20,366,500 
(SEE INSTRUCTIONS)	20,366,500  REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  [_]
(SEE INSTRUCTIONS)  (11) PERCENT OF CLASS REP	20,366,500  REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  [_]  PRESENTED BY AMOUNT IN ROW (9)  7.01 %
(SEE INSTRUCTIONS)	20,366,500  REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  [_]  PRESENTED BY AMOUNT IN ROW (9)  7.01 %  RESON (SEE INSTRUCTIONS)
(SEE INSTRUCTIONS)  (11) PERCENT OF CLASS REP	20,366,500  REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  [_]  PRESENTED BY AMOUNT IN ROW (9)  7.01 %  RSON (SEE INSTRUCTIONS) IN
(SEE INSTRUCTIONS)  (11) PERCENT OF CLASS REP  (12) TYPE OF REPORTING PER	20,366,500  REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  [_]  PRESENTED BY AMOUNT IN ROW (9)  7.01 %  RSON (SEE INSTRUCTIONS) IN  Page 3 of 8 pages
(SEE INSTRUCTIONS)  11) PERCENT OF CLASS REP  12) TYPE OF REPORTING PER  CUSIP NO. 666416102	20,366,500  REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  [_]  PRESENTED BY AMOUNT IN ROW (9)  7.01 %  RSON (SEE INSTRUCTIONS) IN  Page 3 of 8 pages
(SEE INSTRUCTIONS)  (11) PERCENT OF CLASS REP  (12) TYPE OF REPORTING PER  CUSIP NO. 666416102	20,366,500  REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  [_]  PRESENTED BY AMOUNT IN ROW (9)  7.01 %  RSON (SEE INSTRUCTIONS) IN  Page 3 of 8 pages  13G  Page 4 of 8 Pages

815 Hornby Street, Suite 406, Vancouver, British Columbia, Canada V6Z 2E6

Item 2.

(a) Name of Person Filing:

This Schedule 13G is being filed by Renaissance Technologies LLC ("RTC") and James H. Simons ("Simons").

(b) Address of Principal Business Office or, if none, Residence.

The principal business address of the reporting persons is:

800 Third Avenue New York, New York 10022

(c) Citizenship.

Dr. Simons is a United States citizen and RTC is a Delaware limited liability company.

(d) Title of Class of Securities.

Common Shares without par value

(e) CUSIP Number.

666416102

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- Item 3. If this statement is filed pursuant to Rule 13d-1 (b) or 13-d-2 (b) or (c), check whether the person filing is a:
- (a) [\_] Broker or dealer registered under section 15 of the Act.
- (b) [\_] Bank as defined in section 3(a)(6) of the Act.
- (c) [\_] Insurance Company as defined in section 3(a)(19) of the Act.
- (d) [\_] Investment Company registered under section 8 of the Investment Company Act.
- (e) [x] Investment Adviser in accordance with Sec.240.13d-1(b)(1)(ii)(E).
- (f) [\_] Employee Benefit Plan or Endowment Fund in accordance with Sec. 240.13d-1 (b) (1) (ii) (F).
- (g) [\_] Parent holding company, in accordance with Sec.240.13d-1(b)(1)(ii)(G).
- (h)  $[\_]$  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act.
- (i) [\_] A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940.
- (j) [\_] Group, in accordance with Sec.240.13d-1(b)(1)(ii)(J).
- Item 4. Ownership.
  - (a) Amount beneficially owned.

RTC: 20,366,500 shares

Simons: 20,366,500 shares, comprising the shares beneficially owned by RTC, because of Dr. Simons' position as control person of RTC.

(b) Percent of Class.

RTC: 7.01 % Simons: 7.01 %

- (c) Number of shares as to which the person has:
  - (i) sole power to vote or to direct the vote:

RTC: 15,656,000 Simons: 15,656,000

(ii) Shared power to vote or to direct the vote: 0

(iii) sole power to dispose or to direct the disposition of:

RTC: 16,823,900 Simons: 16,823,900

(iv) Shared power to dispose or to direct the disposition of:

RTC: 3,542,600 Simons: 3,542,600

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\_\_\_\_\_\_

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following: [\_]

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Certain funds and accounts managed by RTC have the right to receive dividends and proceeds from the sale of the securities which are the subject of this report.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.

Not applicable

Item 8. Identification and Classification of Members of the Group.

Not applicable

Item 9. Notice of Dissolution of a Group.

Not applicable

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Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

### SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: February 12, 2010

James H. Simons

Renaissance Technologies LLC

By: Mark Silber
Executive Vice President

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18~U.S.C.~1001).

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EXHIBIT 99.1

AGREEMENT REGARDING JOINT FILING

UNDER RULE 13D-1(K) OF THE EXCHANGE ACT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, each of the undersigned agrees to the filing on behalf of each of a Statement on Schedule 13G, and all amendments thereto, with respect to the Common Shares of NORTHGATE MINERALS CORPORATION.

Date: February 12, 2010

James H. Simons

Renaissance Technologies LLC

By: Mark Silber
Executive Vice President

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