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## **NEWS RELEASE**

# **NexGen Drills Strongest and Shallowest Mineralization to Date at the Arrow Discovery**

**Vancouver, BC, August 5, 2014 – NexGen Energy Ltd. (TSX-V: NXE)** ("NexGen" or the "Company") is pleased to announce ongoing results from the summer 2014 drilling program from the 100% owned portion of the Rook I property, Athabasca Basin, Saskatchewan. The summer 2014 program has been increased from **13,500 to 18,500 m** of diamond drilling based on exceedingly encouraging results to date.

### **Highlights:**

- With only 22 drill holes the Arrow Discovery has developed into an area with a **515 m** strike length that is up to **180 m** wide, and remains open in all directions.
- **AR-14-15** intersected **51.1 m** total composite mineralization including **4.8 m** off-scale radioactivity (>10,000 cps) within a 305.7 m section (385.8 to 691.5 m). Strongest mineralization to date was observed in AR-14-15 as dense accumulations of semi-massive to massive pitchblende (see Figures 2 to 4).
- **AR-14-20** intersected **51.3 m** total composite mineralization including **0.35 m** off-scale radioactivity (>10,000 cps) within a 284.45 m section (118.55 to 403.00 m). This represents the shallowest mineralization intersected to date as mineralization approaches the Athabasca Group sandstone and basement unconformity.
- **AR-14-21a** intersected **74.42 m** total composite mineralization including **2.15 m** off-scale radioactivity (>10,000 cps) within a 279.75 m section (146.10 to 425.85 m).
- 21 of 22 drill holes completed at Arrow to date have intersected uranium mineralization.

A total of 8,900.4 m has been drilled at the Arrow zone in 22 holes as of July 27<sup>th</sup>, 2014 (Figure 1). The drill hole numbering sequence has now been changed to differentiate Arrow drill holes (AR-14-XX) from regional drill holes (RK-14-XX). An additional eight drill holes (AR-14-15 to -20, -21a, -22) have been completed, and one was abandoned at depth (AR-14-21), since the July 7<sup>th</sup>, 2014 news release on initial drilling results. Drill hole details and spectrometer (handheld RS-125) results are summarized in Table 1.

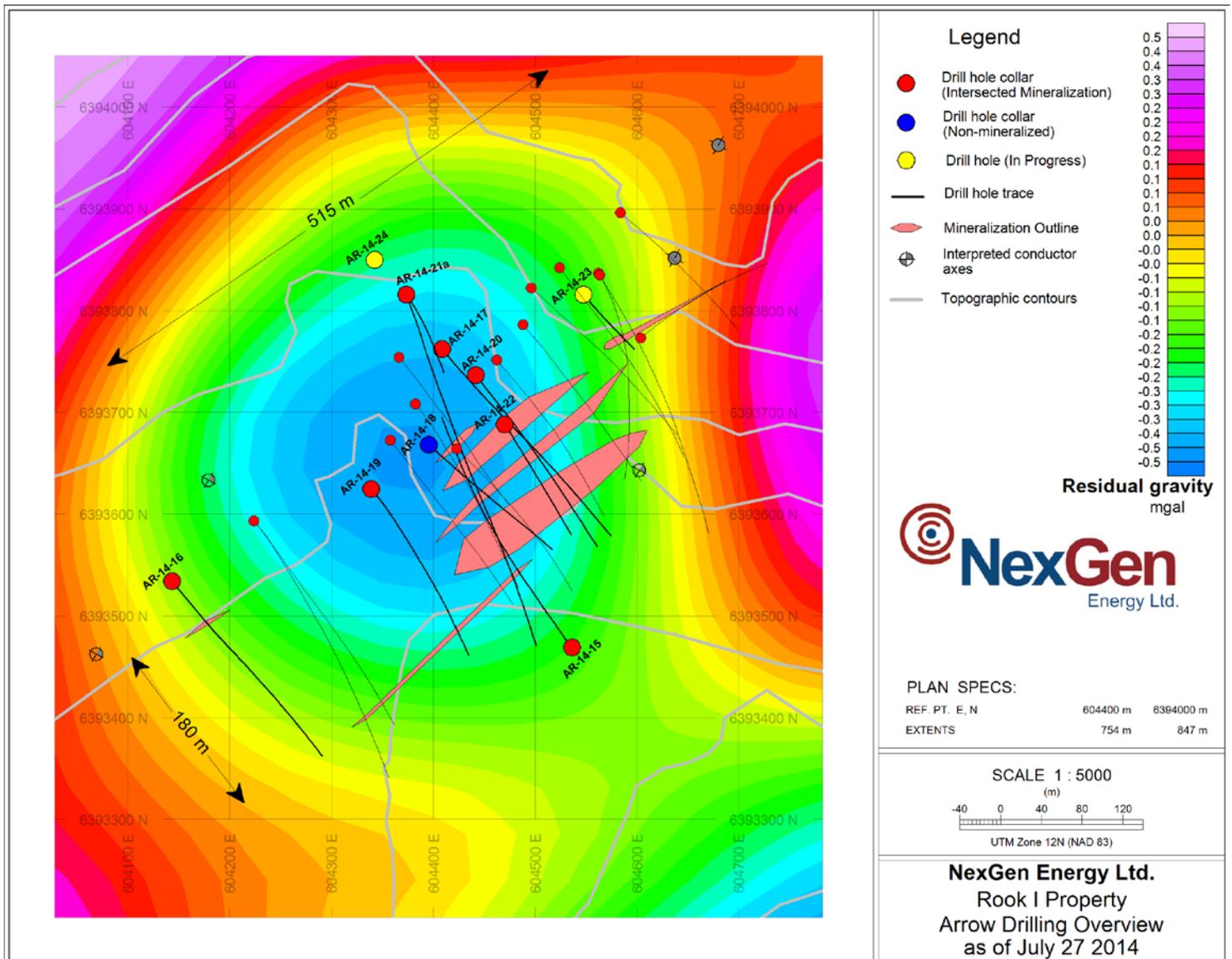
An additional 558.0 m of drilling in two holes (RK-14-41 and -42) has been completed on regional targets within the Rook I property, which is also reported in this news release.

Garrett Ainsworth, NexGen's Vice-President, Exploration and Development, commented "The growth of the Arrow zone to 515 m strike length by up to 180 m wide with a mere 22 drill holes is a remarkable achievement by NexGen's technical team. These latest drill results have helped us to better understand

the structural controls on mineralization with some of our most intense mineralization encountered to date in drill hole AR-14-15. The extreme clay alteration and presence of mineralization closer to the unconformity to the northwest of Arrow also shows huge potential.”

Leigh Curyer, CEO commented, “These results reflect NexGen’s approach of aggressively stepping out long distances to optimize the discovery cost efficiently and our team’s confidence in the mineralized system. At close to a 100% hit rate of drilled holes intersecting uranium over such a large area and in this round identifying the most intense and shallowest mineralization to date, it is a hugely exciting time for the Company. The increase in the program by 5,000 m to 18,500 m this summer will provide even more valuable data in the near term with respect to the resource potential of this exciting discovery.”

**Figure 1: Arrow Discovery Drill Hole Locations (gravity background)**



**Table 1: Arrow Discovery Zone Drill Hole Data**

Drill Hole				Athabasca Group - Basement Unconformity Depth (m)	Handheld Scintillometer Results (RS-125)			
Hole ID	Azimuth	Dip	Total Depth (m)		From (m)	To (m)	Width (m)	CPS Range
AR-14-15	320	-70	750.00	130.90	385.80	386.35	0.55	<500 - 900
					387.95	388.15	0.20	<500 - 800
					406.90	408.60	1.70	<500 - 600
					422.10	425.10	3.00	<500 - 1900
					437.20	439.30	2.10	<500 - 1600
					500.55	505.60	5.05	<500 - 600
					<b>567.15</b>	<b>569.10</b>	<b>1.95</b>	<b>&lt;500 - &gt;10000</b>
					<b>572.35</b>	<b>583.35</b>	<b>11.00</b>	<b>&lt;500 - &gt;10000</b>
					585.95	586.05	0.10	500
					<b>589.90</b>	<b>590.40</b>	<b>0.50</b>	<b>&lt;500 - &gt;10000</b>
					<b>594.40</b>	<b>618.80</b>	<b>24.40</b>	<b>&lt;500 - &gt;10000</b>
					673.00	673.20	0.20	500 - 1000
					690.70	690.85	0.15	500
691.30	691.50	0.20	600 - 1200					
AR-14-16	140	-70	565.25	102.20	145.20	145.50	0.30	<500 - 700
AR-14-17	140	-65	531.00	117.50	146.10	146.28	0.18	800 - 5500
					149.32	149.50	0.18	500 - 700
					152.63	155.84	3.21	<500 - 1000
					162.27	170.00	7.73	<500 - 2500
					187.60	193.22	5.62	<500 - 1200
					198.28	203.95	5.67	<500 - 2400
					208.10	208.78	0.68	1000 - 4000
					211.10	211.55	0.45	500 - 1000
					215.90	221.50	5.60	500 - 3000
					228.64	229.00	0.36	500 - 1000
					245.40	245.80	0.40	500 - 900
					248.00	248.10	0.10	500 - 600
					330.30	345.10	14.80	<500 - 4500
					347.90	355.50	7.60	<500 - 2200
					359.05	361.70	2.65	<500 - 7400
					368.60	368.75	0.15	1300 - 1400
					378.15	384.60	6.45	<500 - 2300
					<b>387.40</b>	<b>389.75</b>	<b>2.35</b>	<b>&lt;500 - &gt;10000</b>
392.15	393.45	1.30	<500 - 1500					
396.95	397.55	0.60	<500 - 2200					
404.30	406.20	1.90	<400 - 6300					
414.80	416.25	1.45	<500 - 4300					
424.90	425.85	0.95	500 - 5000					
AR-14-18	145	-65	369.00	111.00	No Significant Mineralization			
AR-14-19	145	-75	618.00	107.85	366.77	366.87	0.10	1000 - 1800
					421.90	422.10	0.20	3000 - 5000

					<b>537.17</b>	<b>542.15</b>	<b>4.98</b>	<b>&lt;500 - &gt;10000</b>
					562.95	563.10	0.15	500 - 700
AR-14-20	145	-65	516.00	105.10	118.55	121.95	3.40	<500 - 4000
					124.35	132.20	7.85	<500 - 2600
					136.95	137.15	0.20	550.00
					141.20	142.50	1.30	<500 - 1000
					145.50	148.80	3.30	<500 - 2200
					162.85	166.45	3.60	<500 - 1000
					171.15	177.45	6.30	<500 - 3200
					201.85	202.05	0.20	<500 - 700
					205.45	205.90	0.45	<500 - 700
					208.65	212.70	4.05	<500 - 1000
					229.05	229.40	0.35	<500 - 600
					234.10	234.40	0.30	<500 - 800
					274.50	281.75	7.25	<500 - 1000
					286.55	286.90	0.35	<500 - 700
					309.30	311.70	2.40	<500 - 2200
					<b>323.05</b>	<b>324.70</b>	<b>1.65</b>	<b>&lt;500 - &gt;10000</b>
					349.25	352.20	2.95	<500 - 1500
					367.55	369.70	2.15	<500 - 1000
					376.50	378.55	2.05	700 - 6900
					401.80	403.00	1.20	<500 - 1800
AR-14-21	145	-65	193.00	110.00	Drill hole abandoned at 193.00 m before target depth			
AR-14-21a	160	-65	669.80	126.00	288.90	293.10	4.20	<500 - 900
					295.30	322.20	26.90	<500 - 8000
					329.50	331.00	1.50	<500 - 1500
					333.35	335.35	2.00	<500 - 2000
					341.35	346.37	5.02	<500 - 2200
					356.50	358.15	1.65	<500 - 1700
					368.70	370.30	1.60	<500 - 800
					381.60	381.90	0.30	500 - 1700
					395.25	396.75	1.50	<500 - 600
					405.60	420.60	15.00	<500 - 2200
					450.80	451.65	0.85	<500 - 1000
					454.70	455.80	1.10	<500 - 800
					<b>459.55</b>	<b>464.20</b>	<b>4.65</b>	<b>&lt;500 - &gt;10000</b>
					<b>468.85</b>	<b>469.20</b>	<b>0.35</b>	<b>&lt;500 - &gt;10000</b>
					472.40	472.45	0.05	2500
					<b>480.95</b>	<b>484.50</b>	<b>3.55</b>	<b>&lt;500 - &gt;10000</b>
					<b>491.15</b>	<b>491.65</b>	<b>0.50</b>	<b>&lt;500 - &gt;10000</b>
					499.20	499.40	0.20	>10000
					505.80	508.30	2.50	<500 - 5500
					518.30	518.50	0.20	6200
					545.60	546.00	0.40	1000 - 3000
					569.60	570.00	0.40	<500 - 1400
AR-14-22	149	-65	364.10	118.30	228.45	228.55	0.10	500

## Parameters:

- Maximum internal dilution 2.00 m downhole
- All depths and intervals are meters downhole
- “Anomalous” means min 5 cm at >500 cps (counts per second) total count gamma readings by gamma spectrometer type RS-125
- “Off-scale” means >10,000 cps (counts per second) total count gamma readings by gamma spectrometer type RS-125
- Where “Min cps” is <500 cps, this refers to local low radiometric zones within the overall radioactive interval

Natural gamma radiation in drill core reported in this news release was measured in counts per second (cps) using a Radiation Solutions Inc. RS-125 gamma-ray spectrometer. **The reader is cautioned that total count gamma readings may not be directly or uniformly related to uranium grades of the rock sample measured; they should be used only as a preliminary indication of the presence of radioactive minerals.** All intersections are downhole. Core interval measurements and true thicknesses are yet to be determined.

Split core samples will be taken systematically, and intervals will be submitted to SRC Geoanalytical Laboratories (an SCC ISO/IEC 17025: 2005 Accredited Facility) of Saskatoon for analysis. All samples sent to SRC will be analyzed using ICP-MS for trace elements on the partial and total digestions, ICP-OES for major and minor elements on the total digestion, and fusion solution of boron by ICP-OES. Mineralized samples are analyzed for U3O8 by ICP-OES and gold by fire assay. Assay results will be released when received.

## ARROW DISCOVERY DRILLING

Hole AR-14-15 was drilled as a “scissor” to holes RK-14-28, -30, -32 to further investigate the structural controls of mineralization at Arrow. Athabasca Group sandstone was intersected from 114.8 to 130.9 m where local bleaching was observed approaching the unconformity at 130.9 m. The basement rocks below consist of primarily garnetiferous quartz-rich semipelitic to quartzitic gneiss varying to garnetiferous graphitic pelitic gneiss. Dravitic fracture coatings and quartz flooding features are intermittent throughout. Intense clay altered breccias are common throughout structural intervals. A total composite of 51.1 m of mineralization including 4.8 m off-scale radioactivity was intersected within a 305.7 m section (385.8 to 691.5 m). See Figures 2 to 4 for photographs of high grade mineralization encountered.

Hole AR-14-16 was drilled as a 100 m step out southwest along strike from the Arrow zone. The Athabasca Group sandstone and basement unconformity was intersected at 102.2 m after drilling through bleached Athabasca Group sandstone from 98.8 to 102.2 m. Basement rocks are typically weakly to moderately altered and are dominated by semipelitic gneiss with numerous one to three meter wide intervals of weakly graphitic pelitic gneiss. Anomalous radioactivity was intersected from 145.2 to 145.5 m.

Hole AR-14-17 was drilled as a step out to the northwest of known mineralization to expand the width of the Arrow zone. The unconformity between Athabasca Group sandstone and basement rock types was intersected at 117.5 m. Basement rocks are dominantly garnetiferous quartz rich semipelitic gneiss

which grade into garnetiferous graphitic pelitic gneiss near the bottom of hole. Weak to moderate and locally strong clay alteration occurs throughout the drill hole and increases in intensity proximal to mineralized zones. A total composite of 70.38 m of mineralization including 0.40 m off-scale radioactivity was intersected within a 279.75 m section (146.10 to 425.85 m).

Hole AR-14-18 was drilled to test the up-dip extension of deep sub-vertical high grade mineralization. The Athabasca sandstone and basement unconformity was intersected at 111.0 m, where moderately bleached and clay Athabasca sandstone was intersected from 103.0 to 111.0 m. The basement rocks are primarily garnetiferous graphitic pelitic gneiss which grades into quartzofeldspathic granodioritic gneiss from 301.0 to 364.0 m. Weak to moderate hematite and clay alteration are common throughout the basement lithologies, and weak to moderate chloritization increases in occurrence and intensity with depth. No significant mineralization was encountered in this drill hole.

Hole AR-14-19 was drilled to test the up-dip extension of deep sub-vertical high grade mineralization. The unconformity between Athabasca Group sandstone and basement rock types was intersected at 107.9 m. The basement consists of alternating semipelitic to pelitic gneiss with lesser granodioritic gneiss and gabbro. A strongly graphitic mylonite was intersected from 349.5 m to 358.0 m. Intermittent weak to moderate alteration included clay, chlorite and dravite. The strongest hematite and dravite alteration was associated with off-scale mineralization. A 4.98 m continuous zone of mineralization, including 1.26 m of off-scale radioactivity, was intersected from 537.17 to 542.15 m. Several narrow intervals of mineralization were encountered above and below this main interval.

Hole AR-14-20 was drilled to test the up-dip extension of deep sub-vertical high grade mineralization. The unconformity between Athabasca Group sandstone and basement rock types was intersected at 105.1 m. Basement rocks are composed primarily of semipelitic gneiss from 105.1 - 433.9 m. An intrusive gabbro is present from 433.9 - 463.1 m which overlies variably graphitic and sulphidic pelitic gneiss to the end of hole depth at 516.0 m. The semipelitic gneiss was dominantly clay and chlorite altered with local hematite altered breccias and dravitic clays proximal to mineralized zones. A total composite of 51.3 m of mineralization including 0.35 m off-scale radioactivity was intersected within a 284.45 m section (118.55 to 403.00 m).

Hole AR-14-21 was drilled as a step out to the northwest of known mineralization to expand the width of the Arrow zone. The unconformity between Athabasca Group sandstone and basement rock types was intersected at 110.0 m. The drill intersected strongly clay altered basement before the hole was lost. Target depth was not achieved, and no significant mineralization was encountered.

Hole AR-14-21a was drilled as a step out to the northwest of known mineralization to expand the width of the Arrow zone. The unconformity between Athabasca Group sandstone and basement rock types was intersected at 126.0 m. Basement core from 126.0 to 186.0 m was not recovered. The basement comprised primarily of garnetiferous semipelitic to pelitic gneiss with graphitic intervals common between 438.4 to 464.8 m. Extreme clay alteration intervals are very common, especially between 126.0 and 186.0 m (based on excessive core loss, and evidenced from previous drill hole AR-14-21). Locally strong clay alteration is common down to 264.8 m. Sporadic dravite veins and alteration were common from 272.9 m to the end of hole depth of 669.8 m. A total composite of 74.42 m of mineralization including 2.15 m off-scale radioactivity was intersected within a 281.1 m section (288.9 to 570.0 m).

Hole AR-14-22 was drilled to test the up-dip extension of deep sub-vertical high grade mineralization. The unconformity between Athabasca Group sandstone and basement rock types was intersected at 118.3 m. The basement rocks comprised primarily garnetiferous semipelitic gneiss with a graphitic interval intersected between 180.2 and 227.3 m. Clay and chlorite alteration was most common and strongest from 118.3 to 190.7 m. Dravite clay alteration was very common from 327.9 m to the end of hole depth at 364.1 m. This drill hole was abandoned before target depth was reached due to ground conditions. Anomalous radioactivity was intersected from 228.45 to 228.55 m.

**Figure 2: AR-14-15 – Massive to Semi-Massive Pitchblende Mineralization at 579.7 m**



Figure 3: AR-14-15 – Massive to Semi-Massive Pitchblende Mineralization at 580.0 m



Figure 4: AR-14-15 – Massive to Semi-Massive Pitchblende Mineralization at 609.5 m



## **REGIONAL DRILLING**

Regional exploration continued investigating outlying prospects at Area K with 558.0 m of drilling in two holes (RK-14-41 and -42).

Drill hole RK-14-41 intersected the basement at 58.0 m, and no Athabasca Group sandstone was present. The basement rocks comprised primarily fresh to weakly altered garnetiferous graphitic pelitic gneiss to the end of hole depth of 309.0 m. Numerous zones of moderate to strong sulphide concentrations were present throughout. No significant mineralization was encountered.

Drill hole RK-14-42 intersected the basement at 86.95 m, and no Athabasca Group sandstone was present. The basement rocks comprised primarily fresh to weakly altered garnetiferous graphitic pelitic gneiss to the end of hole depth of 249.0 m. Numerous zones of weak to moderate sulphide concentrations were present throughout. No significant mineralization was encountered.

Preparations have been made for regional drilling to continue at Area A on the inferred PL-3B EM conductor.

### **About NexGen**

NexGen is a British Columbia corporation with a focus on the acquisition, exploration and development of Canadian uranium projects. NexGen has a highly experienced team of exploration professionals with a track record in the discovery of unconformity-style uranium deposits in Canada.

NexGen owns a portfolio of highly prospective uranium exploration assets in the Athabasca Basin, Saskatchewan, Canada, including a 100% interest in Rook 1, location of the Arrow Discovery, immediately adjacent to the northeast of the Fission/Alpha Patterson Lake South Discovery, and an option to earn a 70% interest in the Radio Project, immediately adjacent to Rio Tinto's Roughrider Deposit.

The technical information in this news release has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 and reviewed on behalf of NexGen Energy Ltd., by Garrett Ainsworth, P.Geo., Vice President – Exploration & Development, a qualified person.

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*This news release contains "forward-looking information" within the meaning of applicable Canadian securities laws. Generally, but not always, forward looking information is identifiable by the use of words such as "will" and "planned" and similar expressions. Forward-looking information is based on the then current expectations, beliefs, assumptions, estimates and forecasts about the Company's business and the industry and markets in which it operates. Such information is not a guarantee of future performance and undue reliance should not be placed on forward-looking information. Assumptions and factors underlying the Company's expectations regarding forward-looking information contained herein include, among others: that general business and economic conditions will not change in a material adverse manner; that financing will be available if and when needed on reasonable terms; that the Company's current exploration activities can be achieved and that its other corporate activities will proceed as expected; that third party contractors, equipment and supplies and governmental and other approvals required to conduct the Company's planned exploration activities will be available on reasonable terms and in a timely manner.*

*Although the assumptions made by the Company in providing forward looking information are considered reasonable by management at the time the forward-looking information is given, there can be no assurance that such assumptions will prove to be accurate. Forward-looking information also involves known and unknown risks and uncertainties and other factors, which may cause actual events or results in future periods to differ materially from any projections of future events or results expressed or implied by such forward-looking information, including, among others: risks related to the availability of financing on commercially reasonable terms and the expected use of the proceeds; changes in the market; potential downturns in economic conditions; industry conditions; actual results of exploration activities being different than anticipated; changes in exploration programs based upon results of exploration; future prices of metal; availability of third party contractors; availability of equipment and supplies; failure of equipment to operate as anticipated; accidents, effects of weather and other natural phenomena and other risks associated with the mineral exploration industry; environmental risks; changes in laws and regulations; community relations; and delays in obtaining governmental or other approvals or financing. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated, estimated or intended. NexGen undertakes no obligation to update or reissue forward-looking information as a result of new information or events except as required by applicable securities laws. The reader is cautioned not to place undue reliance on forward-looking information.*