

Creek North Zone, there may be zones of structural thickening which offer the potential of a bulk tonnage target.

10.5.3 Duke's Ridge Zone

The Duke's Ridge Zone was tested with a total of 7 drill holes, all of which intersected the sinuous northwest-trending sub-vertical vein and stockwork system. The majority of holes targeted the central, higher grade part of the deposit. Although this drilling did not reproduce some of the highest assay values encountered in historic drill holes, it did confirm a near-surface zone of mineralization with low to moderate gold-silver grades. Intercepts in Holes DR15-04 and 05 returned some of the better gold and silver grades encountered in the 2015 drilling program at Duke's Ridge. The mineralized vein system in the central part of the zone remains open at depth.

Holes DR15-06 and 07 evaluated the southeastern and northwestern parts of the deposit, respectively, and encountered narrow, low-grade intercepts within broader weakly anomalous zones. These two holes determined that the Duke's Ridge Zone has a minimum strike length of 380m.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

All 2015 drill core was transported from the drill site by one of the drillers or by a representative of PPM and securely stacked outside of the core logging facility until being brought inside for logging. Onsite core sample security was not a concern because of the remote location of the project.

11.1 DRILL CORE HANDLING PROCEDURES

Drill core handling procedures from drill to laboratory consisted of the following:

- HQ core was transferred from the core tube to four foot long wooden core boxes by a member of the drill crew;
- The drillers labelled the core boxes with drill hole number and box number, and placed a wooden block marked with the depth in feet at the end of each run of core;
- At the end of each drill shift, filled core boxes were transported to the core logging facility;
- At the core logging facility, core boxes were laid out in order to ensure all boxes were present and to ensure markers were correctly located and labelled;
- A PPM technician or geologist then converted block measurements from feet to metres and core recovery measurements were determined and recorded for each run;
- Core was geologically logged using hard copy forms designed for the Project; data was later entered into an electronic database;
- The geologist determined the core to be sampled by marking it with bright coloured wax crayons to indicate the start and end of each sample interval. Each sample interval was tagged with a unique identification number, and the data was recorded on a Sample Record form. Each sample interval was also marked with a centre-line;
- The geologist marked samples for density measurements approximately every 10 metres; measurements were taken onsite and recorded; and

- Core was photographed sequentially from collar to 'End of Hole' in wet conditions prior to being moved to an adjacent core cutting shack for halving using a water-cooled diamond saw.

Drill core sampling procedures were as follows:

- Core boxes to be sampled were laid out in numerical order and lids removed;
- Sections of competent core were halved using a diamond saw, with half of the core for each sample placed in its own pre-numbered bag with matching pre-numbered sample tag; the other half of the core was returned to the core box;
- Sections of badly fractured core and gouge were carefully halved using a square-nosed cement trowel, and bagged as per the procedure listed above;
- All bagged samples were closed tightly with zip ties and packed together with QA/QC samples (that were inserted into the core sample stream at a prescribed frequency) into large rice bags at a rate of 3-7 per rice bag; each rice bag was labelled with the project name, drill hole ID and sample number range and then sealed with a zip tie;
- Once sampling was complete, core boxes were carefully stacked on wooden pallets, covered with plywood lids, shrink wrapped and secured with steel banding.

Sample Shipping:

- Each shipment consisted of: a) multiple packed rice bags representing one or more drill hole's worth of core samples, b) a Sample Record form, and c) a laboratory requisition form;
- Core sample shipments were made from site to a private secure location in Prince George by staff, and subsequently delivered directly to Bureau Veritas Minerals Laboratories ("BV") in Vancouver, British Columbia, by a bonded commercial carrier; and
- BV's receiver logged receipt of the rice bags into the company's tracking system.

11.2 ANALYTICAL METHODS

PPM selected Bureau Veritas Minerals Laboratories ("BV") in Vancouver, British Columbia to conduct its analysis of core from the 2015 drill program. BV maintains ISO 9001:2015 accreditation for quality management system certification.

There is no relationship between PPM and the BV or between Crystal and BV.

The Quality Assurance/Quality Control (QA/QC) program described in the following sections was designed to allow for verification of the analytical results from historical exploration conducted on the Cliff Creek North and Duke's Ridge Zones for which there were tabulated analytical data for gold and silver in the WEL reports, but no laboratory analytical certificates.

Sample Preparation

- Each sample received by BV lab staff was dried and individually crushed and pulverized following preparation procedure PRP70-250 whereby samples are jaw crushed until 80% of the sample material passes through a 10 mesh screen.
- From this material a 250 g riffle split sample is collected and then pulverized in a mild steel ring-and-puck mill until 85% passes through a 200 mesh screen.
- A 0.25 g split of each milled sample is collected for multi-element analysis and a 30 g split of each milled sample is collected for gold assay.

Sample Analytical Procedures

The following laboratory procedures were used to analyze 2015 drill core samples and associated QA/QC samples. There were no third-party lab analyses performed on the 2015 samples. Laboratory certificates of analysis for all of the analyses completed in 2015 are in the possession of PPM and its geological consultants, and are provided in an appendix in Lane (2016).

Multi-element and Silver Analyses

- A 0.25 g split of each milled sample was evaluated for 45 elements, including silver, by a four acid digestion in which the sample split is heated in HNO₃-HClO₄-HF to fuming and then taken to dryness. The residue is dissolved in HCl and analyzed using ICP-ES/MS analysis (method MA200). Samples returning more than 200 ppm Ag were re-analyzed using a 1g/100mL aqua regia digestion by AAS (method AR401).

Gold Analysis

- A 30 g split of each milled sample was evaluated for gold by lead collection fire assay fusion with an AAS finish (method FA430). Samples returning more than 10 ppm Au were re-analyzed utilizing lead collection fire assay with a gravimetric finish on a 30 g sample (method FA530).

11.3 QUALITY ASSURANCE / QUALITY CONTROL PROCEDURES

A systematic QA/QC program was instituted by PPM that included the insertion of blanks, standards and duplicate core samples into the regular core sample stream. A total of 757 core interval samples (excluding duplicates) were collected and a total of 114 quality control samples (41 blanks, 42 standards and 31 core duplicates) were inserted into the sample stream at a rate of at least one blank, one standard and one duplicate for every 24 core interval samples.

Blank Analysis

A total of 40 blanks were submitted to BV as part of the project's total sample shipment. The blank material used was a commercially available pulp (CDN-BL-10) purchased from CDN Resource Laboratories Ltd. ("CDN"). For gold, 24 of the blanks assayed at or below the detection limit (0.005 g/t Au) and for plotting purposes have been assigned a value of 0.0025 ppm Au, 12 assayed from 0.006 – 0.008 g/t Au and 4 assayed 0.01 – 0.012 g/t Au (Figure 11.1). The 4 highest values may indicate that the lab was enduring some level of procedural inadequacy, but because the values are still considered to be very low, it is more likely that there was some minor variability in the blank material itself. For silver, 32 of 40 blanks returned a value of 0.2 – 0.3 ppm Ag, 4 blanks returned values of 0.1 ppm Ag or less, and 4 blanks returned values of 0.4 – 0.5 ppm Ag (Figure 11.2). The results form a tight cluster just above detection in the 0.2 – 0.3 ppm Ag range. Overall, the results indicate acceptable sample preparation at BV.

Standards Analysis

A total of 42 gold or multi-element certified reference standards ("CRS"), also purchased from CDN, were submitted to BV as part of the project's total sample shipment. There were eight different CRS used during the program; they cover a range of gold values from 0.799 - 35.25 ppm Au. Two of the CRS provide reference values for silver; however CRS pulps were not analyzed for over-limit silver

values, and therefore only one of the silver CRS was of use. Recommended values for each CRS used in the program are listed in Table 11.1.

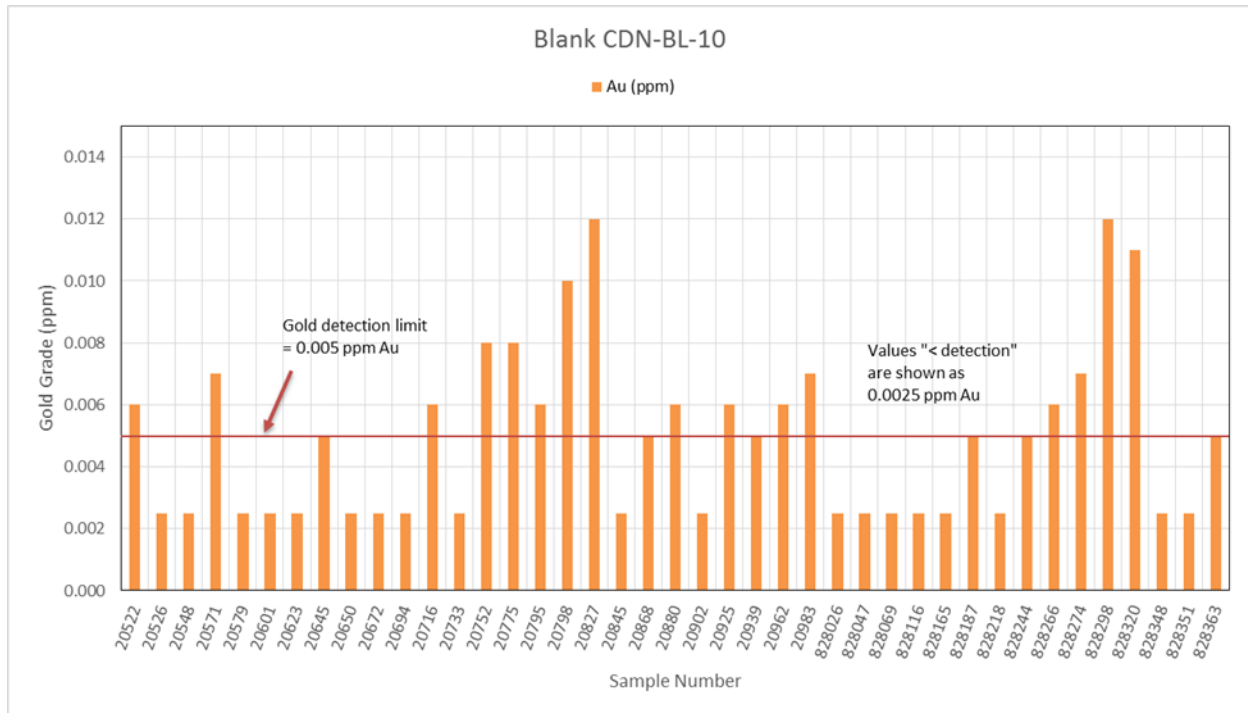


Figure 11-1: Analytical Results for Gold, Blank CDN-BL-10

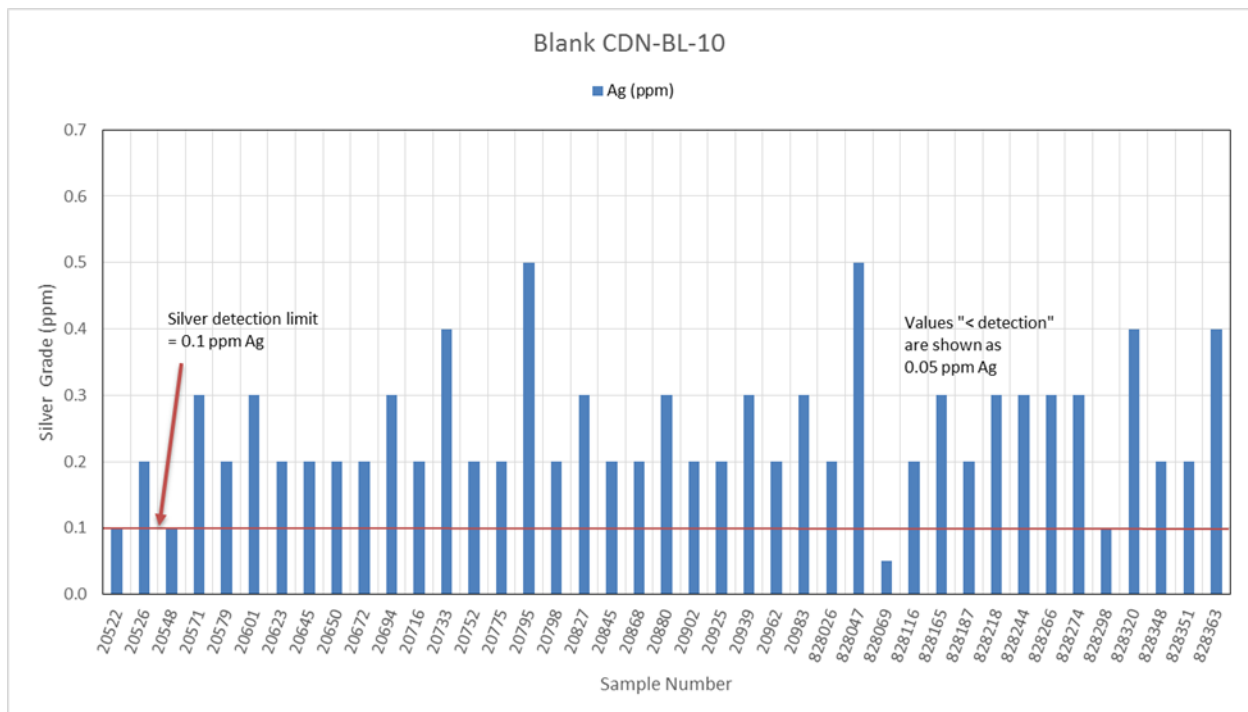
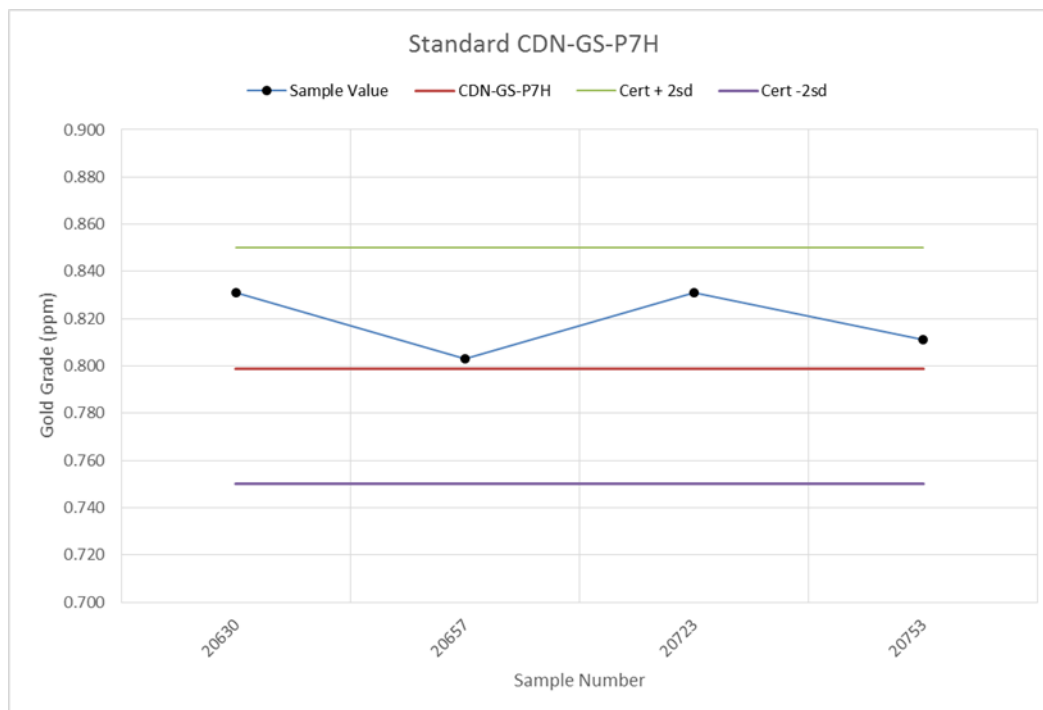


Figure 11-2: Analytical Results for Silver, Blank CDN-BL-10

Table 11-1: Recommended Values for Certified Reference Standards (CRS)

Recommended CRS Value +/- "Between Lab" Two Standard Deviations					
Standard ID	Au (ppm)		Ag (ppm)		No. Used
CDN-GS-P7H	0.799 +/-	0.05			4
CDN-GS-1P5A	1.37 +/-	0.12			3
CDN-ME-1206	2.61 +/-	0.20	274 +/-	14	4
CDN-GS-5H	3.88 +/-	0.28	50.4 +/-	2.7	14
CDN-GS-5C	4.74 +/-	0.28			6
CDN-GS-15A	14.83 +/-	0.61			5
CDN-GS-22	22.94 +/-	1.12			2
CDN-GS-30A	35.25 +/-	1.21			4

The gold values for the CRS listed in Table 11.1 typically plot within (or very close to within) the "between lab" 2 standard deviations (Figures 11.3 through 11.10) indicating that adequate care and proper procedures were implemented during sample preparation and analysis.

**Figure 11-3: Gold Results for Standard CDN-GS-P7H**

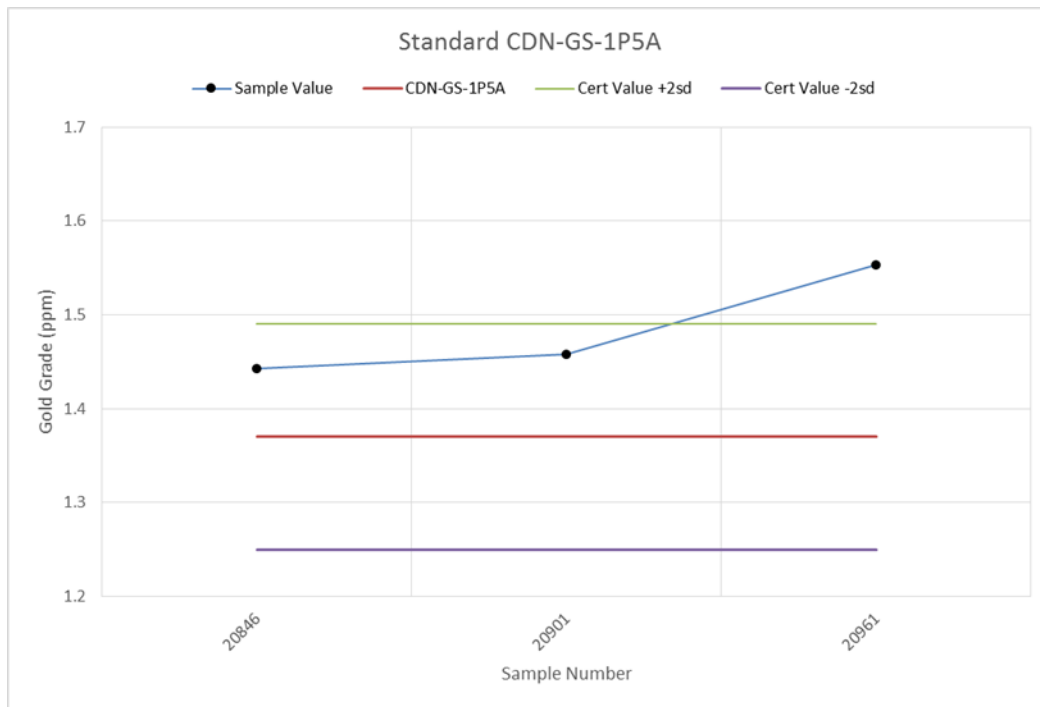


Figure 11-4: Gold Results for Standard CDN-GS-1P5A

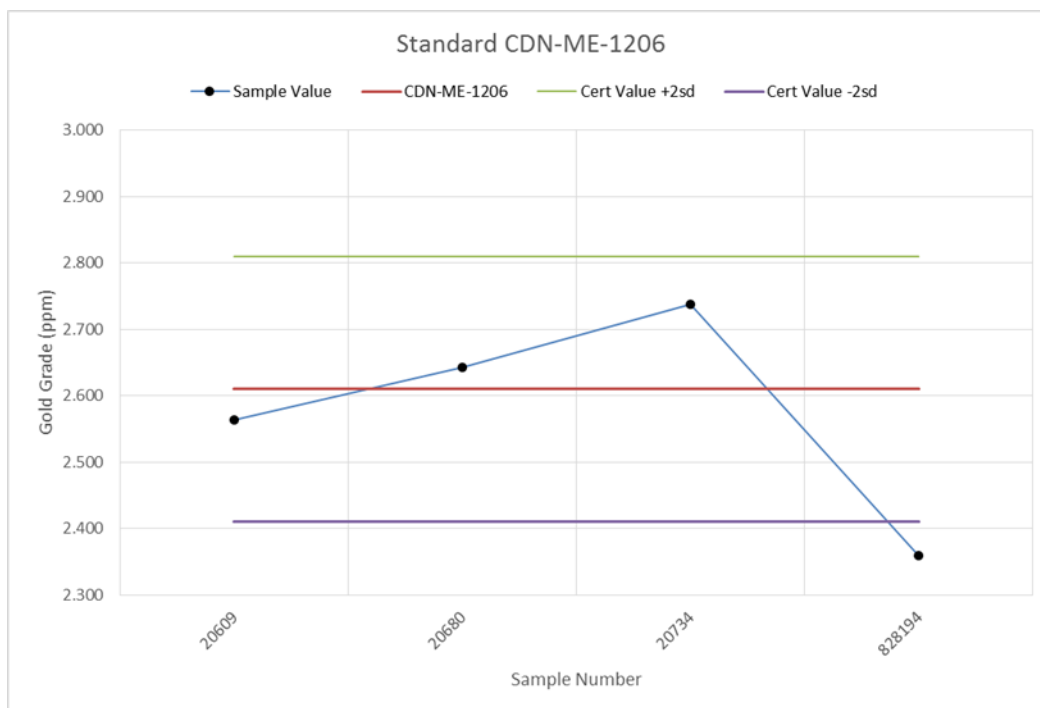


Figure 11-5: Gold Results for Standard CDN-ME-1206

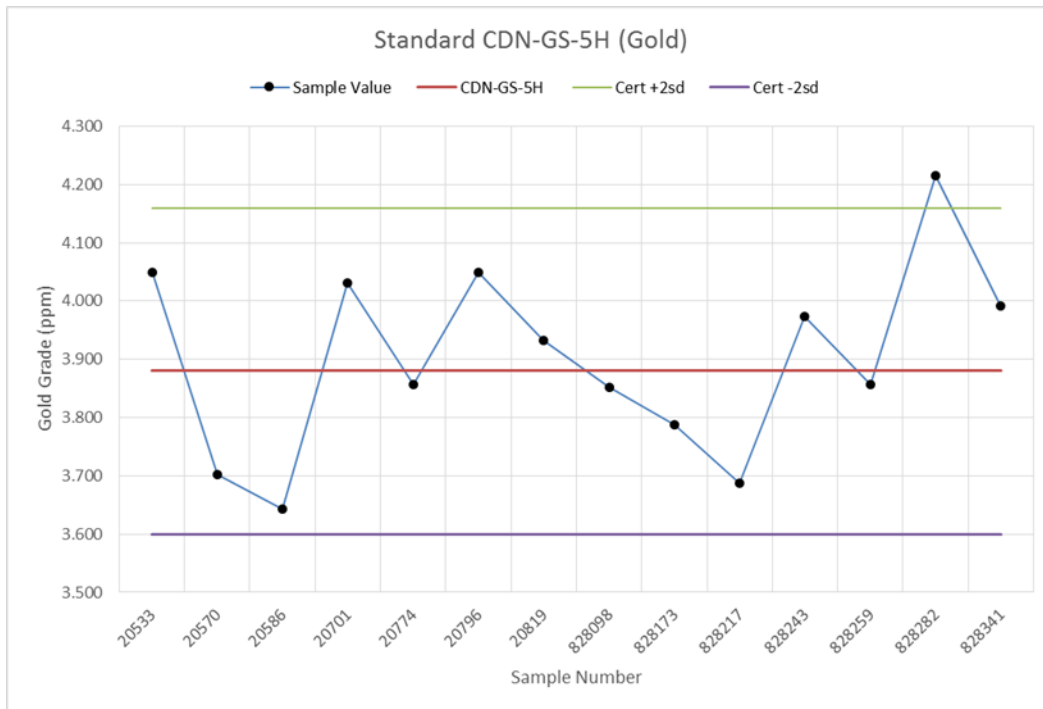


Figure 11-6: Gold Results for Standard CDN-GS-5H

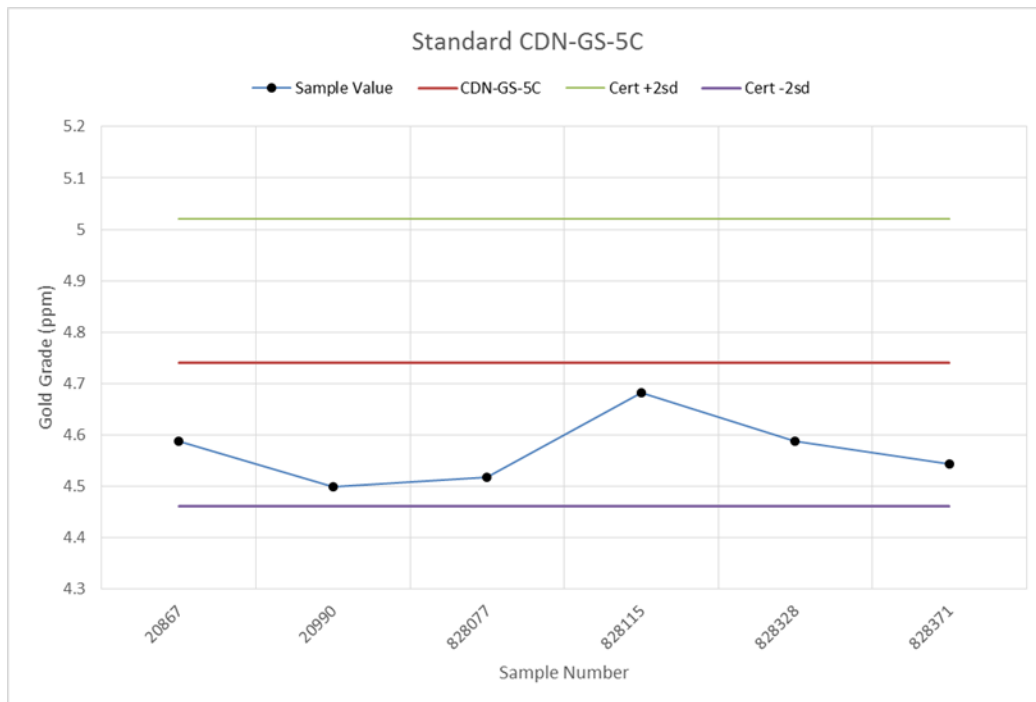
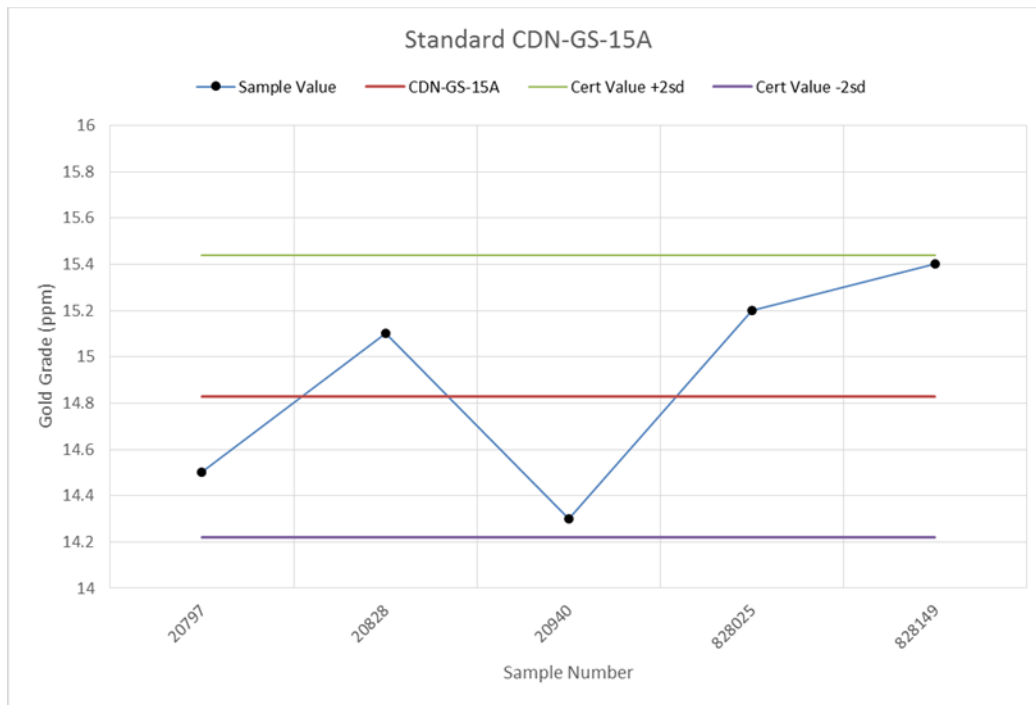
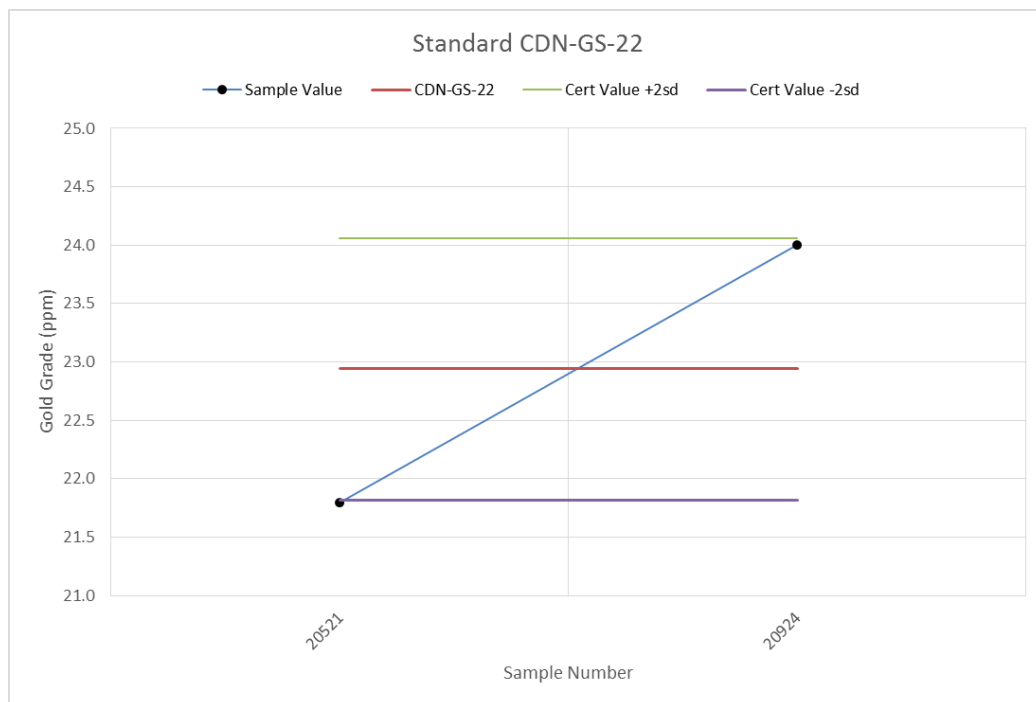


Figure 11-7: Gold Results for Standard CDN-GS-5C

**Figure 11-8: Gold Results for Standard CDN-GS-15A****Figure 11-9: Gold Results for Standard CDN-GS-22**

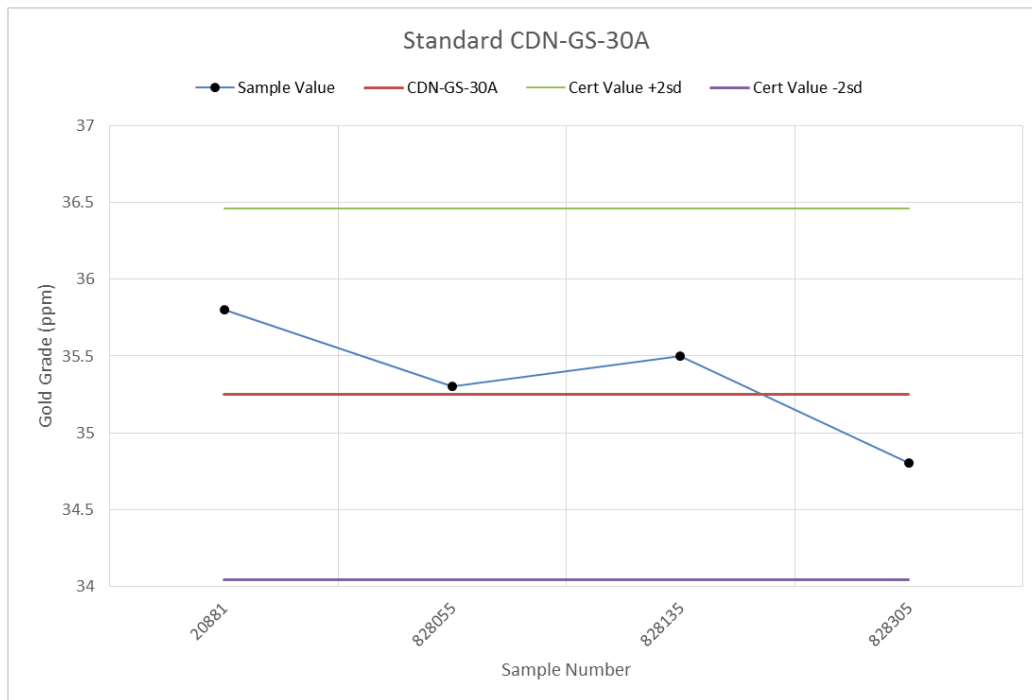


Figure 11-10: Gold Results for Standard CDN-GS-30A

The silver values for standard CDN-GS-5H show a slight positive bias; most results plot above the certified reference value and four results plot higher than the “between lab” 2 standard deviations (Figure 11.11).

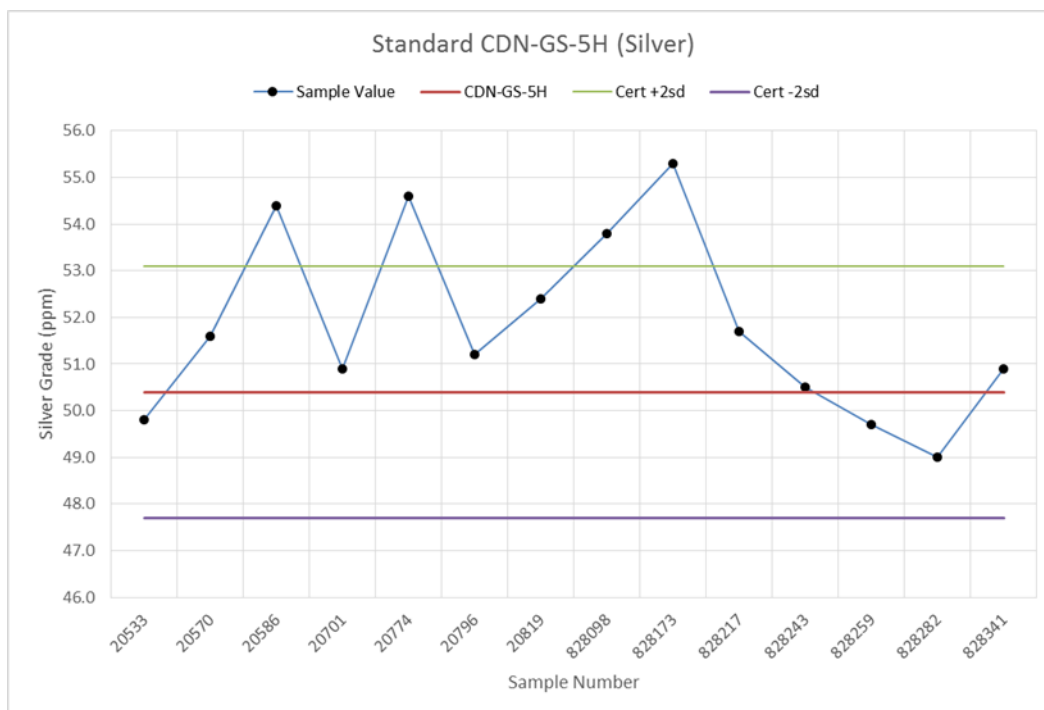


Figure 11-11: Silver Results for Standard CDN-GS-5H

Drill Core Sample Duplicates Comparison

Drill core duplicates are used to monitor sample submissions for switched samples, data variability due to laboratory error, homogeneity of sample preparation and/or natural inhomogeneity of sampled mineralization. A total of 31 core sample duplicate pairs were made by quarter-splitting the second half of the core. Duplicate samples were analyzed at the same time as the original sample. A comparison of results for the core sample duplicate pairs is provided in Table 11.2 and is shown graphically for gold and silver in Figures 11.12 and 11.13, respectively. For gold, two-thirds (21 of 31) of the duplicate pairs have a difference of >25% between the original and the duplicate assay. These samples have a range of gold values from just above detection limit to about 6 g/t Au. The results indicate that there is significant variance in gold at all grades. This is most likely due to the irregular distribution of gold in epithermal systems, and the difficulty in taking duplicate samples in vein and breccia mineralization that inherently has an erratic distribution of values. For silver, however, this appears not to be the case, especially when the highest grade result is removed (resulting in a very strong correlation of the remaining duplicate pairs). This suggests that silver values are more evenly distributed, at least at lower concentrations, and that there may be more than one mineral species controlling the distribution of silver.

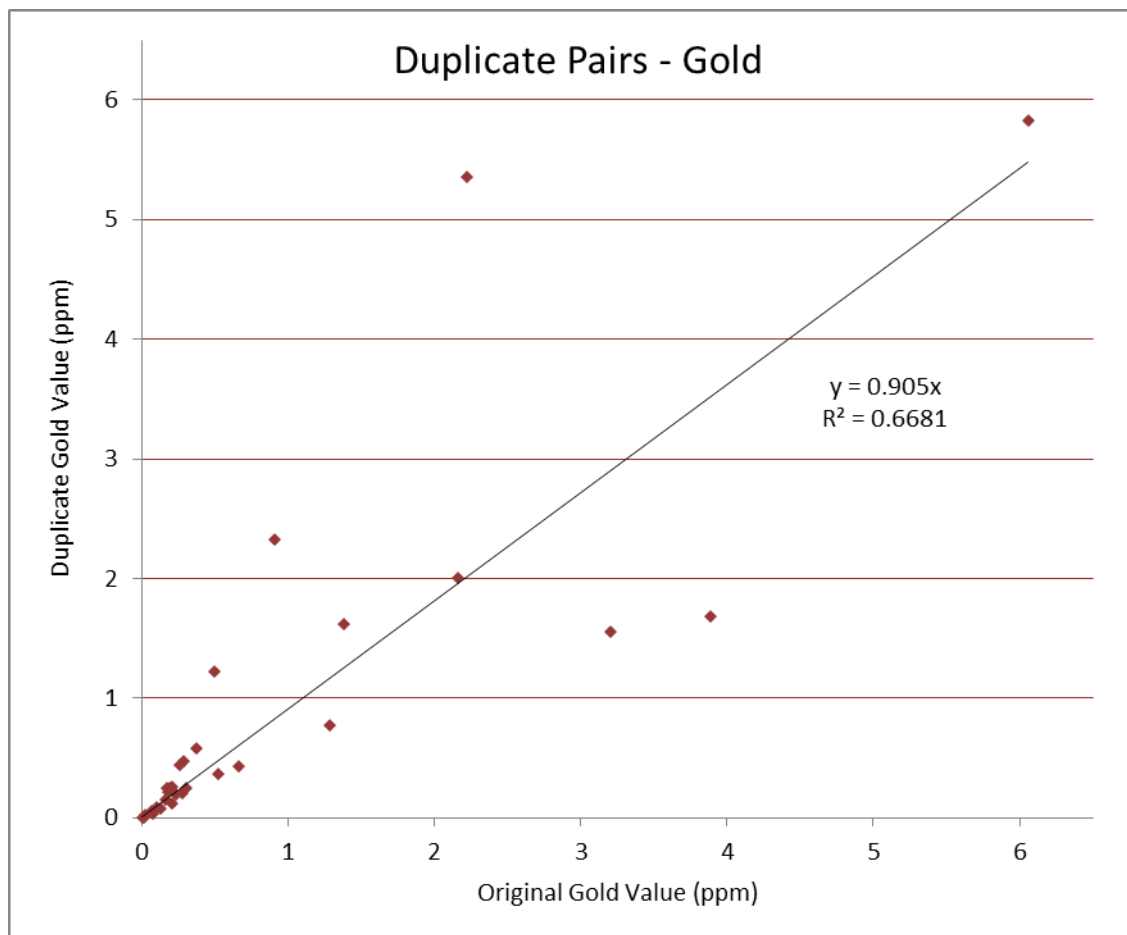


Figure 11-12: Gold Duplicate Pair Analysis

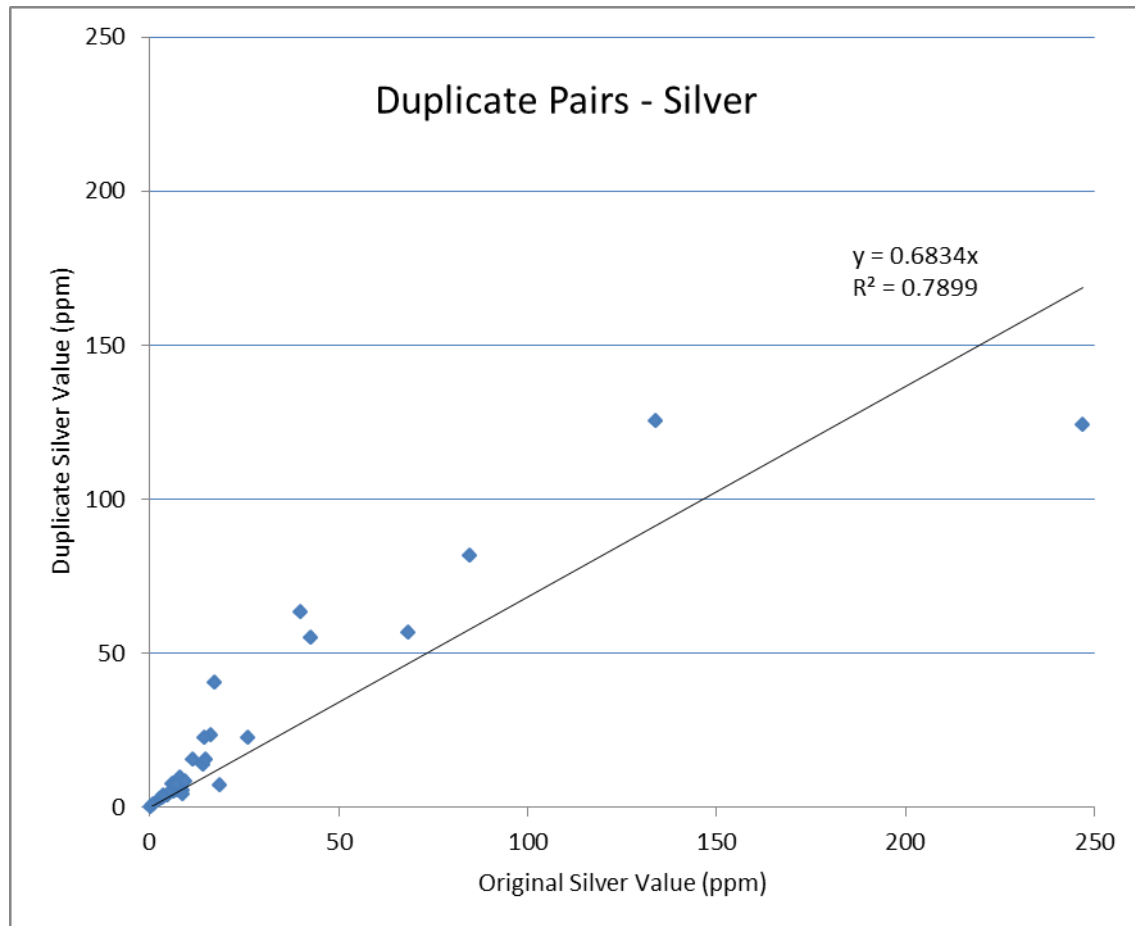


Figure 11-13: Silver Duplicate Pair Analysis

Table 11-2: Comparison of Results for Duplicate Samples

Drill Hole ID	From (m)	To (m)	Sample #	Sample Type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
CC15-02	27.00	29.00	20540	Core	<0.005	0.2	6.5	9.1	67
CC15-02	27.00	29.00	20541	Duplicate	<0.005	0.3	5.5	9.0	70
CC15-04	107.00	109.00	20593	Core	0.181	2.5	13.3	13.4	69
CC15-04	107.00	109.00	20594	Duplicate	0.216	2.7	16.1	13.2	76
CC15-04	262.00	264.00	20615	Core	0.208	3.3	10.5	58.4	141
CC15-04	262.00	264.00	20616	Duplicate	0.120	3.0	10.9	66.4	151
CC15-04	306.03	308.00	20637	Core	0.124	7.2	35.2	126.6	203
CC15-04	306.03	308.00	20638	Duplicate	0.082	5.6	25.7	126.2	209
CC15-05	23.00	25.00	20664	Core	0.075	8.7	23.2	30.1	92
CC15-05	23.00	25.00	20665	Duplicate	0.033	5.7	28.8	26.1	98
CC15-05	225.00	227.00	20686	Core	0.263	14.2	22.1	26.7	76
CC15-05	225.00	227.00	20687	Duplicate	0.446	14.0	19.8	24.6	82

Drill Hole ID	From (m)	To (m)	Sample #	Sample Type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
CC15-05	265.00	266.00	20708	Core	0.907	17.2	21.8	50.3	103
CC15-05	265.00	266.00	20709	Duplicate	2.323	40.7	20.2	76.3	156
CC15-06	54.00	55.50	20730	Core	0.022	4.6	12.0	15.2	70
CC15-06	54.00	55.50	20731	Duplicate	0.023	4.0	11.3	13.8	66
CC15-07	50.00	52.00	20747	Core	0.196	14.7	50.1	24.5	104
CC15-07	50.00	52.00	20748	Duplicate	0.249	15.5	52.5	22.9	97
CC15-08	98.00	99.50	20766	Core	0.286	11.3	58.3	16.7	61
CC15-08	98.00	99.50	20767	Duplicate	0.474	15.7	53.1	17.2	63
CC15-10	95.85	97.41	20812	Core	3.203	68.6	28.7	64.4	96
CC15-10	95.85	97.41	20813	Duplicate	1.551	56.7	34.6	62.8	102
CC15-11	218.00	220.70	20842	Core	0.305	3.7	9	25.1	72
CC15-11	218.00	220.70	20843	Duplicate	0.25	3.7	6.4	26	67
CC15-12	70.00	71.00	20856	Core	1.383	133.8	119.9	135.6	152
CC15-12	70.00	71.00	20860	Duplicate	1.619	125.5	149.1	149.9	192
CC15-13	251.00	252.00	20904	Core	2.22	39.8	75.6	274.8	428
CC15-13	251.00	252.00	20905	Duplicate	5.361	63.4	75	374.8	575
CC15-13	271.00	273.00	20917	Core	0.208	6.3	14.4	25.4	57
CC15-13	271.00	273.00	20918	Duplicate	0.257	5.2	13.4	25.4	59
CC15-14	107.00	108.62	20955	Core	0.658	16.2	38.9	188	92
CC15-14	107.00	108.62	20956	Duplicate	0.427	23.5	36	172.4	122
CC15-14	280.00	281.00	20977	Core	3.877	247	308.2	1257.6	1804
CC15-14	280.00	281.00	20978	Duplicate	1.683	124	163.2	779.7	1138
CC15-14	297.00	298.00	20997	Core	0.371	8.6	17.4	24.7	60
CC15-14	297.00	298.00	20998	Duplicate	0.585	4.5	17.8	24.7	65
CC15-15	112.45	113.80	828018	Core	0.098	18.6	19.8	128.1	622
CC15-15	112.45	113.80	828019	Duplicate	0.088	7.2	18.7	104.3	437
CC15-15	218.40	220.40	828039	Core	2.165	84.9	56.5	28.3	73
CC15-15	218.40	220.40	828040	Duplicate	2.003	81.7	59.7	26.1	81
CC15-15	254.00	256.00	828061	Core	0.523	8.1	54.5	185.7	352
CC15-15	254.00	256.00	828062	Duplicate	0.37	9.3	100.4	318	589
CC15-15	291.00	293.25	828083	Core	0.174	6	8.7	29	76
CC15-15	291.00	293.25	828084	Duplicate	0.249	7.5	8	31.3	69
CC15-19	54.65	56.35	828142	Core	0.01	1	7	11.4	106
CC15-19	54.65	56.35	828143	Duplicate	0.005	0.9	7.7	12.9	115
DR15-01	70.00	71.00	828158	Core	0.235	5.4	44.4	15.9	61
DR15-01	70.00	71.00	828159	Duplicate	0.191	4.7	41.3	16.3	61
DR15-01	92.00	93.00	828183	Core	1.285	25.9	86.2	28	99

Drill Hole ID	From (m)	To (m)	Sample #	Sample Type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
DR15-01	92.00	93.00	828184	Duplicate	0.773	22.6	81.5	29.4	92
DR15-02	87.30	88.30	828213	Core	0.19	8.2	8.8	30.4	189
DR15-02	87.30	88.30	828214	Duplicate	0.245	9.9	9.6	29.5	191
DR15-03	21.00	22.00	828241	Core	0.494	14.4	35.6	29.7	104
DR15-03	21.00	22.00	828242	Duplicate	1.218	22.5	50.4	29.3	93
DR15-04	21.00	22.00	828272	Core	0.166	7.1	42.6	18.7	82
DR15-04	21.00	22.00	828273	Duplicate	0.154	7.7	52.5	20	89
DR15-04	33.00	34.00	828288	Core	6.059	42.6	121.7	79.8	139
DR15-04	33.00	34.00	828289	Duplicate	5.829	54.9	117.8	82	144
DR15-05	23.50	24.00	828313	Core	0.065	9.3	38.3	11.5	86
DR15-05	23.50	24.00	828314	Duplicate	0.058	8.6	35.8	11	84
DR15-06	128.41	129.79	828361	Core	0.279	3.7	27	19.1	62
DR15-06	128.41	129.79	828362	Duplicate	0.208	3.5	22.9	19	65

11.4 ADEQUACY OF SAMPLE PREPARATION, SECURITY AND ANALYTICAL PROCEDURES

The authors conclude that security, sample collection, sample preparation and analytical procedures employed during the 2015 drill program meet or exceed current best management practices. Continued use of a comprehensive QA/QC program is recommended to insure that all analytical data can be confirmed to be reliable. There were eight certified reference standards used in 2015; in future programs the number of certified reference standards should be reduced to 3 or 4 and cover a range of gold and silver values that coincide with the range of grades typically observed at the Lawyers Project.

Overall, adequate care and proper procedures were used to obtain reliable gold and silver results in the 2015 diamond drilling program at the Lawyers Project.

12 DATA VERIFICATION

PPM's 2015 exploration program of infill, step-out and step-down drilling and twinning of selected historic holes was designed to provide a modern data set that could be compared with, and used to verify, the historic drilling results. In order to provide a resource estimate for the Lawyers Project, it was necessary to verify and integrate as much of the historic data as possible.

Unfortunately, drill core, sample rejects and pulps from past work on the Cliff Creek North and Duke's Ridge Zones are no longer available; reclamation of the mine site, completed during the mid-1990s, included the burying of all pre-2005 drill core. Original or copies of historical trench and drill logs also are rare, as are original or copies of laboratory certificates. Fortunately, exploration conducted by SEREM, up to and including 1984, was captured and systematically described in

several key WEL reports (Wright, 1985; Wright, 1986). Incomplete data exists for drilling conducted by Cheni in 1987, 1990 and 1992; it is available in several private reports and in assessment reports required by the B.C. government to maintain the company's mineral claims. No hard data exists for drilling conducted by Cheni in 1993 in the Duke's Ridge area (including the high-grade Phoenix Zone).

An audit of the historic exploration data, captured from extensive files assembled by PPM, was completed. This included a review of all available information provided in the form of electronic scans of historic records, and hard copy reports and documents that provide trench and drill hole locations in mine or exploration grid coordinates, geological descriptions and analytical results for trenches, and drill hole logs with analytical results. Also reviewed were large format drafted mine plans for all levels of the Cliff Creek North underground workings, as well as several cross-sections and long-sections of the zone, and surface plans and cross-sections for the Phoenix Zone.

In order to verify the historical drill hole data, select original drill holes were 'twinning' on the Cliff Creek North and Duke's Ridge Zones. The holes selected for 'twinning' were those for which drill hole collars were positively located and for which complete assay data exists.

12.1 TWIN DRILL HOLE COMPARISONS

12.1.1 Cliff Creek North Twin Drill Holes

Three historic holes on the Cliff Creek North Zone for which complete data exists were twinned in 2015. A comparison of weighted averages for mineralized intervals of similar length was made for each original hole-twin hole pair (Table 12.1).

Twin Hole CC15-06 was drilled from the same collar location and with the same azimuth and dip as original Hole 84CC-14. Both holes intersected a well-mineralized interval of about the same length and at approximately the same shallow depth, although gold grades in the twin hole are 42% higher than those reported for the original hole. This difference is likely due to the erratic distribution of gold and silver mineralization that is typical of epithermal systems and not due to sampling or analytical errors. Twin Hole CC15-06 is an adequate representation of original Hole 84CC-14. A comparison of gold grade with depth for the two holes is shown graphically in Figure 12.1. Note that sample lengths of an even 1.0 m or 2.0 m were used in the original hole while variable sample lengths were used in the twin hole as a result of poor to moderate core recovery.

Twin Hole CC15-07 was drilled from the same collar location and with the same azimuth and dip as original Hole 83CC-04. The original hole intersected one shallow, well-mineralized interval and one deeper well-mineralized interval. The twin hole did not repeat the upper mineralized interval (although it did intersect stockwork veining and weakly anomalous gold grades) and encountered a void where part of the deeper interval has been removed by mining development. The twin hole 'traversed' the void and cored 0.76 m of mineralization in its footwall before being shut down because of binding rods; the grades in the short footwall section of core compare favourably with that of the original hole and indicate that the footwall portion of the lower mineralized interval is likely still intact. A comparison of gold grade with depth for the two holes is shown graphically in

Figure 12.2. Despite the removed (mined) mineralized section, twin Hole CC15-07 provides a good correlation of grades and core length for the lower mineralized interval.

Table 12-1: Comparison of weighted averages between original drill holes and 2015 twin drill holes

	Drillhole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Comment
Original	84CC-14	9.00	15.00	6.00	7.19	298.3	Footwall Hole
Twin	CC15-06	10.37	16.75	6.38	12.56	400.0	Footwall Hole
Original	83CC-04	20.00	22.00	2.00	11.66	1.0	Footwall Hole
	and	56.00	70.00	14.00	14.62	779.0	Footwall Hole
Twin	CC15-07	20.00	22.00	2.00	< 1.00	5.4	Footwall Hole
	and	54.86	59.44	4.58	void - no core recovered		Footwall Hole
	and	59.44	60.20	0.76	15.70	622.00	Footwall Hole
Original	84CC-38	90.00	105.00	15.00	4.63	215.4	Hangingwall Hole
Twin	CC15-08	89.00	105.00	16.00	2.06	69.6	Hangingwall Hole

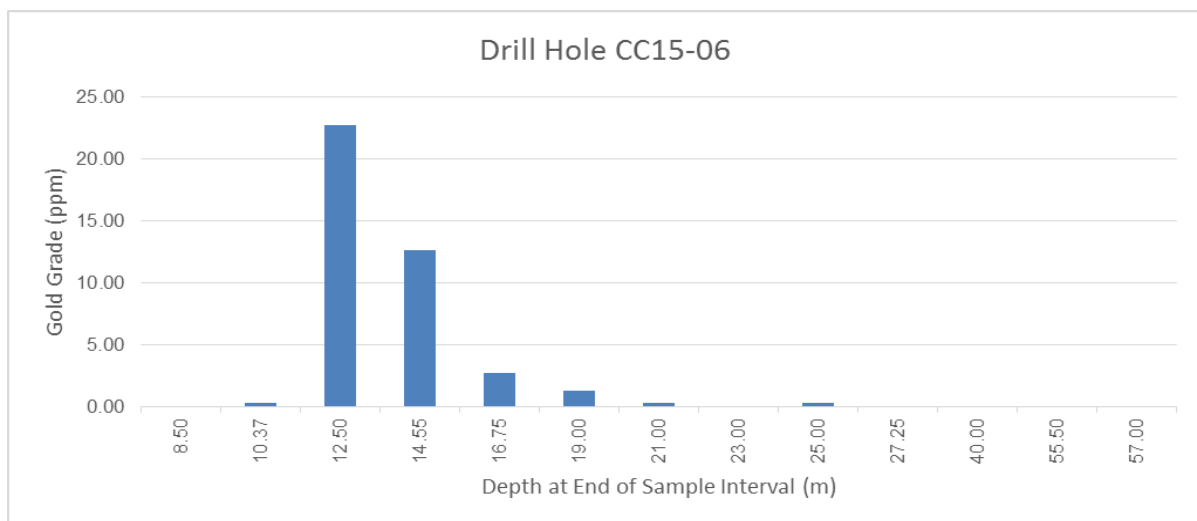
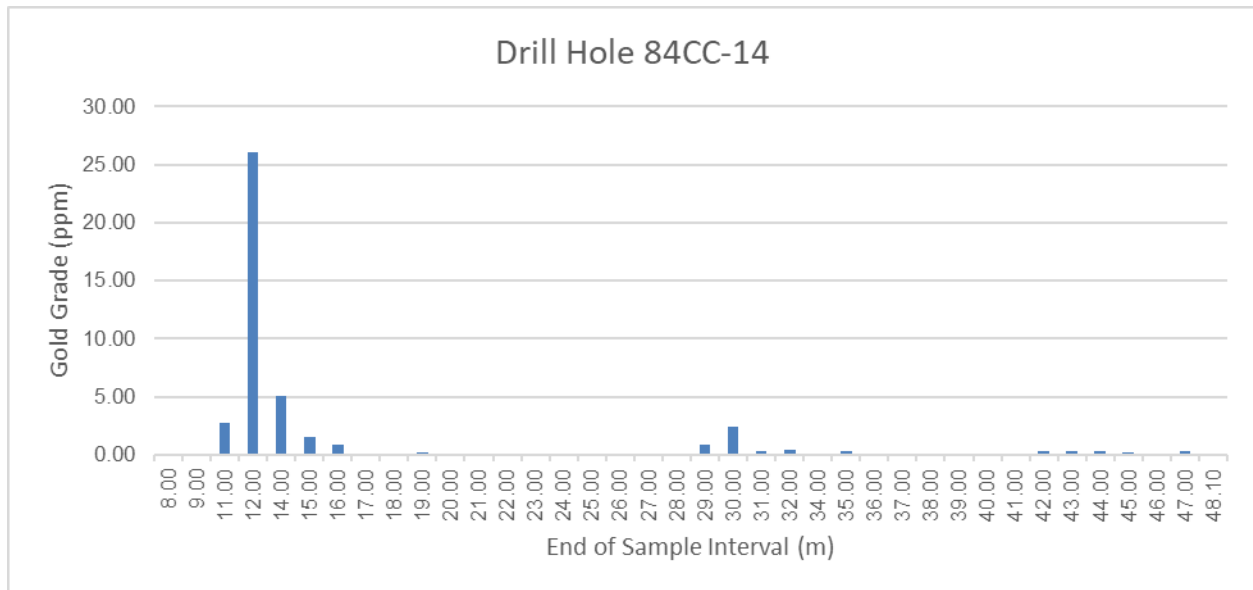


Figure 12-1: Gold grade versus drill hole depth; A) hole 84CC-14, B) hole CC15-06

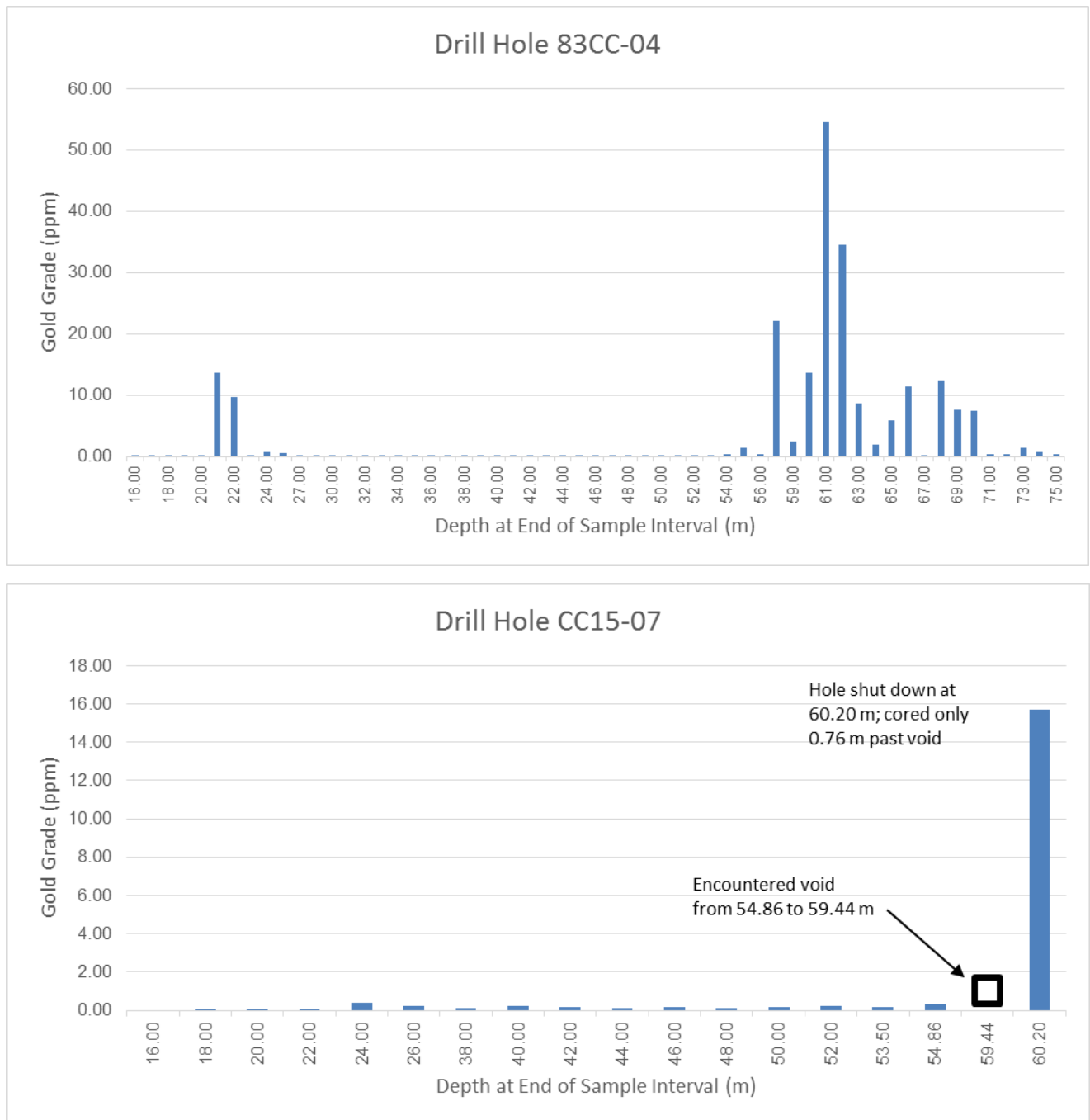


Figure 12-2: Gold grade versus drill hole depth; A) hole 83CC-04, B) hole CC15-07

Twin Hole CC15-08 was drilled from the same collar location and with the same dip as original Hole 84CC-38, but on a slightly different azimuth (see Table 12.1). The original hole intersected a 15.0m interval of fairly consistent, moderate grade mineralization, whereas the twin hole cut a 16.0m interval at similar depths, but at a gold grade which is less than half that of the original hole. The significantly lower average grade in the twin hole may be as a result of its deviation relative to the original hole. Both holes also intersected one or more deeper, narrow zones of low to moderate

gold grades. Although there is a difference in grades between the main mineralized intervals encountered in the two holes, their intercept lengths, and the presence of footwall veins are consistent from hole to hole. A comparison of gold grade with depth for the two holes differs primarily in the middle of the mineralized interval; they are shown graphically in Figure 12.3.

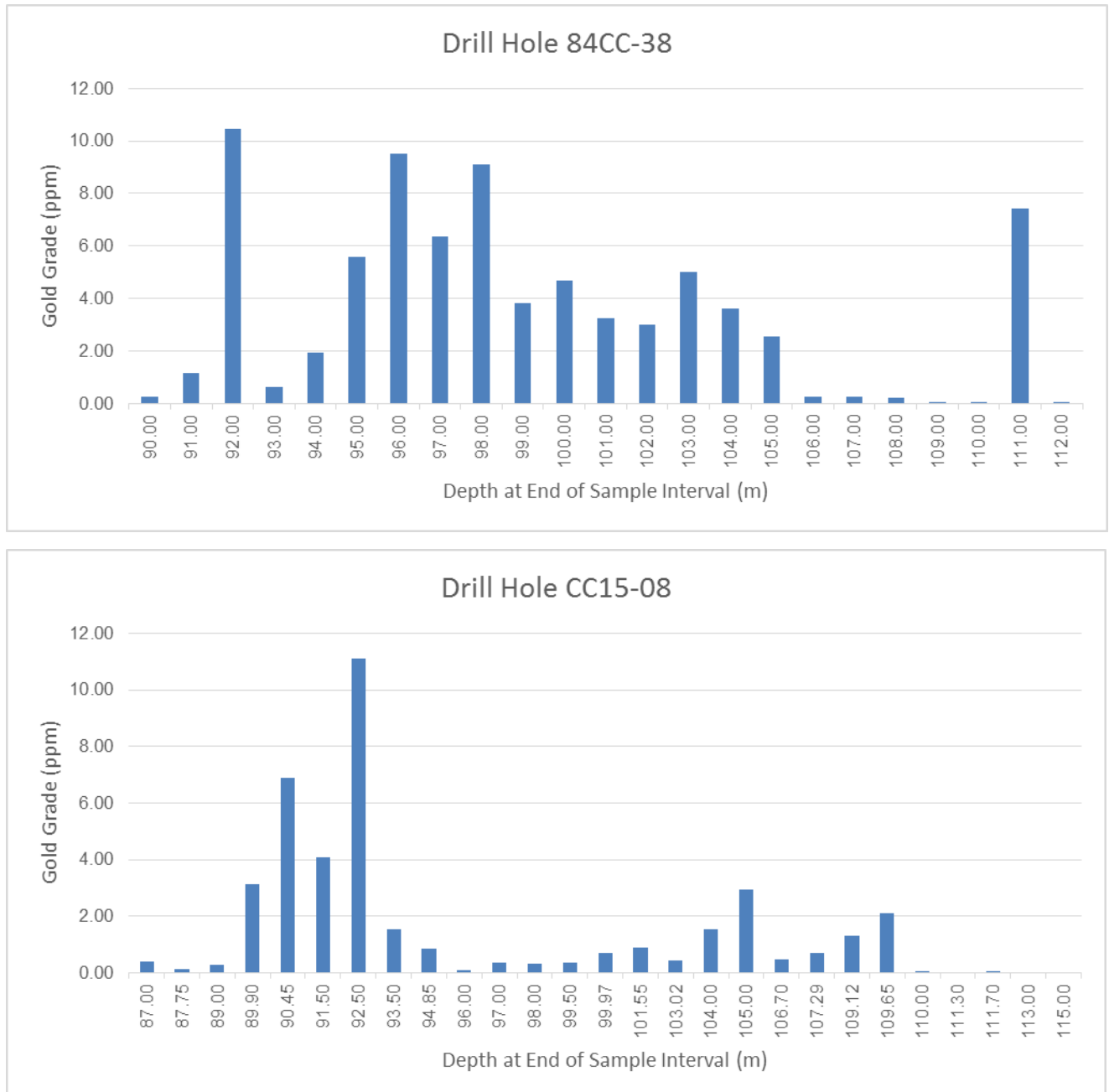


Figure 12-3: Gold grade versus drill hole depth; A) hole 84CC-38, B) hole CC15-08.

12.2 OTHER DRILLING TO VERIFY HISTORICAL RESULTS

12.2.1 Duke's Ridge Verification Drilling

There were no twin holes drilled at the Duke's Ridge Zone, but a total of five holes were drilled to intercept and confirm previously identified intersections in the central portion of the Duke's Ridge Zone. These holes are described more fully in Section 10.4. Two holes in particular served to validate past results from the core area of the Duke's Ridge Zone.

Hole DR15-05 was collared between Holes 84DS13 and 83DS05 to verify the mineralized intervals in the historic holes. DR15-05 encountered a 50.75m interval from surface to 52.00m averaging 1.41 g/t Au and 42.3 g/t Ag that included an 8.56m intersection grading 3.85 g/t Au and 106.5 g/t Ag from 33.50-42.06m. The latter intersection correlates well with the position and tenor of a similar intersection in 83DS05 (12.0m grading 4.37 g/t Au and 218.5 g/t Ag from 13.00-25.00m).

Hole DR15-03 was collared near Hole 83DS07 to verify the high-grade intersections encountered in the historic hole, and to test the depth potential in the central part of the Duke's Ridge Zone. DR15-03 intersected a 22.29m low-grade interval from 1.21-23.50m grading 0.72 g/t Au and 24.8 g/t Ag, including a 2.00m interval from 19.00-21.00m grading 3.09 g/t Au and 34.4 g/t Ag. The longer interval in Hole DR15-03 correlates well with a 19.0m near-surface intersection encountered in Hole 83DS07. However, the new hole did not replicate the high-grade gold-silver values (23.73, 206.91 and 66.69 g/t Au, and 672.0, 2040.0 and 894.8 g/t Ag) in three 1.00m samples taken between 15.00-20.00m in the old hole.

12.3 ADEQUACY OF DATA

The verification program determined that the historical data captured from hard-copy reports, drill hole logs, cross-sections and maps is valid and generally representative of the Cliff Creek North and Duke's Ridge Zones. Results from 2015 drilling, despite encountering narrow underground workings (raises or stopes) in six Cliff Creek North holes, correlated reasonably well with the historic data. Core from past exploration drilling programs is not available for either of the zones drilled in 2015, so no re-analysis of old core could be performed.

The drill hole twinning program, consisting of three twin pairs of holes at the Cliff Creek North Zone, the verification drilling at the Duke's Ridge Zone, and infill, step-out and step-down drilling on both zones contributed to the validation of the integrity of the historic drill hole data set.

Higher gold and silver grades were found to generally occur within narrow discrete veins, zones of dense stockwork veining and brecciation accompanied by moderate to intense potassic and silicic alteration. They occur within broad low grade gold-silver zones characterized by argillic alteration and stockwork veining. Higher grades are typically inconsistent to erratic along strike and down-dip, a feature typical of many epithermal precious metals systems.

The authors of this Report conclude that the historic drill hole data for which complete assay and location information is known is suitable for use in the calculation of a mineral resource estimate for the Cliff Creek North and Duke's Ridge Zones.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 HISTORICAL MINERAL PROCESSING AND METALLURGICAL TESTING

Cyanidation testing of mineralized material from the Lawyers property was conducted periodically by Lakefield Research from September 1982 to January 1986 (WEL, 1986; Norecol, 1986). All but one sample (from the Cliff Creek Zone) were from the AGB Zone. The AGB samples were collected from various areas and levels of the underground workings; the exact location of the Cliff Creek sample is unknown, but because the testing on it occurred in December 1984, it probably came from a Cliff Creek North Zone trench or surface diamond drill hole. The information summarized below is from WEL (1986) and Norecol (1986).

13.1.1 Results

Much of the discussion in available metallurgical reports or summaries of work does not distinguish between AGB and Cliff Creek samples, and the information presented is assumed to be on the AGB samples unless otherwise indicated.

The results of the test work indicate that an optimum grind is 70% -200 mesh (80% -90 microns). Optimum leaching time for gold is about 48 hours; optimum leaching time for silver is considerably longer. Overall silver recovery was dramatically improved by flotation of the primary leached residue and re-cyanidation of the flotation cleaner concentrate. The expected metallurgical recoveries were:

Product	Recovery	
	Au (%)	Ag (%)
Cyanidation of ore	93.4	46.6
Cyanidation of Flotation Concentrate	1.6	35.4
Total	95	82

The work index of the mineralized material was dependent on its gangue mineralogy and zone as shown below:

Zone	kWH/tonne
AGB (15)	16.7 - 19.2
Cliff Creek	19.2

A review of metallurgical data was performed by Robertson and Associates (1986) who commented that most of the samples being tested were too rich in gold and silver to be considered representative of AGB zone. They recommended that additional testing be performed on representative samples from both the AGB and Cliff Creek Zones, but the authors are not aware of any such test work being completed.

Any future metallurgical studies should also include mineralized material that is representative of the Duke's Ridge and P2 Vein Zones. In the case of the P2 Vein, any testing of it would be conditional on whether or not follow-up diamond drilling is successful in defining a potentially mineable mineral resource.

13.2 MINERAL PROCESSING AND METALLURGICAL TESTING BY CRYSTAL

To date, there has been no mineral processing or metallurgical testing completed on the Project by Crystal.

14 MINERAL RESOURCE ESTIMATES

14.1 2015 PPM MINERAL RESOURCE ESTIMATES

14.1.1 Introduction

Giroux Consultants Ltd. ("GCL") of Vancouver, B.C. was retained by PPM to produce mineral resource estimates for the Cliff Creek North and Duke's Ridge Zones on the Lawyers Project. The effective date for these estimates is January 20, 2016, the day the data was received by GCL. There has been no additional drilling on this property since this resource was completed and therefore this resource is considered to be current.

G.H. Giroux, P. Eng., is the qualified person responsible for the resource estimate. Mr. Giroux is a qualified person by virtue of education, experience and membership in a professional association. He is independent of the company applying all of the tests in section 1.5 of National Instrument 43-101. Mr. Giroux has not visited the Project.

There appear to be no issues or factors that could materially affect the mineral resource estimates. This includes no issue involved with environmental permitting, legal, title, taxation, socio-economic, marketing, political, mining, metallurgy or infrastructure.

The data was supplied by Doug Blanchflower, P.Geo., of Langley, B.C., in the form of CSV files for drill hole collars, surveys and assays and trench collars, surveys and assays. A total of 80 drill holes and 9 trenches were provided for the Cliff Creek Zones (North, Central and South) of which 48 drill holes and 4 trenches were within the North Zone. A total of 37 drill holes and 22 surface trenches were within the Duke's Ridge Zone.

An undetermined number of historic surface and underground diamond drill holes, in or proximal to the Cliff Creek North resource area, were drilled by Cheni in 1987 and 1990. Incomplete location and assay data is available for this drilling. For these historic holes, only one 1987 surface diamond drill hole was made available to, and used by, GCL in its resource estimate of the Cliff Creek North Zone.

In the Duke's Ridge Zone, in 1990, six trenches and sixteen drill holes tested the northwest extension of the Duke's Ridge Zone, in an area between Duke's Ridge 'proper' and the Cliff Creek Central subzone. Location and assay data from this work does not form part of the information base

provided to GCL for the purpose of resource estimation. Later, in 1993, Cheni reportedly carried out infill drilling in the Duke's Ridge Zone. The number, total metres and locations of these infill holes are unknown and no assay data from them is available.

The procedures and parameters used to estimate the mineral resources for both zones are presented below, along with summaries of the respective inferred mineral resources calculated at various g/t AuEQ cut-off grades.

14.1.2 Geologic Solid Models

Using cross sections and level plans QP Doug Blanchflower developed geologic 3D solids to constrain the mineralization at the Cliff Creek North Zone and again at the Duke's Ridge Zone. In both cases a rough Au Equivalent value of ≥ 1.0 g/t was used to define the solids where gold equivalent was defined as follows:

$$\text{AuEq} = \text{Au g/t} + (\text{Ag g/t} \times 0.45) / 35.3658$$
 using a gold price of \$1100 per ounce and a silver price of \$14 per ounce.

The 3D solids are shown in Figure 14.1 for Cliff Creek North and Figure 14.2 for Dukes Ridge.

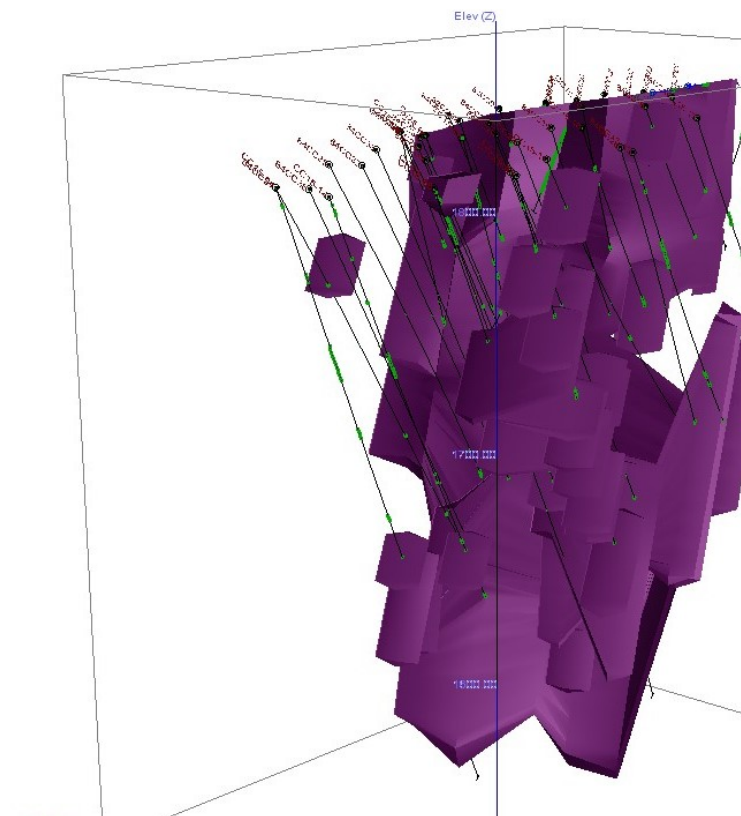


Figure 14-1: Isometric view looking NE showing Cliff Creek North Mineralized Solids and drill hole traces

Gold assays reported as < 0

In both zones drill holes were compared to the mineralized solids and individual assays were tagged if inside or outside these solids. Of the total drill holes provided 46 holes penetrated the Cliff Creek North solids while 46 penetrated the Dukes Ridge solid. Appendix 1 lists all drill holes with the ones within the various solids highlighted.

Table 14-1: Assay Statistics for gold and silver sorted by Domain

Domain	Variable	Number of Assays	Mean (g/t)	Standard Deviation	Minimum Value	Maximum Value	Coefficient of Variation
Cliff Cr. North Mineralized Solids	Au	597	3.83	13.61	0.001	293.40	3.55
	Ag	597	161.56	454.74	0.01	7622.0	2.81
Cliff Cr. Waste	Au	1,084	0.32	1.24	0.001	25.4	3.85
	Ag	1,084	14.74	98.83	0.01	2811.4	6.70
Dukes Ridge Mineralized Solids	Au	321	12.52	156.85	0.031	206.9	4.08
	Ag	321	99.17	204.56	3.42	2249.8	2.06
Dukes Ridge Waste	Au	589	0.22	0.35	0.001	3.9	1.60
	Ag	589	10.32	11.17	0.01	103.7	1.08

The grade distributions for gold and silver were evaluated for each of the four domains to determine if capping was required. Lognormal cumulative frequency plots were used to establish capping levels. The capping strategy is summarized below in Table 14-2.

Table 14-2: Capping Levels and number capped for gold and silver sorted by Domain

Domain	Variable	Cap Level (g/t)	Number Capped
Cliff Cr. North Mineralized Solids	Au	38.0	6
	Ag	1450.0	6
Cliff Cr. Waste	Au	5.0	6
	Ag	100.0	16
Dukes Ridge Mineralized Solids	Au	34.0	3
	Ag	1462.0	2
Dukes Ridge Waste	Au	1.0	9
	Ag	55.0	5

The results of capping a relatively few samples are shown below in Table 14-3. While the mean grades have been slightly reduced in most cases, the standard deviations and as a result the coefficients of variation have been significantly reduced.

Table 14-3: Capped Assay Statistics for gold and silver sorted by Domain

Domain	Variable	Number of Assays	Mean (g/t)	Standard Deviation	Minimum Value	Maximum Value	Coefficient of Variation
Cliff Cr. North Mineralized Solids	Au	597	3.23	5.44	0.001	38.0	1.68
	Ag	597	138.65	233.03	0.01	1450.0	1.68
Cliff Cr. Waste	Au	1,084	0.27	0.59	0.001	5.0	2.16
	Ag	1,084	9.23	15.35	0.01	100.0	1.66
Dukes Ridge Mineralized Solids	Au	321	2.41	4.31	0.031	34.0	1.79
	Ag	321	94.92	164.95	3.42	1462.0	1.74
Dukes Ridge Waste	Au	589	0.19	0.21	0.001	1.0	1.07
	Ag	589	10.03	9.29	0.01	55.0	0.93

14.1.4 Composites

Sample lengths within the Cliff Creek North mineralized domain varied from a low of 0.4 m to a high of 3.14 m with 72% of mineralized assays 1.0 m in length. A two metre composite length was selected to approximate a possible mining height. At Dukes Ridge 86% of assays were taken at 1.0 m lengths. Again a 2 m composite length was selected.

In both cases uniform down hole composites were formed honouring the domain boundaries. Small intervals at the domain boundary less than 1.0 m in length were combined with adjoining samples while those more than 1.0 m were left in tack forming a uniform support of 2 ± 1 m.

The 2 m composite statistics are tabulated below.

Table 14-4: Composite Statistics for gold and silver sorted by Domain

Domain	Variable	Number of Assays	Mean (g/t)	Standard Deviation	Minimum Value	Maximum Value	Coefficient of Variation
Cliff Cr. North	Au	374	3.03	4.33	0.001	36.12	1.43

Domain	Variable	Number of Assays	Mean (g/t)	Standard Deviation	Minimum Value	Maximum Value	Coefficient of Variation
Mineralized Solids							
	Ag	374	126.31	183.96	0.01	1345.2	1.46
Cliff Cr. Waste	Au	1,562	0.09	0.28	0.001	8.1	3.18
	Ag	1,562	3.48	14.85	0.01	525.1	4.27
Dukes Ridge Mineralized Solids	Au	219	2.29	2.89	0.001	21.5	1.26
	Ag	219	82.75	118.66	0.01	888.7	1.43
Dukes Ridge Waste	Au	727	0.11	0.19	0.001	1.7	1.76
	Ag	727	5.21	8.30	0.01	71.8	1.59

It is worth noting that there were large unsampled intervals in waste that when converted to 2 m composites increased the number of samples from those shown in the Tables for uncapped and capped assay statistics.

14.1.5 Variography

Pairwise relative semivariograms were used to model gold and silver in all domains. Within the Cliff Creek North mineralized domain both gold and silver were modelled along strike (Azimuth 347° Dip 0°), down dip (Azimuth 257° Dip -65°) and across dip (Azimuth 77° Dip -25°). In all cases nested spherical models were fit to the data. The along strike direction was then modelled to determine if a plunge to the mineralization existed. The longest continuity for both Au and Ag was found along Azimuth 347° Dip -60°. For both down dip and across dip very short ranges of 10 m were found for both Au and Ag. While this makes perfect sense in the across dip direction where the structures are narrow it point to poor grade continuity down dip. The nugget to sill ratios of 63% for gold and 53% for silver are also high showing high grade variability.

A similar exercise was completed for Au and Ag at Dukes Ridge. Again nested spherical models were fit to all directions. Gold and silver were modelled along strike (Azimuth 308° Dip 0°), perpendicular to strike (Azimuth 218° Dip 0°) and in the vertical direction (Azimuth 0° Dip -90°). The nugget to sill ratios at Dukes Ridge of 50% for gold and 42 % are also relatively high.

Finally gold and silver were modeled in waste at both Cliff Creek North and Dukes Ridge. In all cases isotropy was assumed and nested spherical models were produced.

The model parameters are tabulated below with the models shown in Appendix 2.

Table 14-5: Semivariogram Parameters for Au and Ag

Domain	Variable	Az / Dip	C ₀	C ₁	C ₂	Short Range (m)	Long Range (m)
Cliff Cr. North Mineralized Solids	Au	347 / -60	0.50	0.10	0.20	5.0	100.0
		257 / -65				5.0	10.0
		77 / -25				5.0	10.0
	Ag	347 / -60	0.45	0.10	0.30	5.0	100.0
		257 / -65				5.0	10.0
		77 / -25				5.0	10.0
Dukes Ridge Mineralized Solids	Au	308 / 0	0.30	0.10	0.20	20.0	50.0
		218 / 0				15.0	30.0
		0 / -90				20.0	60.0
	Ag	308 / 0	0.30	0.10	0.32	15.0	70.0
		218 / 0				10.0	36.0
		0 / -90				30.0	70.0
Cliff Creek North Waste	Au	Omni Directional	0.20	0.40	0.12	22.0	70.0
	Ag	Omni Directional	0.20	0.40	0.18	20.0	80.0
Dukes Ridge Waste	Au	Omni Directional	0.30	0.60	0.20	20.0	60.0
	Ag	Omni Directional	0.20	0.75	0.15	24.0	60.0

14.1.6 Block Models

Separate blocks models with blocks dimensioned 5 x 5 x 5 m were created and fit to the geologic solids in Cliff Creek North and Dukes Ridge zones. For each block model the percentage below surface topography, percentage below bedrock and the percentage within the mineralized solids

were recorded, for each block. The percentage of waste within a block was then calculated by subtracting the percentage of mineralized solid from the percentage below bedrock. For the Cliff Creek North zone the underground workings were digitized and plotted. While the exact location of these workings are not well known due to the surveying that was completed during development, they have been positioned based on available information and voids encountered during 2015 drilling. The percentage of underground workings within each block at Cliff Creek North was recorded and the volume of rock removed within the mineralized zones is subtracted from the resource estimate.

The origin for the Cliff Creek North Block Model (see Figure 14.3) is as follows:

Lower left corner of model:

607350 E	Column size = 5 m	90 columns
6355500 N	Row size = 5 m	70 rows

Top of model:

1850 Elevation	Level size = 5 m	90 levels
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No Rotation

The origin for the Dukes Ridge Block Model (see Figure 14.4) is as follows:

Lower left corner of model:

607950 E	Column size = 5 m	150 columns
6355075 N	Row size = 5 m	105 rows

Top of model:

1900 Elevation	Level size = 5 m	50 levels
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No Rotation

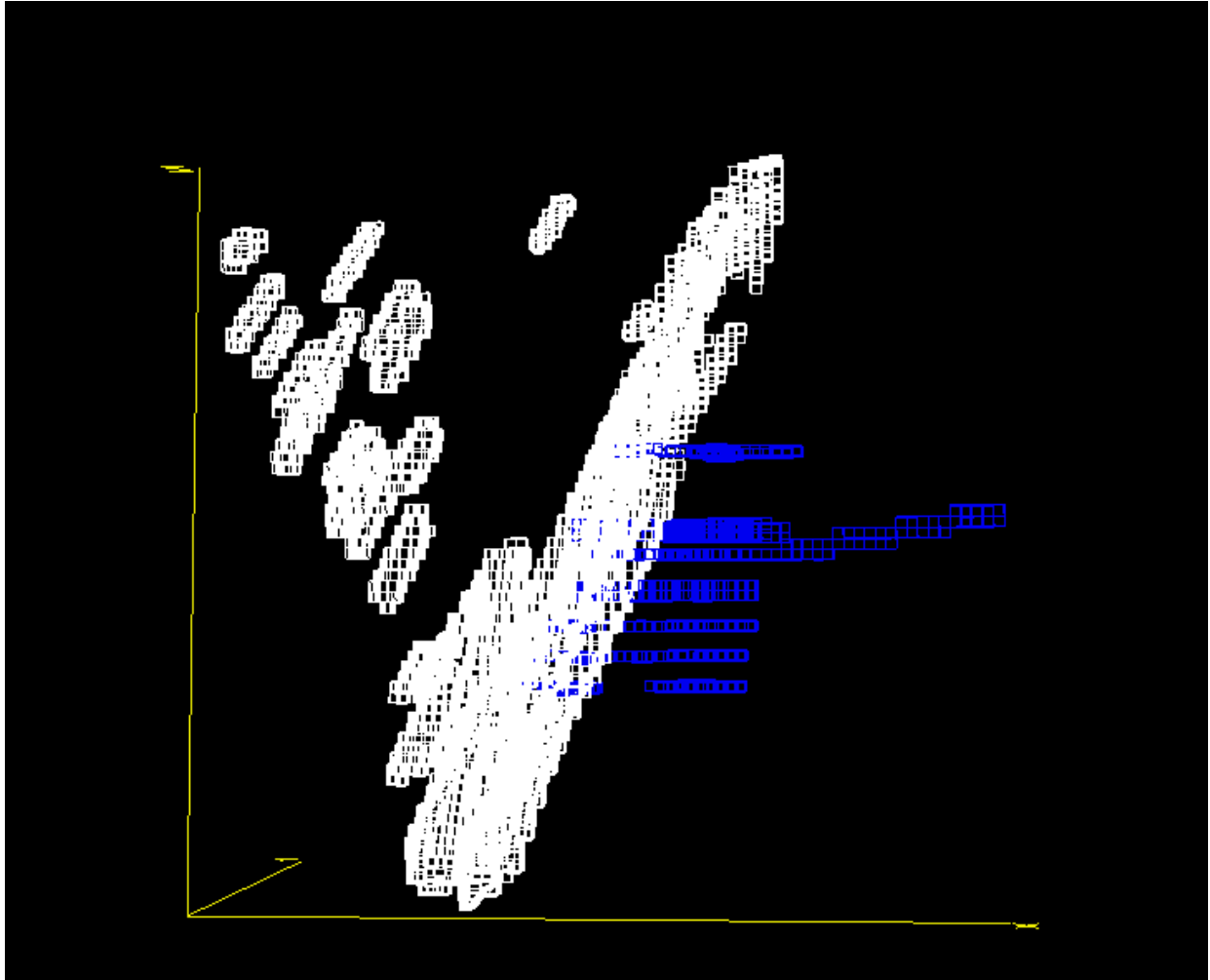


Figure 14-3: Cliff Creek North Block Model looking North with blocks containing mineralized zone in white and underground development in blue.

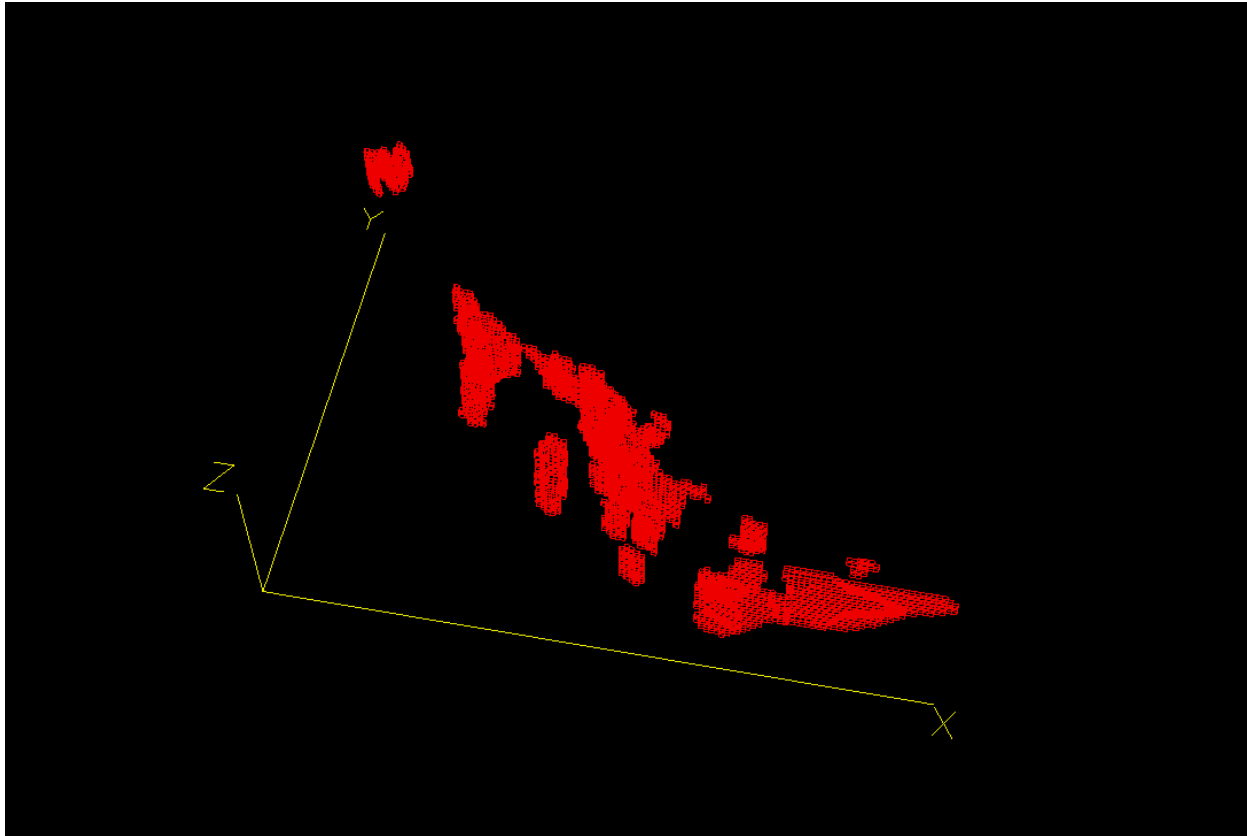


Figure 14-4: Dukes Ridge Block Model with blocks containing mineralized zone in red

14.1.7 Bulk Density

During the 2015 drill campaign a total of 155 specific gravity measurements were taken on drill core from the Cliff Creek North zone and 50 specific gravity measurements were taken on drill core from the Dukes Ridge. Of these 5 assay intervals in Cliff Creek drilling were tested twice and these two values were averaged in each case. Within the Duke Ridge specific gravities one assay interval had two measurements and one value indicating a negative SG was deleted. This left 145 measurements in the Cliff Creek North zone and 48 in the Duke Ridge zone.

All measurements were done in the field using the Archimedes methodology where:

$$SG = (\text{Sample Dry Wt.}) / (\text{Sample Dry Wt.} - \text{Sample Wet Wt.})$$

Table 14-6: Specific Gravity Determinations

Domain	Number of SG Measurements	Minimum SG Value	Maximum SG Value	Average SG Value
Cliff Creek North Mineralized Zone	66	2.46	4.03	2.63
Cliff Creek Waste	79	2.24	3.00	2.62
Dukes Ridge Mineralized Zone	17	2.49	2.64	2.58
Dukes Ridge Waste	31	2.50	2.68	2.60

To test if specific gravity was related to mineralization the samples in each zone were subdivided based on gold grades.

Table 14-7: Specific gravity sorted by gold grades

Domain	Au Grade Range (g/t)	Number of SG Measurements	Minimum SG Value	Maximum SG Value	Average SG Value
Cliff Creek North Zone	> 0.0 < 1.0	100	2.24	3.00	2.62
	≥ 1.0 < 2.0	17	2.46	2.66	2.60
	≥ 2.0 < 3.0	10	2.52	2.66	2.62
	≥ 3.0 < 4.0	3	2.61	2.65	2.64
	≥ 4.0 < 5.0	2	2.63	2.67	2.65
	≥ 5.0	12	2.48	4.03	2.72
	≥ 5.0 with 4.03 removed	11	2.48	2.66	2.61

Based on the results from Cliff Creek North there appears to be no clear relationship between gold grades and specific gravity. While the greater than 3.0 to less than 5.0 g/t Au ranges appear to give a higher average these are based on only a few samples and in the highest range of greater than 5 g/t when the one sample at 4.03 is removed the average drops to a value lower than the lowest grade range.

As a result for blocks within the Cliff Creek North zone the average specific gravity of 2.63 was used while for blocks within the Dukes Ridge mineralized zone the average of 2.58 was used to convert volume to tonnage. Waste portions of blocks in the Cliff Creek North zone used the average SG of 2.62 while waste at Dukes Ridge used 2.60.

14.1.8 Grade Interpolation

Grades for gold and silver were interpolated into blocks by Ordinary Kriging. The search ellipsoid dimensions and orientation were based on the grade continuity as measured by the semivariogram. For both the Cliff Creek North and Dukes Ridge block models the kriging was completed in a series of passes with expanding search ellipsoids. Blocks with some percentage inside the mineralized

solids were estimated using composites from within the mineralized solids. For pass 1 the dimensions of the ellipsoid were set to ¼ of the semivariogram range. A minimum 4 composites with a maximum of 3 from any given drill hole were required to estimate a block. For blocks not estimated in pass 1 a second pass, with search ellipsoid dimensions set to ½ the semivariogram range, was completed. A third pass using the full range and a fourth pass using twice the range completed the kriging. In all passes the maximum number of composites was set to 12. If more than 12 composites were found in the search the closest 12 were used.

The kriging parameters for gold and number of blocks estimated in each pass are tabulated below.

Table 14-8: Kriging Parameters for gold in Cliff Creek North and Dukes Ridge

Domain	Pass	Number Estimated	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)
Cliff Cr. North	1	28	347 / -60	25.0	257 / -65	2.5	77 / -25	2.5
	2	315		50.0		5.0		5.0
	3	2,480		100.0		10.0		10.0
	4	6,465		200.0		20.0		20.0
Dukes Ridge	1	188	308 / 0	12.5	218 / 0	7.5	0 / -90	15.0
	2	1,491		25.0		15.0		30.0
	3	1,609		50.0		30.0		60.0
	4	1,094		100.0		60.0		120.0

Estimated blocks containing some percentage of material outside the mineralized solids were estimated for waste using composites from outside the mineralized solids. These waste grades are contained in the block model and could be used by mining engineers to determine a dilution grade.

For Cliff Creek North a specific gravity of 2.63 was used to convert volumes within the mineralized solids to tonnages. If an estimated block contained any percentage of underground workings the underground workings were assumed to within the mineralized zone and were subtracted from the percentage of mineralized solid in that block.

Within the Dukes Ridge mineralized solid a specific gravity of 2.58 was used to convert volume to tonnes.

14.1.9 Classification

Based on the study herein reported, delineated mineralization of the Cliff Creek North and Dukes Ridge zone is classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2014):

"In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral

Resources and Mineral Reserves adopted by CIM Council on May 10, 2014, as those definitions may be amended."

"Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal and industrial minerals.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase "reasonable prospects for economic extraction" implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cut-off grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.

Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time periods in excess of 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time."

The terms Measured, Indicated and Inferred are defined by CIM (2014) as follows:

Inferred Mineral Resource

"An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the

majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.

There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource."

Indicated Mineral Resource

"An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions."

Measured Mineral Resource

"A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit."

14.1.10 Modifying Factors

"Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors."

14.1.10.1 Mineral Resource Results

The geologic continuity at Cliff Creek North and Dukes Ridge has been established by surface and underground mapping and drill hole interpretation. Using cross sections and level plans three dimensional geologic solids were created to constrain the resource estimate. The grade continuity within these mineralized solids was quantified using semivariograms.

At this time the entire resource for both Cliff Creek North and Dukes Ridge is classified as inferred due to drill hole density, a limited number of blocks estimated in pass 1 and 2, and in the case of the Cliff Creek North Zone, uncertainty about the exact locations of underground workings.

A gold equivalent (AuEQ) grade was determined for each estimated block using the following assumptions:

- US\$ 1200 / oz gold price 95% recovery for gold
- US 14.50 / oz silver price 82% recovery for silver
- $$\text{AuEQ} = \frac{(\text{Au g/t} * 1200 * 0.95 / 31.1035 \text{ g/oz}) + (\text{Ag g/t} * 14.50 * 0.82 / 31.1035 \text{ g/oz})}{(1200 * 0.95 / 31.1035)}$$

No economic evaluations have been completed on the two mineralized zones and as a result an economic cut-off is unknown. However, for the purposes of reporting mineral resources on the Project, and to establish reasonable prospects of economic extraction, the authors compared current gold and silver metal prices and the current US\$-CDN\$ exchange rate to historic metal prices (adjusted for both inflation and historic exchange rates) for the 4-year period of past production on the Lawyers Project. They found that the average gold and silver grades corresponding to cut-off grades of 4.00, 4.50 and 5.00 g/t AuEQ in Table 14.1 below, after being adjusted for comparison purposes, compare favourably with historic mined grades at Lawyers. In addition, the authors

reviewed publically-reported mineral resource or reserve data and certain infrastructure-related factors at one proposed underground gold mine:

- At IDM Mining's Red Mountain Project near Stewart, B.C., reported measured and indicated resources total 1.642 million tonnes grading 8.36 g/t Au and 26 g/t Ag, using a 3.0 g/t Au cut-off and metal prices of US\$1,250 per oz. for gold and US\$20 per oz. for silver. The resource area has some existing underground infrastructure but no road access.

The authors conclude that, based on the above information, it is reasonable to select a 4.0 g/t AuEQ cut-off for reporting purposes for the Lawyers Project.

Based on the 2015 study reported by Giroux Consultants Ltd., delineated mineralization of the Cliff Creek North Zone is classified as a resource according to the definitions as adopted by CIM Council on May 10, 2014 and incorporated, by reference, into National Instrument 43-101. At this time the entire resource is classified as inferred due to drill hole density, uncertainty of the precise locations and full extent of underground workings and a limited number of blocks estimated in Pass 1 and 2.

The Cliff Creek North Inferred Resource, estimated using a number of different AuEQ cut-off grades, is presented in Table 14-9. At a 4.0 g/t AuEQ cut-off, its inferred mineral resource is estimated to be 550,000 tonnes grading 4.51 g/t Au and 209.15 g/t Ag, which equates to a contained metal resource of 80,000 oz. Au and 3,700,000 oz. Ag.

Table 14-9: Cliff Creek North Inferred Resource*

AuEQ Cut-off	Tonnes > Cut-off	Grade>Cut-off**			Contained Metal***	
(g/t)**	(tonnes)	Au (g/t)	Ag (g/t)	AuEQ (g/t)	Au (ozs)	Ag (ozs)
1.00	1,460,000	2.89	121.70	4.16	136,000	5,710,000
2.00	1,260,000	3.16	134.94	4.57	128,000	5,470,000
3.00	840,000	3.79	171.54	5.58	102,000	4,630,000
3.50	690,000	4.12	190.08	6.10	91,000	4,220,000
4.00	550,000	4.51	209.15	6.69	80,000	3,700,000
4.50	440,000	4.90	230.48	7.30	69,000	3,260,000
5.00	350,000	5.30	253.88	7.94	60,000	2,860,000
6.00	260,000	5.88	290.09	8.91	49,000	2,420,000
7.00	200,000	6.27	318.42	9.59	40,000	2,050,000
8.00	150,000	6.78	344.18	10.37	33,000	1,660,000

*Inferred mineral resources are not mineral reserves. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability. There has been insufficient exploration to allow for the classification of the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the inferred mineral resources could be upgraded to indicated mineral resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future.

**The following prices of metals and conversions are used to calculate AuEq; \$US1,200/oz for Au and \$US14.50/oz for Ag; $AuEQ = [(Au \text{ g/t} * 1200 * 0.95 / 31.1035 \text{ g/oz}) + (Ag \text{ g/t} * 14.50 * 0.82 / 31.1035 \text{ g/oz})] / (1200 * 0.95 / 31.1035)$.

***Contained ounces may not add due to rounding.

At Cliff Creek North there are 26,000 tonnes averaging 3.95 g/t Au and 182.7 g/t Ag estimated inside the mineralized zone and within the underground development. This would be an estimate of mined out material.

The Duke's Ridge Resource, estimated using a number of different AuEQ cut-off grades, is presented in Table 14-10. At a 4.0 g/t AuEQ cut-off, its inferred mineral resource is estimated to be 58,000 tonnes grading 4.30 g/t Au and 139.13 g/t Ag, which equates to a contained metal resource of 8,000 oz. Au and 260,000 oz. Ag.

Table 14-10: Dukes Ridge Inferred Resource*

AuEQ Cut-off (g/t)**	Tonnes > Cut-off (tonnes)	Grade>Cut-off**			Contained Metal***	
		Au (g/t)	Ag (g/t)	AuEQ (g/t)	Au (ozs)	Ag (ozs)
1.00	403,000	2.07	76.88	2.87	27,000	1,000,000
2.00	282,000	2.45	89.00	3.38	22,000	810,000
3.00	133,000	3.25	113.38	4.43	14,000	480,000
3.50	85,000	3.78	125.53	5.08	10,000	340,000
4.00	58,000	4.30	139.13	5.75	8,000	260,000
4.50	43,000	4.65	155.00	6.26	6,000	210,000
5.00	33,000	4.96	171.20	6.74	5,000	180,000
6.00	18,000	5.59	208.99	7.77	3,200	121,000
7.00	10,000	6.03	273.70	8.88	1,900	88,000
8.00	7,000	6.41	308.85	9.63	1,400	70,000

*Inferred mineral resources are not mineral reserves. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability. There has been insufficient exploration to allow for the classification of the inferred resources tabulated above as an indicated or measured mineral resource, however, it is reasonably expected that the majority of the inferred mineral resources could be upgraded to indicated mineral resources with continued exploration. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future.

**The following prices of metals and conversions are used to calculate AuEq: \$US1,200/oz for Au and \$US14.50/oz for Ag; $AuEQ = [(Au \text{ g/t} * 1200 * 0.95 / 31.1035 \text{ g/oz}) + (Ag \text{ g/t} * 14.50 * 0.82 / 31.1035 \text{ g/oz})] / (1200 * 0.95 / 31.1035)$.

***Contained ounces may not add due to rounding.

14.1.11 Block Model Verification

As a verification tool for the block model, level plans were produced for both the Cliff Creek North and Dukes Ridge mineralized zones showing both estimated gold grades in blocks and in 2 m composites from 10 m above the level to 10 m below. Block grades matched the composite grades with no bias indicated. Examples of these level plans are shown for Cliff Creek in Figures 14.2 to 14.7 and for Dukes Ridge in Figures 14.8 to 14.10. Of note is that the gold grade colour codes change between the two deposits.

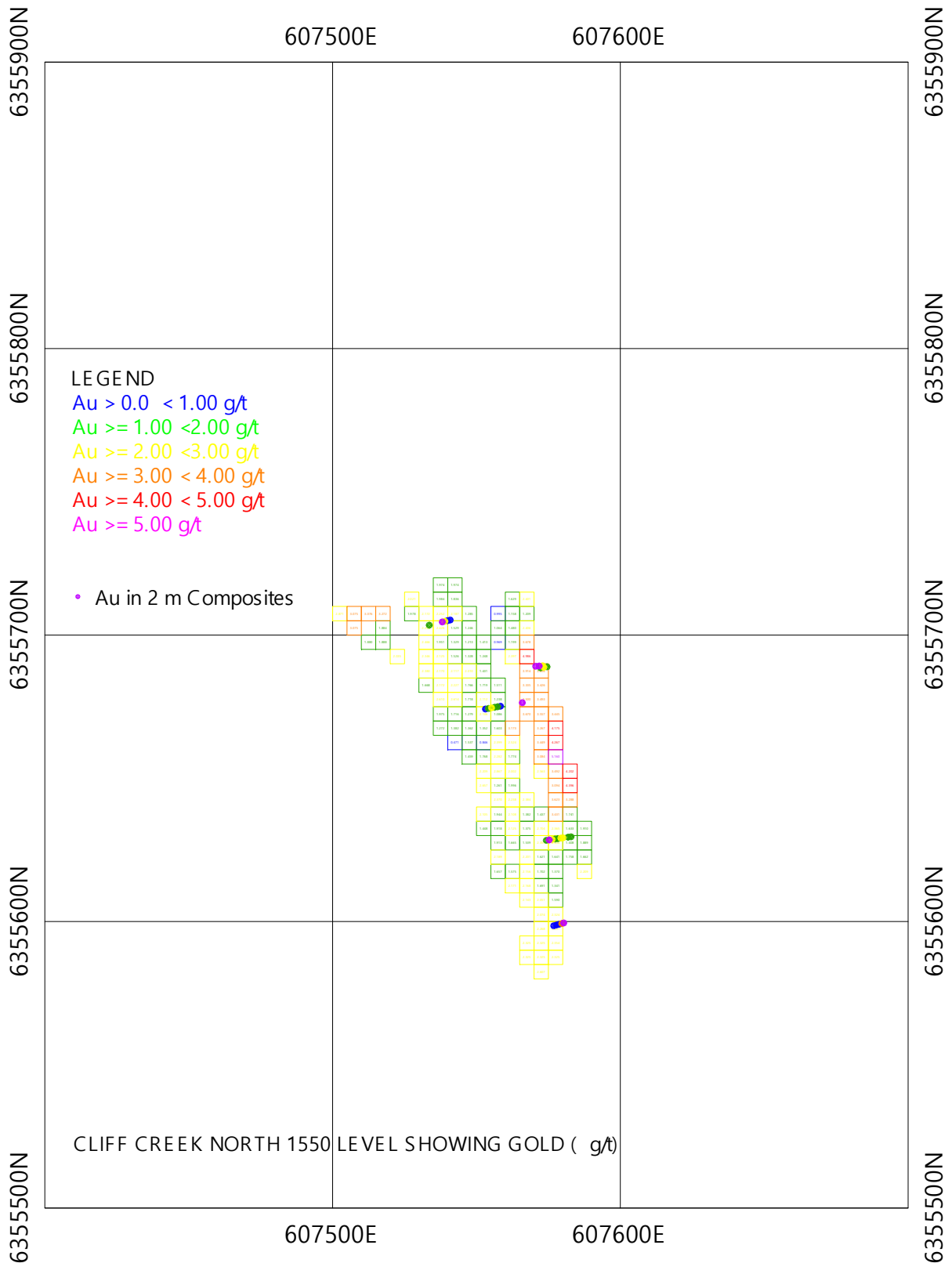


Figure 14-5: Cliff Creek North 1550 Level showing estimated gold grades

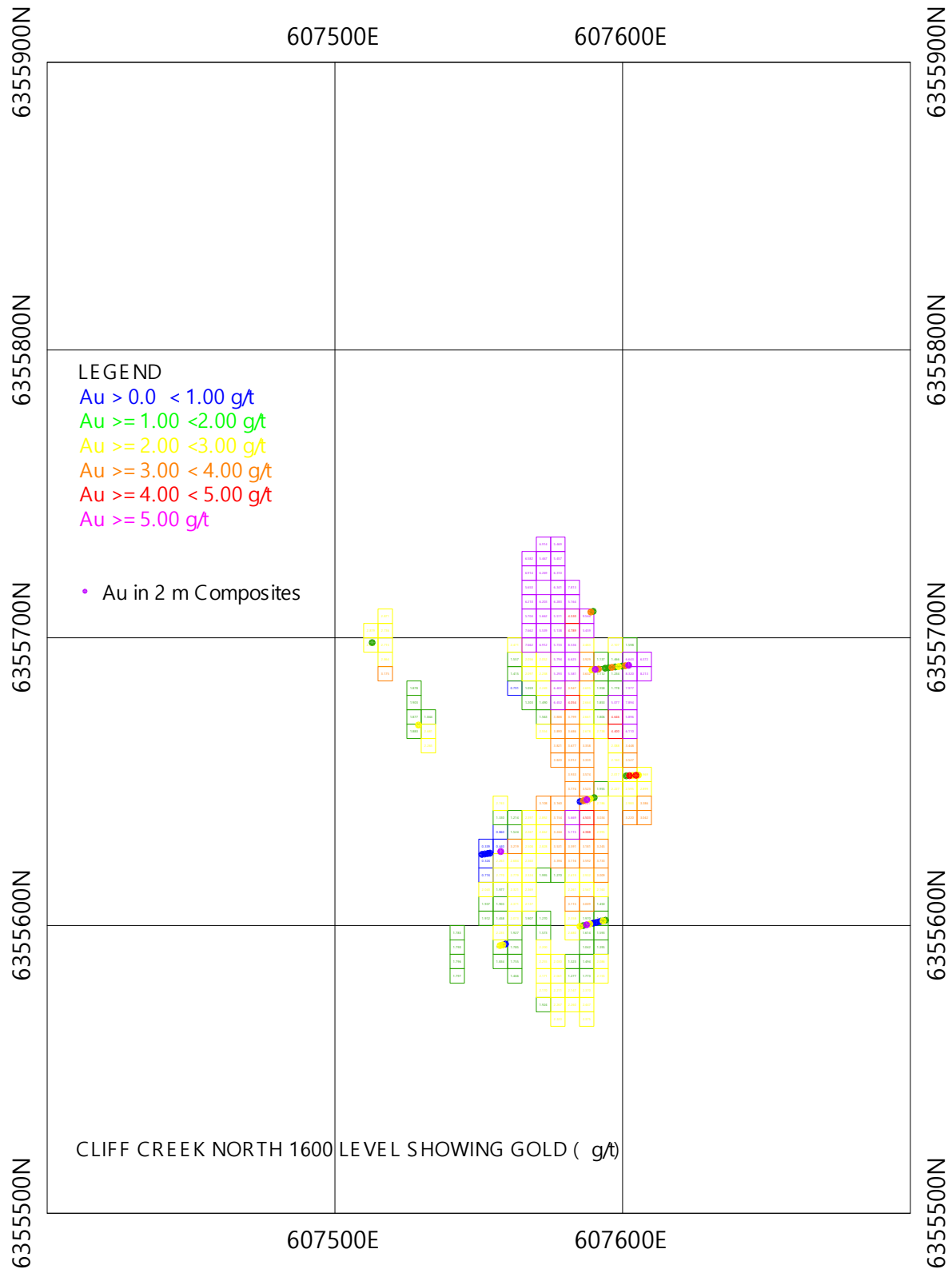


Figure 14-6: Cliff Creek North 1600 Level showing estimated gold grades

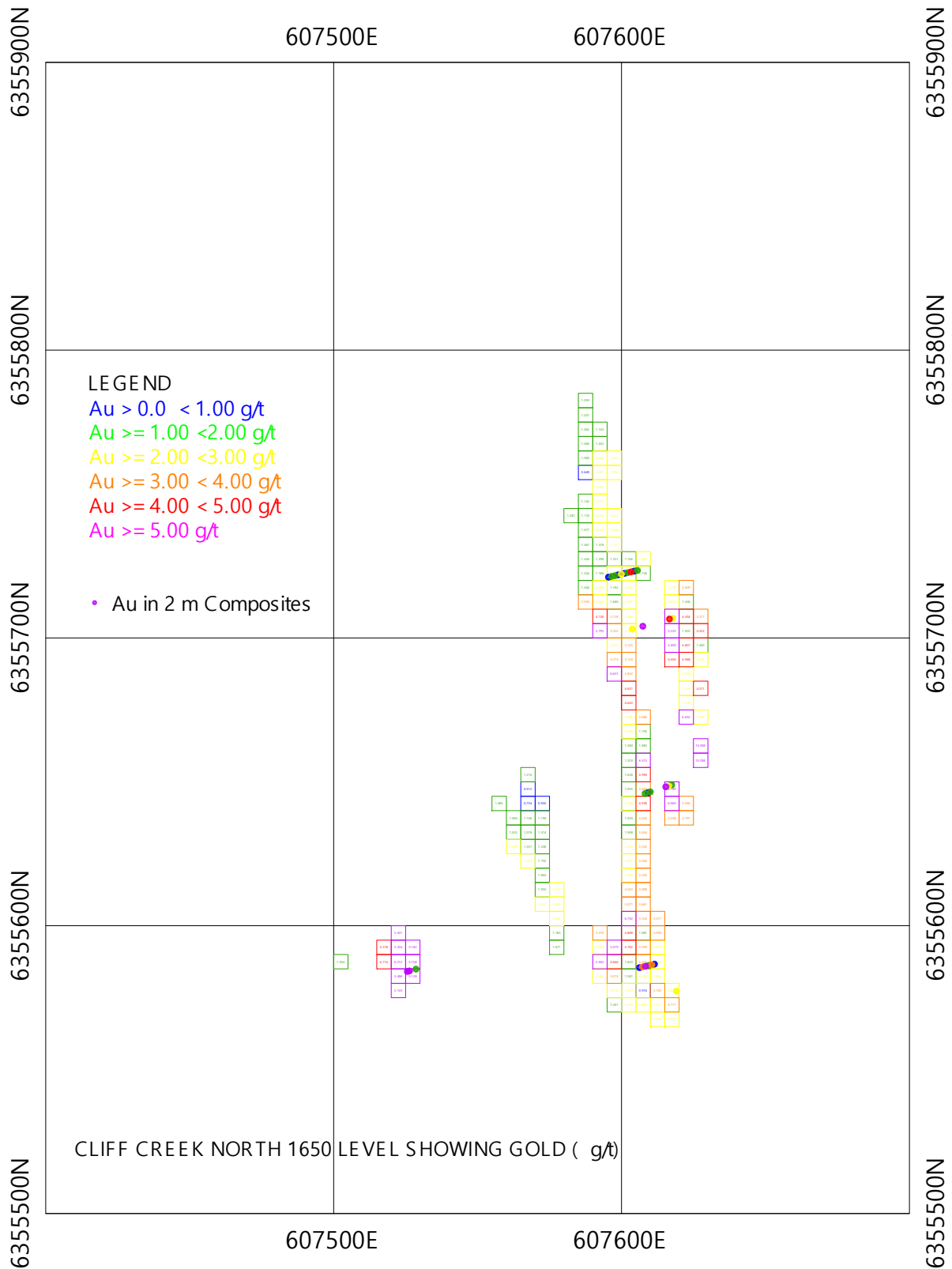


Figure 14-7: Cliff Creek North 1650 Level showing estimated gold grades

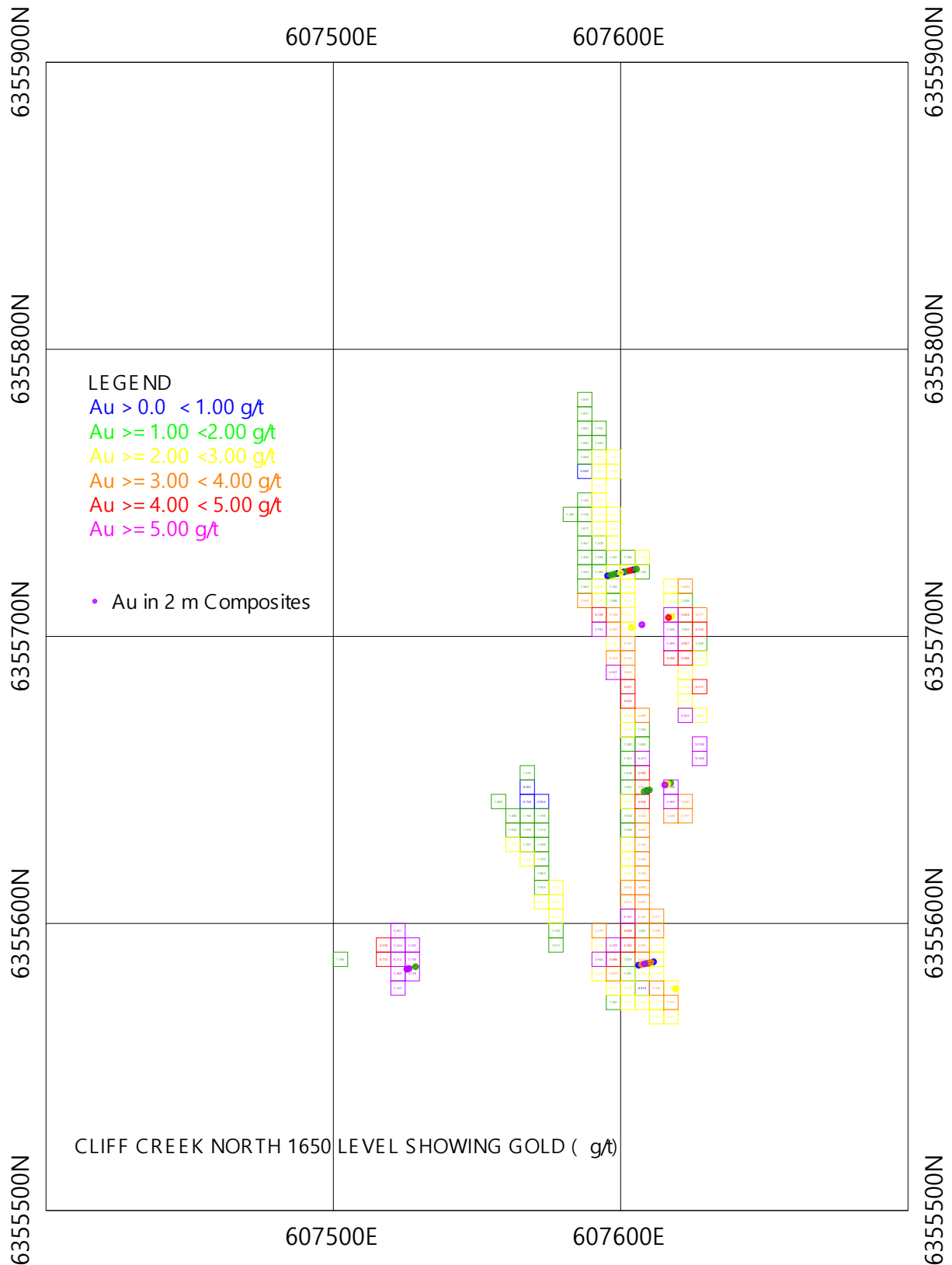


Figure 14-8: Cliff Creek North 1650 Level showing estimated gold grades

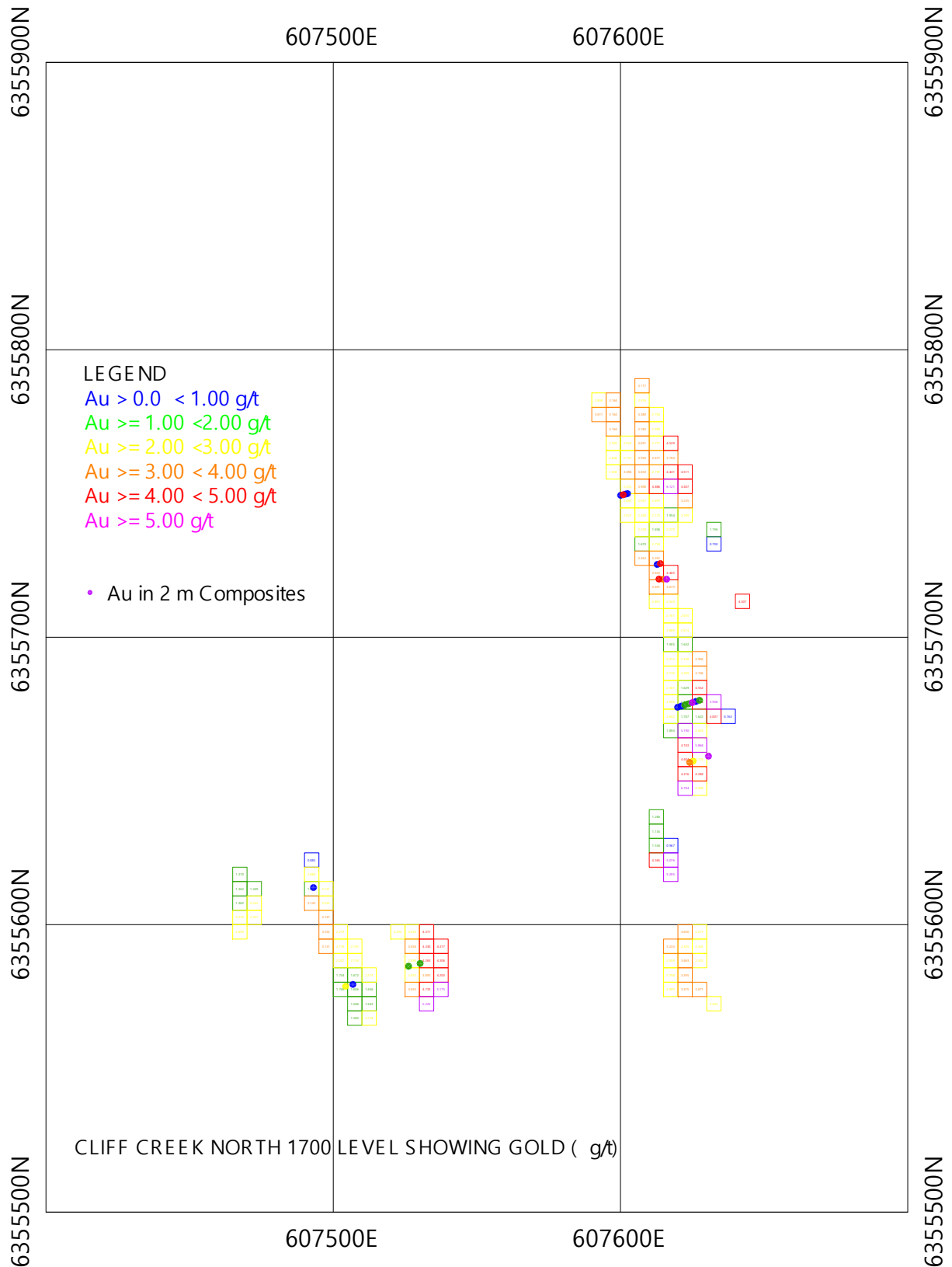


Figure 14-9: Cliff Creek North 1700 Level showing estimated gold grades

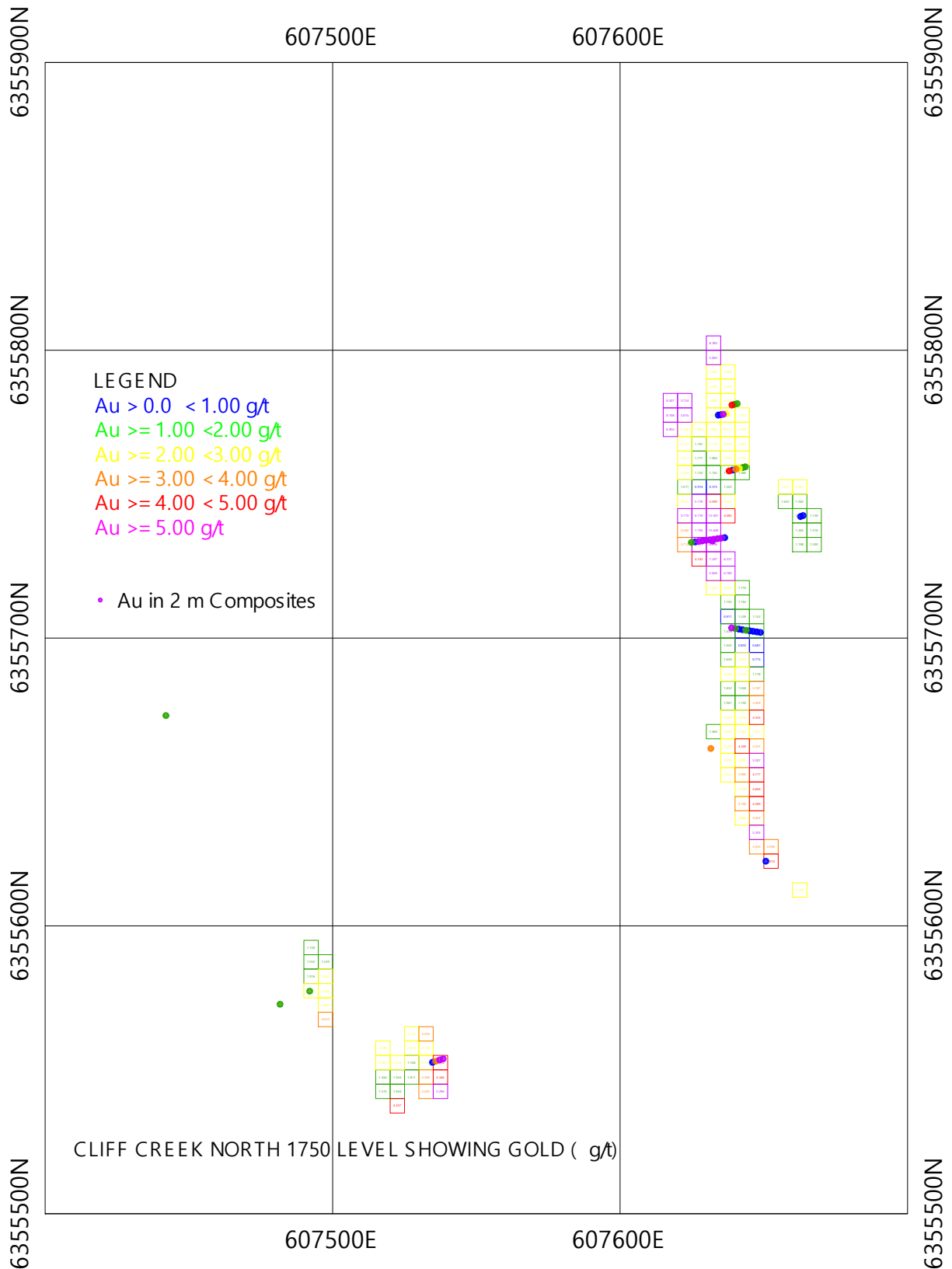
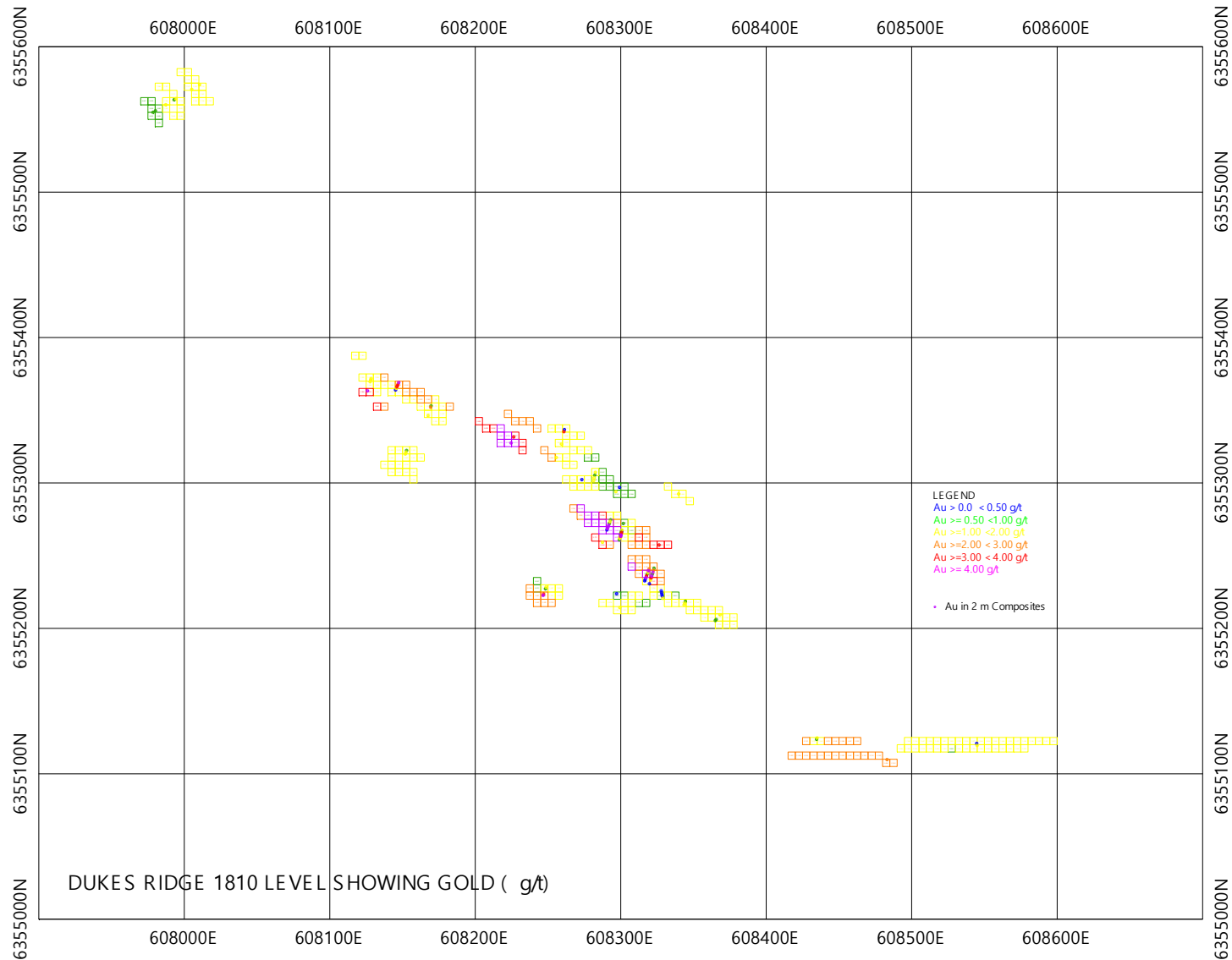
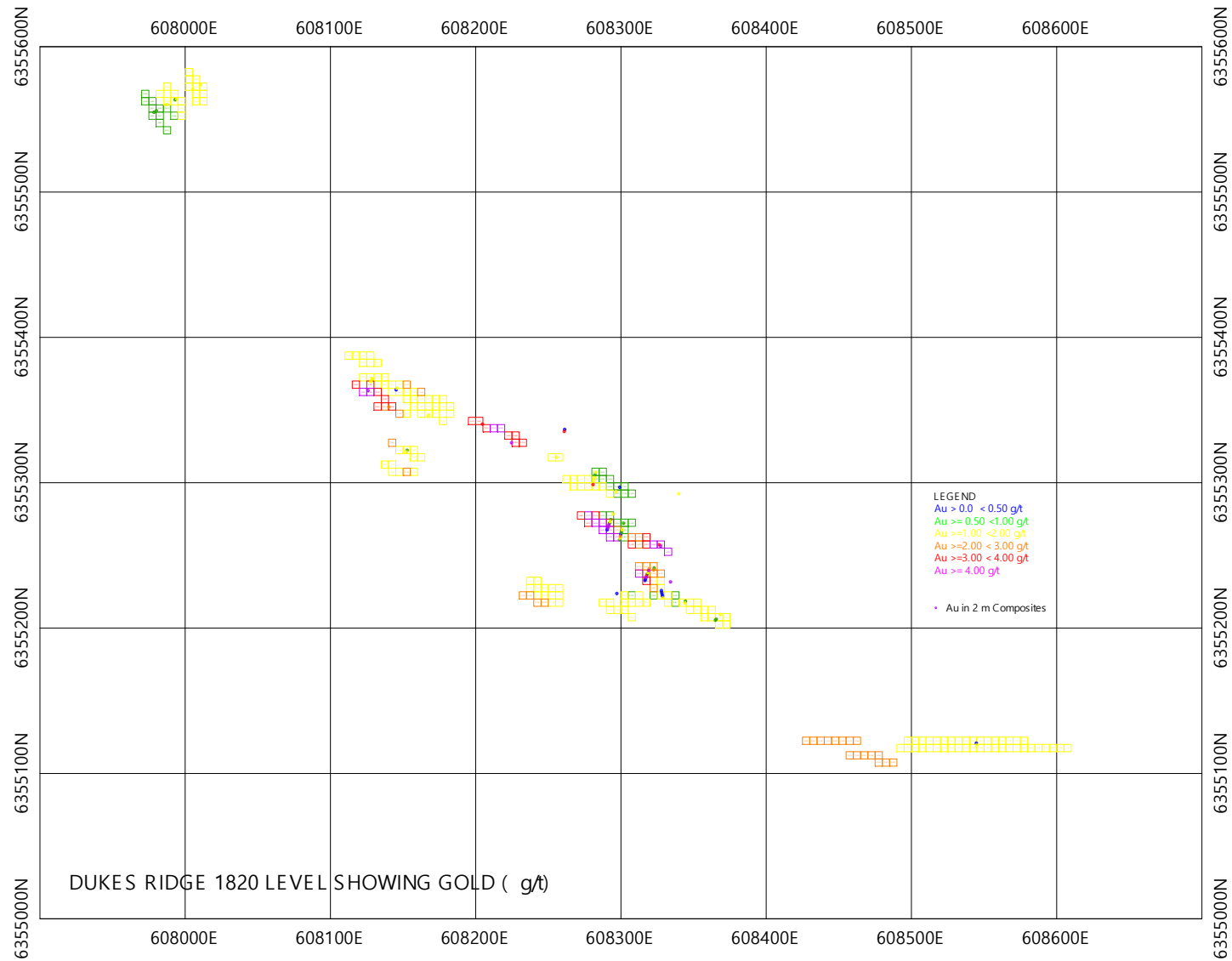
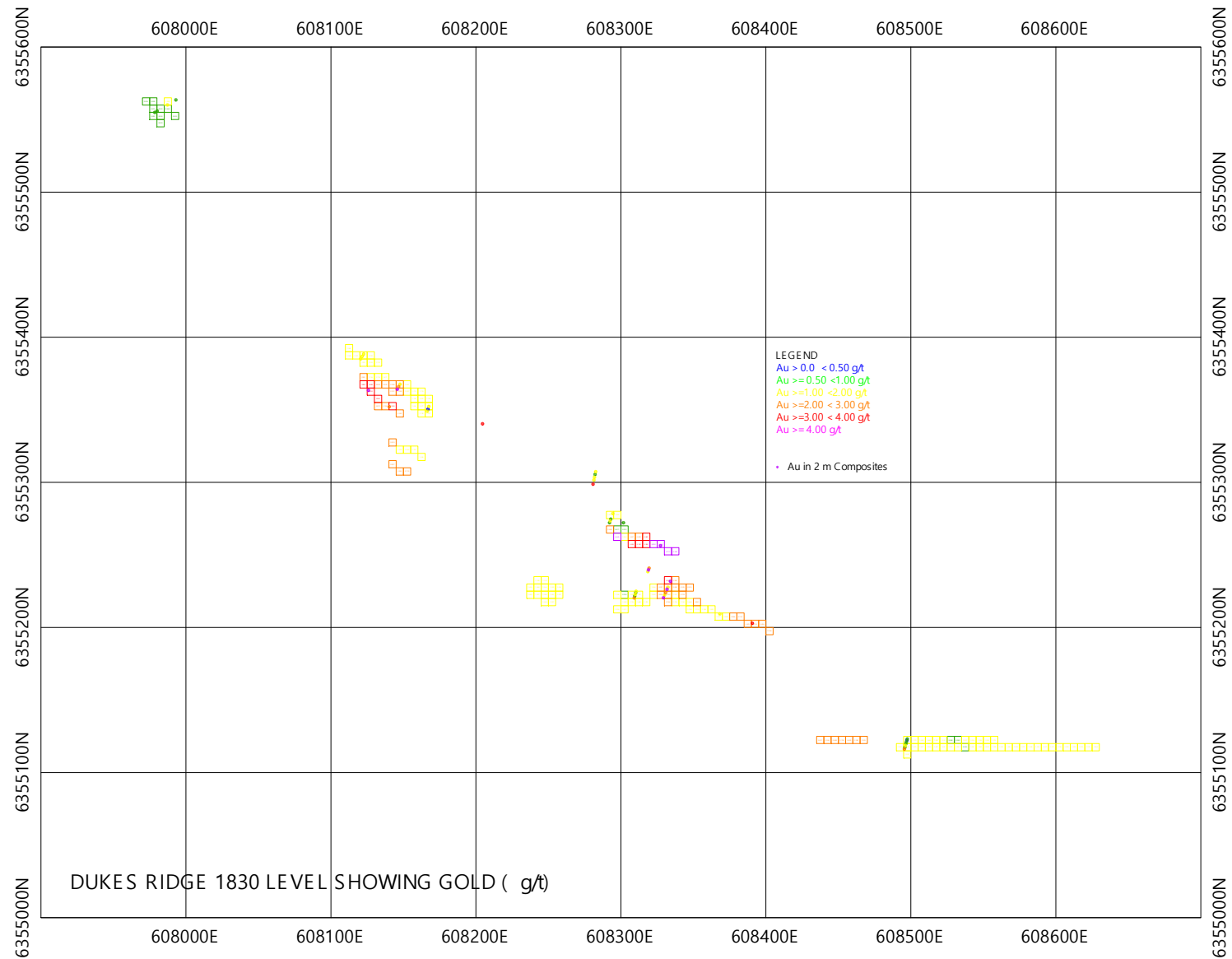


Figure 14-10: Cliff Creek North 1750 Level showing estimated gold grades

**Figure 14-11: Dukes Ridge 1810 Level showing estimated gold grades**

**Figure 14-12: Dukes Ridge 1820 Level showing estimated gold grades**

**Figure 14-13: Dukes Ridge 1830 Level showing estimated gold grades**

15 MINERAL RESERVE ESTIMATES

There are no mineral reserve estimates on any of the known deposits within the current limit of the Project area.

16 MINING METHOD

The Lawyers Project is not an 'advanced property' as defined by NI 43-101; therefore this section is not applicable.

17 RECOVERY METHODS

The Lawyers Project is not an 'advanced property' as defined by NI 43-101; therefore this section is not applicable.

18 PROJECT INFRASTRUCTURE

The Lawyers Project is not an 'advanced property' as defined by NI 43-101; therefore this section is not applicable.

19 MARKETS STUDIES AND CONTRACTS

The Lawyers Project is not an 'advanced property' as defined by NI 43-101; therefore this section is not applicable.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The Lawyers Project is not an 'advanced property' as defined by NI 43-101; therefore this section is not applicable.

21 CAPITAL AND OPERATING COSTS

The Lawyers Project is not an 'advanced property' as defined by NI 43-101; therefore this section is not applicable.

22 ECONOMIC ANALYSIS

The Lawyers Project is not an 'advanced property' as defined by NI 43-101; therefore this section is not applicable.

23 ADJACENT PROPERTIES

23.1 INTRODUCTION

In preparing this section of the report, the writers relied mainly upon public domain minfile descriptions and assessment reports for three past-producing properties and two developed prospects, all of which are covered by adjacent or nearby external competitors' claims and by definition, are considered Adjacent Properties. Supplementary sources of information for this section were Hawkins' 2006 and Bowen's 2014 Technical Reports on the Ranch Property and some publically-traded companies' websites and news releases. All references and sources of information are listed in Section 27 of the Report; property locations are shown on Figure 23.1. Readers are cautioned, however, that other than the Ranch property (the subject of technical report by co-author Bowen in 2014, the authors of this Report have not been able to verify the information presented for the adjacent properties. The information presented for the adjacent properties is not necessarily indicative of the mineralization on the Lawyers Project.

23.2 PAST PRODUCERS

23.2.1 Ranch (094E 079, 091 and 099)

The Ranch property is located about 19 km northwest of the Lawyers Project. It is currently covered by claims which are 100% owned by Guardsmen Resources Ltd. of Burnaby, B.C., an affiliated company to PPM.

Past work on the Ranch property has identified 19 zones of gold mineralization over a 25 km² area. In 1991, Cheni Gold Mines Inc. surface-mined an aggregate of 59,000 tonnes from three small pits in the Bonanza (094E 079), Thesis III (094E 091) and BV Zones (094E 099). Approximately 41,000 tonnes of mineralization were treated at the Lawyers mill and about 10,000 ounces of gold were recovered. During August 1986, Energex Mines Ltd. operated a 6 tonnes per day (tpd) pilot plant on the property; a total of 209 tonnes of high-grade surface mineralization from the Thesis III A Zone was processed.

The property is underlain mainly by trachyandesite ash-flows to lapilli tuffs of the Adoogacho and Metsantan Members of the Lower Jurassic Toodoggone Formation (Diakow et al, 1993). The volcanic sequence is intruded locally by dykes which are compositionally similar to the volcanic units and may represent feeder systems to them. Felsic dykes and irregular bodies of dacitic, rhyo-dacitic and rhyolitic composition have been encountered in a number of drill holes. These intrusive rocks may be genetically linked to late-stage deposit-forming fluids.

Alteration on the Ranch property is of the high-sulphidation (acid-sulphate) epithermal type, characterized by widespread argillization and silicification of andesite-dacite hosts rocks. Important alteration assemblages include alunite-quartz, hematite-illite-quartz, dickite-quartz, quartz-barite and quartz-pyrite, working inwards and downwards in a typical, zoned epithermal alteration system. Principal metallic minerals include argentite, electrum, native gold and silver and lesser chalcopyrite, galena and sphalerite. Also present in the area, but not confirmed on the property, is porphyry-style mineralization.

As currently known, all significant gold mineralization on the Ranch property is hosted by silica-sulphate and silica-sulphide bodies flanked by argillically altered zones (Bowen, 2014). They are controlled by moderately to steeply-dipping fault zones with north-northwesterly, northwesterly and northeasterly orientations. The gold-bearing zones have a crudely elliptical shape and are discontinuous along the controlling fault systems. In the Bonanza deposit, some of the gold-bearing zones are thought to have formed by selective replacement of more permeable tuff units within the volcanic strata. Across and adjacent to the property, gold mineralization is known to occur over a vertical range of about 300 m.

Historical resource estimates have been done on 8 mineralized zones, including the past-producing Bonanza, Thesis III and BV Zones, but there are no 43-101 mineral resources on any of the zones.

Considerable exploration potential remains on the Ranch Project. Future discovery of overburden covered near-surface gold deposits, or "blind" deposits at depth, will have to rely more on the drill-testing of geophysical targets such as coincident 3D-IP resistivity-chargeability anomalies. The primary exploration target at Ranch will remain as structurally-controlled or replacement-style high sulphidation epithermal gold deposits similar to those previously discovered on the property. A secondary, but no less important target type is a buried porphyry copper-gold deposit for which earlier magnetic and IP surveys have partially delineated coincident geophysical anomalies possibly indicative of this deposit type.

A multi-ounce gold assay (267.4 g/t Au or 7.80 oz. Au per ton) of a 2013 verification rock sample, taken from a 0.6 meter-long channel sample collected on the east wall of the BV pit, indicates that there may be potential for delineating a small tonnage of high grade material amenable to selective open cut extraction.

23.2.2 Baker (094E 026)

The Baker Mine, the first operating lode gold mine in the Toodoggone District, is located about 7 km southeast of the Lawyers Project. It is currently covered by Mining Lease # 243451 which is 100% owned by Multinational Mining Inc. of Vancouver, B.C. The property is currently on care and maintenance.

Gold was discovered in quartz veins on the Baker (Chappelle) property in 1969. In 1981, the property was placed into production by DuPont of Canada as a 110 tpd high-grade underground operation on the "A" Vein. Operations ceased in 1983 as reserves were exhausted.

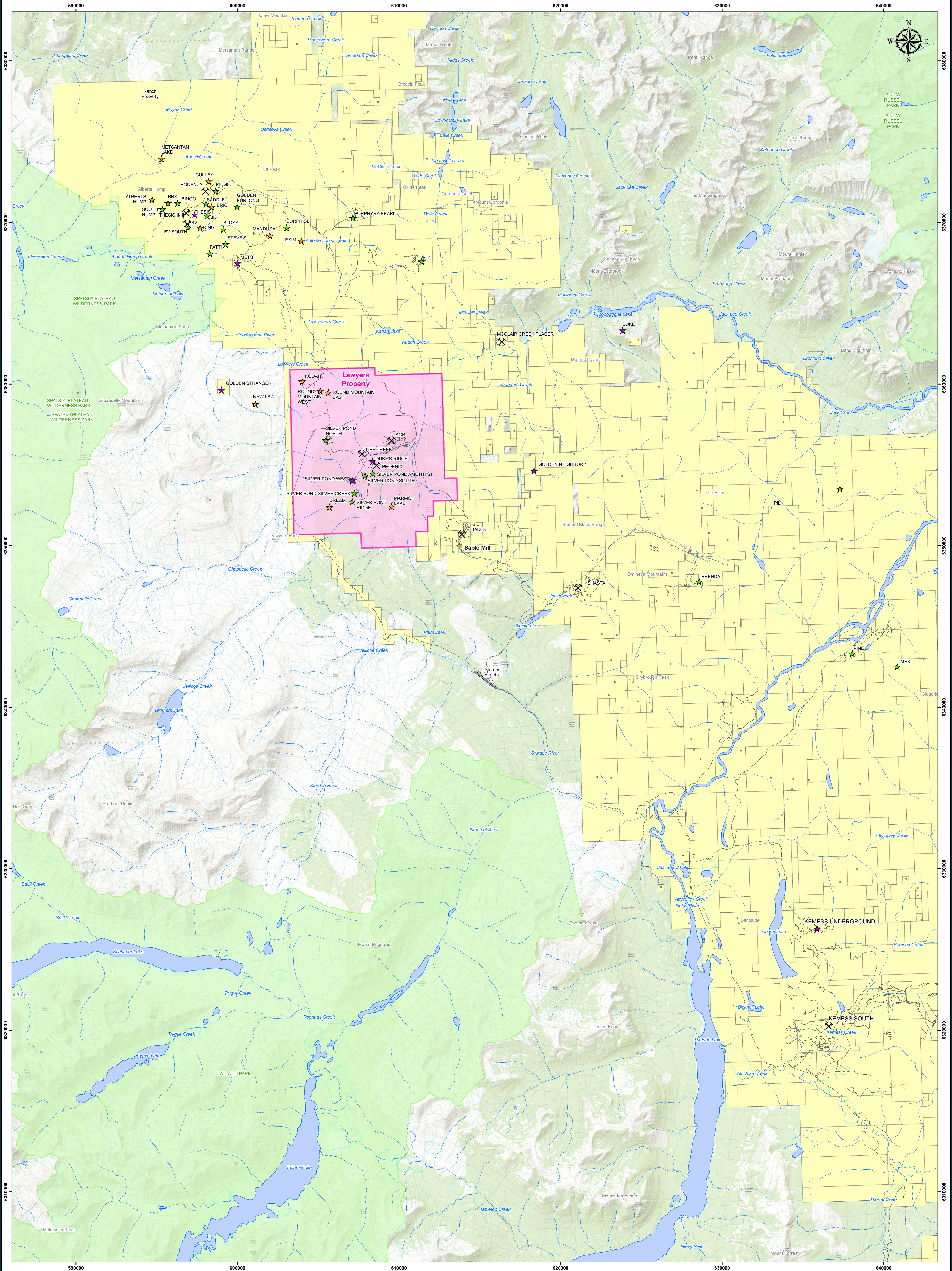
In 1989, with newly developed road access, Sable Resources Ltd. acquired DuPont's Baker Mill and with improvements, increased production capacity from 110 to 245 tpd and carried out production on the "B" Vein during the period 1991 to 2001. True widths of the A and B vein structures vary from 2.4 to 7.6 m, with typical grades of 0.5 oz. per ton Au, 5 oz. per ton Ag and 1% Cu.

Production statistics available in the minfile data base for the period 1981-97 show that totals of approximately 41,300 ounces of gold, 766,000 ounces of silver and 13,000 kilograms of copper were recovered from the A and B veins (Minfile, 2015a). Although additional, small-scale production on the Baker property has been carried out on an intermittent, seasonal basis since 1997, no reliable production totals are available in the public domain. Since mining ceased, there are no historical or current resources or reserves on the Baker property.

At the Baker Mine property, seven quartz vein systems occur within Takla Group host rocks. Two of the vein systems, the A and B Veins, have been mined. All veins occur within an uplifted block of brightly iron-stained basalt and andesite flows. The veins occupy two principal trends, northeast and east-southeast. Wallrocks are variably silicified and altered to sericite, clay minerals and carbonate with intensity of alteration increasing towards vein structures.

Gold-silver values are generally associated with highly fractured and occasionally brecciated white to grey, vuggy quartz veins containing 1 to 10 per cent pyrite, and to a lesser extent, occur in silicified wallrock. Higher grade mineralization is associated with grey quartz, which occasionally contains visible argentite. The latter is commonly associated with disseminated grains of pyrite, chalcopyrite and very minor sphalerite. High grade gold-silver values occasionally occur in narrow, 1-5 cm wide, crosscutting silicified shears. Visible gold is rare. Significant precious metals were found to be contained in a flat-lying shoot 200 m in length by 3 m wide and extending to a depth of 40 m below surface.

The small tonnage gold-silver deposits around the Baker Mine are very high grade, typical of epithermal type deposits. Although many of these deposits are currently without mineral resources, they have good potential for the discovery of additional mineralization. The Baker property's past production is indicative of the mineral potential for this type of deposit in the Toodoggone District.



CRYSTAL
EXPLORATION
**Toodoggone -
Kemess Region
Adjacent Properties
Figure 23.1**

50k Mapsheets: 94D,E
Date: 2018-04-23
Projection: NAD 1983 UTM Zone 9N
Scale: 1:100,000
Author: tkwikoski
Last Modified By: tkwikoski
Checked By: BL
Revision #:

0 0.5 1 2 3 4 5
Kilometres

Selected Minfile Occurrences

- ✕ Mine
- ★ Developed Prospect
- ★ Prospect
- ★ Showing
- Other Minfile Occurrences

- Sable Mill
- Road
- Stream
- Lake
- Wetland
- Provincial Park
- Sturdee Airstrip
- Ranch Property - Guardsmen Resources Inc. (100%)
- Lawyers Property - PPM Phoenix Precious Metals Corp. (100%)
- Mineral Tenure - Other



23.2.3 Shasta (094E 050)

The Shasta property is located about 15 km southeast of the Lawyers Project and is currently covered by Mining Lease #243454 which is 100% owned by Multinational Mining Inc. of Vancouver, B.C.

The gold-silver deposit on it was discovered in the 1970's by Newmont Mining, and in the 1980's it was explored by Homestake Mining and Esso Minerals Canada Limited. Since 1989, extensive exploration has been conducted on the Shasta property. Some 257 surface diamond drill holes have identified 11 mineralized zones. Three of these, the Creek, JM and D Zones, have been developed and at least partially exploited. Under an arrangement with International Shasta Resources and Homestake Mining, Sable Resources mined and processed (at the Baker mill) 117,000 tons from the JM and D Zones. The initial 1989 open-pit operation shifted to an underground operation in 1990 and production from the JM and D deposits averaged 50,000 tons each with grades of 0.25 oz. Au per ton and 17 oz. Ag per ton. In 2004-05, Sable mined an additional 15,000 tons from an open pit at the Creek Zone. Current plans for the Creek Zone now involve underground development (Sable, 2007).

In total, Sable has extracted over 20,000 ounces of gold and 1.1 million ounces of silver from the Shasta property (Sable, 2007). Similar production totals are shown in the minfile data base for the years 1989-91 and 2000 (Minfile, 2015b). Although additional, small-scale production on the Shasta property has been carried out on an intermittent, seasonal basis since 2000, no reliable production totals are available in the public domain. In 2013, Sable Resources Ltd. placed their seasonal underground Shasta Mine on care and maintenance. Since mining of the two zones, there are no historical or current resources or reserves on the Shasta property.

The Shasta deposit is an epithermal multiphase quartz-carbonate stockwork vein/breccia deposit containing significant silver and gold mineralization. It is spatially related to a dacitic dome of Lower to Middle Jurassic age. Mineralized zones are hosted by pyroclastic rocks that were deposited on the flank of the coeval dacite dome. The pyroclastic rocks, which unconformably overlie Stuhini Group volcanic rocks, belong to the Attycelley Member of the Upper Volcanic Cycle of the Toadoggon Formation.

The Shasta deposits consist of multiple overlapping quartz-calcite stockwork vein/breccias zones that occur as narrow (<1 m) curvilinear breccias that pinch and swell within wider (>10 m), variably altered and veined sections over strike lengths of up to 500 m. Quartz and calcite gangue occur individually in single-stage veins, as multistage banded veins and breccias, and also are intimately mixed in single stage veins. Both gangue minerals display open-space filling textures in banded veins and rare drusy vugs.

Native gold and silver, electrum and acanthite mineralization occurs erratically within quartz and calcite stockwork veins and breccias. Grades of mineralization appear to be independent of the intensity of alteration or brecciation. However, some of the highest silver values occur in late-stage calcite breccia zones. Gold to silver ratios throughout the deposit vary considerably, from 1:10 to 1:100, with a deposit average of about 1:45. Native gold and silver, electrum and acanthite mineralization is associated with finely disseminated grey sulphides and coarser grained pyrite. The main sulphide minerals are pyrite, sphalerite, galena and minor chalcopyrite, in decreasing order of abundance.