ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Franklin Project; Site Investigations and Metallurgical Testing – Union Mine Area

TOTAL COST: $5,909.21

AUTHOR(S): Doug Warkentin
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5605028 – 31 May-16; 5610604 – 15 Jul-16; 5615411 – 22 Aug-16; 5619629 – 23 Sep-16; 5626334 – 17 Nov-16

YEAR OF WORK: 2016

PROPERTY NAME: Franklin

CLAIM NAME(S) (on which work was done): Bullion; Alpha Twin; Danish; Union Tails

COMMODITIES SOUGHT: Au, Ag, Cu, Pt, Pd

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: Franklin Camp, including 082ENE003, 082ENE004, 082ENE008, 082ENE013, 082ENE033, 082ENE054, 082ENE059, 082ENE061

MINING DIVISION: Greenwood
NTS / BCGS: NTS 082E09W
LATITUDE: ____49_____ ° ___34_____ ' ___50_____ "
LONGITUDE: ____118_____ ° ___23_____ ' ___30_____ " (at centre of work)
UTM Zone: 11 EASTING: 402000 NORTHING: 5489500

OWNER(S): Doug Warkentin

MAILING ADDRESS: 7069 McBride St., Burnaby, BC, V5E 1R1

OPERATOR(S) [who paid for the work]: Crucible Resources Ltd.

MAILING ADDRESS: 7069 McBride St., Burnaby, BC, V5E 1R1

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**) Jurassic, Eocene, Carboniferous-Permian, Penticton Group, Harper Ranch Group, Volcaniclastic Rocks, Granites, Kettle River Formation, Marron Formation, Franklin Group, Limestone Skarns, Averill Complex

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 00637, 17273, 21768, 26306, 26440, 27328, 27604, 27929, 28790, 29306, 33945, 34310, 34714, 34846

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock	9 samples ICP-MS	Bullion, AlphaTwin, Danish	$2710.27
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying	9 samples, prep and ICP analysis	Bullion, AlphaTwin, Danish	$284.85
Petrographic			
Mineralographic			
Metallurgic	4 tests, 4 solid and 16 solutions - ICPanalysis	Union Tails	$2914.09
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		TOTAL COST	$5,909.21

Franklin Project

Greenwood Mining Division
NTS 082E/08 and /09

Project Area Location:
UTM NAD 83: Zone 11, 402000 East, 5489500 North

Registered Owner: Doug Warkentin
Operator: Crucible Resources Ltd.

Site Investigations and Metallurgical Testing – Union Mine Area

Project Tenure Numbers: **1024505, 1032615, 1032842, 1033089, 1036687, 1036688, 1036689, 1036692, 1040223, 1040606, 1040607, 1044203, 1044204, 1045746.**

SOW Event Numbers: 5605028, 5610604, 5615411, 5619629 and 5626334.

November 7, 2016

Prepared By: Doug Warkentin, P.Eng

TABLE OF CONTENTS

Introduction ……..……3

Location and Access ……..3
Tenure Information ……..3
Regional Geology ……6
Local Geology ……..……7
Property History ……..…10
Summary of Work ……..……13

Work Program ……..……14

Sampling, Testing and Data Collection ……..14
Interpretation of Results ……..17

References ……17

Author's Qualifications ……19

Statement of Costs ……20

FIGURES

1. **Franklin Project Location Map** ……..……4
2. **Project Tenure Outline** ……..……5
3. **Regional Geology, Franklin Camp Area** ……..……8

TABLES

1. **Franklin Project Mineral Tenures** ……..……6
2. **Franklin Camp – Documented Mineral Occurrences** ……..……10
3. **Historical Production from the Franklin Camp** ……..11
4. **Rock Sample Description and Analytical Results** ……..15
5. **Metallurgical Composites** ……..…16

Appendix 1 – Sample Location Maps

Appendix 2 – Metallurgical Test Reports

Appendix 3 – Assay Reports

Introduction

Location and Access

The Franklin project lies along the Burrell Creek valley in the Christina Range of the Monashee Mountains of Southeast BC, approximately 65 km north of Grand Forks, BC. It covers part of the historic Franklin Camp, including the abandoned town sites of Franklin and Gloucester City. The general project location is shown in Figure 1.

The property consists of a contiguous grouping of MTO claims covering much of Mt. McKinley and Mt. Franklin, extending across Burrell Creek to the east and along Franklin Creek to the northwest. The project area is crossed by the Burrell Creek Forest Service Road (FSR) which is a well-maintained all-season two wheel drive accessible road. It connects with Grand Forks via the Granby Valley road to the south, and runs along the east side of the Burrell Creek Valley in the project area. Near the northeast boundary of the property a forestry spur road crosses Burrell Creek and splits into three branches, providing access to much of the western and north-western parts of the project area. These are recently active logging roads that mostly remain in good condition. The middle branch, accessing the upper part of Franklin Creek, has been decommissioned but remains passable by high clearance two-wheel drive vehicles. The other two branches, accessing the Mt. McKinley area south of Franklin Creek and the Gloucester Creek area to the north, appear to remain as active forestry roads and are in good condition where they pass through the property.

The entire area was part of an active exploration and mining camp in the early part of the last century, and there are therefore also many overgrown and unmaintained roads and trails accessing old workings, particularly in the areas surrounding Mt. Franklin and the north side of Mt. McKinley.

The area is mountainous, with deep valleys to the west of the broader Burrell Creek Valley. The east-facing slopes tend to be steep, while west-facing slopes are gentler. The climate is generally dry in the summer and the terrain is generally tree-covered, but with relatively little underbrush.

Tenure Information

The Franklin Project currently consists of 14 Mineral Titles Online claims with a total area of 1928 hectares. The project claims form a single contiguous block in an area covering the confluence of Franklin, Gloucester and Burrell Creeks, and covering much of Mt. McKinley and Mt. Franklin. It extends to the northwest along Franklin Creek, including the Twin Creek and McDonald Creek areas. The project claims also include smaller areas on the east side of Burrell Creek north of Dinsmore Creek and along the lower portion of Nichol Creek. The project claims cover large parts of the historically active Franklin mining camp, with a long history of past exploration and previous tenures. The area includes many reverted crown granted mineral claims that no longer hold title, along with a smaller number of crown grants that remain in good standing. The active crown grants principally cover the past producing Union and McKinley Mines, along with the area around the Homestake mine. Together these claims exclude title to approximately 84 hectares of the total project area.

The claims are all owned by the author, and Crucible Resources Ltd. has an option to acquire 100% ownership of these claims. Claim details are shown in Table 1. Expiry dates shown in this table reflect the application of work described in this report.

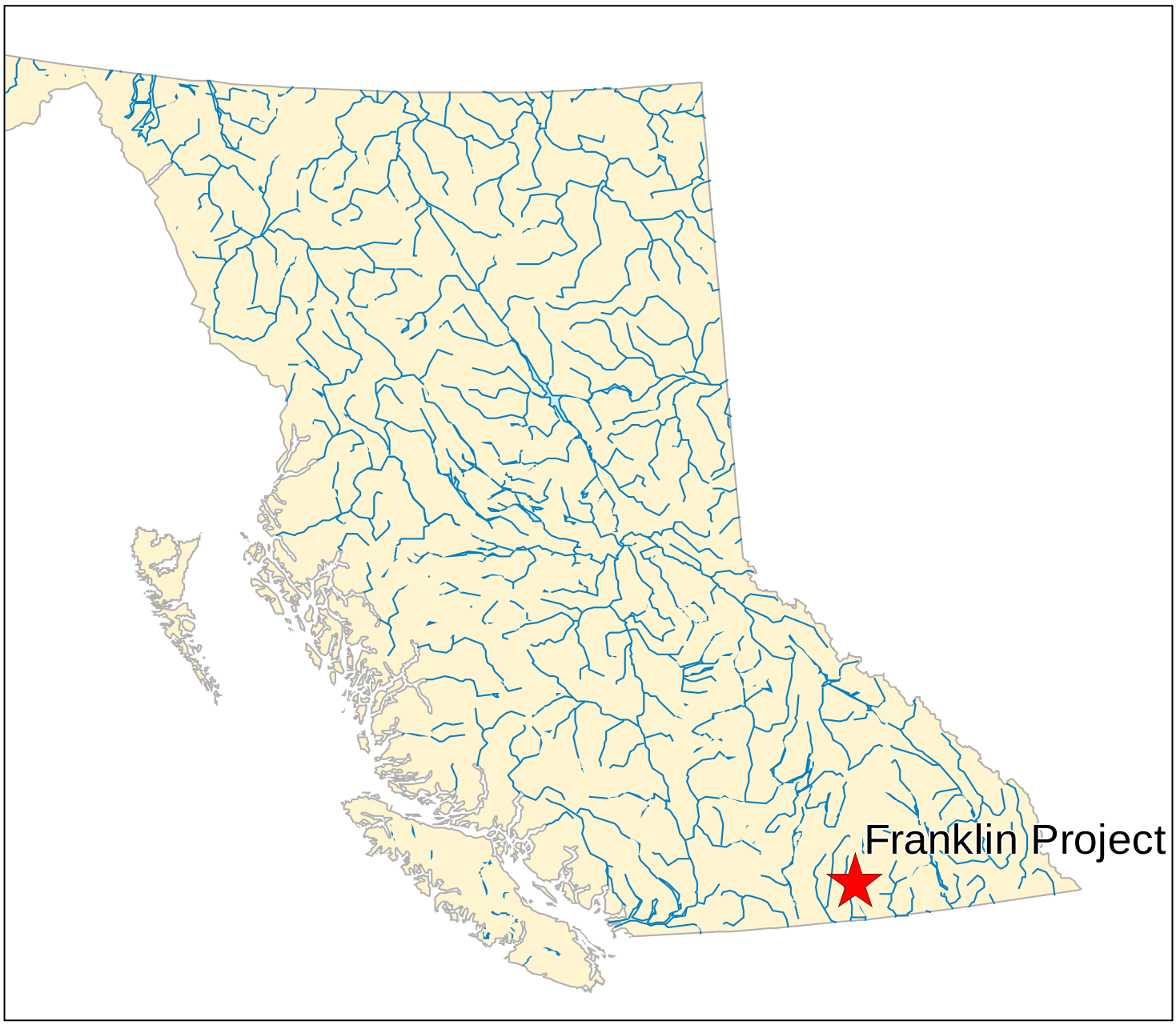


Figure 1 – Franklin Project Location Map

Figure 2 outlines the tenures of the Franklin Project.

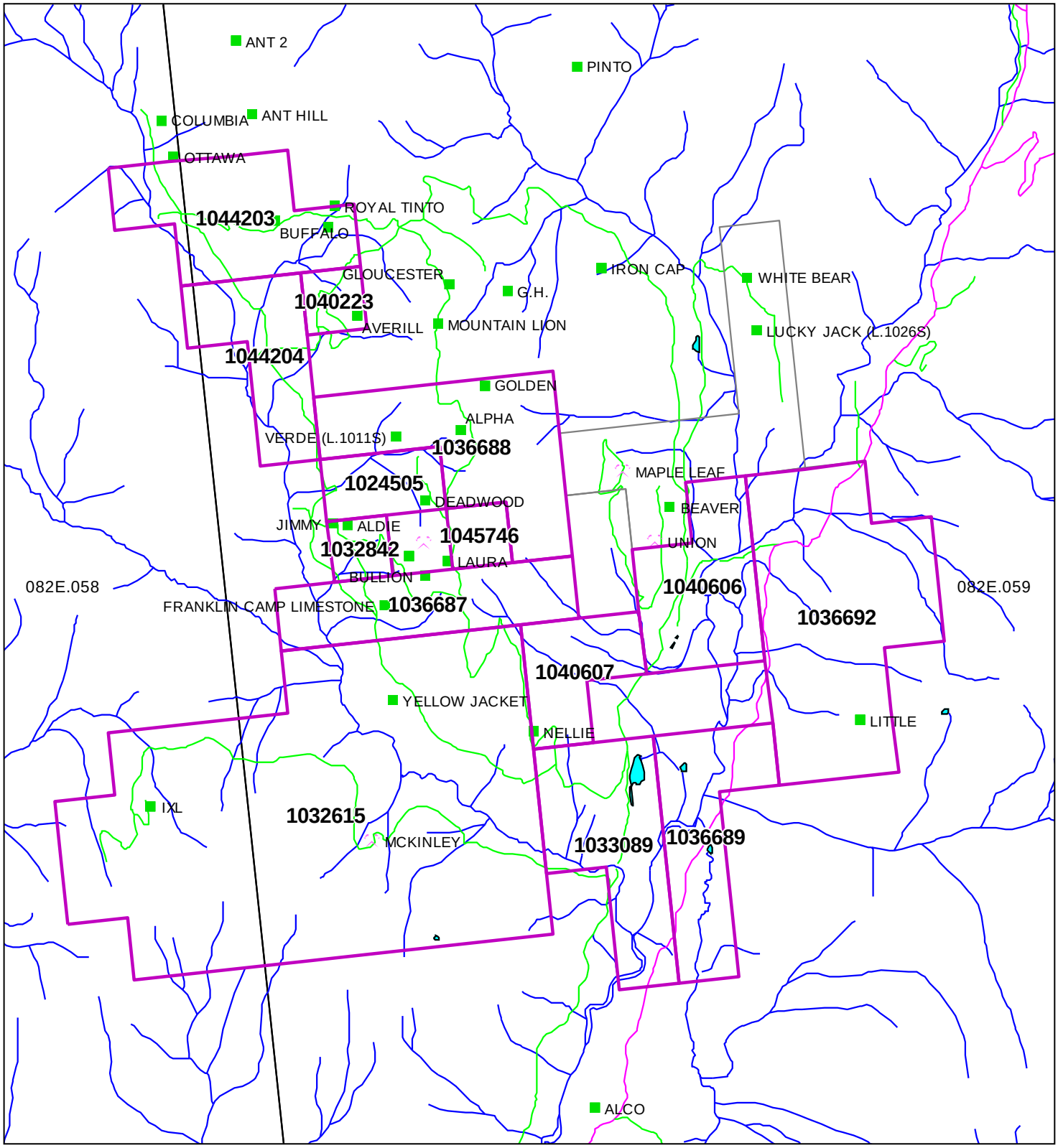


Figure 2 – Project Tenure Outline

Table 1: Franklin Project Mineral Tenures

Title Number	Claim Name	Owner	Map Number	Issue Date	Good To Date	Area (ha)
1024505	TWIN CREEK	145582 (100%)	082E	2013/dec/19	2016/dec/08	41.9
1032615	MCKINLEY-IXL	145582 (100%)	082E	2014/dec/08	2016/dec/08	712.7
1032842	W BANNER	145582 (100%)	082E	2014/dec/20	2016/dec/08	21.0
1033089	FRANKLIN CR SE	145582 (100%)	082E	2015/jan/03	2016/dec/08	125.8
1036687	BULLION	145582 (100%)	082E	2015/jun/12	2016/dec/08	104.8
1036688	ALPHA TWIN	145582 (100%)	082E	2015/jun/12	2016/dec/08	146.7
1036689	DANE-NICHOL	145582 (100%)	082E	2015/jun/12	2016/dec/08	104.8
1036692	DANISH	145582 (100%)	082E	2015/jun/12	2016/dec/08	251.5
1040223	AVERRILL	145582 (100%)	082E	2015/nov/29	2017/dec/31	20.9
1040606	UNION TAILS	145582 (100%)	082E	2015/dec/18	2017/jun/30	104.8
1040607	SE FRANKLIN	145582 (100%)	082E	2015/dec/18	2017/jun/30	62.9
1044203	MCDONALD CREEK	145582 (100%)	082E	2016/may/18	2016/dec/08	125.7
1044204	AVERILL WEST	145582 (100%)	082E	2016/may/18	2016/dec/08	83.8
1045746	UV	145582 (100%)	082E	2016/aug/03	2017/dec/31	21.0
					Total	**1928**

Regional Geology

The Franklin Project covers much of the historic Franklin mining camp. The area is defined by major north-south regional faults that form a graben structure. The Granby fault, which runs to the east of the property, can be traced for more than 100 km to the south, where it forms the eastern boundary of the Republic graben in Washington State. In the Franklin camp area, this fault separates older metamorphic rocks to the east from younger intrusive rocks that surround and partly underlie the Franklin property.

While plutonic rocks are dominant regionally, the geology of the Franklin camp is more complex (Figure 3). The oldest rocks are a sequence of sediments, volcanics and related intrusives known locally as the Franklin Group. These are mapped as part of the Carboniferous Harper Ranch Group, and show strong similarities to the Brooklyn formation in the Greenwood-Grand Forks area (Caron 2004). This group includes argillite, conglomerate, chert, tuffaceous siltstone, limestone and greenstone, often showing significant alteration. The Franklin rocks are intruded by several distinct bodies of plutonic rock, including diorite/granodiorite from the Jurassic aged Nelson batholith and related bodies, as well as Jurassic aged porphyry dikes, the Jurassic Averill complex and the Eocene Coryell suite, including syenite stocks and lamprophyre dikes. Overlying the Franklin rocks and much of the intrusive rock are Eocene clastic sediments and volcanics of the Kettle River formation. In addition to sandstones and conglomerates, these rocks include tuffs and some areas of rhyolite. These are in turn overlain by andesites and trachytes of the Eocene Marron formation, which mainly occur at higher elevations.

The Franklin rocks were the main focus of early exploration in the Mt McKinley and Mt Franklin areas, particularly for precious metal-bearing quartz veins and for silicified zones and skarn deposits with high base metal values along limestone contacts. Another type of mineralization identified in the early days of exploration was the so-called ‘Black Lead’ zones of shear hosted

massive chalcopyrite with some PGM values. These tend to form small erratic pods along contact zones of the pyroxenite phase of the Averill plutonic complex. Rare Earth Element (REE) mineralization has also been reported in these rocks, but the style of the mineralization is unknown. The Averill complex was originally correlated to the Eocene Coryell intrusives, but recent dating suggests a Jurassic age. The complex covers much of the north end of the Franklin camp and is a concentrically zoned differentiated intrusion with pyroxenite at its centre, grading outward through monzogabbro to monzonite, with trachytic syenite intruding the pyroxenite and monzogabbro along the axis of the pluton. The black lead mineralization generally occurs along the syenite-pyroxenite contacts.

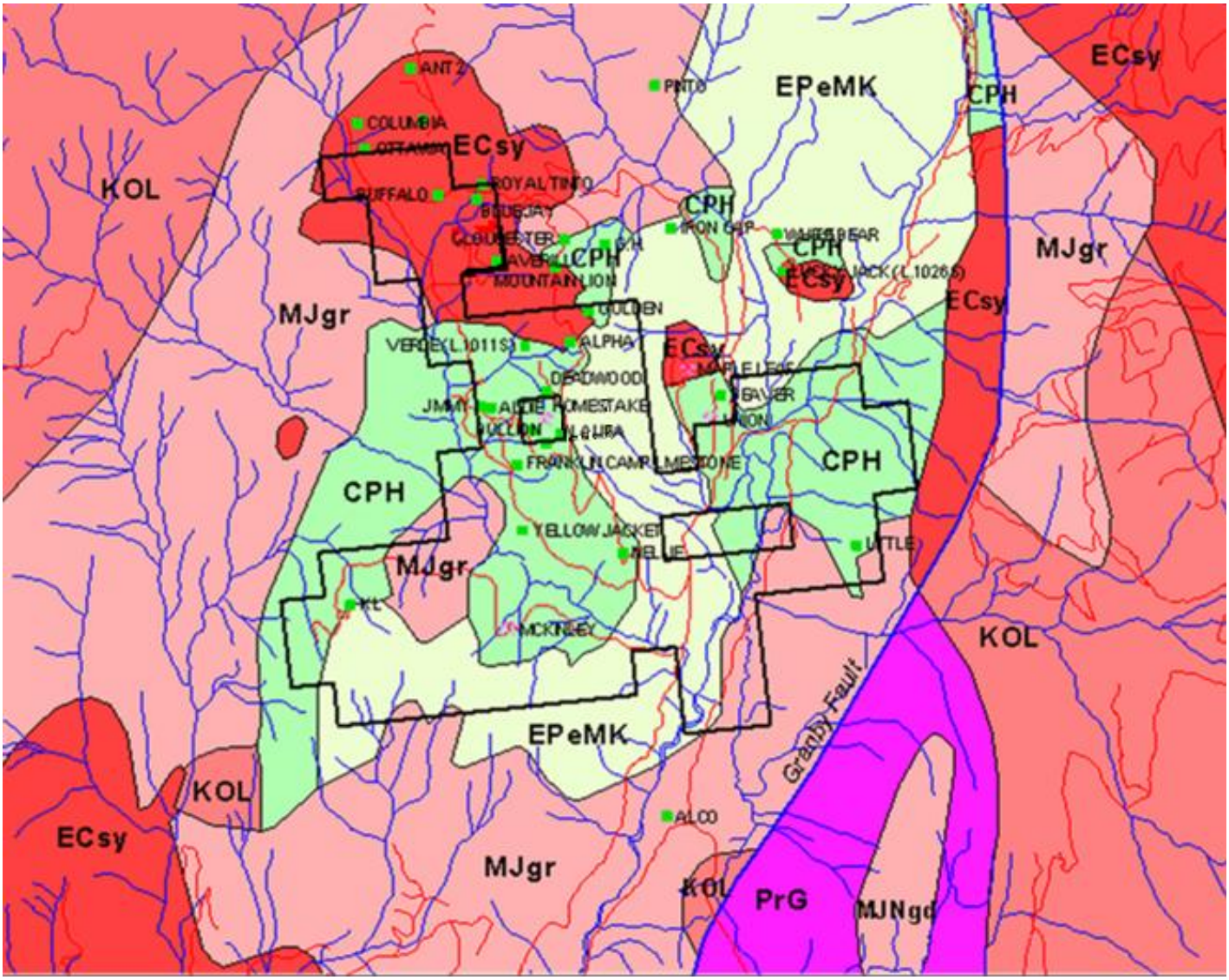
Other possible styles of mineralization have been identified in more recent exploration programs, including epithermal gold and volcanogenic massive sulphide (VMS). Several areas of epithermal-style alteration and veining have been identified associated with intrusive contact zones but no significant economic mineralization has yet been identified in these areas. There are also apparent intrusive contact zones associated with low-grade base metal mineralization that have seen very limited exploration. The potential for VMS mineralization is suggested by the correlation of the Franklin rocks with similar formations along the Granby fault to the south, where economic VMS deposits have been discovered in the Belcher district in Washington State.

Local Geology

The Franklin Property is primarily underlain by Franklin group rocks and the overlying Eocene sediments and volcanic rocks of the Kettle River and Marron formations. The property also includes significant intrusive contact zones in and around the Franklin rocks. To the northwest the project area also covers part of the Averill complex, including several known occurrences of the ‘Black Lead’ mineralization and significant exposures of pyroxenite.

The project area partly overlaps the main historic producer in the camp, the Union mine, along with historical producers the McKinley and the Homestake. The other historic producer in the camp, the Maple Leaf, lies just outside the property boundary. While the actual mine workings are held by active crown granted claims, these are small and do not cover potential extensions or parallel zones. By far the most important ore zones discovered to date were at the Union Mine (see Table 3, below). The ore was a relatively low sulphide replacement-style vein with some adjacent zones of higher base metal sulphide content. The mineralization consisted of a zone of almost complete replacement of a limestone horizon in Franklin sediments which was later fractured into small irregular sections by multiple faults. Precious metal grades were highest at the intersections of these faults, indicating that the faulting also played a role in later mineralization.

In its best sections, the Union mine produced some of the highest grade ore mined in BC. Ore grades were found to diminish with depth and to the east, and the vein was truncated by a larger fault to the west. More recent exploration has identified small ore remnants and unmined zones within the old workings, but no significant extensions of the mineralization have been found since active mining ceased in the 1940’s. Recent drilling to the west of the western fault boundary identified a silicified zone carrying anomalous precious metal values, but it is not clear whether this is an extension of the Union zone. Mill tailings are deposited within the Franklin property boundaries in two separate locations, to the south and east of the mine, and parts of these have been reprocessed on two separate occasions.



CPH – Carboniferous to Permian Harper Ranch Group – volcaniclastic rocks

ECsy – Eocene Coryell Plutonic Suite – syenitic to monzonitic intrusive rocks

EPeMK – Eocene Penticton Group: Marron, Kettle River, Springbrook, Marama and Skaha Formations – undivided volcanic rocks

KOL – Cretaceous Okanogan Batholith: Ladybird and Valhalla Intrusions – undivided intrusive rocks

MJqr – Middle Jurassic – granite, alkali feldspar granite intrusive rocks

MJNqd – Middle Jurassic Nelson Batholith – granodioritic intrusive rocks

PrG – Proterozoic Grand Forks Gneiss/Monashee Complex – paragneiss metamorphic rocks

Figure 3 – Regional Geology, Franklin Camp Area

There are numerous other mineral occurrences on the property. A significant band of limestone runs through the Franklin Creek valley with a north-south orientation and is associated with the high grade skarn mineralization found at the McKinley mine. Other more poorly defined occurrences have also been identified along this trend and may indicate additional skarn mineralization. At the IXL showing to the west of the McKinley Mine, shallow zones of skarn-type mineralization have also been identified. This area has seen considerable modern exploration; including trenching and drilling that has identified significant zones of copper-gold surface mineralization in Franklin group rocks and altered porphyry intrusives in contact with

small bodies of Franklin limestone. Drilling has shown that some of the best exposures of surface mineralization are cut off at shallow depths by intrusive rocks, however the mineralized rocks are covered by Eocene sediments to the east and potential thickening in this direction has not yet been tested. In addition, at least one hole has shown more significant depths of lower grade copper-gold mineralization in both Franklin volcanics and porphyry intrusives.

In the Mt Franklin area numerous small quartz veins have been identified in Franklin rocks, some carrying significant gold and/or base metals. The best known occurrences in this area, the Homestake and the Banner, lie just outside the claim area, but several are also known within the project area. These include the Bullion and Verde showings as well as some unnamed occurrences in the Twin Creek area, near the Alpha and Deadwood showings. On the southeast flank of Mt Franklin pyrite, chalcopyrite and copper carbonate mineralization occurs in Franklin rocks near the contact with Eocene volcanics at the Nellie showing. This area reportedly shows evidence of hydrothermal alteration associated with nearby intrusives. There is also reportedly copper mineralization at the Alpha showing, near the contact between the Franklin rocks and the Averill intrusives.

In the northwest part of the property the Franklin rocks are intruded by the Averill complex, and several occurrences of copper mineralization with platinum values were historically reported within the project boundaries. These include at least two styles of mineralization. The first type of occurrence is as shear zones along the pyroxenite contact at the Averill, Golden and Buffalo showings, which are typical of the Black Lead type of mineralization, while the second type consists of larger zones of pyroxenite carrying disseminated copper mineralization. This is the style at the Ottawa showing and may also be closely related to the Evening Star and Blue Jay showings, which are reported as disseminated copper in pyroxenite. The Buffalo showing may also include areas of this type of mineralization. The mineralization historically reported from the Averill complex has been primarily the Black Lead type, found in narrow and discontinuous shear zones along contact zones between pyroxenite and syenite, where copper, platinum and sometimes other precious metals appear to be concentrated by secondary hydrothermal enrichment. It has been suggested that the source of these values is enriched heavy mineral differentiated zones within the intrusive, likely within the pyroxenite phase. More recent work also points toward extensive low-grade copper mineralization within the pyroxenite, particularly where wider sections of pyroxenite are exposed in the northwest part of the complex.

To the east of Burrell Creek few mineral showings are reported, but recent work has identified at least one previously explored mineralized shear zone in Franklin volcanics not far from a contact with granodiorite intrusive rocks. The Dane showing includes significant gold values in addition to copper and silver values. High copper and silver values with minor to significant gold values is a more common pattern of mineralization to the south, normally occurring in east-west striking veins or shear zones. The highest value veins in the Mt. Franklin area are more typically associated with lead and zinc mineralization, also often with high silver values. A short distance to the south of the property, in addition to the small east-west striking copper-bearing vein structures, there are showings of high grade contact mineralization, intrusive related copper-zinc and copper-molybdenum mineralization as well as epithermal-style vein systems in granodiorite which are locally reported to carry some gold values.

A summary of all known showings occurring within the Franklin project claim area is included in Table 2.

Table 2: Franklin Project - Documented Mineral Occurences

Name	Minfile #	Location	Minerals	Reported Grades	Width (m)	Year
Minfile showings						
Ottawa	082ENE061	Franklin Crk	Pt, Cu	2.1 g/t Pt	grab	1918
Buffalo	082ENE008	McDonald Crk	Cu, Pt, Pd	6.5 g/t Pt	grab	1918
Blue Jay	082ENE054	McDonald Crk	Ag, Cu	2.7 g/t Ag, 0.24% Cu	grab	1988
Royal Tinto	082ENE010	McDonald Crk	Fe			
Averill	082ENE007	McDonald Crk	Cu, Pt, Pd	0.9 g/t Pt, 3.5 g/t Pd, 53 g/t Ag, 6.7% Cu	grab	1988
Verde	082ENE020	Twin Creek	Au, As, Co	2.98 g/t Au	grab	2003
Alpha	082ENE052	Mt. Franklin	Au, Ag, Cu	0.68 g/t Au, 3.42 g/t Ag, 0.8% Cu	1.5 m	1965
Golden	082ENE053	Mt. Franklin	Pt, Cu	2.1 g/t Pt	grab	1918
Bullion	082ENE013	Mt. Franklin	Ag, Au, Cu, Pb, Zn	1.1 g/t Au, 100 g/t Ag, 2.5% Pb	grab	2003
Jimmy	082ENE042	Mt. Franklin	Ag, Pb, Zn	20.0 g/t Ag,1.94% Pb, 3.40% Zn	grab	1988
Yellow Jacket	082ENE021	Mt. Franklin	Cu, Pb, Zn			
Franklin Limestone	082ENE062	Mt. Franklin	Limestone			
Nellie	082ENE059	Mt. Franklin	Cu			
Little	082ENE004	Dinsmore Crk	Pb, Zn	1.82 g/t Au, 1.9 g/t Ag	0.07	2006
IXL	082ENE033	Mt. McKinley	Cu, Au, Pb, Zn	3.85 g/t Au, 0.8% Cu	5.5	2003
Non-minfile occurences						
Dane/Ida		Burrell Crk East	Au, Ag, Cu	2.16 g/t Au, 162 g/t Ag, 5.7% Cu	grab	2006
United Verde		Mt. Franklin?	Au, Ag	5.5 g/t Au	shaft	1914
Golden Zone		Gloucester Crk	Au			1914
Mary Ann		Gloucester Crk	Au			1914
Evening Star		Franklin Crk	Pt, Cu, Au, Ag	$0.49 to $14.35 in Au, Cu and Ag	2-400 m	1906
Last Chance		Mt. McKinley	Au, Ag	1.9 g/t Au, 13.5 g/t Ag, 0.1% Zn	grab	2005
Jack		Mt. McKinley	Zn, Ag, Cu	17.5 g/t Ag, 2.9% Pb, 6.5% Zn	grab	2005

Property History

The property has a long history of exploration, and some minor development. None of the recorded past producing mines of the Franklin camp are directly covered by the property, although the principal ones are located on small active crown-granted mineral claims that are partly or fully overlain by MTO claims that are part of the property. The property covers much of the historical Franklin camp, which was actively explored beginning in the 1890's, and was the source of minor base metal and significant precious metal production (Table 3) in the first half of the last century.

Exploration in the Franklin camp area began around 1896, when the first claims were staked. The camp was very active in the early 1900's when most of the principal showings were discovered and developed with small shafts and adits. As early as 1901 the Banner vein had seen considerable development and test shipments had been made, although there is no record of the production from that vein. During this same period considerable development occurred on the McKinley property and ore shipments may have been made during that period, although again there is no record of the production.

Table 3. Historical Production from the Franklin Camp

Mine	Years of Operation	Production (tonnes)	Gold Production (ounces)	Historical Grades
Union	1913-89	122,555	55,525	14.1 g/t Au, 353 g/t Ag, 0.2% Zn, 0.1% Pb, 0.01% Cu
Maple Leaf	1915-16	36	2	1.7 g/t Au, 172 g/t Ag, 7.6% Cu
Homestake	1940-41	453	223	15.3 g/t Au, 30.0 g/t Ag, 0.12% Zn, 0.06% Pb
McKinley	1949	132	2	0.47 g/t Au, 215 g/t Ag, 17.1% Zn, 11.2% Pb

The first actual recorded production from the camp came from the Union property. The Union vein was discovered in 1913 when a silicified zone near earlier workings on an adjacent quartz vein carrying lead and zinc was found to be rich in gold and silver. Shipments of high grade ore began almost immediately from a large open cut, with adits later developed to access more of the ore. Development and small shipments continued from the Union vein until 1920, when operations were shut down due to the high cost of transporting ore to the smelter.

In 1914 a provincial government survey of the area included ore sampling and production data from the Union mine. The same report included sample assays from the Union and Banner claims, and also included assays from a shaft under development on the 'United Verde' claim which returned a value of 0.16 opt Au. The location of this claim has not been verified, but a search of available records from the time indicates that it was located in July 1913 and maintained until July 1922 but never crown granted. The government report places it west of the Union mine on 'Banner Mountain' (Mt. Franklin), while contemporary news reports place it 'across the river' from the Union mine, which would presumably place it to the east.

In 1915 and 1916 two small shipments of copper ore were made from the Maple Leaf mine, lying just north of the Union mine. At the smelter this ore was found to carry an average of 8 g/t platinum, which resulted in new interest in the Franklin Camp for its PGM potential. Following this discovery, in 1918 the federal government's munitions department carried out an evaluation of the platinum potential of the entire camp. Numerous showings of copper from 'Black Lead' and pyroxenite zones were sampled, with grades ranging from less than 1 g/t to 13 g/t Pt, with the highest grades coming from the Maple Leaf workings. Samples from within the claim boundaries of the Franklin Project include a sample from a small shaft on the Golden claim, which assayed 2.1 g/t Pt, a sample from a shaft dump and an adit dump at the Averill showing that each assayed 3.1 g/t Pt, a sample from a shaft dump and from open cuts at the Buffalo showing, which assayed 6.5 g/t and 2.7 g/t Pt respectively, and a sample from large open cuts on the Ottawa claim that assayed 2.1 g/t Pt. While there is very limited information about any of the samples collected, the Ottawa showing has been described as consisting of open cuts exposing pyroxenite mineralized with disseminated copper. It is not known if the 1918 platinum sample came from a selected high grade zone or from the broader disseminated mineralization.

In 1927 Hecla Mining Company bonded the Union and Maple Leaf properties and began to develop milling ore on the Union vein. By 1929 a 145 ton per day concentrator had been constructed and milling operations began in 1930. Full mine production lasted until 1932, when most of the known ore had been mined out, and the mine closed in 1933. In that same year a cyanidation plant was constructed to retreat the tailings, which operated from 1934-36. Lease operators produced a small amount of additional ore between 1937 and 1942. During this same

period that the Union mine and mill were in operation, a small amount of ore was also produced from the nearby Homestake mine. Some ore from the Homestake was likely processed at the Union mill, but the recorded production relates only to direct ore shipments from 1941 and 1942.

In 1964 Franklin Mines Ltd acquired most of the Franklin camp and carried out geological and geophysical surveys along with limited sampling of old workings. This included sampling of the Alpha tunnel, within the current project area, which averaged 0.12% Cu and 1 g/t Ag over its entire 18 meter length, with the 3 meters before the face assaying 0.41% Cu, 5.1 g/t Ag and 0.69 g/t Au. They also mapped the Buffalo area and carried out detailed sampling of a 33 meter adit on the Buffalo claim. Samples showed minimal precious metals values, but there were copper values, including an average of 0.34% Cu over 12 meters of the tunnel toward the face. Sampling around the Averill showing returned minimal Pt assays (max. 0.14 g/t), but showed extensive low grade copper mineralization, including an average of 0.16% Cu along 16.8 meters of the Averill Tunnel.

In 1968 Newmont Exploration acquired part of the camp and carried out a work program which included airborne and ground geophysics, trenching and drilling of three holes at the IXL showing in 1969. Limited information is available regarding this work program, but in general, good mineralization was encountered in trenches but this same mineralization was not found in the drill core. One of the holes reportedly encountered ultramafic rocks with disseminated chalcopyrite, but this zone was not assayed.

In 1979 Pearl Resource acquired part of the camp, including the Union mine and surrounding area. Their work focused on the Union mine and included re-opening the lowest adit and a program of underground drilling in 1984.

In 1986 Longreach Resources Ltd acquired a large part of the Franklin camp and carried out an exploration program that included geochemical sampling, geophysical surveys and drilling of several targets, primarily aimed at platinum. The following year the property was renamed the Platinum Blonde property and optioned to Placer Development Limited who carried out additional drilling, prospecting and geochemical sampling over the entire property. This project was also focused mainly on PGM mineralization and the property primarily covered the northern part of the camp, overlapping much of the northern and north-western portions of the current Franklin project claims. This work identified several precious and base metal soil anomalies, some of which do not appear to have been fully investigated, including a strong and fairly extensive copper anomaly in the northwest, in an area likely underlain by a pyroxenite zone in the Averill complex rocks, and roughly corresponding to the areas of the historical Ottawa and Evening Star claims. Prospecting also resulted in several gold-bearing samples being collected in the Twin Creek area, including one assaying 16.8 g/t Au. No follow-up in this area is recorded.

From 1987 to 1989 Sumac Ventures ran a heap leach operation on the Union mine tailings, reportedly recovering 13,300 grams of gold and about 400,000 grams of silver from 42,500 tonnes of tailings and waste rock. The operation appears to have been terminated due to operational difficulties rather than depletion of the available values.

In 1991 Canamax conducted an airborne geophysical survey over the IXL area along with rock and soil sampling. A new zone of low-grade copper mineralization in diorite was identified about 1.5 km south of the main IXL showing.

In 1993 and 94 Sway Resources drilled up to 29 short diamond drill holes and 14 percussion holes in the Banner-Homestake area and carried out rock and silt sampling, and diamond drilled 900 meters in 8 holes at the IXL showing, but available results of this work are very limited and poorly documented. Some high grade drill intercepts were reported to the west of the Homestake workings at the North Banner showing, as well as high grade surface samples from at least two separate locations on the Deadwood Crown Grant..

In 2001 Tuxedo Resources Ltd. acquired much of the south and west portions of the Franklin camp and an airborne geophysical survey was flown that year. In 2003 rock sampling, soil geochemistry, trenching and a small drill program were carried out in the IXL and Banner-Homestake areas. Good mineralization was encountered, but the extent was limited. In addition, there was at least one strong gold and base metal soil anomaly identified in the North Deadwood area that has not been fully explored. A single drill hole showed significant widths of low grade gold mineralization below the IXL trenches.

In 2004 Solitaire Minerals carried out trenching and a limited drill program in the Union and Maple Leaf areas. Drilling failed to clearly identify a western extension of the Union vein, but a promising silicified zone carrying anomalous precious metal values was intersected under a cap of overlying volcanic rocks. Work on the Maple Leaf crush zone, to the north of the old Maple Leaf workings, identified low grade gold mineralization with intermittent bands of high grade base metal mineralization that also carried higher gold grades.

Also in 2004, New Cantech Ventures conducted an 11 hole, 1741 meter drill program at the IXL showing, indicating that encouraging surface mineralization encountered in trenches was generally cut off at shallow depths by feldspar porphyry and syenite intrusions. Follow-up work in 2005 by Nanika Resources Inc. found evidence of new mineralized zones to the east, near the McKinley mine, mainly based on samples showing good zinc grades, but also occasional samples with good copper, silver and gold grades at the Jack and Last Chance showings. No follow-up work was reported.

In 2006 and 2007 Yankee Hat Minerals conducted limited rock sampling and prospecting in the Dane and Little area and conducted an airborne geophysical survey covering much of the Franklin camp, including some less-explored areas to the east of Burrell Creek. Few strong targets were identified with the exception of a relatively strong conductivity target to the south of the Dane showing. A small subcrop sample of gold in quartz was also found somewhat further to the south, a few hundred meters northwest of the probable location of the Little showing.

Sampling by Crucible Resources between 2012 and 2015 confirmed the presence of high grade copper-gold-silver mineralization at the Dane showing, while limited soil sampling showed only slightly anomalous base metal values in the area below the showings. A small occurrence of copper-gold mineralization was identified near the Nellie showing, and in the northwest multiple occurrences of copper mineralization were located and sampled, with some showing minor gold and PGM values as well. The old Union tailings were sampled and some significant gold and silver values were found to remain despite previous reprocessing operations.

Summary of Work

A site visit was conducted in August 2016, which included work in two areas of the property. These were the Ida area, an area on the East side of Burrell Creek a short distance north of the Dane showing, and the southern flank of Mt. Franklin, between the Union and Homestake mines. One day was spent at each location. At the Ida, sampling and prospecting was limited to a relatively small area surrounding a historical soil anomaly, while at Mt. Franklin a longer traverse was run from the Union mine workings across to the area of the historical Bullion claim.

Metallurgical testwork was conducted on composite samples of tailings from the Union mine. This continuation of previous testwork extended extraction testing to a second composite representing lower grade material and secondary tailings areas. In addition to evaluating gold and silver extraction potential, the work also provided grade confirmation using much larger samples than normally used in assaying.

Work Program

Sampling, Testing and Data Collection

A site visit was conducted on August 5th and 6th, 2016, which included work in two separate areas of the property. On August 5th the Ida area was visited, lying between Burrell Creek and the Burrell Creek forestry road. This small section was prospected closely over an area of recent logging activity and a neighbouring zone of recent windfall. Sample locations are shown on Map 1 in Appendix 1. On August 6th a traverse was run from the Union and Maple Leaf mine area, beginning from the old Union Mine road. The traverse followed a relatively recent cat road along the southeast flank of Mt Franklin and then continued along the south flank of the mountain to the area of the historical Laura and Bullion showings. Most of this area has seen relatively little past exploration, as the more prospective geology is covered by sediments and volcanic rocks of the Eocene Marron formation. Several rock exposures showing limited mineralization were identified and sampled. Map 2, in Appendix 1, shows the locations of the samples collected.

Metallurgical testing was carried out using two separate composites of historical Union Mine tailings, one composed of samples from the main tailings area and the other a composite of lower grade tailings found at several locations surrounding the former mill site (Table 5). Four leach tests were carried out using a chloride based leaching system intended to recover gold and silver while avoiding the use of cyanide.

All rock samples from site, as well as the leach residues from metallurgical testing were digested in aqua regia using a 0.5 gram sample. Samples were then analyzed with a 36 element scan by ICP-MS. Solution sample from Metallurgical testing were analyzed by ICP-ES. All solid samples were analysed by Bureau Veritas Commodities Canada Ltd (formerly Acme Analytical Laboratories Ltd.) in Vancouver, while solution samples were analyzed by Kemetco Research Inc. in Richmond.

The site sampling and metallurgical testwork carried out are described below.

Ida Area Rock Sampling

A total of 4 samples were collected from the Ida area, which lies in the north-eastern part of the property on the east side of Burrell Creek, approximately one kilometre north of the Dane showing. The samples are listed in Table 4, with their locations and principal assay values. This area was covered by the 'Ida' claim in the early 1900's, but there is little information regarding any exploration activity from that time. In the 1980's a large-scale widely spaced soil sampling program carried out by Placer Development included this area, and showed some limited anomalies, particularly for copper. The general area lays roughly along strike with the principal vein of the Union mine, which is located approximately 1.5 kilometres to the west. The Burrell Creek forest service road passes through the area, just east of a small hill which provides bedrock exposure.

A short traverse was run westward from the road, covering an area surrounding a significant copper anomaly from the Placer soil grid. To the west of the crest of the small hill rock exposure was considerable in root wells caused by blow-down. The area is principally underlain by Franklin volcanics showing variable amounts of alteration, particularly silicification. A sample from a section of strongly silicified material showing some pyrite was collected from a root well (CR160805-1). A short distance back toward the east, an exposure of altered and sheared volcanics was sampled near the top of the small ridge (CR160805-2). The sample included float and subcrop with significant pyrite and minor malachite stain along a few fractures. Despite the visible mineralization, neither of these samples showed significant values aside from slightly anomalous copper in the second sample.

Table 4 - Rock Sample Descriptions and Analytical Results

Sample #	Date	Description	UTM East	UTM North	Width (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	Ida Area - Rock									
CR160805-1	8/5/2016	Qtz and silicified volcanics, minor py	403257	5490694	1.0	<0.0005	<0.1	0.006	0.000	0.003
CR160805-2	8/5/2016	Altered volcanics with sulphides, subcrop	403302	5490701	-	0.004	0.2	0.019	0.000	0.004
CR160805-3	8/5/2016	Dissem. sulph. in silic. volcanics and qtz	403373	5490672	1.0	0.007	1.4	0.015	0.178	0.044
CR160805-4	8/5/2016	Qtz vein and float, some py	403333	5490686	-	1.69	69.5	0.018	0.008	0.007
	Mt. Franklin Area - Rock									
CR160806-1	8/6/2016	Lightly altered volcanic rock	401170	5490660	0.5	0.003	0.2	0.002	0.002	0.008
CR160806-2	8/6/2016	Altered volcanic rocks	401007	5490589	2.0	0.002	0.2	0.002	0.001	0.008
CR160806-3	8/6/2016	Volcanic outcrop - some green stain	400917	5490557	2.5	0.001	<0.1	0.001	0.002	0.009
CR160806-4	8/6/2016	Lightly mineralized quartz in Franklin rocks	400489	5490243	1.0	0.007	1.00	0.005	0.004	0.021
CR160806-5	8/6/2016	Float - green-stained volcanic rocks	400910	5490550	-	0.003	<0.1	0.002	0.002	0.008

The small ridge prospected includes a smaller secondary ridge to the east. A gap between these ridges gives rock exposures on both sides, and a composite sample was collected that included chips and float rock from silicified volcanics and quartz, as well as pyritic volcanics. Minor mafic intrusions were also noted near the more mineralized zones (CR160805-4). On teh steep east face of the secondary ridge a small exposure of altered volcanics showing pyrite and minor galena was sampled (CR160805-3) over approximately one meter of exposure. While neither of these samples appeared well mineralized, both carried values. Sample CR160805-4 carried strongly anomalous, but sub-economic values for lead and was also slightly anomalous in copper, zinc and silver. Sample CR160805-4 was high in both gold and silver but carried very low base metal values. Because this was a composite sample, the source of the gold and silver is not certain, but is most likely from the quartz vein material included in the sample. The nature of the sample also suggests that the actual mineralized material was considerably higher grade than the composite sample assay would indicate.

Mt. Franklin Area Rock Sampling

A total of 5 samples were collected during the traverse across the southern flank of Mt. Franklin. The samples are listed in Table 4 along with their locations and principal assay values. The traverse began from the Union-Maple Leaf mine road, which is lightly overgrown, but otherwise in good condition. In the vicinity of the Maple Leaf workings, a relatively recent drill road heads southwest along the southern flank of Mt. Franklin. Some prospecting was conducted on the slope above this road before heading west and further upslope at the end of the road. Areas were targeted that had shown sporadic gold values in the Placer soil grid from 1987. The area is predominantly covered by recent sediments and volcanic flows, and relatively little alteration or mineralization was seen. Two areas of outcropping volcanics that showed some alteration and which were lightly mineralized with pyrite were sampled (CR160806-1 and CR160806-2), but values were minimal. Along the south face of the mountain slope an area of volcanic float rock showing green staining was noted. The float rock was sampled (CR160806-5) and was followed upslope to an outcrop showing similar mineralization. This was also sampled (CR160806-3). The analysis of these sample also showed minimal values.

The traverse ended in the vicinity of the historical Homestake and Banner workings, meeting the old access road for these mines, which is now heavily overgrown. A small surface cut near this road, within the historical Bullion claim, was sampled (CR160806-4), but returned only very slightly anomalous results. This area is within the older Franklin volcanic rocks, which hosted the silicified shear material sampled from the cut.

Union Tails – Metallurgical Testing

The tailings from the Union mine were known to contain significant gold and silver values, and have therefore been subject to past reprocessing operations on at least two separate occasions. The main body of tailings is located south of the mine site, about 1 kilometre from the original impoundment near the confluence of Gloucester and Burrell Creeks. This area was sampled in 2013 and some previous metallurgical testing has been conducted using a composite prepared from these samples. In 2015, additional samples were collected from this site, as well as from smaller tailings accumulations in and around the original impoundment. For the current work program a new composite was prepared from the lower grade material sampled in 2015 to test alongside the earlier composite. The details of the composite samples and the 2015 tailings samples are shown in Table 5.

Table 5 - Metallurgical Composites

Sample #	Date	Description	UTM East	UTM North	Au g/t	Ag g/t	Cu %	Pb %	Zn %
	Union Area - Tailings Composites								
FRT Comp #1	5/2/2014	Main Union Tailings Area Composite			1.20	57.8	0.008	0.02	0.06
CR150709-T1	7/9/2015	Tailings Comp - middle shallow zone	401997	5489733	0.59	36.1	0.009	0.02	0.06
CR150709-T3	7/9/2015	Roadside tailings piles - composite	402300	5490400	0.42	41.0	0.005	0.01	0.05
CR151027-T1	10/27/2015	Composite - Gloucester Creek Pond Area	402450	5490450	0.72	31.5	0.007	0.02	0.06
FRT Comp #2	*2016*	*Equal Composite of Above 3 Samples*			*0.58*	*36.2*	*0.007*	*0.02*	*0.05*

Previous reprocessing work utilized cyanide leaching for gold and silver recovery. This included an operation in the 1980's which was closed due to environmental concerns leading to a remediation program at the site. The approach in investigating the remaining recovery potential is therefore focusing on alternatives to cyanide leaching. Previous work showed that flotation and salt-based leaching both had potential, and the current work focused on further investigating the salt-based alternative leaching method. Four tests were completed; three using the original composite and a fourth testing the new low-grade composite. Gold recoveries above 60% were obtained in previous testing, and these tests were partly aimed at improving conditions for silver recovery, which had been much lower. Detailed test reports for each test conducted are provided in Appendix 2.

In addition to investigating metal recovery potential, this testing provides grade confirmation through back-calculation of sample head grades based on actual recovered values from larger metallurgical test samples. In the case of the original composite, calculated gold grades have been consistently higher than the assayed grade, although the magnitude of the difference has varied from test to test, as in some cases not all the test products can be completely accounted for. In the three tests reported here, the head grade averaged 1.40 g/t gold, compared with 1.20 g/t by assay. For the lower grade composite test the calculated grade of 0.44 g/t was lower than the assayed value of 0.58 g/t. This may have been in part due to poorer accounting for recovered gold in low grade leach solutions. The calculated grades for other metals tend to match closely with the assayed values.

For the main composite tests, the results showed lower gold recoveries than the best previous result (63%), but silver recovery was significantly improved, particularly in test L9, reaching nearly 40%. For the low grade composite (test L10) gold recovery was greater than 50%, but silver recovery was below 10%.

Interpretation of Results

Site Work

Ida Area

The results from the Ida area were highly encouraging. The targeted mineralization in this area was copper, based on historical soil samples. This was seen as arising potentially from mafic intrusive occurrences (Black Lead-type deposits) or from copper and precious metal rich vein systems similar to the Dane occurrence. Copper was anomalous in most samples, but was not predominant and neither type of mineralization was identified. The Franklin rocks in this area did show significant alteration, and vein-type mineralization was found to contain elevated lead in one location and elevated precious metals in at least one other. The high gold and silver in sample CR160805-4 was of particular interest, as this sample has a similar metal signature to the Union vein. The Union vein was also known to parallel a vein bearing lead and zinc, which could be correlated to the lead occurrence sampled (CR160805-3). While not definitive, these results, combined with the location along strike of the principal Union mine vein, suggest a possible eastern extension of the Union mine mineralization.

The source of the high precious metals bearing sample was not clearly defined, and follow-up investigation is highly justified, including re-sampling of the expected source location and prospecting along strike in both directions.

Mt. Franklin

The work on Mt. Franklin was not able to identify any source mineralization to explain anomalous historical soil samples. Minor alteration was seen, but the Eocene sediments and volcanics in this area are generally not heavily mineralized. This formation is relatively lightly explored compared to the rest of the Franklin camp and further reconnaissance-level prospecting is justified in other parts of the formation, but nothing seen along this traverse appears to justify further evaluation.

Metallurgical Testing

The leach testing showed progress in establishing a non-cyanide option that could recover both gold and silver. These tests did not yet identify the ideal conditions or the maximum recovery that could be expected, but the process was shown to be capable of significant silver recovery, in addition to the gold recovery already demonstrated. Additional work should be done to further explore the factors that allow both gold and silver extraction, and to establish a proposed extraction process. When the suitable conditions have been established, tests should be conducted on a number of different samples to ensure that similar results can be obtained with different materials. The testing also provides good confirmation of sample grades for samples showing nugget effect due to the presence of discreet gold particles.

References

BC MINISTRY of ENERGY and MINES, Minfile Records.

CANNON, R.W. and PINSENT, R.H., 1988: Geological, Geochemical and Geophysical Assessment Report on the Platinum Blonde Property, BC Assessment Report #17273.

CARON, L.J., 2004: Geology, Geochemistry, Trenching and Diamond Drilling Report on the Franklin Property, for Tuxedo Resources Ltd., BC Assessment Report #27328.

CARON, L.J., 2005: Rock Sampling, Trenching and Diamond Drilling on the Union Property, for Solitaire Minerals Corp., BC Assessment Report #27604.

CARON, L.J., 2005: Geology, Rock Sampling, Prospecting, Trenching on the IXL Property, for Nanika Resources Inc., BC Assessment Report #27929.

CARON, L.J., 2006: Assessment Report on the 2006 Exploration Program, Prospecting and Rock Sampling, Union Property, Franklin Camp, for Yankee Hat Minerals Ltd., BC Assessment Report #28790.

CARON, L.J., 2007: Airborne Geophysical Survey, Union Property, Franklin Camp, for Yankee Hat Minerals Ltd., BC Assessment Report #29306.

CUI, J. and ZHANG, L., 2008: Metallurgical Recovery of Metals from Electronic Waste: a Review, in Journal of Hazardous Materials 158, pp 228-256.

DRYSDALE, C.W., 1915: Geology of the Franklin Mining Camp, British Columbia. GSC Memoir 56.

HARRIS, F.R., 1991: Geological and Geochemical Report on the IXL Claims, for Canamax Resources Inc., BC Assessment Report #21768.

KEEP, M. and RUSSELL, J.K., 1992: Mesozoic Alkaline Rocks of the Averill Plutonic Complex, in Can. Jour. of Earth Sci., Vol. 29, pp 2508-2520.

LISLE, T.E. and CHILCOTT, R., 1964: Report on Franklin Mining Camp, for Franklin Mines Ltd., BC Assessment Report #637.

THOMLINSON, W., 1920: Mineral Investigations - Platinum, Munitions Resources Commission, Canada, Final Report.

TRIBE, N.L., 2000: Geological Mapping Report on the Doe 2 Claim, BC Assessment Report #26440.

WARKENTIN, D., 2012: Franklin Project Exploration and Geochemical Sampling Report, for Crucible Resources Ltd., BC Assessment Report #33945.

WARKENTIN, D., 2013: Franklin Project Exploration and Geochemical Sampling Report, for Crucible Resources Ltd., BC Assessment Report #34310.

WARKENTIN, D., 2014: Franklin Project: Union Tails and Franklin South Areas – Metallurgical Testing Report, for Crucible Resources Ltd., BC Assessment Report #34846.

WARKENTIN, D., 2015: Franklin Project: Union Tails Area – Metallurgical Testing Report, for Crucible Resources Ltd., BC Assessment Report #35477.

WILKINSON, W.J and CRELLIN, J.D., 2000: Prospecting, Geological and Geochemical Assessment Report on the Averill Property, Franklin Mining Camp, B.C. Assessment Report #26306.

Author's Qualifications

I, Douglas Warkentin, P.Eng., a professional engineer with a business address at 7069 McBride St., Burnaby, B.C., certify that:

I have been a Registered Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia since 1992.

I am a graduate of the University of British Columbia, Vancouver, B.C. and hold a degree of Bachelor of Applied Science in Mining and Mineral Process Engineering.

I have practiced my profession as a Metallurgist and Mineral Process Engineer for 28 years.

I am currently employed as a Metallurgical Engineer by Kemetco Research Inc., Vancouver B.C., and have previously been employed as a Mineral Process Engineer by Vista Mines Inc., Coastech Research Inc., NTBC Research Corp., Biomet Mining Ltd., Blue Sky Mines Ltd., and Vizon Scitec Inc. I have also served as a Director of Duncastle Gold Corp., a TSX-Venture listed company.

Since 2001 I have acted as an independent engineering consultant for a number of mining clients.

I am a qualified person for the purposes of National Instrument 43-101 in relation to metallurgical testing and evaluation programs.

I directly conducted or supervised all sampling, sample handling and preparation related to the Franklin Project that is described in this report.

I am the sole author of this report.

I am not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in this report, the omission to disclose which would make this report misleading.

Dated at Vancouver, B.C., this 10th day of November 2016.

Doug Warkentin, PEng.
Metallurgical Engineer

Statement of Costs

Site Exploration, Research and Sampling

Logistics and Site Labour		
Doug Warkentin:	Aug 5-7, 2016 (30 hours @ $55/hr)	$1650.00
Transportation (3 days vehicle rental, plus fuel)		$337.78
Accommodation (2 nights)		$158.20
Food and Supplies (3 days)		$69.29

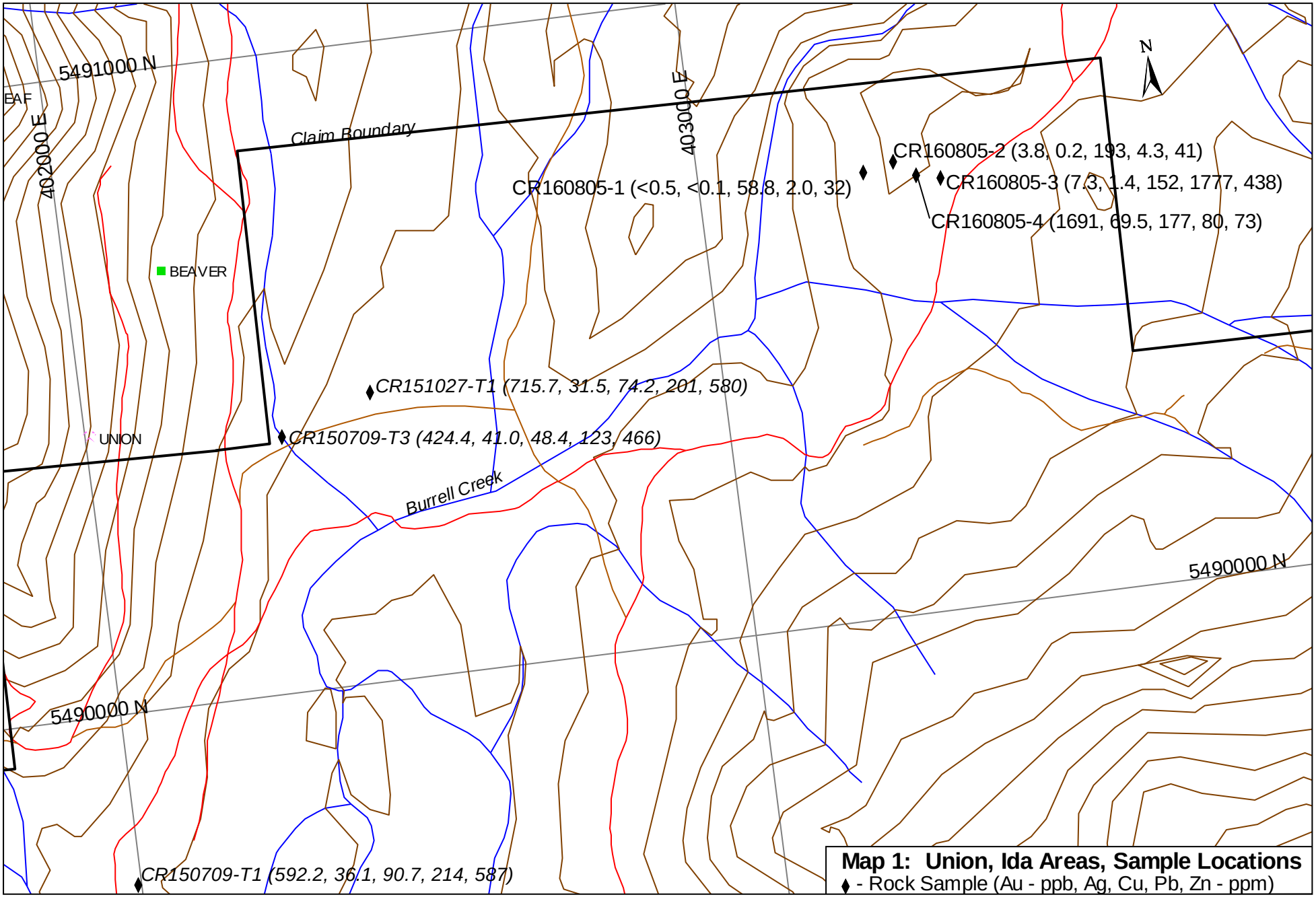
Metallurgical Testwork

Laboratory Testing (4 tests @$440/test)		$1760.00

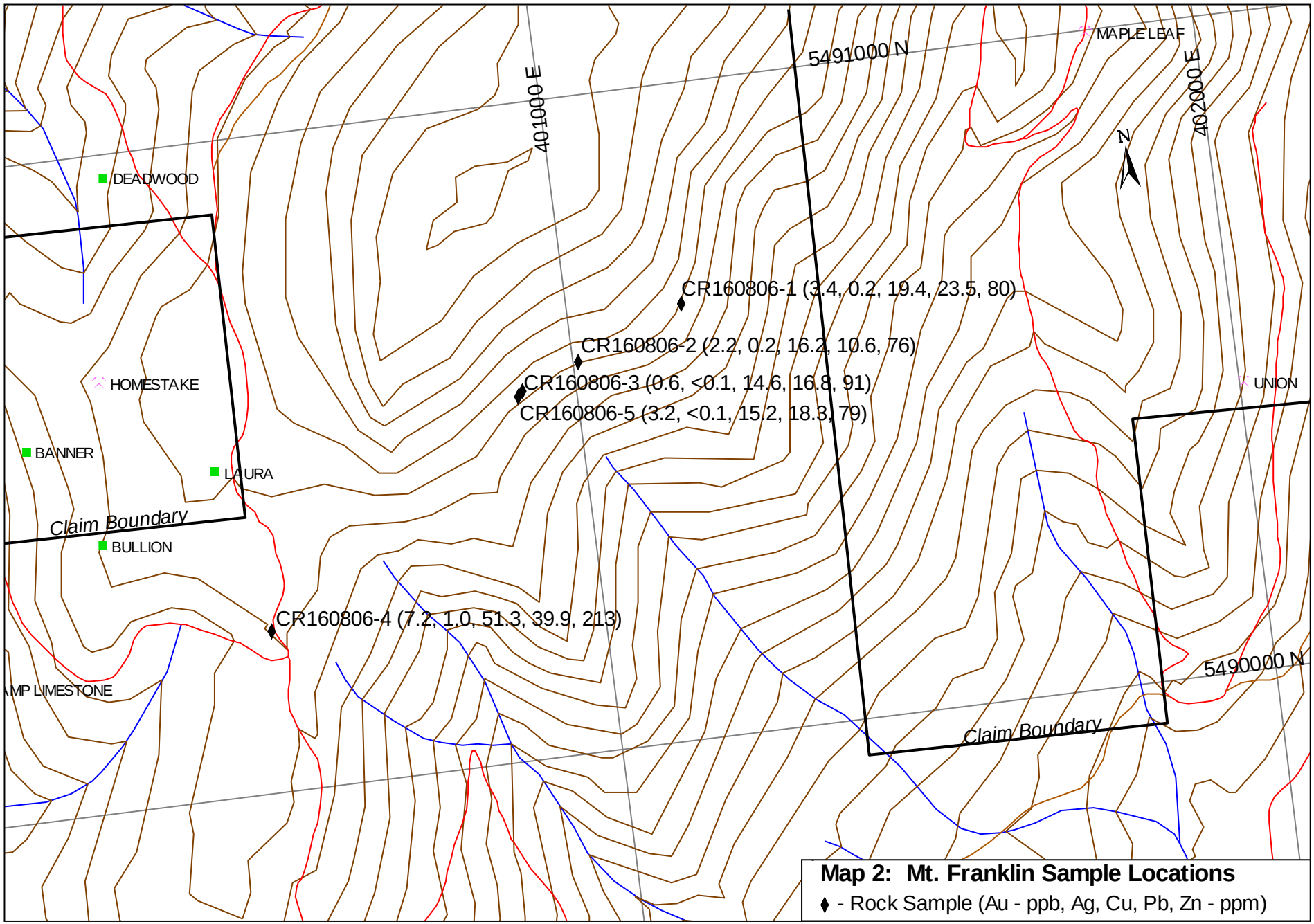
Sample Analysis

Sample Preparation	(4 samples @ $8.13/sample)	$32.52
	(9 samples @ $13.08/sample)	$117.74
Sample Assaying	(4 samples @ $16.64/sample)	$66.57
	(9 samples @ $18.57/sample)	$167.11
	(16 samples @$35.00/sample)	$560.00
Report Preparation		$990.00
Total Cost		**$5,909.21**

Appendix 1 – Sample Location Maps


5491000 N
EAF
402000 E
Claim Boundary
403000 E
N
CR160805-2 (3.8, 0.2, 193, 4.3, 41)
CR160805-1 (<0.5, <0.1, 58.8, 2.0, 32)
CR160805-3 (7.3, 1.4, 152, 1777, 438)
CR160805-4 (1691, 69.5, 177, 80, 73)
BEAVER
CR151027-T1 (715.7, 31.5, 74.2, 201, 580)
UNION
CR150709-T3 (424.4, 41.0, 48.4, 123, 466)
Burrell Creek
5490000 N
5490000 N
CR150709-T1 (592.2, 36.1, 90.7, 214, 587)
Map 1: Union, Ida Areas, Sample Locations
- Rock Sample (Au - ppb, Ag, Cu, Pb, Zn - ppm)

Scale 1:8,000


MAPLE LEAF
5491000 N
401000 E
402000 E
N
DEADWOOD
CR160806-1 (3.4, 0.2, 19.4, 23.5, 80)
CR160806-2 (2.2, 0.2, 16.2, 10.6, 76)
CR160806-3 (0.6, <0.1, 14.6, 16.8, 91)
CR160806-5 (3.2, <0.1, 15.2, 18.3, 79)
HOMESTAKE
UNION
BANNER
LAURA
Claim Boundary
BULLION
CR160806-4 (7.2, 1.0, 51.3, 39.9, 213)
MP LIMESTONE
5490000 N
Claim Boundary
Map 2: Mt. Franklin Sample Locations
♦ - Rock Sample (Au - ppb, Ag, Cu, Pb, Zn - ppm)

Scale 1:8,000

Appendix 2 – Metallurgical Test Reports

CRUCIBLE

Crucible Resources Ltd. 7069 McBride St., Burnaby, BC Canada V5E 1R1 Tel: 604 788-4478

Leach Extraction Test Report

Test: L7 **Date:** 21-Mar-16
Sample: FRT Comp #1 **Project:** I0603

Test Conditions

Solids: 125.3 g
Solution: 100 g
Solids Content: 55.61 %
Grind Size: 100% -80#
Temp: amb. (15 °C)
pH: alk
Duration: 16 hrs

Notes: Optimization testing $NH_4Cl/NH_4OH/NaCl$ w $CuSO_4$

Tare: 97.44 g

Head Grade

	Au	Ag	Pb	Zn	
Calculated:	1.30	55.7	192	597	g/t
Assayed:	1.20	57.8	226.5	555	g/t

Leach Solution Data

Time (hrs)	Gr. Wt. (g)	Slurry (g)	pH	$CuSO_4$ (g)	NH_4OH (g)	NH_4Cl (g)	NaCl (g)	Sol'n Vol. (mL)	Sample (mL)	Au (mg/L)	Ag (mg/L)	Pb*	Zn	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
0	356.5	259.1	5.81	0.50	2.47	5.35	11.60										
2	356.57	259.1	9.56		1.40			130	10.5	0.29	16.3	0.0	82.6	0.038	2.11	0.0	10.7
16	406.18	308.7	9.75					180		0.36	5.1	0.0	56.9	0.068	1.09	0.0	11.1
Total				0.50	3.87	5.35	11.60										

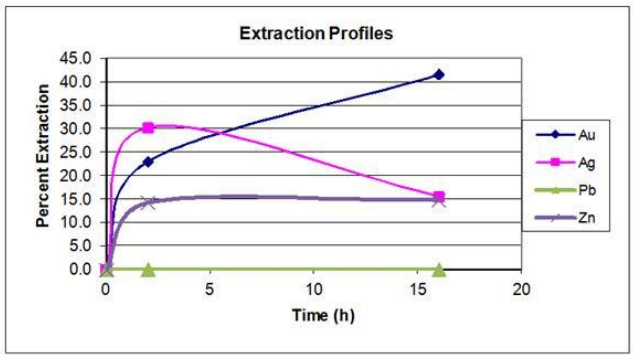
Solids

Time (hrs)	Wt (g)	Au (g/t)	Ag (g/t)	Pb (g/t)	Zn (g/t)	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
16	124.72	0.76	47.3	192.5	511	0.1	5.9	24.0	63.7

Leach Results

Time (hrs)	Au Dist. (%)	Ag Dist. (%)	Pb Dist. (%)	Zn Dist. (%)	$CuSO_4$ Cons. (kg/t)	NH_4OH Cons. (kg/t)	NH_4Cl Cons. (kg/t)	NaCl Cons. (kg/t)
0	0.0	0.0	0.0	0.0	3.99	19.69	42.70	92.6
2	23.1	30.3	0.0	14.3	3.99	30.86	42.70	92.6
16	41.6	15.5	0.0	14.8	3.99	30.86	42.70	92.6
Residue	58.4	84.5	100.0	85.2				
Total	100.0	100.0	100.0	100.0				

* Values below detection limit shown as zero



CRUCIBLE

Crucible Resources Ltd. 7069 McBride St., Burnaby, BC Canada V5E 1R1 Tel: 604 788-4478

Leach Extraction Test Report

Test: L8 **Date:** 11-Apr-16
Sample: FRT Comp #1 **Project:** I0603

Test Conditions

Solids: 135.95 g
Solution: 139.2 g
Solids Content: 49.41 %
Grind Size: 100% -80#
Temp: amb. (15 °C)
pH: alk
Duration: 60 hrs

Notes: Optimization testing $NH_4Cl/NH_4OH/NaCl$ w $CuSO_4$

Tare: 97.48 g

Head Grade	**Au**	**Ag**	Pb	Zn	
Calculated:	1.33	53.5	187	602	g/t
Assayed:	1.20	57.8	226.5	555	g/t

Leach Solution Data

Time (hrs)	Gr. Wt. (g)	Slurry (g)	pH	$CuSO_4$ (g)	NH_4OH (g)	NH_4Cl (g)	NaCl (g)	Sol'n Vol. (mL)	Sample (mL)	Au (mg/L)	Ag (mg/L)	Pb*	Zn	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
0	425.2	327.7	9.52	0.69	4.40	8.42	16.80										
2	425.1	327.6	9.52					178	16.3	0.18	14.1	0.0	69.4	0.032	2.51	0.0	12.4
16	436.0	338.6	9.47		2.49			193	145.3	0.32	5.2	0.0	6.5	0.065	1.23	0.0	2.4
60	467.1	369.6	9.54					225		0.23	1.4	0.0	62.4	0.101	1.30	0.0	16.1
Total				0.69	6.89	8.42	16.80										

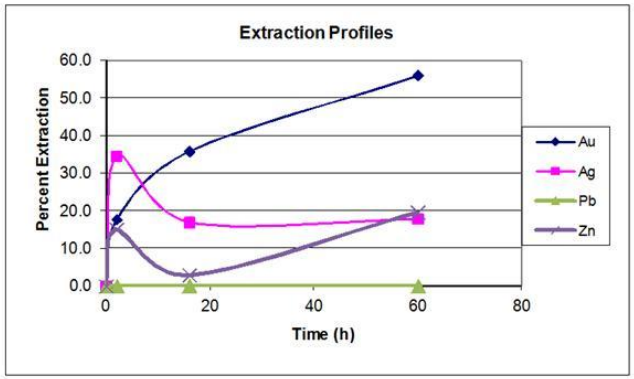
Solids

Time (hrs)	Wt (g)	Au (g/t)	Ag (g/t)	Pb (g/t)	Zn (g/t)	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
60	135.44	0.58	44.1	187.9	485	0.1	6.0	25.4	65.7

Leach Results

Time (hrs)	Au Dist. (%)	Ag Dist. (%)	Pb Dist. (%)	Zn Dist. (%)	$CuSO_4$ Cons. (kg/t)	NH_4OH Cons. (kg/t)	NH_4Cl Cons. (kg/t)	NaCl Cons. (kg/t)
0	0.0	0.0	0.0	0.0	5.08	32.36	61.93	123.6
2	17.8	34.5	0.0	15.1	5.08	32.36	61.93	123.6
16	35.9	16.9	0.0	2.9	5.08	50.68	61.93	123.6
60	56.1	17.8	0.0	19.7	5.08	50.68	61.93	123.6
Residue	43.9	82.2	100.0	80.3				
Total	100.0	100.0	100.0	100.0				

* Values below detection limit shown as zero



CRUCIBLE

Crucible Resources Ltd. 7069 McBride St., Burnaby, BC Canada V5E 1R1 Tel: 604 788-4478

Leach Extraction Test Report

Test: L9 **Date:** 9-May-16
Sample: FRT Comp #1 **Project:** I0603

Test Conditions

Solids: 125.75 g
Solution: 125.75 g
Solids Content: 50.00 %
Grind Size: 100% -80#
Temp: amb. (15 °C)
pH: alk
Duration: 60 hrs

Notes: Optimization testing $NH_4Cl/NH_4OH/NaCl$ w $CuSO_4$

Tare: 97.31 g

Head Grade

	Au	Ag	Pb	Zn	
Calculated:	1.55	51.7	197	609	g/t
Assayed:	1.20	57.8	226.5	555	g/t

Leach Solution Data

Time (hrs)	Gr. Wt. (g)	Slurry (g)	pH	$CuSO_4$ (g)	NH_4OH (g)	NH_4Cl (g)	NaCl (g)	Sol'n Vol. (mL)	Sample (mL)	Au (mg/L)	Ag (mg/L)	Pb*	Zn	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
0	402.7	305.3	9.48	0.80	6.34	11.70	18.68										
1	408.5	311.2	9.38		1.06			173	12.4	0.10	14.3	0.0	73.7	0.017	2.48	0.0	12.8
2	415.4	318.1	9.28		2.36			183	135.5	0.10	8.9	0.0	68.0	0.020	1.81	0.0	13.4
3.5	476.4	379.0	9.46		2.38			246	195.3	0.10	1.1	0.0	50.4	0.039	1.65	0.0	14.0
20	519.2	421.9	9.44		2.44			293	210.6	0.10	1.1	0.0	54.0	0.064	1.92	0.0	17.9
64	567.3	470.0	9.54	0.3	5.10	12.00	8.00	342	342.3	0.10	1.1	0.0	52.2	0.090	2.21	0.00	20.51
66	467.1	369.8	9.54					236		0.00	0.7	0.0	48.7	0.090	2.37	0.00	21.42
Total				1.05	19.69	23.70	26.68										

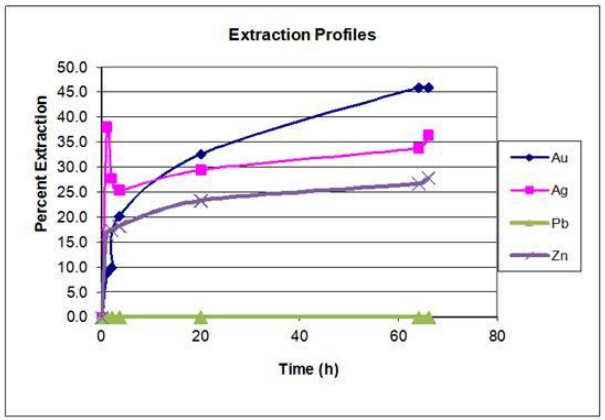
Solids

Time (hrs)	Wt (g)	Au (g/t)	Ag (g/t)	Pb (g/t)	Zn (g/t)	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
66	124.85	0.84	33.1	198.8	442	0.1	4.1	24.8	55.2

Leach Results

Time (hrs)	Au Dist. (%)	Ag Dist. (%)	Pb Dist. (%)	Zn Dist. (%)	$CuSO_4$ Cons. (kg/t)	NH_4OH Cons. (kg/t)	NH_4Cl Cons. (kg/t)	NaCl Cons. (kg/t)
0	0.0	0.0	0.0	0.0	6.36	50.46	93.04	148.5
1	8.9	38.1	0.0	16.7	6.36	58.92	93.04	148.5
2	10.1	27.8	0.0	17.5	6.36	77.67	93.04	148.5
3.5	20.2	25.4	0.0	18.3	6.36	96.57	93.04	148.5
20	32.7	29.5	0.0	23.4	6.36	115.99	93.04	148.5
64	46.0	33.9	0.0	26.8	8.35	156.56	188.47	212.2
66	46.0	36.5	0.0	28.0	8.35	156.56	188.47	212.2
Residue	54.0	63.5	100.0	72.0				
Total	100.0	100.0	100.0	100.0				

* Values below detection limit shown as zero



CRUCIBLE

Crucible Resources Ltd. 7069 McBride St., Burnaby, BC Canada V5E 1R1 Tel: 604 788-4478

Leach Extraction Test Report

Test: L10 **Date:** 18-Aug-16
Sample: FRT Comp #2 **Project:** I0603

Test Conditions

Solids: 95.6 g
Solution: 100 g
Solids Content: 48.88 %
Grind Size: 100% -80#
Temp: amb. (15 °C)
pH: alk
Duration: 20 hrs

Notes: Optimization testing $NH_4Cl/NH_4OH/NaCl$ w $CuSO_4$

Tare: 97.21 g

Head Grade	**Au**	**Ag**	Pb	Zn	
Calculated:	0.44	36.5	189	544	g/t
Assayed:	0.58	36.2	179	544	g/t

Leach Solution Data

Time (hrs)	Gr. Wt. (g)	Slurry (g)	pH	$CuSO_4$ (g)	NH_4OH (g)	$(NH_4)_2CO_3$ (g)	NH_4Cl (g)	NaCl (g)	Sol'n Vol. (mL)	Sample (mL)	Au (mg/L)	Ag (mg/L)	Pb*	Zn	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
0	300.6	203.4	9.51	0.20	0.80	4.80												
1.5	310.2	213.0	9.50	0.53	1.14			12.00	116	87.1	0.00	0.32	0.0	34.2	0.008	0.04	0.0	4.0
3.5	325.8	228.5	9.70		2.45		2.68		126	22.0	0.00	0.88	0.0	17.6	0.011	0.14	0.0	5.2
19.5	330.1	232.8	9.72						133		0.00	1.67	0.0	48.9	0.024	0.27	0.0	9.9
Total				0.73	4.38	4.80	2.68	12.00										

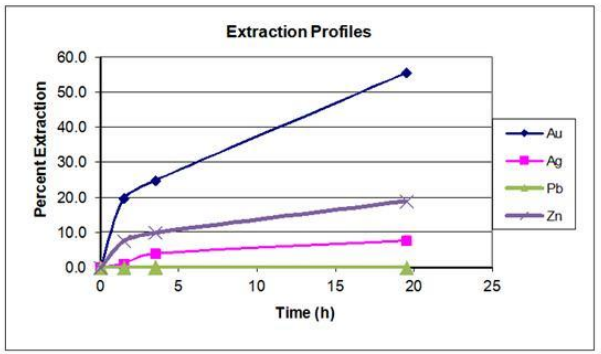
Solids

Time (hrs)	Wt (g)	Au (g/t)	Ag (g/t)	Pb (g/t)	Zn (g/t)	Au (mg)	Ag (mg)	Pb (mg)	Zn (mg)
19.5	95.1	0.20	33.9	190.2	443	0.0	3.2	18.1	42.1

Leach Results

Time (hrs)	Au Dist. (%)	Ag Dist. (%)	Pb Dist. (%)	Zn Dist. (%)	$CuSO_4$ Cons. (kg/t)	NH_4OH Cons. (kg/t)	$(NH_4)_2CO_3$ Cons. (kg/t)	NH_4Cl Cons. (kg/t)	NaCl Cons. (kg/t)
0	0.0	0.0	0.0	0.0	2.09	8.32	50.21	0.00	0.0
1.5	19.8	1.1	0.0	7.6	7.64	20.24	50.21	0.00	125.5
3.5	24.9	4.0	0.0	10.0	7.64	45.87	50.21	28.03	125.5
19.5	55.8	7.7	0.0	19.0	7.64	45.87	50.21	28.03	125.5
Residue	44.2	92.3	100.0	81.0					
Total	100.0	100.0	100.0	100.0					

* Values below detection limit shown as zero



Appendix 3 – Assay Reports

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver BC V5V 2V8 CANADA

Submitted By: Doug Werkentin
Receiving Lab: Canada-Vancouver
Received: July 04, 2016
Report Date: August 04, 2016
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN16001081.1

CLIENT JOB INFORMATION

Project: PC/Fr/New/OB
Shipment ID:
P.O. Number
Number of Samples: 29

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SLBHP	24	Sorting, labeling and boxing samples received as pulps			VAN
AQ200	19	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN
AQ250_EXT	5	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN
DRPLP	24	Warehouse handling / disposition of pulps			VAN
AQ370	8	1:1:1 Aqua Regia digestion ICP-ES analysis	0.4	Completed	VAN
FA530	0	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN
KP300	13	Phosphoric acid leach, ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Crucible Resources Ltd.
745 East 30th Ave
Vancouver BC V5V 2V8
CANADA

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
Marcus Lau
MARCUS LAU

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver BC V5V 2V8 CANADA

Project: PC/Fn/Nev/08
Report Date: August 04, 2016

CERTIFICATE OF ANALYSIS VAN16001081.1

		Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
		Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
PC100-1	Pulp		449.5	6181.7	12.1	60	7.3	58.4	36.9	139	4.65	441.3	5903.3	7.0	34	0.7	5.2	22.3	62	3.23	1.278	224
PC100-2	Pulp		1673.3	9811.7	766.3	1909	29.4	177.9	110.8	907	10.70	890.7	2655.3	15.5	80	42.4	15.8	32.0	186	1.14	0.325	193
PC100-3	Pulp		860.4	7675.9	97.7	209	13.4	185.1	99.8	504	9.62	666.0	1131.5	11.3	55	2.8	8.4	20.4	191	1.02	0.228	153
PC100-4	Pulp		1474.2	>10000	227.1	378	32.6	141.7	74.8	433	7.81	530.7	24792.9	7.3	40	8.7	12.5	19.3	161	0.90	0.310	94
PC100-5	Pulp		333.0	4570.4	72.2	108	6.7	127.4	59.9	344	5.78	273.5	1448.4	5.1	57	1.5	4.4	9.7	147	5.40	2.083	135
PC100-6	Pulp		207.2	3254.4	10.2	53	1.7	108.6	51.8	203	4.50	166.6	177.7	2.4	13	0.3	1.7	5.3	116	0.28	0.091	37
PC101-1	Pulp		930.9	8011.8	153.6	391	22.8	191.7	107.2	801	9.76	678.0	1803.3	11.4	72	6.5	10.6	21.5	190	1.05	0.297	155
PC101-2	Pulp		673.4	6877.7	52.9	144	10.1	177.0	95.9	488	8.84	546.3	821.3	9.1	48	1.7	6.4	16.7	185	0.83	0.235	125
PC101-3	Pulp		>2000	>10000	79.2	312	49.4	131.8	70.8	413	7.87	534.3	19158.4	5.5	28	5.7	17.2	23.0	150	0.75	0.259	61
PC101-4	Pulp		569.4	8570.3	217.8	267	39.1	181.0	89.3	923	8.07	533.9	7963.2	6.4	72	4.0	8.0	16.3	184	1.05	0.316	83
PC101-5	Pulp		220.1	3736.5	145.9	77	8.7	112.4	49.2	310	4.93	213.0	9359.7	5.5	67	0.8	4.4	7.4	134	7.53	2.947	178
PC101-6	Pulp		201.0	3210.1	4.8	49	2.1	105.2	50.5	195	4.43	173.0	1446.1	3.3	13	0.4	1.4	5.4	110	0.23	0.067	42
CR 113 Pb Ro. 1	Pulp		L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CR 113 Pb Ro. 2	Pulp		L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CR 113 Flt Tls.	Pulp		L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CR 113 Zn Ro.	Pulp		L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CN 113 Pb Ro. 1	Pulp		9.2	214.6	>10000	>10000	>100	22.2	9.1	753	5.15	116.0	7119.5	9.4	16	1342.1	89.1	143.6	26	0.24	0.037	13
CN 113 Pb Ro. 2	Pulp		4.3	153.7	>10000	>10000	>100	21.5	9.8	790	5.51	141.4	1752.2	9.8	18	1307.6	43.5	72.5	28	0.27	0.041	14
CN 113 Flt Tls.	Pulp		1.1	95.0	>10000	2578	26.6	10.0	4.4	465	3.08	83.5	194.1	7.2	12	51.6	12.4	18.6	22	0.21	0.037	12
CN 113 Zn Ro.	Pulp		2.4	535.4	>10000	>10000	>100	17.9	12.8	979	6.31	189.2	2039.8	9.1	16	>2000	29.3	47.2	25	0.23	0.039	13
I0603 L7 Res	Pulp		2.5	281.9	192.5	511	47.3	6.2	3.8	1329	2.66	22.9	762.6	0.4	94	3.0	6.1	0.1	61	3.93	0.043	3
I0603 L8 Res	Pulp		2.3	194.6	187.9	485	44.1	6.3	3.8	1319	2.66	22.0	584.7	0.4	92	2.5	6.2	0.1	60	4.00	0.043	3
I0603 L9 Res	Pulp		2.6	189.5	198.8	442	33.1	6.1	3.6	1382	2.74	21.5	841.6	0.4	96	2.1	6.3	0.1	62	4.10	0.043	4
PCR L1 Res	Pulp																					
PCR L1 PPT	Pulp		L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
I0603 PCR L1 PPT	Pulp																					
J2405 L1-B1	Pulp																					
J2405 L1-B2	Pulp																					
J2405 L1-B3	Pulp																					

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver BC V5V 2V8 CANADA

Project: PC/Fr/New/08
Report Date: August 04, 2016

CERTIFICATE OF ANALYSIS VAN16001081.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ250	AQ250	AQ250	AQ250
	Analyte	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Mo	Cu	Pb	Zn
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.06	1	0.6	0.2	0.01	0.01	0.01	0.1
PC100-1	Pulp	6	0.56	48	0.077	<20	0.86	0.011	0.48	>100	*	3.5	0.3	0.25	5	3.4	4.4				
PC100-2	Pulp	39	1.81	236	0.183	<20	3.03	0.116	1.04	>100	*	12.8	0.8	0.57	16	5.8	6.0				
PC100-3	Pulp	40	1.98	190	0.207	<20	3.18	0.101	1.22	>100	*	11.8	0.8	0.16	18	2.8	3.9				
PC100-4	Pulp	30	1.59	145	0.200	<20	2.08	0.047	1.21	>100	*	9.4	0.8	0.59	14	6.5	4.2				
PC100-5	Pulp	22	1.68	127	0.042	<20	2.23	0.036	1.33	>100	*	8.0	0.8	0.12	15	0.9	1.8				
PC100-6	Pulp	12	1.37	85	0.196	<20	1.63	0.026	1.15	>100	*	6.3	0.6	<0.05	12	1.1	1.4				
PC101-1	Pulp	58	2.00	198	0.203	<20	3.04	0.120	1.28	>100	*	12.1	0.8	0.23	17	3.5	3.9				
PC101-2	Pulp	45	2.00	161	0.217	<20	2.91	0.095	1.39	>100	*	11.5	0.8	0.13	17	3.0	3.2				
PC101-3	Pulp	35	1.40	134	0.180	<20	1.73	0.040	1.10	>100	*	8.1	0.6	0.96	11	8.7	5.2				
PC101-4	Pulp	68	2.05	172	0.253	<20	2.63	0.079	1.64	>100	*	9.9	1.0	0.29	17	2.9	3.2				
PC101-5	Pulp	18	1.56	110	0.045	<20	2.00	0.047	1.14	>100	*	7.0	0.6	0.09	14	0.6	1.2				
PC101-6	Pulp	13	1.30	82	0.177	<20	1.55	0.057	1.11	>100	*	5.9	0.6	<0.05	11	0.8	1.2				
CR 113 Pb Ro. 1	Pulp	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CR 113 Pb Ro. 2	Pulp	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CR 113 Flt Tls.	Pulp	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CR 113 Zn Ro.	Pulp	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
CN 113 Pb Ro. 1	Pulp	34	0.44	51	0.097	<20	0.93	0.017	0.25	1.8	0.21	2.2	0.3	8.58	5	95.5	6.5				
CN 113 Pb Ro. 2	Pulp	34	0.49	57	0.106	<20	1.03	0.039	0.27	2.4	0.21	2.6	0.3	6.92	5	47.0	3.7				
CN 113 Flt Tls.	Pulp	25	0.45	43	0.082	<20	0.83	0.030	0.22	1.8	0.03	1.9	0.1	1.42	4	6.3	0.5				
CN 113 Zn Ro.	Pulp	28	0.41	50	0.093	<20	0.91	0.021	0.24	1.4	0.39	2.4	0.2	9.22	5	31.3	1.9				
I0603 L7 Res	Pulp	14	1.19	24	0.022	<20	1.30	0.051	0.07	0.8	0.14	3.6	<0.1	0.05	5	1.7	<0.2				
I0603 L8 Res	Pulp	13	1.17	23	0.021	<20	1.30	0.034	0.07	0.6	0.13	3.4	<0.1	<0.05	5	1.7	<0.2				
I0603 L9 Res	Pulp	14	1.21	25	0.023	<20	1.34	0.040	0.08	0.9	0.14	3.6	<0.1	0.05	6	1.3	<0.2				
PCR L1 Res	Pulp																	277.52	3496.25	8.94	55.7
PCR L1 PPT	Pulp	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
I0603 PCR L1 PPT	Pulp																	75.20	>10000	10.49	158.9
J2405 L1-B1	Pulp																	0.52	122.93	5.95	4.8
J2405 L1-B2	Pulp																	1.37	>10000	23.94	68.6
J2405 L1-B3	Pulp																	2.27	5708.99	8.52	294.3

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Submitted By: Doug Warkentin
Receiving Lab: Canada-Vancouver
Received: August 30, 2016
Report Date: September 16, 2016
Page: 1 of 3

CERTIFICATE OF ANALYSIS VAN16001524.1

CLIENT JOB INFORMATION

Project: PC/Franklin/Hearn
Shipment ID:
P.O. Number
Number of Samples: 35

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps
PICKUP-RJT Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	19	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	16	Sort, label and box pulps			VAN
AQ200	30	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN
AQ250_EXT	5	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN
DRPLP	35	Warehouse handling / disposition of pulps			VAN
DRRJT	19	Warehouse handling / Disposition of reject			VAN
FA330-Au	1	Fire assay fusion Au by ICP-ES	30	Completed	VAN
KP300	1	Phosphoric acid leach, ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Crucible Resources Ltd.
745 East 30th Ave
Vancouver British Columbia V5V 2V8
Canada

CC:

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Project: PC/Franklin/Heam
Report Date: September 16, 2016

CERTIFICATE OF ANALYSIS VAN16001524.1

Method		WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.6	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
CR160719-1	Rock	0.28	2.4	72.4	2.0	39	<0.1	18.9	11.6	297	3.63	92.7	14.1	2.6	42	<0.1	0.6	0.4	87	0.45	0.089
CR160719-2	Rock	0.45	4.7	293.9	3.5	25	0.2	3.1	15.4	206	3.84	236.4	3.9	4.8	15	<0.1	2.5	0.3	24	0.44	0.128
CR160719-3	Rock	0.68	1.8	26.8	7.6	38	0.3	3.5	5.6	111	2.07	6246.1	211.5	2.1	16	0.3	18.5	<0.1	27	0.18	0.043
CR160719-4	Rock	1.24	17.1	339.3	3.0	18	0.2	11.3	18.7	131	2.38	13.9	30.4	0.9	16	<0.1	0.3	0.4	24	0.31	0.016
CR160720-1	Rock	0.41	2.4	66.0	3.1	76	<0.1	17.8	9.7	426	2.84	51.1	<0.5	1.9	146	0.3	0.4	0.1	55	1.44	0.174
CR160720-2	Rock	0.72	1.3	17.2	1.0	15	<0.1	2.1	2.5	107	2.63	17.8	<0.5	1.3	68	<0.1	<0.1	<0.1	17	0.36	0.054
CR160720-3	Rock	0.93	1.0	63.3	2.0	17	<0.1	23.9	12.5	511	3.38	34.2	<0.5	2.1	112	<0.1	0.4	0.2	42	2.82	0.034
CR160720-3A	Rock	0.51	4.6	98.8	4.1	23	<0.1	50.9	16.0	93	2.57	142.0	<0.5	1.9	9	0.1	1.1	0.3	31	0.08	0.025
CR160723-1	Rock	0.47	4.7	111.6	15.0	69	0.3	18.2	23.5	498	4.75	10.6	11.4	3.0	102	0.4	0.5	0.6	199	0.89	0.187
CR160723-2	Rock	0.56	2.0	40.9	4.6	16	0.1	1.2	1.8	348	2.97	56.2	0.9	1.9	76	<0.1	0.4	0.3	113	0.45	0.178
CR160805-1	Rock	0.52	0.3	58.8	2.0	32	<0.1	22.5	15.9	1065	3.27	8.6	<0.5	0.7	45	<0.1	0.2	<0.1	118	1.33	0.081
CR160805-2	Rock	2.09	2.9	193.0	4.3	41	0.2	44.5	33.8	965	5.27	8.5	3.8	1.0	108	0.2	0.2	<0.1	112	4.53	0.065
CR160805-3	Rock	0.62	5.4	151.8	1777.1	438	1.4	5.3	8.6	425	3.99	35.9	7.3	0.7	13	0.6	1.3	0.3	160	0.13	0.113
CR160805-4	Rock	0.41	32.7	177.4	80.5	73	69.5	6.1	12.2	422	3.90	33.5	1414.2	0.5	34	0.2	3.2	0.2	110	0.69	0.112
CR160806-1	Rock	0.49	1.1	19.4	23.5	80	0.2	31.1	12.9	679	3.47	1.1	3.4	5.6	102	0.2	0.1	<0.1	108	1.32	0.175
CR160806-2	Rock	1.79	1.0	16.2	10.6	76	0.2	12.3	18.9	825	4.12	0.8	2.2	4.7	311	<0.1	<0.1	<0.1	120	3.17	0.261
CR160806-3	Rock	0.42	0.4	14.6	16.8	91	<0.1	12.0	18.5	747	3.72	1.5	0.6	9.9	173	0.3	<0.1	<0.1	101	1.46	0.255
CR160806-4	Rock	0.64	2.2	51.3	39.9	213	1.0	9.7	16.2	728	4.04	88.0	7.2	1.0	17	1.1	1.3	<0.1	30	1.25	0.084
CR160806-5	Rock	0.31	0.4	15.2	18.3	79	<0.1	8.4	13.6	618	3.78	1.8	3.2	8.8	295	0.2	<0.1	<0.1	109	1.85	0.267
CR160720-G1	Rock Pulp	0.01	7.2	65.3	15.2	121	0.4	23.8	10.4	623	5.53	100.0	7.7	0.2	63	0.8	3.3	0.6	71	0.21	0.130
CR160720-G2	Rock Pulp	0.02	6.2	108.3	15.5	116	0.6	34.0	14.5	402	6.98	125.0	8.0	0.2	46	0.5	3.9	0.5	49	0.08	0.165
CR160720-T1	Rock Pulp	0.03	9.5	112.2	17.2	155	0.3	55.2	27.3	408	8.85	124.1	4.9	1.6	57	0.3	4.0	0.7	72	0.07	0.143
CR160720-T2	Rock Pulp	0.02	12.9	182.7	73.5	473	0.6	139.4	84.9	1469	12.40	581.0	16.7	1.7	90	2.8	13.7	1.2	67	0.22	0.135
CR160720-T3	Rock Pulp	0.07	10.5	124.0	31.5	155	0.4	50.7	23.0	534	9.00	234.4	9.0	1.6	78	0.6	6.9	1.3	77	0.15	0.158
CR160720-T4	Rock Pulp	0.04	9.5	139.9	64.4	278	1.3	80.4	29.4	491	9.00	333.9	10.2	1.1	71	1.1	16.0	1.0	58	0.16	0.130
CR160720-T5	Rock Pulp	0.04	7.4	69.2	11.3	148	0.2	30.5	13.8	352	6.92	93.4	2.2	1.0	31	0.3	2.1	0.8	67	0.07	0.128
CR160720-T6	Rock Pulp	0.04	7.3	177.6	22.2	205	0.4	58.5	42.2	1068	12.19	144.0	4.2	1.5	74	0.6	4.1	0.6	67	0.14	0.139
CR160723-G1	Rock Pulp	0.02																			
CR160723-G2	Rock Pulp	0.02																			
CR160723-G3	Rock Pulp	0.02																			

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Project: PC/Franklin/Hearn
Report Date: September 16, 2016

CERTIFICATE OF ANALYSIS VAN16001524.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Mo	Cu	Pb
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01	0.01	0.01
CR160719-1	Rock	9	20	0.86	355	0.235	<20	2.49	0.132	1.03	0.4	<0.01	6.5	0.6	0.07	8	<0.5	<0.2			
CR160719-2	Rock	11	3	0.64	125	0.192	<20	1.22	0.089	0.42	0.3	<0.01	4.3	0.3	0.94	6	1.3	<0.2			
CR160719-3	Rock	8	5	0.38	105	0.097	20	0.72	0.056	0.35	0.1	<0.01	3.4	0.2	0.19	3	<0.5	<0.2			
CR160719-4	Rock	2	5	0.34	79	0.086	<20	0.78	0.076	0.28	0.6	<0.01	1.2	0.1	0.49	3	0.6	0.4			
CR160720-1	Rock	10	2	0.67	95	0.174	<20	3.03	0.378	0.35	0.1	<0.01	4.0	0.2	<0.05	9	<0.5	<0.2			
CR160720-2	Rock	3	3	0.40	19	0.014	<20	1.16	0.132	0.05	<0.1	<0.01	1.9	<0.1	<0.05	4	<0.5	<0.2			
CR160720-3	Rock	3	30	1.05	56	0.045	<20	0.96	0.056	0.43	0.1	<0.01	6.0	0.2	0.46	3	<0.5	<0.2			
CR160720-3A	Rock	4	25	0.83	55	0.034	<20	1.16	0.047	0.51	0.2	<0.01	2.9	0.3	1.20	3	0.9	<0.2			
CR160723-1	Rock	8	49	1.36	64	0.207	<20	1.86	0.089	0.52	<0.1	<0.01	14.6	1.6	2.83	8	9.6	0.4			
CR160723-2	Rock	10	5	0.79	207	0.170	<20	0.88	0.109	0.26	<0.1	<0.01	5.8	2.6	0.83	5	2.4	<0.2			
CR160805-1	Rock	11	72	1.20	81	0.140	<20	1.49	0.065	0.03	0.4	<0.01	14.1	<0.1	0.10	6	<0.5	<0.2			
CR160805-2	Rock	7	54	0.92	237	0.007	<20	1.66	0.028	0.10	<0.1	<0.01	8.6	<0.1	0.51	7	1.8	<0.2			
CR160805-3	Rock	6	25	1.05	31	0.018	<20	1.61	0.077	0.06	0.3	0.02	8.3	<0.1	0.09	8	1.9	<0.2			
CR160805-4	Rock	4	8	0.75	49	0.083	<20	1.20	0.096	0.23	0.2	0.05	6.0	0.1	0.52	5	11.0	0.3			
CR160806-1	Rock	54	19	1.04	108	0.371	23	1.70	0.064	0.16	0.3	<0.01	4.4	<0.1	<0.05	10	<0.5	<0.2			
CR160806-2	Rock	69	39	1.08	90	0.324	<20	2.13	0.177	0.13	0.2	<0.01	7.1	<0.1	<0.05	8	<0.5	<0.2			
CR160806-3	Rock	83	29	0.90	181	0.350	<20	1.93	0.053	0.22	0.2	0.01	6.6	<0.1	<0.05	11	<0.5	<0.2			
CR160806-4	Rock	5	8	1.11	50	0.031	<20	2.18	0.010	0.25	0.2	0.02	2.1	<0.1	0.92	4	<0.5	<0.2			
CR160806-5	Rock	82	33	0.91	231	0.342	<20	2.51	0.074	0.25	0.2	0.02	7.6	<0.1	<0.05	12	<0.5	<0.2			
CR160720-G1	Rock Pulp	6	18	0.28	138	0.018	<20	1.98	0.014	0.08	1.4	0.07	1.4	0.2	0.12	7	1.4	<0.2			
CR160720-G2	Rock Pulp	4	19	0.41	69	0.015	<20	2.59	0.015	0.06	7.1	0.10	1.9	0.1	0.18	6	2.8	<0.2			
CR160720-T1	Rock Pulp	6	34	0.83	101	0.052	<20	6.03	0.017	0.16	0.6	0.05	6.7	0.2	0.14	10	4.7	<0.2			
CR160720-T2	Rock Pulp	7	31	0.91	82	0.034	<20	4.72	0.033	0.19	2.2	0.04	6.1	0.3	0.22	8	6.1	<0.2			
CR160720-T3	Rock Pulp	7	35	0.86	116	0.057	<20	5.47	0.022	0.20	0.9	0.04	6.5	0.3	0.14	10	3.8	<0.2			
CR160720-T4	Rock Pulp	6	24	0.64	76	0.025	<20	4.12	0.016	0.15	0.6	0.07	4.6	0.2	0.15	7	4.0	<0.2			
CR160720-T5	Rock Pulp	5	37	0.62	62	0.058	<20	6.01	0.012	0.07	2.6	0.08	5.4	0.2	0.10	9	3.0	<0.2			
CR160720-T6	Rock Pulp	5	33	0.82	90	0.031	<20	4.12	0.020	0.17	0.2	0.04	6.3	0.2	0.25	8	2.4	<0.2			
CR160723-G1	Rock Pulp																		5.14	68.29	24.60
CR160723-G2	Rock Pulp																		7.22	121.09	46.96
CR160723-G3	Rock Pulp																		5.86	50.73	24.26

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Project: PC/Franklin/Hearn
Report Date: September 16, 2016

CERTIFICATE OF ANALYSIS VAN16001524.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	FA330	KPS00
	Analyte	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt	Au	W
	Unit	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb	ppb	%
	MDL	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2	2	0.005
CR160719-1	Rock												
CR160719-2	Rock												
CR160719-3	Rock												
CR160719-4	Rock												
CR160720-1	Rock												
CR160720-2	Rock												
CR160720-3	Rock												
CR160720-3A	Rock												
CR160723-1	Rock												
CR160723-2	Rock												
CR160805-1	Rock												
CR160805-2	Rock												
CR160805-3	Rock												
CR160805-4	Rock											1691	
CR160806-1	Rock												
CR160806-2	Rock												
CR160806-3	Rock												
CR160806-4	Rock												
CR160806-5	Rock												
CR160720-G1	Rock Pulp												
CR160720-G2	Rock Pulp												
CR160720-T1	Rock Pulp												
CR160720-T2	Rock Pulp												
CR160720-T3	Rock Pulp												
CR160720-T4	Rock Pulp												
CR160720-T5	Rock Pulp												
CR160720-T6	Rock Pulp												
CR160723-G1	Rock Pulp	<0.05	3.7	7.81	21.2	0.09	<1	1.0	21.0	<10	<2		
CR160723-G2	Rock Pulp	<0.05	3.5	12.61	24.7	0.13	3	1.2	25.4	<10	2		
CR160723-G3	Rock Pulp	<0.05	4.8	7.53	20.8	0.11	<1	1.1	26.7	<10	<2		

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Project: PC/Franklin/Hearn
Report Date: September 16, 2016

CERTIFICATE OF ANALYSIS VAN16001524.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
CR160723-G4	Rock Pulp	0.02																			
CR160723-G5	Rock Pulp	0.02																			
I0603 FRT L10 Res.	Rock Pulp	0.10	2.5	292.3	190.2	443	33.9	5.6	3.3	1229	2.20	21.2	196.2	0.4	95	3.6	5.0	0.1	50	3.99	0.049
I0603 PCR-L2-PPT	Rock Pulp	0.02	22.4	69.5	118.5	40	<0.1	3.9	2.2	23	0.02	56.9	25.0	1.2	139	0.7	2.8	<0.1	7	32.70	0.013
I0603 PCR-L2-Residue	Rock Pulp	0.17	267.5	3480.9	25.1	60	5.2	102.8	48.3	226	4.64	210.2	859.8	3.4	20	0.8	2.1	7.4	112	0.84	0.342

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Project: PC/Franklin/Hearn
Report Date: September 16, 2016

CERTIFICATE OF ANALYSIS VAN16001524.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Mo	Cu	Pb
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01	0.01	0.01
CR160723-G4	Rock Pulp																		2.21	55.07	25.44
CR160723-G5	Rock Pulp																		4.02	73.51	31.66
I0603 FRT L1O Res.	Rock Pulp	4	12	0.95	23	0.021	<20	1.07	0.030	0.06	3.2	0.07	3.3	<0.1	0.06	5	0.9	0.3			
I0603 PCR-L2-PPT	Rock Pulp	<1	3	0.83	5	0.004	<20	0.05	1.582	<0.01	68.2	0.01	2.2	<0.1	0.08	<1	1.1	<0.2			
I0603 PCR-L3-Residue	Rock Pulp	59	12	1.38	96	0.182	<20	1.80	0.041	1.14	>100	*	7.0	0.6	0.08	12	1.4	1.6			

KEMETCO RESEARCH INC
| Kemetco Research Inc | #150 –13260 Delf Place, Richmond, BC, V6V 2M2 CANADA
| Tel: 604-273-3600 | Fax: 604-273-3609 | E-Mail: info@kemetco.com | Website: www.kemetco.com

ELEMENTS	J0401 EP1-1-L7-1 mg/L	J0401 EP1-1-L7-2 mg/L
Ag Silver	16.3	5.08
Al Aluminium	<0.4	<0.4
As Arsenic	<0.4	<0.4
Au Gold	0.29	0.36
B Boron	2.21	1.97
Ba Barium	1.08	0.59
Be Beryllium	<0.02	<0.02
Bi Bismuth	<1.	<1.
Ca Calcium	478	261
Cd Cadmium	1.25	0.82
Co Cobalt	<0.1	<0.1
Cr Chromium	<0.1	<0.1
Cu Copper	961	578
Fe Iron	2.74	1.66
K Potassium	67.8	46.3
Li Lithium	<0.2	<0.2
Mg Magnesium	4.43	1.66
Mn Manganese	0.06	0.02
Mo Molybdenum	0.524	0.45
Na Sodium	36411	22859
Ni Nickel	0.19	0.16
P Phosphorus	<0.6	<0.6
Pb Lead	<0.4	<0.4
S Sulfur	556	345
Sb Antimony	<0.4	<0.4
Se Selenium	<0.4	<0.4
Si Silicon	5.22	5.63
Sn Tin	<0.4	<0.4
Sr Strontium	2.90	1.62
Ti Titanium	<0.2	<0.2
Tl Thallium	<0.4	<0.4
U Uranium	<1.	<1.
V Vanadium	<0.2	<0.2
Zn Zinc	82.6	56.9

KEMETCO RESEARCH INC
| Kemetco Research Inc | #150 –13260 Delf Place, Richmond, BC, V6V 2M2 CANADA
| Tel: 604-273-3600 | Fax: 604-273-3609 | E-Mail: info@kemetco.com | Website: www.kemetco.com

I0603 FRT

Sample ID / ELEMENTS	I0603 FRT-L8-4 mg/L	I0603 FRT-L8-3 mg/L	I0603 FRT-L8-2 mg/L	I0603 FRT-L8-1 mg/L
Ag Silver	1.39	<0.1	5.18	14.1
Al Aluminium	<0.4	<0.4	<0.4	<0.4
As Arsenic	<0.4	<0.4	<0.4	<0.4
Au Gold	0.23	< 0.1	0.32	0.18
B Boron	2.64	2.27	2.29	2.25
Ba Barium	0.47	0.72	0.72	0.92
Be Beryllium	<0.02	<0.02	<0.02	<0.02
Bi Bismuth	<1.	<1.	<1.	<1.
Ca Calcium	193	281	318	376
Cd Cadmium	0.76	0.84	0.92	0.96
Co Cobalt	<0.1	<0.1	<0.1	<0.1
Cr Chromium	<0.1	<0.1	<0.1	<0.1
Cu Copper	336	288	840	988
Fe Iron	1.15	1.29	1.47	1.84
K Potassium	26.3	32.1	34.5	37.6
Li Lithium	<0.2	<0.2	<0.2	<0.2
Mg Magnesium	1.23	1.97	2.00	4.21
Mn Manganese	0.02	0.29	<0.02	0.25
Mo Molybdenum	0.42	0.46	0.48	0.40
Na Sodium	> 22000	> 28000	> 30000	> 34000
Ni Nickel	0.15	0.13	0.15	0.12
P Phosphorus	<0.6	<0.6	<0.6	<0.6
Pb Lead	<0.4	<0.4	<0.4	<0.4
S Sulfur	395	493	521	608
Sb Antimony	<0.4	<0.4	<0.4	<0.4
Se Selenium	<0.4	<0.4	<0.4	<0.4
Si Silicon	8.34	7.12	7.31	6.88
Sn Tin	<0.4	<0.4	<0.4	<0.4
Sr Strontium	1.33	1.82	1.93	2.31
Ti Titanium	<0.2	<0.2	<0.2	<0.2
Tl Thallium	<0.4	<0.4	<0.4	<0.4
U Uranium	<1.	<1.	<1.	<1.
V Vanadium	<0.2	<0.2	<0.2	<0.2
Zn Zinc	62.4	64.1	70.6	69.4

KEMETCO RESEARCH INC
| Kemetco Research Inc | #150 –13260 Delf Place, Richmond, BC, V6V 2M2 CANADA
| Tel: 604-273-3600 | Fax: 604-273-3609 | E-Mail: info@kemetco.com | Website: www.kemetco.com

ELEMENTS	I0603 L9-8A mg/L	I0603 L9-8B mg/L	J0603 L9-7 mg/L	J0603 L9-6 mg/L	J0603 L9-5 mg/L	J0603 L9-4 mg/L	J0603 L9-3 mg/L	J0603 L9-2 mg/L	J0603 L9-1 mg/L
Ag Silver	93.8	6.0	0.7	0.2	1.1	1.1	1.1	8.9	14.3
Al Aluminium	8.8	76.6	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
As Arsenic	1.0	49.3	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Au Gold	2.9	1.32	<0.1	<0.1	0.1	0.1	0.1	0.1	0.1
B Boron	4.6	36.9	2.4	2.3	2.3	2.0	2.2	2.1	2.3
Ba Barium	0.2	1.5	0.3	0.3	0.3	0.4	0.6	0.8	0.9
Be Beryllium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bi Bismuth	<1.	<1.	<1.	<1.	<1.	<1.	<1.	<1.	<1.
Ca Calcium	50.4	116	56.0	82.2	82.9	128	154	241	254
Cd Cadmium	0.1	0.1	0.4	0.5	0.5	0.6	0.7	0.9	1.0
Co Cobalt	<0.1	2.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cr Chromium	0.5	26.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cu Copper	1873	817	539	328	361	480	552	905	1068
Fe Iron	22.5	1160	0.9	0.8	0.9	1.2	1.5	2.1	1.4
K Potassium	14.7	63.7	12.7	16.7	17.6	21.5	24.7	34.2	36.7
Li Lithium	<0.2	2.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Mg Magnesium	7.9	30.7	0.8	0.9	0.8	1.3	2.0	2.9	4.4
Mn Manganese	2.0	31.6	0.1	0.1	<0.02	0.0	0.1	0.2	1.1
Mo Molybdenum	<0.2	0.2	<0.2	0.3	0.3	0.3	0.3	0.4	0.3
Na Sodium	95.0	1499	34326	16617	16610	20025	21497	33445	39748
Ni Nickel	0.5	92.6	0.1	0.2	0.2	0.1	0.1	0.2	0.1
Pb Lead	2.85	42.8	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
S Sulfur	720	2029	337	367	292	320	309	486	602
Sb Antimony	1.0	45.0	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Se Selenium	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Si Silicon	7.0	21.1	7.8	6.7	6.0	6.6	7.1	6.7	7.0
Sn Tin	2.1	9.8	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sr Strontium	0.1	0.6	0.6	0.8	0.8	1.1	1.4	2.0	2.2
Ti Titanium	0.4	9.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tl Thallium	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
U Uranium	<1.	<1.	<1.	<1.	<1.	<1.	<1.	<1.	<1.
V Vanadium	<0.2	0.7	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Zn Zinc	8.0	19.0	48.7	50.9	52.2	54.0	50.4	68.0	73.7

KEMETCO RESEARCH INC
| Kemetco Research Inc | #150 –13260 Delf Place, Richmond, BC, V6V 2M2 CANADA
| Tel: 604-273-3600 | Fax: 604-273-3609 | E-Mail: info@kemetco.com | Website: www.kemetco.com

Sample ID ELEMENTS	I0603 FRT-L10-1 mg/L	I0603 FRT-L10-2 mg/L	I0603 FRT-L10-3 mg/L
Ag Silver	0.32	0.88	1.67
Al Aluminium	<1.	<1.	1.065
As Arsenic	<1.	<1.	<1.
Au Gold	<0.25	<0.25	<0.25
B Boron	<2.5	2.94	3.61
Ba Barium	0.08	0.05	0.07
Be Beryllium	<0.05	<0.05	<0.05
Bi Bismuth	<2.5	<2.5	<2.5
Ca Calcium	7.80	2.64	4.02
Cd Cadmium	0.05	0.13	0.34
Co Cobalt	<0.25	<0.25	<0.25
Cr Chromium	<0.25	<0.25	<0.25
Cu Copper	372	1024	905
Fe Iron	3.27	<0.5	2.85
K Potassium	40.1	16.4	16.5
Li Lithium	<0.5	<0.5	<0.5
Mg Magnesium	5.17	0.89	1.46
Mn Manganese	0.21	<0.05	0.10
Mo Molybdenum	0.89	<0.5	<0.5
Na Sodium	16.380	N/A	N/A
Ni Nickel	<0.25	<0.25	<0.25
P Phosphorus	4.42	1.85	2.12
Pb Lead	<1.	<1.	<1.
S Sulfur	261	621	496
Sb Antimony	<1.	<1.	<1.
Se Selenium	<1.	<1.	<1.
Si Silicon	12.5	10.0	15.3
Sn Tin	<1.	<1.	<1.
Sr Strontium	0.08	0.07	0.08
Ti Titanium	<0.5	<0.5	<0.5
Tl Thallium	<1.	<1.	<1.
U Uranium	<2.5	<2.5	<2.5
V Vanadium	<0.5	<0.5	<0.5
Zn Zinc	34.2	17.6	48.9