



MEMORANDUM

**TO: JEAN-PIERRE LACHANCE, VICE PRESIDENT EXPLORATION,
STRATECO RESOURCES INC.**

**FROM: DAVID ROSS, P.GEO., SENIOR CONSULTING GEOLOGIST,
SCOTT WILSON ROSCOE POSTLE ASSOCIATES INC.**

SUBJECT: MATOUSH MINERAL RESOURCE UPDATE

DATE: SEPTEMBER 18, 2009

Scott Wilson Roscoe Postle Associates Inc. (Scott Wilson RPA) was retained by Strateco Resources Inc. (Strateco) to update the Mineral Resource estimate for the Matoush deposit, located in Central Quebec, Canada. Scott Wilson RPA has previously prepared Mineral Resource estimates for Matoush, with the most recent one in September 2008, which was included in the December 2008 Preliminary Assessment of the project. In February 2009, Strateco commenced a 30,000 m surface drilling program based on the recommendations in the Preliminary Assessment.

Scott Wilson RPA updated the National Instrument 43-101 (NI 43-101) compliant Mineral Resource estimate for the Matoush deposit using drill hole data available to September 1, 2009. At a cut-off grade of 0.1% U_3O_8 , Indicated Mineral Resources are estimated to total 436,000 tonnes grading 0.78% U_3O_8 containing 7.46 million pounds U_3O_8 . Inferred Mineral Resources are estimated to total 1.2 million tonnes grading 0.50% U_3O_8 containing 12.8 million pounds U_3O_8 . The Mineral Resources are contained within three zones: AM-15, MT-22 and MT-34.

The modelling methods and parameters were similar to those used in the previous estimate (Ross and Cook, 2008). High-grade values were cut to 9% U_3O_8 prior to compositing to two metres, a density factor of 2.52 g/cm³ to convert volume to tonnage, and block U_3O_8 grades within the wireframe models were estimated by ordinary kriging. The most significant difference in the current estimation method was increasing the cut-off grade from 0.05% U_3O_8 to 0.1% U_3O_8 as recommended in the Preliminary Assessment (Lecuyer et al., 2008).

The increased Indicated resources reflects the closer spaced drilling plus improved confidence in the geologic and grade continuity. The increase in global resources, at a higher cut-off than the previous estimate, demonstrates that the Matoush is a robust deposit, relatively insensitive to cut-off grades between 0.05% and 0.2% U_3O_8 .

There is excellent potential to discover additional resources along the Matoush Fault Zone. The main challenge is to identify the control on the thick high-grade south-plunging shoots and target these shoots in a cost effective manner.



TABLE 1 MINERAL RESOURCES BY ZONE – SEPTEMBER 1, 2009
Strateco Resources Inc. - Matoush Project

	Tonnage (t x 1,000)	U₃O₈ (%)	U₃O₈ (lbs x 1,000)
INDICATED			
AM15	262	0.700	4,039
MT34	174	0.890	3,420
Total Indicated	436	0.776	7,458
INFERRED			
AM15	33	0.339	249
MT22	822	0.526	9,526
MT34	302	0.451	3,003
Total Inferred	1,157	0.501	12,777

Notes:

1. CIM Definition Standards were followed for classification of Mineral Resources.
2. The cut-off grade of 0.1% U₃O₈ was calculated using a U₃O₈ price of US\$75/lb and assumed operating costs.
3. The Mineral Resource estimate uses drill hole data available as of September 1, 2009.
4. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
5. Totals may not sum correctly due to rounding.

DATABASE

The current resource estimate was prepared using drill hole data available to September 1, 2009. This includes holes up to and including MT-09-030 for a total of 374 diamond core holes. Of these, 322 holes representing 134,189 m of drilling are located within the area of resources (Table 2). The wireframe models representing the mineralized lenses are intersected by 179 holes.

TABLE 2 DATABASE RECORDS
Strateco Resources Inc. - Matoush Project

Table Name	Number of Records
Hole-ID	322
Survey	3,510
U ₃ O ₈ Values (chemical and gamma-logging)	5,875
Geology	2,459
Hematite/Limonite Alteration	5,435
Fuchsite/Chlorite/Muscovite Alteration	1,886
Tourmaline Alteration	364
Structure	8,610
Radiometric	3,609
Density	631

As of September 1, 2009, chemical analysis had not been received for eight holes, MT-09-023 to MT-09-030. As noted in Ross and Cook, 2008, Strateco systematically probes each hole with a gamma-logging instrument prior to pulling the rod string. Counts per second (CPS) is converted to equivalent U₃O₈ (eU₃O₈) using an algorithm calibrated to Matoush mineralization. Strateco regularly compares



calculated eU_3O_8 values against chemical assays once received. Scott Wilson RPA reviewed the comparison and considers the eU_3O_8 values, for the eight holes missing chemical analysis, suitable to estimate Mineral Resources. Chemical analyses were used for all other holes.

Scott Wilson RPA ran validation queries in Excel, Access, and Gemcom. Three holes appear to have erroneous location data and were therefore removed from the resource database:

- Holes MT-08-031 and MT-08-032 were drilled from the lake located west of the deposit. The collar elevation and downhole orientation survey data appear to be erroneous as the flat-lying stratigraphy is offset as much as five metres for these holes. The elevation error is confirmed by the collar coordinates with respect to water levels, ice thickness registry for 2008, and 3D LIDAR maps. The FlexIT downhole surveys also appear erroneous due to unrealistic changes in direction over distances of 50 m or less.
- Hole AM-15, the discovery hole drilled by Uranerz Exploration and Mining Ltd., was excluded from the drill hole database also due to poor location data plus the fact it was drilled at a low angle to the mineralized lens.

The previous estimate was made in a projection UTM Zone 18, NAD27. In mid-2009, Strateco resurveyed most collar coordinates using UTM Zone 18, NAD83. This change of datum translated collar coordinates 24.5 m to the east, 228.5 m to the north, and left the elevation unchanged. The Gemcom model was updated accordingly.

CUT-OFF GRADE

Table 3 outlines the assumptions used to derive the cut-off grade (COG) for the past September 2008 Mineral Resource estimate.

TABLE 3 2008 CUT-OFF GRADE ASSUMPTIONS
Strateco Resources Inc. - Matoush Project

Assumption	Units	Value
Revenue		
Uranium Price	US\$/lb U_3O_8	55
Metallurgical Recovery	%	98
Operating Costs		
Mining	US\$/t milled	55
Processing	US\$/t milled	20
Power	US\$/t milled	10
G&A	US\$/t milled	15
Total	US\$/t milled	100
Breakeven COG	% U_3O_8	0.084
Incremental COG	% U_3O_8	0.050

At that time, the breakeven cut-off grade was estimated to be 0.084% U_3O_8 , and Scott Wilson RPA estimated and reported Mineral Resources based on a cut-off grade of 0.05% U_3O_8 .



Marginal material reported between the incremental and breakeven cut-off grades represents mineralization that has a reasonable prospect of economic extraction assuming sunk development costs. Marginal material may be included largely to maintain resource continuity, and does not represent a significant portion of the Mineral Resource estimate.

On December 17, 2008, Scott Wilson RPA completed a Preliminary Assessment (PA) of the Project (Lecuyer et al., 2008). The cut-off grade for the updated Mineral Resource estimate was increased based on work completed in this study.

Table 4 outlines the parameters used for the updated cut-off grade calculation.

TABLE 4 2009 CUT-OFF GRADE ASSUMPTIONS
Strateco Resources Inc. - Matoush Project

Assumption	Units	Value
Revenue		
Uranium Price	US\$/lb U ₃ O ₈	75
Exchange Rate	US\$:C\$	0.85
Metallurgical Recovery	%	97.6
Transport	C\$/lb U ₃ O ₈	0.10
Royalty	%	2.0
Operating Costs		
Mining	C\$/t milled	83
Processing	C\$/t milled	75
Power	C\$/t milled	36
Maintenance	C\$/t milled	25
Site Services	C\$/t milled	29
G&A	C\$/t milled	22
Total	C\$/t milled	270
Breakeven COG	% U₃O₈	0.145
Incremental COG	% U₃O₈	0.100

Using the updated parameters from the PA, the breakeven cut-off grade is estimated to be 0.145% U₃O₈. The higher cut-off grade is largely due to the more detailed operating cost estimate culminating from the PA. The total unit operating cost stated in the PA has been reduced to C\$270 per tonne milled to reflect lower sulphuric acid prices.

Scott Wilson RPA estimated and reported the September 2009 Mineral Resources based on a cut-off grade of 0.10% U₃O₈. The Mineral Resources are insensitive to cut-off grade in the range of 0.10% U₃O₈ to 0.20% U₃O₈, and marginal material represents less than two percent of the global resource contained metal.



GEOLOGICAL INTERPRETATION

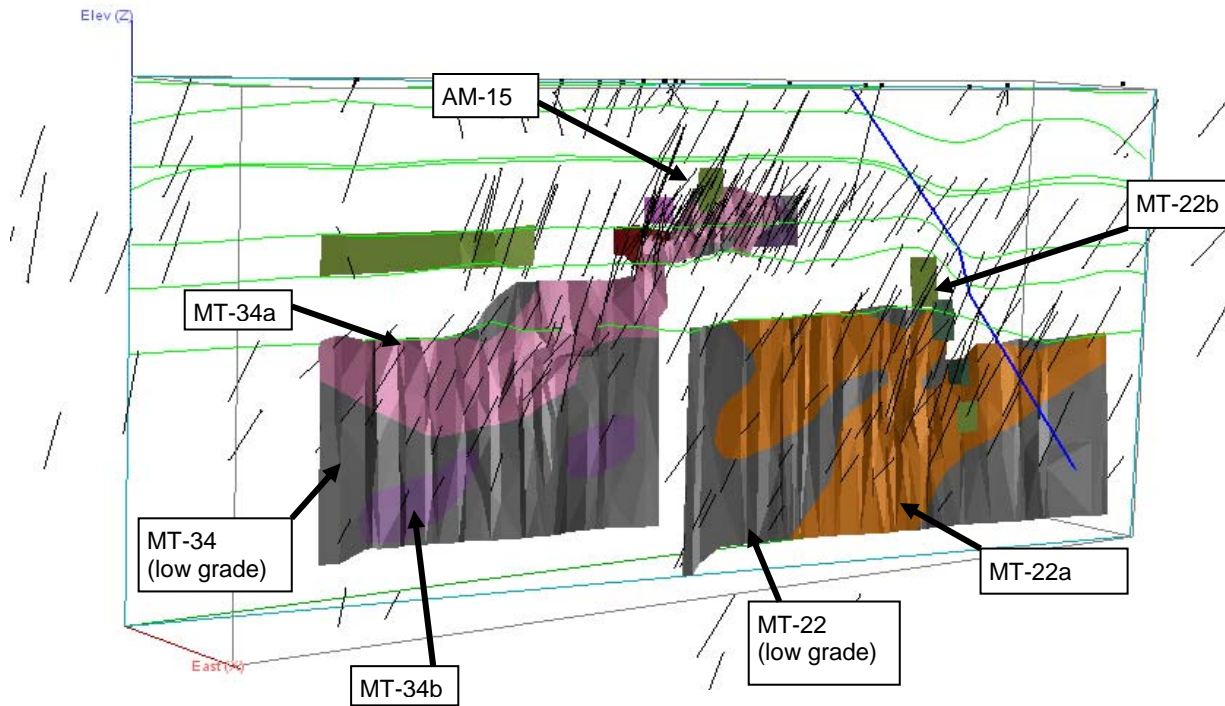
Outlines of the mineralized lenses were interpreted on ten-metre spaced vertical sections. Minimum criteria of 0.1% U_3O_8 over 1.5 m true thickness was used as a guide. Narrow intercepts grading 0.05% to 0.1% U_3O_8 , located immediately adjacent to the main mineralized intercept, were commonly included where grade control is thought to be impractical. Where necessary, the wireframe intercept was "bulked out" to a minimum of 1.5 m true thickness. Partial assays were used when required under the assumption that the grade decreases outwards. Low-grade intercepts were included in the initial wireframe models for zones MT-34 and MT-22. Many of these intercepts were removed from the resource wireframe if below 0.05% U_3O_8 . Some intersections grading 0.05% to 0.1% U_3O_8 were included in the grade interpolation to preserve continuity and/or maintain a soft boundary.

Three zones make up the Mineral Resources at Matoush: AM-15, MT-22, and MT-34. Each of the zones is made up of two or more lenses, all of which strike consistently north ($\sim 008^\circ$) and dip steeply to the east (Figure 1). Changes in the interpretation since the last resource model include:

- The fault previously modelled to separate the upper MT-34a lens and the AM-15 Main lens was removed. This fault was interpreted to explain an offset in the AM-15 zone apparent in holes MT-08-031 and MT-08-032. For this resource update, these two holes were removed from the resource database due to erroneous location data as described above.
- The MT-34 zone now appears similar to MT-22. It has excellent geologic continuity and is located primarily within the ACF4 stratigraphic unit. It includes a south-plunging, thick, high-grade shoot, not unlike the higher grade parts of the AM-15 zone.
- Parts of the deposit were removed due to the higher cut-off grade. These include the upper-north corner of the AM-15 North lens, the lower portion of the AM-15 Main lens, and some of the southern-upper portion of the MT-34a lens.
- The MT-22A zone was extended 200 m to the north to include holes MT-08-077, MT-08-079, MT-08-080, and MT-08-082.
- Several small lenses, thought to be mineralized splays from the Matoush structure, were modelled and included as part of the estimated resources. These were grouped into a single domain for interpolation and reporting purposes.

To maintain continuity and preserve the grade distribution, lower grade holes were included in the preliminary wireframe where a gradual grade trend is thought to exist. The lower grade subzones were later managed during the block modelling process to ensure mineable continuity of the Mineral Resource blocks (Figure 1).

FIGURE 1 3D VIEW OF WIREFRAME MODELS (LOOKING WEST)





U₃O₈ STATISTICS (CUT AND UNCUT VALUES)

Uranium values within the wireframes were tagged with domain identifiers and exported for basic statistical analysis. The sample population includes the low-grade values within lenses MT-22 and MT-34 (see grey area in Figure 1). The high-grade values were cut to 9% U₃O₈. Results by lens are summarized in Table 5.

**TABLE 5 DESCRIPTIVE STATISTICS OF U₃O₈ VALUES BY LENS
 Strateco Resources Inc. - Matoush Project**

	Length (m)	U3O8 (%)	Cut U3O8 (%)	Length (m)	U3O8 (%)	Cut U3O8 (%)	Length (m)	U3O8 (%)	Cut U3O8 (%)	Length (m)	U3O8 (%)	Cut U3O8 (%)
	ALL LENSES			SZ			NZ			UZ		
N of Cases	1,186	1,186	1,186	103	103	103	35	35	35	14	14	14
Minimum	0.10	0.00	0.00	0.20	0.00	0.00	0.30	0.00	0.00	0.40	0.00	0.00
Maximum	3.00	25.70	9.00	3.00	7.05	7.05	1.00	3.11	3.11	1.00	1.05	1.05
Median	0.70	0.23	0.23	0.60	0.22	0.22	0.60	0.08	0.08	0.75	0.07	0.07
Arithmetic Mean	0.70	0.97	0.88	0.69	0.77	0.77	0.61	0.67	0.67	0.78	0.14	0.14
Standard Deviation	0.28	2.26	1.66	0.36	1.28	1.28	0.27	0.97	0.97	0.21	0.27	0.27
Coefficient of Variation	0.41	2.33	1.90	0.53	1.66	1.66	0.44	1.46	1.46	0.27	1.89	1.89
	MT22A			MT22B			MT34A			MT34B		
N of Cases	212	212	212	14	14	14	742	742	742	15	15	15
Minimum	0.30	0.00	0.00	0.40	0.04	0.04	0.10	0.00	0.00	0.30	0.00	0.00
Maximum	2.60	13.80	9.00	1.00	1.31	1.31	2.70	25.70	9.00	1.00	1.38	1.38
Median	0.70	0.15	0.15	1.00	0.12	0.12	0.69	0.29	0.29	0.80	0.05	0.05
Arithmetic Mean	0.73	0.83	0.81	0.84	0.40	0.40	0.69	1.15	1.01	0.71	0.21	0.21
Standard Deviation	0.28	1.78	1.61	0.21	0.46	0.46	0.28	2.61	1.82	0.26	0.42	0.42
Coefficient of Variation	0.38	2.13	2.00	0.25	1.17	1.17	0.41	2.28	1.81	0.37	1.96	1.96
	SPLAYS											
N of Cases	51	51	51									
Minimum	0.30	-	-									
Maximum	1.20	2.52	2.52									
Median	0.80	0.06	0.06									
Arithmetic Mean	0.75	0.16	0.16									
Standard Deviation	0.24	0.38	0.38									
Coefficient of Variation	0.33	2.34	2.34									



COMPOSITING

Sample intervals within the wireframe models range from ten centimetres to three metres, and average 70 cm (Table 5). Assays within the wireframe models were composited to two-metre lengths starting at the first mineralized wireframe boundary from the collar and resetting at each new lens wireframe boundary. Several shorter composites occur at the bottom of the mineralized zone, immediately above where the drill hole exits the wireframe. Partial composites less than 60 cm long were removed from the dataset. Non-assayed intervals were treated as zero grade.

Table 6 summarizes statistics of the uncut and cut U₃O₈ composite values. The decrease in average composite grade, when compared to raw assay grades, is mainly due to a sample length bias whereby the geologist logging the core selects shorter sample lengths for the higher grade intercepts, based on scintillometer response.

**TABLE 6 DESCRIPTIVE STATISTICS OF U₃O₈ COMPOSITE VALUES BY LENS
 Strateco Resources Inc. - Matoush Project**

	Length (m)	U3O8 (%)	Cut U3O8 (%)	Length (m)	U3O8 (%)	Cut U3O8 (%)	Length (m)	U3O8 (%)	Cut U3O8 (%)	Length (m)	U3O8 (%)	Cut U3O8 (%)
	ALL LENSES			SZ			NZ			UZ		
N of Cases	454	454	454	36	36	36	11	11	11	6	6	6
Minimum	0.60	0.00	0.00	0.90	0.01	0.01	0.70	0.00	0.00	1.40	0.01	0.01
Maximum	2.00	14.23	8.56	2.00	3.31	3.31	2.00	2.45	2.45	2.00	0.24	0.24
Median	2.00	0.26	0.26	2.00	0.30	0.30	2.00	0.22	0.22	2.00	0.09	0.09
Arithmetic Mean	1.86	0.71	0.67	1.91	0.63	0.63	1.70	0.53	0.53	1.82	0.11	0.11
Standard Deviation	0.33	1.34	1.08	0.27	0.77	0.77	0.52	0.73	0.73	0.29	0.08	0.08
Coefficient of Variation	0.18	1.89	1.62	0.14	1.22	1.22	0.31	1.40	1.40	0.16	0.75	0.75
	MT22A			MT22B			MT34A			MT34B		
N of Cases	86	86	86	7	7	7	280	280	280	7	7	7
Minimum	0.70	0.00	0.00	0.60	0.10	0.10	0.60	0.00	0.00	0.60	0.00	0.00
Maximum	2.00	8.43	8.06	2.00	0.83	0.83	2.00	14.23	8.56	2.00	0.54	0.54
Median	2.00	0.22	0.22	2.00	0.34	0.34	2.00	0.31	0.31	2.00	0.10	0.10
Arithmetic Mean	1.82	0.67	0.66	1.69	0.37	0.37	1.90	0.81	0.75	1.51	0.15	0.15
Standard Deviation	0.36	1.31	1.24	0.56	0.26	0.26	0.28	1.49	1.13	0.62	0.19	0.19
Coefficient of Variation	0.20	1.94	1.88	0.33	0.72	0.72	0.15	1.84	1.51	0.41	1.29	1.29
	SPLAYS											
N of Cases	21	21	21									
Minimum	0.78	0.00	0.00									
Maximum	2.00	1.36	1.36									
Median	2.00	0.11	0.11									
Arithmetic Mean	1.73	0.19	0.19									
Standard Deviation	0.41	0.31	0.31									
Coefficient of Variation	0.24	1.64	1.64									



GRADE ESTIMATE

Scott Wilson RPA performed some variography on the new resource database but mainly relied on results from the previous update. Results and methods are described in Ross and Cook (2008).

Block grade estimates required a minimum of one to a maximum of eight composites. The search ellipsoid measuring 80 m by 40 m by 4 m was oriented in the overall average plane of mineralization. A second pass with a search ellipsoid measuring 100 m by 100 m by 20 m was used in domains MT-22 and MT-34a. Search criteria, unique to each lens, are outlined in Table 7.

TABLE 7 SEARCH STRATEGY PARAMETERS
Strateco Resources Inc. - Matoush Project

	South Lens	Upper Lens	North Lens	Splays
Principal Azimuth	188°	188°	188°	188°
Principal Plunge	-20°	-20°	-20°	-01°
Intermediate Azimuth	008°	008°	008°	008°
High-grade limit	none	none	none	none
High-grade range 1	n/a	n/a	n/a	n/a
High-grade range 2	n/a	n/a	n/a	n/a
High-grade range 3	n/a	n/a	n/a	n/a
	MT-22a	MT-22b	MT-34a	MT-34b
Principal Azimuth	188°	188°	188°	188°
Principal Plunge	-30°	-20°	-45°	-20°
Intermediate Azimuth	008°	008°	030°	040°
High-grade limit	5%	none	7%	none
High-grade range 1	60 m	n/a	30 m	n/a
High-grade range 2	30 m	n/a	15 m	n/a
High-grade range 3	6 m	n/a	6 m	n/a



CLASSIFICATION

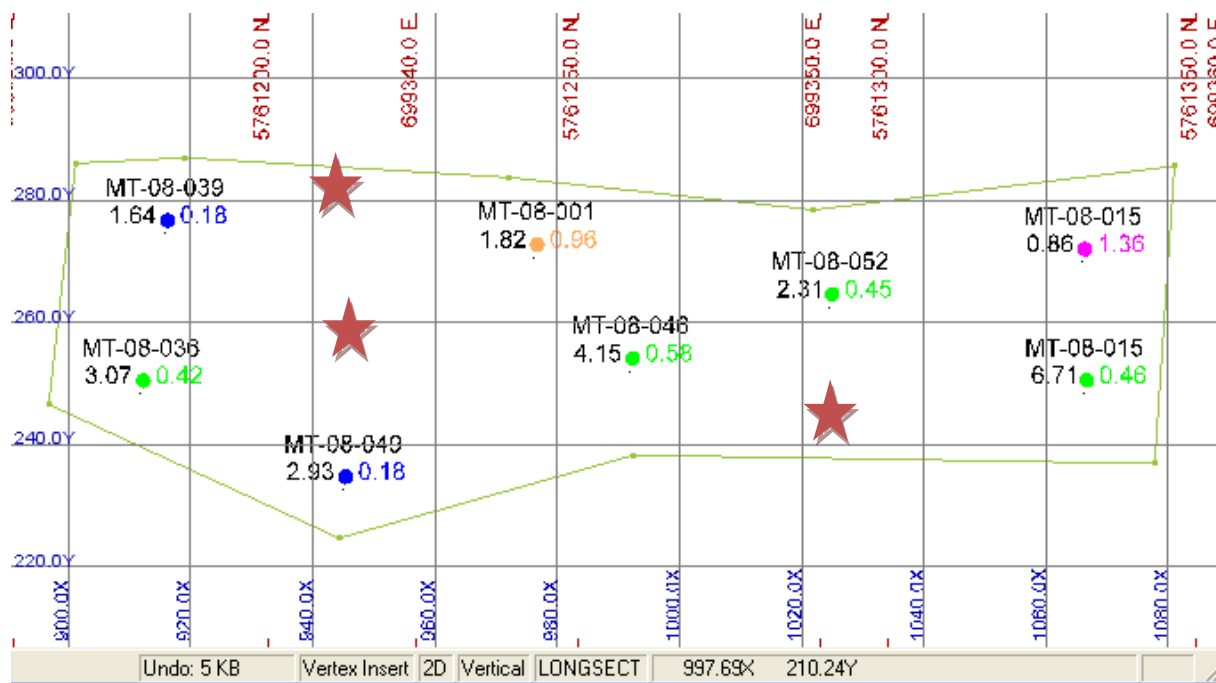
Scott Wilson RPA manually classified the Mineral Resources based on drill hole spacing, geology, lens thickness, continuity, and variogram ranges. Most areas of Indicated are supported by 30 m to 40 m spacing, with some exceptions in areas of thicker and more continuous mineralization where spacing up to 50 m was included.

The drill hole spacing in the AM-15 zone is generally less than 20 m. The MT-34 (Main lens), South lens, and most of the North Lens were classified as Indicated. Although there are some areas of closely spaced drilling in the upper MT-34 (part of AM-15 zone) and South lenses, no blocks were classified as Measured because grade and geometrical continuity has not been established to the confidence level required for the Measured category.

Parts of the MT-34a lens include low-grade subzones that do not meet the cut-off grade of 0.1% U₃O₈. These subzones are therefore not part of the Mineral Resource and were “carved out” during the resource reporting stage. Care was taken to maintain mineable continuity. A thick high-grade shoot drilled at 30 m to 50 m spacing was classified as Indicated. The stronger grade continuity in the down-plunge direction is reflected in the manual classification where Indicated portions are more tightly constrained along-strike than in the down-plunge direction. The remainder of the MT-34 zone was classified as Inferred.

Parts of the MT-22a lens also include low-grade sub-zones which were treated the same as those in MT-34a. The average drill hole spacing in the MT-22a lens is 60 m to 70 m. Both MT-22a and MT-22b were classified as Inferred. Several areas of MT-22a could be upgraded to Indicated with a few additional holes (Figure 2).

FIGURE 2 DRILL HOLE TARGETS IN MT-22





MINERAL RESOURCE REPORTING

Table 8 lists resources at a 0.1% U₃O₈ cut-off. The estimated pounds in the Indicated category have increased from 3.73 million in 2008 to 7.46 million pounds. This increase of 100% is mostly due to the addition of Indicated resources in MT-34a lens within ACF4.

Table 8 lists resources by lens. The part of the MT34A lens located within the AM-15 zone was formally known as the Main lens. Lenses MT34A and MT22A make up the bulk of the resources.

Table 9 lists resources by zone and cut-off grade and indicates that the deposit is relatively insensitive to cut-off at grades between 0.05% and 0.2% U₃O₈.

TABLE 8 MINERAL RESOURCES BY LENS
Strateco Resources Inc. - Matoush Project

	Tonnage (t x 1,000)	U ₃ O ₈ (%)	U ₃ O ₈ (lbs x 1,000)
INDICATED			
SZ	32	0.526	372
NZ	14	0.660	204
MT34A*	390	0.801	6,882
Total Indicated	436	0.776	7,458
INFERRED			
MISC	48	0.379	398
UZ	5	0.110	12
NZ	3	0.311	23
MT22A	770	0.536	9,099
MT22B	35	0.343	262
MT34A*	245	0.516	2,787
MT34B	52	0.173	196
Total Indicated	1,157	0.501	12,777

* The MT34A lens is within both the MT-34 and AM-15 zones.



TABLE 9 MINERAL RESOURCES BY ZONE AND CUT-OFF GRADE
Strateco Resources Inc. - Matoush Project

	Cut-off Grade (% U ₃ O ₈)	Tonnage (t x1,000)	U ₃ O ₈ (%)	U ₃ O ₈ (lbs x1,000)
INDICATED				
AM15	0.3	190	0.887	3,709
	0.2	230	0.774	3,925
	0.1	262	0.700	4,039
	0.05	264	0.694	4,043
MT34	0.3	139	1.055	3,238
	0.2	168	0.918	3,393
	0.1	174	0.890	3,420
	0.05	174	0.890	3,420
ALL INDICATED	0.3	329	0.958	6,947
	0.2	398	0.835	7,318
	0.1	436	0.776	7,458
	0.05	438	0.772	7,463
INFERRED				
AM15	0.3	20	0.481	209
	0.2	22	0.458	221
	0.1	33	0.339	249
	0.05	65	0.237	339
MT22	0.3	509	0.720	8,082
	0.2	686	0.600	9,067
	0.1	822	0.526	9,526
	0.05	964	0.467	9,918
MT34	0.3	136	0.799	2,395
	0.2	167	0.697	2,570
	0.1	302	0.451	3,003
	0.05	429	0.340	3,211
ALL INFERRED	0.3	665	0.729	10,686
	0.2	875	0.615	11,858
	0.1	1,157	0.501	12,777
	0.05	1,458	0.419	13,468



REFERENCES

Lecuyer, L.L., Cook, R.B., Ross, D.A., Fielder, B.C., and D'Anjou, N. (2008): Technical Report on the Preliminary Assessment of the Matoush Project, Central Quebec, Canada, prepared for Strateco Resources Inc. and dated December 17, 2008.

Ross, D.A., and Cook, R.B. (2008): Technical Report on the Mineral Resource Updated for the Matoush Uranium Project, Central Quebec, Canada, prepared for Strateco Resources Inc. and dated September 16, 2008.