#### REPORT

#### **ON THE**

## UTAH CLIPPER PROPERTY

# LANDER COUNTY, NEVADA

FOR

## COLUMBUS GOLD CORPORATION (formerly PURPLE VEIN RESOURCES LTD.) SUITE 910, 475 HOWE STREET VANCOUVER, BRITISH COLUMBIA, CANADA V6C 2B3

BY

MEGAN O'DONNELL, P.Geo.. P.O. Box 1184, 172 Williams Landing Road, Gibsons B.C. V0N 1V0,

Effective Date: January 24, 2006

# **TABLE OF CONTENTS**

	Page No.
Summary	1
Introduction	4
Reliance on Other Experts	4
Property Description and Location	4
Accessibility, Climate, Land Resources, Infrastructure and Physiography	6
History	6
Geological Setting	8
Deposit Types	11
Mineralization	12
Exploration	13
Drilling	21
Sampling Method and Approach	24
Sample Preparation, Analyses and Security	25
Data Verification	26
Mineral Resource and Mineral Reserve Estimates	27
Interpretation and Conclusions	27
Recommendations	29
References	31
Appendix A: Estimated Cost of Recommended Program	

Claim List

Microfauna

Appendix B: Appendix C: Appendix D: Certificate of Author

# LIST OF TABLES

		page
Table 1	Correlation Coefficients from Soil Results	16
Table 2	Gold in Rock > 100 ppb Au	16
Table 3	Silver in Rock > 50 ppm Ag	17
Table 4	Lead in Rock > 9000 ppm Pb	17
Table 5	Zinc in Rock > 5000 ppm Zn	17
Table 6	Copper in Rock > 1000 ppm Cu	17
Table 7	Deep Drilling on the Utah Clipper Property	19
Table 8	US Borax Silver Results > 100 ppm Ag	20
Table 9	US Borax Gold Results > 100 ppb Au	21

# LIST OF FIGURES

Figure 1	Regional Location
Figure 2	Claim Map
Figure 3	Regional Geology
Figure 3a	Legend for Figure 3 Regional Geology
Figure 4	Battle Mountain Trend
Figure 5	Regional Setting – Cortez Trend
Figure 6	Property Geology
Figure 7	Drill Hole Locations
Figure 8	Clipper Detail
Figure 9	Ground Magnetics: First Vertical Derivative
Figure 10	CSAMT Stacked Sections: 2D Smooth Model Inversions
Figure 11	1994 Gravity Coverage
Figure 12	Gold Soil Geochemistry
Figure 13	Arsenic Soil Geochemistry
Figure 14	Mercury Soil Geochemistry
Figure 15	Lead Soil Geochemistry
Figure 16	Bismuth Soil Geochemistry
Figure 17	Antimony Soil Geochemistry
Figure 18	Silver Soil Geochemistry
Figure 19	Copper Soil Geochemistry
Figure 20	Zinc Soil Geochemistry
Figure 21	Rock Sample Locations
Figure 22	Gold Rock Geochemistry
Figure 23	Arsenic Rock Geochemistry
Figure 24	Mercury Rock Geochemistry
Figure 25	Lead Rock Geochemistry
Figure 26	Bismuth Rock Geochemistry
Figure 27	Antimony Rock Geochemistry
Figure 28	Silver Rock Geochemistry
Figure 29	Copper Rock Geochemistry
Figure 30	Zinc Rock Geochemistry
Figure 31	Compilation Map
Figure 32	Conceptual Section

#### **Summary**

Columbus Gold Corporation (formerly Purple Vein Resources Ltd.) has acquired a 100% interest in the Utah Clipper property, a gold and silver project situated in the Bullion Mining District, Lander County, Nevada about 40 km southeast of Battle Mountain, and 6 km northwest of the currently operating Pipeline gold mine. The property comprises 182 contiguous unpatented mineral claims, and 7 internal contiguous patented mining claims.

The property is situated along the Cortez trend, northwest of the Pipeline and Gold Acres Gold mines. Siliceous sediments of the Roberts Mountains allochthon including Ordovician rocks of the Valmy formation and Silurian Elder sandstone form bedrock over the entire Utah Clipper area. Lower plate carbonate rocks do not crop out on the property, but have been encountered at a depth of 2215 feet in one drill hole (UUT-3), which intersected silty Wenban limestone. Three high angle structural orientations dominate on the property: NNE, NW, and E-W. N-S orientations are also observed the northwestern parts of the property.

Two past producing silver mines are present on the property: Utah mine and Clipper mine. Very minor production of lead and silver ore is recorded from shallow underground workings at these mines in the early 1900's. Much of the material was selectively mined for high grade direct shipping ore from narrow quartz-sulphide veins. One shipment of 159.36 tons from the Waddy Hunt lease in 1918 assayed 114.6 opt Ag and 40.4% lead.

Modern exploration has been directed towards two separate kinds of targets. US Borax drilled 25 shallow vertical rotary holes to evaluate silver mineralization in the Clipper area. Hemlo Gold Inc. (operating for Noranda) and Uranerz U.S. Inc. have both explored for Carlin style gold mineralization on the property during the mid-1990's. During 2005, Columbus Gold continued exploration efforts targeted at Carlin-style gold mineralization. Modern gold exploration has included geological mapping, surface rock and soil sampling, airborne magnetic surveys, ground magnetic surveys, CSAMT surveys, gravity surveys (by Uranerz) and rotary drilling. Hemlo and Uranerz each drilled two deep rotary holes on the property, but only one hole (UUT-3) successfully reached lower plate rocks. No core drilling has been done.

Magnetic anomalies suggest that there are at least two igneous stocks at depth affecting rocks on the Utah Clipper property. The western end of the larger feature (an extension of the Gold Acres stock) underlies the southeastern corner of the property. A smaller body is centered west of the property in the Vista Mine area. The Clipper, Utah, and Vista lead-silver mines are all distributed around the periphery of this smaller body. (Vista mine is a vein silver mine situated 250m west of the Utah Clipper property.)

Rock, soil, and drill chip samples were analysed for gold and by multi-element geochemistry. The highest gold values obtained from rock and soil on the property were 3642 ppb Au and 290 ppb Au respectively. Three distinct styles of possible mineralization in the Utah Clipper area can be discerned from this work:

1. An igneous assemblage of lead-antimony-silver-bismuth-zinc in rock and soil is associated with vein-style lead-silver mineralization distributed around the perimeter of the inferred intrusion situated at depth beneath the western boundary of the property. The abandoned Clipper, Utah, and Vista mines had been established to exploit some of these veins.

2. A different igneous assemblage of copper, zinc, and arsenic is developed in the eastern parts of the property overlying an inferred extension to the Gold Acres stock at depth. Bismuth is part of

this assemblage in rock (hence the igneous interpretation), and weakly anomalous gold values have also been obtained. The eastern edges of the Thirsty Gulch and North Egg soil anomalies map part of this geochemical system. This assemblage suggests that there is a potential for distal disseminated gold mineralization or for skarn-like mineralization in reactive rocks around the intrusion.

3. An assemblage of gold, arsenic, and antimony, with peripheral mercury, but largely without a base metal signature except possibly distal zinc, can be discerned distinct from the two igneous systems described above. The assemblage has been identified on the northwestern Egg claims at the western side of the southern block of float chip samples collected in 2005. Other occurrences of this assemblage can be discerned extending northeast from Utah mine and along the Thirsty Gulch trend. This assemblage is present in samples from the southern parts of the property as well, although the sample density there is insufficient to establish a trend. One interpretation is that these anomalies may reflect structurally controlled leakage from possible Carlin style gold mineralization at depth.

Surface sampling and historical mining show that high grade silver values in excess of 100 gpt Ag can be obtained from wide-spaced, very narrow (2-30cm) steeply dipping quartz-sulphide veins cutting sandstone, chert, and quartzite at the Utah mine and Clipper mine areas. US Borax conducted a program of shallow vertical rotary drilling to investigate whether near surface bulk minable silver could be located in the Clipper mine area. The results from the program show that a continuous envelope of high grade silver mineralization is not present at shallow depths disseminated in sediments between the veins sets in the area tested. The program was not designed to adequately test the vein sets themselves.

All four holes drilled by Hemlo and Uranerz were deep holes drilled to test for Carlin style gold mineralization in lower plate carbonate rocks. However, only one hole, UUT-3 drilled by Uranerz, successfully reached the lower plate, at a depth of 2215 ft. The hole was drilled to a total depth of 2900ft. The highest gold value in the hole, 82 ppb Au/20 ft at 2820-2840 ft, was obtained from a fault in dark grey carbonaceous material interpreted to be Roberts Mountains Fm. The hole was drilled vertically, and the orientation of the fault is unknown.

On the northwestern Egg claims, the possibility of a Carlin-style gold target at depth is suggested by the coincidence of several geochemical, geophysical, geological, and structural features observed in the exploration completed to date. Surface float chip sampling and soil sampling in the area have returned faintly elevated gold, arsenic, and antimony values with peripheral mercury. The results from the magnetic survey show that the geochemical anomaly is coincident with subtle magnetic lows at the intersections of several structural trends in a domain of otherwise higher magnetic susceptibility. The results from the CSAMT survey show a peculiar resistivity feature situated at depth beneath the geochemical anomaly. Drill hole UUT-3 tested the eastern edge of this resistivity feature, and there encountered silty limestone interpreted to be lower plate Wenban Fm, with calc-silicate minerals, and silicified bands. Elevated mercury values were obtained from some of these rocks. However, because of the depths involved, it must be cautioned that this remains a highly speculative target.

Given the prospective regional setting, the fact that lower plate rocks have actually been encountered in drilling, and the encouraging signatures from geochemical sampling, potential Carlin style gold mineralization in lower plate carbonate-rich rocks remains the primary exploration target on the Utah Clipper property, and additional exploration is recommended. This is a high risk project. Even though it is at only an early stage of exploration, a large expenditure would be required to reach a decision point. The recommended exploration program is designed to explore for prospective structures and signs of alteration or possible mineralization at depth, and then test one or two of the most favourable resulting targets with deep angle drill holes. The estimated cost of this work is CAN\$1,460,000 including a reclamation bond.

Recommended Exploration:

- 1. Interpretation of the existing magnetic and CSAMT results by a professional geophysicist.
- 2. Gravity surveys and interpretation of results by a professional geophysicist
- 3. Geological and alteration mapping in the areas not covered by the Uranerz mapping program
- 4. Prospecting explicitly for igneous rocks, especially felsic dykes and lamprophyre.
- 5. CO2/O2 soil gas surveys
- 6. Mercury vapour surveys at a 100m (300 ft) spacing.
- 7. Natural source magneto-telluric (MT) surveys and interpretation of results by a professional geophysicist
- 8. Multi-element geochemical sampling over favourable targets emerging from steps 1 to 7. The techniques employed and the media sampled must be adapted to overburden, vegetation, and bedrock conditions in the survey area.
- 9. GIS synthesis of results, revised structural interpretations, and drill target generation
- 10. Deep drilling of at least 3 angle holes into lower plate rocks on targets developed during the foregoing program.

### **Introduction**

The Utah Clipper property is a gold and silver exploration property located along the Cortez Trend in north-central Nevada. Columbus Gold Corporation (formerly Purple Vein Resources Ltd.) acquired the property on the basis of historical work and the property's geological setting. During 2005, surface rock sampling, ground magnetic surveys, and CSAMT surveys were performed on the property on behalf of Columbus. This new work is discussed in this report, together with results from historical exploration on the property during the 1990's that contribute to our current understanding of the technical merit of the property. This report reviews the geology and mineralization on the property as they are currently understood.

This report has been prepared on behalf of Columbus Gold Corporation (Columbus Gold) and complies with the standards proposed for technical reports as outlined in National Policy Instrument 43-101 and Form 43-101F.

This current version draws extensively from an earlier version of this report written by the author on behalf of Columbus Gold Corporation which had had an effective date of January 31, 2004. The land status has been updated to reflect recent staking and the acquisition of the patented claims, the exploration section has been updated to include results of surface rock sampling, magnetic surveys, and CSAMT surveys performed in 2005, the recommended program has been amended, estimated costs for the recommended program have been updated to reflect current rates, and the format for this technical report has been revised to comply with the new Form 43-101F1 that became effective December 30, 2005. The old corporate name "Purple Vein Resources Ltd." has been replaced by the new corporate name "Columbus Gold Corporation".

The author traveled to Nevada, and examined the property on December 13, 2003. The author has been given access to all pertinent maps, drill logs, reports, and raw data in the possession of Columbus Gold (then Purple Vein Resources Ltd.) However, no rock chips from the historical drilling on the property were available for review.

This report is based on that information, on observations and results from samples collected during the field inspection of the property, and on the author's experience and familiarity with mineral deposits in Nevada as well as other showings and deposits of this type.

### **<u>Reliance on Other Experts</u>**

For information relating to ownership of claims and permitting requirements for exploration on the property, the author has relied on information provided by Columbus Gold which to the best of our knowledge and experience is correct. However, the author is not a legal professional, and a legal opinion on title is beyond the scope of this report.

Columbus Gold has given the author permission to include results from historical work on the property in this Technical Report. The author has relied on Columbus Gold's assertion that Columbus Gold is in legal possession of this information and may disclose this information without breach of confidentiality.

### **Property Description and Location**

The Utah Clipper property is situated in the Bullion Mining District, in the Shoshone Range, Lander County, Nevada. It is just west of Crescent Valley, about 40km southeast of the town of Battle Mountain, the nearest community with full services, and 6 km northwest of the currently operating Pipeline Mine. The property is centered about Latitude 40° 16.5' North, Longitude 116° 48' West.

The property consists of 7 patented mining claims and 182 unpatented mining claims with a total area of approximately 1553ha (3838 acres.) The majority of the claims lie in Township 28N Range 46E Mount Diablo Base and Meridian. The 5 southernmost claims extend into T27N, R46E. The claims are contiguous with one another. A claim location sketch is presented in Figure 2, and the claims are listed in Appendix B.

Legal land surveys were performed on the patented claims when the patents were granted. No legal land surveys have been performed on the unpatented claims. The unpatented claims are marked on the ground in accordance with BLM regulations, using 2x2 posts for location monuments and corners.

Under the former name Purple Vein Resources Ltd., Columbus Gold purchased a 100% interest in 166 of the unpatented claims from The Other Mining Company (U.S.) Inc. (TOMC) through an agreement dated May 10, 2003 in consideration for shares in Columbus Gold (then Purple Vein Resources Ltd.) where permissible, and a 1.5% Net Smelter Return (NSR) production royalty. The claims are also subject to an underlying 1% NSR production royalty payable to Herb Duerr. An additional 16 claims, staked for Columbus Gold in 2004, fall within the area of interest, and are also subject to the terms of this agreement.

Columbus Gold acquired a 20 year mining lease on the patented claims from Sam Bida, Velma Balaustegui, and the Leon Belaustegui Trust in an agreement dated April 18, 2005. Under the terms of this agreement, the patented claims are subject to a 3% NSR production royalty payable to the lessors, and, prior to production, an escalating schedule of advance minimum royalty payments due on each anniversary of the agreement. The advance royalty due on the anniversary in 2006 is US\$5000.

With the exception of the patented claims, the property is located on federal lands open to mineral exploration. The Bureau of Land Management (BLM) manages the surface and mineral rights. Maintenance fees for the claims consist of BLM rental fees totaling \$22,750 per annum and county fees totaling \$1551.00 per annum. Property taxes must be paid each year for the patented claims. The lease payments, county fees, and BLM maintenance fees required for 2005 have been paid. The next anniversary for payments to the BLM is August 31, 2006. For any exploration involving surface disturbance (such as drilling) on BLM land, a reclamation bond in an amount determined by the BLM must be posted. The bond would be returned following reclamation satisfactory to the BLM.

There are several small archaeological sites at the Utah Camp site, located at the intersection of drainages north of the Utah Mine workings. No rare or endangered species have been noted on the property in work to date. However, drilling is not permitted during the spring Sage Grouse nesting season.

Shafts and declines from abandoned mines are present on the property. It is the responsibility of the property holder to secure dangerous conditions so that no one can be accidentally exposed to danger. Hazards in the Utah Mine area were secured most recently in 1993, when Noranda

established a fence around 5 shafts or raises. The present-day condition and effectiveness of hazard fencing on the property should be re-inspected. There is presently at least one hazardous unfenced shaft on the property.

#### Accessibility, Climate, Infrastructure and Physiography

Access from Battle Mountain to the Utah Clipper property is by highway and moderately well maintained gravel roads. Unimproved dirt roads provide additional access to points within the property. Snow can limit access along these roads during winter months. Roads in the area are shown on the USGS Crescent Valley 1:100,000 topographic map. The immediate property area is located on the USGS Ferris Creek and Rocky Pass 1:24,000 topographic maps.

The climate is semi-arid. In an average year, light snow covers the area from December to April.

Vegetation is dominated by sagebrush and grasses. A perennial stream system (Ferris Creek and Indian Creek) is located about 2 kilometers north of the property. There is a water well near the Utah Mine Camp, an abandoned settlement used in the past to support mining in the area. A spring is present along the road mid-way between Utah Mine and Clipper Mine. A seasonal, south-flowing tributary to Elder Creek drains the southern parts of the property.

The closest power lines are located about 6 km southeast of the property, at the Gold Acres or Pipeline mines. The closest population center with full services is Battle Mountain, 65 km by road northwest of the property.

The Utah Clipper property lies at the western edge of the Shoshone Range, in rolling to moderately steep terrain cut by relatively gently sloping alluvial valleys. Elevations range from 5,500 ft (1680m) to about 6800 ft (2070m.) Slopes generally do not exceed  $25^{\circ}$  except in the vicinity of quartzite outcrops.

### <u>History</u>

Units: In order to facilitate references to previous work, both American units of measurement and metric units of measurement have been employed in this report. Coordinates are reported in the UTM NAD27 coordinate system. Rounded conversion factors are as follows:

1 troy ounce per short ton (opt) = 34.2857 ppm = 34.2857 grams per metric tonne (gpt) 1 foot = 0.3048 metres (exact) 1 mile = 1.6093 kilometers

The Utah Clipper property is situated along the Cortez Trend within an active mining camp that has seen a history of production in precious metals, copper, lead silver, turquoise, and barite. Significant gold production from the camp continues to this day. The most important mines to date in the district are gold producers distributed along a northwest trend crossing Crescent valley, east of the Utah Clipper property. These include Gold Acres and the Pipeline complex on the west side of the valley, and Cortez, Pediment, and Horse Canyon on the east side of the Valley. The newly discovered Cortez Hills deposit is also on this trend. Gold Acres was first put into production in 1935. A joint venture between Placer Dome US and Kennecott was formed in 1964 to explore and mine in the Cortez area. The Cortez gold deposit was discovered in 1969 and mined during 1969 to 1973. Gold Acres was mined from 1973 to 1976. Horse Canyon was

discovered in 1976 and mined during 1983 to 1987. Gold Acres was reactivated during 1987 to 1996. Pipeline was discovered in 1991, and several additional gold orebodies including Pipeline South and Pediment were also found during the 1990's. Cortez Hills, the most recent discovery of Carlin-type gold in the area, is a blind deposit that was discovered in 2002. Of the gold resources discovered in the area since 1959, over 82% have been identified only within the past 10 years (Hayes and Thompson 2004.)

The Utah Clipper property encompasses two small past-producing silver mines: Utah Mine and Clipper Mine. These have similar, but separate exploration histories.

Silver was discovered in the Utah Clipper area in the late 1800's. Poorly documented sporadic production of small quantities of silver ore took place during the period 1884 to 1934. Much of the material was selectively mined for high grade direct shipping ore from narrow quartz-sulphide veins. One shipment of 159.36 tons from the Waddy Hunt lease in 1918 assayed 114.6 opt Ag and 40.4% lead.

Workings at the Utah Mine included a 200 ft vertical shaft and 200 ft decline, connected at 165' level by a 200 ft cross-cut, with 400 feet of drifting on each of two levels, and numerous old stopes. Five north-south trending veins were exposed. (Burge, E. W. 1950) Workings at the Clipper Mine included at least two short shafts and a short decline.

During the 1930's through to the 1970's, the property saw various episodes of prospecting for silver and lead, turquoise, and later, for copper and molybdenum, but little production.

During the 1960's, the US Geological Survey performed regional rock geochemical surveys in Lander County. The survey identified two well-defined belts with anomalous concentrations of antimony, arsenic, bismuth, cadmium, copper, lead, mercury, silver, and tin. Each trend was about 2 km wide by 8 to 9 km long. The Utah Clipper property lies near the west end of the southernmost of these two belts. Gold Acres is situated near the eastern end of the same belt.

During the 1970's various companies including Phelps Dodge Inc., Placer Amex Inc., Cyprus, and Amoco explored in the general area for porphyry style base metal mineralization.

During the mid-1980's, Homestake Mining Co. explored the Utah, Clipper, and adjoining Vista mine areas, primarily for silver but with an eye for gold as well. Homestake performed geological mapping, rock sampling, soil sampling, and drilled three shallow reverse circulation (RC) holes totaling 435 ft (132m.)

During 1986-1989, US Borax explored the Clipper Mine area for silver. They collected 113 rock samples, 38 soil samples, and drilled 25 shallow vertical rotary holes totaling 6,790 ft (2070m.) Of these, 9 holes returned intercepts exceeding 100 ppm Ag/5 ft.

In 1987, Newmont excavated trenches, and drilled 5 RC holes totaling 2705 ft (824m) in the southern reaches of the Utah Clipper property. The results from this work were not available.

During this same time (1987-1989) Placer Dome US Inc was exploring for gold in the northern parts of the Utah area. They performed geological mapping, soil sampling, excavated two trenches, and drilled 9 RC drill holes totaling 2955 ft (900m.) Most of this work and all of the drilling took place on ground north of the current Utah-Clipper property.

In 1991, J. Prochnau and Associates staked claims in the Utah Clipper area, and leased them to Brancote U.S. In 1992, Noranda Exploration Inc. entered into a joint venture with Brancote.

During 1992 to 1994, Hemlo Gold Inc (operating for Noranda) performed rock sampling and vertical rotary drilling on the Utah and adjoining Orbit properties, exploring for Carlin-style gold mineralization in lower plate rocks. Two of the holes UT94-7M and UT94-9M, were located within the present day Utah Clipper property area. They were drilled to depths of 1435 ft and 1440 ft respectively, but failed to reach lower plate rocks. Three other holes totaling 5171 ft (1743m) were collared just outside the present property boundaries. Of these, two just east of the property boundary successfully reached lower plate rocks at depths of 1203 ft (UT-94-8M) and 1150 ft below surface (UT93-4M.) A hole collared just west of the property boundary (UT92-3R) was drilled to a depth of 2285 ft, but failed to reach lower plate rocks.

In 1993, Noranda dropped part of the Utah property. Uranerz U.S. entered into an agreement with Brancote for the available parts of the Utah property as well as adjoining properties to the east. The Clipper area was excluded from the Uranerz lease. During 1993-1996 Uranerz explored the properties for gold in joint venture with Takla Star Resources Ltd. and Romarco Nevada Inc. Uranerz collected 250 rock samples and 1270 soil samples. They performed 22 line miles of gravity surveys, shared a regional airborne magnetic survey and drilled 3 vertical RC holes totaling 6710 ft (2045m.) Two of the Uranerz holes (UUT-1 and UUT-3) were collared on what is now the present day Utah Clipper property. The holes were drilled to explore for Carlin-style gold in lower plate rocks. UUT-3 successfully reached lower plate rocks at a depth of 2215 ft. UUT-1, which was drilled to a depth of 2110 ft, failed to reach the lower plate.

In 1996, a joint venture between Minorca Resources Inc. and Romarco Nevada Inc. leased the Clipper property, including the patented claims. Minorca drilled a rotary hole to a depth of 1950 ft (594m) on the patented claims, but lost the hole in fault gouge before reaching the lower plate.

In 1997, Prism Resources Inc leased the Utah property, which they called the Heart project. In a pilot auger program, Prism collected 142 samples of subcrop from holes spaced at 30m centers. This work outlined a northeast trending gold-arsenic anomaly extending for 180m in the Elder Fm, located on a ridge north of the present-day Utah Clipper property. The highest geochemical gold result from this work was 760 ppb Au.

Purple Vein Resources Ltd. acquired a 100% interest in the Utah Clipper property from The Other Mining Company (TOMC) in 2003. In December, 2004, the corporate name of Purple Vein Resources was formally changed to Columbus Gold Corporation. Columbus Gold staked an additional 16 claims, and in 2005 acquired a 20 year lease on the 7 internal patented claims.

During 2005, Columbus Gold completed a surface rock sampling program, a ground magnetic survey, and a ground CSAMT survey on the Utah Clipper property. A total of 1209 rock samples, mostly from float, were collected and analysed for gold and by multi-element ICP. Gold results ranged from below detection to a high of 3642 ppb Au (sample 7087.) The magnetic survey, totaling 163 line-km, covered the entire property at a 100m line-spacing. Six widely spaced E-W lines of CSAMT were distributed across the property, totaling 15 line km.

### **Geological Setting**

The Utah Clipper property is centrally located within the Battle Mountain–Eureka Trend, a northwest striking belt defined by an alignment of windows through allochthonous thrust sheets

into lower plate rocks, an alignment of Cretaceous to Tertiary intrusions, and a recognizable linear array of Cretaceous to Tertiary base and precious metal mineral deposits and mines. These alignments are thought to reflect a fundamental deep crustal structural control on mineral deposition (Shawe, 1991), and it is this possibility that makes the trends meaningful from a regional exploration perspective.

Within the overall Battle Mountain-Eureka tend, an increasingly productive northwest-trending belt of Carlin-style gold mineralization is emerging extending from the Horse Canyon mine in the southeast to the Elder Mine in the northwest. The belt, known as the Cortez trend, includes the Gold Acres, Pipeline, and Cortez gold mines. The Utah Clipper property is situated near the northwestern end of the Cortez trend, southeast of the Elder Mine.

Regionally, the Utah Clipper property lies in a domain of Paleozoic sedimentary rocks that had been affected by folding and thrusting during the Antler orogeny. Ordovician to Devonian deep water, dominantly siliceous sediments have been thrust along the Roberts Mountains thrusts from west to east over Cambrian to Mississippian carbonate-rich shallow water to transitional continental shelf sequences. An erosional melange of both upper and lower plate rocks have also been caught up in thrust slivers. Later erosion of uplifts and scarps developed during the orogeny formed sedimentary rocks including conglomeratic units of Pennsylvianian to Triassic age.

Although examples of mineralization can be found in almost any of these units, the reactive carbonate-rich rocks of the lower plate assemblages are by far the most permissive hosts, and present a preferred exploration target.

Intrusions ranging from dioritic to granitic compositions were emplaced along trend during Cretaceous to Tertiary times. Most are not exposed at surface, but have been inferred from magnetic surveys, and confirmed by drilling and mining. Forcible emplacement of intrusions is one explanation given for the uplift of portions of the Battle Mountain-Eureka Trend that led to the development of erosional windows through the allochthonous sheets. Tertiary dykes and sills have been observed in all gold mines in the region, and tend to be felsic in composition,.

Extensive volcanism accompanied Late Tertiary extension associated with the Northern Nevada Rift. The rift crosses the region NE of the Utah property. Epithermal gold mineralization is associated with this event.

Basin and range extensional faulting is the youngest tectonic event to affect the region. Older faults have been reactivated, and associated structural corridors commonly display NE, NW, and E-W trends. Vertical throw and tilting associated with this event can complicate exploration for buried targets.

### Property Geology

Outcrop on the Utah Clipper property is generally sparse except where thick sections of quartzite occur. Quaternary colluvium blankets the flanks of hills and valley floors. Excellent detailed descriptions of the units exposed on the Utah Clipper property are presented in Gilluly and Gates, 1965.

Upper Plate Rocks

Siliceous sediments of the upper plate Roberts Mountains allochthon form bedrock over the entire Utah Clipper property. The Ordovician Valmy Formation is the dominant unit in the area, but the Silurian Elder Formation is present in the western parts of the property.

On the Utah Clipper property, three general units within the Valmy Formation are recognized:

Ovq: an upper quartzite-dominated quartzite + green chert +/- shale package Ovl: a thin (<200ft) section of dolomitic mudstone Ovc: a lower chert-dominated package of grey chert + black shale + greenstone (Ovg)

Overlying the Valmy Formation, the Silurian Elder Formation comprises a monotonous sequence of fine-grained sandstone, siltstone, argillite, and chert with occasional limestone or limy sandstone beds. On the basis of biostratigraphic work by Uranerz, a black chert that had formerly been assigned to the Slavern Formation has been reinterpreted to be a basal member of the Elder Fm. This results in a much simpler interpretation of the stratigraphy on the property.

According to Uranerz, the sequence has been thrust over an identical sequence of Elder and Valmy rocks. The thrust contact, named the Lander Thrust, occurs at surface east of the property in the Orbit area. (Cluer, 1994.)

### Lower Plate Rocks

Lower plate rocks do not crop out on the property, but have been intersected in one drill hole on the property: UUT-3. These rocks have also been intersected at depth in two holes drilled by Hemlo collared within 100m of the present day property boundary. Lower plate rocks are inferred to be present at depth on the property, and represent one of the key exploration targets because they host Carlin-style gold mineralization elsewhere on the Cortez Trend.

Drill hole UUT-3 intersected silty limestone at a depth of of 2215 ft (675m.) These rocks are interpreted by Uranerz to belong to the Devonian Wenban Limestone. Uranerz also intersected a sliver of black carbonaceous limestone that had been tentatively identified as Silurian Roberts Mountains Formation. The hole crossed a fault and went back into Wenban limestone. Regionally, where it is not disturbed by faulting, the Wenban Formation overlies the Roberts Mountains Formation with a conformable, gradational contact.

### Intrusive Rocks

Very few intrusive rocks have been recognized to date at surface on the property. US Borax reports a possible altered intrusive rock at surface near Borax hole 12. However, altered quartz phyric dykes were identified in UUT-1 at a depth of 1,140 to 1,200 feet (Cluer 1995). This rock was not mineralized. Two intrusive stock are inferred at depth from aeromagnetic results.

#### Structure – Low Angle Faults

Low angle faults are common throughout the property, and range from minor intraformational imbricate thrusts to major displacements such as the Roberts Mountains Thrust, which is inferred to occur at depth.

### Structure – Folds

Broad open folds are recognized throughout the mapped exposures of Elder sandstone in the Utah Camp area. Fold axes generally strike within 20° of north. Hinge line orientations and vergence have not yet been determined.

Bedding within the Valmy Fm is generally quite obscure, and where mappable attitudes form complicated patterns not readily interpretable

#### High Angle Faults

Among the numerous fault orientations observed in mapping on the Utah Clipper property, three dominate, and appear to form boundaries to structural blocks:

- 1. 020° curvilinear faults controlling present physiographic trends
- 2. 315° discontinuous fault zones with only minor apparent off-set
- 3. E-W minor apparent off-sets, dominate in southern portion of property

Structures are expressed in rocks as silicified breccia in the quartzite, chert, and sandstones, and as bleached zones within the finer grained siltstone and shale sequences.

The ages of these high angle faults are poorly constrained thus far, except that most transect folds, and thus are post-Antler, at least in their most recent activation.

Most of the small quartz vein structures at the Clipper and Vista Mines trend NNW, and are probably related. Quartz vein structures at Utah Mine trend to the north.

#### Alteration

Bleaching, fracturing, iron staining, silicification, and sericite alteration have been reported associated with lead-silver mineralization in the Utah and Clipper mine area. Very narrow, sheeted quartz veins are associated with this event. Manganese stain and fracture coatings are reported in the northern and eastern parts of the property.

US Borax encountered siliceous zones at the contact between the Valmy Fm and the overlying Elder sandstone in the Clipper mine area.

Some calc-silicate contact metamorphic or incipient skarn assemblages were observed in UUT-3 in the lower plate carbonate rocks.

### **Deposit Types**

The primary gold target on the Utah Clipper property is Carlin-style gold mineralization. These kinds of gold deposits are characterized by micron-sized gold in calcareous sediments. Although the principal host rocks are silty carbonate rocks, mineralization may also be found in siliciclastic rocks, silicified rocks, and in some cases intrusive and extrusive igneous rocks.

Gold is usually refractory where the host rocks have not subsequently been oxidized. Gold may occur in arsenian pyrite, encapsulated in quartz, pyrite, and illite, and attached to older suphides. Free gold is also reported. Alteration including decalcification, silicification, and argillization is associated with the mineralizing system. High grade veins are developed within some deposits.

11

Structural preparation, chemically reactive rocks, and structural or chemical traps are important controls on mineral deposition. Deposits may be localized along high and low angle fault systems, within collapse breccias, or may permeate silty calcareous layers. Some deposits occupy the same structural or stratigraphic traps as older petroleum concentrations, and mature hydrocarbons are intimately associated with many deposits.

Many Carlin-type deposits are spatially associated with igneous stocks and dykes. This is particularly true along the Cortez trend. However, the classical Carlin systems do not seem to generate clear magmatic geochemical signatures, and the deposits are usually different in age from the nearby intrusions. The relationship between igneous systems and Carlin-type mineralization remains a subject of controversy. In some cases, contact metamorphism may have contributed to the structural preparation of host rocks.

Pathfinder elements associated with Carlin-type mineralization include Au, As, Sb, Hg, Ba, and Tl. Au/Ag ratios are usually greater than one. In many cases Carlin-style mineralizing systems have exploited pathways and settings that also controlled pre-existing or subsequent mineralization, leading to overlapping geochemical suites.

A second style of gold target for the Utah Clipper property is distal disseminated gold mineralization, such as is found in the Battle Mountain area. The style of mineralization is very similar to that found in Carlin type systems. However, unlike classical Carlin-type deposits, distal disseminated deposits are part of a zoned magmatic-hydrothermal system and frequently located near the edges of contact metamorphic aureoles around porphyritic stocks. These systems have a distinct geochemical signature including Pb, Zn, Mn, Cu, As, Sb, and Bi. Au/Ag ratios are usually less than one. Te may also be present in these systems. Skarn and replacement style mineralization may also occur in calcareous rocks intruded by these porphyritic stocks.

Vein-style, intrusion-related lead-silver mineralization is also present on the Utah Clipper property. Silver mineralization in veins or as carbonate replacement deposits may form additional deposit styles of interest.

# **Mineralization**

Known mineralization on the Utah Clipper property consists of intrusion-related lead-silver mineralization found at the abandoned Utah and Clipper mines. The mineralization occurs in steep swarms of narrow veins (2-50cm) mineralized with quartz-pyrite-galena-tetrahedrite-sphalerite and their oxidation products. Antimony, bismuth, mercury, copper, and zinc are also present in the system. Very little gold occurs with this mineralization. The vein system is situated within an alteration halo of quartz, sericite, and pyrite. The alteration halo may extend up to 450m in width. Mineralization appears to be best developed within feldspathic Elder sandstone, but is also present in chert and in underlying Valmy quartzite.

At Utah, the vein system includes both N-S and E-W, steeply dipping veins. At Clipper, the steeply dipping veins strike to the NW. The zone within which veins may be found is about 120m wide, and has been traced along strike in shallow drilling for about 500m.

Silver results from drilling range from below detection limits to sparsely distributed multi-ounce silver values up to a high of 12 opt Ag/1.5m (CL-4.)

# **Exploration**

During 2005, Columbus Gold completed surface rock sampling, a ground magnetic survey, and a ground CSAMT survey on the Utah Clipper property. The 2005 exploration program was managed by Cordilleran Exploration Company on behalf of Columbus Gold. The rock sampling program does not appear to have been documented in a formal report, but assay certificates, an excel file with rock sample locations, and the original rock sample description cards have been provided to the author. Logistical reports by Zonge Geosciences documenting instrumentation and survey parameters for the geophysical surveys have also been provided, together with raster images of the processed geophysical results. However, no interpretation of the 2005 geophysical results has yet been completed by a professional geophysicist.

Historical work performed by Uranerz, Hemlo, and US Borax prior to Columbus' involvement in the property is also described in this section. This recent historical work provides an important contribution to our current technical understanding of the property. As historical work, there were some limitations to the documentation available to the author.

The Uranerz program included geological mapping, geophysics, surface rock sampling, soil sampling, and RC drilling, of which 2 holes were located on what is now the present day property. Documentation of the work by Uranerz available to the author was incomplete. In particular, rock sample descriptions, soil sample descriptions, and detailed results from the airborne magnetic surveys were not available. However, annual summary reports, a petrographic report, drill logs, geological maps, gravity profiles, and geochemical results were available to the author. Although the missing information would be of assistance in further exploration on the property, it is the opinion of the author that the missing information would not alter the technical merit of the property in any material way.

Work by Hemlo on the Utah Clipper property was part of a much broader exploration campaign along the Cortez Trend. No soil sample locations or results were available, but sample locations and results were available for 97 rock samples collected from what is now the property area in 1994. Drill logs from deep rotary drilling by Hemlo on the property were also available, and contribute to our understanding of where the Roberts Mountains Thrust and lower plate assemblages might be located at depth on the property. Geochemical results from the Hemlo drilling were available for UT94-7M but not UT94-9M.

Work by US Borax included surface sampling and shallow rotary drilling along the Clipper vein system. Although geochemical results for the surface sampling were available to the author, the sample locations and sample descriptions were not. It seems highly probable that the samples were collected from the Clipper area, but without sample locations this cannot be known sufficient certainty for the results to be used for the purposes of this report. Complete geochemical results and drill logs were available for the US Borax drill holes. However, no explicit statement of collar coordinates accompanied this information. Drill hole locations were presented on a page size sketch map without coordinates. The author has used the relative positions of drill holes. The absence of more precise locations for the drill holes detracts from the utility of the information. However, in the case of the Clipper vein system, it does not affect the author's conclusions regarding the technical merit of the system. This is because problems inherent in drilling steep systems with vertical holes limit the information about the Clipper vein system that can be obtained from the US Borax drill results.

The results of work by Newmont in the southern parts of the property might have enhanced our understanding of the significance of geochemical anomalies obtained in the area by Hemlo and Uranerz. Unfortunately, the results from the work by Newmont were not available.

### Geological Mapping

Uranerz performed geological mapping over the northern parts of the property at scales ranging from 1:24000 to 1:2,400, and compiled at 1:6000. The geology described in the Property Geology section above derives largely from this work. US Borax performed outcrop mapping over the immediate Clipper area. Additional mapping is required in the southern parts of the property.

### **Biostratigraphy**

Uranerz submitted samples from the Ferris Creek Quadrangle for micro-faunal analysis. Sixteen of the samples were from drill hole UUT-1 on what is now the present day Utah Clipper property. Three of those 16 samples yielded age determinations. Age determinations from this study suggest a late Ordovician age for black chert spatially situated between the Valmy Fm and Elder sandstone in the Utah Clipper area. This chert had formerly been interpreted to belong to the Devonian Slavern Fm (Gilluly and Gates 1965,) necessitating structural complexity to explain the observed section. Uranerz has suggested that the Elder sandstone lies directly and conformably above this chert, and have interpreted the chert to be a basal member of the Elder Fm. This interpretation is simpler than the former interpretation, structurally. A list of the microfauna observed is presented in Appendix C.

### Petrography

Two samples of drill cuttings sampling limy sediments encountered in UUT-1 were examined in thin section. Although the material had initially been interpreted to derive from lower plate rocks, Uranerz geologists subsequently decided that it must in fact derive from a limy horizon in the Valmy Fm, and so be part of the allochthon. At least locally, the limy horizon can serve as a marker to assist in stratigraphic correlations.

UUT 1 670 ft-675 ft contained variably carbonaceous argillaceous dolomite and dolomitic musdtone with calcite veining and sparse pyrite(?) mineralization. The dolomitization was interpreted to be diagenic, and the calcite veining appeared to post-date dolomitization. The rocks in the sample had been tectonized.

UUT 1 735 ft-740 ft contained sheared, brecciated argillaceous dolomite and dolomitic mudstone with calcite veining, minor pyrite(?), and sparse barite in vugs. The rocks are described as "possibly carbonaceous" (Schurer, 1994.) Calcite veining appeared to range from contemporary with to post dolomite in timing. Pyrite was associated with the youngest calcite veins, but not early calcite veins.

### Geophysics

Geophysical work on the Utah Clipper property completed on behalf of Columbus Gold Corporation included ground magnetic and CSAMT surveys. Cordilleran Exploration managed the program on behalf of Columbus Gold. Zonge Geosciences Inc. performed the work and processed the data. No interpretations by a professional geophysicist have yet been completed. The location of an historical gravity survey completed for Uranerz prior to Columbus Gold's involvement in the property is also included in this section. The author has relied on the work by Uranerz for their interpretation of the significance of the gravity results.

### Magnetic Survey

A ground magnetic survey covering the entire Utah Clipper property was performed by Zonge Geosciences Ltd. on behalf of Columbus Gold during June, 2005. Zonge geophysicist Curtis Caton performed the work. The survey, totaling 163 line-km, consisted of 62 E-W lines at a line spacing of 100m.

The survey was performed using a GEM Systems GSM-19 Overhauser effect magnetometer with an accuracy of 0.2nT. A backpack-mounted sensor was used, with sensor height at about 2m above ground level. Readings were taken at 1s intervals, and the average distance between readings along the lines for this survey was 0.75m. Reading locations were established by differential GPS using the WAAS system, which can provide sub-metre accuracy under standard conditions. Corrections for diurnal variation were made with reference to an additional GSM-19 base station magnetometer where readings were collected every 10 seconds. The base station was located at 516733E 4461111N (Moezzi, 2005b.)

Data quality appears to be good. No magnetic storms were observed during this survey, nor were any weather-related problems encountered. Readings deemed to be affected by metallic debris and fences were removed from the data set. No other cultural noise was reported.

Zonge Geosciences processed the data, and produced plots presented as raster images. A colourshaded plot of the first vertical derivative of the total field magnetic field (calculated vertical magnetic gradient) is presented in Figure 9.

Magnetic anomalies expressed as areas with high magnetic susceptibility and also as areas with relatively high vertical magnetic gradient, in the context of the property, suggest that there are at least two igneous stocks at depth affecting rocks on the Utah Clipper property. This is consistent with Uranerz' interpretations from the regional airborne magnetic survey they participated in during 2003. The western end of the larger feature (an extension of the Gold Acres stock) underlies the southeastern corner of the property. A smaller body is centered west of the property in the Vista Mine area. The Clipper, Utah, and Vista lead-silver mines are all distributed around the periphery of this smaller body. (Vista mine is a vein silver mine situated 250m west of the Utah Clipper property.) A pronounced NE trending break separates the two prominent magnetic anomalies. Details of the structural fabric on the property, particularly the NNW, N/S, and NE trending lineaments, are also discernible in the magnetic results. Known mineralization, such as at Utah mine and the Clipper area, appears to be situated at intersections in these structural trends. Also discernible within the magnetic results are areas of subtle or patchy magnetic lows within a given domain, some occurring as dilations at structural intersections. One such example is situated in the central portions of the property roughly coincident with an area where weakly elevated gold was obtained from the 2005 rock chip sampling.

### CSAMT Survey

A controlled-source audio-frequency magneto-telluric (CSAMT) survey was performed on the Utah Clipper property on behalf of Columbus Gold during July, 2005. The field work was performed by Zonge Geosciences under the supervision of Zonge geophysicist Curtis Caton. The survey, totaling 15 line-km, consisted of 6 E-W lines distributed across the property. Zonge

processed the CSAMT data, and calculated 2D model inversions of the results. Coloured contour sections of the smooth model inversion are presented in Figure 11.

Survey control was established by Zonge personnel using a Trimble real-time differential GPS, with differential GPS corrections provided by the Omnistar system. This system is capable of sub-metre accuracy.

Zonge performed the CSAMT survey using a fixed E-W transmitter dipole and Zonge GGT-30 transmitter set up at 517000E 4506000N. The survey lines were run with a 60m electric dipole spacing, using spreads comprising 4 electric dipoles, with one perpendicular magnetic dipole in the center of each spread. Measurements were made at frequencies ranging from 0.5 Hz to 8192 Hz, using a Zonge GDP-32 receiver (Moezzi 2005a.)

Zonge reports that the data quality for this survey was good, with repeat measurements generally within 2% (Moezzi, 2005a p.7)

From the mineral exploration perspective, CSAMT surveys are essentially resistivity surveys. At least 3 gross domains of differing resistivity are apparent from the 2D smooth-model inversions presented in Figure 10:

- 1. an upper, relatively resistive domain, coloured in yellows through to white on Figure 10. Drill holes penetrating this domain have encountered upper plate rocks.
- 2. 1 or possibly 2 deeper, relatively less resistive (or more conductive) domains, coloured in magenta to dark purple on the inversions. In the southern property area, this feature has a pronounced apparent dip to the west. In the northern parts of the property, this or a similar feature has a steep apparent dip to the east. None of the drill holes on the property for which results were available to the author appear to have tested this domain.
- 3. most interestingly, there is an embayment of more resistive rocks into the overall less resistive lower domain in the central portions of the property. On L4457400N in Figure 10, this embayment is coloured orange. Drill hole UUT-3 tested the eastern edge of this feature, and there encountered silty limestone interpreted to be lower plate Wenban Fm, with calc-silicate minerals and silicified bands. Float chips collected at surface above this feature returned an assemblage of faintly elevated values in gold, arsenic, and antimony. UUT-3 was collared to the east of this geochemical anomaly.

A number of smaller features can also be discerned in the CSAMT results, such as the thin, shallow horizon of less resistive rocks, in magenta on Figure 10, evident in the western half of L4458450N.

### **Gravity Surveys**

In 1994, Uranerz performed a regional 35 line-km gravity survey consisting of 300 individual stations along 10 lines, parts of which crossed what is now the present day Utah Clipper property. The objective of the survey was to map both high angle faults and thrust faults. However, Uranerz found that additional deep drilling would be required to provide sufficient information to constrain the gravity model (Cluer 1994.) A map depicting the 1994 gravity coverage is presented in Figure 10. The author is not qualified as a professional geophysicist, and has relied on the work by Uranerz for this interpretation of the significance of those gravity results.

### Soil Geochemistry

During 1994, Uranerz collected 1275 soil samples in the region, of which 85 were situated on what is now the present day Utah Clipper property. Samples were collected at 400 ft intervals, with some 200 ft in-fill sampling. The –80 mesh fraction was analysed.

Soil sample descriptions are not available. However, with the exception of the mine areas, the higher results tend to come from ridges where overburden is thin and rock chips are abundant. Kern (1998) found that recent loess also masked geochemical response in some parts of the area. Sample medium and the depth and nature of the overburden affect the geochemical response in soil samples, and in some cases will have a greater affect on the resulting anomaly patterns (in raw data) than the composition of the underlying bedrock does.

Notwithstanding these challenges, several patterns emerge from the soil sample results.

Three distinct assemblages can be discerned:

- 1. gold-arsenic-mercury (figures 11, 12, and 13.)
- 2. lead-bismuth-antimony-silver (figures (14 to 17)
- 3. a hybrid distribution in copper and zinc (figures 18 and 19)

1. Gold, Arsenic, and Mercury

These elements form three or four NE trending clusters:

The northern cluster lies along a fault contact between the Valmy and the Elder domains, just west of the Utah mine. The gold values are not high (<54 ppb Au) but they are coherent. The strongest development in gold appears to be on the west side of the fault, but this may be an artifact of the distribution of overburden in the area. One sample from the trend returned 4350 ppm Hg. Two isolated single point gold values of 73 ppb Au and 290 ppb Au flank a different but possibly cross cut NNW trending structure beneath a drainage valley northeast of the main gold cluster.

A second cluster, which is perhaps the strongest arsenic anomaly on the property, crosses the Elder-Valmy contact northwest of the Clipper patents. The arsenic appears to be more strongly developed in the Valmy, but this too may be an artifact of the distribution of overburden. Seven samples returned arsenic values greater than 32 ppm As. The gold anomaly accompanying the arsenic is discernible, but relatively weak. This may be part of what Uranerz identified as the Thirsty Gulch anomaly.

A third cluster is situated up on a NNW trending ridge cross cut by a series of subparallel NE trending faults in Valmy rocks. Four samples exceed 50 ppb Au, returning 54 ppb Au, 58 ppb Au, 61 ppb Au, and 85 ppbv Au. The highest arsenic value is 58 ppm As. The highest arsenic values are off-set from and southeast of the highest gold values. One sample in the cluster returned 1100 ppm Hg. Uranerz termed this the Northern Egg anomaly.

Two more anomalies in gold occur south of these main clusters, including one sample that returned 59 ppb Au. However, the soil sampling in the south is limited to two orthogonal lines. Mercury values up to 490 ppm Hg accompany the cluster, but arsenic is relatively subdued (<12 ppm As.)

Additional fabric can be discerned within these overall NE trending clusters, particularly in the mercury results. The distribution of mercury in soil hints at N-S trends in the northern two clusters, and picks out a persistent NW trend that can be traced through each of the three main clusters. The trend is roughly parallel to but NE of the Clipper-Vista lead-silver vein system.

### 2. Lead-Bismuth-Antimony-Silver

Lead values greater than 100ppm Pb and ranging up to 1100ppm Pb form a pronounced anomaly over the Utah mine area and extending towards Clipper mine and Vista mine. Unfortunately, the Uranerz sampling did not fully test the Clipper–Vista vein trend, but a strong lead anomaly is readily apparent in the two soil lines that did cross Clipper-Vista system. A prominent anomaly in bismuth is nearly coincident with the lead anomaly, but is not as widely dispersed. Bismuth values range from 0.7 ppm Bi up to a high of 6.8 ppm Bi within the anomaly. A distinct antimony anomaly is also grossly coincident with the lead-bismuth anomaly. Values within the anomaly ranged from 3 up to 70 ppm Sb. Slightly elevated antimony values are more widely dispersed than either the lead or the bismuth, possibly due to more than one source for the antimony. Antimony appears to follow both N-S and NE trending structures extending beyond the lead-bismuth center. The highest antimony result on the property, 240 ppm Sb, was obtained from one of these NE trends.

Fabric is also apparent in the distribution of silver values. A NW trend can be extrapolated striking up from the Clipper mine, but internal N-S fabric dominates in the Utah area. This is consistent with the vein orientations known from historical mining. Two somewhat discontinuous NE trends extend away from the lead- bismuth center.

### 3. Copper Zinc and Hybrid Trends

Although absolute values in copper and zinc are comparatively low, distinct anomalous patterns in both copper and zinc can be seen associated with both the gold-arsenic-mercury system and the lead-bismuth-antimony-silver system. A N-S fabric was especially evident in the distribution of zinc values. The strongest anomaly in zinc is situated over the Utah mine in a N-S trend, with values ranging up to 600 ppm Zn. Values in the 84 to 283 ppm Zn accompany the NE gold trends. Somewhat weak but discernible antimony and silver are also locally associated with the NE gold-arsenic-mercury cluster.

Copper values in soil ranged up to 130 ppm Cu. However, the best clustering of copper values occurred near the eastern property boundary along the NE extension situated NE of the Clipper patents. Here 10 samples exceeded 65 ppm Cu, up to 102 ppm Cu. Uranerz termed this feature the Thirsty Gulch anomaly, and drilled UUT-1 in the area, albeit slightly north of the main anomalies in soil. A similar pattern is seen in the next gold cluster to the south, with copper prominent on the structure NE of the highest gold and arsenic values.

Elevated values in copper and in zinc were noticeably absent from the southernmost goldmercury anomalies.

Notwithstanding the map patterns, statistical analyses show that gold in soil does not correlate directly with any other of the elements analysed, including arsenic. Importantly, there was a negative correlation between gold and both bismuth and lead. There are strong correlations among silver, mercury, and antimony. Interestingly, lead correlates moderately well with silver and mercury, but considerably less so with antimony.

### Table 1: Correlation coefficients from soil results

	Au-ppb	Ag-ppm	As-ppm	Си-ррт	Bi-ppm	Hg-ppm	Pb-ppm	Sb-ppm
Au-ppb	1							
Ag-ppm	0.078031	1						
As-ppm	0.170037	0.527438	1					

Cu-ppm	0.074215	0.133205	0.140243	1				
Bi-ppm	-0.05643	0.106932	0.130323	0.200443	1			
Hg-ppm	0.136922	0.909256	0.568709	0.093649	0.016804	1		
Pb-ppm	-0.11452	0.7591	0.228245	0.265281	0.553379	0.115235	1	
Sb-ppm	0.069466	0.946542	0.532866	0.143918	0.037757	0.864924	0.524128	1
Zn-ppm	-0.08097	0.096146	0.042336	0.376625	0.107214	-0.01909	0.456942	0.100386

### Rock Geochemistry

The results from rock sampling programs over the Utah Clipper area for Columbus Gold in 2005, by the author in 2003 (as part of the property exam for the 43-101), by Hemlo Gold in 1994, and by Uranerz in 1994 and 1995 have been compiled together, and are discussed in this section.

Of the samples collected during the mid-1990's (prior to Columbus Gold's involvement,) locations and corresponding geochemical analyses were available for 172 rock samples from what is now the Utah Clipper property. No rock sample descriptions from these programs were available to the author.

During 2005, Cordilleran Exploration collected a total of 1209 grid-controlled float chip samples from the Utah Clipper area on behalf of Columbus Gold. Samples were collected at 100 ft (30m) stations along 100m-spaced lines in two separate blocks. The total area covered in this way was approximately 293ha. Samples returning elevated gold or silver results were followed up by resampling and by infill sampling. Samples were analysed for gold and by multi-element ICP. Analytical results in digital format, and sample descriptions on the original sample cards were available to the author.

Gold results from the property were subdued, with only 6 samples exceeding 100 ppb Au. One sample exceeded 1gpt Au: Columbus sample 7097, which returned 3642 ppb Au from the hillside a little southwest of the Utah mine area. This sample contained quartzite with weak to moderate iron oxide and minor vein quartz from float. However, resampling of this material did not reproduce the high gold values.

No	Au_ppb	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Sb_ppm	Zn_ppm
7087	3642	17.3	13	57.5	574	8	48
E-12A	370	0.42	27.8	1.8	1.5	-0.2	1
7699	160	10	200	82.2	346	10	407
7122	141	<0.3	14	22.9	27	1	17
101084	125	0.66	186	46.2	16	-0.2	910
K-94-66	115	5.46	431	83	78	87	39

 Table 2: Gold in rock
 >100 ppb Au

Not surprisingly, high silver values were obtained from the property. Most of these came from the vicinity of the historical Utah and Clipper workings, and along trends to the north and northeast of Utah mine. Ten samples returned >50ppm Ag.

Table 3: Silver in rock > 50 ppm Ag

No	Au_ppb	Ag_ppm	As_ppm	Cu_ppm	Hg_ppb	Pb_ppm	Sb_ppm	Zn_ppm
K-93-1	47	507	788	4111	5940	28298	2041	10029

415532	27	211	980	3850	6770	31400	742	1445
UT-FT-01	93	>100	780	143	11100	10001	260	na
UT-FT-33	42	>100	730	910	26700	4580	420	92
UT-FT-08	26	>100	630	82	4750	2700	370	na
UT-FT-09	5	>100	1600	2000	10100	10001	730	na
K-94-11	-5	>100	870	232	3950	6900	400	68
6757	1	69.6	9.21	41	<100	482	7.39	39.3
7148	6	59.6	388	118	1590	7800	78.2	54
7897	1	55.5	103	106	<100	1350	7.14	28.7

Lead values were also quite high. 179 samples returned lead values greater than 1000 ppm Pb, and 9 samples exceeded 10,000 ppm Pb (1% Pb) up to a high of 7.54% Pb. The distribution of lead was similar to that of silver.

No	Au_ppb	Ag_ppm	As_ppm	Cu_ppm	Hg_ppb	Pb_ppm	Sb_ppm	Zn_ppm
415531	19	38.9	1270	6540	6050	75400	454	3240
415532	27	211	980	3850	6770	31400	742	1445
K-93-1	47	507	788	4111	5940	28298	2041	10029
7035	9	37.1	209	605	<100	24412	498	643
6771	44	41	826	177	2790	14569	40.2	186
7036	20	21.4	953	847	<100	12320	254	4540
UT-FT-01	93	101	780	143	11100	>10000	260	na
UT-FT-09	5	101	1600	2000	10100	>10000	730	na
UT-FT-13	5	44.8	480	1200	1700	>10000	330	120
UT-FT-12	38	28.8	500	345	1850	9500	150	475
UT-FT-40	<5	11.6	140	135	<100	9250	78	162

### Table 4: Lead in rocks > 9000 ppm Pb

Thirty-seven samples returned >1000 ppm Zn, up to a high of 14,447 ppm (1.4%) Zn. Five samples returned >5000ppm Zn.

No	Au ppb	Aa ppm	As ppm	Cu ppm	Ha ppb	Pb ppm	Sb ppm	Zn ppm
K-93-1	47	507	788	4111	5940	28298	2041	10029
8104	6	5.57	28	441	<100	119	5.51	8330
8162	<3	1.49	63.8	234	<100	45.6	3.18	5880
8170	<3	42.3	21.6	439	<100	1050	3.32	14447
8180	<3	5.54	24.7	9420	<100	2430	1	6530

#### Table 5: Zinc in rock > 5000 ppm

Copper values were better represented in rock than in soil. Six samples returned > 1000 ppm Cu, up to a high of 9420 ppm Cu.

Table 6:	Copper	• in rock >	• 1000 ppm	Cu

No	Au_ppb	Ag_ppm	As_ppm	Cu_ppm	Hg_ppb	Pb_ppm	Sb_ppm	Zn_ppm
8180	1	5.54	24.7	9420	<100	2430	1	6530
415531	19	38.9	1270	6540	6050	75400	454	3240
K-93-1	47	507	788	4111	5940	28298	2041	10029

415532	27	211	980	3850	6770	31400	742	1445
UT-FT-09	5	101	1600	2000	10100	>10000	730	0
UT-FT-13	5	44.8	480	1200	1700	>10000	330	120

Three assemblages can be discerned from the map patterns for rock geochemistry:

The first assemblage comprises elements that are relatively enriched near the Utah and Clipper mines, but not on the eastern side of the property. These include silver, lead, antimony, and chromium. Antimony values correlated strongly with silver, and ranged up to a high of 2041 ppm Sb. Elevated values in these elements can also be obtained north and northeast of Utah mine.

A second assemblage comprises elements that are elevated in the same areas as elements from the first assemblage are elevated, but that can also be found on the eastern side of the property east of the Clipper patents. These include arsenic, copper, zinc, and cadmium. Bismuth values in rock were more strongly developed on the eastern edge of the property than at the mine sites. In particular, there is a strong NNW trend in bismuth discernible in the eastern part of the eastern block sampled during float chip program in 2005.

A third assemblage comprising subdued gold, arsenic, and antimony anomalies with weak peripheral mercury, but largely without a base metal signature except possibly a weak flank of more distal zinc can be discerned at the western edge of the eastern block of float chip samples collected in 2005. This is a very interesting assemblage in the context of exploration for Carlin style gold mineralization. Drill hole UUT3, which penetrated to lower plate rocks and encountered elevated Hg values at depth, is situated on the eastern flank of this geochemical feature.

In general, the highest gold values obtained from rock were scattered, and did not fit well into the patterns described above. The highest gold values from rock on the property came from west and northeast of Utah mine (up to 3642 ppb Au), from the Thirsty Gulch area (125 ppb Au), and from the far south (370 ppb Au.)

The highest mercury values were distributed in a N-S trend in the Utah mine area, and along to the northeast from Utah mine. Mercury values in rock ranged from below detection to a high of 33,700 ppb Hg. Seventy-six samples returned values greater than 1000 ppb Hg, and 5 samples exceeded 10,000 ppb Hg.

### Drilling

Drilling on the Utah Clipper property has been directed towards two entirely separate conceptual targets: one a deep gold target, and the other a shallow silver target.

### Gold

Hemlo and Uranerz have each drilled two deep vertical rotary holes on the property to explore for Carlin-style gold mineralization in carbonate-rich rocks of the lower plate. One of these holes (UUT-3) successfully reached the lower plate. Drill hole locations are presented in Figure 7.

### Table 7: Deep Drilling on the Utah Clipper Property

21

Hole	Corp	Total	Depth to	Results >	Notes
		depth (ft)	LP (ft)	100 ppb Au	
UUT-1	Uranerz	2110		none	no lower plate
	1995				barren Valmy
UUT-3	Uranerz	2900	2215	none	lower plate is Wenban limestone
	1996				w/ calc-sil;
94-7M	Hemlo	1435		none	no lower plate, silver in top 90
	1994				ft; Elder and Valmy rcks
94-9M	Hemlo	1460		135 ppb	no lower plate, all Valmy
	1994			Au/10 ft	
				at 20-30 ft	

UUT-3 was collared on the Northen Egg soil anomaly. The hole passed through a thick sequence of Valmy rocks, and reached the thrust contact with the lower plate at 2210 ft. Among the more interesting geochemical results from UUT-3 were anomalies in mercury > 1000 ppb Hg just above and within the lower plate rocks. The hole returned 3083 ppb Hg/20 ft at 2160 to 2180 ft in Valmy "carbonaceous chert", and values ranging from 10239 to 24550 ppb Hg from 2560 ft to 2620 ft, in silty Wenban limestone with calc-silicate minerals and silicified (jasperoidal) bands. This is situated just above a fault in dark grey carbonaceous material tentatively assigned to the Roberts Mountains Fm. The hole entered silty Wenban limestone again on the other side of the fault, but this time decalcification and jasperoidal fragments were noted in the rocks. The highest gold value in the hole, 82 ppb Au/20 ft at 2820-2840 ft, was obtained from this material. The hole was drilled vertically, and the orientation of the fault is unknown.

UUT-1 was collared on the north flank of the Thirsty Gulch soil anomaly, in Valmy rocks. The hole was barren for all elements analysed. The most interesting features in the hole were two intercepts of quartz phyric dykes. One was at 1140 ft to 1205 ft, and was described as calcareous and "strongly altered." The other was at 1180 to 1205 ft, with green mica similar in appearance to fuchsite. Disseminated pyrite was common in throughout the hole.

A marker calcareous horizon in the Valmy Fm was intersected in both Uranerz holes, assisting correlation from hole to hole. The unit consists of calcareous siltstone to silty dolomite overlying a sequence of monotonous grey chert and black carbonaceous mudstone.

Hemlo drill hole 94-7M was collared in the Clipper mine area. Silver values ranging from 19.7 ppm Ag/ 10 ft to 81.4 ppm Ag/10 ft were obtained in the top 90 feet of the hole, in sandstone and chert. They dropped off sharply below that point, where the hole entered mudstone. Lead values >1000 ppm Pb/ 10 ft were obtained in 6 of the 9 samples from the silver anomaly, and ranged up to a high of 2994 ppm Pb/ 10 ft. Below that, the hole intercepted several thick intervals returning zinc values > 1000 ppm Zn/10 ft, including 190 ft to 510 ft, within which the zinc values ranged up to a high of 7300 ppm/10 ft (at 440-450 ft), and 550 ft to 630 ft, within which the zinc values ranged up to a high of 3900 ppm Zn/10 ft (610-620 ft.) Elevated lead values accompanied the zinc in this latter interval. Rocks returning elevated zinc included mudstone, chert, and Valmy quartzite.

Hemlo drill hole 94-9M was collared in the far south, west of the area drilled by Newmont. Geochemical results were not available to the author. The entire hole remained in Valmy rocks.

A conceptual section constructed through UT94-9M, UUT-3 and UUT-1 is presented in Figure 30. The actual depth to the lower plate on the Utah Clipper property is unknown except at hole UUT-3, where it is 2215 ft (675m) below surface. A schematic representation of the lower plate is included in the section to illustrate the gold exploration concept for the property.

Silver

US Borax drilled 25 shallow vertical rotary holes to investigate the potential for bulk mineable silver mineralization along the Clipper vein system. The deepest hole was 400 feet (122m) but most holes were less than or equal to 300 feet (91m) in depth. One hole was lost in overburden.

Silver values exceeding 50 ppm Ag/5 ft were obtained in 12 of the 24 holes that tested bedrock. Of these, 6 holes returned silver values exceeding 100 ppm Ag/5 ft, up to a high of 441 ppm Ag/5 ft in CL-4. Lead, antimony, and zinc accompanied the silver system. Although the Elder sandstone appeared to be the preferred host, elevated silver was also obtained from chert, and from quartzite. Intercepts returning >100ppm Ag are presented in Table 8.

Hole	from	to (ft)	Ag-ppm	Pb-ppm	Zn-ppm	Host	
4	55	60	123.4	9380	14400	silty sandstone	
4	60	65	106.6	4870	4900	silty sandstone	
4	100	105	116.6	797	5620	silty sandstone	
4	145	150	441.6	21900	1060	silty sandstone	
7	205	210	100.6		10001	sandy siltstone	
11	105	110	253.9	22300	4450	sandstone	
12	200	205	129.8	15800	393	silstone/chert	
12	245	250	121.9	7100	4080	silstone/chert	
14	20	25	168.5	12000	1310	sanstone	
14	150	155	121	3590	2280	sandstone	
15	10	15	439.2	20300	778	silicic sandstone	
15	200	205	120.2	2670	85	quartzite	
20	15	20	232.6	14600	88	bleached sandstone	
22	70	75	202.6	7750	209	sandstone	
23	260	265	63.4	11500	8740	sandstone	

Table 8: US Borax silver results > 100ppm Ag

The widest intercepts of silver were obtained from holes CL-4 and CL-12. Despite the encouraging values, the silver distribution as expressed in vertical drilling appeared discontinuous from hole to hole, suggesting that a continuous envelope of high grade silver mineralization is not developed at shallow depths between the veins sets. The vertical drill orientation used in the US Borax drill program was not suited to evaluating the steeply dipping vein sets themselves. In particular, orientation of mineralization and the relationship between sample length and true thickness could not be determined from the US Borax drilling.

Table 9: US Borax Gold Results > 100 ppb Au							
hole	from	to	Au-ppm	Ag-ppm	As-ppm	Pb-ppm	Zn-ppm
3	200	205	0.15	6.7	37	173	1790
3	205	210	0.11	6.2	40	156	944
3	210	215	0.18	5.3	42	74	686
15	145	150	0.12	1.7	25	70	210
15	175	180	0.21	3.4	57	302	98
15	180	185	0.12	2.4	27	353	132
15	205	210	0.14	8.9	24	343	42
15	220	225	0.15	6.5	32	619	90
15	225	230	0.11	4.1	9	182	36
23	175	180	0.39	2.6	65	185	426

Three US Borax drill holes intercepted gold values exceeding 100 ppb Au. The highest result was 390 ppb Au/5 ft. Gold values were generally not associated with the silver mineralization.

# Table Q. US Boray Cold Results > 100 nph Au

#### Sampling Method and Approach

With the exception of rock sampling conducted for Columbus in 2005, and by the author in 2003, all of the other sampling described in this report pre-dates NI 43-101, and details regarding sampling method and approach were generally not recorded in the reports reviewed.

The entire lengths of all drill holes were sampled, with each sample comprising chips collected over a certain interval, which varied from operator to operator. US Borax collected and analysed samples over 5 ft intervals. Hemlo analysed samples over 10 ft intervals. Uranerz collected samples over 5 ft intervals, but composited them into 20 ft intervals for geochemical analysis. Detail regarding sampling procedures, quality control, and security measures are not recorded. Details regarding recovery were not recorded in the drill logs available to the author.

Surface rock samples collected on behalf of Columbus in 2005 were grid controlled float chip samples collected at 100ft (30m) intervals on 100m-spaced lines. Infill sampling was performed to follow up more interesting results at a 50ft (15m) sample interval. The objective was to explore for possible gold mineralization by mapping cryptic trace element alteration in the country rock. Chips of country rock were collected from regolith and float over a small area at each station. Care was taken to avoid quartz veins, although this was difficult in the more altered parts of the property.

Other surface rock samples, including those collected by the author, were generally either representative grab samples, or, in some cases, grab samples selective for certain features in the material being sampled. Geochemical results were available for at total of 1386 rock samples from the property.

Uranerz collected soil samples on a 400 ft orthogonal grid. Infill samples at a 200 ft spacing were collected in the Thirsty Gulch and Northern Egg areas. The sampling south of the Northern Egg area was limited to two orthogonal reconnaissance lines, with sampes collected at 400 ft intervals. Several of the soil anomalies identified by Uranerz soil results remain open to the southwest.

Sample depth, sample medium, and the depth and nature of the overburden sampled were not recorded in the reports available to the author. The -80 mesh size fraction was analysed.

### Sample Preparation, Analyses, and Security

The historical work described in this report pre-dates the inception of NI 43-101. Information regarding sampling procedures and security measures for that work was not included in the reports reviewed by the author.

US Borax used in-house analytical facilities. Gold and silver analyses appear to be by fire assay with atomic absorption (FA/AA) finish, with 0.2 ppm detection limits. Silver samples were also assayed by fire assay with gravimetric finish. Some but not all intervals were analysed for various combinations of arsenic, antimony, copper, mercury, molybdenum, lead, and zinc, also in-house. The analytical techniques were not recorded in the data reviewed by the author. US Borax experienced some difficulty with their zinc analyses, and re-analysed the samples from CL-1 to CL-14 for zinc. On the whole, it is no longer possible to verify the US Borax results to usual 43-101 standards.

Geochemical results were available for 62 rock samples and 1 drill hole 1435 ft in length from the 1994 Hemlo program on what is now the Utah Clipper property. Hemlo rock and drill samples were analysed at American Assay Laboratories in Sparks, Nevada. Samples were analysed for gold by fire assay with atomic absorption finish on a 1 assay ton (30g) aliquot, and a detection limit of 5 ppb Au. Hemlo also analysed some but not all rock and drill samples for silver, arsenic, copper, mercury, lead, antimony, zinc, and, for a few samples, barium. The analytical techniques are not described in the data reviewed by the author.

Geochemical results together with sample locations were available for 110 rock samples, 530 soil samples, and two drill holes from the Uranerz program over what is now the Utah Clipper property. Uranerz rock and soil samples were analysed at Chemex Labs Inc. in Sparks, Nevada. Soil samples were dried and sieved to -80 mesh at Chemex, and the -80 mesh fraction was analysed. Samples were analysed for various combinations of gold, silver, arsenic, bismuth, cadmium, copper, mercury, molybdenum, lead, antimony, and zinc. Some samples were also analysed for iron. Gold was analysed by FA/AA techniques with a 5 ppb detection limit. Silver was analysed using aqua regia digestion, with a 0.2ppm detection limit. Analytical techniques for the other elements were not indicated in the data reviewed by the author.

Uranerz drill cuttings from UUT-1 were analysed for gold, silver, arsenic, antimony, and mercury by Cone Geochemical Inc. at Lakewood, Colorado. Gold was analysed by FA/AA techniques on a 20g aliquot, the others were analysed by atomic absorption finish on digestions appropriate to each element including 4-acid digestion for silver and fusion for antimony (but which fusion is not specified.)

Uranerz drill cuttings from UUT-3 were analysed at Shasta Geochemical Laboratory Inc. in Redding, California. Gold was analysed FA/AA techniques on a 1 AT aliquot. Mercury was analysed by flameless AA using a HCl-HN03 digestion. Other elements, including Ag, As, Sb, Cu, Pb, Zn, Mo, Bi, Te, Tl were analysed by AA techniques on aqua regia digestion. However, Te and Tl are not readily digested in aqua regia.

Samples collected for Columbus Gold in 2005, and by the author in 2003 were collected after the inception of NI 43-101.

Samples collected by Cordilleran Exploration on behalf of Columbus in 2005 were analysed at American Assay Laboratories in Sparks, NV. Samples were analysed for gold by FA/AA techniques on a 30g aliquot, with a 3 ppb detection limit. Samples were analysed for other elements by 32-element ICP-AES (using aqua regia partial digestion.) Samples exceeding 10,000 ppm in lead, or zinc were re-analysed for those elements using aqua regia/AA techniques. Thirty-five informal, in-house standards were submitted by Cordilleran Exploration. These standards were composed of weakly mineralized shale that had been crushed to a maximum of 3/8 inch and homogenized at Legend Labs some years ago. The standards, expected to run in the 160-180 ppb Au range, returned values that ranged from below detection (<3ppb Au) to a high of 290 ppb Au. However, there was insufficient confidence in the quality of the standard to be sure whether this range of results was due to variations in the standard, or problems at the lab. Given the low levels of gold values obtained from the overall float chip sampling, these standards were too variable to allow the quality of analytical gold results to be determined for this program.

ALS Chemex of Sparks Nevada performed the sample preparation and analyses for samples collected by the author. ALS Chemex is certified under ISO 9002, and employs a comprehensive quality control program covering both sample preparation and analysis. Analytical results were sent directly to the author. Samples collected by the author remained in the author's possession from the time they were collected until the time they were delivered to the lab. Samples were analysed for gold by FA/AA techniques on a 30g aliquot, with a 5 ppb detection limit. Samples were analysed for other elements by 34-element ICP-AES (using aqua regia partial digestion) and for mercury using cold vapour/AA techniques. Samples exceeding 10,000 ppm in copper, lead, or zinc were re-analysed for those elements using aqua regia/AA techniques.

Both Hemlo and Uranerz submitted duplicate samples to the laboratories to monitor the quality of analytical results. The results for duplicate samples correlated well with the original analyses.

Descriptions of chain of custody or other security measures have not been described in any of the references for the information presented in this report, with the exception of the author's own data verification. It seems unlikely that any special security measures would have been used for these programs.

# Data Verification

Data used in the preparation of this report were made available to the author by Columbus Gold Corporation (formerly Purple Vein Resources Ltd.) There appears to be no reason to doubt the accuracy or veracity of the geological exploration data presented in these historical reports and maps. Copies of the reports of historical work made available to the author are presently located in the offices of John Prochnau in Reno, Nevada.

In the field, the author and George Eliopolus of Nevada Mine Properties II were readily able to locate historical workings, trenches, dumps, and old drill sites. However, labels identifying drill sites or sample sites were generally not preserved. The results of surface rock sampling performed by the author correlated well with the results from previous work on the property, and confirmed that silver mineralization of a tenor similar to that reported by previous workers in surface sampling on the property is indeed present on the property.

No samples of cuttings from any of the drill holes were examined or re-sampled for analysis by the author. However, there is no reason to believe that the values are not accurate.

The author is satisfied that the data are accurate, and in the case of Columbus, Uranerz, and Hemlo, that the work fairly represents the grades and extent of mineralization as currently known.

In the case of the US Borax work, having vertical drill holes testing what appears to be a steep mineralization system may have led to exaggerated apparent widths of mineralization. The orientation of mineralization and the relationship between sample length and true thickness could not be determined from the US Borax drilling. The silver grades reported by US Borax are consistent with grades reported from historical mining, and modern surface rock sampling in the area. The author is satisfied that the silver grades reported by US Borax fairly represent the tenor of the vein controlled silver mineralization that can be found at Clipper, but the widths of this mineralization have not been established.

### Mineral Resource and Mineral Reserve Estimates

Significant silver-lead-zinc intercepts have been reported from the US Borax drill program. However, the orientation of the drilling was not suitable for evaluating what appears to be a steeply dipping system. The orientation of mineralization and the relationship between sample length and true thickness could not be determined from the US Borax drill results. The author did not attempt any resource calculations.

### Interpretation and Conclusions

Three distinct styles of possible mineralization in the Utah Clipper area can be discerned from the work to date:

1. An igneous assemblage of lead-antimony-silver-bismuth-zinc in rock and soil associated with vein-style lead-silver mineralization is distributed around the perimeter of an inferred intrusion situated at depth beneath the western boundary of the property. The abandoned Clipper, Utah, and Vista mines were all established to exploit these veins. Clipper and Utah mines are located on the Utah Clipper property. Vista mine is situated 250m west of the property. Surface sampling and historical mining show that high grade silver values in excess of 100 gpt Ag can be obtained from wide-spaced, very narrow (2-30cm) steeply dipping quartz-sulphide veins cutting sandstone, chert, and quartzite. US Borax conducted a program of shallow vertical rotary drilling to investigate whether near surface bulk mineable silver could be located in the Clipper mine area. The results from the program show that a continuous envelope of high grade silver mineralization is not present at shallow depths disseminated in sediments between the veins sets in the area tested. The program was not designed to adequately test the vein sets themselves.

It is unlikely that very narrow silver veins would form an attractive exploration target at this time. However, the possibilities of wider veins or denser veining elsewhere in the system, and the possibility of carbonate replacement deposits in limy facies in the allochthon remain to be investigated. It is also possible that replacement silver mineralization has developed in carbonate rocks of the lower plate. However, depths to the lower plate as presently understood are prohibitive for such a target, from an economic perspective.

Although the genetic significance of the spatial relationship between gold mineralization and earlier silver-base metal mineralization is not clear, it is interesting to note that the association of

antimony with silver in the Utah and Clipper areas is reminiscent of an association of antimony with silver in historical silver mines in the Cortez area.

2. A different igneous assemblage of copper, zinc, and arsenic is developed in the eastern parts of the property overlying an inferred extension to the Gold Acres stock at depth. Bismuth is part of this assemblage in rock (hence the igneous interpretation), and weakly anomalous gold values have also been obtained. The Thirsty Gulch and eastern parts of the North Egg soil anomalies map part of this geochemical system. This assemblage suggests that there is a potential for distal disseminated gold mineralization or for skarn-like mineralization in reactive rocks around the intrusion. Two vertical holes drilled by Uranerz probed bedrock in the vicinity of these anomalies. Neither hole explained the surface geochemical anomalies, and neither hole encountered bedrock mineralization of these types.

3. A third assemblage of gold, arsenic, and antimony, with peripheral mercury, but largely without a base metal signature except possibly distal zinc, can be discerned distinct from the two igneous systems described above. The assemblage has been identified on the northwestern Egg claims at the western side of the southern block of float chip samples collected in 2005. Other occurrences of this assemblage can be discerned extending northeast from Utah mine and along the Thirsty Gulch trend. This assemblage is present in samples from the southern parts of the property as well, although the sample density there is insufficient to establish a trend. One interpretation is that these anomalies may reflect structurally controlled leakage from possible Carlin style gold mineralization at depth.

In places, this third system appears to overlap the other two systems, and future exploration should include consistent, careful multi-element geochemical analysis to help discriminate among the systems, and thereby arrive at appropriate vectors to generate drill targets.

On the northwestern Egg claims, the possibility of a Carlin-style gold target at depth is suggested by the coincidence of several geochemical, geophysical, geological, and structural features observed in the exploration completed to date. Surface float chip sampling and soil sampling in the area have returned faintly elevated gold, arsenic, and antimony values with peripheral mercury. This anomaly is open to the west. The results from the magnetic survey show that the geochemical anomaly is coincident with subtle magnetic lows at the intersections of several structural trends in a domain of otherwise higher magnetic susceptibility. The results from the CSAMT survey show a peculiar resistivity feature situated at depth beneath the geochemical anomaly. Drill hole UUT-3 tested the eastern edge of this resistivity feature, and there encountered silty limestone interpreted to be lower plate Wenban Fm, with calc-silicate minerals and silicified bands. Elevated mercury values were obtained from some of these rocks. However, because of the depths involved, it must be cautioned that this remains a highly speculative target.

There is a considerable amount of additional information that could be gleaned from the geophysical surveys conducted by Columbus, including a more comprehensive map of structural trends, a better understanding of the geology, especially in the third dimensions, and the locations of possible alteration. Interpretations by an exploration-oriented propfessional geophysicist are recommended to maximize the information that can be obtained from these surveys.

Both Uranterz and Hemlo experienced difficulty in explaining surface geochemical gold anomalies with the results from bedrock drilling. One possibility is that the geochemical features had been generated by mineralization along high angle structures. This possibility would not have been adequately tested by vertical drill holes. Another challenge for soil geochemistry on the Utah Clipper property is the influence of overburden. Sample medium and the depth and nature of the overburden may have had a greater affect on the resulting anomaly patterns (in raw data) than the composition of the underlying bedrock had.

Carlin style gold mineralization hosted in lower plate carbonate-rich rocks remains the primary target for future gold exploration on the property. The geophysical programs conducted by Columbus have contributed significantly to providing a litho-structural context within which to interpret the surface and down-hole geochemical results. With proper interpretation, it is quite possible that areas of alteration may also be interpretable from these surveys. The work by Uranerz has advanced the project by demonstrating that lower plate rocks are indeed present on the property within depths that are feasible to test with existing drill technology, and within depths that are conceptually possible to mine with existing technology if mineralization comparable to the very best mineralization in the deposit model were to be discovered.

### **Recommendations**

Exploration for deeply buried mineralization is challenging. One of the best hopes for shallow expressions of possible mineralization at depth is in "leakage" along high angle structures. The first parts of the recommended exploration program are designed to explore for prospective structures and indications of alteration or possible mineralization at depth. The deep drilling would be targeted on what appears to be the most promising interpreted confluence of possible mineralizing fluids with structural preparation, chemically reactive rocks and structural or chemical traps. Angle holes are recommended so that high angle structures encountered along the way can be evaluated. Core drilling is recommended, particularly in the carbonate rocks, to increase the chances that the holes will successfully be advanced to their target depths, and to allow structural and stratigraphic determinations that are difficult or impossible with chips. Rotary drilling in the upper parts of the holes might be considered to reduce costs.

This is a high risk project. Even though it is at only an early stage of exploration, a large expenditure would be required to reach a decision point. Nevertheless, considering the prospective regional setting, the fact that lower plate rocks have actually been encountered in drilling, and the encouraging signatures from geochemical sampling to date, it is the author's opinion that the character of the property is of sufficient technical merit to justify the recommended exploration program.

Recommended Exploration:

- 1. Interpretation of the magnetic and CSAMT results by a professional, exploration-oriented geophysicist.
- 2. Gravity surveys and interpretation of results by a professional geophysicist
- 3. Geological and alteration mapping in the areas not covered by the Uranerz mapping program
- 4. Prospecting explicitly for igneous rocks, especially felsic dykes and lamprophyre.
- 5. CO2/O2 soil gas surveys
- 6. Mercury vapour surveys at a 100m (300 ft) spacing.

- 7. Natural source magneto-telluric (MT) surveys and interpretation of results by a professional geophysicist
- 8. Multi-element geochemical sampling over favourable targets emerging from steps 1 to 7. The techniques employed and the media sampled must be adapted to overburden, vegetation, and bedrock conditions in the survey area.
- 9. GIS synthesis of results, revised structural interpretations, and drill target generation
- 10. Deep drilling of at least 3 angle holes into lower plate rocks on targets developed during the foregoing program.

The estimated cost for this work is CAN\$1,460,000 including the cost of a reclamation bond. This work will determine whether further exploration expenditures on the property for this target are warranted.

Respectfully submitted

Effective Date January 24, 2006

signed and sealed by Megan O'Donnell, P.Geo January 24, 2006

# **REFERENCES** including a selected bibliography

Ashleman, J., Parks, W, and Kasten, J. 1989	Clipper Property, Lander County, Nevada. Unpublished report for U.S. Borax				
Bagby, W.C., and Berger, B.R., 1985	Geologic characteristics of sediment-hosted, disseminated precious-metal deposits in the western United States, in, Berger, B.R. and Bethke, P.M., eds., Geology and Geochemistry of Epithermal Systems: Society of Economic Geologists, Reviews in Economic Geology, v. 2, p. 169-202.				
Cluer, J. Kelly, 1995	1994 Annual Report, Utah Camp Project, Lander County, Nevada. Unpublished report for Uranerz USA Inc.				
Cluer, J. Kelly, 1997	1996 Annual Report, Crescent Valley Joint Venture (Utah Camp, Cortez Pediment, Orbit) Lander County, Nevada. Unpublished report for Uranerz USA Inc.				
Foo, S.T., Hays, R.C., Jr., and McCormack, J.K., 1996	Geology and mineralization of the South Pipeline gold deposits, Lander County, Nevada, <i>in</i> , Coyner, A.R. and Fahey, P.L., eds., Geology and Ore Deposits of the American Cordillera: Symposium Proceedings, Geological Society of Nevada, April 10-13, 1995, p. 111-121.				
Gilluly, J. and Gates, O. 1965.	Tectonic and igneous geology of the northern Shoshone Range, Nevada: U.S. Geological Survey professional paper 465, 153 pp.				
Hays, R.C., Jr. and Foo, S.T., 1991.	Geology and mineralization of the Gold Acres deposit, Lander County, Nevada, <i>in</i> Raines, G. et al, eds, Geology and ore deposits for the Great Basin: Geological Society of Nevada Symposium Proceedings, April 1-5, 1990 p. 677-685.				
Hays, Robert C. Jr, and Thompson, Tomothy G. 2004	The Cortez Hills deposit: a recent discovery in a historic mining district, Lander County, Nevada. Abstracts from the Mineral Exploration Roundup 2004, British Columbia and Yukon Chamber of Mines, p. 55.				
Kern, Richard R., 1998	Technical Report, Utah Camp Property, Lander County, Nevada. Unpublished report for Prism Resources Inc.				
Lisle, R.E. and Desrochers, G.J., 1987	Geology of the Hilltop gold deposit, Lander County, Nevada: <i>in</i> , Schafer, R.W., Cooper, J.J., and Vikre, P.G., eds., Bulk Mineable Precious Metal Deposits of the Western United States: Symposium Proceedings, Geological Society of Nevada, April 6-8, 1987, p. 101-117.				
Moezzi, Kam, 2005a (Zonge Geosciences Inc.)	CSAMT survey on the Utah Camp Project, Lander County Nevada, for Cordilleran Exploration Company: Data Acquisition				

	Report, Zonge Job # 2005.63. Unpublished report for Cordilleran Exploration Company on behalf of Columbus Gold Corporation.
Moezzi, Kam, 2005b (Zonge Geosciences Inc.)	Ground magnetic survey on the Utah Camp Project, Lander County Nevada, for Cordilleran Exploration Company: Data Acquisition Report, Zonge Job # 2005.63. Unpublished report for Cordilleran Exploration Company on behalf of Columbus Gold Corporation.
Radtke, A.S., Foo, S.T., and Percival, T.J., 1987	Geologic and chemical features of the Cortez gold deposit, Lander County, Nevada, <i>in</i> , Johnson, J.L., ed., Bulk Mineable Precious Metal Deposits of the Western United States: Guidebook for Field Trips, April 6-8, 1987, p.319-325.
Schurer, V. 1994	Petrography of Two Drill Samples from Hole UUT-1, Utah Camp Project. Unpublished report for Uranerz USA Inc.
Shaw, D. R. 1991	Structurally controlled gold trends imply large gold resources in Nevada <i>in</i> Raines, G.L., Lisle, R.E., Schafer, R.W., and Wikinson, W. H. eds, Geology and ore deposits of the Great Basin: Geological Society of Nevada, Reno Nevada, p. 199-212.
Sterling, David A. 1996	The Clipper Gold-Silver Project, Shoshone Range, Lander County, Nevada, U.S.A. Unpublished report for Minorca Resources Inc.
Stewart, John H. and Carlson, John E. 1977	Million-scale geologic map of Nevada. Nevada Bureau of Mines and Geology Map 57.

# FIGURES


NEVADA

Figure 1 Jan 2006



Approved: M. O'Donnell Drafting: P. Mallory revised: Jan 2006

COLUMBUS GOLD CORPORATION UTAH CLIPPER PROJECT CLAIM MAP Lander County, Nevada

Figure 2



After Stewart and Carlson 1977

# COLUMBUS GOLD CORPORATION

Utah Clipper Property Regional Geology Figure 3

M. O'Donnell Jan 2006

- ALLINGAV AND PLAVA REPORTS carriery optimity down deprets for more the solid or Terrary VOLCANIC ROCK? Depretor if may will - Marily based Salma industry and regulary
  - LEPTER VOLCANIC FRANK (6.1) (b) any L Bank and and any olds, much with our restaut rocks being building being rock, and invest
  - THEFACEOUS REDIBLENTARY RECKLIGED with the second trading mount momentum that the solvers may include rectance of Quantum com

  - MTRUENE RODES Glavitic and nation space of bleaster and Tellary upt along harder proin intermediate, and endly preparities or automatic internet space of Terlory upp
- COVERIDS AND METAWORPHIC COMPLEX Lineaux or Data some insure and memory and examples and Generative, Attention Metazole gametic roots and memory-cohord linear Price with and memory Prezentices and memory rocks. Southers Electrony
- SEDIMI, MTATY, A. (1), GAMIN, AND DEVILITIATE INCOME (Measured Marthy constitute, share, and shows, and trace assignmentally, formations, and deforms or three minamorphic equivalents, from the abundant versions, social is well-another cractic social in written Newton. And multiple versions entries of the space Distance Comparison and the succession is and reveals. And multiple version entries of the space Distance Comparison and the succession is and reveals are constrained formation and Sector and Middle Japones and breather Characteries of Pendung Counties. Could and the succession process and Middle Astronomy and the and breather Characteries of Pendung Counties. Could and the succession process and Middle Astronomy and the analysis.

SILICED US AND VOLDANIC ADSTILLADD integer Principal - Partial of the research the same of Good on an universities in sectors and period Version shares or charging addition shall, non-mixed amounts of ultrations, controlling configuration, and tensorities. Matic subcritic tacks locally abuncant Market silectimetry is every threat metaword in the region of the Galenoids thread. May include some from a distance compare theory.

CARBONATE AND SILLEROUS DEFINITAL REDCKS support following in increases the sequences of environments. Attraction and consistence within the Astron program bits interaction there acquires and while solutions, accordingly, complements, with consistence with interaction strong the manner measure of the Anthre original fails as an interaction basis to start and magneticity thereto these exploring of continuents with a finite or an other basis on their formation (Early Tractice) in Van and Explored basis of measurements are short because Constitute Formation (Early Tractice) in Van and Explored basis and measthere there Constitute.

30. ICEDUB, AND MOLCANIC ABSEMBLACE (over Paternic) — Reck, in the expension of the transmission of the expension of the e

CARDONATE AND TRANSFORMAL ASSISTERATES (Preparation) and the relative processing in the object sector of the object of the object sector object sector object sector of the object sector object secto

METAJORPHIC AND INTRUSIVE ROCKS (Prezimitation & and it) – Golin and online – online foraid particle when 1,740/22 may obtain. E. Edwar, and caloring a, 1020) recorded by member and endowing general 4602/20 may and U. T. Sevel participation. (970).

HIGH ANULE FAULT - Codeer where approximately informer and state monthly

2 STRIKESLIP FAULT - Disbat above approximately instant or attacked on attacked on attacked on attacked on the second second

4.4.4.4. A second of the second se

# The second second

### COLUMBUS GOLD CORPORATION Legend for Figure 3 Regional Geology

From: Stewart and Carlson 1977

### Figure 3a



COLUMBUS GOLD CORPORATION		
Tech work: S. Sutherland	UTAH CLIPPER PROPERTY Lander County, Nevada	
approved:	Battle Mountain - Eureka Trend	
M. O'Donnell	windows to lower plate rocks	
Drawing:	Figure 4	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



drafting: P. O'Malley; A. Tebbutt approved by: M. O'Donnel Jan 2006

COLUBUS GOLD CORPORATION Utah Clipper Gold Project Lander County, Nevada Regional Setting - Cortez Trend Figure 5













magnetic survey and data processing by Zonge Geosciences Inc.

### COLUMBUS GOLD CORPORATION UTAH CLIPPER PROPERTY Lander County, Nevada **Ground Magnetics** Approved: First Vertical Derivative M. O'Donnell Figure 9 Drawing: MOD Jan 2006 Projection: UTM Zone 11 (NAD 27 for US)







contoured bouguer gravity values using density 2.0 g/cc

contour interval = 1 milligal

profiles A, B, and C by Quantech Inc. profiles D to I by MWH Geo-Surveys Ltd.

---- location line for gravity profile

### after Cluer, 1995 gravity surveys by MWH Geo-Surveys and Quantech on behalf of Uranerz USA Inc.

COLUMBUS GOLD CORPORATION		
from:	UTAH CLIPPER PROPERTY	
Cluer, 1994	Lander County, Nevada	
approved:	1994 Gravity Coverage	
M. O'Donnell	Figure 11	
Drawing: Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



COLUMBUS GOLD CORPORATION		
Author: M. O'Donnell Drawing:	UTAH CLIPPER PROPERTY Lander County, Nevada Gold Soil Geochemistry Figure 12	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



COLUMBUS GOLD CORPORATION		
	UTAH CLIPPER PROPERTY Lander County, Nevada	
Author:	Arsenic Soil Geochemistry	
M. O'Donnell	Figure 13	
Drawing:		
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



COLUMBUS GOLD CORPORATION		
Author: M. O'Donnell Drawing:	UTAH CLIPPER PROPERTY Lander County, Nevada Mercury Soil Geochemistry Figure 14	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



COLUMBUS GOLD CORPORATION		
Author: M. O'Donnell Drawing:	UTAH CLIPPER PROPERTY Lander County, Nevada Lead Soil Geochemistry Figure 15	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	
	•	



COLUMBUS GOLD CORPORATION		
Author: M. O'Donnell Drawing:	UTAH CLIPPER PROPERTY Lander County, Nevada Bismuth Soil Geochemistry Figure 16	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



	UTAH CLIPPER PROPERTY Lander County, Nevada	
Author:	Antimony Soil Geochemistry	
M. O'Donnell	Figure 17	
Drawing:		
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



COLUMBUS GOLD CORPORATION		
Author:	UTAH CLIPPER PROPERTY Lander County, Nevada Silver Soil Geochemistry	
M. O'Donnell	Figure 18	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



COLUMBUS GOLD CORPORATION		
Author: M. O'Donnell Drawing:	UTAH CLIPPER PROPERTY Lander County, Nevada Copper Soil Geochemistry Figure 19	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



COLUMBUS GOLD CORPORATION		
Author: M. O'Donnell Drawing:	UTAH CLIPPER PROPERTY Lander County, Nevada Zinc Soil Geochemistry Figure 20	
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)	



516000	518000	
--------	--------	--

▲ rock sampling by: Hemlo 1994 Uranerz 1994 O'Donnell 2003

property boundary

 rock sampling by Cordilleran Exploration Company for Columbus Gold, 2005

COLUMBUS GOLD CORPORATION			
Author: M. O'Donnell Drawing:	UTAH CLIPPER PROPERTY Lander County, Nevada Rock Sample Locations Figure 21		
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)		





















Drafting: Geoff Lillos Approved: M. O"Donnell Jan, 2006 Figure 31



- Se Silurian Elder Fm
- Ov Ordovician Valmy Fm, undivided
- Ovq
- quartzite limey facies Ovl
- Ovc chert/argillite

Roberts Mountains Thrust 

- Dwl Devonian Wenban Fm
- Srm Silurian Roberts Mountains Fm

Td Tertiary felsic dyke



COLUMBUS GOLD CORPORATION				
	UTAH CLIPPER PROPERTY Lander County, Nevada			
Author: M. O'Donnell	Conceptual Section - Facing West Figure 32			
Jan 2006	Projection: UTM Zone 11 (NAD 27 for US)			

# APPENDIX A

## ESTIMATED COST OF RECOMMENDED PROGRAM

# Estimated Cost of Recommended Program Utah Clipper Property

	Cost (US\$)	Cost (C\$ @ 1.2)
Travel and accommodation	10,000	12,000
Geophysical surveys	100,000	120,000
CO2/O2 soil gas surveys	30,000	36,000
Mercury Vapor surveys	20,000	24,000
Excavator and bulldozer rental	4,500	5,400
Core drilling (3600m @ 200/m)	720,000	864,000
Sample analysis and supplies	105,000	126,000
Technical personnel	72,000	86,400
Supervision, consulting, and legal	30,000	36,000
GIS, Drafting, and Final Reports	12,000	14,400
sub-total	1,103,500	1,324,200
Contingency (10%)	110350	132,420
Reclamation bond	3,000	3,600
Total (rounded)	1,217,000	1,460,000

Utah Clipper Project Jan 24, 2006

### **APPENDIX B**

### **CLAIMS LIST**
## **Unpatented Claims**

Claim Name		<b>BLM Number</b>	Claim Name		<b>BLM Number</b>	
		(NMC)			(NMC)	
CB	1	641274	CB	81	641323	
CB	2	641275	CB	83	730437	
CB	3	641276	CB	84	641326	
CB ·	4	641277	CB	85	641327	
CB	5	641278	CB	86	641328	
CB	6	641279	CB	87	866616	
CB	10	866615	CB	101	641330	
CB	10A	641280	CB	102	641331	
CB	11	641281	CB	104	730439	
CB	12	641282	CB	105	641334	
CB	13	641283	CB	106	641335	
CB	14	641284	CB	107	641336	
CB	15	641285	CB	121	730440	
CB	19	641286	CB	200	641338	
CB	20	641287	CB	201	641339	
CB	21	641288	CB	202	641340	
CB	22	641289	CB	203	641341	
CB	23	641290	CB	206	641342	
CB	24	641291	CL	7	646777	
CB	26	641292	CL	9	646779	
CB	27	641293	CL	11	646780	
CB	28	641294	CL	13	646781	
CB	29	641295	EGG	1	641343	
CB	30	641296	EGG	2	641344	
CB	31	641297	EGG	3	641345	
CB	33	641298	EGG	4	641346	
CB	34	641299	EGG	5	641347	
CB	35	641300	EGG	6	641348	
CB	36	641301	EGG	7	641349	
CB	37	641302	EGG	8	641350	
CB	38	641303	EGG	9	641351	
CB ·	40	641304	EGG	10	641352	
CB ·	41	641305	EGG	11	641353	
CB ·	42	730434	EGG	12	641354	
CB ·	43	730435	EGG	13	641355	
CB ·	44	641308	EGG	14	641356	
CB ·	45	641309	EGG	15	641357	
CB ·	46	641310	EGG	16	641358	
CB ·	47	641311	EGG	17	641359	
CB	60	641313	EGG	18	641360	
CB	61	641314	EGG	19	641361	
CB	64	641317	EGG	20	641362	
CB	65	641318	EGG	21	641363	
CB	66	641319	EGG	22	641364	
CB	67	641320	EGG	23	641365	
CB	80	641322	EGG	24	641366	

EGG	25	641367	TL	6	641249
EGG	26	641368	TL	7	641250
EGG	27	718483	TL	8	641251
EGG	28	741370	TL	9	641252
EGG	29	718484	TL	10	641253
EGG	30	641372	TL	11	641254
EGG	31	718485	TL	12	641255
EGG	32	641374	TL	13	641256
RJA	219	641379	TL	14	641257
RJA	220	641380	TL	15	641258
RJA	400	641381	TL	16	641259
RJA	401	641382	TL	17	641260
RJA	402	641383	TL	18	641261
RJA	403	641384	TL	19	641262
RJA	404	641385	TL	20	641263
RJA	405	641386	TL	21	641264
RJA	406	641387	TL	22	641265
RJA	407	641388	TL	23	641266
RJA	408	641389	TL	24	641267
RJA	409	641390	TL	25	641268
RJA	410	641391	TL	26	641269
RJA	411	641392	TL	27	641270
RJA	412	641393	TL	28	641271
RJA	413	641394	TL	29	641272
RJA	414	641395	TL	30	641273
RJA	415	641396			
RJA	416	641397	Utah Frac	2	676457
RJA	417	641398	Utah Frac	3	676458
RJA	418	641399	Utah Frac	6	676461
RJA	419	641400	Utah Frac	11	676466
RJA	420	641401			
RJA	421	641402	Utah	42	866617
RJA	422	641403	Utah	43	866618
RJA	423	641404	Utah	44	866619
RJA	424	641405	Utah	45	866620
RJA	425	641406	Utah	46	866621
RJA	434	641407	Utah	47	866622
RJA	435	641408	Utah	48	866623
RJA	436	641409	Utah	49	866624
RJA	442	641415	Utah	50	866625
RJA	1529	641420	Utah	51	866626
KJA	1530	641421	Utah	52	866627
TL	1	641244	Utah	54	866628
TL	2	641245	Utah	55	866629
TL	5	641246	Utah	5/	866630
TL	4	641247			
TL	5	641248			

#### **Patented Claims**

Claim Name	MS Number	Patent Number
Comet	3900	299739
Pawnee	3900	299739
Clipper	3900	299739
Fissure	3900	299739
Silver King	3900	299739
Bonanza	3900	299739
Silver Cliff	3900	261842

Utah Clipper Project Jan 24, 2006

### **APPENDIX C**

### MICROFAUNA

# FAUNA FROM BLACK CHERT UNIT, TOP OF VALMY FORMATION NORTHERN SHOSHONE RANGE, LANDER COUNTY, NEVADA from Cluer 1997, p. 8

Sample #	Taxa present	Age Range
UT-BIO-5	Distamodus stauragnathoides	Early Silurian
	<i>Ozarkodina</i> sp.	Early Silurian
	Kockella sp.	Early Silurian
UT-BIO-9	<i>Rotasphaera</i> sp.	Late Ordovician to early Silurian
UT-BIO-11	Belodina compressa	Latest Middle to Early-Late
		Ordovician
	Drepanoistodus	
EC – BIO-21-	Angochitina capillata	Late Ordovician to Silurian
1	Conochiting sp	Late Ordovician
	Conochilina sp.	
EC-BIO-21-2	Angochitina capillata	Late Ordovician
20 210 21 2	Angochitina sp.	Late Ordovician
	Conochitina parvicolla	Late Ordovician
	Conochitinasymmetricum	Middle to Late Ordovician
	Lagenochitina sp.	?
	Sphaerochitina sp.	?
EC-BIO-21-3	Conochitina microcantha	Middle to Late Ordovician
	Conochitina (?)elegans	Late Ordovician
	Conochitina sp.	Middle Ordovician to Silurian
	Cyathochintina campanulaeformis	Middle Ordovician to Silurian
EC-1	Climacograptus tubuliferus	
EC 2		
EC-2	(?)Dicellograptus sp.	Late Ordovician(?)
EC-5	(?)Dicellograptus sp.	Late Ordovician(?)
	(?)Glyptograptus sp.	Late Ordovician(?)
EC-6	(?)Dicellograptus sp.	Late Ordovician
	(?)Glyptograptus sp.	Late Ordovician
	Climacograptus sp.	Late Ordovician

Notes: All samples from southwest quadrant of Ferris Creek 71/2' quadrangle

- UT-BIO-5 and -11 samples identified by Scott Ritter, Brigham Young University, Provo UT
- UT-BIO-9 samples identified by Bonnie Murchey, USGS, Menlo Park, CA
- EC-BIO samples identified by Rosemary Jacobson

EC samples identified by Stan Finney

### APPENDIX D

### **CERTIFICATE of AUTHOR**

# MEGAN A. O'DONNELL, P.Geo. Geologist

Box 1184, 172 Williamsons Landing Road Gibsons, B.C. VON 1V0

TEL: (604) 886-0322 FAX: (604) 886-0327 e-mail: <u>modon@uniserve.com</u>

### **CERTIFICATE OF AUTHOR**

I, MEGAN A. O'DONNELL, P. Geo., of Gibsons, British Columbia, do hereby certify that:

- 1. I am an independent consulting geologist having an office at 172 Williamsons Landing Road, Gibsons, British Columbia.
- 2. I graduated with a Bachelor of Science degree in Geological Sciences from McGill University in 1984.
- 3. I am a fellow of the Society of Economic Geologists, a fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of British Columbia. I am licensed as a Geologist in the State of Washington.
- 4. I have worked as a geologist for a total of 21 years since my graduation from university. I am familiar with the geology and mineralization of epithermal, skarn, and Carlin-type precious metal deposits and have been involved in the examination and exploration of a number of such properties in Canada, the USA, and Latin America.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am responsible for the preparation of the Technical Report titled "Report on the Utah Clipper Property, Lander County, Nevada" with effective date January 24, 2006 and dated January 24, 2006 (the "Technical Report") relating to the Utah Clipper Property. I visited the Utah Clipper property on December 13, 2003 for one day.
- 7. I have not had prior involvement with the property which is the subject of the Technical Report.
- 8. As of the date of this certificate, to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

- 9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
- 10. I have read National Instrument 43-101 and Form 43-101F, and the Technical Report has been prepared in compliance with that instrument and form.
- 11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Effective Date this 24<sup>th</sup> Day of January, 2006

Signed and sealed this 24<sup>th</sup> Day of January, 2006.

Megan A. O'Donnell, P.Geo.