Mineral Reserves and Mineral Resources

NI 43-101 requires mining companies to disclose mineral reserve and resource estimates using the subcategories of proven mineral reserves, probable mineral reserves, measured mineral resources, indicated mineral resources and inferred mineral resources.

Denison Mineral Reserves and Mineral Resources

The following tables show the Company's estimates of mineral reserves and mineral resources as at December 31, 2021. The estimates are reported in the applicable technical reports prepared in accordance with NI 43-101, adjusted for mining activity where applicable. The summary information below on Denison's proven mineral reserve estimates was prepared from the year-end stockpile survey reported by Orano Canada Inc., operator of the McClean Lake joint venture.

Proven Mineral Reserve Estimates (1,14)

	100% Basis			Company Share(9)
Project/Deposit	**Tonnes**	**Grade % U_3O_8**	**Pounds of U_3O_8 (,000)**	**Pounds of U_3O_8 (,000)**
McClean - Ore Stockpile(14)	90,000	0.37	726	163
Total Proven Mineral Reserves	**90,000**		**726**	**163**

Probable Mineral Reserve Estimates (1,2,3,4,15)

	100% Basis			Company Share(9)
Project/Deposit	**Tonnes**	**Grade % U_3O_8**	**Pounds of U_3O_8 (,000)**	**Pounds of U_3O_8 (,000)**
Wheeler River - Phoenix	141,000	19.1	59,700	56,700
Wheeler River - Gryphon	1,257,000	1.8	49,700	47,200
Total Probable Mineral Reserves	**1,398,000**		**109,400**	**103,900**

Indicated Mineral Resource Estimates (1,5,15)

	100% Basis			Company Share(9)
Project/Deposit	**Tonnes**	**Grade % U_3O_8**	**Pounds of U_3O_8 (,000)**	**Pounds of U_3O_8 (,000)**
Wheeler River - Phoenix(7)	166,000	19.1	70,200	66,700
Wheeler River - Gryphon(7)	1,643,000	1.7	61,900	58,800
Wheeler River Subtotal	*1,809,000*		*132,100*	*125,500*
McClean - Caribou	47,800	2.6	2,800	600
McClean - Sue D	122,800	1.1	2,800	600
McClean - McClean North	204,300	2.8	12,200	2,700
McClean Subtotal	*374,900*		*17,800*	*3,900*
Midwest - Midwest Main	453,000	4.0	39,900	10,100
Midwest - Midwest A	566,000	0.87	10,800	2,700
Midwest Subtotal	*1,019,000*		*50,700*	*12,800*
Waterbury - THT (formerly J Zone)	291,000	2.0	12,800	8,600
Total Indicated Mineral Resources	**3,493,900**		**213,400**	**150,800**

Inferred Mineral Resource Estimates [1,6,15]

	100% Basis			Company Share[9]
Project/Deposit	Tonnes	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
Wheeler River - Phoenix	9,000	5.8	1,100	1,000
Wheeler River - Gryphon	73,000	1.2	1,900	1,800
Wheeler River Subtotal	*82,000*		*3,000*	*2,800*
McClean - Sue D	24,200	0.39	200	0
McClean - Sue E[8]	483,400	0.69	7,300	1,600
McClean - McClean North	3,300	0.79	100	0
McClean Subtotal	*510,900*		*7,600*	*1,600*
Midwest - Midwest Main	793,000	0.66	11,500	2,900
Midwest - Midwest A	53,000	5.8	6,700	1,700
Midwest Subtotal	*846,000*		*18,200*	*4,600*
Waterbury - Huskie	268,000	0.96	5,700	3,800
Total Inferred Mineral Resources	**1,706,900**		**34,500**	**12,800**

Historical Estimates

A qualified person has not done sufficient work to verify and classify these historical estimates as current mineral resources for the Company or confirm their reporting of resources is in accordance with NI 43-101 categories, though the Company has no reason to believe the information is not relevant or reliable. The Company is not treating this information as current mineral resources. As these do not represent material properties for the Company at this time, the Company does not currently have any plans to conduct work to verify the historical estimates.

<u>JCU Additional Properties</u>

JCU is a private Canadian company owned jointly by Denison (50%) and UEX (50%), which has interests in 11 uranium exploration and development projects in the Athabasca Basin region including ownership interests in the Millennium Project (JCU 33.099%, Cameco 66.901%) and the Christie Lake Project (JCU 34.4508%, UEX 65.5492%). Additionally, JCU has an interest in the Kiggavik Project (JCU 33.8123%, Orano 66.1877%) in Nunavut.

Historical Indicated Mineral Resource Estimates [15]

	100% Basis			Company Share[10]
Project/Deposit	Tonnes	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
Millennium[11]	1,442,600	2.39	75,900	11,400
Kiggavik[12]	10,418,000	0.47	127,300	21,500
Total Indicated Mineral Resources	**11,860,600**		**203,200**	**32,900**

Historical Inferred Mineral Resource Estimates [15]

Project/Deposit	100% Basis Tonnes	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Company Share[10] Pounds of U_3O_8 (,000)
Millennium[11]	412,400	3.19	29,000	4,400
Kiggavik[12]	731,000	0.28	5,400	900
Christie Lake[13]	588,000	1.57	20,300	3,500
Total Inferred Mineral Resources	**1,706,900**		**54,700**	**8,800**

McClean South

McClean South Historical Estimates [16]

Deposit	100% Basis Tons (,000)	Grade (% U_3O_8)	Pounds of U_3O_8 (,000)	Company's Share Pounds of U_3O_8 (,000)
Southwest Pod	47.6	2.10	2,000	500
Southeast Pod	126.7	0.73	1,900	400

Notes:

(1) CIM definitions were followed for classification of mineral reserves and mineral resources. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

(2) Mineral reserves for the Phoenix deposit are reported at the mineral resource cut-off grade of 0.8% U_3O_8. The mineral reserves are based on the block model generated for the May 28, 2014 mineral resource estimate. A mining recovery factor of 85% has been applied to the mineral resource above the cut-off grade.

(3) Mineral reserves for the Gryphon deposit are estimated at a cut-off grade of 0.58% U_3O_8 using a long-term uranium price of US$40/lb, and a US$/CAD$ exchange rate of 0.80. The mineral reserves are based on the block model generated for the January 30, 2018 mineral resource estimate. The cut-off grade is based on an operating cost of $574/tonne, milling recovery of 97%, and a 7.25% fee for Saskatchewan royalties (basic royalty plus resource surcharge).

(4) Mineral reserves are stated at a processing plant feed reference point and include diluting material and mining losses.

(5) The indicated mineral resources were estimated at various cut-off grades. They are:

- Phoenix: 0.80% U_3O_8
- Gryphon: 0.20% U_3O_8
- Caribou: 0.10% U_3O_8
- Sue D: 0.10% U_3O_8
- McClean North: 0.10% U_3O_8
- Midwest Main: 0.10% U_3O_8 (0.085% U)
- Midwest A: 0.10% U_3O_8 (0.085% U)
- THT (J Zone): 0.10% U_3O_8

(6) The inferred mineral resources were estimated at various cut-off grades. They are:

- Phoenix: 0.80% U_3O_8
- Gryphon: 0.20% U_3O_8
- Sue D: 0.10% U_3O_8
- Sue E: 0.10% U_3O_8
- McClean North: 0.10% U_3O_8
- Midwest Main: 0.10% U_3O_8 (0.085% U)
- Midwest A: 0.10% U_3O_8 (0.085% U)
- Huskie: 0.10% U_3O_8

(7) Indicated mineral resources for Phoenix and Gryphon deposits are inclusive of probable mineral reserves.

(8) The operator conducted confirmatory drilling on a portion of the Sue E mineral resources outside the designated pit and late in 2006 submitted a preliminary analysis detailing an inferred mineral resource of approximately 2 million pounds on a 100% basis in this area, as compared to the 7.3 million pounds that Scott Wilson Roscoe Postle Associates Inc. ("**Scott Wilson RPA**", succeeded by Roscoe Postle Associates Inc. ("**RPA**") and then acquired by SLR Consulting Limited, "**SLR**"), estimated in its February 2006 technical report. The mineral resource has not been re-estimated using the new drill information.

(9) As at December 31, 2021, pursuant to the terms of the agreements with its applicable joint venture partners and subsequent to its acquisition of JCU in August 2021, the Company had an effective 95.00% interest in the Wheeler River project, a 22.50% interest in the McClean Lake property; a 25.17% interest in the Midwest project; and a 66.90% interest in the Waterbury Lake property.

(10) Denison's share has been calculated as 50% of the product of JCU's percentage interest in the applicable project multiplied by the estimated mineral resources on a 100% basis.
(11) Millennium mineral resources as reported by Cameco as of December 31, 2021 on their website at https://www.cameco.com/businesses/uranium-projects/millennium/reserves-resources. Cut-off grades and other assumptions, parameters and methods used to estimate resources are unknown.
(12) Kiggavik mineral resources as reported by Orano in their 2020 Activities Report available on their website at https://www.orano.group/docs/default-source/orano-doc/groupe/publications-reference/publication-groupe/orano_annual-activity-report_2020_online.pdf?sfvrsn=b8263a0d_27 and converted from tonnes U to pounds U_3O_8 and from %U to %U_3O_8. Cut-off grades and other assumptions, parameters and methods used to estimate resources are unknown.
(13) Christie Lake mineral resources, and relevant assumptions, parameters and methods used for estimating, are documented in the "Technical Report on the Christie Lake Uranium Project, Saskatchewan, Canada" with an effective date of December 13, 2018, which is available under UEX's profile on SEDAR at www.sedar.com, filed on February 1, 2019. Inferred resources attributable to JCU have been modified from the values stated in such Technical Report to reflect a decrease in JCU's ownership of the Christie Lake Project from 40% to 34.4508% effective January 1, 2021. The Christie Lake mineral resources were estimated at a cut off grade of 0.2% U_3O_8.
(14) The summary information on Denison's proven mineral reserve estimates was prepared from the year-end stockpile survey reported by Orano Canada, the MLJV operator.
(15) Numbers may not add due to rounding.
(16) The historical estimates do not comply with the requirement of NI 43-101. CIM definitions are not used.

Technical Reports

For full details relating to Denison's current estimates of mineral reserves and mineral resources reference should be made to the applicable technical reports for the properties, available on the Company's profile on the SEDAR website at www.sedar.com, as detailed below.

Wheeler River

Technical report entitled "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018.

Waterbury Lake

Technical report entitled "Preliminary Economic Assessment for the Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" effective October 30, 2020.

McClean Lake

Technical reports: (A) the "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" dated November 21, 2005, as revised February 16, 2006, (B) the "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" dated March 31, 2006, and (C) the "Technical Report on the Mineral Resource Estimate for the McClean North Uranium Deposits, Saskatchewan" dated January 31, 2007.

Midwest

Technical report entitled "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" dated March 26, 2018.

Qualified Persons

Each of David Bronkhorst, P.Eng, Denison's Vice-President Operations, and Andy Yackulic, P.Geo., Denison's Director, Exploration, is a "Qualified Person" in accordance with the requirements of NI 43-101, and has reviewed and approved this disclosure.