ROYAL BANK OF CANADA Form 424B2 January 09, 2018

January 2018

MSELN-317

Registration Statement No. 333-208507

PRICING SUPPLEMENT

Dated January 5, 2018

Filed Pursuant to Rule 424(b)(2)

STRUCTURED INVESTMENTS

Opportunities in U.S. Equities

\$6,995,620 Contingent Income Auto-Callable Securities due January 8, 2021

With the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation

Principal at Risk Securities

Contingent Income Auto-Callable Securities do not guarantee the payment of interest or the repayment of principal. Instead, the securities offer the opportunity for investors to earn a contingent quarterly coupon equal to 2.50% of the stated principal amount (10.00% per annum), but only with respect to each determination date on which the determination closing price of the underlying stock, or the final share price, as applicable, is greater than or equal to 50% of the initial share price, which we refer to as the downside threshold level. In addition, if the determination closing price of the underlying stock is greater than or equal to the redemption threshold level (which will be equal to 100% of the initial share price) on any determination date, the securities will be automatically redeemed for an amount per security equal to the stated principal amount and the contingent quarterly coupon. At maturity, if the securities have not previously been redeemed and the final share price is greater than or equal to the downside threshold level, the payment at maturity will be the stated principal amount and the contingent quarterly coupon with respect to the final determination date. However, if the final share price of the underlying stock is below the downside threshold level on the final determination date, investors will be fully exposed to the decrease in the underlying stock on a 1 to 1 basis and will receive a payment at maturity that is less than 50% of the stated principal amount and could be zero. Moreover, if on any determination date the determination closing price of the underlying stock, or the final share price, as applicable, is less than the downside threshold level, you will not receive any contingent quarterly coupon for that quarterly period. Accordingly, investors in the securities must be willing to accept the risk of losing their entire principal and also the risk of not receiving any contingent quarterly coupon. The securities are for investors who are willing to risk their principal and seek an opportunity to earn interest at a potentially above-market rate in exchange for the risk of receiving few or no contingent quarterly coupons over the term of the securities. Investors will not participate in any appreciation of the underlying stock. The securities are senior unsecured obligations of Royal Bank of Canada, issued as part of Royal Bank of Canada's Series G Senior Global Medium-Term Notes program. All payments on the securities are subject to the credit risk of Royal Bank of Canada.

SUMMARY

TERMS

Issuer: Royal Bank of Canada

Underlying

Common stock of United States Steel Corporation (Bloomberg symbol: "X")

stock: Aggregate

principal amount: \$6,995,620

Stated principal

amount: \$10 per security

Issue price: \$10 per security Pricing date: January 5, 2018

Original issue

January 10, 2018

date:

Maturity date:

January 8, 2021, subject to adjustment as described in "Additional Information About the Securities"

below.

If, on any of the first eleven determination dates, the determination closing price of the underlying stock is greater than or equal to the redemption threshold level, the securities will be automatically

Early redemption: redeemed for an early redemption payment on the third business day following the related

determination date. No further payments will be made on the securities once they have been

redeemed.

Redemption

100% of the initial share price

threshold level:

Early redemption The early redemption payment will be an amount equal to (i) the stated principal amount plus (ii) the

payment: contingent quarterly coupon with respect to the related determination date.

Determination

The closing price of the underlying stock on any determination date other than the final

closing price:

determination date times the adjustment factor on that determination date

• If, on any determination date, the determination closing price or the final share price, as applicable, is greater than or equal to the downside threshold level, we will pay a contingent quarterly coupon of \$0.25 (2.50% of the stated principal amount, or 10.00% per annum) per security on the related contingent payment date.

Contingent quarterly coupon:

If, on any determination date, the determination closing price or the final share price, as

applicable, is less than the downside threshold level, no contingent quarterly coupon will be made

with respect to that determination date.

April 5, 2018, July 5, 2018, October 5, 2018, January 7, 2019, April 5, 2019, July 5, 2019, October

Determination

dates:

7, 2019, January 6, 2020, April 6, 2020, July 6, 2020, October 5, 2020 and January 5, 2021, subject to postponement for non-trading days and certain market disruption events as described in

"Additional Information About the Securities" below. We also refer to January 5, 2021 as the final

determination date.

Contingent payment dates: With respect to each determination date other than the final determination date, the third business day after the related determination date. The payment of the contingent quarterly coupon, if any, with respect to the final determination date will be made on the maturity date.

Payment at maturity:

equal to the downside threshold level:

If the final share price is greater than or (i) the stated principal amount plus (ii) the contingent quarterly coupon with respect to the final determination

If the final share price is less than the downside threshold level:

(i) the stated principal amount times (ii) the share performance factor

Share performance

factor:

Final share price divided by the initial share price

Adjustment factor:

1.0, subject to adjustment in the event of certain corporate events affecting the underlying

stock

Downside threshold

Final share price:

level:

\$19.25, which is equal to 50.00% of the initial share price (rounded to two decimal places)

Initial share price: \$38.49, which is the closing price of the underlying stock on the pricing date

The closing price of the underlying stock on the final determination date times the adjustment

factor on that date

CUSIP/ISIN:

78013Q194 / US78013Q1940

The securities will not be listed on any securities exchange. Listing:

RBC Capital Markets, LLC ("RBCCM"). See "Supplemental information regarding plan of Agent:

distribution; conflicts of interest."

Commissions and issue price: Price to public Agent's commissions Proceeds to issuer

Per security \$10.000 $\$0.200^{(1)}$

> \$0.050(2) \$9.75

Total \$6,995,620.00 \$139,912.40

> \$34,978.10 \$6,820,729.50

- (1) RBCCM, acting as agent for Royal Bank of Canada, will receive a fee of \$0.25 per \$10 stated principal amount and will pay to Morgan Stanley Wealth Management ("MSWM") a fixed sales commission of \$0.20 for each security that MSWM sells. See "Supplemental information regarding plan of distribution; conflicts of interest."
- (2) Of the amount per \$10 stated principal amount received by RBCCM, acting as agent for Royal Bank of Canada, RBCCM will pay MSWM a structuring fee of \$0.05 for each security.

The initial estimated value of the securities as of the date of this document is \$9.582 per \$10 in principal amount, which is less than the price to public. The actual value of the securities at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount.

The securities involve risks not associated with an investment in ordinary debt securities. See "Risk Factors" beginning on page P-7.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities, or determined if this document or the accompanying prospectus supplement and prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The securities will not constitute deposits insured by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation (the "FDIC") or any other Canadian or U.S. government agency or instrumentality.

You should read this document together with the related prospectus supplement and prospectus, each of which can be accessed via the hyperlinks below. Please also see "Additional Information About the Securities" at the end of this document.

Prospectus Supplement dated January 8, 2016

Prospectus dated January 8, 2016

Contingent Income Auto-Callable Securities due January 8, 2021

With the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation

Principal at Risk Securities

Investment Summary

The Contingent Income Auto-Callable Securities due January 8, 2021 with the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation, which we refer to as the "securities," provide an opportunity for investors to earn a contingent quarterly coupon, which is an amount equal to \$0.2500 (2.50% of the stated principal amount, or 10.00% per annum) per security, with respect to each quarterly determination date on which the determination closing price or the final share price, as applicable, is greater than or equal to 50.00% of the initial share price, which we refer to as the downside threshold level. The contingent quarterly coupon, if any, will be payable quarterly on the contingent payment date, which is the third business day after the related determination date. It is possible that the closing price of the underlying stock could remain below the downside threshold level for extended periods of time or even throughout the term of the securities so that you may receive few or no contingent quarterly coupons.

If the determination closing price is greater than or equal to the redemption threshold level on any of the first eleven determination dates, the securities will be automatically redeemed for an early redemption payment equal to the stated principal amount plus the contingent quarterly coupon with respect to the related determination date. If the securities have not previously been redeemed and the final share price is greater than or equal to the downside threshold level, the payment at maturity will also be the sum of the stated principal amount and the contingent quarterly coupon with respect to the related determination date. However, if the securities have not previously been redeemed and the final share price is less than the downside threshold level, investors will be exposed to the decline in the closing price of the underlying stock, as compared to the initial share price, on a 1 to 1 basis and will receive a payment at maturity that is less than 50% of the stated principal amount of the securities and could be zero. Investors in the securities must be willing to accept the risk of losing their entire principal and also the risk of not receiving any contingent quarterly coupon. In addition, investors will not participate in any appreciation of the underlying stock.

Contingent Income Auto-Callable Securities due January 8, 2021

With the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation

Principal at Risk Securities

Key Investment Rationale

The securities offer investors an opportunity to earn a contingent quarterly coupon equal to 2.50% of the stated principal amount (10.00% per annum) with respect to each determination date on which the determination closing price or the final share price, as applicable, is greater than or equal to 50% of the initial share price, which we refer to as the downside threshold level. The securities may be redeemed prior to maturity for the stated principal amount per security plus the applicable contingent quarterly coupon, and the payment at maturity will vary depending on the final share price, as follows:

On any of the first eleven determination dates, the determination closing price is greater than or equal to Scenario the redemption threshold level.

- The securities will be automatically redeemed for (i) the stated principal amount plus (ii) the contingent quarterly coupon with respect to the related determination date.
- § Investors will not participate in any appreciation of the underlying stock from the initial share price. The securities are not automatically redeemed prior to maturity and the final share price is greater than or Scenario equal to the downside threshold level.
- 2 § The payment due at maturity will be (i) the stated principal amount plus (ii) the contingent quarterly coupon with respect to the final determination date.
 - § Investors will not participate in any appreciation of the underlying stock from the initial share price. The securities are not automatically redeemed prior to maturity and the final share price is less than the downside threshold level.
- 3 § The payment due at maturity will be (i) the stated principal amount times (ii) the share performance factor.
 - § Investors will lose a significant portion, and may lose all, of their principal amount in this scenario.

January 2018 Page 3

Scenario

Contingent Income Auto-Callable Securities due January 8, 2021

With the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation

Principal at Risk Securities

How the Securities Work

The following diagrams illustrate the potential outcomes for the securities depending on (1) the determination closing price and (2) the final share price.

Diagram #1: First Eleven Determination Dates

Diagram #2: Payment at Maturity if No Automatic Early Redemption Occurs

Contingent Income Auto-Callable Securities due January 8, 2021

With the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation

Principal at Risk Securities

Hypothetical Examples

The examples below are based on the following terms: Hypothetical Initial Share Price: \$100.00

Hypothetical Downside Threshold Level: \$50.00, which is 50% of the hypothetical initial share price

Hypothetical Adjustment Factor: 1.0

Evample 1

Contingent Quarterly Coupon: \$0.2500 (2.50% of the stated principal amount, or 10.00% per annum)

Stated Principal Amount: \$10 per security

Redemption Threshold Level: \$100.00, which is equal to 100% of the hypothetical initial share price

In Examples 1 and 2, the closing price of the underlying stock fluctuates over the term of the securities and the determination closing price of the underlying stock is greater than or equal to the redemption threshold level on one of the first eleven determination dates. Because the determination closing price is greater than or equal to the redemption threshold level on one of the first eleven determination dates, the securities are automatically redeemed following the relevant determination date. In Examples 3 and 4, the determination closing price on the first eleven determination dates is less than the redemption threshold level, and, consequently, the securities are not automatically redeemed prior to, and remain outstanding until, maturity.

Evample 2

	1			Example 2		
Determination Dates	Hypothetical Determination Closing Price (or Final Share Price)	t olinon	Early Redemption Payment*	Hypothetical Determination Closing Price (or Final Share Price)		Early Redemption Payment
#1	\$105.00	_*	\$10.25	\$90.00	\$0.25	N/A
#2	N/A	N/A	N/A	\$91.00	\$0.25	N/A
#3	N/A	N/A	N/A	\$92.00	\$0.25	N/A
#4	N/A	N/A	N/A	\$93.00	\$0.25	N/A
#5	N/A	N/A	N/A	\$94.00	\$0.25	N/A
#6	N/A	N/A	N/A	\$95.00	\$0.25	N/A
#7	N/A	N/A	N/A	\$96.00	\$0.25	N/A
#8	N/A	N/A	N/A	\$97.00	\$0.25	N/A
#9	N/A	N/A	N/A	\$98.00	\$0.25	N/A
#10	N/A	N/A	N/A	\$99.00	\$0.25	N/A
#11	N/A	N/A	N/A	\$110.00	_*	\$10.25
Final						
Determination	nN/A	N/A	N/A	N/A	N/A	N/A
Date						

Date

In Example 1, the securities are automatically redeemed following the first determination date, as the determination \$ closing price on the first determination date is greater than the redemption threshold level. You receive the early redemption payment, calculated as follows:

stated principal amount + contingent quarterly coupon = \$10 + \$0.25 = \$10.25

In this example, the early redemption feature limits the term of your investment to approximately 3 months and you may not be able to reinvest at comparable terms or returns. If the securities are redeemed early, you will stop receiving contingent payments.

§ In Example 2, the securities are automatically redeemed following the eleventh determination date as the determination closing price on the eleventh determination date is greater than the redemption threshold level. As the

^{*} The Early Redemption Payment includes the unpaid contingent quarterly coupon with respect to the determination date on which the determination closing price is greater than or equal to the redemption threshold level and the securities are redeemed as a result.

determination closing prices on the first ten determination dates are greater than the downside threshold level, you will receive the contingent payment of \$0.25 with respect to each such determination date. Following the eleventh determination date, you receive an early redemption payment of \$10.25, which includes the contingent quarterly coupon with respect to the eleventh determination date.

In this example, the early redemption feature limits the term of your investment to approximately 33 months and you may not be able to reinvest at comparable terms or returns. If the securities are redeemed early, you will stop receiving contingent payments. Further, although the underlying stock has appreciated by 10.00% from its initial share price on the eleventh determination date, you receive only an early redemption payment of \$10.25 per security and do not benefit from such appreciation.

Contingent Income Auto-Callable Securities due January 8, 2021

With the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation

Principal at Risk Securities

Example 3				Example 4		
Determinatio Dates	Hypothetical n Determination Closing Price (or Final Share Price	Collnon	Early Redemption Payment	Hypothetical Determination Closing Price (or Final Share Price	Contingent Quarterly Coupon	Early Redemption Payment
#1	\$42.00	\$0	N/A	\$42.00	\$0	N/A
#2	\$44.00	\$0	N/A	\$49.00	\$0	N/A
#3	\$48.00	\$0	N/A	\$48.00	\$0	N/A
#4	\$46.00	\$0	N/A	\$46.00	\$0	N/A
#5	\$44.00	\$0	N/A	\$44.00	\$0	N/A
#6	\$42.00	\$0	N/A	\$42.00	\$0	N/A
#7	\$40.00	\$0	N/A	\$49.00	\$0	N/A
#8	\$38.00	\$0	N/A	\$48.00	\$0	N/A
#9	\$36.00	\$0	N/A	\$46.00	\$0	N/A
#10	\$44.00	\$0	N/A	\$44.00	\$0	N/A
#11	\$42.00	\$0	N/A	\$48.00	\$0	N/A
Final						
Determinatio	n\$40.00	\$0	N/A	\$56.00	_*	N/A
Date						
Payment at Maturity	\$4.00			\$10.25		

^{*} The final contingent quarterly coupon, if any, will be paid at maturity.

Examples 3 and 4 illustrate the payment at maturity per security based on the final share price.

In Example 3, the closing price of the underlying stock remains below the downside threshold level on every determination date. As a result, you do not receive any contingent payments during the term of the securities and, at maturity, you are fully exposed to the decline in the closing price of the underlying stock. As the final share price is less than the downside threshold level, your payment at maturity is calculated as follows:

stated principal amount x share performance factor = $$10 \times ($40.00/$100.00) = 4.00

In this example, the amount you receive at maturity is significantly less than the stated principal amount.

In Example 4, the closing price of the underlying stock decreases to a final share price of \$56.00. Although the final share price is less than the redemption threshold level, because the final share price is still not less than the downside threshold level, you receive the stated principal amount plus a contingent quarterly coupon with respect to the final determination date. Your payment at maturity is calculated as follows:

\$10 + \$0.25 = \$10.25

In this example, although the final share price represents a 44.00% decline from the initial share price, you receive the stated principal amount per security plus the final contingent quarterly coupon, equal to a total payment of \$10.25 per security at maturity, because the final share price is not less than the downside threshold level.

Contingent Income Auto-Callable Securities due January 8, 2021

With the Coupon and Payment at Maturity Subject to the Performance of the Common Stock of United States Steel Corporation

Principal at Risk Securities

Risk Factors

The following is a non-exhaustive list of certain key risk factors for investors in the securities. For further discussion of these and other risks, you should read the section entitled "Risk Factors" in the accompanying prospectus supplement and prospectus. You should also consult your investment, legal, tax, accounting and other advisers in connection with your investment in the securities.

The securities do not guarantee the return of any principal. The terms of the securities differ from those of ordinary debt securities in that the securities do not guarantee the payment of regular interest or the return of any of the principal amount at maturity. Instead, if the securities have not been automatically redeemed prior to maturity and if § the final share price is less than the downside threshold level, you will be exposed to the decline in the closing price of the underlying stock, as compared to the initial share price, on a 1 to 1 basis and you will receive for each security that you hold at maturity an amount equal to the stated principal amount times the share performance factor. In this case, the payment at maturity will be less than 50% of the stated principal amount and could be zero. The potential contingent repayment of principal represented by the downside threshold level applies only at maturity. You should be willing to hold the securities until maturity. Additionally, if the securities are not 8 redeemed, at maturity, you will receive the stated principal amount (plus the contingent quarterly coupon with respect to the final determination date) only if the final share price is greater than or equal to the downside threshold level. If you are able to sell the securities prior to maturity, you may have to sell them for a loss relative to the principal amount, even if the price of the underlying stock is at or above the downside threshold level. The contingent quarterly coupon, if any, is based solely on the determination closing price or the final share price, as applicable. Whether the contingent quarterly coupon will be made with respect to a determination date will be based on the determination closing price or the final share price, as applicable. As a result, you will not know whether you will receive the contingent quarterly coupon until the related determination date. Moreover, because the contingent quarterly coupon is based solely on the determination closing price on a specific determination date or the final share price, as applicable, if that determination closing price or final share price is less than the downside threshold level, you will not receive any contingent quarterly coupon with respect to that determination date, even if the closing price of the underlying stock was higher on other days during the term of the securities.

You will not receive any contingent quarterly coupon for any quarterly period where the determination closing price or the final share price, as applicable, is less than the downside threshold level. A contingent quarterly coupon will be made with respect to a quarterly period only if the determination closing price or final share price is greater than or equal to the downside threshold level. If the determination closing price or final share price remains below the downside threshold level on each determination date over the term of the securities, you will not receive any contingent quarterly coupons.

Your return on the securities may be lower than the return on a conventional debt security of comparable maturity. The return that you will receive on the securities, which could be negative, may be less than the return you could earn on other investments. Your investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money, such as inflation.

§ Investors will not participate in any appreciation in the price of the underlying stock.
Investors will not participate in any appreciation in the price of the underlying stock from the initial share price, and the return on the securities will be limited to the

contingent quarterly coupon that is paid with "4" valign="top" width="92%"> Aggregate Amount Beneficially Owned by Each Reporting Person 78

- 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o
- 11. Percent of Class Represented by Amount in Row (9) 0.0%
- 12. Type of Reporting Person (See Instructions) IN

Item 1. (a) Name of Issuer: Alliance Data Systems Corporation Address of Issuer's Principal Executive Offices: (b) 17655 Waterview Parkway Dallas, TX 75252 Item 2. Name of Person Filing: (a) D. E. Shaw Oculus Portfolios, L.L.C. D. E. Shaw & Co., L.L.C. D. E. Shaw & Co., L.P. David E. Shaw (b) Address of Principal Business Office or, if none, Residence: The business address for each reporting person is: 120 W. 45th Street, Tower 45, 39th Floor New York, NY 10036 (c) Citizenship: D. E. Shaw Oculus Portfolios, L.L.C. is a limited liability company organized under the laws of the state of Delaware. D. E. Shaw & Co., L.L.C. is a limited liability company organized under the laws of the state of Delaware. D. E. Shaw & Co., L.P. is a limited partnership organized under the laws of the state of Delaware. David E. Shaw is a citizen of the United States of America. Title of Class of Securities: (d) Common Stock, \$0.01 par value **CUSIP** Number: (e) 018581108 Item 3. If this statement is filed pursuant to Rule 13d-1(b) or 13d-2(b) or (c), check whether the person filing is a: Not Applicable Item 4. Ownership As of December 31, 2008: (a) Amount beneficially owned: -0- shares D. E. Shaw Oculus Portfolios, L.L.C.:

78 shares

D. E. Shaw & Co., L.L.C.:

This is composed of 78 shares in the name of D. E. Shaw Synoptic

Portfolios 2, L.L.C.

D. E. Shaw & Co., L.P.: 78 shares

This is composed of 78 shares in the name of D. E. Shaw Synoptic

Portfolios 2, L.L.C.

David E. Shaw: 78 shares

This is composed of 78 shares in the name of D. E. Shaw Synoptic

Portfolios 2, L.L.C.

(b) Percent of class:

D. E. Shaw Oculus Portfolios, L.L.C.: 0.0%
 D. E. Shaw & Co., L.L.C.: 0.0%
 D. E. Shaw & Co., L.P.: 0.0%
 David E. Shaw: 0.0%

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

D. E. Shaw Oculus Portfolios, L.L.C.:

D. E. Shaw & Co., L.L.C.:

D. E. Shaw & Co., L.P.:

O- shares

O- shares

O- shares

O- shares

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

D. E. Shaw Oculus Portfolios, L.L.C.: -0- shares
D. E. Shaw & Co., L.L.C.: 78 shares
D. E. Shaw & Co., L.P.: 78 shares
David E. Shaw: 78 shares

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

D. E. Shaw Oculus Portfolios, L.L.C.: -0- shares
D. E. Shaw & Co., L.L.C.: -0- shares
D. E. Shaw & Co., L.P.: -0- shares
David E. Shaw: -0- shares

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

D. E. Shaw Oculus Portfolios, L.L.C.: -0- shares
D. E. Shaw & Co., L.L.C.: 78 shares
D. E. Shaw & Co., L.P.: 78 shares
David E. Shaw: 78 shares

David E. Shaw does not own any shares directly. By virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co., Inc., which is the general partner of D. E. Shaw & Co., L.P., which in turn is the investment adviser of D. E. Shaw Synoptic Portfolios 2, L.L.C., and by virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co., II, Inc., which is the managing member of D. E. Shaw & Co., L.L.C., which in turn is the managing member of D. E. Shaw Synoptic Portfolios 2, L.L.C., David E. Shaw may be deemed to have the shared power to vote or direct the vote of, and the shared power to dispose or direct the disposition of, the 78 shares as described above and, therefore, David E. Shaw may be deemed to be the beneficial owner of such shares. David E. Shaw disclaims beneficial ownership of such 78 shares.

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 5 percent of the class of securities, check the following [X].

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

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security

Being Reported on By the Parent Holding Company or Control Person

Not Applicable

Item 8. Identification and Classification of Members of the Group

Not Applicable

Item 9. Notice of Dissolution of Group

Not Applicable

Item 10. Certification

By signing below, each of D. E. Shaw Oculus Portfolios, L.L.C., D. E. Shaw & Co., L.L.C., D. E. Shaw & Co., L.P., and David E. Shaw certify that, to the best of such reporting person's knowledge and belief, the securities referred to above were 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 such purposes or effect.

SIGNATURE

After reasonable inquiry and to the best of their knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct. Powers of Attorney, dated October 24, 2007, granted by David E. Shaw in favor of Rochelle Elias, are attached hereto.

Dated: February 17, 2009

D. E. Shaw Oculus Portfolios, L.L.C.

By: D. E. Shaw & Co., L.L.C., as managing member

By: /s/ Rochelle Elias

Rochelle Elias

Chief Compliance Officer

D. E. Shaw & Co., L.L.C.

By: /s/ Rochelle Elias

Rochelle Elias

Chief Compliance Officer

D. E. Shaw & Co., L.P.

By: /s/ Rochelle Elias

Rochelle Elias

Chief Compliance Officer

David E. Shaw

By: /s/ Rochelle Elias

Rochelle Elias

Attorney-in-Fact for David E. Shaw