

2015 ASSESSMENT REPORT

Property Comprising the Following Claims :

K35, K69 and K70 Claims.

Located in the:
Keno Hill Area
Mayo Mining District
Yukon Territory, Canada
N.T.S. 105M/14

UTM NAD 83 Z8: 477,400 East
UTM NAD 83 Z8: 7,090,200 North

PREPARED FOR:

Alexco Keno Hill Mining Corp.
1150-200 Granville Street
Vancouver, B.C. V6C 1S4

and

PREPARED BY:

Al McOnie

Alexco Resource Corp.
1150-200 Granville St.
Vancouver, B.C. V6C 1S4

DATE WORK PERFORMED : August 22, 2015

DATE OF REPORT: October 17, 2015

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1.0 SUMMARY

On August 22, 2015, surface geological mapping was undertaken on the K35, K69 and K70 claims. This confirmed the presence of outcropping Triassic greenstone.

2.0 INTRODUCTION

This report summarizes surface geologic mapping conducted on the K35, K69 and K70 claims on 22 August 2015.

Planning, field work, and reporting of this work were performed by Alexco Resource Corp. staff.

The object was to establish the presence and nature of any outcrop that might be located on a small hillock within an area of low relief of the South McQuesten valley glacio-fluvial deposits.

The work was conducted as part of a broader program of re-mapping the Keno Hill district, an exercise that has developed a revised stratigraphy for the mineral hosting sequence.

3.0 LOCATION AND ACCESS

The three quartz claims on which assessment work has been undertaken are held under the name of Alexco Keno Hill Mining Corp 100%, and are located in the Keno Hill district, Mayo Mining District approximately 350 km north of Whitehorse (Figure 1). The area is covered by NTS map sheets 105M/14. The reference datum used is UTM NAD83 Zone 8, unless otherwise noted.

The claims are located between 685 m and 750 m elevation on a small hillock within an area of low relief of the South McQuesten valley. The vegetation is generally wet and marshy with some scrubby spruce on the area of higher elevation.

Access to the claim is on foot from the Silver Trail Highway just north of the abandoned company town of Elsa the base of operations for Alexco where camp and office facilities are maintained.



Figure 1 General Location of the Claim Block

4.0 CLAIM STATUS

The claims are active having been staked between 1 – 2 December 2005, and prior to the current work had an expiry date of 15 December or 31 December 2020 (Appendix 1).

The location of the quartz claims is shown in Figure 2. A list of personnel and cost statement related to the application of Certificates of Work are included as Appendices 2 and 3.

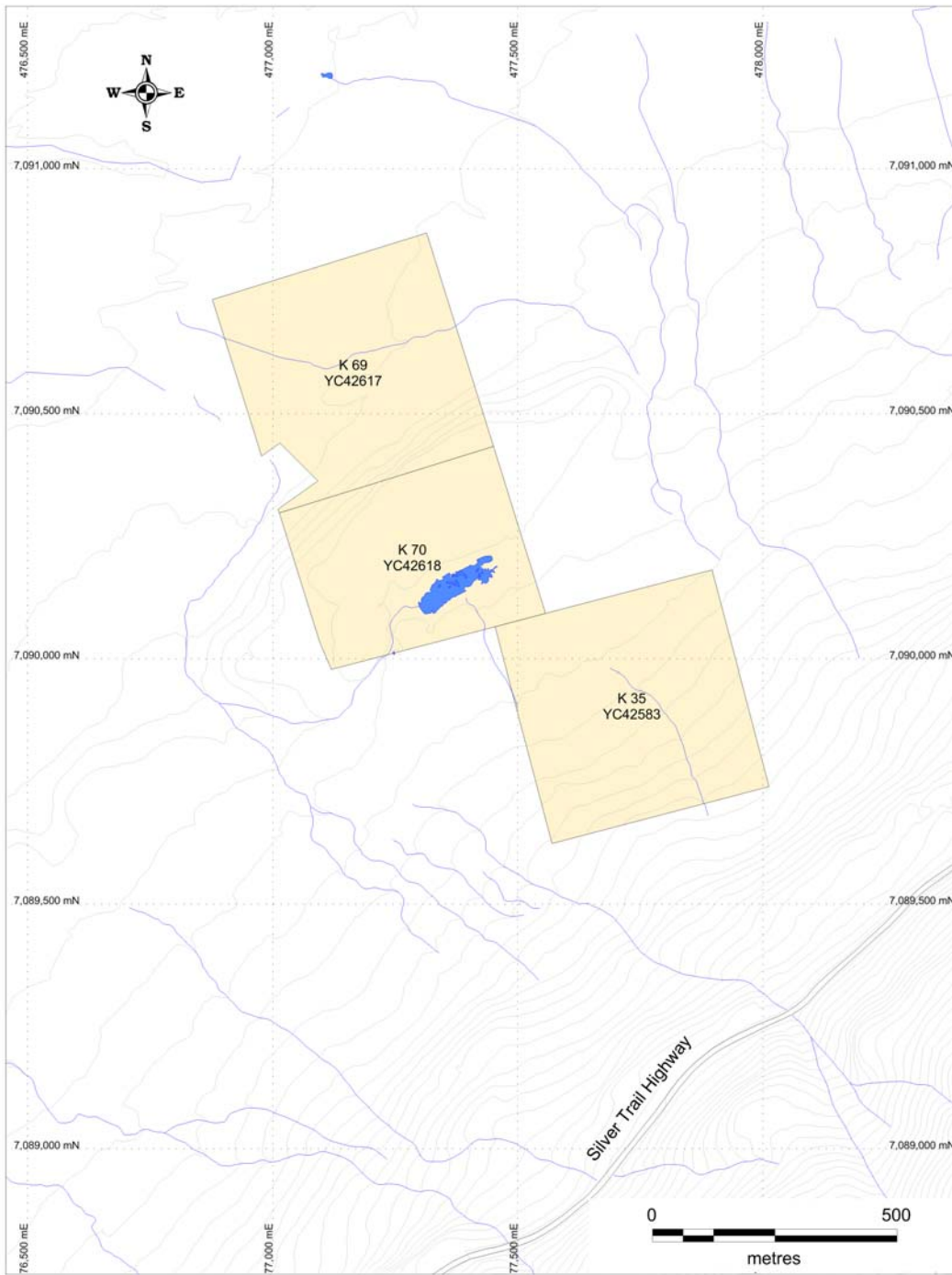


Figure 2 Location of the Claims

5.0 REGIONAL GEOLOGY

The claims are situated within the western part of the Selwyn Basin in an area dominated by deformed and metamorphosed sediments accumulated at the edge of the Neoproterozoic to Paleozoic continental margin. During the Jurassic and Cretaceous, the area was subjected to compressional tectonic forces producing imbricate thrust sheets and widespread folding. In the mid-Cretaceous, renewed tectonism resulted in extensive brittle deformation and the emplacement of intrusive plutons.

The rock unit underlying the claims is considered to be the Devonian Earn Group.

6.0 PROPERTY GEOLOGY

The claims are located on the lower northern slopes of Galena Hill within the area underlying the Keno Hill Quartzite that hosts most of the silver-lead-zinc mineralization found in the district.

The northern side of the low hill contains an exposure of fine to medium grained dark grey-green Triassic greenstone, that by extrapolation of the geology in the surrounding area, would be within the Devonian Earn Group. The lower parts of the area are covered with unconsolidated Quaternary glacio-fluvio deposits that here are largely covered by swamp and marshy material (Figure 3).

The attitude of the dominant S1 foliation varies between north to northeast with a easterly dip, and is broadly consistent with the district trends in the Galena Hill area.

The stratigraphic position of the claim area is shown highlighted in Figure 4.

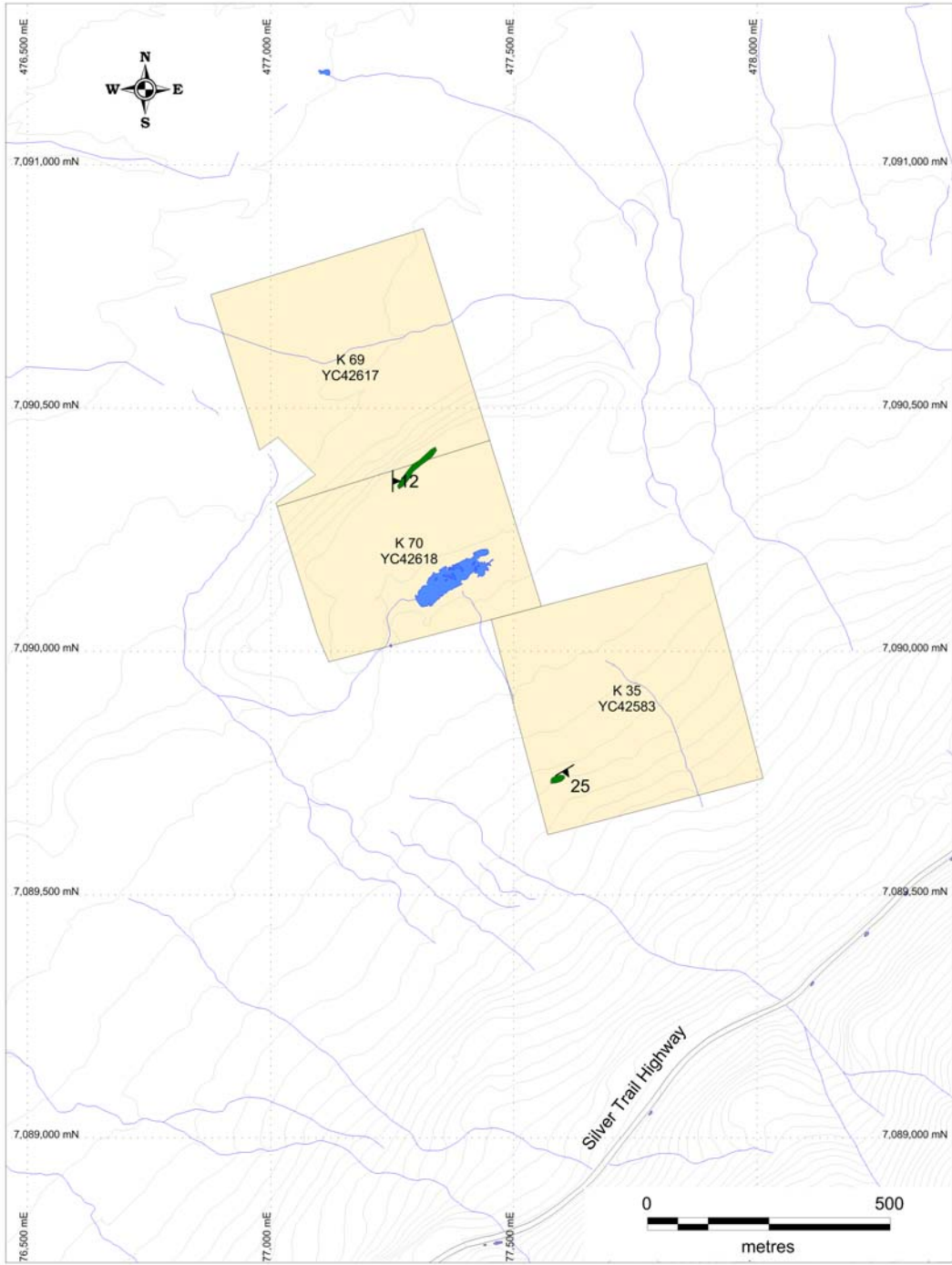


Figure 3 Outcrop Geology of the Claim Block

LEGEND

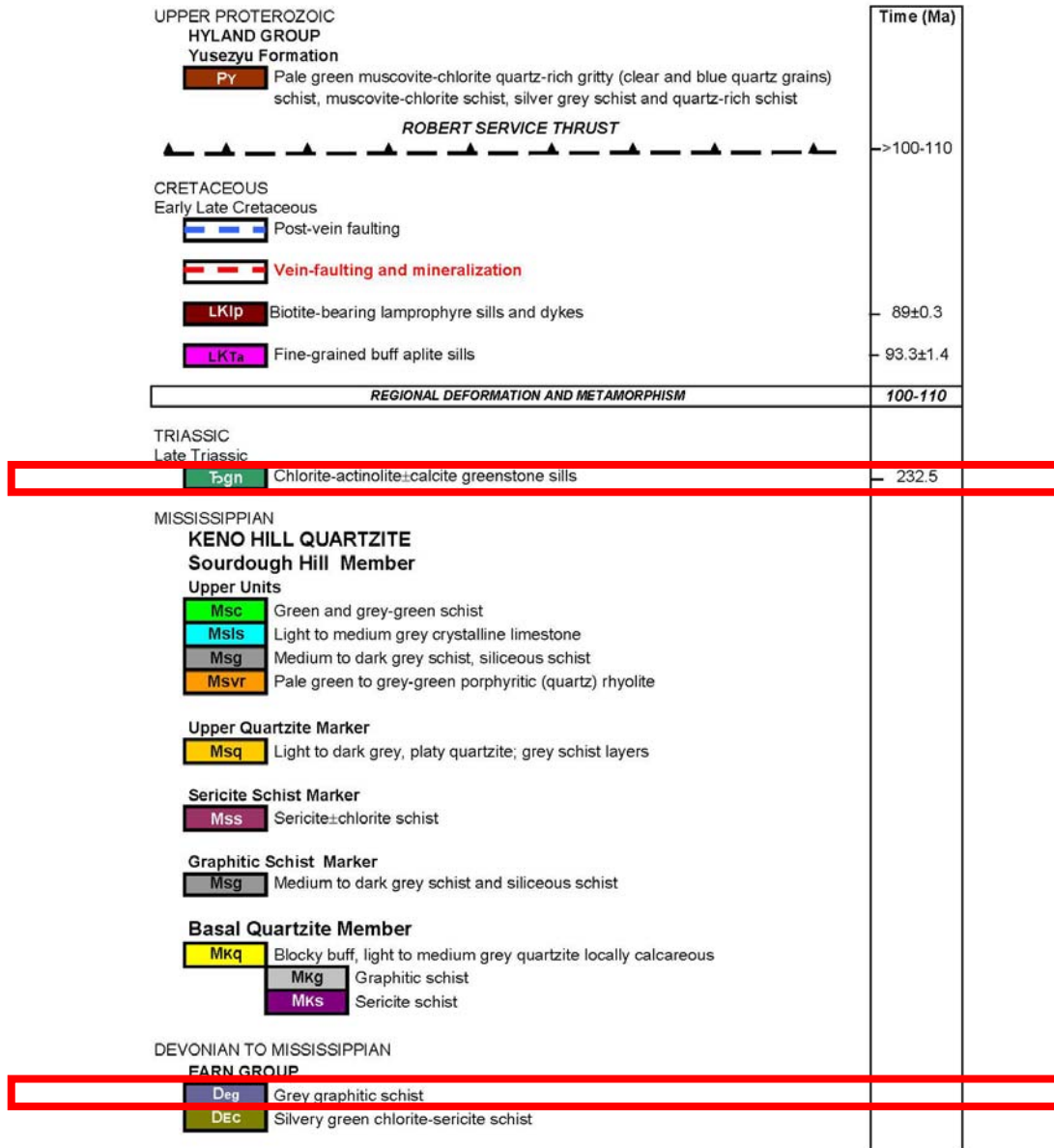


Figure 4 Stratigraphic Position of the Claim block (after McOnie & Read, 2010)

7.0 CONCLUSIONS

The results from the surface geological mapping demonstrate that this claim contains outcrop of Triassic greenstone inferred to lie within the Earn Group stratigraphically below the Keno Hill Quartzite Formation.

8.0 LIST OF REFERENCES

McOnie, A., and Read P.B., 2010.

Stratigraphy, Structure and Exploration Opportunities Sourdough, Galena and part of Keno Hills, Keno Hill Mining Camp, Central Yukon.

Internal Report Alexco Resource Corp.

APPENDIX 1

LIST OF CLAIMS

Quartz Claim	Grant	Owner	Staking Date	Recorded Date	Expiry Date
K 35	YC42583	Alexco Keno Hill Mining Corp. - 100%	01/12/2005	01/12/2005	31/12/2020
K 69	YC42617	Alexco Keno Hill Mining Corp. - 100%	02/12/2005	15/12/2005	15/12/2020
K 70	YC42618	Alexco Keno Hill Mining Corp. - 100%	02/12/2005	15/12/2005	15/12/2020

APPENDIX 2

LIST OF PERSONNEL

Jos Hantelmann
#96 – 11 Clover Bar Lane
Sherwood Park, AB T8H 0C4

Alicia Vainio
Box 291
Faro, YT, Y0B 1K0

Al McOnie
694 SH 2, RD3
Katikati
New Zealand
3170

APPENDIX 3

STATEMENT OF EXPENDITURES

Cost Statement - Alexco Resource Corp. October 2015 "K35, K69, K70" Assessment Filing						
Claims	Grant	Owner	Field Staff and Reporting	Camp Overhead	Vehicles - Support	Estimated Total
K35	YC42583	Alexco Keno Hill Mining Corp				
K69	YC42617	Alexco Keno Hill Mining Corp				
K70	YC42618	Alexco Keno Hill Mining Corp				
			\$697	\$171	\$55	\$923
Work conducted 22 August 2015						

APPENDIX 4

STATEMENT OF QUALIFICATIONS

Al McOnie

I, Alan McOnie of 694 SH2, RD3, Katikati, New Zealand
DO HEREBY CERTIFY:

- 1 THAT, I am a VP Exploration and Qualified Person with Alexco Resource Corp., 1150-200 Granville Street, Vancouver, BC, V6C 1S4.
- 2 THAT, I have practiced my profession with various mining companies in the Canada, New Zealand, Australia, United States, Mexico, and China for over 35 years.
- 3 THAT, I am graduate in geology holding a BSc (Hons) from the University of Otago, New Zealand and a MSc from the University of Toronto, Canada.
- 4 THAT, I am a member of the Society of Economic Geologists.
- 5 THAT, I am a Fellow of the Australasian Institute of Mining and Metallurgy.
- 6 THAT, this report is based on work which I personally managed during the year 2015.
- 7 THAT, I have no interest in the property described herein, nor do I expect to receive any such interest.

DATED at Vancouver, BC, this 17th day of October, 2015.



Al McOnie