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**Annual Information Form**  
For the year ended December 31, 2010

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## PRELIMINARY NOTES

### Date of Information

All information in this Annual Information Form (“AIF”) is at March 30, 2011, unless otherwise indicated.

### Financial Statements

All financial information in this AIF is prepared in accordance with accounting principles generally accepted in Canada (“Canadian GAAP”).

This AIF should be read in conjunction with the Company’s consolidated financial statements and notes thereto, as well as with the management’s discussion and analysis (“MD&A”) for the year ended December 31, 2010. The financial statements and MD&A are available at [www.quaterra.com](http://www.quaterra.com) and under the Company’s profile on the SEDAR website at [www.sedar.com](http://www.sedar.com).

### Reporting Currency

All dollar amounts are express in Canadian dollars unless otherwise indicated. Quaterra’s quarterly and annual financial statements are presented in Canadian dollars and are prepared in accordance with Canadian generally accepted accounting principles.

### Disclosure of Mineral Resources

None of the Company’s properties have Mineral Reserves. Disclosure about the Company’s exploration properties in this AIF uses the term “Mineral Resources”, “Measured Mineral Resources”, “Indicated Mineral Resources” and “Inferred Mineral Resources”, which are Canadian geological and mining terms as defined in accordance with National Instrument 43-101, standards of disclosure for mineral projects of the Canadian Securities Administrators, set out in the Canadian Institute of Mining (CIM) Standards. These terms are not defined in the U.S. Securities and Exchange Commission (SEC) Industry Guide 7, *Description of Property by Issuers Engaged or to be Engaged in Significant Mining Operations*, and are normally not permitted to be used in reports and registration statements filed with the SEC. Accordingly, information contained in this AIF contain descriptions of our mineral deposits that may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.

#### Cautionary Note to U.S. Investors concerning estimates of Measured Mineral Resources and Indicated Mineral Resources:

This AIF may use the terms “Mineral Resources,” “Measured Mineral Resource” and “Indicated Mineral Resource.” The Company advises U.S. investors that while such terms are recognized and permitted under Canadian regulations, the SEC does not recognize them. U.S. investors are cautioned not to assume that any part or all of the Mineral Resources in these categories will ever be converted into Mineral Reserves.

#### Cautionary Note to U.S. Investors concerning estimates of Inferred Mineral Resources:

This AIF may use the term “Inferred Mineral Resource.” The Company advises U.S. investors that while such a term is recognized and permitted under Canadian regulations, the SEC does not recognize it. “Inferred Mineral Resources” have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian rules estimates of Inferred Mineral Resources may not form the basis of feasibility or other economic studies. U.S. investors are cautioned not to assume that any part of all of the Inferred Mineral Resources exist, or is economically or legally mineable.

## **CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION**

Some of the statements contained in this AIF are forward-looking statements, such as estimates and statements that describe the Company's future plans, objectives or goals, including words to the effect that the Company or management expects a stated condition or result to occur.

Forward-looking statements may be identified by such terms as "believes", "anticipates", "expects", "estimates", "may", "could", "would", "will", or "plan". Since forward-looking statements are based on assumptions and address future events and conditions, by their very nature they involve inherent risks and uncertainties.

Actual results relating to, among other things, results of exploration, reclamation, capital costs, and the Company's financial condition and prospects, could differ materially from those currently anticipated in such statements for many reasons such as; changes in general economic conditions and conditions in the financial markets; changes in demand and prices for the minerals the Company expects to produce; litigation, legislative, environmental and other judicial, regulatory, political and competitive developments; technological and operational difficulties encountered in connection with the Company's activities; and changing foreign exchange rates and other matters discussed in this AIF.

This list is not exhaustive of the factors that may affect any of the Company's forward-looking statements. These and other factors should be considered carefully and readers should not place undue reliance on the Company's forward-looking statements. Further information regarding these and other factors, which may cause results to differ materially from those projected in forward-looking statements, are included in the filings by the Company with securities regulatory authorities. The Company does not undertake to update any forward-looking statement that may be made from time to time by the Company or on its behalf, except in accordance with applicable securities laws.

## GLOSSARY OF GEOLOGIC AND MINING TERMS

<b>Anomaly:</b>	A geological feature distinguished by geological, geochemical or geophysical means, which is detectably different than the general surroundings and is sometimes of potential economic value.
<b>Breccia:</b>	Rock consisting of more or less angular fragments in a matrix of finer-grained material or cementing material.
<b>Diamond drill:</b>	A type of drill in which the cutting is done by abrasion using diamonds embedded in a matrix rather than by percussion. The drill cuts a core of rock which is recovered in long cylindrical sections.
<b>Dilution:</b>	Process whereby unwanted gangue or waste rock is mixed with ore during mining.
<b>Epithermal:</b>	A class of ore deposits that form generally less than 1 km from surface. These deposits, which can host economic quantities of gold, silver, copper, lead and zinc are formed as a result of the precipitation of ore minerals from up-welling hydrothermal fluids. There are several classes of epithermal deposits that are defined on the basis of fluid chemistry and resulting alteration and ore mineralogy. Fluid chemistry is largely controlled by the proximity to igneous intrusive rocks and as a result igneous fluid content.
<b>Extrusive Rock:</b>	Igneous rock that has solidified on the earth's surface from volcanic action.
<b>Fluid inclusion:</b>	A cavity, with or without negative crystal faces, containing one or two fluid phases, and possibly one or more minute crystals, in a host crystal. If two fluid phases are present, the vapor phase (bubble) may show Brownian motion.
<b>Folds:</b>	Flexures in bedded or layered rock formed when forces are applied gradually to rocks over a long period of time.
<b>Fracture:</b>	Breaks in a rock, usually due to intensive folding or faulting.
<b>Gambusino:</b>	An individual miner working without machinery.
<b>Gangue:</b>	Term used to describe worthless minerals or rock waste mixed in with the valuable minerals.
<b>Gouge:</b>	The finely ground rock that result from the abrasion along a fault surface.
<b>Grade:</b>	The concentration of each ore metal in a rock sample, usually given as weight percent. Where extremely low concentrations are involved, the concentration may be given in grams per tonne (g/t) or ounces per ton (oz/t). The grade of an ore deposit is calculated, often using sophisticated statistical procedures, as an average of the grades of a very large number of samples collected from throughout the deposit.
<b>Hectare:</b>	A square of 100 metres on each side.
<b>Indicated Mineral Resource:</b>	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as out-crops, trenches, pits, workings and drill holes that are spaced closely enough for

geological and grade continuity to be reasonably assumed.

**Inferred Mineral Resource:**

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

**Lithology:**

The physical characteristics of a rock or a rock formation.

**Mafic:**

A term used to describe ferromagnesian minerals. Rocks composed mainly of ferromagnesian minerals are correctly termed melanocratic.

**Massive:**

A term used to describe sulfide ores containing more than 50% volume of sulphide.

**Measured Mineral Resource:**

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

**Mineral Deposit or Mineralized Material:**

A mineralized body which has been intersected by sufficient closely spaced drill holes and or underground sampling to support sufficient tonnage and average grade of metal(s) to warrant further exploration-development work. This deposit does not qualify as a commercially mineable ore body (Reserves), as prescribed under SEC standards, until a final and comprehensive economic, technical, and legal feasibility study based upon the test results is concluded.

**Mineral Resource:**

A Mineral Resource is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

**Mineral Reserve:**

A Mineral Reserve is the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

**Mineralization:**

Usually implies minerals of value occurring in rocks.

**Ore:**

A natural aggregate of one or more minerals which may be mined and sold at a profit, or from which some part may be profitably separated

**Probable Mineral Reserve:**

A Probable Mineral Reserve is the economically mineable part of an Indicated, and in

some circumstances a Measured, Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

**Properties as prospects:**

A property is a claim owned by a company and a prospect is a claim in which a company holds an interest.

**Proven Mineral Reserve:**

A Proven Mineral Reserve is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

**Reserve(s):**

A natural aggregate of one or more minerals which, at a specified time and place, may be mined and sold at a profit, or from which some part may be profitably separated.

**Reverse circulation drill:**

A rotary percussion drill in which the drilling mud and cuttings return to the surface through the drill pipe.

**Tailings:**

Material rejected from a mill after recoverable valuable minerals have been extracted.

### GLOSSARY OF ABBREVIATIONS

<b>Ag:</b>	Silver
<b>Ag gm/t:</b>	Silver grade measured in grams per metric tonne
<b>AMR:</b>	Advance minimum royalty payments
<b>Au:</b>	Gold
<b>Au gm/t:</b>	Gold grade measured in grams per metric tonne
<b>Ba:</b>	Barium
<b>Co:</b>	Cobalt
<b>CSAMT:</b>	Controlled source audio-frequency magneto telluric geophysical survey
<b>Cu:</b>	Copper
<b>EIS:</b>	Environmental Impact Statement
<b>Fe:</b>	Iron
<b>43-101:</b>	Canadian National Instrument 43-101
<b>gpm:</b>	gallons per minute
<b>gpt:</b>	grams per tonne
<b>g/t:</b>	grams per tonne
<b>IP:</b>	Induced Polarization geophysical survey
<b>m</b>	Meters
<b>Ni:</b>	Nickel
<b>NSR</b>	Net smelter return royalty
<b>Oz:</b>	Troy ounce
<b>oz/t or opt:</b>	Ounces per ton.
<b>Pb:</b>	Lead
<b>Pd:</b>	Palladium
<b>PGE:</b>	Platinum Group Element
<b>PGM:</b>	Platinum group minerals
<b>PPB:</b>	Parts per billion
<b>PPM:</b>	Parts per million
<b>Pt:</b>	Platinum
<b>S:</b>	Sulphur
<b>TD:</b>	Total depth of a drill hole.

**tpd:** Tonnes per day  
**U3O8:** Uranium oxide known as “yellow cake”.  
**VLF:** Very low frequency electromagnetic geophysical survey  
**VMS:** Volcanogenic massive sulphide

### CONVERSION TABLES

Conversion Table			
Imperial			Metric
1 Acre	=	0.404686	Hectares
1 Foot	=	0.304800	Metres
1 Mile	=	1.609344	Kilometres
1 Ton	=	0.907185	Tonnes
1 Ounce (troy)/ton	=	34.285700	Grams/Tonne

### Precious metal units and conversion factors

ppb	- Part per billion	1 ppb	=	0.0010	ppm	=	0.000030	oz/t
ppm	- Part per million	100 ppb	=	0.1000	ppm	=	0.002920	oz/t
oz	- Ounce (troy)	10,000 ppb	=	10.0000	ppm	=	0.291670	oz/t
oz/t	- Ounce per ton (avdp.)	1 ppm	=	1.0000	ug/g	=	1.000000	g/tonne
g	- Gram							
g/tonne	- gram per metric ton	1 oz/t	=	34.2857	ppm			
mg	- milligram	1 Carat	=	41.6660	mg/g			
kg	- kilogram	1 ton (avdp.)	=	907.1848	kg			
ug	- microgram	1 oz (troy)	=	31.1035	g			



## CORPORATE STRUCTURE

### **Name, Address and Incorporation**

Quaterra Resources Inc. (“Quaterra” or the “Company”) was incorporated under the Company Act (British Columbia) on May 11, 1993 originally under the name Acquaterre Mineral Development Ltd. On November 30, 1993, the Company changed its name to Aquaterre Mineral Development Ltd. and ultimately became Quaterra Resources Inc. on October 23, 1997. Quaterra’s domicile is British Columbia, Canada and the Company operates under the British Columbia Business Corporations Act SBC 2002 Chapter 57.

On March 4, 1997, the Company increased its authorized capital from 20,000,000 common shares without par value to 100,000,000 common shares without par value.

On October 23, 1997, the Company consolidated its issued and un-issued share capital on the basis of five pre-consolidation shares for one post-consolidation share, and increased its authorized capital to 100,000,000 common shares without par value.

On August 3, 1998, the Company cancelled its previous form of Articles and adopted a new form of Articles.

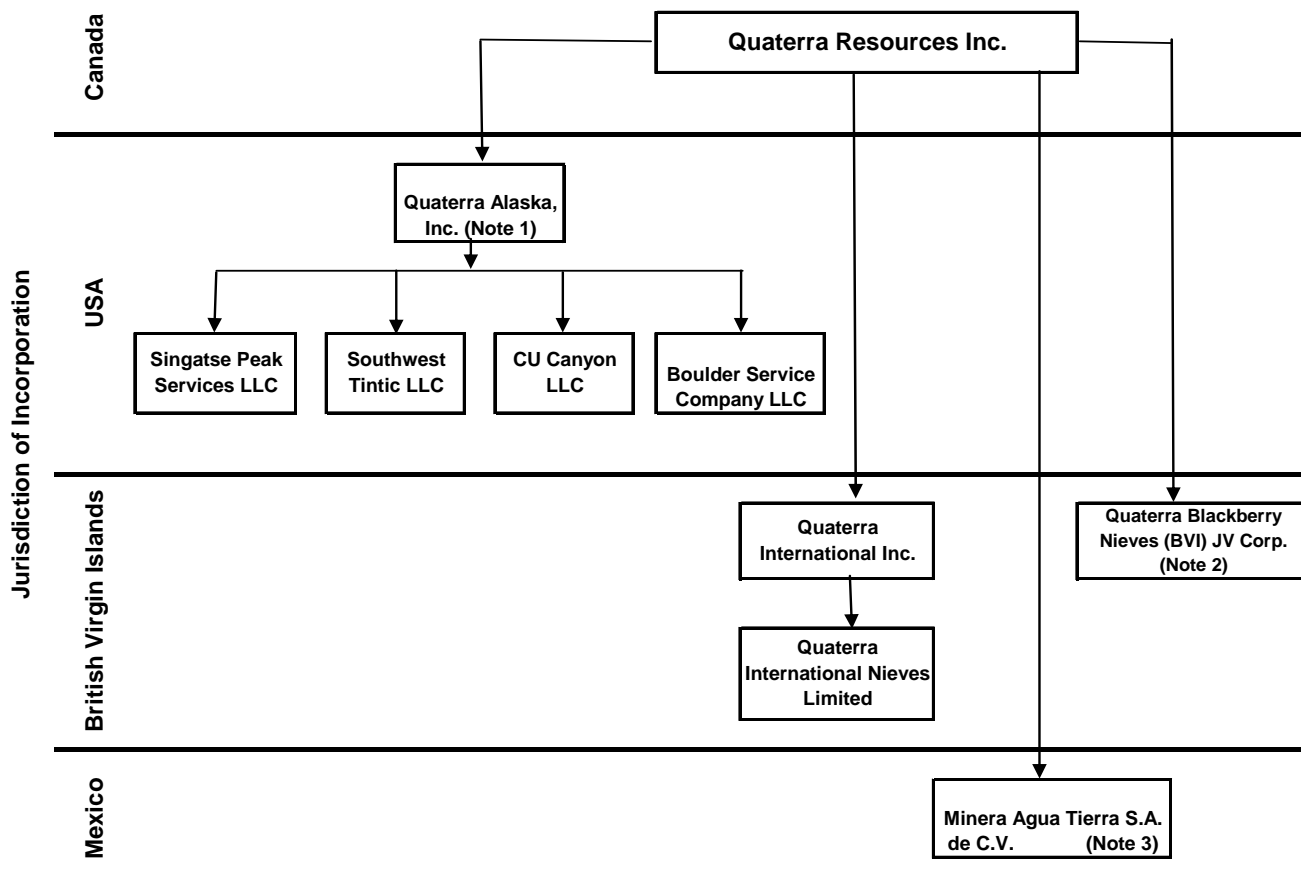
On April 25, 2005, the Company completed the transition procedures in accordance with the Business Corporations Act (British Columbia), (the “New Act”).

On June 17, 2005, the Company increased the number of common shares which were authorized to issue to an unlimited number of common shares and, on June 13, 2005, cancelled its former Articles and adopted new Articles to take advantage of provisions of the New Act. The New Act was adopted in British Columbia on March 29, 2004 replacing the Company Act (the “Former Act”). The New Act requires the provisions formerly required in the Memorandum to be in the Company’s Articles. The New Act eliminates the requirement for a Memorandum.

The Company’s registered and head office is located at 1100 – 1199 West Hastings Street, Vancouver, British Columbia, V6E 3T5. Telephone: (604) 684-9384, Facsimile: (604) 641-2740, website: [www.quaterra.com](http://www.quaterra.com)

## Inter-corporate Relationships

The flow chart below presents the Company's legal corporate structure and the jurisdictions of the incorporation.



Note 1 Quaterra Alaska, Inc. is 100% owned by Quaterra Resources Inc. and holds Duke Island, Arizona, Wyoming and Utah Uranium properties, MacArthur, Yerington, SW Tintic, Gray Hills, Peg Leg, Herbert Glacier, Copper Canyon, Willow Creek and Wassuk Copper.

Note 2 Quaterra Blackberry Nieves (BVI) JV Corp. is 50% owned by Quaterra Resources Inc. and holds 50% of the Nieves property.

Note 3 Minera Agua Tierra S.A. de C.V. is 100% owned by Quaterra Resources Inc. and holds Nieves, Los Crestones, Las Americas - Mirasol..

## GENERAL DEVELOPMENT AND DESCRIPTION OF BUSINESS

### Business Overview

Quaterra is an exploration stage company focused on exploration and development of mineral properties in North America. The Company is currently exploring for gold, silver, copper, uranium, molybdenum, and precious metals in the United States and Mexico. Quaterra's exploration efforts are directed at properties with potential to host large base metal, precious metal, and uranium deposits. When identifying prospects, the Company's consideration include the following criteria: infrastructure; environment and location that is favorable for building a mine; large tonnage and/or high grade potential; and opportunity to acquire a 100% interest under reasonable terms.

### Three Year History

On July 22, 2008, the Company acquired the Cave Peak molybdenum prospect from the State of Texas. The prospect covers three breccia pipes, one of which contains significant molybdenum mineralization.

On September 30, 2008 the Company completed a joint venture agreement with EXMIN Resources Inc. on EXMIN's East Durango concession. Quaterra has the right to earn a 75% interest in EXMIN's East Durango property. The East Durango property consists of the 11,181 hectare Tecolote concession which abuts and is directly north of Quaterra's Mirasol-Americas projects.

On November 24, 2008 the Company secured an option with the Willow Creek Discovery Group, LLC to acquire 100% of the Willow Creek porphyry molybdenum prospect in southwestern Montana. Willow Creek is a North American asset in a major mineral belt where Quaterra has the opportunity to earn a 100% interest.

On May 29, 2009, the Company signed an earn-in agreement with Freeport-McMoRan Exploration Corporation of Phoenix, Arizona ("FMEC") for the Company's Southwest Tintic copper project in Utah. In the terms of the agreement, FMEC has the exclusive right and option to acquire a 70% ownership interest in the Southwest Tintic property by making a US\$275,000 property payment and by spending US\$4.725 million on exploration over four years. Upon earning a 70% interest in the property, FMEC agreed to either fund the Company's share of costs through the delivery of a bankable feasibility study or convert its interest to a 1% net smelter return royalty if it determines not to deliver such a feasibility study.

On July 30, 2009, Quaterra announced receipt of notification from FMEC that it would extend its earn-in option at the Southwest Tintic copper project in Utah by making a US\$275,000 property payment and paying 2009 Bureau of Land Management claim maintenance fees. To keep the option in good standing, FMEC must make a minimum expenditure of US\$750,000 by August 29, 2010.

On August 27, 2009, Quaterra signed an earn-in agreement with FMEC for the Company's Peg Leg copper project in Arizona. FMEC has the exclusive right and option to acquire a 70% interest in the Peg Leg project by spending US\$3 million on exploration by December 31, 2012.

On September 29, 2009, Quaterra signed an option agreement with Copper Ridge Exploration Inc. ("Copper Ridge") for the Company's Duke Island copper-nickel-platinum-palladium property in southeast Alaska. The agreement provides that Copper Ridge can earn up to a 51% interest by issuing one million pre-consolidation shares to the Company and spending \$3.0 million on exploration by December 31, 2012. The amount of \$750,000 of the \$3.0 million is a firm commitment to be spent by December 31, 2010. Copper Ridge terminated the option agreement in February, 2011.

On January 6, 2010, Quaterra signed an option agreement with La Cuesta International Inc. for an option to acquire a 100% interest in four mineral concessions located in Durango, Mexico known as the Santo Domingo Prospect., Total consideration consists of US\$7.5million in cash payments, 100,000 shares of the Company and \$50,000 in work expenditure.

On January 29, 2010, Quaterra entered into an Investment Framework Agreement (IFA) with Goldcorp Inc. ("Goldcorp") of Vancouver, B.C. Under the IFA, Goldcorp received an option to acquire up to 65% in any the Company's properties in the central Mexico Interest, with the exception of Nieves, by spending \$2 million over a two-year period on advanced exploration and by completing a bankable feasibility. In return, to fund generative exploration by Quaterra, Goldcorp agreed to invest US\$10 million in the Company over two years.

On February 4, 2010 the Company completed a private placement of 3,001,418 units for gross proceeds of US\$4.0 million (C\$4,231,999) received from Goldcorp pursuant to the IFA. Each unit consisted of one common share and one-half of one share warrant with an exercise price of \$1.76 per full warrant expiring February 4, 2012.

On June 17, 2010, Quaterra signed an option agreement with Grande Portage Resources for the Herbert Glacier property. Under the terms of the agreement, Grand Portage can earn a 51% interest by spending US\$750,000 on or before June 15, 2011 and has to option to earn an additional 51% interest by spending US\$500,000 on or before June 15, 2012. If Grand Portage earns an interest, the two parties have agreed to form a joint venture to further explore and develop the property.

In August 2010, Quaterra entered into a lease with an option to purchase certain mining claims, known as the Klondike and Reveille in Eureka and Nye County, Nevada. The total consideration is US\$2,000,000 over 10 years.

On October 27, 2010 the Company completed a private placement of 11,724,200 units for gross proceeds of \$17,000,090. Each unit consists of one common share and one-half of one common share purchase warrant with an exercise price of \$1.90 per full warrant expiring on October 27, 2012.

On February 7, 2011 the Company completed a private placement of 3,293,407 units for gross proceeds of US\$6.0M (C\$5,994,000) received from Goldcorp pursuant to the IFA. Each unit consisted of one common share and one-half of one share warrant with an exercise price of \$2.27 per full warrant expiring February 7, 2013.

## Property, Plants and Equipment

### Nieves Silver Project, Mexico

#### Property Description and Acquisition

The Nieves silver project is located in the Rio Grande Municipality of the Zacatecas Mining District near the southeastern boundary of the Sierra Madre Occidental Physiographic Province in central Mexico. The Nieves property consists of 16 concessions covering approximately 6,050 hectare. These concessions are registered in the name of Minera Agua Tierra. The property is jointly owned by Quaterra and Quaterra Blackberry Nieves (BVI) JV Corp. ("Blackberry JV").

Kennecott Exploration Company ("Kennecott") acquired the Nieves property on January 16<sup>th</sup>, 1995, through an option agreement with Mexican concessionaires by making specified option payments over five years, and advance minimum royalty payments. On March 13<sup>th</sup>, 1998, Kennecott transferred its rights under the Nieves option to Western Copper Holdings Ltd. ("Western") in consideration for an uncapped 2% NSR on certain core concessions and a 1% NSR on others. Western assigned its rights to the Nieves Project to Quaterra on March 26<sup>th</sup> 1999. The Nieves concessions are subject to a maximum 3% NSR to the original concession holders, which the Company may purchase at any time for US\$2 million. Kennecott's royalties on the property were later sold to Royal Gold Inc. on January 24<sup>th</sup>, 2007.

On April 10<sup>th</sup>, 2003, Quaterra completed a limited partnership financing with Blackberry JV, whereby Blackberry JV could earn a 50% interest in the Property by funding two exploration programs of US\$750,000 each. The initial payment of US\$750,000 received in the 2003 Fiscal Year was expended on a 5,300-metre drill program on the Nieves Property. During the 2004 Fiscal Year, Blackberry JV elected to continue by advancing a further US\$750,000 towards a follow-up drill program completed in May 2005, thereby earning a 50% interest in the Property. The partners signed a joint venture agreement in 2006 and have jointly contributed to all exploration costs subsequently incurred.

#### Expenditures to Date

Since inception to December 31, 2010, the Company had incurred \$1,472,896 (2009 - \$1,413,183) for acquisition costs and \$2,780,131 (2009 - \$2,017,463) for exploration expenditures giving a total of \$4,253,027 (2009 - \$3,430,646) for its interest in Nieves. The Company's joint venture partner, Blackberry JV had spent, including the company's administration fee, US\$4,406,526 for its 50% interest in Nieves

#### Location, Access and Infrastructure

Quaterra/Blackberry JV exploration activities are coordinated from the small town of Nieves (now re-named Francisco R. Murguia) where they maintain an office and a house. The town of Nieves is accessed via a 17 km paved road from Highway 49. The nearest major population and service centre to Nieves is the mining town of Fresnillo located ~90 km to the south. Fresnillo has a population of approximately 75,000 and services the Fresnillo Mine run by Peñoles. Fresnillo offers a professional work force experienced in mining and related activities in addition to most other supplies and services. International airports are located within approximately a three hour drive of the property in the city of Zacatecas to the south, and in Torreón (Coahuila State) to the north. Road access is excellent with the main paved highway to Nieves running along the northern portion of the property. A network of dirt roads and trails provide access to the historical mining operations and extend southward to all areas of the property. Drill and access roads can be built as most of the Nieves Property is flat-lying with only a few dry creek beds.

The Nieves property lies within the Mexican Altiplano or Mesa Central region. This region is flanked to the west by the Sierra Madre Occidental and to the east by the Sierra Madre Oriental mountain ranges. The Altiplano is dominated by broad alluvium filled plains between rolling to rugged mountain ranges and hills reaching up to 3,000m above mean sea level and average elevations in valleys of approximately 1,700m. Elevations on the Nieves property range from 1,900m. to 2,000m. The terrain is generally flat-lying with a prominent north-south trending ridge along the eastern portion of the property with moderate to vertical slopes. There is very little human habitation on the property, with only a few widely scattered farm houses, although the town of Nieves directly borders the property to the northeast.

The La Quinta field office, as well as core logging, cutting and storage facilities are located on the Nieves Property. . Other infrastructure in the area includes: (1) a power line adequate to support a small mill (eg. 100 tonnes per day), (2) an existing mill structure on the Property at the Santa Rita vein area which could be refurbished, (3) a spur of the main Zacatecas rail line that connects the city of Rio Grande, located 18 km to the south, and (4) operating smelters in San Luis Potosi (copper

and zinc, approximately 350 km to the south) and in Torreón, Coahuila state (Peñoles lead-zinc smelter, approximately 200 km north).

## History

The first discovery on the area covered by the Nieves Property was the Santa Rita Vein in 1560 by Spanish explorers. Soon after in 1574 the Concordia vein was discovered. The Santa Rita and Concordia-San Gregorio-Dolores veins were the focus of mining by the Spanish and Mexican miners until 1880 when an English company, the Mexican Rosario Mining Company, and two Californian companies, the Almaden Mining Company and the Concordia M. and M. Company, worked in the area. These companies worked primarily on the Concordia vein while a small independent miner Gonzáles Piñera worked concurrently on the San Gregorio vein. Prior to the 1910 revolution, which halted all production in the Nieves District, total ore production in the District was estimated at 50,000 tonnes. The only production reported is from the Concordia Mine where 5,414 tonnes at a grade of 4,065 g/t silver were produced.

Between 1910 and 1978 several companies attempted to de-water, sample, and re-open the historical workings in the Concordia and Santa Rita mines, and were largely unsuccessful. The Santa Rita vein and refurbished mill and flotation plant were purchased by Fomento Minero in 1978; they operated the mine until 1987. Fomento Minero also sank three shafts and deepened a historic shaft along the Concordia-San Gregorio vein system during the 1970's. The flotation mill was capable of running 100 tonnes/day during this time and was fed 50% tailings and 50% ore with an average head grade of 130 g/t silver, 2% lead, 2.4% zinc and 2.5% antimony, according to Consejo Recursos Minerales. Today, all that remains on the site are the building foundations, abandoned shafts and power lines.

In the early 1990's, a group of Mexican concessionaires assembled a land position in the area and presented it to Kennecott who signed the option agreement on January 16<sup>th</sup>, 1995. Exploration work completed by Kennecott included geologic mapping, surface sampling, geophysical surveying and reverse circulation (RC) drilling of the Gregorio North, California and Orion West veins. The drilling intersected several zones of significant silver mineralization hosted by two distinct styles of mineralization. Drill hole NV08 in the California area intercepted two separate 2m intervals of high grade silver vein mineralization that returned assay values of 367 g/t Silver and 795 g/t silver at depths of 108m and 116m, respectively. In contrast, drill hole NV03 intersected a large low grade zone of silver mineralization at a depth of 180m depth that averaged 82 g/t silver over 28m. Drill hole NV03 also encountered a high grade silver vein at 148m depth that returned 254 g/t silver over 2m. Drill hole NV06 also encountered a large zone of low-grade silver mineralization that returned 67 g/t silver over 68m.

After acquiring the Nieves option from Kennecott in 1998, Western drilled 5 RC holes testing the California vein system. The holes were drilled in the area around hole NV08. Western also twinned hole NV08 and reproduced similar assay values for the intercepts reported by Kennecott including 890 g/t Silver over 1.0m in drill hole WCNV01. Holes drilled to intercept mineralization below drill hole NV08 returned assay values of 841 g/t silver over 0.45m, 109 g/t silver over 0.8m, and 1,081 g/t silver over 0.35m in drill hole WCNV04.

Exploration of the property continued after Quaterra received the Nieves property rights from Western in 1999. From 1999 through 2008 just over 31,000m of drilling was completed in 82 holes by Quaterra and the Quaterra/Blackberry JV. An initial mineral resource estimate was subsequently prepared in 2009 by Michelle Stone with Caracle Creek International Consulting Inc. of Toronto, Ontario (CCIC). Almost 2.9 million tonnes of Indicated Mineral Resources grading ~110 g/t Ag (+10.25 million ounces) and 0.13 g/t Au were estimated in addition to ~2.25 million tonnes of Inferred Mineral Resources grading ~96.5 g/t Ag (+7 million Ag ounces) and 0.12 g/t Au along the Concordia vein system. It was recommended that a program of step out and infill drilling be completed to better define high grade resources within the area modeled.

## Geology

The Nieves Property lies on the western flank of the Central Altiplano in Mexico, just east of the Sierra Madre Occidental ranges. Basement rocks underlying the western Altiplano are a Mesozoic assemblage of marine sedimentary and submarine volcanic rocks belonging to the Guerrero Terrane that sit unconformably on Precambrian continental rocks.

The late Cretaceous to early Tertiary Laramide Orogeny folded and thrust faulted the basement rocks throughout area and preceded the emplacement of mid-Tertiary plutons and related dykes and stocks. Unconformably overlying the Mesozoic basement rocks in the western Altiplano are units from the late Cretaceous to Tertiary, Sierra Madre Occidental magmatic arc. These rocks consist of a "lower volcanic complex" comprising an assemblage of late Cretaceous to Tertiary volcanic,

volcaniclastic, conglomerate, and limestone rocks unconformably overlain by a Tertiary “upper volcanic supergroup” of caldera related, rhyolite ash-flow tuffs and flows. Eocene to Oligocene intrusions occur throughout the Altiplano and are related to the later felsic volcanic event. A final stage of NE-SW extensional tectonics accompanied by major strike-slip fault movement during the Miocene developed much of the basin and range topography currently exhibited in the area. Subsequent erosion of the ranges has covered most of the valleys.

The Mesozoic section on the Nieves property is represented by a thick sequence of fine laminar grey to dark green argillite beds up to 1m thick belonging to the late Cretaceous Caracol Formation. The Caracol Formation is host to silver mineralization on the property. The argillite beds are more abundant to the south in the Santa Rita area and to the west in the Concordia area. The Mesozoic section is isoclinally folded with an axial plane cleavage. Fold axes strike east-northeast to east and beds strike east-west and dip steeply south to near vertical.

Tertiary clastic rocks unconformably overlie the Caracol Formation on the east side of the Nieves Property. The shallow dipping Tertiary clastic section includes a 1 to 10m thick conglomerate composed of rounded to sub-rounded limestone boulders in a sandstone groundmass. Above the limestone conglomerate there is up to 130m of conglomeratic sandstone with thin bands of calcareous conglomerate. Overlying the conglomerate is 40m to 50m of Tertiary volcanic rocks composed of rhyodacitic to andesitic welded tuff. A thin 1.5 to 2m unit of grey to dark grey basalt occurs above the tuff and is in turn overlain by at least 56m of porphyritic rhyolite flows striking north-northwest and dipping northeast. These flows underlie a prominent north trending ridge on the east side of the Nieves property and are the host rock for manganese-calcite veins and breccia mineralization previously exploited by local miners.

The oldest structures on the Nieves Property are the folds which affect the Mesozoic argillite beds. These structures are likely related to compression during the Laramide Orogeny in the Cretaceous. Thrust faults are also common features of structures attributed to the Laramide Orogeny and several have been suspected to occur on the Nieves Property. Post-Laramide structures affected both the Mesozoic Caracol Formation sedimentary rocks and the Tertiary volcanic and sedimentary rocks. These structures include: (1) faults that strike 330° to 000° and dip moderately northeast to east with east plunging slicken-sides, (2) faults that strike 170° to 180° and dip steeply to the west, and (3) major vein structures that strike 240° to 270° and dip 60° to 90° to the south.

#### Mineralization

Silver mineralization on the Nieves Property is classified as low-sulphidation epithermal mineralization and is the primary exploration target. Epithermal silver veins are the dominant type of deposit within the Altiplano Region of Mexico that includes world-class examples such as Pachuca, Zacatecas, Fresnillo, and Guanajuato. The closest example is the Fresnillo Deposit, located 90 km to the south of the Nieves Property. The Fresnillo deposit includes mantos and chimneys, stockworks, disseminated mineralization, and veins that show vertical mineralogical zonation. Typically in these veins, the high-grade silver (gold) zone is constrained in elevation within the vein structure to up to 500m vertically, or between 180 to 750m depths below which the veins becomes dominated by base-metal sulfides and progressively lower in precious metal content.

Three major east to east-northeast striking silver vein systems known as the California, Concordia-San Gregorio-Dolores (C-S-D), and Santa Rita are the principle silver mineralized structures on the Nieves Property. In the Santa Rita and the C-S-D veins, the silver mineralization is hosted in two to ten meter thick shear zones with reverse offset and secondary fault splays in the footwall. The mineralized shears are surrounded by a sulfidation alteration halo of 2-5% disseminated pyrite that weathers to an acid leached “bleached” white clay alteration. A local, more intense alteration assemblage related to the system includes weak to moderate sericite replacing thin calcite veinlets and weak to advanced fine-grained quartz replacing calcite, associated with an increase in fine grained pyrite. Silicification, mainly of sandstone beds, occurs in a few zones north of the Santa Rita vein. Weak chlorite alteration of tuffs and conglomeratic sandstone occurs in the manganese mine area within the Tertiary rhyolitic rocks on the east side of the property.

Carbonate-quartz-sulfide veins contain the best grades of silver, gold, lead and zinc and constitute the majority of past production. These veins range from centimeters to 1.5m wide and contain up to 50% sulfide minerals. Sulfides include pyrite, stibnite, sphalerite, galena, chalcopyrite. The primary silver mineral is freibergite (argentiferous tetrahedrite) with minor jamesonite and silver sulphosalts proustite and pyrargyrite. Up to 5% disseminated pyrite occurs in jasperoid structures located to the northwest of the C-S-D vein systems which are anomalous in gold, arsenic and antimony with erratic silver, lead and zinc values. Low grade silver is also associated with iron carbonate veins containing pyrite veinlets. Some of these veinlets contain stibnite and silver sulphosalts and are abundant in surface alteration halos as well as above and below ore intercepts in drill core.

The California vein is marked by a shaft and series of small open cuts aligned 250° to 255° over a distance of 300m. Only thin and discontinuous quartz-oxide veinlets outcrop near the workings. The California vein system shows a large 150-600m wide alteration zone extending about 2,700m along strike. Local stockwork zones contain thin calcite veinlets in part weakly replaced by quartz-oxide veinlets. The California vein was intercepted in Kennecott hole NV08 in two intervals at depths of 108m and 116.0m that returned assays of 367 g/t silver over 2m and 795 g/t silver over 2m respectively.

The C-S-D vein systems have a known strike length, in mine workings of nearly 1.8 km in two systems of veins; the 240°-260° striking Concordia-San Gregorio vein and the 260°-270° striking Dolores splay. Both veins dip from 60° southward to near vertical. The C-S-D systems are composed of carbonate to quartz-sulfide veins and varies in width from tens of centimeters up to 1.5m. The Concordia vein can be traced in shafts and mine workings for approximately 600m to the southwest of the San Gregorio arroyo. The San Gregorio vein can be traced in some small open cuts for about 500m to the northeast. Surface samples from 10 to 40 cm wide calcite to quartz veins with oxides returned silver assays of up to 954 g/t.

The Dolores vein, interpreted to be a splay of the Concordia vein, strikes at 260° to 270° and is traceable for nearly 500m on surface by numerous small open cuts and at least five shafts. A stockwork zone of thin calcite to quartz and oxides veinlets in the hanging wall extends on surface for up to 250m across strike from the main vein and along strike for an additional 350m from the last workings on the vein. Surface samples of some of the thin stockwork veinlets from this zone returned silver assays of up to 553 g/t. The Concordia and Dolores veins appear to intersect to the west of the Rosario Shaft in an area of abundant calcite and lesser quartz veinlets. This area was evaluated on the surface by two long trenches separated by 85m, with 2m wide channel samples collected 10 to 20 cm below the surface.

The Santa Rita vein system, located in southern portion of the Property, strikes 230° to 260° and can be recognized in shafts and in short drifts for over 500m. Last production during 1970-1985 came from the lower levels of the mine which was deepening to 9 levels reaching a depth of 282m. The Santa Rita vein contains a series of veinlets in the footwall that form a wide stockwork zone in an area of 100 x 100m centered on a small silica altered hill north of the main Santa Rita drift. Quaterra hole QTA-16 tested the vein at a depth of 350m and intercepted a 3.1m interval that averages 71.44 g/t silver, 0.56% lead and 0.91% zinc. QTA-37 also appears to have cut the Santa Rita vein system at 416m depth where it encountered a 5.90m zone that averaged 104 g/t silver, 0.23% lead, and 0.55% zinc.

Various small pits and drifts sunk on calcite-manganese-oxides breccias and stockwork veinlets hosted in volcanic rocks occur 1 km east of the C-S-D vein systems on the eastern side of the Nieves Property. The stockwork zone is flanked to the north and south by two breccia structures formed by sub-angular volcanic fragments in clay altered sandy groundmass with irregular ferroan calcite and manganese oxides of possible hydrothermal origin.

## Exploration and Drilling Results

Quaterra and the Quaterra/Blackberry JV have drilled 130 holes on the Nieves project since initiating work on the property in 1999. The Concordia vein system has been the target of most of the drilling on the Nieves project. From 2004 through 2008, the drilling program focused largely on defining the lateral and down dip extents of the Concordia system and defined a series of sub-parallel veins and veinlets that occur over a strike length of at least 1,100m. The 2007 and 2008 drilling was successful in defining both high-grade vein and potential bulk-mineable silver mineralization along the Concordia vein system over a horizontal distance of 400m, a depth of 150-200m and an average true thickness of 40m. The mineralization remained open to the east and west. Ten intercepts over 1 kg Ag were intersected in the drilling program. Four hundred and nineteen samples reported silver grades greater than 60 g/t (~ 2 ounces).

In 2009 and 2010, drilling at Nieves focused on the definition of continuity of the higher grade Ag mineralization. Prior to the completion of the updated NI 43-101 compliant independent resource estimate on August 10, 2010, the program completed 6,118.7m of drilling in 29 holes targeting the La Quinta stockwork veinlet deposit, a series of veins and veinlets located along the Concordia-Gregorio Vein. The purpose of the program was to infill the core area of the known deposit for 200 meters along strike and up to 200 vertical meters below surface. Holes were drilled on 25-meter centers between existing holes drilled on 50-meter centers. The La Quinta stockwork deposit remains open along strike and at depth.

Holes QTA-96 through QTA-108 all intersected relatively shallow zones of continuous silver mineralization in the La Quinta zone ranging between 30 and 70 meters in thickness and between one and three ounces in grade. Eight of these holes contain narrower intervals of higher grade silver mineralization ranging between 15 and 38 meters in thickness and 3.2 to 9.5 ounces in grade. Two holes (QTA-109 and QTA-110) tested shallow mineralization in the La Quinta and Arroyo Gregorio zones respectively.



The 2009-2010 drilling program delineated a strong continuity of silver mineralization along strike and down dip. An induced polarization/resistivity (IPR) survey conducted on the Nieves property during May and August, 2010 indicates a continuation of mineralization well beyond the extent of current drilling. The survey totaled 36,300 meters in 27 lines that covered each of the target areas including C-S-D vein system, Santa Rita vein system, California vein system and two additional target areas; the Manto-1 target and the El Rosario mercury occurrence.

The IPR method is commonly used to map relatively low concentrations of metallic sulfides including pyrite, chalcopyrite, and other metallic minerals. The method is capable of detecting volume percent sulfides as low as 2-3 volume percent. The volume detectable is dependent on the depth of the target volume and the length of the dipole used in the survey. At Nieves the volume of metallic sulfides is generally in the 2-3 percent range and these sulfides are generally found to be in relatively close proximity to the veins, rather than being widespread throughout the area.

Following a successful test of the method over an area of strong, shallow silver mineralization in the La Quinta stockwork zone, fourteen lines were completed over the Concordia, San Gregorio and Dolores veins at 200m intervals. The survey results clearly indicated that the Concordia and San Gregorio are two separate veins; not fault offsets of the same vein, and that strong anomalies along strike to the east and west on both veins have not been drilled. Each of the three vein systems was found to have discrete zones of anomalous IP response exceeding 40 milliradians over a strike length exceeding 1000m. Background IP response is generally less than 10 milliradians and in many areas of Nieves less than 5 milliradians.

Additional IPR was completed on the Santa Rita (4 lines spaced 400 meters apart) and California (4 lines spaced 200 meters apart) vein systems, and two (2) lines were completed over the El Rosario mercury pit. The four lines over the Santa Rita vein indicate a zone of anomalous IP response exceeding 40 milliradians extending eastward a distance of 1,000 meters from the historic mine at Santa Rita. Each of four lines surveyed on the California vein show an anomalous response exceeding 40 milliradians. The anomalies represent a strike length exceeding 600 meters, and extending 400 meters west from the nearest historic drill holes and at least 50 meters east of previous drilling. The two lines surveyed at El Rosario indicated narrow zones of weakly anomalous IP response.

The Quaterra/Blackberry JV drilled an additional 19 holes prior to the end of 2010 to evaluate the numerous untested induced polarization (IP) anomalies identified at Nieves. Eight holes testing the Gregorio North vein (QTA 112-118, QTA 122) traced the vein for an additional 500 meters to the west. The vein now has a known strike length of approximately 1,000 meters. The two best holes (QTA 115-116) are on the extreme east end and are anticipated to be offset further eastward. The decrease in grade and thickness to the west (QTA 122) also is anticipated to be evaluated with further drilling.

Three holes (QTA 119-120, QTA 123) drilled west of the La Quinta zone tested the Concordia West vein. The program intersected significant mineralization and demonstrated that La Quinta remains open in this direction. Hole QTA 123 contains 78.1 meters of 69 g/tonne silver beginning at a downhole depth of 103.6 meters, including a 13.85 meter interval averaging 290 g/tonne silver (8.5 oz/ton).

Three holes tested the California vein (QTA 127-128 and QTA 130) and demonstrated that silver mineralization continues over a minimum distance of 350 meters. Hole QTA 130, near the east end of known mineralization, intersected several zones of shallow, stockwork style mineralization, including eight meters of 79 g/tonne silver beginning at a depth of 22 meters. Additional drilling is anticipated to be necessary to determine if the vein continues westward beyond this hole.

#### Sampling, Analysis and Security of Samples

Quaterra and Quaterra jointly with Blackberry have drilled 130 holes on the Nieves property. All but 10 holes completed by Quaterra in 1999-2000 were core holes. Major Drilling of Mexico S.A. de C.V. was the drill contractor for drill programs completed during 1999 to 2006 and B.D.W. International Drilling of Mexico S.A. de C.V. has been the drilling contractor since 2006.

Drill hole orientations are generally perpendicular to the strike of the overall structural trend of the vein(s) targeted. In 2009-2010 the holes were drilled at an azimuth/inclination of 340°/-60°. HQ (63.5 mm) was the standard drill core diameter. NQ (47.6 mm) was used locally as an extension (a tail) where drill conditions were difficult. Drill hole locations are surveyed using a RTK Trimble (model R8), double frequency GPS with precision to 1 cm. Down-hole survey readings were recorded on average approximately every 50 or 100m depending on the length of the hole using an Eastman Single Shot instrument. Survey results have been corrected for magnetic declination (+9°).

All drilling is conducted under the supervision of Quaterra personnel. Core boxes were collected from the drill site and brought to the core storage facility on the Nieves Property for logging and sampling by the project or assistant geologists on a daily basis. The drill core was washed and core recovery estimated. Rock types, alteration minerals, textural and structural features, veining, and mineralized zones documented. Sample intervals were measured, marked with permanent marker, and given a sample number and sample tag by the geologists. From this point, technicians were given the core to split, using a core saw, into halves where one half of each interval was placed with the sample tag into a sample bag and marked with the sample number. The other half was placed back into the core box in its original position and the core boxes were then stacked on racks and stored in order and by hole number in their core storage facility. Where the veins were coherent they were sawed in half perpendicular to the “grain” to get a representative split. Samples were placed into individual plastic bags marked with a unique sample identification number and with a sample tag placed into the bag. Sample ID numbers and meterages were also written on the core trays.

Samples were then packaged into sealed sacks and taken by Quaterra employees to ALS Chemex Laboratories in Guadalajara for preparation. No employees, officers, directors or associates of Quaterra or Blackberry JV are involved in the preparation of the samples. After preparation the samples were then packaged into sealed sacks and taken by Quaterra employees to ALS Chemex Laboratories in Guadalajara for analysis.

Standard and blank samples were also included with the primary core samples for analysis. Standards were inserted directly into the sample sequence with a frequency of ~ 1 in 50. Blanks were inserted directly into the sample sequence with a frequency of ~ 1 in 25. The final prepared samples were shipped to the ALS laboratory in Vancouver, Canada for analysis. All samples were analyzed using a 41 element ICP method (ME-ICP41), in addition to analyzing gold and silver by standard fire assay (ME-GRA21). Lead and zinc values over 10,000 ppm and silver values over 100 ppm were re-assayed by atomic-absorption methods (ME-OG62). There are no known drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results. The sampling procedure is appropriate for the type of mineralization being assayed such that samples are representative and there is no sampling bias.

ALS Chemex is an ISO 9001:2000, ISO 17025:2005 and Standard Council of Canada accredited laboratory with preparation and analytical laboratories operating in over 16 countries. Samples are sent to ALS Chemex in Guadalajara for preparation using their PREP-32 procedure. Upon receipt samples are dried, weighed and crushed. Two hundred and fifty grams of material is split and pulverized to at least 85% passing 75 microns. Reject material is retained at ALS Chemex in Guadalajara.

Internal quality assurance and quality control (QA/QC) procedures such as the insertion of blanks and standards into the sample sequences were not utilized by Quaterra and Blackberry JV during initial phases of exploration. Routine analysis of standard reference material (standards) began in 2007 with the insertion of a commercially prepared standard. Duplicate sampling began in 2008, and continued through the 2009-2010 drill program. Duplicate samples were packaged and shipped using the same security protocols as the primary drill core samples and submitted to Skyline Assayers & Laboratories (“Skyline”) in Tucson, Arizona. Skyline is ISO 17025 accredited including analyses for Au and Ag by fire assay (including gravimetric methods), which is the method of analyses used for the submitted samples. Samples were analyzed using fire assay – gravimetric finish method in addition to ICP.

Preliminary metallurgical testwork on the composite sample from the Nieves property was completed in June 2010 by G & T Metallurgical Services Ltd. Approximately 100 kg of coarse crush material was composited from reject core material from selected intervals in 12 holes drilled through the La Quinta mineralization in 2009-2010. The sample was determined to contain ~ 79 g/t Ag (theoretical grade of 83 g/t Ag). Freibergite was the major silver phase present in the sample. Ore hardness tests indicated that the sample was moderately soft with a Bond work index of 10.8 kWh/tonne. Open circuit floatation tests showed that ~ 86% of the Ag can be recovered into a final concentrate with a grade of ~ 2.3 kg/tonnes Ag. Rougher tests suggested that Ag recovery was relatively independent of primary grind size between 67 and 104µm K<sub>80</sub>. Additional testwork was recommended to investigate coarser primary grind sizes. Rougher tests also indicated that silver recovery could also be increased by using a collector such as EROPHINE 3418A which would increase the selectivity of Ag over pyrite. Open circuit cleaner tests suggest that regrinding the rougher concentrate to 20µm K<sub>80</sub> had no significant benefit on silver metallurgy. However, increasing the pH of the cleaner circuit to 10 significantly improved the Ag grade in the final concentrate.

#### Mineral Resource Estimate

On August 10, 2010 CCIC completed an updated NI 43-101 compliant independent resource estimate for Nieves silver

property incorporating the 2009-2010 drilling program results. The updated resource estimate for the San Gregorio North zone was just over 4 million tonnes of Inferred Mineral Resources with an estimated grade of 79.4 g/t Ag and 0.15 g/t Au equating to almost 10.25 million ounces of Ag and over 19,000 ounces of Au. Resources estimated for the La Quinta zone include almost 4.6 million tonnes of Indicated Mineral Resources averaging 103.4 g/t silver (~15.26 million Ag ounces) and 0.10 g/t Au in addition to just over 10.5 million tonnes of Inferred Mineral Resources grading 85.5 g/t Ag (~ 28.9 million Ag ounces) and 0.08 g/t Au.

Current Indicated and Inferred Mineral Resources for the Concordia and San Gregorio vein systems reported at a 45 g/t Ag cut-off grade (base case)<sup>1</sup> are shown in the table below:

Vein	Zone	Resource Class	Tonnes (t)	Au (g/t)	Ag (g/t)	Au (oz) <sup>2</sup>	Ag (oz) <sup>2</sup>
Concordia	La Quinta	Indicated	4,590,000	0.1	103.4	14,757	15,259,171
Concordia	La Quinta	Inferred	10,516,000	0.08	85.5	27,048	28,907,758
San Gregorio	North	Inferred	4,005,000	0.15	79.4	19,315	10,223,998

<sup>1</sup>Tonnes have been rounded up to the nearest 1,000. Au is reported to 2 decimal places and Ag to 1 decimal place.

<sup>2</sup>1 troy ounce = 31.103 grams.

The resource estimate is based on the interpretation of 94 surface drill holes. The collar position, down-hole survey and assay data for these holes and samples are stored in an MS Access database. A digital terrain model was supplied by Quaterra and used to constrain the upper boundary of the resource estimate.

3D solid shapes surrounding the overall extents of the Ag and Au mineralization along the La Quinta (based on 83 drill holes) and San Gregorio (based on 11 drill holes) were constructed and used to constrain the tonnage and grade estimation. An additional 3D solid was constructed representing the higher grade portion of the La Quinta mineralization (based on 50 of 83 drill holes) and also used in the estimation process. GEMCOM's SurpacVision software V.6.1.3 was used to generate the 3D model and perform the grade estimation.

Two meter composites were produced from the assay data within the 3D ore solid. Intervals less than 2m were composited near the contacts where sample length was equal to 0.02m (1% of the maximum composite length). The QA/QC review indicated that the repeatability associated with higher grade Ag and Au values was good and the coefficient of variation is close to or below 1.2, and therefore no top cut was applied to the model.

A variety of classification parameters were evaluated for the classification. The maximum average distance between sample pairs deemed acceptable for classification of Indicated Mineral Resources was 60m. Above this value there is a significant increase in estimated tonnages that is not as well supported by the data. If the average distance between sample pairs used in the estimate was greater than 60m but less than or equal to 180m the blocks were classified as Inferred Mineral Resources.

The current Indicated and Inferred Mineral Resources of the Concordia and San Gregorio North veins, reported at various Ag ranges (g/t)<sup>1</sup> are shown in the following table:

Ag (g/t)	Range	Vein	Zone	Classification	Tonnes (t)	Au (g/t)	Ag (g/t)	Au (oz) <sup>2</sup>	Ag (oz) <sup>2</sup>
> 15.0		Concordia	La Quinta	Indicated	7,717,000	0.09	72.8	22,330	18,062,489
		Concordia	La Quinta	Inferred	31,019,000	0.06	46.6	59,838	46,474,147
		San Gregorio	North	Inferred	17,158,000	0.11	37.1	60,682	20,466,251
> 30.0		Concordia	La Quinta	Indicated	5,810,000	0.09	89.5	16,812	16,718,484
		Concordia	La Quinta	Inferred	17,291,000	0.07	66.4	38,915	36,913,558
		San Gregorio	North	Inferred	6,999,000	0.14	60.8	31,504	13,681,613
> 45.0		Concordia	La Quinta	Indicated	4,590,000	0.10	103.4	14,757	15,259,171

Ag (g/t)	Range	Vein	Zone	Classification	Tonnes (t)	Au (g/t)	Ag (g/t)	Au (oz) <sup>2</sup>	Ag (oz) <sup>2</sup>
		Concordia	La Quinta	Inferred	10,516,000	0.08	85.5	27,048	28,907,758
		San Gregorio	North	Inferred	4,005,000	0.15	79.4	19,315	10,223,998
> 60.0		Concordia	La Quinta	Indicated	3,625,000	0.11	117.0	12,820	13,636,144
		Concordia	La Quinta	Inferred	6,319,000	0.09	107.8	18,285	21,901,045
		San Gregorio	North	Inferred	2,608,000	0.16	94.3	13,416	7,907,096
> 75.0		Concordia	La Quinta	Indicated	2,757,000	0.13	132.6	11,523	11,753,792
		Concordia	La Quinta	Inferred	3,734,000	0.11	136.3	13,206	16,363,187
		San Gregorio	North	inferred	1,792,000	0.17	107.1	9,795	6,170,569
> 90.0		Concordia	La Quinta	Indicated	2,057,000	0.14	149.8	9,259	9,907,038
		Concordia	La Quinta	Inferred	2,506,000	0.12	163.1	9,669	13,141,131
		San Gregorio	North	Inferred	1,383,000	0.17	114.6	7,559	5,095,708
> 120.0		Concordia	La Quinta	Indicated	1,106,000	0.16	189.8	5,689	6,749,150
		Concordia	La Quinta	Inferred	1,454,000	0.14	206.6	6,545	9,658,117
		San Gregorio	North	Inferred	460,000	0.17	137.8	2,514	2,038,003
> 150.0		Concordia	La Quinta	Indicated	655,000	0.19	229.0	4,001	4,822,525
		Concordia	La Quinta	Inferred	904,000	0.15	251.2	4,360	7,301,058
		San Gregorio	North	Inferred	72,000	0.19	169.4	440	392,142

<sup>1</sup>Tonnes have been rounded up to the nearest 1,000. Au is reported to 2 decimal places and Ag to 1 decimal place.

<sup>2</sup>1 troy ounce = 31.103 grams.

Measured resources could not be estimated for the La Quinta and San Gregorio North zones because metallurgical testing is only in the preliminary stages and drill spacing is still considered too broad to confidently estimate. Material was reclassified from Indicated to Inferred Mineral Resource category in areas where the classification was supported by only one drill hole. The classification of material in the area of the historic Concordia mine was also reduced in its classification because the actual 3D location and extents of the workings are not accurately known. Based on a historic long section circa 1954, development appears to have been completed down to 200m below surface, and mining carried out only to approximately 100m depth.

A conceptual analysis of the resource model using mine planning software assisted the development of an appropriate exploration program to advance the Nieves Project. Gemcom Whittle software was used in this process with conceptual costs forecast by Quaterra, the mineral resources (Indicated and Inferred) and two (2) pit slopes (45 and 50°) to create a number of scenarios. The resulting pit shells were examined in 3D and drill holes proposed that would test the area between the shells, along strike outside the shells and potentially upgrade Inferred Mineral Resources to the Indicated classification.

The analysis clearly showed that the La Quinta zone needs additional drill testing in the area between the shells to potentially upgrade the Inferred Mineral Resources to Indicated and that additional drill testing should be completed along strike (both directions) of the extents of the larger conceptual pit to potentially increase the tonnage of the Ag mineralization. Similarly, drilling needs to be completed along strike, in both directions of the San Gregorio Zone to

determine the extent of the mineralization that occurs along this trend. Drilling also needs to be closer spaced in the area drilled in the last exploration program to potentially increase to resource class from Inferred to Indicated.

Specific recommendations by CCIC for the Nieves project include step out drilling to close off the strike extent of the Concordia and San Gregorio vein systems and infill drilling to upgrade mineral resource classification in San Gregorio North and to the SW of the high grade La Quinta resource. Additional recommendations include drill testing geophysical anomalies in the Dolores, Santa Rita, California and Orion areas and a continuation of metallurgical test work on the Concordia and the San Gregorio mineralization with additional specific gravity determinations to more accurately estimate the deposit tonnage along both vein systems.

#### Future Work Plans

Quaterra's current drilling program is anticipated to complete six to eight additional holes to test open-ended mineralization on the Concordia, Gregorio North and California veins. Future work on the program is anticipated to require infill drilling to upgrade mineral resource classification in San Gregorio North and to the SW of the high grade La Quinta resource and drill testing several geophysical anomalies that may represent extensions to existing zones or new targets to add to the silver resources of the Nieves property. A scoping study has also been initiated to evaluate the open-pit potential of the existing resource.

#### MacArthur, Nevada, USA

##### Acquisition and Staking of Copper Claims

The MacArthur property consists of 409 unpatented lode claims totaling approximately 8,450 acres on lands administered by the US Bureau of Land Management ("BLM"). The claims are held by means of a mineral lease with option to purchase, executed on August 27, 2005 and subsequently amended. The agreement gives Quaterra the right to purchase the claims from North Exploration LLC ("North") by making 3 annual payments of \$524,000 (option balance) plus interest at the rate of 6% per annum by January 15, 2013. The first of these three annual payments was paid January 11, 2011. Quaterra's purchase is subject to a two percent Net Smelter Return (NSR) royalty with a royalty buy down option of \$1,000,000 to purchase one percent of the NSR, leaving a perpetual one percent NSR. The agreement with North Exploration is in good standing.

##### Expenditures to Date

Acquisition costs incurred by the Company to December 31, 2010 were \$1,731,5000 (2009 - \$1,069,819) and exploration expenditures were \$10,820,796 (2009 - \$8,299,960) for a total of \$12,552,296 (2009 - \$9,369,779).

##### Location, Access and Infrastructure

The MacArthur Copper Property is located near the geographic center of Lyon County, Nevada, USA along the northeastern flank of the Singatse Range approximately seven miles northwest of the town of Yerington, Nevada. The property is accessible from Yerington by approximately five miles of paved roads and two miles of maintained gravel road. A 100-foot wide gravel haul road that accessed the MacArthur open pit copper mine during the 1990s leads 5 miles south to the Yerington Mine. Beyond the MacArthur pit area are several existing historic two-track dirt roads that provide access throughout the property. Topographic coverage is on US Geological Survey "Mason Butte" and "Lincoln Flat" 7.5' topographic quadrangles. The nearest major city is Reno, Nevada approximately 75 miles to the northwest.

##### History

The MacArthur project has been the subject of exploration and drilling by several operators who have contributed to the current database of more than 590 holes totaling approximately 200,000 feet. During the late 1940s, Consolidated Copper Mines attracted the interest of the US Bureau of Mines to conduct 7,680 feet of trenching in 1948 and followed up with the completion eight core holes for 3,414 feet in 1950. The Anaconda Company ("Anaconda") began investigations at MacArthur including 33 shallow drill holes during 1955, 1956, and 1957. In 1963, Bear Creek Mining Company ("Bear Creek") optioned claims and drilled at least fourteen air rotary holes, the deepest to 663 feet. At least four holes for 1,237 feet were drilled to satisfy claim staking location work. During 1967 to 1968, The Superior Oil Company optioned the claims formerly held by Bear Creek and drilled eleven holes as rotary pre-collar, core finish, for 13,116 feet testing the concept that a deep primary sulfide-bearing porphyry copper ore shell might underlie the MacArthur oxide mineralization

heretofore tested no deeper than 663 feet. During the early 1970s, Anaconda conducted an extensive trenching and rotary drilling program consisting of more than 280 rotary holes totaling approximately 56,000 feet over and adjacent to the present day MacArthur pit.

Metech Pty. Ltd., of Perth, Australia was commissioned to prepare an ore reserve and mining planning study of the MacArthur deposit in 1989. Metech digitized the Anaconda data set which consisted of 11,529 assay intervals from 290 drill holes. The Metech study developed a statistically controlled Kriged ore body model of the MacArthur deposit within defined zones of mineralization. The study reported the definition of a (non 43-101 compliant) overall “geologic reserve” of 63.2 million tons grading 0.26% TCu at a 0.18% TCu cut-off that initiated the purchase of the Anaconda Yerington district properties by Arimetco International (“Arimetco”). Arimetco mined a total of six million tons at an estimated grade of 0.36 % total copper using open pit methods from the MacArthur deposit in the period of 1995 to 1998. Due to financial difficulties resulting primarily from the low price of copper, Arimetco sought protection under Chapter 11 of the U. S. bankruptcy Code in January 1997 and suspended all operations in 2000. After Arimetco’s departure, the mining Claims over the deposit were allowed to expire. No consistent, large-scale mining has occurred on the site.

Quaterra acquired the MacArthur property in August, 2005. The acquisition was motivated by the obvious potential of the property to host a copper deposit capable of sustaining a large run-of-mine heap leach operation using a solution extraction/electrowinning (SXEW) process for low cost production. The Company initiated exploration drilling in April 2007 and by September 2010, completed a total of 122,100 feet of drilling in 249 holes on the property. The drilling program defined a widespread blanket of acid soluble copper oxide and chalcocite mineralization above primary copper mineralization that is believed to be the fringes of a major copper porphyry system.

## Geology

The MacArthur copper deposit forms part of the Yerington mining district which includes at least three, large, porphyry copper deposits (Yerington, Ann Mason, Bear-Lagomarsino), as well as two large IOCG deposits (Pumpkin Hollow, and Minnesota). Mineralization ranges from disseminated porphyry copper occurrences to skarn, limestone replacement, and vein type deposits.

The Yerington area is underlain by early Mesozoic volcanic and sedimentary rocks now exposed along uplands in the Singatse Range in the west and the Wassuk Range to the east. These Mesozoic rocks were intruded by two Middle Jurassic batholiths, an older granodiorite (Yerington Batholith) and younger quartz monzonite (Bear Quartz Monzonite) that comprise the majority of outcropping rocks in the district. The batholiths were themselves intruded by another Middle Jurassic quartz monzonite event moderately to steeply north dipping quartz-biotite-hornblende porphyry dike swarms, associated with copper mineralization, striking north-northwesterly across the entire mining district. The Mesozoic section is overlain by Early to Middle Tertiary volcanics deposited ash flow tuffs prior to the advent of normal, faulting associated with Late Tertiary basin-and-range extension that displaced and tilted all of the above-mentioned rocks. These faults dip east and are curved, concave upward, so that the dip of the fault flattens eastward. Net displacements are in an east-west direction. The geologic section is completed by post-faulting conglomerates and alluvium section.

At MacArthur, the older granodiorite underlies most of the northern and western parts of the Company’s claim block. Along the east part of the claim block quartz monzonite is dominant and underlies the MacArthur pit. In bench walls at the MacArthur Pit, the quartz monzonite hosts conspicuous light brown limonite alteration banding (averaging 4 to 6 per foot) sub-parallel to the steeply north dipping, west-northwest trending quartz porphyry dikes. Along the eastern portions of the property, including the eastern third of the MacArthur pit, quartz monzonite assumes a light gray color due to widespread sodic-calcic alteration. A “border-phase quartz monzonite” commonly lies at the contact between the granodiorite and the quartz monzonite. The border-phase quartz monzonite is finer-grained than the quartz monzonite and has more abundant potassium feldspar.

Quartz porphyry dikes that host a large portion of the primary copper mineralization at Anaconda’s Yerington mine are associated with all copper occurrences in the district. The porphyry dikes at MacArthur are classified by dominant mafic minerals into quartz biotite porphyry and quartz hornblende porphyry, each subdivided further based on composition and alteration. Dikes contain feldspar crystals and either hornblende or biotite crystals set in an aphanitic matrix. The structures are typically ridge-formers with widths to 50 feet, dip steeply to the north, and follow a penetrative north-northwest (S60°E to S80°E) structural fabric. Narrow (<10 feet) fine grained, post porphyry andesite dikes follow the same NNW structural fabric.

Both Jurassic and Tertiary age andesite dikes in the walls of the MacArthur Pit can be traced from bench to bench and projected across the pit floors. The Jurassic dikes are commonly very fine grained, dactylitic plagioclase-bearing porphyries that pinch and swell as they fill fractures and intrude the hornblende and biotite quartz porphyry dikes. Tertiary hornblende andesite dikes are similar, but coarser grained than the Jurassic andesite dikes, containing abundant, acicular, black hornblende phenocrysts and occasionally plagioclase phenocrysts. Mid-Tertiary ash flow tuff units unconformably overlay the Mesozoic intrusive rocks in the southeast and western margins of the property.

## Mineralization

The MacArthur deposit is part of a large, partially defined porphyry copper system that has been complicated by complex faulting and possible post-mineral tilting. Events leading to the current geometry and distribution of known mineralization include 1) emplacement of primary porphyry copper mineralization; 2) supergene enrichment resulting in the formation of a widespread, tabular zone of secondary chalcocite mineralization below outcrops of totally oxidized rocks called a leached cap; 3) oxidation of outcropping and near-surface parts of this chalcocite blanket, as well as oxidation of the primary porphyry sulfide system coupled with partial remobilization of copper to form the upper zone of oxide copper now exposed in the MacArthur pit and throughout the MacArthur property. Oxide, chalcocite, and primary copper mineralization on the MacArthur property is hosted in both granodiorite and quartz monzonite, and in lesser amounts within quartz biotite-hornblende (monzonite) porphyry dikes all of middle Jurassic age. Oxide copper is also hosted in northwest striking andesite dikes less than one to ten feet wide with contacts as favorable loci for mineralization. Andesite dikes make up less than approximately one to two percent of the host rocks on the property. Fracturing and ground preparation supplied the passage ways for the copper to migrate.

Copper oxide minerals are exposed throughout Quaterra's MacArthur property, particularly in MacArthur pit walls as primarily green and greenish-blue chrysocolla  $\text{CuSiO}_3 \cdot 2\text{H}_2\text{O}$  along with black neotocite, aka copper wad ( $\text{Cu, Fe, Mn SiO}_2$ ), azurite  $\text{Cu}_3(\text{OH})_2(\text{CO}_3)$  and malachite  $\text{Cu}_2(\text{OH})_2\text{CO}_3$ , while tenorite ( $\text{CuO}$ ) was identified with the electron microprobe (Schmidt, 1996). Copper-enriched limonite was identified by Anaconda as the mineral delafossite ( $\text{CuFeO}_2$ ). Chalcocite has been identified in drill holes below the MacArthur pit and in drilling throughout the property. The sulfides digenite ( $\text{Cu}_9\text{S}_5$ ) and covellite ( $\text{CuS}$ ) have been identified petrographically in drill cuttings from the western part of the property. The oxide copper mineralization is strongly fracture controlled, coating joint and fracture surfaces and within shears and faults. Both green and black copper oxides are frequently found on 1-5 millimeter fractures, as coatings and selvages and may be mixed with limonite. The fractures trend overall  $\text{N}60^\circ\text{W}$  to  $\text{N}80^\circ\text{W}$  (bearing  $300^\circ$  to  $280^\circ$  azimuth) and generally dip to the north. Limited turquoise is found on the property, mainly in one- to five-millimeter veinlets. On a minor scale, oxide copper mineralization replaces feldspar phenocrysts in the igneous host units, favoring andesite.

A significant amount of chalcocite has been intersected in drillholes. Chalcocite is seen on drill chips or drill core coating pyrite and chalcopyrite as weak to strong coatings and is strongest when occurring around the MacArthur fault. Chalcopyrite is present as disseminations and veinlets, with or without chalcocite. As much of the historic drilling was stopped at shallow (<400 foot) depths, the scope and extent of chalcopyrite mineralization have not been fully defined.

Both copper oxide and chalcocite mineralization occur over approximately 9,000 feet east-west by 4,500 feet north-south. Copper oxides are structurally controlled coating fractures, joint surfaces, and developed as green or black "streaks" within shears and faults over several feet. Chalcocite may similarly be seen as grayish "streaks" within shears. Oxide mineralization occurs as a general, flat-lying geometry extending with good continuity 150 feet below surface and less continuously up to 600 feet below surface. Chalcocite mineralization generally forms as flat-lying 50 feet or more in thickness, mixed with or below oxide mineralization.

Primary chalcopyrite mineralization occurs irregularly with chalcocite and as porphyry style disseminations or as veinlets in quartz monzonite associated with potassic alteration below both the oxide and chalcocite mineralization. Quaterra's drilling program in the Gallagher area has delineated a zone of chalcopyrite mineralization that extends over a north-south distance of 2,500 feet. The primary sulfide zone has a defined width of 500 feet and extends to a depth of approximately 650 feet. At the North Porphyry Target, a single drill hole, QM-100, intersected 0.58 percent Cu over 65 feet as veinlet and disseminated primary chalcopyrite mineralization, open in all directions.

## Exploration and Drilling Results

Quaterra acquired the digitized Anaconda exploration and drilling data package in August 2006 and commenced a review of the deposit geology and mineralization model using Datamine software. The data was used to assess the required

drilling and sampling to complete a technical report on the MacArthur Project with the objective of preparing a 43-101 compliant resource estimate.

The lateral zonation of supergene copper minerals visible at the surface, a possible chalcocite blanket to the north of the pit, and a large, pervasive phyllic alteration zone to the north and west of the mine workings, all suggested that the MacArthur deposit could have a significant potential for growth; both in the form of copper oxides and as primary sulfides in a related porphyry system.

In April 2007, the Company commenced a drilling program to twin approximately 10% of the shallow holes that defined the previously explored copper oxide mineralization at MacArthur and to identify extensions of copper oxide and chalcocite mineralization in the vicinity of the open pit. The program also included 5 deep core holes to investigate the potential for primary copper mineralization in relation to a primary copper porphyry system at depth.

The 20-month drilling program totaled 80,100 feet in 173 holes including 23,900 feet of core in 49 holes and 56,200 feet of reverse circulation drilling in 124 holes. Although limited to a maximum disturbance of 5 acres under a Notice of Intent permit, the program was designed to maximize the use of existing roads and disturbances. The drilling successfully targeted a deeper chalcocite zone in step-out holes from the pit, expanded the known oxide mineralization, and encountered a large, underlying tabular blanket of mixed oxide-chalcocite mineralization that overlies primary chalcopyrite mineralization verified by deeper drillholes in the western and northern margins of the drilled area.

Drilling on the MacArthur project was suspended through most of 2009 pending receipt of a Plan of Operations (POO) drilling permit. On October 28<sup>th</sup> the Company received the approval of the MacArthur POO and the BLM Record of Decision with a Finding of No Significant Impact (FONSI). The POO environmental assessment anticipates a total surface disturbance of 200 acres as a result of drilling activities throughout much of the project area.

A helicopter-borne aeromagnetic survey conducted over the project early in 2008 coupled with an inversion of historical IP data indicated high magnetic anomalies at the southwest and northeast margins of the drilled areas. During the period mid-November, 2009 to mid-December, 2009, Zonge Engineering of Reno, Nevada, was contracted to extend the IPR coverage in all directions including to greater depths from that of the historic IP survey. The survey consisted of 7 north-south lines of which 4 lines were surveyed using the pole-dipole array and 3 employed the dipole-dipole method. A total of 14.7 miles were surveyed in the program.

At shallower depths, the new IPR survey results compared favorably with the historic IP data, but the older data could not be used to effectively resolve the bottom of the IP anomalies nor determine if any of the anomalies extend to great depths. The 2009 IPR survey shows the top surface of the stronger IP anomalies in the central project area occur at an elevation of 4,400 feet (depth below surface of 300-400 feet). Many of these zones of anomalous IP response have not been tested with deeper drilling since the initial focus has been to delineate and extend the oxide copper/chalcocite mineralized zone. Several shallow holes drilled above the zones of anomalous IP response have intersected significant chalcocite and chalcopyrite near the bottom of these holes. The IP anomaly within the existing MacArthur pit extends to a significant depth and has not been tested with any drill holes. This is a high priority target in the exploration for high grade primary-sulfide ore.

The new survey also defined deep moderate-strong to strong IP anomalies in North Porphyry target and the Gallagher area that are coincident with magnetic highs. The North Porphyry target has been tested by a total of 12 drill-holes exceeding a depth of 750 feet and 2 holes exceeding 1,500 feet. Although several intersected primary-sulfide porphyry copper mineralization, the strongest IP anomalies with coincident magnetic highs have not yet been tested by drilling. Similarly, the northern edge of the Gallagher target has a number of strong IP anomalies of which only drill-hole QM-049 tested the south edge of this zone.

Alteration and copper mineralization as well as zones of coincident high magnetic susceptibility and IP response continue to the contact with the post-mineral Tertiary volcanic front in the western portion of Quaterra's claim block. The new IPR survey identified two areas, northwest and north of the Gallagher deposit that represent the best chance for mineralization to be found beneath the volcanic rocks at reasonable depths. Moderate IP anomalies have been detected in both areas and further work including advanced modeling using a 'constrained' 3d inversion of the magnetic data is planned early in 2011 in an attempt to 'see' below the highly magnetic volcanic rocks.

Quaterra initiated a second phase of reverse circulation and deep core drilling in early December 2009. Completed in August 2010, the program included a total of 37,418 ft. of R/C drilling in 73 holes and 4,550 ft. of drilling in 3 deep core



holes. The drilling program tested the northern extension to higher grade acid soluble copper mineralization on 500 foot centers northwest of the pit (where QM-60 intercepted 260 ft. averaging 0.38% Cu at a depth of 140 ft.) and in-filled on 500 ft centers an undrilled area west of the pit (where QM-67 intercepted 50 ft. averaging 0.42% Cu at a depth of 175 ft.). In the southern Gallagher area, the program confirmed a band of continuous near surface oxide mineralization ranging in thickness from 15 to 60 feet over a distance of 1,900 feet between holes QM-155 and 156. Hole QM-141 intercepted 60 feet of 0.33% TCU from 0 to 60 feet.

The 2009-2010 drilling program included three deep holes to test three of five prospective IPR anomalies to the north and northwest of the MacArthur pit. The North Porphyry Target was identified by three earlier Quaterra drill holes that intersected ore grade porphyry copper style sulfide mineralization below the low-angle MacArthur fault zone over a strike length of 1,000 feet. The results of the early program included 1.19% copper over a thickness of 110 feet at a depth of 485 feet in QM-68, an intercept averaging 0.82% copper over a thickness of 60 feet at a depth of 420 feet in QM-70 and a thickness of 15 feet averaging 1.20% copper at a depth of 770 feet in hole QM-72.

The geology and the new geophysical data in the northern MacArthur project area were combined to select three targets for core drilling with rotary pre-collars. Hole QM-100, located 1,400 feet north of QM-68, intercepted porphyry-style chalcopyrite/biotite-chlorite veining at a depth 1,203 feet that assayed 0.58% copper over a thickness of 65 feet below the shallow-dipping MacArthur fault zone. QM-109, spotted on an IPR anomaly, failed to reach projected depth due to fractured, caving ground while QM-99 intersected massive pyrite impregnated breccia and scattered zones of secondary biotite and chlorite alteration; common elements of a porphyry system.

The North Porphyry target, now supported by significant intercepts in four drill holes over an area of 3000 feet by 1000 feet, remains open in three directions and to depth. Four IPR targets, located north or west of the existing drilling, have yet to be tested. Significant porphyry-style alteration including potassic feldspar flooding-pyrite veining, particularly around the ore intercept of hole QM-100, indicate that Quaterra's exploration program is penetrating the margins of a previously unrecognized porphyry center.

#### Future Work Plans

Quaterra's future plans for the MacArthur project include; infill drilling to upgrade the status of existing resources, step-out drilling to delineate the outer margins of the deposit, deep drilling to explore for primary copper sulfide mineralization, and large diameter (PQ) core drilling to obtain adequate sample material for metallurgical leach column tests. Data from these programs will be incorporated into a preliminary scoping study to guide additional definition drilling on the project. In addition to initiating mine planning and baseline environmental studies, continued surface geologic mapping, and securing adequate supplies of water and power will be required for the project to proceed toward feasibility.

#### Sampling, Analysis and Security of Samples

The MacArthur drilling program is supervised in the field by the project geologist for monitoring recovery, proper sample handling and accuracy in labeling. Drill core (HQ diameter) and reverse circulation samples are delivered from the drilling rigs to the core and sample storage facility in Yerington by the drillers at the end of each 12 hour shift for logging and sampling by the project geologists.

At the core storage/logging facility, core is photographed, measured, core recovery calculated, and the rock types, alteration minerals, textural features, structures, veining, and mineralized zones documented. Sample intervals on the first three holes were fixed at 5 feet. In subsequent drill holes the sample intervals are taken at each of the core runs marked by the driller's blocks. Exceptions are where full recovery occurs in numerous, short core runs in intervals less than about 6 feet, or where the geologists visually selected sample intervals based on rock type or structure. Sample intervals are measured and marked with permanent marker, orange ribbon and aluminum tag that is stapled to the core tray showing the sample number. Where the core sample is coherent a line is drawn with permanent marker along the stick so that it is sawn in half perpendicular to the "grain" in order to get a representative split. The core is stored on pallets to be picked up by the analytical laboratory.

When core from the project arrives at the laboratory, it is split, using a core saw, into halves and one half of each interval is placed into a sample bag that is marked with the sample number. The sample is then dried, crushed to -10 mesh, rotary split to 1,000 grams, pulverized to -150 mesh, and split to 350 gram pulps. The pulps are assayed for total copper using a 2 gram-3 acid volumetric ore grade atomic-absorption (AA) spectroscopy analysis. The solution from the total Cu analysis is assayed by inductively coupled plasma (ICP) spectrometry for 34 elements. The acid soluble copper oxide (asCu) content

of the sample is then analyzed by using a weak, sulfuric acid solution leach of a 1 gram pulp. The acid leachable copper sulfide content is analyzed by using ambient temperature concentrated sulfuric acid and hydrated ferric sulphate to determine Ferric Sulfate Soluble Copper (FSCu) content. Internal quality assurance and quality control procedures include the insertion of standards and duplicates into the sample sequences. Rejects from the previously analyzed samples are also sent to another accredited laboratory for check analyses. The remaining half core is placed back into the core box in its original position and the core boxes are returned to the Yerington core storage/logging facility by the laboratory truck, where it is then stacked and stored in order and by hole number. Reject and pulps are also returned with the core to the Yerington facility for archiving.

American Assay Laboratories (AAL) located in Sparks, Nevada prepared and assayed samples from the MacArthur drilling program in 2007. AAL is ISO/IEC 17025 certified and participates in CANMET, PTP MAL certification analyses twice a year and in GEOSTATS, SMA, and IOAG testing twice a year. Core samples from subsequent programs have been prepared and analyzed by ISO17025 compliant ALS Chemex Laboratories in Sparks, Nevada and Skyline Assayers and Laboratories (Skyline) in Tucson, Arizona.

The MacArthur reverse circulation drilling program is supervised in the field by the project geologist for sample accuracy, proper handling and accuracy in labeling. Methods and procedures for splitting and packaging of samples are conducted such that the quality of the sample splitting meets or exceeds standards required under NI 43-101 and a chain of custody starts with the drillers collecting, splitting and bagging of RC drill cuttings.

For logging of drilled lithologies, a continuous chip sample is collected in a plastic chip tray over five foot intervals and stored for logging by the project geologists. A 5/16 continuous split of five foot sample intervals is collected for assaying from 5.2 inch diameter drill holes through a wet splitter mounted on the rig. The samples are placed in sample bags and transported from the drilling rig to the Company's storage facility in Yerington at the end of each 12 hour shift. The samples are then inventoried by Company personnel, dried, placed on pallets, wrapped in plastic and shipped via United Parcel Service to the Skyline laboratory in Tucson, Arizona for sample preparation and assaying. Rejects and pulps are returned to the Yerington facility for archiving.

Skyline Assayers & Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA - certificate no. 2953.01) in the Chemical field of Testing. Skyline is a recognized industry leader for all types of base metal, ferrous and non-ferrous analysis including high quality ore-grade assays, sequential copper analyses of ores, and umpire assays of metallurgical products. The Tucson laboratory has provided analytical service to the copper mining industry for over 70 years.

At Skyline, the RC samples are crushed to plus 75% passing a -10 mesh, split and pulverized at the Skyline laboratories for assay using analytical techniques as described for the core drilling program. Internal quality assurance and quality control procedures include the insertion of standards into the sample sequences. Rejects from the previously analyzed samples are sent to ALS Chemex Laboratories in Sparks, Nevada for check assays.

#### Mineral Resources

Tetra Tech, Inc. of Golden, Colorado completed an updated NI43-101 compliant independent resource estimate and technical report for the MacArthur Copper Project in January 2011. The Tetra Tech estimate gives the MacArthur project a measured and indicated oxide/chalcocite resource of 143.72 million tons averaging 0.192% total copper (TCu) that contains 551.6 million pounds of copper, an inferred oxide/chalcocite resource of 215.0 million tons averaging 0.197% TCu that contains 846.8 million pounds of copper, and an inferred primary sulfide resource of 74.1 million tons averaging 0.256% TCu that contains 379.5 million pounds of copper. The tables below present a summary of measured, indicated and inferred resources of the MacArthur project at various cutoff grades.

MEASURED COPPER RESOURCES MACARTHUR COPPER PROJECT –YERINGTON, NEVADA December 2010				
	CutoffGrade%TCu	Tons (x1000)	Average Grade %TCu	Contained Copper (lbs x 1000)
Oxide and Chalcocite Material (MinZone 10 and 20)	0.50	381	0.584	4,452
	0.40	1,232	0.485	11,938
	0.35	2,299	0.433	19,896

	0.30	4,463	0.379	33,821
	0.25	9,899	0.320	63,294
	0.20	23,365	0.263	122,947
	0.18	30,914	0.245	151,664
	0.15	41,544	0.225	186,865
	0.12	48,337	0.213	205,432

INDICATED COPPER RESOURCES MACARTHUR COPPER PROJECT – YERINGTON, NEVADA December 2010				
	Cutoff Grade %TCu	Tons (x1000)	Average Grade %TCu	Contained Copper (lbs x 1000)
Oxide and Chalcocite Material (MinZone 10 and 20)	0.50	797	0.620	9,886
	0.40	1,659	0.530	17,575
	0.35	2,386	0.482	23,006
	0.30	3,766	0.423	31,845
	0.25	7,777	0.344	53,521
	0.20	22,661	0.263	118,970
	0.18	35,409	0.236	167,272
	0.15	64,173	0.204	261,697
	0.12	95,384	0.181	346,053
Primary Material (MinZone 30)	0.50	6	0.577	69
	0.40	19	0.486	185
	0.35	38	0.428	325
	0.30	164	0.350	1,146
	0.25	353	0.309	2,179
	0.20	639	0.269	3,443
	0.18	1,046	0.238	4,987
	0.15	1,448	0.218	6,325

MEASURED+INDICATED COPPER RESOURCES MACARTHUR COPPER PROJECT – YERINGTON, NEVADA December 2010				
	Cutoff Grade %TCu	Tons (x1000)	Average Grade %TCu	Contained Copper (lbs x 1000)
Oxide and Chalcocite Material (MinZone 10 and 20)	0.50	1,178	0.609	14,339
	0.40	2,891	0.510	29,511
	0.35	4,684	0.458	42,896
	0.30	8,229	0.399	65,667
	0.25	17,676	0.330	116,803
	0.20	46,027	0.263	241,918
	0.18	66,323	0.240	318,881
	0.15	105,717	0.212	448,663
	0.12	143,721	0.192	551,601
Primary Material (MinZone 30)	0.50	6	0.577	69
	0.40	19	0.486	185
	0.35	38	0.428	325
	0.30	164	0.350	1,146
	0.25	353	0.309	2,179
	0.20	639	0.269	3,443
	0.18	1,046	0.238	4,987

	0.15	1,448	0.218	6,325
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INFERRED COPPER RESOURCES MACARTHUR COPPER PROJECT –YERINGTON, NEVADA December 2010				
	Cutoff Grade %TCu	Tons (x1000)	Average Grade %TCu	Contained Copper (lbs x 1000)
Oxide and Chalcocite Material (MinZone 10 and 20)	0.50	4,967	0.820	81,479
	0.40	7,894	0.680	107,406
	0.35	10,776	0.598	128,773
	0.30	17,312	0.494	170,939
	0.25	30,740	0.397	243,953
	0.20	63,538	0.306	389,234
	0.18	84,685	0.277	469,155
	0.15	132,829	0.236	626,953
	0.12	215,043	0.197	846,839
Primary Material (MinZone 30)	0.50	6,482	0.564	73,143
	0.40	10,044	0.524	105,181
	0.35	10,904	0.512	111,657
	0.30	13,969	0.469	130,890
	0.25	28,347	0.370	209,995
	0.20	39,476	0.328	259,120
	0.18	51,363	0.297	304,685
	0.15	74,090	0.256	379,489

The resources quoted in the table above are based on a three-year average copper price of US\$3.03 per pound. For the leachable, SX/EW recoverable resources a base case cutoff grade of 0.12 percent TCu has been applied. For the sulfide resources that would be recoverable by conventional flotation methods, a base case cutoff grade of 0.15 percent TCu has been applied. These cutoff grades have been developed based on average mining costs for similar sized operations and from cost estimation services, using a metallurgical recovery of 90% of the oxide copper grades for the SX/EW material and a metallurgical recovery of 88% for the conventional flotation material, and a smelter charge of US\$0.50 per pound for processing conventional flotation concentrates.

The 2009-2010 drilling program added 8,547 copper assays to the 26,554 existing copper assays that were used in the 2009 report. The 2010 updated resource model used the same kriged estimation parameters as were developed and reported in the 2009 technical report, with the exception of the increase in the physical block model due to the new drilling, an update in the interpretation of the various mineralized zones and slight modifications in the search parameters for the inferred class.

The copper resources were estimated using whole block kriging techniques and oriented search ellipsoids based on the individual variograms and were then classified into measured, indicated, and inferred categories by a combination of jackknifing and kriging error analysis. The rock model was then assigned a tonnage factor based on the historic information that indicates an average in-place bulk density of 12.5 cubic-feet per ton. The individual blocks of the model measure 25 by 25 feet by 20 feet high.

The location of the various categories of resource blocks in the estimate reflects the density of drill holes on the project. Measured and indicated resource blocks are predominantly in or adjacent to the MacArthur pit where the drill hole spacing is the tightest. Inferred Mineral Resource trace the wider-spaced, 500 foot by 500 foot drilling pattern to the north and west of the pit. Several isolated areas containing indicated resource blocks are also estimated where one or more angle holes have been drilled from the same location in the wider spaced pattern.

The technical report concludes that significant potential for development of additional mineral resources are present within and adjacent to the current drill-hole pattern at MacArthur. The report recommends a completion of infill drilling to an approximate average drillhole spacing of 250 feet to allow re-classification of inferred category resources into measured and indicated categories in areas that are currently under-drilled and continued efforts to enlarge the oxide and chalcocite/oxide mix resource areas. The report concludes with a recommendation to continue the investigation of the potential primary sulfide mineralization at depth.

The Tetra Tech resource estimate is included with a description of the project history, geology, mineralization, sampling procedures, and laboratory Quality Assurance/Quality Control procedures. The NI43-101 Technical Report is available at [www.sedar.com](http://www.sedar.com). The Qualified Person for the MacArthur Copper Project resource estimate and the technical report is Mr. John W. Rozelle, P.G., Principal Geologist for Tetra Tech, Golden Colorado

#### Yerington Porphyry Copper Mine – Nevada, USA

On May 1, 2007, the Company received the bankruptcy court approval for the acquisition by a subsidiary of Quaterra of all Arimetco assets in the Yerington Mining District, subject to the Company completing due diligence. The purchase price comprises US\$500,000 cash, 250,000 of the Company's common shares and a 2% net smelter return royalty capped at US\$7.5 million dollars on production from any claims owned by the Company in the Yerington and MacArthur mine areas.

Quaterra's review of the Arimetco assets in the Yerington Mining District has progressed slowly but steadily. The Chambers Group Inc. and Golder Associates Inc. completed a Phase I Environmental Site Assessment Report (ESA) in April of 2008 as part of the Company's due diligence. The purpose of this Phase I ESA is to identify conditions indicative of releases or threatened releases of hazardous substances. This report is essential to obtain requested environmental protections for past mining related activities.

Technical due diligence has concentrated on reviewing and compiling a wealth of historical data in the Anaconda Library in Laramie, Wyoming. To assist in the review, numerous reports, maps and historical drilling data have been scanned and entered into an internal data base. An initial review has been completed of both past production and remaining mineralization in and around the Yerington pit. The area contains significant under-explored potential for copper mineralization.

Although the process has been slow, the Arimetco assets merit the efforts required for acquisition. The Yerington mine is the center of a prolific copper district and can provide Quaterra not only with additional exploration targets but increased flexibility when considering production alternatives. Subject to successful completion of due diligence, Quaterra plans to explore the property as part of its ongoing exploration program at MacArthur. Significant tonnages of copper oxide and sulfide mineralization remain below and peripheral to the Yerington pit and much of the area between the pit and the MacArthur deposit remains under-explored, including the large and only partially delineated Bear deposit.

#### Expenditures to Date

Acquisition costs incurred by the Company to December 31, 2010 were \$2,100,233 (2009 - \$1,659,336) and exploration expenditures were \$839,354 (2009 - \$739,824) for a total of \$2,939,587 (2009 - \$2,399,160).

#### Future Work Plans

Subject to completion of due diligence, Quaterra plans to explore the property and update Anaconda's historical resources.

#### Arizona Uranium Claims, USA

##### Acquisition and Staking of Uranium Claims

Quaterra commenced uranium exploration in Arizona in June 2005 with the acquisition of 99 unpatented lode mining claims from North Exploration LLC ("North") that cover several uranium breccia pipe targets in the Arizona Strip district. Under the terms of the North agreement, the Company may acquire a 100% interest in any or all of the North claims by making staged payments over a five-year period totaling US\$500,000 and issuing 600,000 common shares. The North Properties are subject to a 2% production royalty on each Property, 1% of which may be purchased by Quaterra for US\$1 million. The North agreement also included an option to acquire other properties in Utah and Wyoming that are prospective for both uranium and vanadium.

In mid 2006, Quaterra signed a letter agreement with Nu Star Exploration LLC ("Nustar") to lease 18 Claims covering 4 additional breccia pipe targets in the district. The terms of the Nustar lease are an upfront payment of US\$20,000, a first anniversary payment of US\$30,000, a second anniversary payment of US\$40,000 and a final anniversary payment of US\$100,000. The final payment date has been amended so that the payment is deferred for a period of two years or less should the current Segregation by the Department of the Interior be lifted and exploration and mining activities be allowed to continue. The Nustar Claims are subject to a 4 % Yellowcake royalty, 75% of which the Company can buy back for US\$500,000 per Claim group (thereby reducing the royalty from 4% to 1%).

Quaterra staked an additional 550 mining Claims on the Arizona Strip in 2006 and another 1,450 claims were perfected in early 2007 to cover more than 200 high and moderate priority anomalies identified by an airborne VTEM geophysical survey. The claims are subject to a 4% Yellowcake royalty. The Company may purchase 75% of this royalty (reducing it from 4% to 1%) for US\$1,000,000 each as it applies to each breccia pipe discovered on the claims.

In response to a July 20, 2009 decision by the US Department of the Interior (“DOI”) to segregate 1 million acres of federal lands in the Arizona Strip for two years pending a review for a possible 20 year withdrawal of the district from mineral entry, Quaterra conducted a detailed review of all the Company’s Arizona Strip assets. Unpatented claims held in the area of segregation were prioritized and selectively reduced to establish a land position consisting of 1,000 claims and one state lease that covers approximately 21,000 acres. The optimized land position controls 195 VTEM anomalies that include Quaterra’s best breccia pipe targets with a maintenance cost that can be supported throughout the two year segregation period.

In early 2010, Arizona state Mineral Exploration Permits (“MEPs”) totaling approximately 3,200 acres were acquired through an option agreement with Eagle Hill Exploration, Eagle Hill Arizona Uranium LLC, and Snowden Resources Corp. Additional MEPs were acquired by the Company in 2011 making a total of 6.9 square miles of Arizona state land now under lease by Quaterra. When combined with 32.3 square miles covered by 1000 unpatented federal claims, the Company’s land position now covers approximately 39 square miles in the heart of the Arizona Strip uranium district. The properties consist of many individual and scattered claim blocks that have been selectively staked over targets with some surface expression of a possible collapse structure, with favorable VTEM geophysical signatures and within areas of known mineralized occurrences

#### Expenditures to Date

Acquisition costs incurred to December 31, 2010 were \$4,175,454 (2009 - \$3,704,810) and exploration expenditures were \$7,368,733 (2009 - \$7,153,307) for a total of \$11,544,187 (2009 - \$10,858,117).

#### Location, Access and Infrastructure

Quaterra’s Arizona Uranium property is located in the northern Arizona Strip uranium district in Coconino and Mohave Counties. The property occupies the southwest corner of the Colorado Plateau physiographic province in northwestern Arizona just south of the Utah state line. It is bounded to the west by the Grand Wash Cliffs and to the east by the Echo Cliffs. The area is characterized by a broad and featureless expanse of range land that becomes deeply incised by canyons of four major drainages.

Access to the property is provided by maintained county roads, mine access roads and a network of BLM recognized dirt roads and jeep trails used by ranchers and prospectors as well as State and Federal authorities for land management. Nearly all of the surface and mineral rights with the exception of the Arizona state lands are Federal and managed by the Bureau of Land Management with a field office in St. George, Utah.

#### History

Uranium mineralization was first discovered on the Arizona strip in a mineralized breccia pipe in 1947. The uranium occurred in association with copper mineralization at the Orphan mine two miles west of the visitor’s center on the south rim of the Grand Canyon. The first uranium ore was shipped by the Golden Crown Mining Company in 1956 to a buying station in Tuba City. Before closing in 1969, the Orphan operation produced a reported total of 4.4 million lbs of uranium in material averaging 0.42% U3O8 and 6.7 million lbs of copper. (Baillieul, T.A. and Zollinger, R.C. (1980) NURE Grand Canyon Quadrangle, Arizona PGJ-020, 41p.).

The relationship of uranium to copper mineralization initiated an investigation of several small copper deposits in the region. Uranium was identified in the Hack Canyon copper mine on the northern Arizona strip in the 1950s but it was not until 1974 when Western Nuclear discovered uranium ore bodies in the Hack 1 and Hack 2 breccia pipes that industry began to focus attention on the emerging district. Energy Fuels Nuclear Inc. (“Energy Fuels”) acquired the Hack Canyon ore bodies in 1980 and initiated an intense campaign of land acquisition and exploration that over the next ten years discovered seven ore bodies. With the entrance of Pathfinder Mines and Union Pacific Resources, at least three additional mineralized breccia pipes were added to the district. Several more were in earlier stages of discovery when in the early 1990s the price of uranium dropped below the cost of production.

The Arizona Strip historically represents some of the highest grade mineralization and most profitable per pound uranium production in the United States. Energy Fuels breccia pipe uranium mines were some of last hard rock uranium producers in the US prior to the price decline of the 1990s. Since 1980, the Arizona Strip has produced in excess of 19 million pounds of uranium, averaging 0.65% U<sub>3</sub>O<sub>8</sub> from seven breccia pipes. Of these, Hack Canyon I, II, and III, Pigeon and Hermit are mined out and have been reclaimed, Arizona 1 (owned by Dennison Mines) resumed production in January 2010, Pinenut (Dennison Mines) is in the final phases of development and pending permitting to commence production and Kanab North has been placed on a standby with reserves remaining.

## Geology and Mineralization

The canyon walls of northern Arizona expose numerous breccia pipes that are characteristic of the collapse structures that host uranium mineralization in the Arizona strip. The collapse of cavern roofs in the Mississippian Redwall Limestone forms a pipe of breccia through the subsequent collapse of overlying sediments through mechanical and chemical processes to form a vertical column of breccia. Breccia pipes in the region average 200 to 400 feet in width and can extend upward over 3,000 feet from the Redwall Limestone to the upper Triassic sequence.

Many northern Arizona Breccia pipes exhibit several common morphological features that are used to identify the structures at the surface and to position drill holes at depth. The cylindrical area of vertically displaced breccia in the center of the pipe is generally referred to as the “pipe throat.” The amount of vertical displacement in the throat ranges from 50 to several hundred feet and often decreases up section. The internal geometry of the throat can be complicated by the later formation of “pipe in pipe” structures. These internal features are the result of late stage (often post-mineral) collapse due to continued dissolution of carbonates in the lower reaches of the pipe throat. They may result in the dispersal and elimination of economic accumulations of uranium mineralization in the pipe.

The throat of a breccia pipe is seldom visible at the surface when not exposed in canyon walls. Where covered by the Triassic Moenkopi siltstone or recent alluvium, the only evidence of a pipe structure may be a large circular structure of gently inward dipping beds or even more subtle circular anomalies formed by ring fractures and vegetation. These features are caused by the dissolution of evaporites in the Permian Toroweap and Kaibab Formations (“PKfm”) along the margins of the throat during the formation of the pipe. As the evaporites are removed, a pronounced structural depression or “collapse cone” develops in the overlying strata above the Coconino sandstone. Many of the collapse cones are characterized by a thick section of Moenkopi siltstone that fills the cone near the upper Kaibab horizon. Although breccia pipes often have some structural symmetry at different levels, the throat of a pipe is not always in the center of a collapse cone and circular depressions are not always related to pipes.

Uranium mineralization in breccia pipes of the northern district occurs predominantly within the pipe throat and below the upper Hermit contact. Mineralization is also present in ring fractures along the margins of the throat, and in the underlying Supai Group, but significant accumulations at this level is less common on the north rim than in the southern district. Economic concentrations of mineralization often occur over a vertical distance of more than 600 feet in the pipe throat. Scattered mineralization can extend well below the upper contact of the Esplanade Sandstone.

Uranium occurs primarily as pitchblende in voids between sand grains and replacing rock fragments of a reduced sandstone dominant breccia derived from the Coconino Sandstone. Calcite and gypsum are common cementing minerals. Associated trace elements include copper, arsenic, nickel, lead, zinc and silver. The mineralized breccia often contains abundant bitumen that is considered an important reducing agent for the geochemical system. Uranium is generally thought to have been transported to the pipe by oxidizing ground waters in the Coconino Sandstone and deposited in a “trap” of porous sandstone breccia within the non porous pipe walls of Hermit siltstone and above a relatively tight base of siltstone dominant breccia. Finely disseminated pyrite is common in the mineralized zone and may contribute to the reducing environment necessary for the deposition of uranium. Immediately above the mineralization, pyrite becomes massive and forms a “cap” of pyrite after marcasite that can exceed 50 feet in thickness.

The USGS Open File Report (OFR-89-550) shows the mapped locations of 1,296 pipes in northern Arizona. More than 90% of mapped pipes are shown within the deeper canyons of the region where they are exposed by erosion of the younger strata. Because of their scenic value, these canyons have been withdrawn from exploration and mining. However, the same density of pipes is probable at depth in the surrounding district where the number of known pipes decreases dramatically below the cover of successive layers of younger sediments until fewer than 2 pipes are evident over a surface area of 500 square miles in the upper Triassic sequence. The upper level of stoping by collapse varies and many pipes may occur at depth within the district and remain hidden with no surface evidence of a pipe throat. If these structures penetrate the Coconino Sandstone, an ore body may exist with no pipe feature at the surface.



Hidden or “blind” pipes may be the most numerous types of mineralized structures. Until the discovery of A-1, the Hack 2 mine was the only blind pipe ever discovered in the district. Hack 2 was also the largest deposit ever mined in the district with approximately 7 million pounds of  $U_3O_8$  produced. The number of pipes identified to date may represent only a small fraction of the number of mineralized hidden pipes that lie waiting to be discovered at depth. With continued exploration, the Arizona Strip may soon become one of the more significant producing uranium districts in the United States.

#### Recent Exploration and Drilling Results

The discovery of new deposits in a mature district requires a determined and innovative approach combined with the latest exploration technology. Quaterra initiated uranium exploration on the Arizona Strip in 2006 with methods that have been proven by years of past experience with Energy Fuels Nuclear. Geologic mapping, aerial photography and satellite imagery have been and continue to be used extensively to identify breccia pipe targets. When a target was located, surface time-domain electromagnetic geophysical surveys had significant success in defining areas of thickened (conductive) siltstone within the surface structure. Shallow drill holes are used to define a collapse cone and to target deep holes to test for mineralization in the pipe throat. Most of the obvious targets identified by these methods have been located and drilled and tested by companies exploring the northern district in the 1980s. However, extensive areas remained unexplored because of the time and expense required by the surface geophysical surveys.

Since commencing on the Arizona Strip, Quaterra has drilled 98,403 feet in 105 shallow and 41 deep holes that investigated 25 targets. The program had limited success until Quaterra contracted Geotech Ltd. to conduct the first extensive test of an airborne time-domain electromagnetic system (VTEM) in the district in early 2007. The VTEM system identified most of the known breccia pipes and more than 200 moderate to high priority targets on the Company’s property with similar geophysical signatures but with little or no outcropping evidence of a collapse feature. The similarities to known structures and the sheer number of targets suggested that many of the anomalies could be blind pipes.

The first VTEM target tested resulted in the discovery of the first new mineralized breccia pipe found on the Arizona Strip in 18 years. Discovery Hole A-01-31 intercepted a thickness of 57 feet averaging 0.33%  $U_3O_8$  at a depth of 1,034 feet. The intercept includes a higher grade interval of 28 feet averaging 0.58%  $U_3O_8$ . The drill-hole data indicate that the A-1 structure is a hidden breccia pipe. Upward collapse of the A-1 pipe stopped more than 400 feet below the surface.

Quaterra followed up on the discovery of the A-1 mineralized pipe with a drilling program in 2008 dedicated to testing several more of the many airborne geophysical anomalies on Quaterra’s properties. The first hole to test the second geophysical anomaly identified a new breccia pipe with high-grade uranium mineralization at A-20. Discovery Hole A-20-01 intercepted a thickness of 34.5 feet averaging 0.37%  $U_3O_8$  at a depth of 1,442 feet, including a high-grade zone of 6.5 feet averaging 0.63%  $U_3O_8$  at a depth of 1,443 feet. The hole also intercepted a deeper zone of 13.0 feet averaging 0.46% at a depth of 1,567 feet that includes a higher grade interval of 10.0 feet averaging 0.58%.

The relative size of the A-20 pipe can not yet be determined, but it may be comparable to the larger breccia pipes in the district. Only three holes have been completed in the structure, one exited the pipe above the favorable mineralized horizon and two have penetrated pipe breccia.

Since commencing the drilling program to target VTEM anomalies Quaterra has achieved a 70% success ratio in its exploration results. Near surface structures were identified in all but three of seven additional VTEM targets tested during the year.

The A-18 target, located midway between and about half a mile from the Company’s mineralized Ollie and A20 pipes, is in a suitable position for a single development to access all three targets. To date, five deep and two shallow holes have been completed that define a 40-foot-deep structural depression at the upper Fossil Mountain horizon. The deep holes have encountered up to eight feet of altered Hermit shale and a strongly altered section of Coconino sandstone that are indicative of close proximity to a pipe throat.

Drilling at the A51 target, located 1.5 miles west of the A1 discovery provided similar encouragement. Three shallow holes and four deep holes defined a 60-foot-deep structure at the upper Fossil Mountain horizon and more than 20 feet of alteration in the Hermit shale. A gamma log of one deep hole showed a radiometric anomaly over a thickness of 15 feet in the Toroweap Formation. The holes are believed to have encountered the outer margins of a breccia pipe structure.

While waiting to complete a down-hole survey, one rig was moved to the Ollie prospect to re-enter and probe an old hole drilled by Energy Fuels Nuclear in 1990. The probe identified an intercept in hole JH2618-04 of 52.5 feet averaging 0.24% eU3O8 at a depth of 1,342.5 feet, including 27.0 feet averaging 0.36% eU3O8 at a depth of 1,359.5 feet. A down-hole TEM survey (using technology that was nonexistent during the EFN program) identified a significant anomaly to the south of the drilled area which suggests that a large section of the Ollie pipe may remain untested. The down-hole TEM proved exceptionally valuable in locating the pyrite cap and providing information to target additional drill holes.

The A-21 VTEM target may also be a pipe, but deep drilling has failed to encounter the throat below the upper Coconino horizon. Three shallow and two deep holes have defined approximately 30 feet of structural closure in the Kaibab Formation and up to five feet of altered Hermit Shale below the lower Coconino contact indicating the proximity of a pipe structure. Additional shallow drilling will be required to target the pipe throat at depth.

#### Future Work Plans

Quaterra's position on the Arizona Strip, selectively staked to control airborne geophysical anomalies, has given the Company a unique advantage in the search for breccia pipes. The Company's assets now include 3 mineralized breccia pipes; one which could be among the larger identified in the district, 4 probable pipe structures that remain untested in the favorable horizon for uranium mineralization, and 5 possible pipe structures that have been defined by shallow drilling or have pipe structures clearly visible at the surface. The success of past drilling programs has proven the validity of the geophysical targets and added significantly to the prospective value of the many anomalies remaining to be tested on the Company's properties. Future drilling programs to explore these targets is subject to the status of public lands in the district, access to funding and commodity prices.

Although the Arizona Strip represents one of the few areas in the U.S. that has been officially set aside for mining and public use by an act of Congress, anti-mining interests are currently pursuing the removal of the district from mineral entry. On July 20, 2009, the DOI announced a decision to segregate 1 million acres of federal lands in the Arizona Strip for two years to allow an evaluation as to whether the DOI should withdraw the lands from new mining claims for a year of 20 years. The release states that the segregation would prohibit new mining claims in the designated areas but "would not prohibit ongoing or future mining or extraction operations on valid pre-existing claims."

It is the Company's view that mining companies holding valid claims within the land segregated from mining may exercise notice operations to confirm or corroborate previous work on existing claims. The Company presently has a total of 26 breccia pipe targets that are fully permitted and bonded for exploration drilling.

Future drilling programs to explore the Company's breccia pipe targets is subject to funding and the status of public lands in the district. Past operations have an exemplary record of prudent mining and reclamation. The uranium of this prolific district represents an enormous domestic supply of clean energy at a time when it is critical to the needs of the country; however, the Company does not intend to commit significant expenditures on additional exploration projects on federal lands until the legal status of exploration and mining operations in the area is clarified.

As a result of the segregation, Quaterra is changing the focus of the breccia pipe exploration program to the evaluation of state owned properties in the Arizona Strip where 15 high and moderate priority VTEM anomalies have been identified by the Company's airborne geophysical survey. The restrictions on uranium exploration on Federal lands do not affect exploration activity or access to conduct exploration on Arizona state lands. These lands lie within the heart of the uranium district and are vital to Arizona to provide funds for Arizona school districts. In contrast to the segregated area, exploration on state mineral properties is encouraged and permitting is possible.

#### Sampling, Analysis and Security of Samples

The Company uses the industry standard gamma logging method for grade determinations of uranium mineralization in drill holes. The process requires systematic calibration of the logging tools for precision and accuracy. Grades are reported as equivalent "U3O8" based on an assumed direct correlation between gamma-ray intensity, as measured by the gamma logging tools, and uranium content. The techniques for gamma log interpretation has been found to represent in-situ grades for uranium mineralization in the district as established by Energy Fuels Nuclear Inc. during their exploration and mining operations conducted on the Arizona Strip.

Down hole logging for the drill holes is contracted to Strata Data, Casper, Wyoming and Century Geophysical Corp. with verification by Geophysical Logging Service of Prescott, Arizona. The down-hole gamma logging tools are routinely

calibrated by probing standardized test pits in Grand Junction, Colorado. Mr. Ken Sweet, Geophysical Consultant, of Denver Colorado provides QA/QC and final interpretation of the process.

Geophysical Logging Service uses a borehole NaI detector manufactured by Mt. Sopris in Golden, Colorado for initial grade calculations. It is of the type 2PGA1000 which is a standard for uranium logging. It uses a large crystal, 22.22 mm in diameter and 76.2 mm long. As a back up an HLP-2375 tool is used, also manufactured by Mt. Sopris. The HLP tool is a smaller diameter and can be used small drill holes.

The tools are calibrated in Grand Junction Colorado, nominally every 3-6 months. When ore grade mineralization is encountered the tool will be calibrated more often. In general, variation with this tool is insignificant within a year and requiring less than a 1% calibration change. There are 4 calibration pits in Grand Junction; 0.231%, 0.452%, 1.22%, and 2.63% U<sub>3</sub>O<sub>8</sub>. The calibration pits are constructed of natural uranium ore. Corrections are made for hole diameter, the type of drilling pipe, and fluid in the hole. Because the grades and thicknesses of the mineralized section are determined by down hole logging tools, the Company uses rotary drilling for exploration on the project. Drill cuttings from the program are often limited to the upper 400 feet of the hole. Circulation of the samples to the surface is often lost in the deeper evaporite dominant sections. Samples of the cuttings are collected in plastic boxes and archived in locked storage facilities.

When mineralization is intersected, spot core is collected when possible to compare to the interpreted gamma response. In some cases corrections need to be made for disequilibrium as established by closed-can analysis or direct neutron activation that compares the chemical values of core vs. the interpreted gamma grades. The gamma response has the advantage of sampling a large volume, on the order of 60 cm. Data is sampled at 0.5 foot or closer spacing. All core from the program is placed in boxes marked for depths, logged by the Company geologist and kept in the Company's storage facilities in Kanab, Utah.

For hole deviation a Mt. Sopris 2DVA-1000 borehole deviation probe is used. It consists of a 3 axis flux gate magnetometer and a 3 axis accelerometer. The tool is calibrated on the surface using a "Jig" to hold it in a known orientation. The data is recorded continually along the hole.

Induction logs are used in conjunction with the gamma probe to provide additional lithologic information. Correlation of the interpreted lithologies between drill holes in a target area can reveal structural deformation related to a possible breccia pipe.

#### Mineral Resources

There are no resources or reserves on the Company's Arizona Strip properties that comply with the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines as adopted by CIM Council on August 20, 2000.

#### Duke Island, Alaska

##### Acquisition

In March and April 2001, Avalon Development, under contract with Quaterra, conducted reconnaissance scale pan concentrate and grab rock sampling and staked 45 federal claims and 6 state claims. The Company increased the Company's property position during subsequent field programs, to include a total of 129 unpatented Federal lode mining Claims covering 2,580 acres, and 11 state of Alaska mining claims covering 1,280 acres in the Ketchikan quadrangle in Township 80 South, Range 93 East. Mineral rights in this part of Alaska are administered by the U.S. Forest Service and the Alaska Department of Natural Resources. The Duke Island Project is located within the Tongass National Forest on multiple-use lands open to mineral development.

##### Expenditures to Date

Acquisition costs incurred by the Company to December 31, 2010 for Duke Island were \$163,220 (2009 - \$162,612) and exploration expenditures were \$2,278,372 (2009 - \$2,277,831) for a total of \$2,441,592 (2009 - \$2,440,443).

##### History

Early exploration on Duke Island is limited to a drilling program in the late 1950's by Columbia Iron Mining, a subsidiary of United States Steel. The program tested two areas for potential magnetite mineralization. Nine vertical drill holes are reported to have been drilled to a depth of 500 feet to ascertain the magnetite content of the ultramafic rocks (Irvine, 1974). Six holes were drilled on the southeast side of Hall Cove and three in the Judd Harbor area. Precise locations of these holes are uncertain and no assay data of any kind is available. The potential for PGE mineralization was not addressed during these efforts.

In March and April 2001, Avalon Development under contract with Quaterra conducted reconnaissance scale pan concentrate and grab rock sampling while staking 45 federal lode mineral claims and 6 state lode mineral claims. Follow-up work for Quaterra was conducted in July which resulted in discovery of Cu-Ni-PGE sulfide mineralization hosted in pyroxenite on the north end of Quaterra's claims. Avalon conducted subsequent rock sampling and soil sampling in September and October. In conjunction with rock sampling 3,415 meters of dipole-dipole induced polarization geophysics were completed by Zonge Engineering in September and October. In November and December Avalon collected additional rock samples from the project and completed 4 diamond drill holes totaling 448 meters from two drill stations in the Marquis zone.

In May 2002 Avalon Development conducted limited field reconnaissance work to ground truth several Landsat TM anomalies identified by Perry Remote Sensing and revealed outcropping disseminated sulfide mineralization outside areas previously known to contain such mineralization. In July 2002 AeroQuest Ltd. flew combined airborne magnetics and 6-channel electromagnetics over the Duke Island project. A total of 890.5 line kilometers of survey was completed with most of this total along 200 meter-spaced lines.

During the 2003 field season, Avalon Development field checked high priority EM conductors, collected additional surface samples and conducted reconnaissance work that revealed the presence of disseminated sulfide mineralization at Cape Northumberland on the extreme southern end of Duke Island.

In late May and early June 2004 Clark Jorgenson of Big Sky Geophysics was contracted to conduct a ground based HCP-EM (Max-Min), magnetometer, and gravimeter survey of the Marquis and Raven prospects. The Survey completed 6.1 line km of survey over the Marquis and Raven prospects.

In mid June 2005 Aurora Geosciences completed 14.6 line km of ground based gravimeter survey, expanding on the 2004 program. During August and September of 2005, a total of 1,372 meters of NQ2 core was drilled in 7 holes to explore the Marquis, Potato Patch, and Raven prospects.

In early 2008, Fugro Airborne flew 389 line km of HeliGEO TEM<sup>®</sup> II over the Hall Cove and Judd Harbor intrusions centered on the Marquis prospect and the area of cover to the north. The survey comprised 84 lines at 150 meter spacings and 6 tie lines at 1500 meter spacing. In early May 2008 Avalon Development staked an additional 75 federal lode mineral claims for Quaterra Alaska Inc. During July and August 2008 Zonge Engineering conducted 5 lines of NSAMT surveys totaling 9 line km over the Marquis prospect and the covered area to the north. Concurrent with the NSAMT survey Dave Matherly conducted 9 lines of gravity survey totaling 210 stations over the Marquis and the covered northern area, and over the Monte prospect.

In September 2009 Quaterra Resources entered into a joint venture agreement on Duke Island with Copper Ridge Explorations Inc. ("Copper Ridge"). Under terms of the agreement, Copper Ridge can earn up to a 51% interest in the Duke Island property by issuing one million pre-consolidation shares and spending \$3 million on exploration by December 31, 2012.

Following execution of the Quaterra – Copper Ridge joint venture in September 2009, Copper Ridge initiated a field program at Duke Island in preparation for drilling planned for 2010. The 2009 field work was completed by personnel from Avalon Development and Copper Ridge between October 3<sup>rd</sup> and October 13<sup>th</sup>. The three-person field crew worked from a tent camp in the Marquis zone area and collected magnetic susceptibility, resistivity, and semi-quantitative compositional data (Niton hand held XRF) from 104 sites covering the majority of the Marquis area covered by previous NSAMT surveys. Lithologic and structural information were recorded at each site and along the traverses between sites to allow completion of an updated geologic map for the Marquis area. At select site outcrops, mostly those containing visible magmatic sulfide mineralization, field personnel collected 43 grab rock samples for comparison to Niton results. Analytical work on these samples included Au, Pt and Pd by fire assay techniques and 2-acid and 4-acid ICP-AES analyses.

In June 2010, Copper Ridge initiated a core drilling program to target high grade massive to semi-massive Cu-Ni-PGE sulphide mineralization within the Marquis Zone. The program completed five holes totaling 1,537 meters that tested the North Rim and South Rim geophysical anomalies and other prospective targets in the Marquis area. Copper Ridge terminated the option agreement in February, 2011.

Following execution of the Quaterra – Copper Ridge joint venture, Copper Ridge initiated a field program at Duke Island in preparation for drilling planned for 2010. The 2009 field work was completed by personnel from Avalon Development and Copper Ridge between October 3<sup>rd</sup> and October 13<sup>th</sup>. The three-person field crew worked from a tent camp in the Marquis zone area and collected magnetic susceptibility, resistivity, and semi-quantitative compositional data (Niton hand held XRF) from 104 sites covering the majority of the Marquis area covered by previous NSAMT surveys. Lithologic and structural information were recorded at each site and along the traverses between sites to allow completion of an updated geologic map for the Marquis area. At select site outcrops, mostly those containing visible magmatic sulfide mineralization, field personnel collected 43 grab rock samples for comparison to Niton results. Analytical work on these samples included Au, Pt and Pd by fire assay techniques and 2-acid and 4-acid ICP-AES analyses.

Outcrop scale geologic mapping of the greater Marquis prospects defines three lithologic units: a plagioclase-pyroxene dominant unit, a clinopyroxene dominant unit (Cpx), and an olivine dominant unit (Wh). All three units display cumulate textures and are medium to coarse grained. Magmatic sulfide mineralization is predominately hosted in Cpx, and in isolated clinopyroxene rich enclaves in Wh. Based on this recent mapping, it appears that Ni-Cu-Fe sulfide mineralization at the Marquis prospect is spatially associated with the contact between Cpx and Wh. At the surface this contact appears to be dipping steeply to the south-southwest. The majority of high Cu-Ni sulfide mineralization is present in the zone between the “olivine in” boundary and the Cpx-Wh contact.

The 2010 Copper Ridge drilling program targeted massive to semi-massive Cu-Ni-PGE sulphide mineralization along the basal contact or within the feeder of the Marquis Zone, where the highest grades of sulphide mineralization were inferred to occur. The drill targets were defined by interpretations based on geological mapping, the results of historical drilling and three-dimensional modeling of a variety of geophysical surveys including magnetics, electromagnetics, induced polarization, magnetotellurics and gravity. The historical drilling did not extend to the depths required to test these targets.

DK10-08, the first hole of the program, was drilled vertically to test the South Rim anomaly at depth. The hole collared in pyroxenite and transitioned into a gabbro at 204 m. The hole remained in variably serpentinized gabbro until a final depth of 467 m. Up to several percent disseminated to net textured pyrrhotite with trace to locally one to three percent chalcopyrite occurred throughout the pyroxenite interval. The best intervals of copper mineralization were from 124.4 m to 137.8 m which returned 1,476 ppm copper and 392 ppm nickel over 13.4 m and from 170.4 m to 175.3 m which returned 2,937 ppm copper and 751 ppm nickel over 4.9m. From 1% to 15% pyrrhotite was encountered in the gabbro from 302 m to 350 m. Assimilated sedimentary country rock with local graphite also occurred within this interval. The pyrrhotite mineralization with graphite could be the cause of the conductor that had been interpreted as possible massive sulphides along the basal contact of the South Rim of the Marquis zone.

Hole DK10-09, drilled at an angle of - 80 degrees and DK10-10, drilled at an angle of - 45 degrees were collared from the same site to test the strong EM conductor identified under cover at the North Rim of the Marquis zone. Both holes collared in gabbro and remained in gabbro until lengths of 380 m and 153 m respectively. Hole DK10-09 intersected from 1% to 15% net textured to semi-massive pyrrhotite and locally from trace to 10% graphite associated with assimilated sedimentary rock from 64 to 124 m. Hole DK10-10 intersected similar pyrrhotite with graphite and assimilated sediments from 10 to 108 m. Trace to 1% chalcopyrite was observed in both holes, but no significant copper or nickel assays were returned from either hole. The strong EM conductor under the North Rim of the Marquis zone is likely explained by the presence of pyrrhotite and graphite related to sedimentary rocks within the gabbro.

Holes DK10-11 and DK10-12 were drilled to test EM conductors and prospective stratigraphy at other areas of the Marquis zone. DK10-11 intersected the prospective pyroxenite horizon from the collar to 150m and then remained in gabbro until a final depth of 387 m. DK10-12 intersected gabbro from the collar to a final length of 225 m. While both holes intersected significant amounts of pyrrhotite in the gabbro, no significant copper or nickel mineralization was returned from either hole.

#### Future Work Plans

Copper Ridge believes that Cu-Ni-PGE enriched magmatic sulphide accumulations along basal contacts or within a feeder zone remains a unique and prospective exploration target at Duke Island, due to the intrusion's high sulphide content, the

magmatic or net-textured nature of the sulphide mineralization and nickel depletion of some of the intrusion's silicate mineral phases. However, the 2010 drilling has demonstrated that such a target, if it exists, is geophysically masked by overlying zones of conductive pyrrhotite-graphite mineralization. Further study is required to determine if other exploration tools might be applied to direct future drill programs.

#### Mineral Resources

There are no resources or reserves on the Company's Duke Island project that comply with the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines as adopted by CIM Council on August 20, 2000.

#### Other Properties

The Company's other properties, listed by commodity, include:

Copper +/- gold: Yerington District (Wassuk, Gray Hills, Copper Canyon), Klondike, Reveille in Nevada; SW Tintic in Utah; and Peg Leg in Arizona;

Gold +/- silver: Herbert Glacier, Alaska; Central Mexico (Americas/Mirasol, Sierra Sabino, Santo Domingo, Marijo, Onix, Azafran, Tian, Lupita);

Molybdenum: Cave Peak, Texas, Willow Creek, Montana;

Uranium: Tidwell, Sinbad, and Shootaring, Utah and Basin, Wyoming;

Data from prior activities is limited or in the process of being acquired and studied. The Company's total expenditures to date with respect to these other properties are minimal.

### RISK FACTORS

The Company may not have sufficient funds to complete further exploration programs.

The Company does not generate operating revenue and must finance exploration activity by other means, such as raising funds through the sale of equity, debt, or property interests. The Company cannot provide any assurance that additional funding will be available for further exploration of the Company's projects or to fulfill anticipated obligations under existing property agreements. As of December 31, 2010, the Company had working capital of \$18,862,859. Management believes that its remaining cash resources, together with the continue contribution of its joint venture partners will enable Quaterra to carry its exploration activities in the next twelve months. If the Company fails to maintain or obtain sufficient financing, the Company will have to delay or cancel further exploration of Quaterra's properties and could lose some of or all of its interest in the properties

Future equity transactions could cause dilution of present and prospective shareholders.

Historically, the Company has financed operations through private placements. In order to finance future operations and development efforts, the Company may raise funds through the issue of common shares or the issuance of securities convertible into common shares through private placements or public offerings. The common shares in these financings often are sold at a discount to market prices, and the exercise price of the warrants sometimes is at or may be lower than market prices. The Company cannot predict the size of future issues of common shares or the issue of securities convertible into common shares or the effect, if any, that issues and sales of the Company's common shares will have on the market price of its common shares. Any transaction involving the issue of common shares, or securities or convertible into common shares, could result in dilution, possibly substantial, to present and prospective holders of common shares, either at the time of the financing or subsequently when restrictions if any expire and the common shares are resold into the public markets.

The Company has a history of losses and expects to incur losses for the foreseeable future.

The Company has incurred losses during each of the prior three periods in the amounts of \$6,806,432 for the year ended December 31, 2010, \$6,988,414 for the year ended December 31, 2009, and \$6,834,181, for the year ended December 31, 2008. As of December 31, 2010, the Company had an accumulated deficit of \$42,422,329. Quaterra expects to continue to incur losses unless and until such time as one or more of the properties enter into commercial production and generate

sufficient revenues to fund the Company's continuing operations.

The Company's exploration programs may not result in a commercial mining operation.

Mineral exploration involves significant risk because few properties that are explored contain bodies of ore that would be commercially economic to develop into producing mines. Quaterra's mineral properties are without a known body of commercial ore and the proposed programs are an exploratory search for ore. The Company cannot provide any assurance that current exploration programs will result in any commercial mining operation. If the exploration programs do not result in the discovery of commercial ore, the Company will be required to acquire additional properties and write-off all investments in existing properties.

The Company does not have Proven Mineral Reserves or Probable Mineral Reserves.

The Company has not established the presence of any Proven Mineral Reserves or Probable Mineral Reserves (as such terms are defined in National Instrument 43-101 of the Canadian Securities Administrators); please refer to "Disclosure of Mineral Resources" in the Preliminary Notes to this AIF) at any of Quaterra's mineral properties. The Company cannot provide any assurance that future feasibility studies will establish Proven Mineral Reserves or Probable Mineral Reserves at Quaterra's properties. The failure to establish Proven Mineral Reserves or Probable Mineral Reserves could restrict the Company's ability to successfully implement its strategies for long-term growth.

The Company's future business and financial condition are dependent upon resource prices.

Resource prices have fluctuated widely, particularly in recent years, and are affected by numerous factors beyond the Company's control. These include international economic and political trends, inflation, currency exchange fluctuations, interest rates, global or regional consumption patterns, speculative activities and increased production due to new and improved extraction and production methods. These factors may negatively affect the marketability of any ore or minerals discovered at, and extracted from, Quaterra's properties. If, because of a sustained decline in prices, financing were not available to meet cash operating costs, the feasibility of continuing operations would be evaluated and if warranted, would be discontinued.

The Company's common share price has been and may continue to be subject to volatility.

U.S. and Canadian securities markets in recent years have experienced high levels of price and volume volatility, and the market price of securities of many companies have experience wide fluctuation in price which have not necessarily been related to the operating performance underlying assets values or prospects of such companies. Factors unrelated to Quaterra's financial performance or prospects include macroeconomic developments in North America and globally, and market perceptions of the attractiveness of particular industries. The Company's share price, financial condition, and results of operations are all also likely to be significantly affected by short-term changes in uranium, gold, silver and copper prices. Continual fluctuations in metal prices may occur. As a result of any of these factors, the market price of the Company's shares at any given point in time may be subject to wide swings unrelated to any direct action by Quaterra's operations.

Some of the Company's directors and officers may have conflicts of interest due to their involvement with other natural resource companies.

Some the Company's directors and officers are directors or officers of other natural resource or mining-related companies and these associations may give rise to conflicts of interest from time to time. As a result of these conflicts of interest, Quaterra may miss the opportunity to participate in certain transactions, which may have a material, adverse effect on the Company's financial position.

The Company may experience difficulty attracting and retaining qualified management to grow Quaterra's business.

The Company is dependent on the services of key executives including the Chief Executive Officer and other highly skilled and experienced executives and personnel focused on advancing corporate objectives as well as the identification of new opportunities for growth and funding. Due to the Company's relatively small size, the loss of these persons or the Quaterra's inability to attract and retain additional highly skilled employees required for activities may have a material adverse effect on the Company's business and financial condition.

The Company may be limited in its ability to manage growth.

Should the Company be successful in its efforts to develop mineral properties or to raise capital for such development or for the development of other mining ventures, it may experience significant growth in operations. Any expansion of the Company's business would place demands on management, operational capacity, and financial resources. The Company anticipates that it will need to recruit qualified personnel in all areas of operations. There can be no assurance that Quaterra will be effective in retaining current personnel or attracting and retaining additional qualified personnel, expanding operational capacity or otherwise managing growth. The failure to manage growth effectively could have a material adverse effect on the Company's business, financial condition and results of operations.

Environmental and other regulatory requirements may limit the Company's operations and increase expenses.

The Company's operations are subject to environmental regulations promulgated by various Canadian, U.S., and Mexican government agencies. Claims and current and future operations will be governed by laws and regulations governing mineral concession acquisition, prospecting, development, mining, production, exports, taxes, labor standards, occupational health, waste disposal, toxic substances, land use, environmental protection, mine safety and other matters. For example, as discussed on page 29 above, the US Department of the Interior on July 20, 2009 decided to segregate 1 million acres of federal lands in the Arizona Strip for two years pending a review for a possible 20 year withdrawal of the district from mineral entry. Companies such as ours that engage in exploration activities often experience increased costs and delays in production and other schedules as a result of the need to comply with applicable laws, regulations and permits. Issuance of permits for Quaterra's exploration activities is subject to the discretion of government authorities, and the Company may be unable to obtain or maintain such permits. Permits required for future exploration or development may not be obtainable on reasonable terms or on a timely basis. Existing and possible future laws, regulations and permits governing operations and activities of exploration companies, or more stringent implementation thereof, could have a material adverse impact and cause increases in capital expenditures or require abandonment or delays in exploration.

Operating hazards associated with mining may expose the Company to liability.

Mining operations generally involve a high degree of risk, including hazards such as unusual or unexpected geological formations. Operations in which the Company has an interest are subject to all the hazards and risks normally incidental to exploration, development and production of minerals, any of which could result in work stoppages, damage to or destruction of mines and other producing facilities, damage to or loss of life and property, environmental damage and possible legal liability for any or all damage or loss. The Company currently does not maintain standard insurance policies on Quaterra's properties. The Company may become subject to liability for cave-ins and other hazards for which cannot be fully insured or against which the Company may elect not to insure where premium costs are disproportionate to the Company's perception of the relevant risks. For example, the Company is not currently covered by any form of political risk insurance or any form of environmental liability insurance. The payment of such insurance premiums and the incurring of such liabilities would reduce the funds available for exploration activities.

The Company's properties may be subject to uncertain title.

The acquisition of title to resource properties or interest therein is a very detailed and time consuming process. Title to and the area of resource concessions may be disputed. The Company has investigated title to all of its mineral properties and, to the best of the Company's knowledge, title to all of Quaterra's properties are in good standing. The properties may be subject to prior, and in some cases, not fully ascertainable unregistered agreements or transfers, and title may be affected by undetected defects. Title may be based upon interpretation of a country's laws, which laws may be ambiguous, inconsistently applied and subject to reinterpretation or change.

Enforcement of judgments or bringing actions outside the United States against the Company and its directors and officers may be difficult.

Quaterra is organized under the law of and headquartered in British Columbia, Canada, and the majority of the Company's directors and officers are not citizens or residents of the U.S. In addition, a substantial part of the Company's assets are located outside the U.S. and Canada. As a result, it may be difficult or impossible for you to (a) enforce in courts outside the U.S. judgments against the Company and a majority of Quaterra's directors and officers, obtained in U.S. courts based upon the civil liability provisions of U.S. federal securities laws or (b) bring in courts outside the U.S. an original action against the Company and its directors and officers to enforce liabilities based upon such U.S. securities laws.



## DESCRIPTION OF CAPITAL STRUCTURE

### Authorized Capital

Quaterra has an unlimited number of common shares without nominal value. As at March 30, 2011, there were 141,823,040 common shares outstanding.

Quaterra has only one class of common shares, without any special rights or restrictions.

Each common share is entitled to one vote on the election of each director. There are no cumulative voting rights, in consequence of which a simple majority of votes at the annual meeting can elect all the directors of the Company. Each common share carries with it a right to share equally with every other common share in dividends declared and in any distribution of surplus assets of the Company after payment to creditors on any winding up, liquidation or dissolution. There are no sinking fund provisions. All common shares must be fully paid prior to issue and are thereafter subject to no further capital calls by the Company. There exists no discriminatory provision affecting any existing or prospective holder of common shares as a result of such shareholder owning a substantial number of shares.

### Material Modifications to the Rights of Security Holders

Effective June 18, 2008, in accordance with the vote of shareholders at the 2008 Annual General Meeting on June 18, 2008, the Company adopted a rights plan applicable to our common shares (the "Rights Plan"). Under the Rights Plan, Quaterra issued one right for no consideration in respect of each outstanding common share. All common shares we subsequently issue during the term of the Rights Plan will have one right represented for each common share. The term of the Rights Plan is through the first annual meeting of shareholders held after June 18, 2013. The rights issued under the Rights Plan become exercisable only if a party acquires 20% or more of the Company's common shares without complying with the Rights Plan or without a waiver from our Board of Directors.

Each right entitles the registered holder to purchase from the Company on the occurrence of certain events, one common share at the price of \$100 per share, subject to adjustment (the "Exercise Price"). If a "Flip-in Event" as defined in the Rights Plan occurs, each right would then entitle the registered holder to receive, upon payment of the Exercise Price, that number of common shares that have a market value at the date of that occurrence equal to twice the Exercise Price. The rights are not exercisable until the "Separation Time" as defined in the Rights Plan.

The purpose of the Rights Plan is to ensure, to the extent possible, that all shareholders are treated equally and fairly in connection with any take-over bid or similar proposal to acquire the Company's common shares. Take-over bids may be structured in such a way as to be coercive or discriminatory in effect, or may be initiated at a time when it will be difficult for the Company's Board of Directors to prepare an adequate response. Such offers may result in shareholders receiving unequal or unfair treatment, or not realizing the full or maximum value of their investment in the Company. The Rights Plan discourages the making of any such offers by creating the potential of significant dilution to any offeror who does so.

An offeror can avoid that potential by making an offer that either: (i) qualifies as a "Permitted Bid" under the Rights Plan, and therefore meets certain specified conditions (including a minimum deposit period of 90 days) which aim to ensure that all shareholders are treated fairly and equally; or (ii) does not qualify as a "Permitted Bid" but is negotiated with and has been exempted by the Company's Board of Directors from the application of the Rights Plan in light of the opportunity to bargain for agreed terms and conditions to the offer that are believed to be in the best interests of shareholders.

Under current Canadian securities laws, any party wishing to make a formal take-over bid for the Company's common shares is required to leave the offer open for acceptance for at least 35 days. To qualify as a "Permitted Bid" under the Rights Plan, however, a take-over bid must remain open for acceptance for not less than 90 days. The Board of Directors believes that the statutory minimum period of 35 days may be insufficient for the directors to: (i) evaluate a take-over bid (particularly if the consideration consists, wholly or in part, of shares of another issuer); (ii) explore, develop and pursue alternative transactions that could better maximize shareholder value; and (iii) make reasoned recommendations to the shareholders. The additional time afforded under a "Permitted Bid" is intended to address these concerns by providing the Board of Directors with a greater opportunity to assess the merits of the offer and identify other possible suitors or alternative transactions, if any by providing other bidders or proponents of alternative transactions with time to come forward with competing, and potentially superior, proposals.

### Stock Options

Quaterra has a stock option plan pursuant to which the directors of the Company are authorized to grant stock options to directors, officers, employees, and consultants of the Company and its subsidiaries.

The following summarizes information about the stock options outstanding and exercisable at December 31, 2010:

Price	Expiry Date	December 31, 2010	December 31, 2009
\$ 0.35	August 9, 2010	-	270,000
\$ 0.40	January 29, 2011	-	200,000
\$ 1.04	March 27, 2011	-	125,000
\$ 1.00	May 19, 2011	50,000	75,000
\$ 1.12	June 12, 2011	100,000	100,000
\$ 1.55	July 28, 2011	1,364,000	1,431,000
\$ 1.55	August 23, 2011	100,000	100,000
\$ 1.50	September 25, 2011	100,000	100,000
\$ 3.33	July 20, 2012	805,000	836,000
\$ 3.45	March 31, 2013	150,000	150,000
\$ 3.30	June 19, 2013	945,000	970,000
\$ 0.98	November 9, 2014	2,145,000	2,575,000
\$ 1.02	November 9, 2014	2,185,000	2,305,000
\$ 2.00	January 14, 2015	120,000	-
\$ 1.80	April 1, 2015	100,000	-
\$ 1.76	April 22, 2015	200,000	-
\$ 1.29	August 9, 2015	2,095,000	-
\$ 1.55	October 6, 2015	65,000	-
\$ 1.51	November 3, 2015	100,000	-
Total options outstanding		10,624,000	9,237,000
Total options exercisable		10,457,333	9,237,000

#### Share Purchase Warrants

The following summarizes information about the warrants outstanding at December 31, 2010:

Expiry Date	Exercise Price	December 31, 2010	December 31, 2009
November 27, 2010	\$ 0.75 US	-	1,921,458
December 19, 2010	\$ 0.75 US	-	2,441,333
January 15, 2011	\$ 0.75 US	-	1,880,500
September 29, 2011	\$ 0.75	7,978,540	9,666,206
October 28, 2011	\$ 0.75	4,844,674	5,675,204
February 4, 2012	\$ 1.76	1,500,709	-
October 27, 2012	\$ 1.90	5,862,100	-
		<b>20,186,023</b>	<b>21,584,701</b>

#### MARKET FOR SECURITIES

The Company's common shares are listed on the TSX Venture Exchange under the trading symbol "QTA" and on NYSE Amex under the symbol "QMM". The following tables provide information as to the high and low closing prices and the volume of shares trading for each month during the 12 months of the most recently completed financial year being December 31, 2010:

<i>TSX Venture Exchange</i>			
<i>Month</i>	<i>High</i>	<i>Low</i>	<i>Volume</i>
<i>January</i>	2.50	1.42	2,041,292
<i>February</i>	2.16	1.26	2,406,887
<i>March</i>	1.79	1.46	1,248,371
<i>April</i>	1.99	1.50	1,651,526
<i>May</i>	1.97	1.16	1,038,975
<i>June</i>	1.65	1.06	2,357,652
<i>July</i>	1.39	1.05	277,762
<i>August</i>	1.59	1.29	668,138
<i>September</i>	1.74	1.49	597,024
<i>October</i>	1.66	1.41	731,532
<i>November</i>	1.94	1.46	956,815
<i>December</i>	1.97	1.55	1,305,093

<i>NYSE Amex</i>			
<i>Month</i>	<i>High</i>	<i>Low</i>	<i>Volume</i>
<i>January</i>	2.42	1.31	5,792,417
<i>February</i>	2.08	1.20	5,619,030
<i>March</i>	1.72	1.45	2,920,316
<i>April</i>	2.03	1.48	5,479,947
<i>May</i>	1.92	1.06	5,186,916
<i>June</i>	1.58	1.13	4,015,014
<i>July</i>	1.35	1.01	1,938,461
<i>August</i>	1.55	1.29	2,483,317
<i>September</i>	1.69	1.40	2,982,263
<i>October</i>	1.72	1.36	2,559,543
<i>November</i>	1.85	1.41	3,585,943
<i>December</i>	2.00	1.58	4,297,044

#### Escrowed Securities

As at the date of this AIF the Company has 250,000 securities allotted from treasury but not distributed with regard to the consideration to be paid in respect to the Yerington property. These securities will be distributed when the relevant terms of the agreement have been met and regulatory approval has been obtained.

Directors and Officers

Name, Occupation, and Experience

The following table sets forth all current directors and executive officers as of the date of this AIF. (March 30, 2010)

Name, Jurisdiction of Residence and Position with the Company	Principal Occupation, Business or Employment	Director Since	Number of Securities Beneficially Owned, Directly or Indirectly, or Controlled or Directed
Tracy Stevenson Utah, USA Chairman and Director	Retired Mining Executive	Since 2007	142,293
Thomas C. Patton Washington, USA President, CEO and Director	President of the Company	Since 1998	2,562,212
Robert Gayton <sup>(1)(2)</sup> British Columbia, Canada Director	Financial Consultant	Since 1997	140,023
John Kerr <sup>(1)(2)</sup> British Columbia, Canada Director	Geological Engineer	Since 1993	21,667
Lawrence Page, Q.C. British Columbia, Canada Corporate Secretary and Director	Lawyer	Since 1995	500
Eugene Spiering British Columbia, Canada Vice President, Exploration and Director	Vice President, Exploration of the Company	Since 2006	165,790
LeRoy Wilkes <sup>(1)(2)</sup> Colorado, USA Director	Retired Mining Executive	Since 2006	105,428
Charles Hawley Alaska, USA Vice President Exploration, Alaska	Geologist	Since 2001	Nil
Scott Hean British Columbia, Canada Chief Financial Officer	Chief Financial Officer of the Company	Since 2006	279,094
Gerald Prosalendis British Columbia, Canada Vice President Corporate Development	Vice President Corporate Development	Since 2010	18,451

Notes:

1. Denotes member of the Audit Committee
2. Denotes member of the Corporate Governance Nomination and Compensation Committee

Tracy Stevenson

Mr. Stevenson received a B.S. Accounting Magna Cum Laude from the University of Utah. He has international experience in finance, mergers and acquisitions, strategic planning, corporate governance, auditing, administration and information systems and technology. He worked for Rio Tinto plc, the world's second largest mining company, and related companies for 26 years, where he held a number of senior leadership positions. Mr. Stevenson was the global head of

information systems and shared services for Rio Tinto. He also served for four years as Executive Vice President, Chief Financial Officer and a director of Comalco Ltd., an Australia-based international aluminum company partially owned by Rio Tinto, and a further four years as Chief Financial Officer and a director of Kennecott Corporation, a diversified North American mining company owned by Rio Tinto. He also has public accounting experience with Coopers & Lybrand (now PriceWaterhouseCoopers). Mr. Stevenson also serves as a director of Vista Gold Corp. Mr. Stevenson is also a founding member of Bedrock Resources, LLC, a private resources financial advisory firm and SOS Investors, a private resources investment firm.

#### Dr. Thomas Patton

Dr. Patton graduated from the University of Washington in 1971 (Ph.D.) and has worked with both junior and senior mining companies. He served as the President and Chief Operating Officer for Western Silver Corporation from January 1998 to May 2006. Among his accomplishments at Western Silver were the discovery and delineation of the class Peñasquito silver-gold-lead zinc deposit in Zacatecas, Mexico and the subsequent sale of the company to Glamis Gold Ltd. Prior to joining Western Silver, Dr. Patton held senior positions with Rio Tinto PLC and Kennecott Corporation, where he served as Senior Vice President, Exploration and Business Development. Dr. Patton is a member of the Society of Economic Geologists and the American Institute of Mining & Metallurgical Engineers.

#### Dr. Robert Gayton

Dr. Gayton graduated from the University of British Columbia in 1962 with a Bachelor of Commerce and in 1964 earned the chartered accountant (C.A.) designation. Dr. Gayton joined the Faculty of Business Administration at the University of British Columbia in 1965, beginning 10 years in the academic world, including time at the University of California, Berkeley, earning a Ph.D. in Business. Dr. Gayton has directed the accounting and financial matters of public companies in the resource and non-resource fields since 1987. Dr. Gayton also serves as a director of these eight companies: Amerigo Resources Ltd.; Nevsun Resources Ltd.; Eastern Platinum Limited; Western Copper Corp.; Silvercorp Metals Inc.; National B2Gold Corp; and Palo Duro Energy Inc.

#### John R Kerr

John R. Kerr graduated from the University of British Columbia in 1964 with a Bachelor of Applied Science (B. ASc) degree in Geological Engineering. He has participated in the mining industry continuously since graduation as an exploration geologist. Mr. Kerr has gained experience in recognition and identification of mineral potential in a diversified field of geological environments. Mr. Kerr also serves as director of Pacific Coast Nickel Corp., Bravada Gold Corporation, and Queensgate Resources Corp. He currently operates a geological consulting practice out of Vancouver, B.C., with projects located in all areas of North America.

#### Lawrence Page, Q.C.

Lawrence Page, Q.C. obtained his law degree from the University of British Columbia in 1964 and was called to the Bar of British Columbia in 1965. He has been admitted to the Bar of Ontario for the purpose of acting as counsel in specified litigation. Mr. Page was awarded the distinction of Queen's Counsel in 1988. Mr. Page practices on his own in Vancouver in the areas of commercial litigation, native law, natural resource law and securities law. He is the principal of the Manex Resource Group, which provides administrative, financial, corporate and geological services to a number of public companies in the mineral resource sector, including Quaterra. Mr. Page also serves as a director of five public companies: Duncastle Gold Corp.; Valterra Resource Corporation; Southern Silver Exploration Corp.; Bravada Gold Corp. and Bravo Gold Corp.

#### Eugene Spiering

Mr. Spiering has a Bachelor of Science-Geology degree from the University of Utah. He has over 28 years of experience in the mining exploration industry. Mr. Spiering previously held the position of Vice President, Exploration at Rio Narcea Mines Ltd., where he managed a team that discovered two gold deposits and completed the final definition of one nickel deposit in Spain. Prior to his tenure at Rio Narcea, Mr. Spiering held the position of senior geologist with Energy Fuels Nuclear, Inc. where his responsibilities included drilling supervision, geologic mapping, and ore reserve calculations related to uranium exploration in northern Arizona and gold exploration in western US and Venezuela. Mr. Spiering is a member of the Society of Economic Geologists, the Society for Mining, Metallurgy & Exploration, the American Association of Petroleum Geologists, and the Australasian Institute of Mining and Metallurgy.

### LeRoy Wilkes

Mr. Wilkes is a graduate mining engineer from the Montana School of Mines. He recently retired as president of Washington Group International's Mining Business Unit. As leader of this group, he participated in developing mining projects throughout the world, including Latin America, Canada, Europe and the United States. Mr. Wilkes was also the Chief Operating Officer of Santa Fe Pacific Gold Corporation during the expansion of its Nevada operations. He was also involved in the development of such projects as Greens Creek, Alaska; Stillwater, Montana; and Las Pelameres in Chile, while serving as Senior Vice President of Business Development for Anaconda Minerals. Mr. Wilkes also serves as a director and chairman of the Board of Sabina Silver Corporation.

### Scott B. Hean

Mr. Hean graduated from Simon Fraser University in 1973 and from the Ivey School of Business, London, Ontario, in 1975. He completed the Institute of Corporate Directors Director Education program in May 2006. He has held senior management and executive positions with Bank of Montreal as Senior Vice President and Managing Director responsible for financing in the natural resources sectors in North America and with J.P. Morgan of New York, where he was involved in financing oil and gas companies. Currently, Mr. Hean is director and past chair of the audit committee for Sabina Silver Corporation, a TSX listed company and a director of Southern Silver Exploration Corp., Bravo Gold Corp., and Duncastle Gold Corp., all TSX-Venture listed companies. In the non-profit sector, he serves as a director and chair of the Bill Reid Trust, a not for profit organization concerning the work of the Haida artist, Bill Reid. He has served on numerous not-for-profit Boards, including Outward Bound Canada and B.C. Children's Hospital.

### Dr. Charles Hawley

Dr. Hawley graduated with a Bachelor of Arts degree from Hanover College, Indiana in 1951 and earned a Ph.D in geology from the University of Colorado in 1963. He worked for the U.S. Geological Survey from 1952-1968. Dr. Hawley has been working within the exploration and mine development field in Alaska's private sector since 1969.

### Gerald Prosalendis

Mr. Prosalendis has experience in corporate strategy, markets, shareholder relations and communications. He was the Vice President Corporate Development of Western Silver Corporation and was involved in the sale of that company in 2006 to Glamis Gold Ltd. for \$1.6 billion. He was also Vice President Corporate Development of Dia Met Minerals Ltd., a member of the team that developed the Ekati diamond mine and was involved in the sale of Dia Met to BHP Billiton for \$687 million in 2001. Mr. Prosalendis has been a consultant to Anderson & Schwab Inc., a mineral and business firm based in New York, a Senior Counselor for James Hoggan & Associates of Vancouver, an advisor to public and private companies and Business Editor of *The Vancouver Sun*. He also worked as a financial services analyst for a brokerage firm.

### Control of Securities

The Company's directors and senior officers as a group beneficially own, directly or indirectly, or exercise control or direction over 3,598,456 of the voting securities of the Company as March 30, 2011.

### Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Dr. Robert Gayton, Dr. Thomas Patton and Lawrence Page were directors or executive officers of Newcastle Silver Mines Ltd. (now Southern Silver Exploration Corp.) at the date of a Cease Trade Order by the British Columbia Securities Commission on September 30, 2003 and by the Alberta Securities Commission on October 31, 2003 for failure to file financial statements. The orders were revoked on October 23, 2003 and March 25, 2004 respectively.

Other than disclosed above, no director or executive officer of the Company is, as at March 30, 2011 or was within 10 years before the date of this AIF, a director, chief executive officer ("CEO") or chief financial officer ("CFO") of any company (including the Company), that:

- (a) Was subject to an order that was issued while the director or executive officer was acting in the capacity as director, CEO or CFO, or

- (b) Was subject to an order that was issued after the director or executive officer ceased to be a director, CEO or CFO and which resulted from an event that occurred while that person was acting in the capacity as director, CEO or CFO.

For the purpose here of “order” means

- (a) A cease trade order;
- (b) An order similar to a cease trade order; or
- (c) An order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days.

No director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company, is as at March 30, 2011 or was within 10 years before the date of this AIF, a director, CEO or CFO of any company (including the Company), that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets state the fact; or has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangements or compromise with creditors, or had a receiver, receiver executive officer or shareholder other than:

Lawrence Page, a director and President of Saturna Beach Estates Ltd., a private Company formed under the laws of British Columbia, Canada (“SBEL”) which conducts the business of a vineyard and winery. On August 17, 2004, SBEL obtained an Order from the Supreme Court of British Columbia under the provisions of the Companies’ Creditors Arrangement Act (Canada) that allowed SBEL to continue to run its daily business affairs without creditor action during financial reorganization. At the date hereof, the financial reorganization has been completed and the Order terminated

## LEGAL PROCEEDINGS

### Legal Proceedings

The Company is not a party to any legal proceedings and is not aware of any such proceedings known to be contemplated.

## CONFLICTS OF INTEREST

### Conflicts of Interest

Certain officers and directors of the Company are officers and directors of, or are associated with, other public and private companies. Such associations may give rise to conflicts of interest with the Company from time to time. The British Columbia Business Corporations Act requires, among other things, the officers and directors to act honestly and in good faith with a view to the best interest of the Company and its shareholders, to disclose any personal interest which they may have in any material transaction which is proposed to be entered into with the Company and, in the case of directors, to abstain from voting as a director for the approval of any such transaction.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

### Interest of Management and others in Material Transactions

Except as otherwise disclosed in the Company’s annual audited consolidated financial statements and MD&A, no director or executive officer of the Company, beneficially owns or controls directly or indirectly, more than 10% of the Company’s common shares and no affiliate of any such persons or companies has or had any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or will materially affect the Company.

## TRANSFER AGENT AND REGISTRAR

### Transfer Agent and Registrar

The registrar and transfer agent of the Company is Computershare Investor Services Inc. 3<sup>rd</sup> Floor, 510 Burrard St., Vancouver, B.C. V6C 3B9.

## MATERIAL CONTRACTS

### Material Contracts

The Company entered into an agreement with related party Manex Resource Corp. (“Manex”) in June 2008 whereby Manex provides administrative, accounting, and secretarial services to the Company. Manex is a private company controlled by Lawrence Page, a director and officer of the Company. The basic fee for office space and office infrastructure is \$12,500 per month and other services rendered are based on hourly rates specified in the agreement. The Company also reimburses Manex for office supplies including paper, courier, postage, parking, filing fees and other out-of-pocket expenses. During the year ended December 31, 2010 the Company paid \$501,350 to Manex.

## INTERESTS OF EXPERTS

### Names of Experts

The following persons, firms and companies are named as having prepared or certified a statement, report or valuation described or included in a filing, or referred to in a filing, made under National Instrument 51-102 Continuous Disclosure Obligations by the Company during, or relating to, the Company’s most recently completed financial year and whose profession or business gives authority to the statement, report or valuation made by the person, firm or company.

Name	Description
Smythe Ratcliffe LLP	Independent Auditors’ report dated March 24, 2011, in respect of the Company’s consolidated financial statements for the years ended December 31, 2010, 2009 and 2008.
John W. Rozelle, P.G. Tetra Tech	Technical Report dated March 19, 2009 titled “MacArthur Copper Project NI 43-101 Technical Report Lyon County, Nevada, USA Technical Report dated January 21, 2011 titled “MacArthur Copper Project NI 43-101 Technical Report Lyon County, Nevada U.S.A.
Michelle Stone, Ph.D P.Geo. Caracle Creek International Consulting Inc.	Technical Report dated May 8, 2009 “Independent Technical Report The Nieves Silver Project Zacatecas State, Mexico” Technical Report dated September 10, 2010 - “Independent Technical Report The Nieves Silver Project Zacatecas State, Mexico”

To the best of Quaterra’s knowledge, neither John W. Rozelle nor Michelle Stone have any interest in nor hold any securities of the Company.

Smythe Ratcliffe LLP are independent in accordance with the auditor’s Rules of Professional Conduct of the Institute of Chartered Accounts of British Columbia.

### Additional Information

#### Audit Committee Charter

A copy of the charter of the audit committee is available at [www.quaterra.com](http://www.quaterra.com).

#### Composition of the Audit Committee



The audit committee consists of three directors. The following table sets out their names and whether they are 'independent' and 'financially literate' for the purposes of National Instrument 52-110:

Name of Member	Independent (1)	Financially Literate (2)
Robert Gayton	Yes	Yes
John Kerr	Yes	Yes
LeRoy Wilkes	Yes	Yes

- (1) To be considered to be independent, a member of the audit committee must not have any direct or indirect 'material relationship' with the Company. A material relationship is a relationship which could, in the view of the board of directors of the Company, reasonably interfere with the exercise of a member's independent judgment.
- (2) To be considered financially literate, a member of the audit committee must have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected in the Company's financial statements.

#### Relevant Education and Experience

The Committee is comprised of Robert Gayton (Chair), John Kerr and LeRoy Wilkes. All three members are independent and are financially literate, as described in National Instrument 52-110. See "Director and Officers" section for detailed description of each member's relevant education and experience.

#### Pre-approved Policies and Procedures

All non-audited services are pre-approved by the audit committee. Before approval is given, the audit committee examines the independence of the external auditors in relation to the services to be provided and assesses the reasonableness of the fees to be charged for such services.

#### External Auditor Service Fees

Financial Year Ending	Audit Fees <sup>(1)</sup>	Audit Related Fees <sup>(2)</sup>	Tax Fees	All other Fees	Total
December 31, 2010	\$123,500	\$4,000	\$2,800	NIL	\$130,300
December 31, 2009	\$80,000	\$5,000	\$2,800	NIL	\$87,800

(1) The aggregate audit fees include the audit of the Company's consolidated financial statements and the audit of ICFR.

(2) The aggregate fees billed for audit related services that are reasonably related to the performance of the audit of the Company's consolidated financial statements, which are not included under the heading "Audit Fees".

#### General

Additional information relating the Company can be found on SEDAR at [www.sedar.com](http://www.sedar.com). The information available at [www.sedar.com](http://www.sedar.com) includes copies of the full text of the technical reports prepared for the Company. Additional financial information including the Company's financial statements and management discussion and analysis for the year ended December 31, 2010 can also be found on SEDAR.

Additional information relating to the Company and its corporate governance policies can be found on the Company's web site at [www.quaterra.com](http://www.quaterra.com)