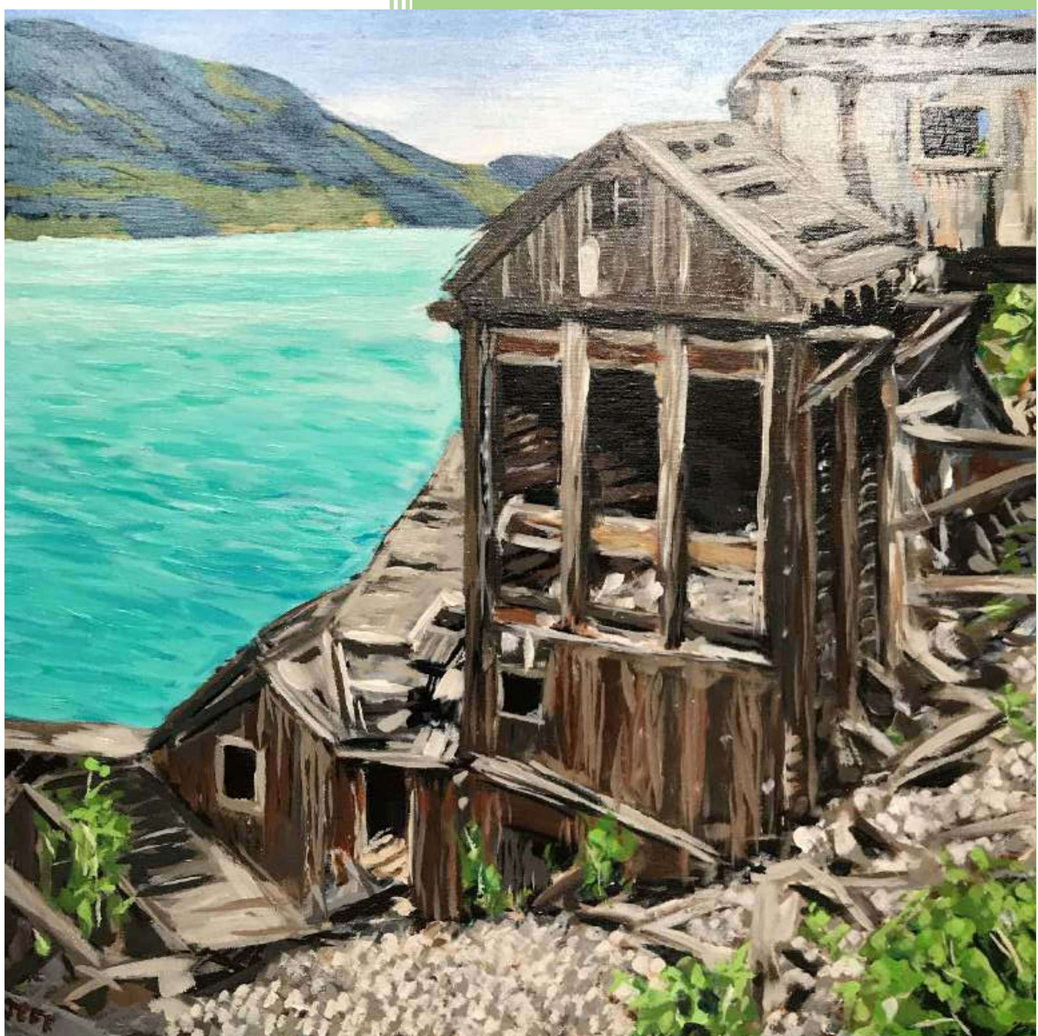
2018

Engineer Gold Mine, British Columbia, Canada – January 2018 (Amended and Restated)



NTS Mapsheet: 104M08E
59° 29�What N Latitude / 134° 14‟ W Longitude

Report for:
Blind Creek Resources Ltd.
Engineer Gold Mines Ltd.

Darren O'Brien, P.Geo
Michael Redfearn, P.Eng
Dr. Simon Dominy, FAusIMM(CP) FGS(CGeol)

Effective: January 18, 2018
Amended and Restated:
May 9, 2018

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** Front cover: ***"Engineer Mine"***; Original painting by Jeff Wilson, Acrylic, 20x20 inches, 2013

Executive Summary

Mr. Darren O'Brien, P.Geo. and Dr. Simon Dominy, FAusIMM(CP) FGS(CGeol) were commissioned by Blind Creek Resources Ltd. (or "Blind Creek Resources") to complete a National Instrument (NI) 43-101 Technical Report on the Engineer Gold Mine Property (the "Property" or the "Project") in preparation for a spin-out to a newly formed company ("Engineer Gold Mines Ltd"). The Project is located in northwestern British Columbia, Canada, approximately 32 km west of the Town of Atlin on the shores of Tagish Lake. The Project is centered at approximately 59° 27‟ north latitude, and 134° 12‟ west longitude. The Property consists of 47 mineral exploration claims and 6 crown grants, and has been consolidated by Blind Creek Resources who own 100% interest. There is a 2.5 % Net Smelter Return (NSR) to Guardsmen Resources Inc. on select mineral claims. The NSR has a buyback clause that can be activated by Blind Creek Resources.

The Engineer Gold Mine is a historic gold-silver producer and it is estimated that 14,263 tonnes were mined between 1910 and 1952, although the majority of the production occurred between 1912 and 1927 from 8 mine levels. A 30 tonne-per-day gravity separation mill was installed on the Property in 1994 to conduct seasonal batch milling. The mill was operational as recently as 2011.

This Technical Report was prepared by Mr. Darren O'Brien, P.Geo, who takes responsibility for sections 1 to 12, and 23 to 27; Mr. Michael Redfearn, P.Eng, who takes responsibility for section 13; and Dr. Simon Dominy, FAusIMM(CP) FGS(CGeol) who is responsible for section 14. Sections 15 to 22 have not been included in this Technical Report as the Engineer Gold Mine is not considered an advanced project as per NI 43-101 definitions.

1.1 Geology and Mineralization

The Engineer Mountain volcanic complex is one of several Eocene-age, Sloko Group volcanic centres in the area. Sloko Group rocks are also found as erosional remnants on some of the highest peaks in the area: Mount Fetterly, TeePee Peak, and Mt. Switzer. The volcanic centres are comprised of rhyolite to andesite flows, breccia, tuffs, and ignimbrite, with coeval intrusions. Most Sloko volcanic centres show a spatial and more loosely temporal association with gold mineralization. The Skukum Mine in southern Yukon is one of the best known examples; gold mineralization is associated with adularia-sericite alteration near rhyolite dykes along co-magmatic shear zones (Lang et al., 2003). In the southern Tagish Lake area, visible gold occurs in Sloko volcanic rocks at Teepee Peak (Mihalynuk, 1999), and at the Engineer Gold Mine, quartz-carbonate-veins and hydrothermal breccia occur within an Eocene structurally controlled mineralized system adjacent to the Sloko volcanic centre on Engineer Mountain.

The Engineer Gold Mine Property is underlain almost entirely by argillite and greywacke of the Lower Jurassic Laberge Group. Several phases of dykes cut the Laberge Group sedimentary rocks, all are of monzodiorite composition. The dykes are inferred to be genetically related to the Eocene Sloko volcanic centre on Engineer Mountain.

The Property is bisected by a northwest-trending dextral shear zone, referred to as Shear-A. The deformation zone around the shear is mapped up to 200 m wide in places as a subtle fault-parallel cleavage in the surrounding Laberge Group rocks. Magmatic and hydrothermal features associated with the shear zone include domains of pervasive auriferous silicification along the Shear-A deformation zone up to 50 metres wide.

The Engineer-Double Decker vein system is interpreted to have formed during right-lateral displacement and associated extension along brittle structures on the south-side of Shear-A. The system includes multi-stage quartz-carbonate-adularia veins with bonanza-grades of Au-Ag mineralization. The system has received attention from mineral collectors (Mauthner et al., 1996) for its rare gold-associated mineralogy, including allemontite (stibarsen) and roscoelite (vanadian muscovite). Gold occurs primarily as electrum, and is found in two main mineral associations corresponding to different vein-forming stages: Type 1 occurs as intergrown with a vanadian mica (commonly referred to as roscoelite), while Type 2 is associated with arsenopyrite. Vein textures suggest that boiling was the primary mechanism for gold deposition in the vein system (L. Millonig, pers.comm, 2016).

1.2 Exploration and Drilling

Although sporadic exploration and mining have occurred on the Engineer Gold Mine since the early 1900s, modern systematic exploration of the greater Property did not occur until BCGold Corp. (or "BCGold") acquired the Project in 2007 and completed the following work to advance the Project:

- Property-wide geological mapping and prospecting
- Completed 600 line-km SkyTEM time-domain electromagnetic/magnetic airborne geophysical survey
- Completed 600 metres of surface trench excavations on Boulder, Shaft, Double Decker veins and Shear Zone B. Trenches were geologically mapped and channel sampled.
- Completed soil geochemical orientation surveys and conducted MMI soil surveys over portions of the Shear Zone A and B structures.
- Maintained exploration, mining, tailings pond and mine dewatering permits with the BC Ministry of Mines.
- Mine rehabilitation, partial mine dewatering (6 and 7 levels), underground geological mapping and panel sampling of 5, 6 and 7 levels
- 7 surface core holes for 1,846m to test shear zone hosted hydrothermal breccia
- 13 underground core holes for 1,218m to test mineralized shoots within the Engineer and Double Decker veins
- Test-mining and milling of six bulk samples from the Engineer Vein (underground) and Double Decker Vein (surface)
- Conducted bench-scale metallurgical studies using gravity and leach amenability tests
- Commissioned Snowden Mining Industry Consultants Inc. (Snowden) to complete a NI 43-101 Mineral Resource estimate (now considered historical).
- Sponsored a University of British Columbia (UBC) postdoctoral geological research project to develop a deposit model for the high-grade gold mineralization.

1.3 Mineral Resource Estimate

In 2011, Snowden was commissioned to conduct a Mineral Resource estimate for the remnant portions of the Engineer and Double Decker veins. This historic Mineral Resource estimate has been reviewed by the QP considering recent exploration work and is considered relevant and reliable. Further discussion is found in Section 14.

The Mineral Resource estimate has been restated in Table 1.

TABLE 1 MINERAL RESOURCE ESTIMATE BASED ON A 5 G/T AU CUT-OFF (NOVEMBER 2017)

Category	Vein	Tonnage	Grade (Au g/t)	Contained Au (oz)
Inferred	Engineer	30,800	20.6	20,400
Inferred	Double Decker	10,100	13.1	4,200
	Total:	**41,000**	**19.0**	**25,000**

Notes: Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. It is uncertain if further exploration will result in upgrading the Inferred Mineral Resource to an Indicated or Measured Mineral Resource category. The Mineral Resource is reported at a 5 g/t Au cut-off where the resource margin in defined by historical payability with the assumption extraction would be by narrow vein methods. Grades diluted to a 1 m stope width.

This Mineral Resource estimate is based on a VLP (vertical longitudinal section) approach with projection of mineralized shoots down-dip and along strike based on surface exposure and underground development. The global grade applied to each vein structure was based on the partitioning of grades from historical production figures and production records to indicate payability. All grades were diluted to minimum stoping width of 1 m. A density factor of 2.8 t/m3 was used.

3D models for the Double Decker and Engineer veins were constructed using Vulcan software. The vein wireframes were constrained by historical mining records and recent drilling. The Vulcan solids were used to define the primary mineralized material volume. A bulk density factor and payability factor were applied to define tonnage. Areas of mined-out portions were subtracted where required, assuming a 1 m stope width.

1.4 Project Infrastructure

The Engineer Gold Mine is isolated and requires itself to be self-sufficient in power and supplies. All power is generated on site via a diesel generator. Communications are via satellite phone and/or satellite internet. The current trailer camp at site can host approximately 20 people. In 1995, a small open-air recovery plant was installed at the mine site which consists of primary and secondary crushing (jaw and rolls crushers), a ball mill, jig, and triple deck Deister tables. The mill can process approximately 30 tonnes per day. There is mine waste and a small tailings pond located at the mill site. Blind Creek Resources has received operating permits from the BC Ministry of Energy and Mines and monitoring permits from the BC Ministry of Environment for the existing mill and tailings pond.

Access to the Property from Atlin, BC is by helicopter or float plane (approximately 15 minutes travel time). Winter access from Atlin is also available via snowmobile. In the summer season, boat access to the Property is available from the communities of Tagish (90 km) or by barge from Carcross (80 km) providing the best means for servicing an exploration program. Both communities are located at the north end of Tagish Lake in the Yukon. Beyond each of these towns, excellent highways connect to Watson Lake and Skagway or Whitehorse, the main supply centre of the region. Daily flights are available to Whitehorse, Yukon from Vancouver, B.C. (Whitehorse to Atlin: 176 kilometres)

1.5 Conclusions and Recommendations

The Engineer Gold Mine is an advanced exploration project that possesses a small, but high-grade, Inferred Mineral Resource. Recent diamond drilling, surface trenching, underground sampling, and geological mapping have confirmed the geological continuity of the Engineer and Double Decker veins. Other veins such as the Boulder-Governor, Shaft, Andy and Jersey Lily are targets that could possibly add to the mineral resource base with further exploration success.

Trenching and diamond drilling are suitable for delineating the vein extents, but bulk sampling is the best method for determining grade. Channel and panel sampling are suitable methods for identifying potentially mineralized shoots within the veins, but tend to underestimate the gold grade.

The Engineer Gold Mine Project can also be advanced with exploration along the known shear zones (Shear A and Shear B). Both shears have +km strike lengths and host significant widths of silica-rich hydrothermal breccia with low-grade gold mineralization. With the exception of the 2008 drill program, there has been very little work completed on these shear zones. Preliminary soil geochemical surveys have shown that these shear structures are anomalous in gold pathfinder elements such as arsenic and antimony. A systematic, property-wide soil survey would be the initial step to identify any higher-grade anomalies for drill testing.

The following two-stage program is recommended to continue advancing the Engineer Gold Mine Project. The objectives of the program are as follows:

- Targeted exploration along the shear zones to define higher-grade gold mineralization hosted by hydrothermal breccia
- Investigate the Wann Prospect in the context of the Engineer Gold Mine mineralized system
- Investigate the lowest level (8 Level) of the Historic Mine workings as potential to increase Mineral Resource
- Metallurgy test-work to improve gold recovery circuit of current mill
- Improve grade control, mining costs, and confidence in the Mineral Resource with bulk sampling

Phase 1 of the program can proceed immediately and focuses on resource expansion through surface exploration, finalizing metallurgy test-work, and detailed design and costing to rehabilitate the lower levels of the mine. The proposed Phase 1 budget is C$400,000.

Phase 2 of the proposed program focuses on surface exploration, exploration of 8 Level of the mine, and processing a bulk sample of the Engineer Vein from 6 Level. The Phase 2 proposed budget is C$5.8M and is contingent on receiving permit amendments described in Phase 1.

2 Introduction

2.1 Terms of Reference

This Technical Report was prepared by Mr. Darren O'Brien, P.Geo. and Dr. Simon Dominy, FAusIMM(CP) FGS(CGeol) for Blind Creek Resources to summarize the exploration results and mining history of Engineer Gold Mine in preparation for a spin-out to a newly formed company ("Engineer Gold Mines Ltd"). This Technical Report was prepared in accordance with the NI 43-101 guidelines set out by the Canadian Securities Administrators and is considered effective January 18, 2018. The Technical Report was amended and restated May 9, 2018.

Blind Creek Resources Ltd. is a junior mineral exploration company listed on the TSX-Venture Exchange (BCK.V) with their head office at:

804 – 750 West Pender Street
Vancouver, BC
Canada, V6C 2T7
Phone: 604-682-2928

2.2 Sources of Information

This Technical Report has been prepared by an independent consultant who is a Qualified Person (QP) under NI 43-101 definitions. Subject to the conditions and limitations set forth herein, the QP believes that the qualifications, assumptions and the information used is reliable and efforts have been made to confirm this to the extent practicable. However, the QP involved in this Technical Report preparation cannot guarantee the accuracy of all information in this Technical Report.

Reliance on the Technical Report may only be assessed and placed after due consideration of the QP's scope of work. The Technical Report is intended to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context.

Unless otherwise stated, information and data contained in this Technical Report or used in its preparation was provided by Blind Creek Resources. This Technical Report is based, in part, on internal company technical reports, and maps, published government reports, company letters and memoranda, and public information as listed in Section 27 references. Several sections from reports authored by other consultants have been directly quoted or summarized in this Technical Report, and are so indicated where appropriate.

A draft copy of this Technical Report has been reviewed for factual errors by Blind Creek Resources regarding the Company and history of the Property. Any statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Technical Report.

2.3 Qualified Person / Site Visits

The Qualified Person (QP), as defined by NI 43-101, responsible for preparation of this Technical Report is Mr. Darren O'Brien, P.Geo; an independent consulting geologist and co-owner of O'Brien Geological Consulting Inc.

Mr. O'Brien is former Vice President Exploration for BCGold (2011 to 2014) and managed the exploration activities at the Engineer Gold Mine during those years. Exploration activities managed include:

- Mineral Resource Estimate (April 2011) on the remnant portions of the Engineer and Double Decker veins;
- Bulk sampling and test-milling program;
- Surface trenching;
- Airborne geophysics;
- Dewatering of 6 and 7 levels of the mine;
- Geologic mapping and panel sampling of 6 and 7 levels;
- Designing soil geochemical sampling protocols;
- Permitting, environmental compliance and community sustainability.

Mr. O'Brien was at the Engineer Gold Mine numerous times from 2011 to 2014 to manage and participate in the exploration work described in this Technical Report. Mr. O'Brien did a field inspection of the Engineer Gold Mine on October 11, 2017 which included inspecting the underground workings.

Mr. O'Brien has visited the Wann Prospect and inspected the drill core from the 2011 program on October 12, 2017. The site visit was conducted by Mr. Clive Aspinall, MSc, P.Eng, a consultant to Blind Creek Resources.

Mr. O'Brien is independent of Blind Creek Resources.

Mr. O'Brien takes responsibility as QP for all sections of the Technical Report, other than Section 13 (Mineral Processing and Metallurgical Testing) and Section 14 (Mineral Resource Estimates).

Mr. Michael Redfearn, P.Eng, an independent consulting metallurgical engineer, takes responsibility as QP for Section 13 of this Technical Report. Mr. Redfearn supervised the Inspectorate metallurgical studies described in Sections 13.1 and 13.2; and did a field inspection of the Engineer Gold Mill on June 20, 2017.

Dr. Simon Dominy FAusIMM(CP) FGS(CGeol) takes responsibility as QP for Section 14 of this Technical Report. Dr. Dominy did a field inspection of the Engineer Gold Mine including the underground workings in March 2011.

The effective date of this Technical Report is 18th January, 2018. The report was amended and restated on 9th May, 2018.

3 Reliance on Other Experts

This Technical Report was prepared for Blind Creek Resources for the 100% owned Engineer Gold Mine in northwestern British Columbia.

Mr. O'Brien has assumed, and relied upon, that all the information and technical documents listed in the Reference Section 27 of this Technical Report are accurate and complete in material aspects. The available information was reviewed by Mr. O'Brien, but he cannot guarantee its accuracy and completeness. Mr. O'Brien reserves the right to revise the Technical Report and conclusions if any additional information becomes known subsequent to the date of this Technical Report.

Although copies of the tenure documents, operating permits, and purchase agreements were reviewed, an independent verification of land title and tenure was not performed. Mr. O'Brien did not independently verify the legality of any underlying agreements that may exist concerning ownership or other agreement(s) between third parties but has relied on the client's solicitor to have conducted the proper legal due diligence.

4 Property Description and Location

4.1 Property Location

The Engineer Gold Mine Property is located 32 km west of Atlin in northwestern BC on the east shore of the Taku Arm of Tagish Lake (Figure 1). The Property covers the Gleaner and Engineer Mountains, and extends past the Wann River at its southern extent. Geographical coordinates for the centre of the Property are 59° 27�onorth latitude, and 134° 12‟ west longitude. The NTS map index is 104/M8 and M9, and the BCGS index is 104M 049. The portal to access the Engineer Gold Mine underground workings is located at 542,775m E / 6,594,390m N (NAD83 Zone 8N).

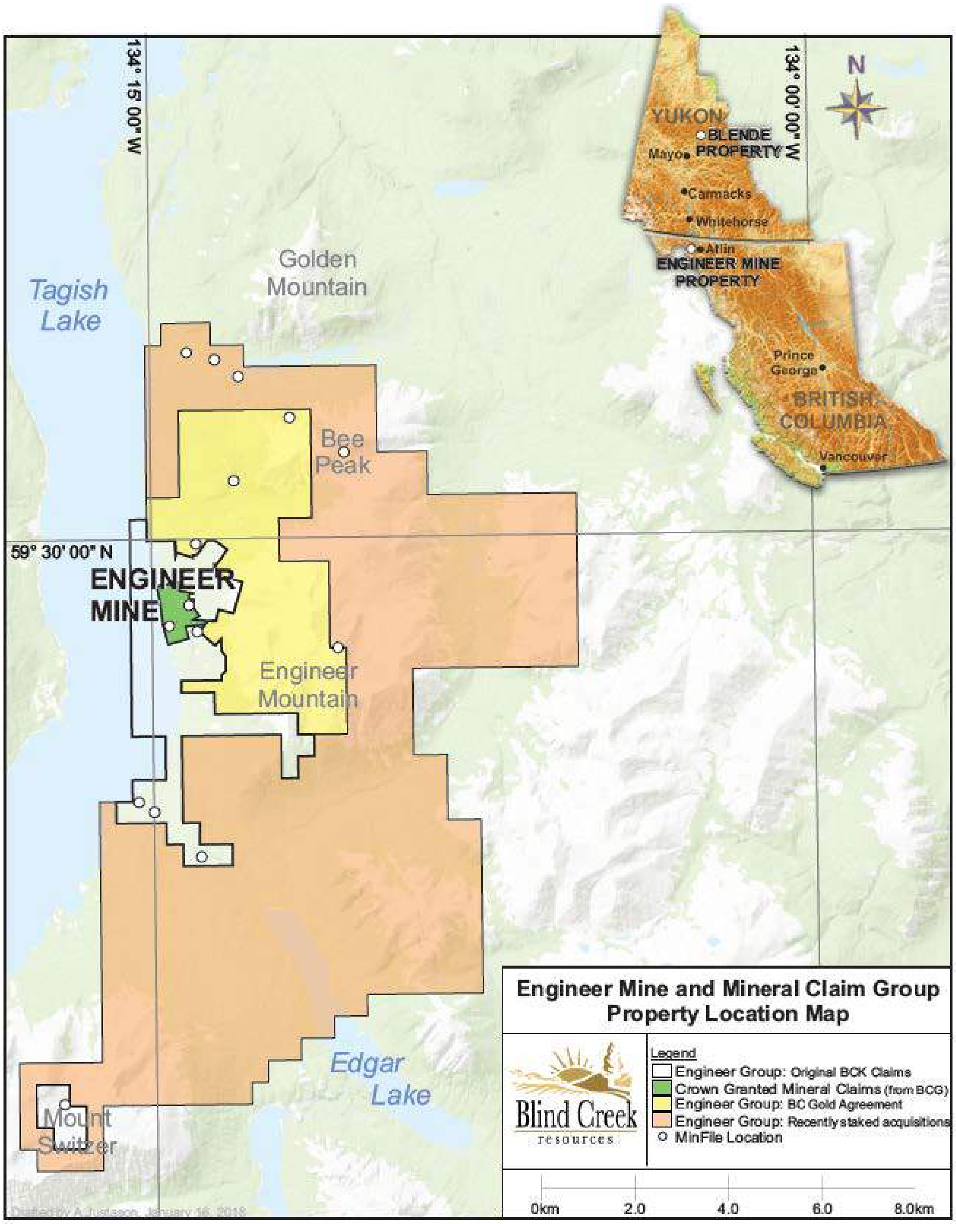


FIGURE 1 LOCATION MAP OF ENGINEER GOLD MINE

4.2 Tenure

The Engineer Gold Mine Property consists of six crown grants, five legacy mineral claims, and 42 Mineral Titles Online "MTO cell" claims that surround and overlap the crown grants (Table 2 and Figure 2). The total contiguous property package covers an area of approximately 12,032 hectares.

Claim status for the legacy and cell claims was searched on the BC Mineral Titles Online (MTO) website and is provided in Table 3. All claims are indicated to be in good standing until at least December 1, 2018 and are reported to be owned 100% by client 203166, Blind Creek Resources.

Claims shapefiles used to create Figure 2 were downloaded from the DataBC website (https://data.gov.bc.ca/).

Table 2 Engineer Gold Mine Crown Grants

Crown Grants	Claim Name	Area (Hectares)	Annual work due	Annual fees due	Record date	Map sheet	Royalty
19	Engineer #1	19.830	None	$309.91	1912/Nov/28	104M049	
20	North Partnership #2	18.454	None	$304.58	1912/Mar/28	104M049	
106	North Partnership #3	13.597	None	$289.26	1911/Sep/07	104M049	
209	North Partnership #4	5.900	None	$244.59	1913/Sep/18	104M049	
918	North Partnership #1	18.397	None	$475.88	1910/Feb/17	104M049	
4659	Bob Fr	0.813	None	-	1929/Jan/10	104M049	
	Total:	**76.991**					

Table 3 Engineer Gold Mine Mineral Claims

Title Number	Claim Name	Owner	Title Type	Located	Map Number	Issue Date	Good to Date	Area (ha)	Royalty
411090	HOPE 2	203166 (100%)	Legacy Mineral Claim	2 Post Claim	104M049	2004/JUN/04	2018/DEC/01	25.00	
411091	HOPE 3	203166 (100%)	Legacy Mineral Claim	2 Post Claim	104M049	2004/JUN/04	2018/DEC/01	25.00	
411092	HOPE 4	203166 (100%)	Legacy Mineral Claim	2 Post Claim	104M049	2004/JUN/04	2018/DEC/01	25.00	
411093	HOPE 7	203166 (100%)	Legacy Mineral Claim	2 Post Claim	104M049	2004/JUN/04	2018/DEC/01	25.00	
411094	HOPE 1	203166 (100%)	Legacy Mineral Claim	4 Post Claim	104M049	2004/JUN/04	2018/DEC/01	450.00	
503610		203166 (100%)	Mineral Claim	MTO Cell	104M	2005/JAN/15	2020/NOV/17	575.42	G
503612		203166 (100%)	Mineral Claim	MTO Cell	104M	2005/JAN/15	2020/NOV/17	361.50	G
503613	LOL	203166	Mineral Claim	MTO Cell	104M	2005/JAN/15	2020/NOV/17	361.86	G

Title Number	Claim Name	Owner	Title Type	Located	Map Number	Issue Date	Good to Date	Area (ha)	Royalty
		(100%)							
503984	ENG	203166 (100%)	Mineral Claim	MTO Cell	104M	2005/JAN/17	2018/DEC/01	16.44	
507528		203166 (100%)	Mineral Claim	MTO Cell	104M	2005/FEB/19	2020/NOV/17	558.45	G
512193	GLINT	203166 (100%)	Mineral Claim	MTO Cell	104M	2005/MAY/06	2020/NOV/17	246.71	G
521228	HOPE 7	203166 (100%)	Mineral Claim	MTO Cell	104M	2005/OCT/14	2018/DEC/01	345.28	
525258	WHINE	203166 (100%)	Mineral Claim	MTO Cell	104M	2006/JAN/13	2018/DEC/01	115.22	
525419	TAGISH #1	203166 (100%)	Mineral Claim	MTO Cell	104M	2006/JAN/14	2018/DEC/01	197.40	
525536	TAGISH # 3	203166 (100%)	Mineral Claim	MTO Cell	104M	2006/JAN/15	2018/DEC/01	16.45	
538598	ERIK	203166 (100%)	Mineral Claim	MTO Cell	104M	2006/AUG/03	2020/AUG/03	131.55	
822762	BROWNLEE 1	203166 (100%)	Mineral Claim	MTO Cell	104M	2010/JUL/21	2020/APR/30	32.74	
822802	BROWNLEE 2	203166 (100%)	Mineral Claim	MTO Cell	104M	2010/JUL/21	2020/APR/30	16.37	
873849	ERIK 2	203166 (100%)	Mineral Claim	MTO Cell	104M	2011/JUL/29	2021/MAR/06	82.20	
926639	ERIK 3	203166 (100%)	Mineral Claim	MTO Cell	104M	2011/OCT/31	2020/DEC/06	16.43	
1046382	NORTH WANN	203166 (100%)	Mineral Claim	MTO Cell	104M	2016/SEP/01	2018/DEC/01	65.82	
1046447	WANN	203166 (100%)	Mineral Claim	MTO Cell	104M	2016/SEP/03	2018/DEC/01	49.37	
1050835	WANN RIVER#1	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/18	2018/DEC/01	411.51	
1050842	WANN RIVER#2	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/18	2018/DEC/01	312.97	
1050846	WANN RIVER#3	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/18	2018/DEC/01	65.81	
1050947	WANN RIVER #4	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/24	2018/DEC/01	263.28	
1050948	WANN RIVER#5	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/24	2018/DEC/01	164.57	
1050958	HOPE 8	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/24	2018/DEC/01	32.86	
1050996	ENGINEER LAKES#1	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/27	2018/DEC/01	410.50	

Title Number	Claim Name	Owner	Title Type	Located	Map Number	Issue Date	Good to Date	Area (ha)	Royalty
1050997	ENGINEER LAKES#2	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/27	2018/DEC/01	410.57	
1050998	BEE PEAK #1	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/27	2018/DEC/01	410.86	
1050999	WANN RIVER#6	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/27	2018/DEC/01	395.43	
1051000	WANN RIVER#7	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/27	2018/DEC/01	329.66	
1051013	WANN RIVER#8	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/28	2018/DEC/01	427.92	
1051049	ENGINEER EAST#1	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/30	2018/DEC/01	394.54	
1051050	ENGINEER EAST#2	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/30	2018/DEC/01	410.87	
1051051	ENGINEER EAST#3	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/30	2018/DEC/01	410.75	
1051052	ENGINEER SOUTHEAST#1	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/30	2018/DEC/01	411.65	
1051101	ENGINEER EAST#2	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/31	2018/DEC/01	395.13	
1051102	ENGINEER SOUTHEAST #3	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/31	2018/DEC/01	197.48	
1051103	ENGINEER EAST#4	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/31	2018/DEC/01	427.48	
1051104	ENGINEER SOUTHEAST#4	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/31	2018/DEC/01	395.30	
1051105	WANN RIVER #9	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/MAR/31	2018/DEC/01	411.63	
1051108	ENGINEER SOUTHEAST#5	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/APR/01	2018/DEC/01	214.15	
1051109	WANN RIVER#10	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/APR/01	2018/DEC/01	411.88	
1051110	WANN RIVER #11	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/APR/01	2018/DEC/01	428.35	
1051575	GOLDEN BEE	203166 (100%)	Mineral Claim	MTO Cell	104M	2017/APR/24	2018/DEC/01	147.736	
								12,032.12	

**See Section 4.3 for definition of royalties (G=Guardsmen Resources Inc.)*

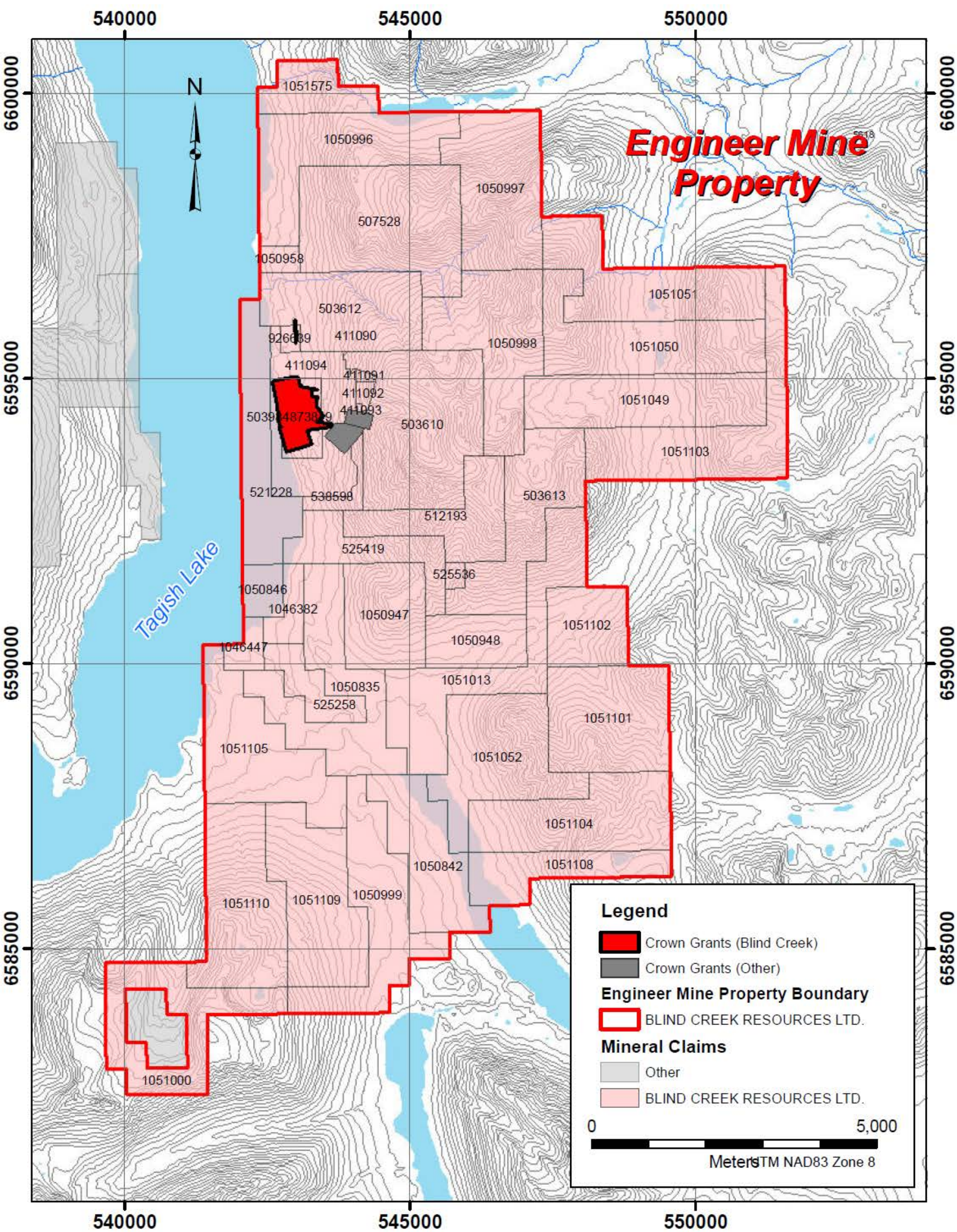


FIGURE 2 ENGINEER GOLD MINE - MINERAL CLAIMS AND CROWN GRANTS

The 42 “MTO cell” claims and are located online by Universal Transverse Mercator map projection coordinates (UTM NAD83 Zone 8) for the northeast corner of each cell unit. Effective January 1, 2008, the five legacy claims are determined to hold rights to the ground as depicted on the MTO map, regardless of where the legal posts are situated.

The five legacy and 42 MTO cell claims require annual exploration and development work which must be registered within one year of the work being completed. The required work value is dependent upon the age of the mineral claims and increases as per the schedule below:

First and second anniversary years	\$5.00 per hectare per year
Third and fourth anniversary years	\$10.00 per hectare per year
Fifth and sixth anniversary year	\$15.00 per hectare per year
Subsequent anniversary years	\$20.00 per hectare per year

Mineral claims allow the holder certain rights to exploitation of subsurface minerals only, and no rights to surface commodities are implied by the Province of British Columbia.

The Property also includes six crown grants (77 hectares), of which Blind Creek Resources owns the subsurface mineral rights and Murray Leitch retains the surface rights. The underground workings and the mineral resources reported are all contained within these crown grants.

Since the six crown grants have “deeded title”, the obligations and rights are more like those of private property owners than mineral claim holders. No annual work expenditures are required for crown grants. Annual property taxes are paid on surface rights by Murray Leitch.

There are four other crown grants belonging to 3rd party owners within the Engineer Gold Mine Property boundary. The surface rights-only for the ‘Mickey DL967’ and ‘Plato DL968’ crown grants are owned by Murray Leitch which partially cover Legacy Mineral Claim 411094 belonging to Blind Creek Resources. The mineral and surface rights for the ‘My Little Lot Fraction DL250’ and ‘Cracker Jack DL914’ crown grants are owned by Michael Brown of Sitka, Alaska. There is no mineral resource or exploration work on the ‘Brown’ crown grants.

4.3 Royalties

Mineral claims and crown grants with underlying royalties are identified in Table 2 and Table 3.

Guardsmen Resources Inc. retains a 2.5% net smelter return on the five Gold Hill claims, 2% of which can be purchased by Blind Creek Resources for C\$1.5 million.

On October 17, 2017, Blind Creek Resources announced the purchase of a one percent (1%) Net Smelter Royalty (“NSR”) payable to Pan Andean Minerals Ltd. (formerly BCGold Corp.). There are now no underlying royalties for the patented crown grants which host the Mineral Resource and the historic producing mine.

4.4 Exploration Permitting

The British Columbia Ministry of Energy Mines and Petroleum Resources (“MEMPR”) requires a permit for any underground exploration, or surface exploration that requires reclamation. This Exploration

Permit is attached to a "Mine Site" designation regardless of the stage of exploration and past or current production. Historically, exploration permits require a Notice of Work ("NoW") each year, and the reclamation work (with associated reclamation bonds) can be accumulated at the discretion of the operator, until they decide to discontinue work. At that time the operator completes any unfinished reclamation work to the satisfaction of the Mines Inspector, closes the Mine Site for further exploration, and applies to MEMPR to be reimbursed for the bond. In this regard, the Engineer Gold Mine Project has a Mine Site designation of #0101107, an ongoing Mineral Exploration Permit (since the 2008 field program) numbered MX-1-767, and a reclamation bond of C$50,000 held in trust by the Bank of Montreal. Recent changes by MEMPR allow (and encourage) Multi Year Area Based ("MYAB") exploration notices. On April 12th, 2010, September 14th, 2010, March 9th, 2011, March 26th, 2012 and June 11, 2014 BCGold submitted Notices of Work which describes some of the work described in this report. On March 24th, 2015, BCGold received an amended permit MS-1-767 valid until March 31st, 2020. Attached was an application for an annual renewal of Explosive Storage and Use Permit #1285. On October 13, 2017, permit MX-1-767 was transferred to Blind Creek Resources.

Blind Creek Resources was issued a Waste Management Permit (PE-14978) on June 8th, 2017, which was originally issued to EMC for the bulk sampling in the early 1990's. This permit authorises effluent discharges from: (1) the gravity separation mill to the settling pond; (2) from the portal to Tagish Lake; and (3) from the settling pond to Engineer Creek. In the permit, each discharge point has specified conditions, for monitoring and sampling, reporting, and flow rates depending on various conditions. This permit was sufficient for the processing of the bulk samples described in this Technical Report, but will not be sufficient for larger scale mining activities. Although discharges from the portal in the original permit referred to dewatering of the underground workings, the stipulated maximum flow rate of 7 m^3 is not sufficient for this purpose. A temporary amendment for a higher discharge rate was granted in early 2009, and extended until 15th April 2011.

4.5 Bulk Sample Permitting

In British Columbia, applications for mineral and coal exploration activities, placer mines, and smaller-scale industrial mineral mines and aggregate quarries are made online through the *FronterCounterBC* website. These "*Notice of Work*" (NoW) applications are made under the BC *Mines Act* and are reviewed by regional offices of the BC Ministry of Energy and Mines. To date, exploration work at the Engineer Gold Mine including surface and underground drilling, surface trenching, geophysics, underground mapping, and bulk sampling have operated under NoW applications.

Under the BC *Mineral Tenure Act Regulation* ("MTAR"; s.17), a bulk sample of up to 10,000 t may be extracted from a mineral claim not more than once every five years. The normal annual production limit on a mineral claim is restricted to a maximum of 1,000 t from each mineral cell claim or each legacy mineral claim. Production in excess of this limit can only occur on a mining lease or crown grant.

There is no restriction in the MTAR on what the bulk sample may be used for once it is mined. In other words, it can be subjected to testing on site, moved off-site, or sold.

The underground workings of the Engineer Gold Mine are within six crown granted mineral claims with surface and mineral rights with grandfathered provisions from a previous Mines Act. The full rights granted are described in the crown grant documents and do not expire at a defined date, which is the case with modern mining leases.

The current NoW application was approved as a multi-year area-based (MYAB) permit MX-1-767 with a reclamation security deposit of $50,000 and an approval completion date of March 31, 2020. The MYAB permit covers 17 mineral cell claims and legacy claims, and six crown granted mineral claims.

Exploration activities approved under MX-1-767 include:

- Use of a camp
- 52 mechanical trenches
- 88 surface drill pads
- 1.6 km of newly constructed access trails
- 50 m^3 of marketable timber cutting with associated Free Use Permit
- Underground drilling and development on Levels 5, 6 & 7
- Blasting under associated Explosive Storage and Use Permit BC-1285 (requires annual notification for re-issuance)
- 4,000 t underground bulk sample to be processed at onsite mill
- 200 t waste dump
- Waste Discharge as permitted by Ministry of Environment under the *Environmental Management Act* (Permit PE-14978)

Under Section 11.1 of the Mineral Tenure Act, the Chief Inspector of Mines, after considering practicable alternative means of access, may grant a special use permit under the Forest Practices Code of British Columbia Act allowing the Property holder the right to construct access to the mineral title or crown grant. Currently the Engineer Gold Mine has a Free Use Permit allowing cutting of 50 m^3 of marketable timber. The Free Use Permit is associated with MX-1-767 and has the same expiration date.

The Engineer Gold Mine Crown Grants provide additional rights with respect to timber that requires further investigation. The crown grants state:*" …the right to the use and possession of the surface of such mineral claim, including the use of all the timber thereon, for the purpose of winning and getting from and out of such claim the minerals contained therein, including all operations connected therewith or with the business of mining.*"

The effluent Permit PE-14978 was originally issued to the Engineer Mining Corporation on June 15, 1998, and the permit was transferred to Blind Creek Resources in 2017, and authorizes discharge of effluent from 3 locations:

- the 5 Level Portal to Tagish Lake;
- the Processing Mill to a settling pond (tailings pond), and under certain additional conditions, from the settling pond, to two additional ponds, then to Engineer Creek; and
- a temporary discharge from the portal while de-watering the underground levels of the mine.

Permit PE-14978 authorizes the discharge of “effluent from a 50 t/day gravity separation gold mill” and ground water from the underground workings and establishes certain discharge quality standards. Achievement of these standards, in part, is influenced by the ML/ARD aspects of the various wastes, and mine water discharged. Environmental sampling collection programs provide data considered useful in terms of characterizing runoff and other contact water quality influenced by the waste materials.

In 2012, AllNorth Consultants were contracted to create a ML/ARD Management Plan in support of the 4,000 t bulk sample (see Section 20.1 for further details).

A temporary amendment to Discharge Permit PE-14978 was received to allow additional discharge while dewatering of levels 6 and 7 of the underground workings. The maximum discharge rate was raised to 75 m^3/hour, 24 hours a day, after which the rate was returned to 7 m^3/hour to maintain water levels in the underground. The company did on occasion exceed the discharge volumes while dewatering and received an advisory letter from the BC Ministry of Environment. It is recommended that Blind Creek Resources request a maximum discharge of 150 m^3/hour in future amendments to the permit. The increased discharge allows the use of a larger volume pump which is required to lift water over 200 feet (61 m) within the internal shaft.

Commercial development to the extent currently foreseen by Blind Creek Resources would be subject by Ministry of Mines to the Mines Act. The NoW may require further amendments dependant upon the level of mining activity requested by Blind Creek Resources. The amended NoW would include plans for waste management, water management, environmental protection, closure and reclamation and community coordination. The level of mining activity currently foreseen would be below the threshold level for application of the BC Environmental Assessment Act. Depending on the required actions from Fisheries and Oceans Canada ("DFO"), the project may or may not be subject to the Canadian Environmental Assessment Act ("CEAA"), but in any event the project would be subject to environmental assessment as part of the NoW application.

4.6 Environmental Liabilities

In June 2007, Golder Associates was contracted to conduct a Preliminary Environmental Review of the Engineer Gold Mine (Golder Associates, 2007). This included a site visit to observe the results of past mining activities, and a review of available project data.

The report identified the possibility of some environmental liability from past operations at several small waste dumps, a small settling pond and intercepted surficial ground run-off draining from the portal. It was recommended a "Site Profile" be prepared following Ministry of Mines (*formerly MEMPR*) guidelines, to detail these in advance of commercial production. Golder Associates conducted water sampling at six locations, including the two specified in effluent permit PE-14978. Water sample collection continued from those six locations at regular intervals to build up an environmental baseline database. Baseline water sample stations are described in Table 4.

The report also noted that the Engineer Gold Mine lies within the traditional territories of the Taku River Tlingit and Carcross-Tagish First Nations. It recommended an Archeological Impact Assessment in advance of production, and continued on-going communication with both groups throughout all phases of work.

In summary, (Golder Associates 2007) concluded that: "*no show stoppers associated with exploration or production were identified during this* [its] *review*".

TABLE 4 BASELINE WATER SAMPLING COORDINATES

Description	Site	Coordinates (NAD83 Zone 8N)	Exposure
Mine Shaft Underground	EM-1	N/A	Groundwater/Source water
Engineer Creek u/s of Mill Site	EM-2	543,016E / 6,594,395N	Background
Settling pond near discharge point	EM-3	542,927E / 6,594,405N	Source water
Surface water draining from 5 Level portal	EM-4	542,758E / 6,594,395N	Groundwater/Source water
Engineer Creek d/s of Mill Site, near camp	EM-5	542,711E / 6,594,847N	Near field
Butler Creek at road crossing near dock	EM-6	542,618E / 6,595,000N	Background

In 2012, AllNorth Consultants Limited completed a Metal Leaching and Acid Rock Drainage (ML/ARD) Management Plan to support a 3-year, $2.5M exploration and development program proposal. The proposed program included dewatering of the lowermost mine levels, mine rehabilitation, geological mapping and sampling, additional bulk sampling, test milling, and 3,500 m of diamond drilling. The primary objective was to increase the mineral resource by underground and surface drilling Shear Zones "A" and "B" and the Jersey Lilly, Boulder, Governor and Shaft veins, and continue to test mine and mill bulk sample high-grade gold shoots on the Engineer Vein. Prior to commencement of the 4,000 t bulk sample, the BC Ministry of Energy and Mines (BC MEM) required the development of a Metal Leaching and Acid Rock Drainage Plan for the BC MEM's review and approval.

An Annual Summary of Exploration Activities update and Notice of Work Application was filed with the BC MEM under the Multi-Year Area Based (MYAB) Mine Permit MX-1-767. The MYAB described the company's exploration and development plans for the Engineer Gold Mine up to the year 2015. The company also filed the ML/ARD Management Plan prepared by AllNorth. The BC MEM reviewed and accepted these documents and amended permit MX-1-767 on January 29, 2013. Subsequent amendments have extended the approval completion date to March 31, 2020.

On October 13, 2017, permit MX-1-767 was transferred to Blind Creek Resources.

Within the ML/ARD Management Plan, AllNorth (2012) analyzed the baseline water sample results initially chosen by Golder Associates (2007) and collected on a regular basis. The sampling data provided mine and tailings water samples originating from contact with mine and tailings wastes. The following summarizes comments based on the sampling program:

1) Hardness/Alkalinity in portal/tailings water was elevated compared to adjacent local receiving water streams, reflecting relatively high carbonate content of mineralized and waste material (to a lesser extent, based on drill core analyses provided). Portal water had "buffer capacity" to

react with 2.05x10^{-4} to 2.16x10^{-4} Molar H+ (acid). Tailings pond water contained less (about one half) "buffer capacity" (76.6 mg/L to 127 mg/L alkalinity), probably due to the effect a long residence time in the tailings pond and the replenishment of carbon dioxide in tailings fluid, which produces some alkalinity reduction by precipitating some of the $CaCO_3$. Portal water had higher alkalinity due to prolonged contact (and replenishment) with the carbonaceous wall rock.

2) Both background and source water exhibited alkaline characteristics.

3) Portal water at times had elevated Total Suspended Solids ("TSS") compared to adjacent streams.

4) While background sulphate was less than 50 mg/L, portal source water was occasionally marginally higher.

5) Bromine, chloride, fluoride, nitrate, and nitrite were all well within the BC guidance for freshwater aquatic levels (BC MELP 1997).

6) Total silver was well within BC Aquatic Guide in adjacent streams, and in the pond and portal, but was elevated at the pond and portal when the TSS was elevated at over 200 mg/L on two occasions. Dissolved silver at all sampling occasions was virtually at the detection level for silver.

7) Aluminum (dissolved) was well within BC Aquatic Guide at all sampling locations.

8) Arsenic was elevated above the BC Aquatic Guide at the Engineer Creek u/s of Mill site and the mill and portal sites, and increased significantly with elevated TSS associated with the portal samples. Recent drill core multi-element scans indicated arsenic content to be elevated significantly (5 to 395 ppm) above the crustal average of 1.8 ppm.

9) Cadmium was elevated marginally in background stream samples (total and dissolved values); and elevated marginally in dissolved cadmium for the mill and portal samples, and was significantly higher for some of the total cadmium results, attributable to elevated TSS.

10) Cobalt and chromium were well within the BC Aquatic Guide.

11) Copper EM-2, EM-3, EM-5, and EM-6 met the BC Aquatic Guide, while EM-4 exceeded the guide marginally, considering the elevated hardness of the water sample. However, once this flow entered the receiving water, the BC Aquatic Guide was met.

12) Iron concentrations in watercourses met the BC Aquatic Guide, while the mill and portal water marginally exceeded, with significant exceedances at higher TSS concentrations.

13) Lead concentrations were well within the BC Aquatic Guide.

14) Antimony met the BC Aquatic Guide, except when TSS was elevated on 2 occasions for the portal sample.

15) All samples were well within the BC Aquatic Guide for selenium and zinc.

AllNorth (2012) summarized the baseline results as such: *"Except for arsenic, the exceedances noted above occurred infrequently in terms of the percentage of overall samples collected. The application of the BC Aquatic Guide to mill and portal samples is for the purpose establishing a comparison of the* *metals and non-metals generated and as an indication of the level of risk mine-associated discharges present to the receiving environment. Based on the dissolved parameter results, there have not been any concentrations which would be expected to cause a failure in a 96 Hour LC50 bioassay test on Rainbow Trout."*

The ML/ARD Management Plan focuses on the 4,000 t bulk sample proposed to be extracted from the mine. The following testing / reporting are to be submitted to the BC MEM:

- Perform static acid base accounting (ABA), include elemental composition by ICP methods; and paste pH, sulphur speciation, inorganic carbon concentration, neutralization potential (NP), and acid potential (AP). The method of sample collection of the rock should reflect the geological variability of the rock being sampled.
- Duplicate samples (a) for the laboratory ABA determination, and (b) for mineralogical characterization using microscopic methods. The microscopic examination of tailings and waste rock should report (semi-quantitatively) an estimate of the visible sulphide content in tailings, e.g., pyrite, pyrrhotite.
- Provide a report summarizing and interpreting the findings of the ABA and ICP analyses at the end of each season when bulk sampling occurs. Include details of the rock sampling method.
- One sample per 1,000 t of material generated, and a total of four samples representing 4,000 t of bulk sample.
- Recommend sampling of tailings as they are produced at the gravity mineral processing plant location: tailings (composite); and crushed material, or grinding mill rock (composite) – if mineralized material is planned to be stored on site for more than one year.
- One waste rock sample will be collected (representing 200 t of waste rock) during the program. It is recommended the geologist make the decision on when to commence collection of the first waste rock sample.
- Company reports on the concentrate produced mention high sulphide content. A representative concentrate sample should be characterized for sulphide content (a) as total S; and (b) semi-quantitatively using a microscopic method.

The above testing/examinations should be adjusted, as required, based on the professional opinion of the geologist supervising the testing program.

In summary, AllNorth (2012) concluded: *"The Engineer Mine Property contains waste rock and tailings, some of which have been in place for almost 100 years without any apparent significant manifestation of ML/ARD, based on the existing water sampling program results. Metal and non-metal parameters do not manifest the signature of ML/ARD runoff quality. It is noted that some discharged mine water parameters were elevated when the TSS was above the 50 mg/L effluent permit guidance concentration. These excursions are not interpreted as elevations relative to ML/ARD. The company will be proposing a management plan to reduce the risk of exceeding the permitted TSS concentrations. This may take the form of: (a) locating the sources of TSS in the underground workings and proposing procedures to reduce mobilization of the fines; (b) applying a suitable (and approved) settling aid, which will allow capture of the excess TSS within the mine workings and subsequent isolation of the settled TSS; and (c) looking at alternative strategies, such as using an existing sediment pond."*

In 2012, an additional summer season of baseline water sampling was conducted after completion of the AllNorth (2012) report. Results were reported by Coates (March 2013) to the BC Ministry of Environment in the annual report "*Water Quality Monitoring During De-Watering at the Engineer Mine Project for the Period June-August 2012*". Coates also reported on the water sampling associated with de-watering of 6 and 7 levels of the mine workings. A temporary amendment to Discharge Permit PE-14978 was received, allowing for increased discharge out the mine portal.

Coates (2013) noted the amended permit allowed discharge of water with a pH range of 6.5-9.5 units. All samples collected during the 2012 season were within that pH range. The permit also allowed TSS up to 75 mg/L with a monthly mean of 50 mg/L. TSS exceeded 75 mg/L on two occasions at the mine portal which were associated with transient events when workers were walking in the main haulage drift. The highest TSS event occurred immediately after the work crew departed the mine portal and there was low water flow due to the de-watering pump being turned off. Additional sampling showed that these transient events cause elevated TSS for around 30 minutes. Coates noted that during an average 16 hour de-watering day the TSS values were generally below 10 mg/L (see Table 5).

TABLE 5 pH, TSS AND TURBIDITY DATA AT MINE PORTAL WHILE DEWATERING

BCG_ID	Date	Time	pH	TSS	Turbidity (NTU)
BCGold Permit			6.5-9.5	75/50 avg	
EM-4 (BE)	6/29/12	8:30	8.29	4	-
EM-4 (AE)	6/29/12	9:00	8.20	4.7	-
EM-4 (DP, BE)	7/12/12	8:30	8.03	<3.0	-
EM-4 (BE)	7/20/12	9:30	8.23	3.5	-
EM-4 (NO WRK)	7/26/12	11:10	8.15	<3.0	-
EM-4 (DP,BE)	8/2/12	8:20	8.15	4.7	-
EM-4A (DP,AE)	8/2/12	8:50	8.18	91.3	-
EM-4 (DP,BX)	8/3/12	11:40	-	10.7	24.2
EM-4 (DP,AE)	8/4/12	8:40	-	11.3	27.9
EM-4 (DP,BE)	8/5/12	7:30	-	9.3	17.2
EM-4 (DP,AX)	8/6/12	12:10	-	32.7	40.2
EM-4 (DP,AE)	8/7/12	8:15	-	52.7	55.4
EM-4(DP,BE)	8/9/12	7:35	-	17.3	22.4
EM-4(DP,AE)	8/9/12	8:30	8.25	5.3	11.4
EM-4 (DP,AX)	8/10/12	17:40	-	12	23.4
EM-4 (AX)	8/12/12	12:15	-	127	167
EM-4 (BE)	8/13/12	8:05	-	4.7	9.39
EM-4 (DP,BX)	8/14/12	16:40	-	38	34.2
EM-4 (NO WRK)	8/16/12	10:15	8.23	10.9	1.46

Units are mg/L unless otherwise specified
DP=During Pumping, BE=Before Entry of Workers, AE= After Entry, BX=Before Exit, AX=After Exit

On June 8, 2017, the effluent permit PE-14978 was transferred to Blind Creek Resources.

4.7 Community

The Engineer Gold Mine Property is located on the east shore of Tagish Lake, and shares the lake with the unincorporated communities of Carcross (80 km north) and Tagish (90 km north), both located in the Yukon Territory. In the 2016 census, Carcross had a population of 301 and Tagish had a population of 249. The Tagish community also has subdivisions with cabins and year-round homes along the lake.

The closest community in B.C. is Atlin, located 32 km east on the east shore of Atlin Lake, which runs parallel to Tagish Lake. There is no specific census data for Atlin, but unofficial estimates are between 300 to 500 persons. The population swells in the summer season with placer gold mining and tourism activities.

The Property is within the overlapping traditional territories of the Carcross /Tagish First Nation (CTFN) and the Taku River Tlingit First Nation (TRTFN). The CTFN traditional territory straddles the border between British Columbia and the Yukon. CTFN is based out of and has self-governing rights in the Yukon while also having traditional rights in British Columbia. CTFN has a registered population of 690 with communities in Carcross and Tagish, Yukon. The TRTFN is based out of Atlin with a registered population of 418, again living mostly off reserve.

The Province of British Columbia has a duty to consult and where required, accommodate First Nations whenever a decision or activity could impact treaty rights or asserted or established aboriginal rights and title. The basis of this duty lies in Section 35 of the *Constitution Act, 1982* that recognizes and confirms Aboriginal and treaty rights. The duty is more clearly defined in Canadian common law decisions such as *Delgamuukw Sparrow* and *Haida*.

While the Province is ultimately responsible for ensuring adequate and appropriate consultation and accommodation, it may delegate some procedural aspects of consultation to proponents. Proponent engagement with First Nations can facilitate information exchange and may include the modification of plans to mitigate and avoid impacts to Aboriginal Interests.

The duty to consult does not impose a duty on any of the parties to agree, require the proponent to obtain the consent of an Aboriginal community, or provide for an Aboriginal veto over government decision-making. Rather, the duty requires a meaningful process of consultation carried out in good faith (e.g., a process that respects and attempts to be responsive to Aboriginal concerns).

Specifically, for the Engineer Gold Mine, the BC Provincial Government's duty to consult the Taku River Tlingit and Carcross/Tagish First Nations is triggered when the proponent (i.e. Blind Creek Resources) files a Notice of Work (NoW) with the BC Ministry of Mines. This process can take some time and delay issuance of a new or amended permit. The consultation can go much smoother if the First Nations bands are familiar with and supportive of the project, and if they have a good relationship with the operator.

The former operator (BCGold) consulted the two First Nations with annual Project activity letters and offered site visits to any interested parties. They also notified First Nations when new NoWs were filed. There are no formal agreements between BCGold and the local First Nations that were inherited by Blind Creek Resources. As the Project advances, it is recommended that Blind Creek Resources continue an open dialogue and seek input from the two First Nations. The company should also consider formalizing communication protocols with each First Nation.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

Access to the Property from Atlin, BC is by helicopter or float plane (approximately 15 minutes travel time). Winter access from Atlin is also available via snowmobile. In the summer season, boat access to the Property is available from the communities of Tagish (90 km) or by barge from Carcross (80 km), providing the best means for servicing an exploration program. Both communities are located at the north end of Tagish Lake in the Yukon. Beyond each of these towns, excellent highways connect to Watson Lake and Skagway or Whitehorse the main supply centre of the region. Daily flights are available to Whitehorse, Yukon from Vancouver, BC. The distance from Whitehorse to Atlin by highway is 176 kilometres.

The climate in the Project area is typical of northwestern BC, with long, cold winters and short cool summers. Due to proximity to the Boundary Ranges, the Property is strongly influenced by coastal weather systems and higher precipitation patterns. The Property receives winter snow falls but not as heavy as within the Boundary Range located to the west. Tagish Lake freezes over in winter, but generally not sufficient for ice road construction due to numerous stream runoff from the surrounding mountains causing local slush conditions. On most days of the summer, Tagish Lake becomes windy and rough enough by mid-day to be dangerous to small boats and float planes trying to land at the unprotected dock near camp.

Topography varies from 655 m at lake level up to 2,000 m elevation on Gleaner and Engineer peaks just east of the Engineer Gold Mine. The Boundary Ranges to the south and west are host to alpine glaciers that drain into Atlin and Tagish lakes. These lakes provide a headwater reservoir for the Yukon River which is dammed at Whitehorse causing the lakes to fluctuate about 3 m through the season. Tree line elevation varies between 1,100 m and 1,400 m elevation. Lower slopes contain variable pine, aspen and balsam.

The Project area is isolated and requires itself to be self-sufficient in power and supplies. All power is generated on site via a diesel generator. Communications are via satellite phone and/or satellite internet. The current trailer camp at the Engineer Gold Mine site (or “mine site”) can host approximately 20 people. In 1995, a small open-air recovery plant was installed at the mine site which consists of primary and secondary crushing (jaw and rolls crushers), a ball mill, jig, and triple deck Deister tables. The mill can process approximately 30 t per day. There is mine waste and a small tailings pond located at the mill site. Blind Creek Resources owns the mineral rights associated with the Engineer Gold Mine crown grants (77 hectares).

6 History

This section describes the history of ownership and exploration of the Engineer Gold Mine and is based on material from Davidson (1998), Aspinall (2007), Coates (2010) and Snowden (2011). A more detailed description of exploration conducted in 2007-2016 can be found in Section 10 Exploration.

6.1 Period 1899 to 1975

The Engineer Gold Mine has a long history. Engineers working on the White Pass and Yukon Railway made the initial discovery in 1899 and the Engineer Mining Company of Skagway was formed. From 1900 to 1902, numerous surface cuts and adits were completed resulting in a small amount of hand sorted mined material being shipped from site. A stamp battery was brought to the Project.

After the claims lapsed in 1906, they were re-staked by Edwin Brown and partners of Atlin and sold to the Northern Partnership Syndicate, also of Atlin and headed by Captain James Alexander. From 1908 to 1911 the syndicate carried out extensive work near surface and setup a stamp mill. From 1912 to 1918, Captain Alexander increased his ownership of the Property and a substantial amount of work was done underground, primarily on the Engineer Vein. This included a 210-foot shaft [63 m] and development on 4 levels, as well as initiating the 5 Level crosscut from near the lakeshore. Production records are incomplete for this period, but range from 34 tons to 1,100 tons, with grades consistently above 2 oz/ton Au. For example, the Minister of Mines Report for 1918 describes one 24 lb (≈11 kg) lot of hand sorted mined material containing 160 oz of gold. In 1918 Captain Alexander lost his life during the sinking of the "Princess Sophia" in Lynn Canal and ownership of the Property fell into litigation. In 1922, the heirs of Captain Alexander were awarded the Property, and vended it to some New York based entrepreneurs who formed Engineer Gold Mines in 1923. The period from 1923 to 1925 saw construction of new bunkhouses, a new 50 ton per day mill, power dam and generating station, and hydroelectric transmission lines from the Wann River. The 5 Level crosscut was completed, and three core holes were completed from surface at Hub A and B. Up to 140 men were employed at one time.

In 1925 reports from the Engineer Gold Mine were so favourable, that the Engineer Gold Mines stock rose to US$100 per share on the New York Curb Exchange ("AMEX"). During 1925 to 1927, the reported rock milled was 15,143 tons grading 0.77 oz/ton (≈26 g/t Au) (BC Government, Ministry of Mines Reports). Extensive development work was also done. On the Engineer Vein, sinking of an internal shaft from the 5 to the 8 levels, allowed development drifting on the 6, 7 and 8 levels. On the 8 Level a crosscut was also driven to access the Double Decker Vein, which then saw substantial drifting in both directions. On the 5 Level, another long cross cut was driven through Shear Zone A, to the veins in the northeast (Boulder, Andy, Blue and Shaft) and some drifting on these was done as well. In addition to all of this, a small shaft was sunk on the Hub B with minor drifting. Incomplete production records from this period show that some production occurred from the lower mine levels. In particular, a section the Double Decker Vein just south of the crosscut on 8 Level was reported to contain 84.3 g/t Au over a 10 m distance along the drift, and 3 or 4 lifts of mined material were extracted from here.

FIGURE 3 ENGINEER GOLD MINE TOWNSITE (CIRCA 1924) WITH TUTSHI STERNWHEELER ON TAGISH LAKE

During the period 1927 to 1934 only sporadic work was done on the Property primarily by Reginald Brook. In 1934, the Mining Corporation of Canada bought the mine and though they never worked it, several lessees from Atlin are rumoured to have done some high grading above the flooded workings until 1952. The total documented historic production during 1910 to 1952 for the Engineer Gold Mine is recorded as approximately 14,263 t at 39.4 g/t Au and 19.5 g/t Ag (18,000 oz Au and 8,950 oz Ag).

In the early 1960's, Tagish Gold Mines Ltd. acquired the crown grants and in 1975 ownership passed to Nu-Energy Development Corporation. That year, Nu-Energy undertook detailed sampling of the Shear Zone A along the 5 Level crosscut, some underground mapping, and attempted to dewater the Engineer Gold Mine below the 5 Level.

6.2 Period 1976 to 1989 (Nu-Lady Gold Mines Ltd. / Erickson Gold Mining Corporation)

In 1979 Nu-Lady Gold Mines Ltd optioned the Mine and in 1980 conducted 15 diamond drill holes testing "known vein structures accessible from the main workings". No significant intersections were reported, and this data is not available. In 1981, a further 11 holes were drilled and a soil survey conducted over an area in the north part of the Property. Six holes tested for northeast extensions to the Double Decker and Engineer veins and three holes were drilled near the Boulder Vein - all with no significant results. In 1983, further work discovered the Nutcracker Vein, 45 m southeast and parallel to the Engineer Vein. This vein carried 0.4 m at 3 oz/t Au where first discovered, but subsequent trenching and drilling of six holes indicated a stringer carrying very low gold values. Nu-Lady's option lapsed in 1985.

In 1987, Erickson Gold Mining Corporation became the owner of the Property by takeover of Nu-Energy. Early in that year, they flew an airborne VLF/Magnetic survey, before increasing the Property size by staking, and then doing ground geophysics, surface geological mapping and sampling and soil geochemistry over the old mine site and some of the new claims. During fall of the same year, a diamond drilling program consisting of eight holes (1,178 m) followed up on the earlier work and tested known structures at depth. Numerous quartz veins were intersected, some with elevated gold values. Two holes targeting Shear Zone A intersected up to 29 m of mixed quartz vein and silicified and brecciated argillite, with low gold values throughout. Drill hole 87-106, drilled through both the Double Decker and Engineer veins, intersecting the former at about the 700 Level, but with no significant gold values, and failed to intersect the latter below the 8 Level. Five holes targeted soil geochemical anomalies along Shear Zone B, and two of these returned values around 6 g/t Au within larger sections of quartz veining, breccia and silicified argillite (Smit, 1988).

In 1989, Gentry Resources Ltd optioned the Property from Erickson and undertook geophysical surveys.

6.3 Period 1990 to 2006 (Ampex Mining Ltd. / Engineer Mining Corp.)

In 1990, Gentry and Winslow Gold Corporation acquired the Property from Erickson by a share agreement. Prior to the 1992 season, Ampex Mining Ltd negotiated a letter of intent with the new owners and early in that year made an initial assessment of the condition of the underground workings. In June of 1993, Ampex and Gentry/Winslow formed a formal pre-production agreement, and subsequent to that Winslow acquired all the Property from Gentry. In July 1994, Ampex agreed to sell all its interest to the Old Engineer Mining Corporation, which in November of 1997 changed its name to simply the Engineer Mining Corporation (previously noted as “EMC”).

Davidson (1998) summarized the EMC/Ampex work done up until 1997. During 1991 to 1992, the portal and most of 5 Level was rehabilitated by Ampex and some original documents were acquired from Jim Brook whose grandfather Reginald had worked on the Property from 1899 to the 1930‟s. Blasting and sampling on the No. 2, No. 3, and Double Decker veins was unsuccessful in locating new gold shoots. On the Engineer Vein, impressive samples of gold in roscoelite were collected on small remnants of a mineralized shoot found in pillars between surface and 2 Level, and along the 5 Level (Bonanza Shoot). Access to the 3 and 4 levels was not attempted. In 1993, the northeast part of the mine was re-habilitated. At the north end of the Boulder Vein (524 raise), approximately 150 tonnes of material averaged approximately 31 g/t Au and a smaller sample at the south end (523 raise) averaged 26 g/t Au. A boating accident at the end of the summer resulted in the loss of the daily records, mining journal and rock samples.

During the 1994 season, EMC secured permitting for a 30 tonne per day pilot mill and a 10,000-tonne bulk sample. The mill, a 150-kW generator, trailer camp, dump truck, D7 Cat and 931 Cat loader were barged to site and assembled. A 50-tonne sample from the 505-1 raise (Engineer Vein) was processed, but problems in the mill circuit prevented an accurate assessment of grade. A 30-tonne sample from the 524-2 raise (Boulder Vein) was more successfully processed and yielded a grade of 28.6 g/t Au. In 1995 track mining equipment was purchased and 600 m of track installed. Bulk sampling continued and a total of 945 tonnes of material from both surface and underground was processed with variable results.

6.4 Period 2007 to 2016 (BCGold Corp.)

In 2007, the Engineer crown grants were optioned from EMC. In that year Aspinall (2007) collected 160 rock samples from underground, surface, and select 1987 core.

Exploration the following year included mapping, petrology, underground chip/channel sampling and drilling. Mapping at 1:500 scale was conducted, and compiled for surface and 5 Level at 1:1500 and 1:1000 scales respectively (Devine, 2008). Underground channel sill sampling with a diamond saw was done on the Shaft, Boulder, Engineer, Double Decker and Shear A. Surface diamond drilling (7 holes for 1,846 m) targeted the late stage hydrothermal breccia zone within a 400 m strike length of Shear A. Six holes successfully intersected the Shear A breccia and returned continuous, low-grade gold values.

In 2010, the Property package was expanded by acquiring the rights to five additional mineral claims from Guardsmen Resources Inc. via Option Agreement. The work program consisted of drilling thirteen HQ diamond drill holes (1,218 m), in two phases, from two underground drill bays located on 5 Level. From the first drill bay (the old hoist room) four holes targeted the Double Decker Vein on 8 Level in an area where 1928 reports indicated 84.3 g/t Au were drifted on. An additional three holes drilled from the same drill bay targeted the Engineer Vein at very low angles. The remaining 6 drill holes were drilled from a second drill bay located a further 30 m along the main crosscut. These holes targeted the Engineer Vein down-dip of the "Bonanza Shoot" between 5 and 7 Level where previous sampling had indicated high grades.

A detailed description of drilling programs can be found in Section 10 of this Technical Report.

In 2011 Snowden was commissioned to conduct a Mineral Resource estimate for the remnant portions of the Engineer and Double Decker veins. This resource estimate is now considered historical but is relevant and reliable. It has been reviewed and restated in Section 14 of this technical report as a current mineral resource. Further discussion can be found in Section 14.

The historic April 2011 Mineral Resource estimate is reported in Table 6.

TABLE 6 APRIL 2011 HISTORIC MINERAL RESOURCE ESTIMATE BASED ON A 5 G/T AU CUT-OFF

Category	Vein	Tonnage	Grade (Au g/t)	Contained Au (oz)
Inferred	Engineer	30,800	20.6	20,400
Inferred	Double Decker	10,100	13.1	4,200
	Total:	**41,000**	**19.0**	**25,000**

Notes: This Mineral Resource is considered historical and is restated in Section 14 of this Technical Report. The reader should refer to Section 14 for further discussion regarding the reliability and relevance of this historic mineral resource estimate.

This historic mineral resource estimate is based on a VLP (vertical longitudinal section) approach with projection of mineralized shoots down-dip and along strike based on surface exposure and underground development. The global grade applied to each vein structure was based on the partitioning of grades from historical production figures and production records to indicate payability. All grades were diluted to minimum stoping width of 1 m. A density factor of 2.8 t/m^3 was used. Snowden was unable to identify raw bulk density data, and has applied the conservative value. 3D models for the Double Decker and Engineer veins were constructed using Vulcan software. The vein wireframes were constrained by historical mining records and recent drilling. The Vulcan solids were used to define the primary mineralized material volume. A bulk density factor and payability factor were applied to define tonnage. Areas of mined-out portions were subtracted where required, assuming a 1 m stope width. The Snowden NI 43-101 technical report ("*Engineer Gold Project, BC, Canada; Project No. L502; Mineral Resource Estimate April 2011*") is filed on SEDAR under Pan Andean Minerals Ltd. (formerly BCGold Corp.). The reader should refer to Section 14 herein for the current mineral resource which has been restated November 2017.

Further work in 2011 included:

- Test-mining six bulk samples totaling 246.1 t returning a reconciled average mining grade of 16.9 g/t Au. Five of the bulk samples were mined from the Engineer Vein on 5 Level. The sixth bulk sample was from a surface trench on the Double Decker Vein.
- Test-milling of the bulk samples using the gravity recovery circuit producing 969 kg of sulphide concentrate. Gold recovery to the sulphide concentrate was estimated at 51%.
- Commissioned Gekko Systems to conduct bench-scale gravity and leach amenability tests on mill feed and sulphide concentrate. Gekko achieved gold and silver recoveries of 71.4% and 67.8% respectively using gravity-only concentration.
- Completed 600 line-km SkyTEM time-domain electromagnetic/magnetic airborne survey.
- Completed 600 m of surface trench excavation on the Boulder, Shaft, Double Decker and Shear B zones. The exposed veins were geologically mapped and channel sampled.

In 2012, exploration program included:

- Geological mapping, prospecting and test Mobile Metal Ion (MMI) soil surveys over the Shear A and B exploration targets.
- Dewatered 6 and 7 levels of the underground mine workings to access the down-plunge extension of the high-grade 505-3 and the 505-5 Shoots.
- Installed air and water services to levels 6 and 7, geological mapping and panel sampling completed.
- Confirmed the presence of three high-grade gold shoots between 5 and 7 levels.
- Sponsored a postdoctoral geological research project to develop a deposit model for the high-grade gold mineralization. Project supervised by Department of Earth, Ocean and Atmospheric Sciences, University of British Columbia.

In 2013, expanded the Property package by optioning nine surrounding claims from Blind Creek Resources which cover the southward extension of Shear A. In 2014 and 2016 they completed prospecting and soil sampling programs to evaluate the extension of Shear A on the Blind Creek Resources optioned claims and filed the work for Assessment credits.

In 2017, Blind Creek Resources purchased the Engineer Gold Mine Property and fulfilled the underlying payment obligations to Guardsmen Resources and Engineer Mining Corp (EMC).

6.5 Wann Prospect

Prior to the consolidation of the Engineer Gold Mine Property, Blind Creek Resources owned the Wann Prospect, which is located approximately 4 km south of the Engineer Gold Mine portal. The Wann Prospect has now been consolidated into the contiguous Engineer Gold Mine Property.

The Wann Prospect consists of modern mineral claims that have completely over-staked 15 expired crown grants and fractions that are believed to date back to the early 1900s; when the Engineer Gold Mine was actively being mined. There are no historic exploration or development records available related to those expired Crown Grants.

In 2004, Blind Creek Resources started staking claims in the Tagish Lake region and concurrently conducted reconnaissance prospecting. The Wann Prospect was identified in 2009 when two grab samples were assayed and returned high-grade gold values. One was a float sample from a historic log cabin and was discounted, but the second sample (#9BCRWR05R) was collected from a historic bedrock trench located 180 m upstream along the Wann River. The trench sample assayed 43.5 g/t Au, 296 g/t Ag and 4.3% Pb (Aspinall, 2011).

In January 2009, a ground magnetometer survey was conducted on the ice of Tagish Lake. In 2010, a total of 89 rock samples and 55 soil samples were collected within a 180 m by 800 m corridor near the historic trench.

In 2011, prospecting continued and seven outcrops were identified with varying intensities of mineralization. A 17 hole (3,325 m) diamond drill program was conducted testing mineralized showings within the corridor. Several mineralized veins were intersected that returned significant gold and silver grades. The most significant intervals were from hole WR030211 which assayed 11.3 g/t Au and 76.2 g/t Ag over 1 m, and hole WR040111 assaying 11.3 g/t Au and 94.8 g/t Ag over 1.0 m (Aspinall, 2011).

7 Geological Setting and Mineralization

Geological setting and mineralization is modified after F. Devine (2008, 2016), Snowden (2011), and Millonig (2017):

7.1 Regional Geology

A cluster of gold occurrences exist in the southern Tagish Lake area, occurring along and on both sides of the Llewellyn Fault. Most are showings and prospects of Au, Au-Ag, and Ag-Pb-Zn±Au veins, with several showings of structurally-controlled hydrothermal quartz-carbonate breccia bodies. The veins and breccia zones on the Engineer Gold Mine Property are some of the most notable occurrences, and are spatially and genetically associated with splays of the Llewellyn Fault.

The Llewellyn Fault Zone is a major terrane-bounding structure that trends northwest across northwestern British Columbia and into Yukon and Alaska. It has a protracted structural history which may be as old as late-Triassic (200 – 231 Ma), while youngest movement on associated structures is at least as young as early Eocene (49 – 55 Ma). It shows a history of deformation and displacement at different depths along the fault zone and along different discrete structures (Mihalynuk, 1999). In the Tagish Lake area (Figure 4) it is a near vertical structure, most commonly a few to tens of metres across. Right lateral ductile and brittle deformation fabrics are overprinted by younger right-lateral brittle deformation fabrics (Mihalynuk, 1999).

The Llewellyn Fault is underwater along the southern end of Tagish Lake, however linking the mapped segments of the fault (Mihalynuk, 1999) shows a bend in the fault from northwest to a north-south orientation along the lake. Several splays are mapped on the eastern side of the fault still with a northwest trend. The pattern shows a right-lateral releasing bend with the dilational zone spatially coincident with the cluster of known gold occurrences along the eastern side of the lake (Figure 4).

The western side of the Llewellyn Fault is underlain by Proterozoic to Triassic metasedimentary and metavolcanic rocks of the Boundary Ranges Metamorphic Suite intruded by Early Jurassic and Cretaceous intrusions. To the east are sedimentary rocks of the Lower Jurassic Laberge Group, the main sedimentary unit of the Whitehorse Trough. Eocene intrusions and volcanic complexes of the Sloko Group occur on both sides of the fault. One of these complexes underlies Engineer Mountain.

The Engineer Mountain volcanic complex is one of several Sloko Group volcanic centres in the area. Sloko Group rocks are also found as erosional remnants on some of the highest peaks in the area: Mount Fetterly, TeePee Peak, and Mt. Switzer. The volcanic centres are comprised of rhyolite to andesite flows, breccia, tuffs, and ignimbrite, with coeval intrusions. Most Sloko volcanic centres show a spatial and more loosely temporal association with gold mineralization. The Skukum mine in southern Yukon is one of the best known examples; gold mineralization is associated with adularia-sericite alteration near rhyolite dykes along co-magmatic shear zones (Lang et al., 2003). In the southern Tagish Lake area, visible gold occurs in Sloko volcanic rocks at Teepee Peak (Mihalynuk, 1999), and at the Engineer Gold Mine, quartz-carbonate-veins and hydrothermal breccia occur within an Eocene structurally controlled mineralized system adjacent to the Sloko volcanic centre on Engineer Mountain.

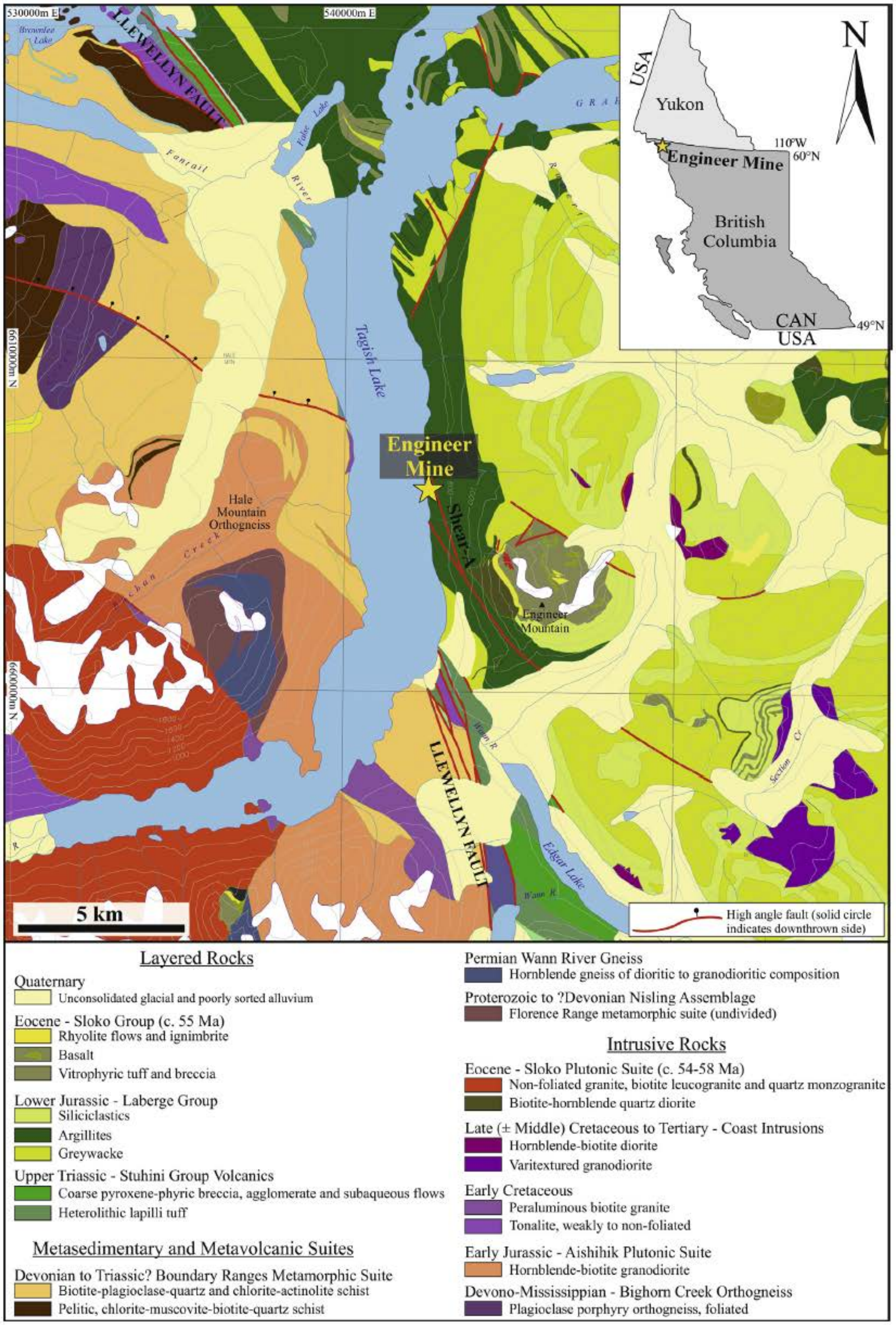


FIGURE 4 REGIONAL GEOLOGICAL SUMMARY OF THE SOUTHERN TAGISH LAKE AREA. FROM MILLONIG (2017); MODIFIED AFTER MIHALYNUK (1999).

7.2 Property Geology

The Engineer Gold Mine Property is underlain almost entirely by argillite and greywacke of the Lower Jurassic Laberge Group (Figure 5). The sedimentary rocks are bedded, and in places are folded into tight, steeply plunging folds, particularly in the southern part of the Property. Several phases of dykes cut the Laberge Group sedimentary rocks, all are of monzodiorite composition although they vary texturally from medium-grained equigranular phases to feldspar-phyric varieties. The dykes are inferred to be genetically related to the Eocene Sloko volcanic centre on Engineer Mountain although they have not yet been dated. Zircon U-Pb dating returned an age of 54.1 Ma obtained from rhyolite on top of Engineer Mountain (Gabites, 1999).

The Property is bisected by a northwest-trending dextral shear zone, referred to as Shear-A. The deformation zone around the shear is mapped up to 200 m wide in places as a subtle fault-parallel cleavage in the surrounding Laberge Group rocks. Most of displacement, however, occurred on the northern side of the deformation zone. Shear-A displays progressive deformation, with contemporaneous events. Magmatic and hydrothermal features associated with the shear zone include domains of pervasive auriferous silicification along the Shear-A deformation zone up to 50 m wide, monzodiorite dykes that cut the early Shear-A fabrics but are cut off by late brittle faults along the northern side of the Shear zone, and the Engineer-Double Decker vein system.

The Engineer-Double Decker vein system is interpreted to have formed during right-lateral displacement and associated extension along brittle structures on the south-side of Shear-A. The system includes multi-stage quartz-carbonate-adularia veins with bonanza-grades of Au-Ag mineralization. The system has received attention from mineral collectors (Mauthner et al., 1996) for its rare gold-associated mineralogy, including allemontite (stibarsen) and roscoelite (vanadian muscovite). Gold occurs primarily as electrum, and is found in two main mineral associations corresponding to different vein-forming stages: Type 1 occurs as intergrown with a vanadian mica (commonly referred to as roscoelite), while Type 2 is associated with arsenopyrite. Vein textures suggest that boiling was the primary mechanism for gold deposition in the vein system (L. Millonig, pers. comm, 2016).

To the north of Shear-A, other veins and zones of hydrothermal breccia have also been explored and have seen minor production. The Hub-B area is a zone of silicification with radiating quartz-carbonate veins, interpreted occur at a structural intersection. The Shear-B area has been explored both underground and on surface; it includes a 10 m wide hydrothermal breccia body along a right-lateral minor shear zone that with the Shaft Vein bounds an extensional vein system called the Boulder-Governor system that historically has produced free-gold in quartz (the Governor Vein) and arsenopyrite-stibnite-associated gold (the Shaft Vein).

The zones of silicification and hydrothermal breccia along Shear A are also an exploration target. Drilling in 2008 and 2010 through these zones returned results of up to 0.45 g/t Au over 34 m (BCGold, 2016). The extension of these domains to the south is not fully explored.

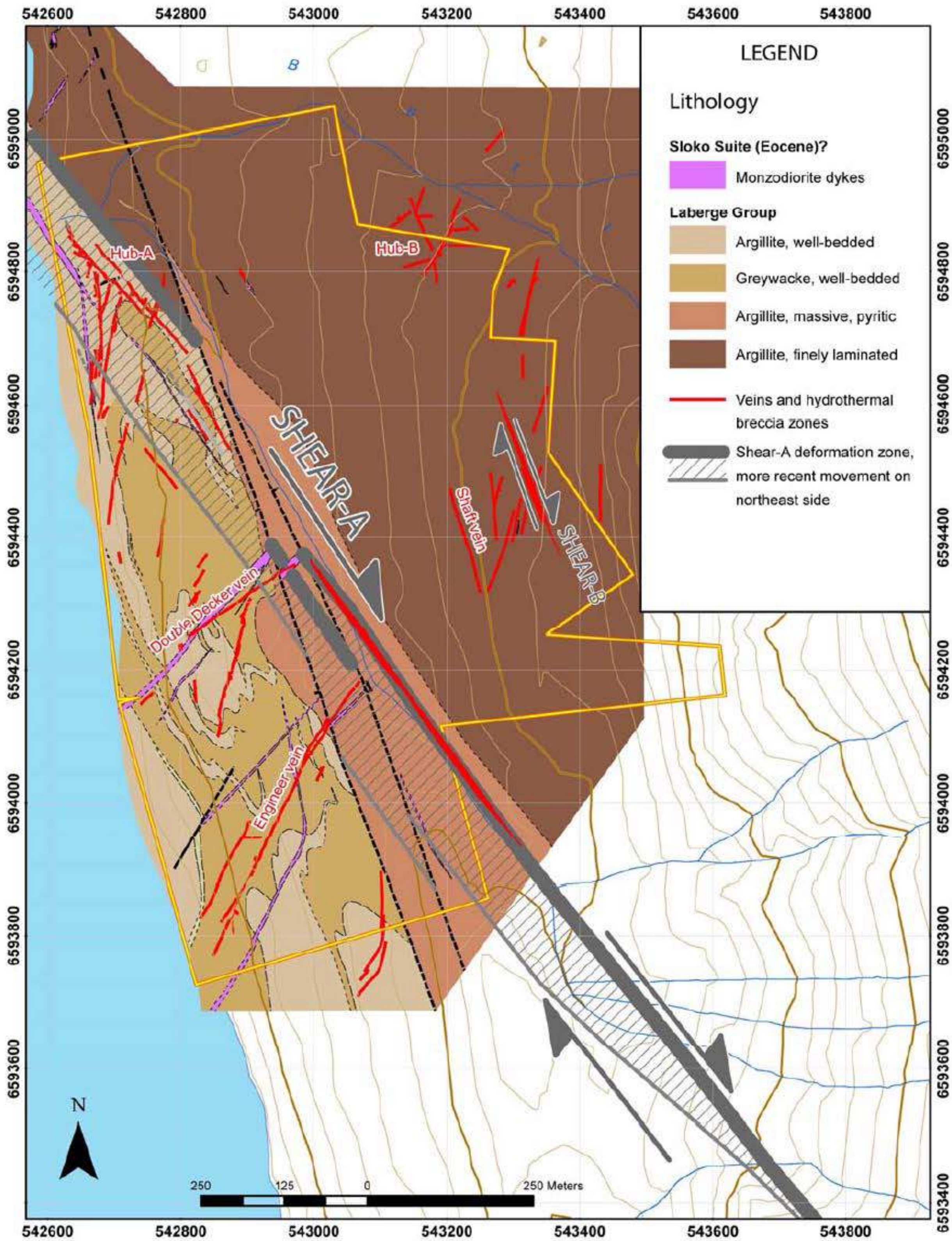


FIGURE 5 ENGINEER GOLD MINE PROPERTY GEOLOGY MAP. FROM DEVINE (2016).

Wann Prospect (Pautler 2010)

At the Wann Prospect, the area is 99% covered by glacial-fluvial tills in the low lands adjacent to the Wann River channel. The outcrop and subcrop of Devonian to Triassic Boundary Range biotite-feldspar-quartz schist occurs for 300 m along the southwest side of the mineralized corridor. This schist unit hosts the quartz vein stockwork exposed in the Lum #1 and #2 trenches. Immediately to the northeast, an assumed fault contact with a northwest trending faulted panel of Upper Triassic Stuhini andesite hosts at least two separate, parallel, northwest trending mineralized quartz vein systems, the Trail - River Vein, and the Dutch Vein systems. Outcrops of Upper Triassic Stuhini andesite are rarely exposed above the vein systems.

A second assumed fault contact, with a northwest trending panel of altered quartz eye porphyry is believed to be part of a Cretaceous diorite protolith (Mihalynuk, 1999) lies immediately to the northeast of this panel. Traces of Upper Triassic Stuhini andesite, are present on the southwest side of the shear in contact with the above intrusive. Within this panel is a shear zone 10m wide with an inner multi-quartz veined core zone 2m wide striking 110° having a variable near vertical dip as seen at the Brown Showing. The Brown and the Newfie showings, 130 m apart, appear to occur within the same rock type and shear zone.

All panels and fault contacts discussed above are part of the Llewellyn Fault Zone. The Devonian to Triassic Boundary Range biotite-feldspar-quartz schist forms the southwest boundary to the main Llewellyn Fault, although additional splay faulting to the southwest is expected (see Figure 6)

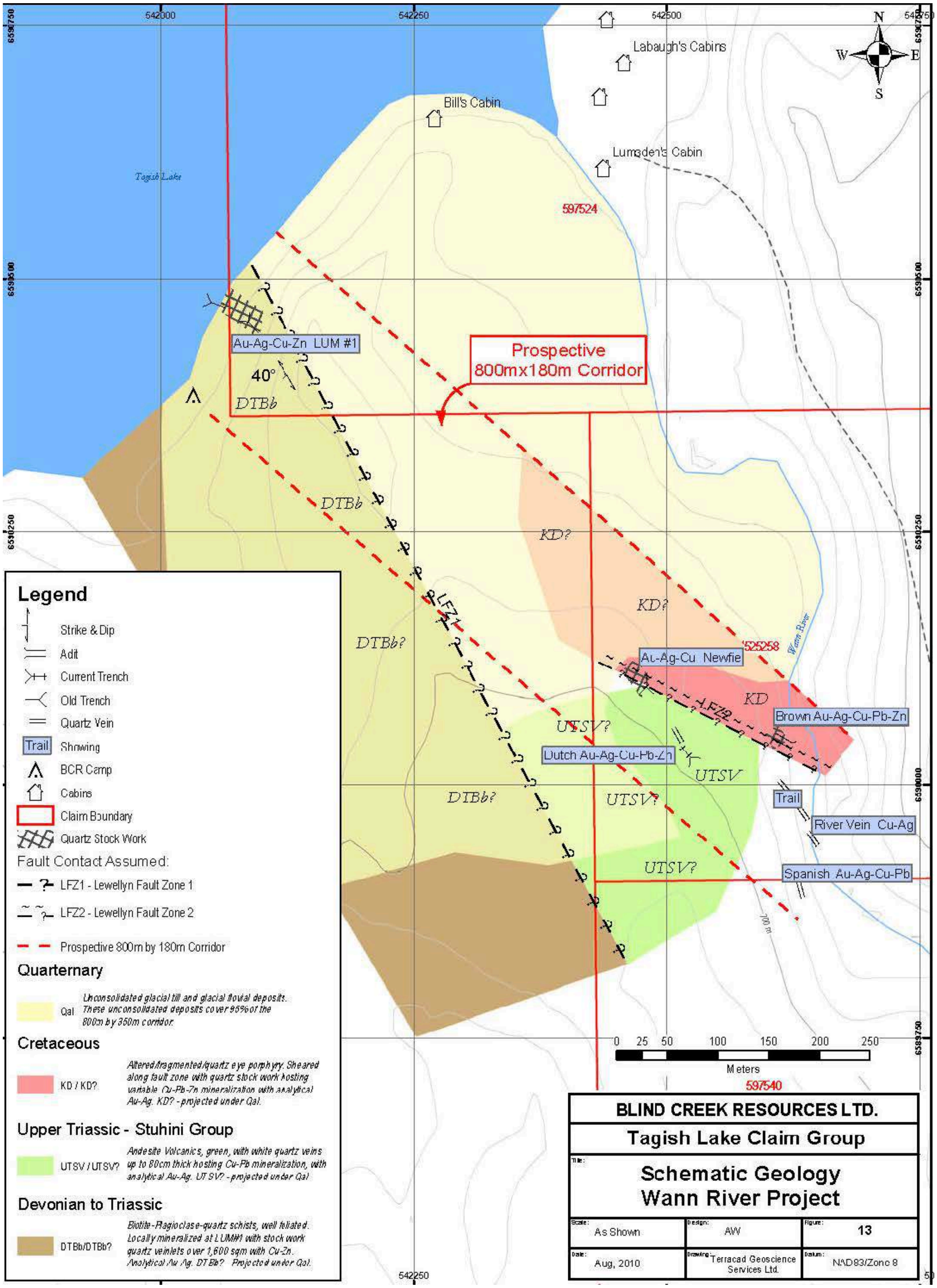


FIGURE 6 WANN PROSPECT GEOLOGY (PAUTLER 2010)

7.3 Mineralization

The Engineer Gold Mine Property is characterised by numerous steeply dipping veins, of which the Engineer and Double Decker veins have seen most of the exploration and mining. The veins on the Property primarily have two orientations; a NNW - SSE trending set are emplaced within, and parallel to, a dextral shear zone reactivated during the Eocene (Shear Zone A), and a set of NNE-SSW trending veins that are dilational fissures formed during dextral movement on Shear Zone A (Devine, 2008).

The veins at the Engineer Gold Mine Property are hosted by the Laberge Group sedimentary rocks, which consist of grey to brown well-bedded argillite and fine-grained greywacke with locally developed calcareous beds and a pale beige to buff coloured feldspathic arenite layer. In addition, a massive and locally laminated fine-grained dark carbonaceous argillite unit with abundant disseminated pyrite can be distinguished (Devine, 2008).

The NNW-SSE systems (Shear Zones A and B) are deformation zones bearing locally thick hydrothermal breccias with clasts floating in a quartz-dominated matrix. The breccias are often 10s of metres true width.

The NNE-SSW dilational veins are usually <2 m wide and individual veins are traceable along strike for 20 m to 400 m. Most dip steeply to the WNW or are vertical. Mineral assemblages are coarse, layered open space fills of quartz only, quartz-carbonate or carbonate only. Gold is coarse-grained (as electrum) and associated with quartz and vanadium mica ("roscoelite"), often forming within the mica booklets. Sulphides are present in the veins but rare. Previous work on the Property has identified electrum, native antimony, native arsenic interlayered with stibarsen ("allemontite"), arsenopyrite, löllingite, pyrite, pyrrhotite, chalcopyrite, quartz, calcite, ankerite, siderite, fluorite, and roscoelite. The Engineer and Double Decker veins are of the dilational fissure variety.

Engineer Vein

The Engineer Vein is the historically most productive and largest vein with a strike length of 400 m and up to 2 m width. It has been mined vertically for over 100 m and remains open to depth. Vein textures are dominantly extensional and the vein offsets intrusive units, indicating sinistral movement during vein formation. The Engineer Vein is regarded as the longest-lived vein in the system (Devine, 2008) and shows a complex evolution of various stages of mineral precipitation and replacement. Notably, quartz-cemented hydrothermal breccias with rounded to subangular clasts of older vein stages are unique to the Engineer Vein, and electrum is typically in direct contact with vanadium-bearing mica. Platy calcite and quartz pseudomorphs after platy calcite have been reported from the Engineer Vein by Jensen (2008).

The widest and most productive gold-shoots within the Engineer Vein occur where the vein is kinked to form extensional jogs, or in close proximity to vein-parallel dikes. Figure 7 shows the Engineer Vein on 5 Level where it is over 2 m wide and was mined as part of bulk sample 505-3A. The vein in this image is hosted in Laberge sediments and is in close proximity to a sub-parallel feldspar porphyry dyke. Conversely, the vein diminishes to approximately 10 cm width when cutting the dyke (see Figure 8).

FIGURE 7 ENGINEER VEIN SHOOT 505-3 (NE FACE) ON 5 LEVEL IS OVER 2 M WIDE NEAR CONTACT WITH FELDSPAR PORPHYRY DYKE (D. O'BRIEN, 2011).

FIGURE 8 ENGINEER VEIN DIMINISHES TO 10 CM WIDTH WHEN HOSTED IN FELSPAR PORPHYRY DYKE. IMAGE FROM 401-6 RAISE ON 4 LEVEL (D. O'BRIEN, 2011).

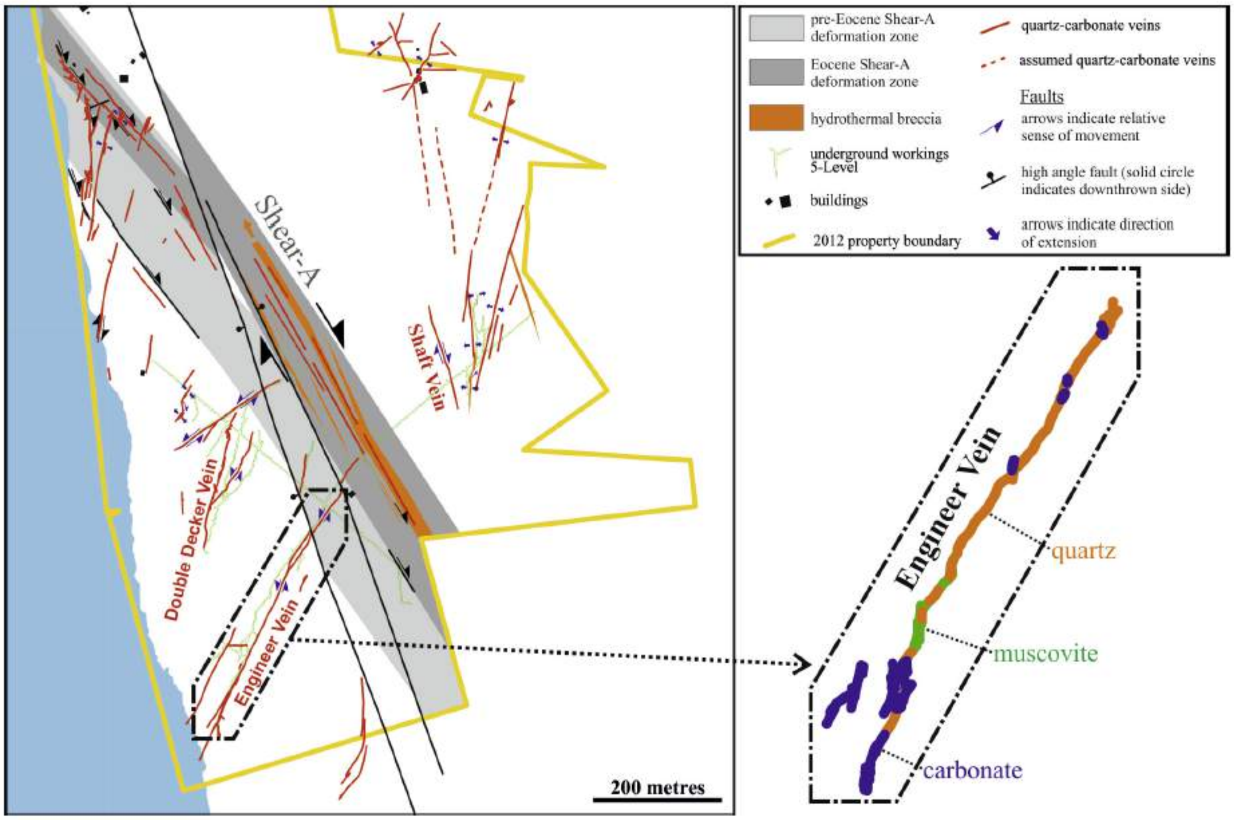


FIGURE 9 OVERVIEW OF VEINS AT THE ENGINEER GOLD MINE PROPERTY. SHOWS DISTRIBUTION OF GANGUE PHASES OF THE ENGINEER VEIN ON THE 5TH MINE LEVEL (MILLONIG, 2017; MODIFIED AFTER DEVINE, 2008)

Figure 9 and Figure 10 show examples of vein development, textural features, and mineralization of the Engineer Vein. Examples from Millonig (2017) include:

(A) Cockade textures formed during stage (II) and replacement of stage (III) and (V) calcite by stage (IV) and (VI) quartz, respectively. Rhombic and platy calcite develops during stage (V). The latter formed toward the vein center and was preferentially replaced by (lattice) quartz.

(B) same as (A), but under UV light, showing two distinct generations of vein calcite.

(C) Sample showing early brecciation and silicification during stage (I), followed by the deposition of dark green V-mica, amorphous silica, sulfides, and K-feldspar (kfs) + calcite (cc) during the main mineralization stage (II). Inset shows UV fluorescence of stage (IV) chalcedony.

(D) Detail of (C) showing colloform banding developed during stages (II) and (IV), together with stage (II) V-rich mica intergrown with mineralized phases (pyrite, arsenopyrite, chalcopyrite, tetrahedrite-group minerals).

(E) Typical mineral assemblage of the main mineralized stage (II) with electrum (elc) in dark green V-rich mica, surrounded by K-feldspar (adularia) + calcite, V-poor mica and recrystallized plumose quartz (qtz).

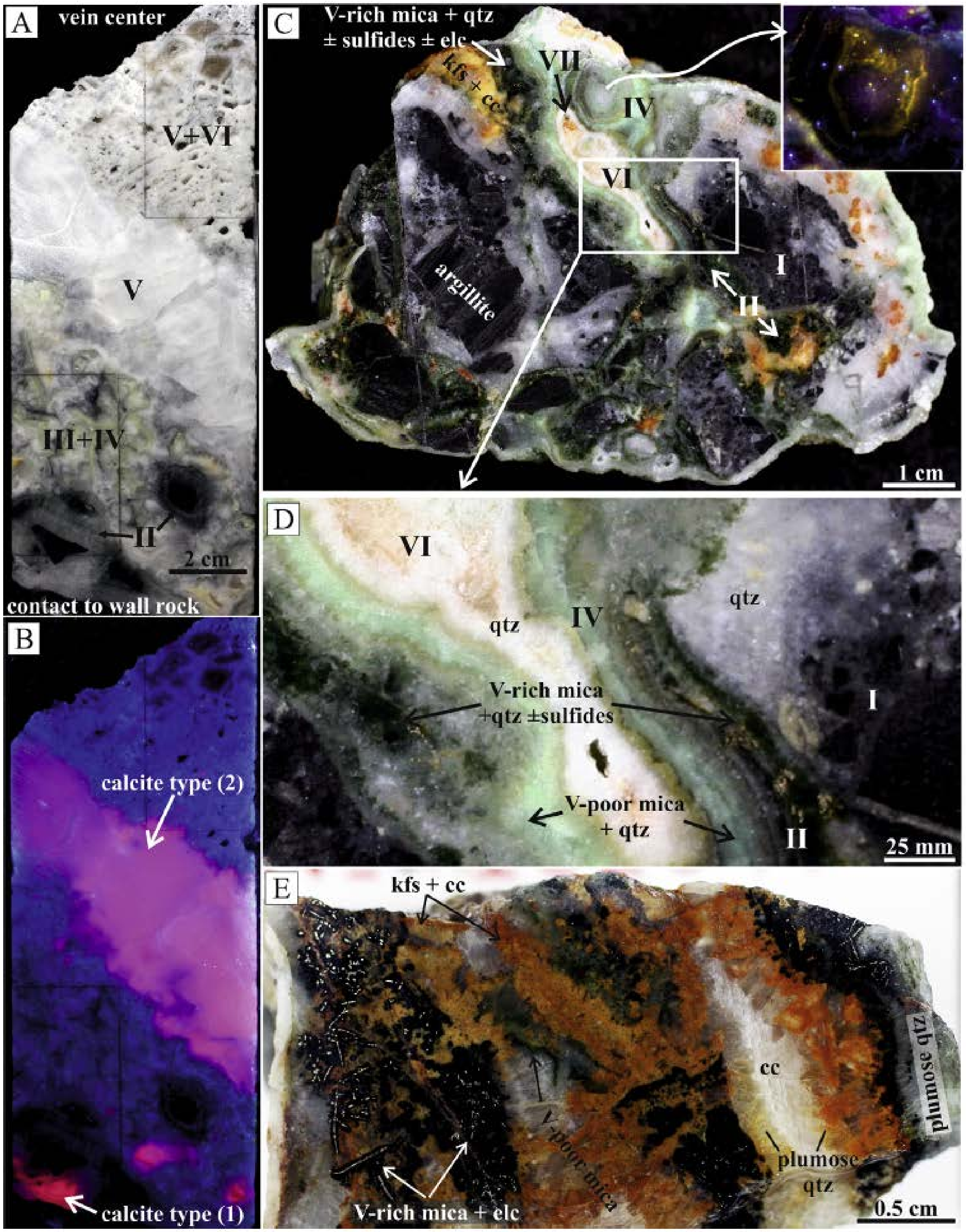


FIGURE 10 ENGINEER VEIN SAMPLES SHOWING VARIOUS STAGES OF VEIN DEVELOPMENT (MILLONIG, 2017)

The main Au-bearing phases of the Engineer Vein include electrum, arsenopyrite, and subordinate löllingite, whereas the main Ag-bearing phases, besides electrum, are tetrahedrite-group minerals, allargentum, and hessite. The principal assemblage of dendritic electrum + V-mica is commonly associated with quartz after chalcedony or amorphous silica, K-feldspar (adularia), and calcite. This assemblage may be surrounded by a thin grey band of arsenopyrite-rich quartz (Figure 11).

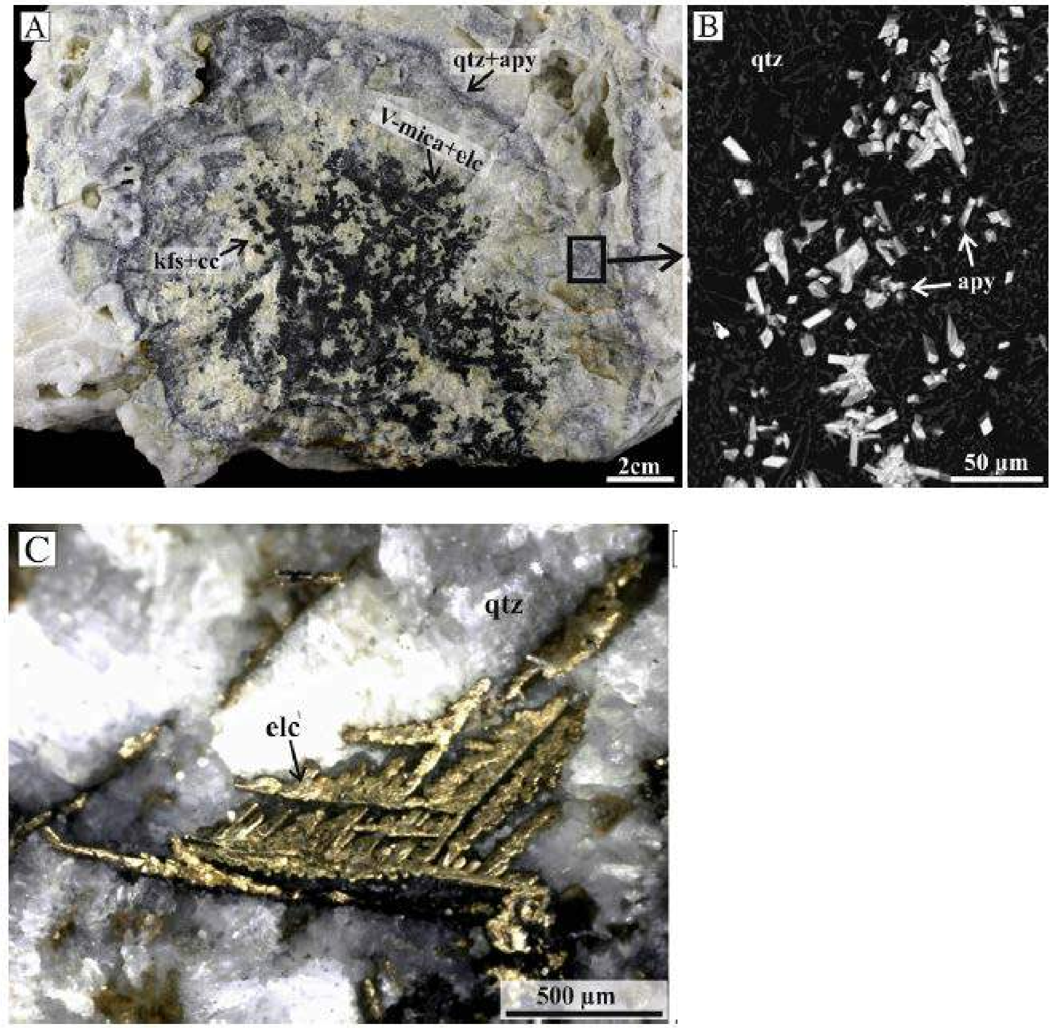


Figure 11 Dark green vandium-mica with intergrowths of dendritic electrum (A,C). Surrounded by a halo of acicular arsenopyrite (B). Modified after Millonig (2017).

Double Decker Vein

The Double Decker Vein is a set of at least three anastomosing en echelon quartz-carbonate veins 10 cm to 1.5 m wide that dip to the southeast. The vein pinches and swells along strike and several different phases of quartz and carbonate precipitation can be distinguished. The vein system is explored for 220 metres underground on 5 Level and has a similar strike extent on surface. On 8 Level, the drift follows the vein for approximately 70 m. Hydrothermal brecciation of the wall rock during initial vein opening is generally followed by open space in-filling comb-textured quartz. Subsequently, several phases of drusy quartz and fine carbonate were deposited in open spaces. In addition, bands of green white mica and quartz are locally developed. Electrum in the Double Decker Vein commonly occurs as free electrum in quartz, but also in association with vanadium-bearing mica and allemontite (AsSb) (Millonig, 2017).

FIGURE 12 DOUBLE DECKER VEIN ON 5 LEVEL. MULTI-STAGE QUARTZ-CALCITE SHOWING BRECCIATION AND BANDING. WIDTH 20 CM (DEVINE, 2008)

FIGURE 13 DOUBLE DECKER VEIN SHOWING CRUSTIFORM BANDING AND CALCITE-LINED VUGS. WIDTH 20 CM. (DEVINE, 2008)

Shear Zone Mineralization

On the Engineer Gold Mine Property, Shear Zone A shows two distinct periods of displacement. The early deformation may be as old as Middle Jurassic and consists of a pervasive right-lateral, shear-parallel cleavage. Overall this zone is up to 150 m wide, trends between 145° to 215° and is vertical to steeply southwest dipping. Within the main shear are 5 m to 20 m thick zones with more concentrated cleavage.

Secondary reactivation of Shear Zone A consists of a 20 m to 40 m wide zone of shearing and brittle hydrothermal breccia. In general, it follows the north-eastern margin of the older cleavage, but is slightly oblique to the north. Timing of the later shearing event is indirectly assumed to be Eocene since the deformation (and alteration) affects the dykes that cross it, and the dykes are assumed to be contemporaneous with the Eocene Sloko volcanism on Engineer Mountain.

Textures in the later hydrothermal Shear Zone A include shear bounded and rotated domains of bedded argillite clasts, multi-phase dominantly quartz breccias and quartz flooding. Zones of alteration and quartz veining both cross-cut shear structures, and are themselves sheared. Highest grades occur in fine quartz-flooded zones within the multi-phase breccia body.

A magnetite destructive alteration assemblage of kaolinite, illite, quartz, and carbonate±pyrite is associated with gold mineralisation (Fonseca, 2008). Illite and locally muscovite, show structures with higher crystallisation temperatures in the sections most anomalous for gold. Kaolinite-illite alteration is best recognised in drill core by a pale, bleached appearance to the argillite wall rock and some proximal feldspar porphyry dykes are similarly altered.

The hydrothermal breccia zone coincides with a 1.5 km linear surface depression and is not exposed in outcrop. Underground drifting on the zone has been done on the 8 Level at the northeast end of the Double Decker drift (250 m), on the 5 Level at the northeast end of the #3 Cross Vein (75 m), and on the 5 Level in the Boulder Vein access (30 m). The first two locations are flooded and inaccessible and the results unknown, but several chip samples in the third location returned values of ~0.8 g/t Au (Aspinall, 2007). The hydrothermal breccia near where it intersects the Engineer Vein was the target of two holes during the 1987 drill campaign. Drill hole 87-101 intersected 30 m at 0.31 g/t Au, and drill hole 87-102 intersected 24 m at 0.24 g/t Au (Smit, 1987). Six holes in 2008 targeted a 400 m strike length of the zone and all returned anomalous gold and silver values. The most northerly drill hole 08-02 intersected 20.1 m of 0.48 g/t Au, while the southernmost two holes, 08-05 and 08-07, intersected 32 m of 0.44 g/t Au, and 34 m of 0.45 g/t Au respectively (all drilled lengths).

The Shear Zone A hydrothermal breccia zone is still open to both the north and south, as well as down dip, and therefore continues to be an exploration target.

Shear Zone B is subparallel and approximately 350 m northeast of Shear Zone A. Shear B ranges from 2 m to 6 m in width and has a similar strike length to Shear A. At surface, a 45 metre strike length of Shear B was exposed in outcrop and channel sampled. A 2 m to 3 m wide zone of hydrothermal breccia was exposed with similar mineralization to Shear A with multiple episodes of quartz flooding, re-brecciation, and argillite clasts. Pyrite, arsenopyrite and stibnite were commonly observed in vuggy textures. The weighted average of the channel samples returned 0.24 g/t Au.

FIGURE 14 SHEAR B 'STAGE 1' HYDROTHERMAL BRECCIA. BLUE ARROWS POINT TO SULPHIDE AND QUARTZ CLASTS WITHIN A FINE-GRAINED QUARTZ-SULPHIDE MATRIX. STIBNITE CRYSTALS LINE OPEN SPACE VUGS. (DEVINE, 2011)

FIGURE 15 SHEAR B 'STAGE 2' HYDROTHERMAL BRECCIA AND VEIN TEXTURES. MULTI-STAGE VEINING WITH WHITE DRUSY QUARTZ AND OPEN SPACE VUGS (DEVINE, 2011)

Shear Zone B is also exposed in the 5 Level underground workings approximately 130 m vertically below the surface trenching. Channel sampling of the underground exposure returned 0.73 g/t Au over 9.0 m (including 4.05 g/t Au over 1.0 m).

FIGURE 16 SHEAR B EXPOSED IN THE 5 LEVEL DRIFT SHOWING FE-OXIDATION DUE TO PERCOLATING GROUND WATER (O'BRIEN, 2011)

Wann Prospect

Although the Engineer Gold Mine system is recognized as being distally associated with the Llewellyn Fault Zone, mineralized zones in the Wann River area, 4 km south of the Engineer Gold Mine, are directly related to the Llewellyn Fault Zone (Aspinall, 2010).

The 800 m by 180 m corridor within the Wann River area consists of a multi-pulse, and polymetallic mineralized quartz veined system with tetrahedrite, chalcopyrite, galena, sphalerite, malachite, azurite, trace molybdenite, variable pyrite and associated trace arsenic, with associated gold and silver. Only seven outcrops have been identified within the corridor, but all seven exhibit anomalous gold and silver values, and variable copper, lead, and zinc.

8 Deposit Types

The following description is sourced from L.J. Millonig et al. (2017):

Epithermal mineralization at the Engineer Gold Mine is related to prolonged hydrothermal activity postdating the main period of Sloko Group volcanism in the area by 4 Ma. Eocene reactivation of the Llewellyn Fault and associated splays during the waning stages of Sloko Group volcanism temporarily created rupture induced pathways for hydrothermal fluids thus controlling the emplacement and orientation of high-grade precious metal-bearing veins at the Engineer Gold Mine.

The paragenetic sequence for the Engineer Vein indicates that the principal mineral assemblage precipitated during a single hydrothermal event at 50 Ma. Textural observations also suggest that gangue minerals, such as quartz, calcite and possibly V-illite, may in part have evolved via recrystallization of amorphous or poorly crystalline precursor phases. Gangue mineral textures, fluid inclusion data, and the stable isotope composition of vein calcite and V-illite indicate that mineralization was driven by flash vaporization and decompression boiling of a V-bearing meteoric fluid with a temperature of <220ºC. The vanadium was derived from the surrounding country rocks during hydrothermal circulation. The fact that the Engineer Gold Mine shares similarities with alkaline, as well as subalkaline, epithermal low-sulphidation deposits in terms of mineral and gangue phase assemblages and fluid composition is due to a combination of V-bearing host rocks and the subalkaline, borderline alkaline character of the Sloko-Skukum Group volcanic sequence. Furthermore, the presence of roscoelite could not be confirmed at the Engineer Gold Mine. Instead, the dark green mica intimately associated with electrum is classified as vanadian illite, similar to, e.g., mica from the Tuvatu alkaline low-sulphidation, epithermal deposit in Fiji.

At the Wann Prospect, 4 km south of the Engineer Gold Mine, Pautler (2010) postulated that mineralization is related to intrusion hosted polymetallic veins. Exploration by Blind Creek Resources identified seven mineral occurrences that straddle the Llewellyn Fault. Quartz vein mineralization has been identified with Devonian to Triassic Boundary Range schists in the southwest, and a faulted panel of Upper Triassic Stuhini Group in the northeast.

9 Exploration

This section describes exploration on the Engineer Gold Mine Property conducted by previous operators prior to Blind Creek Resources acquiring the Property. Pre-2007 exploration work is described in Section 6 History, and is based on material from Davidson (1998), Aspinall (2007), Coates (2010) and Snowden (2011).

Section 9 primarily describes exploration work conducted by BCGold from 2007 to 2016. Exploration work conducted by Blind Creek Resources on the Wann Prospect, prior to consolidation with the Engineer Gold Mine, is described in Section 10 (Drilling).

9.1 2007 to 2010 Programs

In 2007, Aspinall (2007) collected 160 rock samples from underground, surface, and selected 1987 core. None of the 57 surface samples, and only 15 of the 92 underground samples carried greater than 1.0 g/t Au. Only 5 returned greater than 5 g/t Au.

Exploration in 2008 included mapping, petrology, underground chip/channel sampling and drilling. Mapping at a scale of 1:500 was compiled for the surface, and 5-Level at 1:1500 and 1:1000 scales, respectively (Devine, 2008). Underground channel sampling on 5-Level with a diamond saw was undertaken on the Shaft, Boulder (2 areas), Engineer, Double Decker (2 areas) and Shear Zone A. A total of 35 vein samples were collected where one assayed 860 g/t Au (Shaft vein), one 14.7 g/t Au, five were below 4.0 g/t Au and the remainder below 1.0 g/t Au.

Surface diamond drilling (7 holes for 1,846 m) targeted the late stage hydrothermal breccia zone within a 400m strike length of Shear Zone A in the proximity of the mine workings. Six holes successfully intersected the Shear A breccia, and all returned continuous, low-grade gold values. Drilling results are discussed in Section 10 of this report.

No work was done on the Property in 2009.

In 2010, work consisted of drilling thirteen HQ diamond drill holes (1,218 m), in two phases, from two underground drill bays located on 5-Level. From the first drill bay (the old hoist room) four holes targeted the Double Decker Vein on 8 Level in an area where 1928 reports indicated 84.3 g/t Au were drifted on. An additional three holes drilled from the same drill bay targeted the Engineer Vein at very low angles. The remaining six drill holes were drilled from a second drill bay located a further 30 m along the main crosscut. Drilling results are discussed in Section 10 of this report.

9.2 2011 to 2016 Programs

In 2011 Snowden conducted a Mineral Resource estimate for the remnant portions of the Engineer and Double Decker veins. The Mineral Resource Estimate has been reviewed considering recent exploration work and is reported in Section 14 of this Technical Report.

Further work in 2011 included:

- Test-mining six bulk samples totaling 246.1 t returning a back-calculated head grade of 16.9 g/t Au. Five of the bulk samples were mined from the Engineer Vein on 5 Level. The sixth bulk sample was from a surface trench on the Double Decker Vein.

- Test-milling of the bulk samples using the gravity recovery circuit producing 969 kg of sulphide concentrate. Gold recovery to the sulphide concentrate was estimated at 51%.
- Commissioned Gekko Systems to conduct bench-scale gravity and leach amenability tests on mill feed and sulphide concentrate. Gekko achieved gold and silver recoveries of 71.4% and 67.8%, respectively, using only gravity concentration methods.
- Completed 600 line-km SkyTEM time-domain electromagnetic/magnetic airborne survey.
- Completed 600 m of surface trench excavation on the Boulder, Shaft, Double Decker and Shear B zones. The exposed veins were geologically mapped and channel sampled.

In 2012, exploration program included:

- Geological mapping, prospecting and test MMI soil surveys over the Shear A and B exploration targets.
- Dewatered 6 and 7 levels of the underground mine workings to access the down-plunge extension of the high-grade 505-3 and the 505-5 Shoots.
- Installed air and water services to levels 6 and 7, geological mapping and panel sampling completed.
- Confirmed the presence of three high-grade gold shoots between 5 and 7 levels.
- Sponsored a postdoctoral geological research project to develop a deposit model for the high-grade gold mineralization. Project supervised by Department of Earth, Ocean and Atmospheric Sciences, University of British Columbia.

In 2013, the Property was expanded by optioning nine surrounding claims from Blind Creek Resources. The larger, consolidated Property allowed for prospecting and soil geochemical programs over the southward extension of Shear Zones A and B. Those programs occurred in 2014 and 2016.

SkyTEM Airborne Geophysics

From June 26th to July 2nd, 2011, a 636.6 line-km time-domain electromagnetic and magnetic survey was conducted by SkyTEM Surveys ApS. The 636.6 line-km helicopter-borne survey consisted of east-west lines at 50 m spacing and north-south tie lines at 500 m spacing (Figure 17). The horizontal loop instrument was flown at a nominal terrain clearance above the tree tops of 30 m to 40 m.

SkyTEM delivered the electromagnetic, magnetic, and DEM raw data in Geosoft (.gdb) format. SkyTEM processing and inversion data was delivered as Geosoft database (.gdb) and grid (.grd) formats. Residual and total field magnetics assisted in identifying magnetic volcanics associated with the Engineer Mountain Volcanic Complex, and mineralization associated with Shear Zone A and B (Figure 18). Resistivity maps created from the electromagnetic inversions were useful for interpreting major faults/shears across the Property and for mapping the boundary of the Laberge sediments (Figure 19).

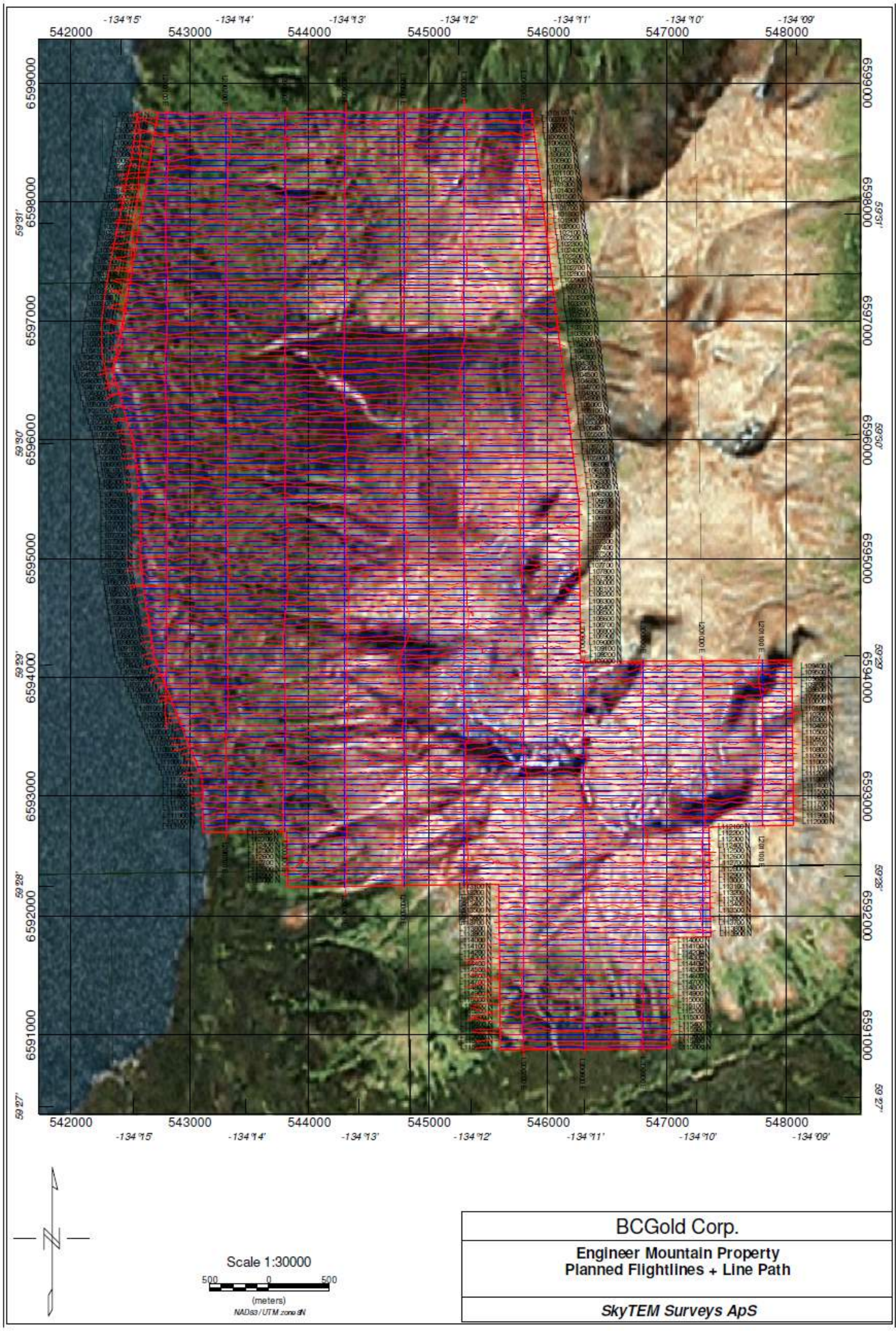


FIGURE 17 SKYTEM SURVEY - ACTUAL FLIGHT LINES (RED) AND PROPOSED LINES (BLUE)

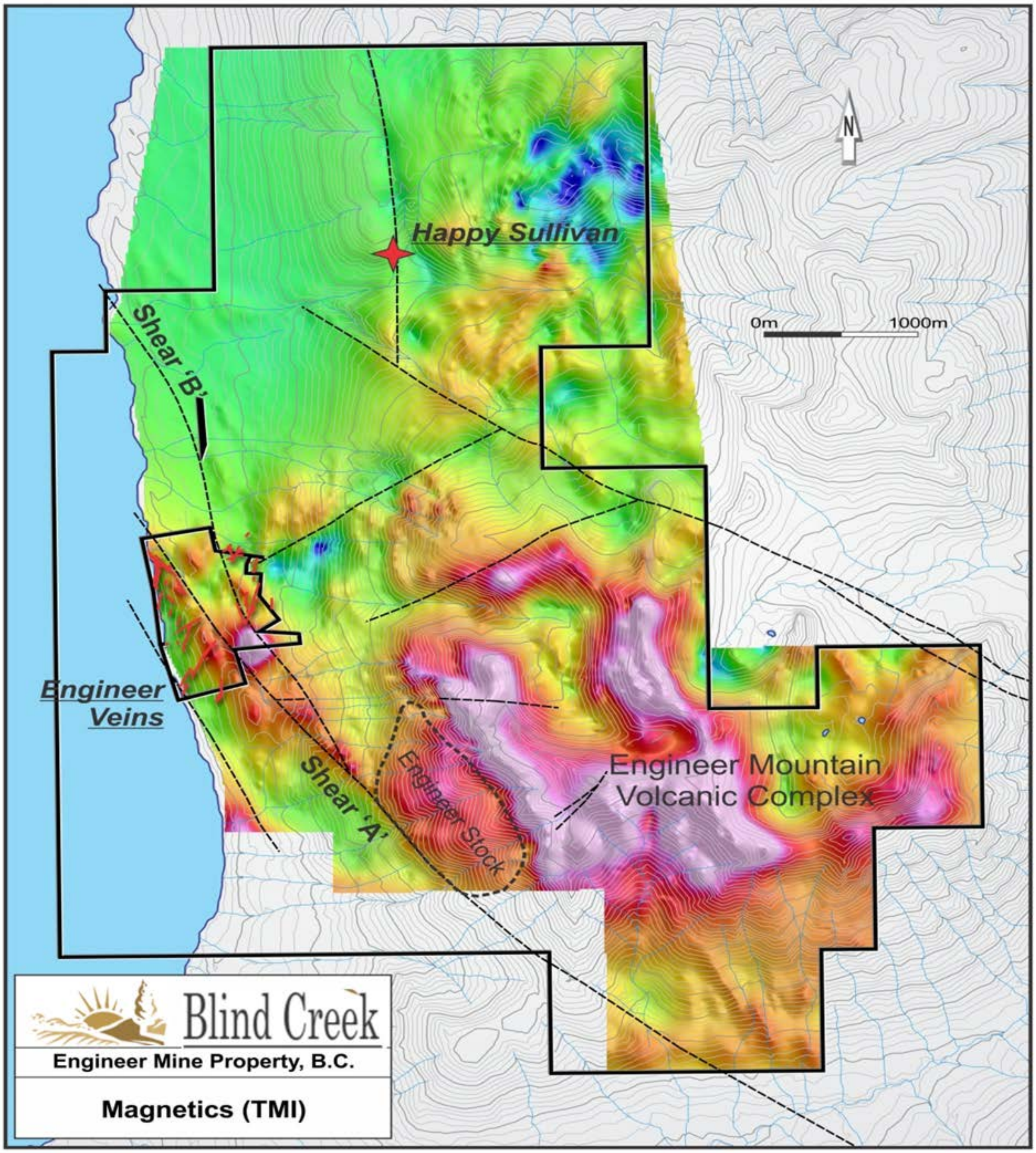


FIGURE 18 SKYTEM TOTAL FIELD MAGNETICS WITH SIMPLIFIED GEOLOGY AND MINERAL SHOWINGS

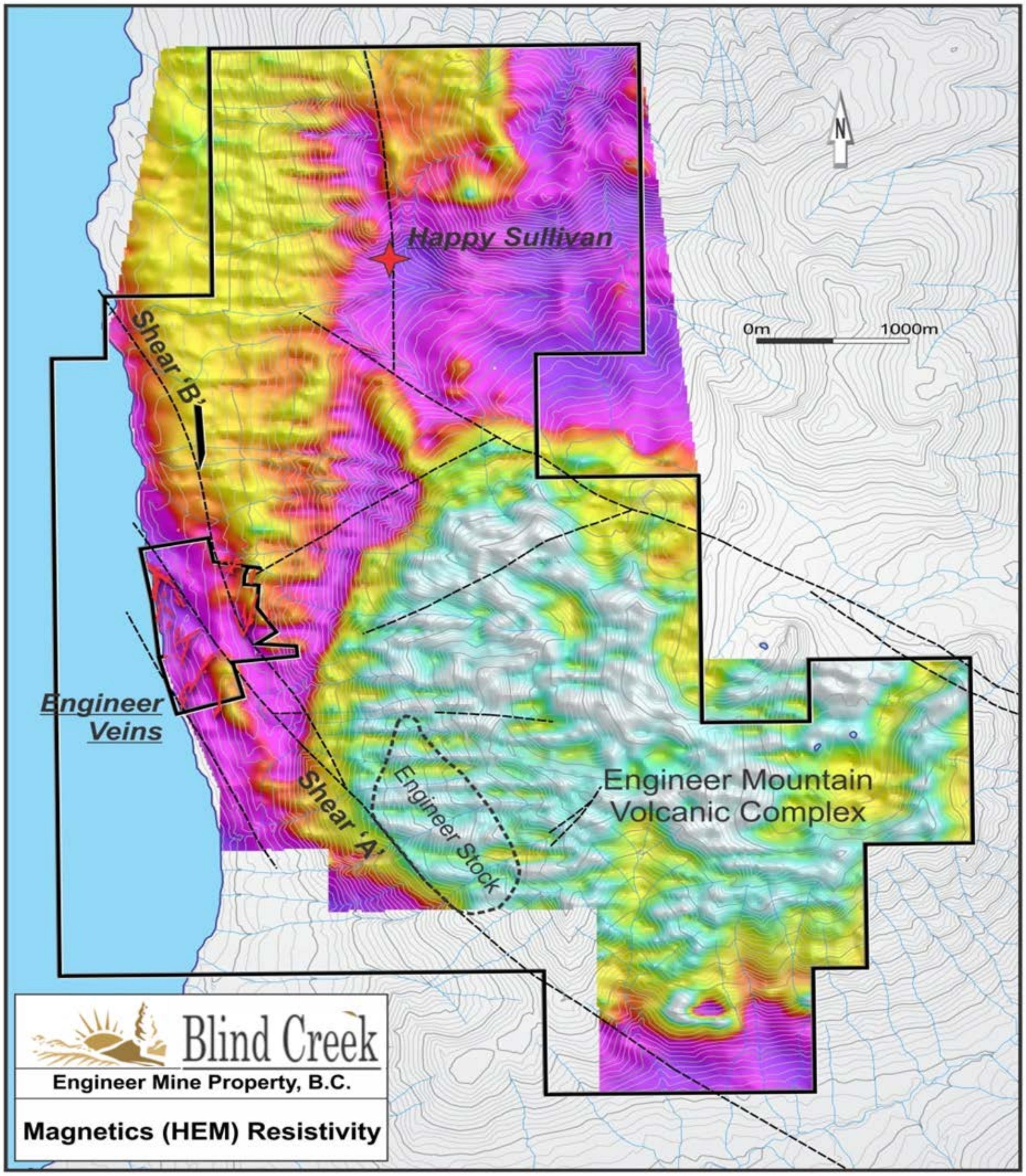


FIGURE 19 SKYTEM RESISTIVITY FROM HEM INVERSIONS (100M DEPTH SLICE)

Soil Geochemical Surveys

Soil geochemical surveys were conducted over portions of Shear Zone A and B to test for gold and pathfinder responses using both Mobile Metal Ion (MMI) and B-horizon aqua regia digestion techniques. The Engineer Gold Mine Property was previously soil sampled by Erickson Mines in 1987 (Smit 1987) which results showed little response over the mineralized shear zones. To test modern soil sampling methods using weaker sample digestion, 791 MMI samples were collected in 2012 and 2016 (Devine 2016), and 55 B horizon samples in 2014 (Coates 2014). Figure 20 shows the various soil sample programs in relation to Shear Zone A and the veins on the Engineer Gold Mine Crown Grants.

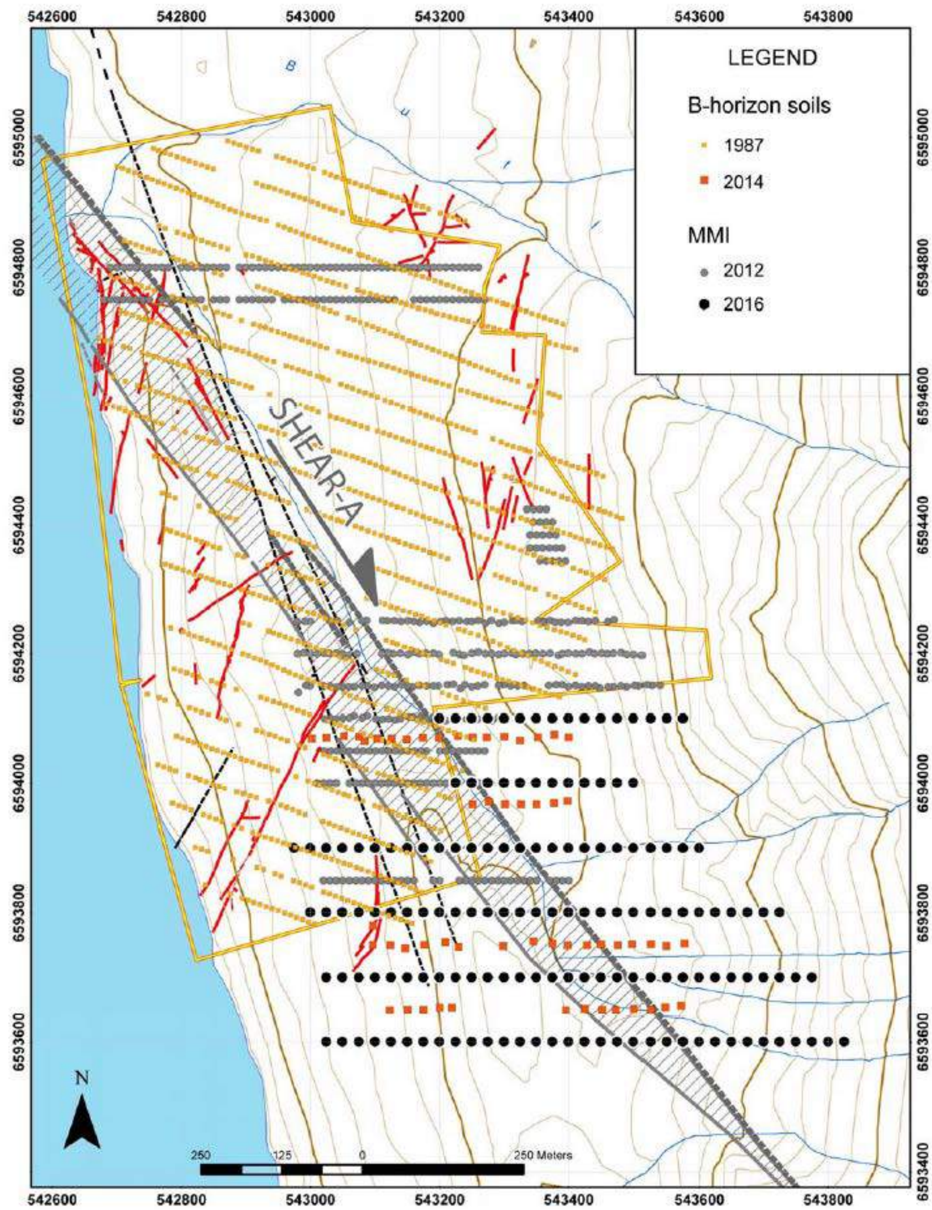


FIGURE 20 SOIL GEOCHEMICAL SURVEYS OVER THE ENGINEER GOLD MINE (DEVINE 2016)

There are several trends and patterns in the MMI survey, both in metal correlations and in spatial trends. The MMI results show that gold has a strong correlation with silver, arsenic, copper and antimony. Similar correlations are found in hard rock mineralization collected in the mine. The MMI survey demonstrates that these associations continue along the Shear Zone A structure and highlight several potential exploration targets south of the mine site.

	Ag	*As*	*Au*	*Cu*	*Sb*
Ag	1				
As	0.757144	1			
Au	0.894069	0.528746	1		
Cu	0.821687	0.665896	0.723193	1	
Sb	0.754847	0.863031	0.444162	0.757911	1

FIGURE 21 MMI CORRELATION COEFFICIENTS

The MMI survey also identified several multi-element anomalies that may represent covered vein targets. Two of these are along trend from known veins that have been mapped on surface and mined underground; Jersey Lily Vein and Shaft Vein. Anomalies of Au, Ag, Cu, As, and Sb maps vary in size, but occur in the same area, along the southward extensions of these veins (see Figure 22). Copper and silver show a particularly large anomalous zone around the Jersey Lily Vein and farther south, while gold and arsenic are more subtle. Both areas also show potential for additional vein and or breccia zones to the southeast of the mapped veins. Parallel, northeast-trending anomalies occur approximately 200 m southeast of the Jersey Lily and Shaft veins that are highlighted by all five elements as well (Devine 2016).

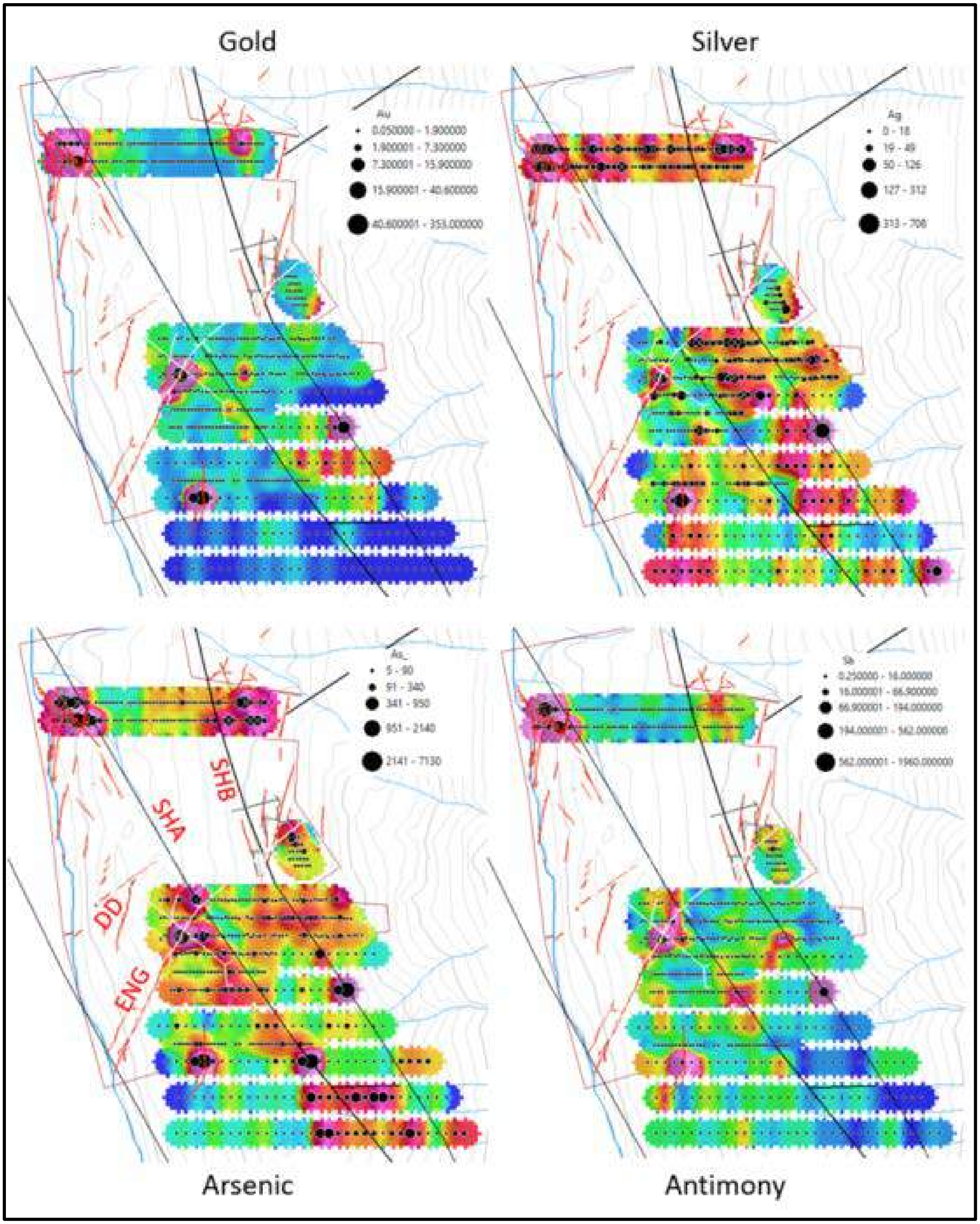


FIGURE 22 MMI SOIL ANOMALIES (GRIDDED) FOR THE ELEMENTS AU, AG, AS AND SB. KNOWN VEINS ARE HIGH-LIGHTED (ENGINEER, DOUBLE DECKER, SHEAR A, SHEAR B).

Another potentially important geochemical feature was highlighted by the 2016 MMI survey. A 400 m by 400 m gold-silver anomaly (the 'BC Anomaly') was identified along the northeastern side of Shear Zone A. Other pathfinder elements are not present to the same extent, but rather form a halo to the gold-silver anomaly. Arsenic is notably absent from the zone except for in a small central feature. The significance of the anomaly is not certain, but requires further investigation as it appears to be related to a circular magnetic-high near the potential intersection of Shear Zone A and B. It is in an area overlain by cover and is not well-exposed (Figure 23).

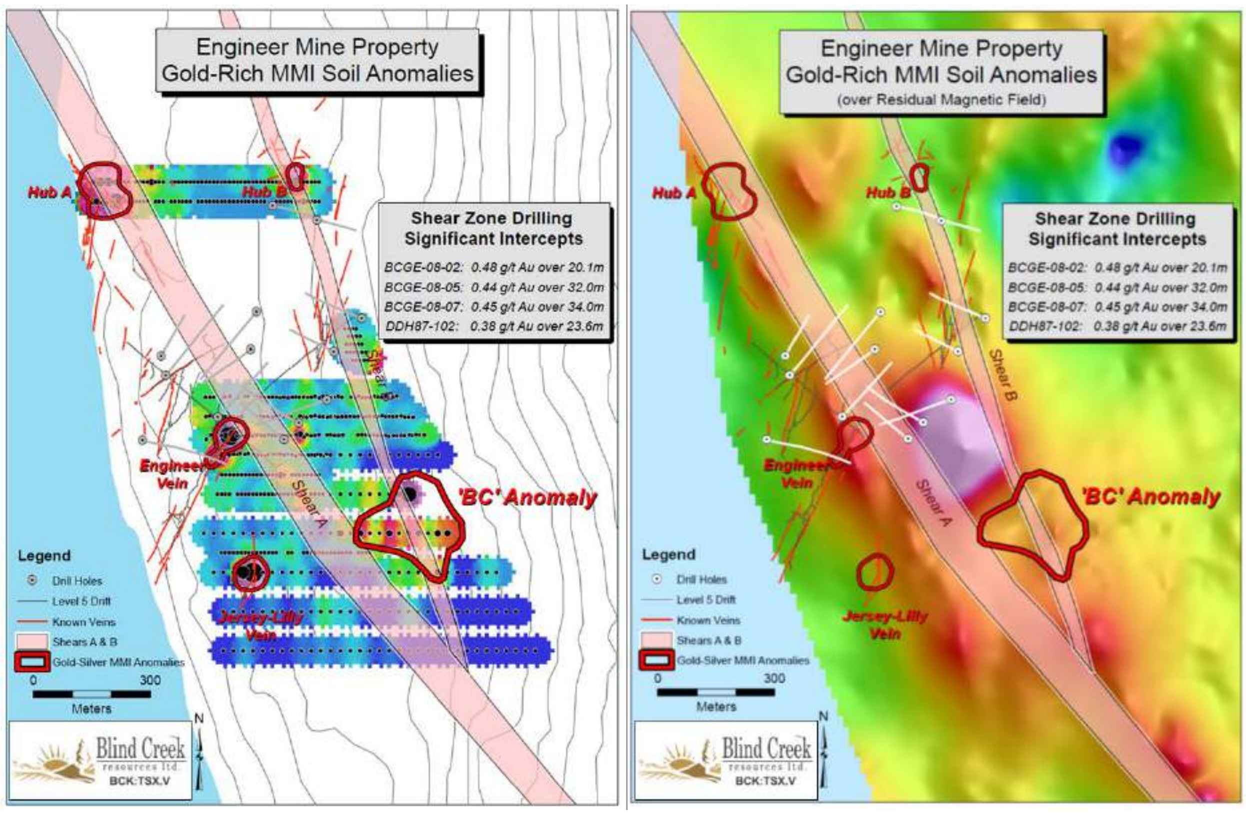


FIGURE 23 GOLD-RICH MMI ANOMALIES OVERLAYING SHEAR ZONES AND RESIDUAL MAGNETICS

Surface Trenching

In 2011, a 600 m surface trenching program was utilized to locate surface expressions of mineralized shoots previously identified and partially mined on 5 Level of the mine workings. The three focus areas were the Boulder-Governor, Shaft, and Double Decker veins (Figure 24). The Boulder-Governor Zone consists of the Boulder Vein, '524' stope, and Shear 'B' targets. The Shaft Vein Zone is comprised of the Shaft Vein and the '523' stope targets. The excavated trenches averaged 1.5 m wide and depth varied dependent upon depth of bedrock. Patchy permafrost occurs generally 2-3 m below surface but could be easily penetrated with the excavator (Sidhu, 2011).

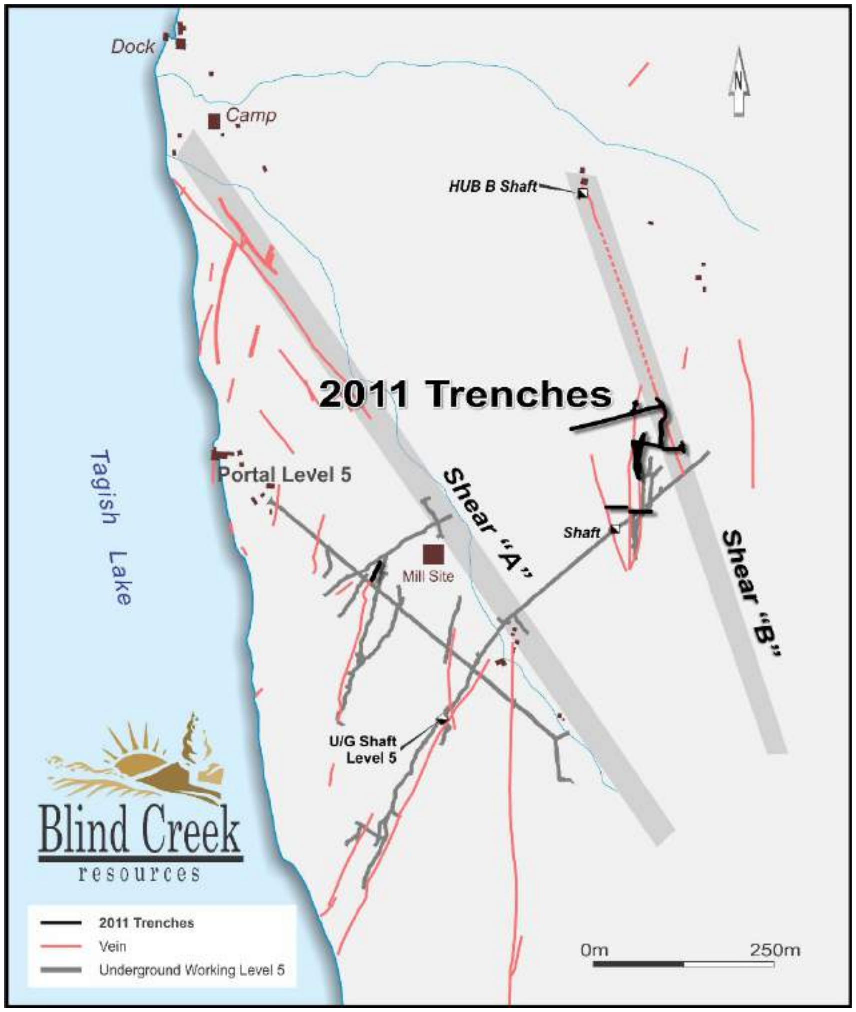


FIGURE 24 2011 EXCAVATOR TRENCHING PROGRAM

<u>Boulder-Governor Zone (Figure 25 to Figure 28)</u>

The primary target for the Boulder vein zone was to find the surface exposure of the '524 stope' that had been bulk sampled by Ampex Mining in 1994 and 1995. Ampex reported head grades for three samples of 150 t averaging 30.8 g/t Au, 30 t averaging 28.6 g/t Au, and 35 t averaging 32.5 g/t Au (Martensson et al, 1996). Sampling procedures are not described in their report.

Excavator trenching identified a 0.35 m wide vein with brecciated and cockscomb textures. The vein pinches and swells and is discontinuous in the northern part of the trench. Towards the south, the vein appears to join the Andy Vein and becomes a single vein approximately 0.70 m wide. At the junction, an old trench 2 m deep exists where it appears "old timers" blasted and excavated.

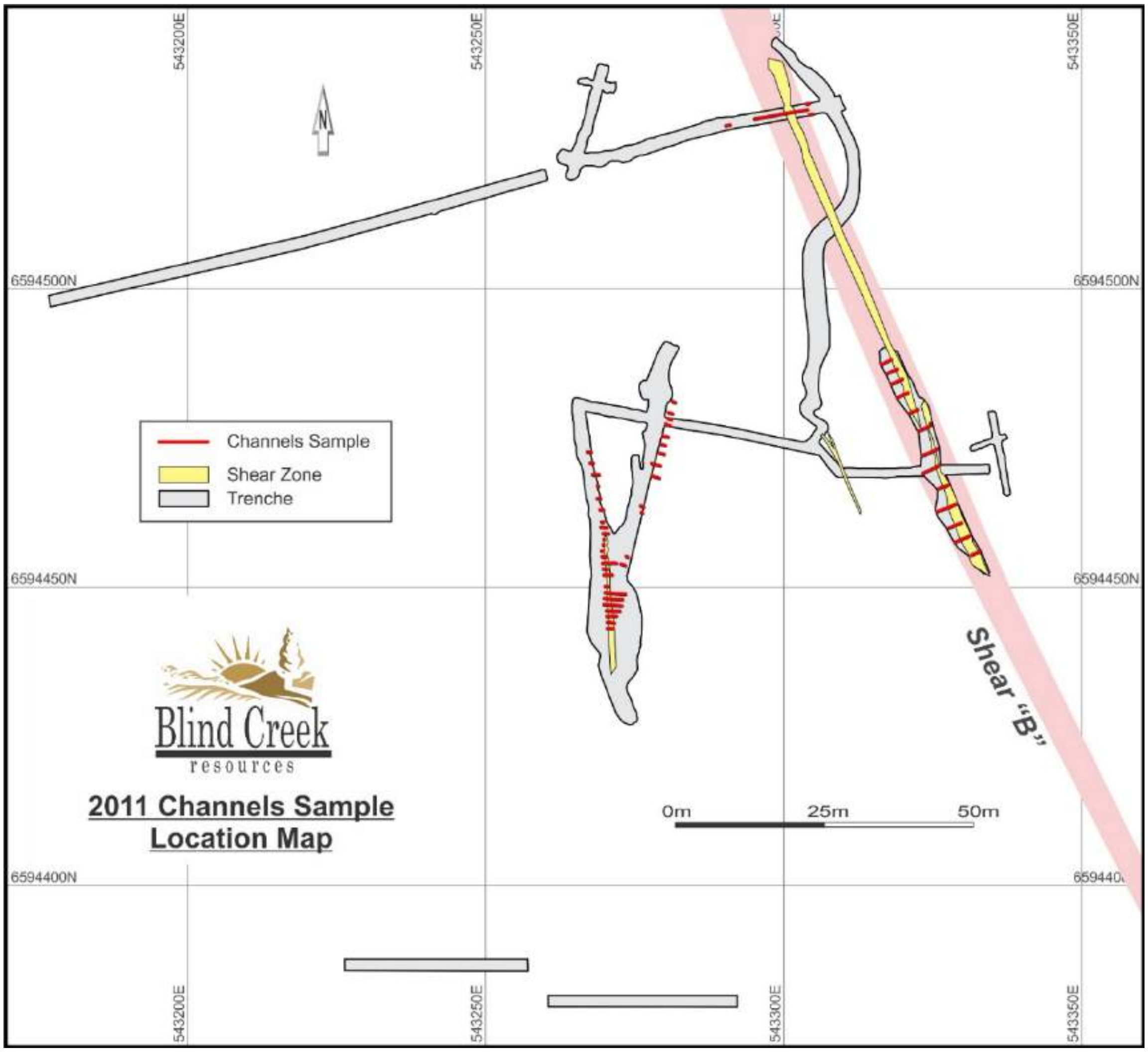


FIGURE 25 BOULDER-GOVERNOR TRENCHES

FIGURE 26 TRENCHES WERE EXCAVATED AND CLEANED OFF WITH A BLOW PIPE PRIOR TO MAPPING AND CHANNEL SAMPLING

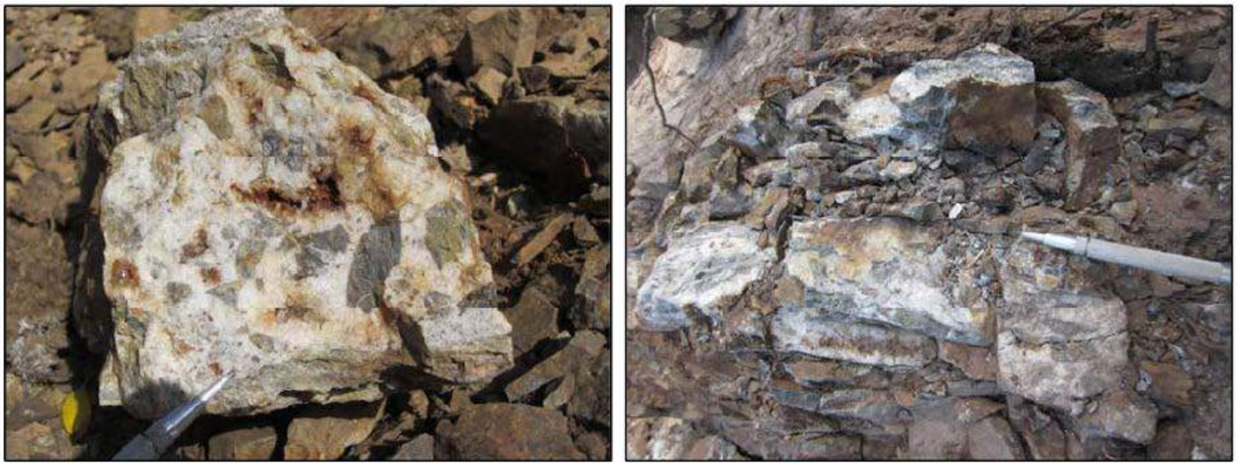


FIGURE 27 BOULDER-GOVERNOR VEIN TEXTURES INCLUDE BLADED CALCITE LOCALLY REPLACED BY QUARTZ (DEVINE 2011)

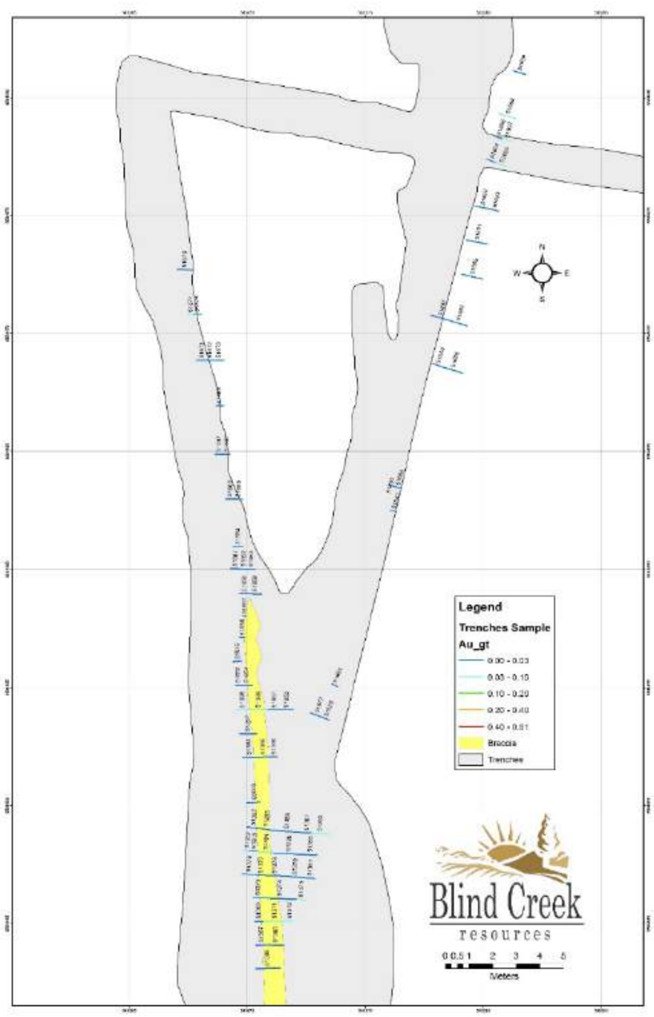


FIGURE 28 BOULDER AND ANDY VEINS CHANNEL SAMPLES

Trenching in this area also cross-cut Shear Zone B in two locations (Figure 29 & Figure 30) where 3.5 to 4 –m wide zone of hydrothermal breccia was exposed. Shear Zone B appears to be a monomict, chaotic breccia with rounded clasts of argillite and jigsaw fit textures near the outer edges grading into chaotic breccias towards the middle with massive milky white quartz veins. There are zones of grey quartz due to pyrite, arsenopyrite and stibnite mineralization commonly accumulating in vugs. Crystals are commonly well formed with distinct orthorhombic and prismatic structures. There is a strong fissile cleavage on the hanging wall side of the breccia with strong clay alteration of argillite. The clay alteration halo appears to be less than a metre wide and only on the hanging wall side (Figure 31 & Figure 32).

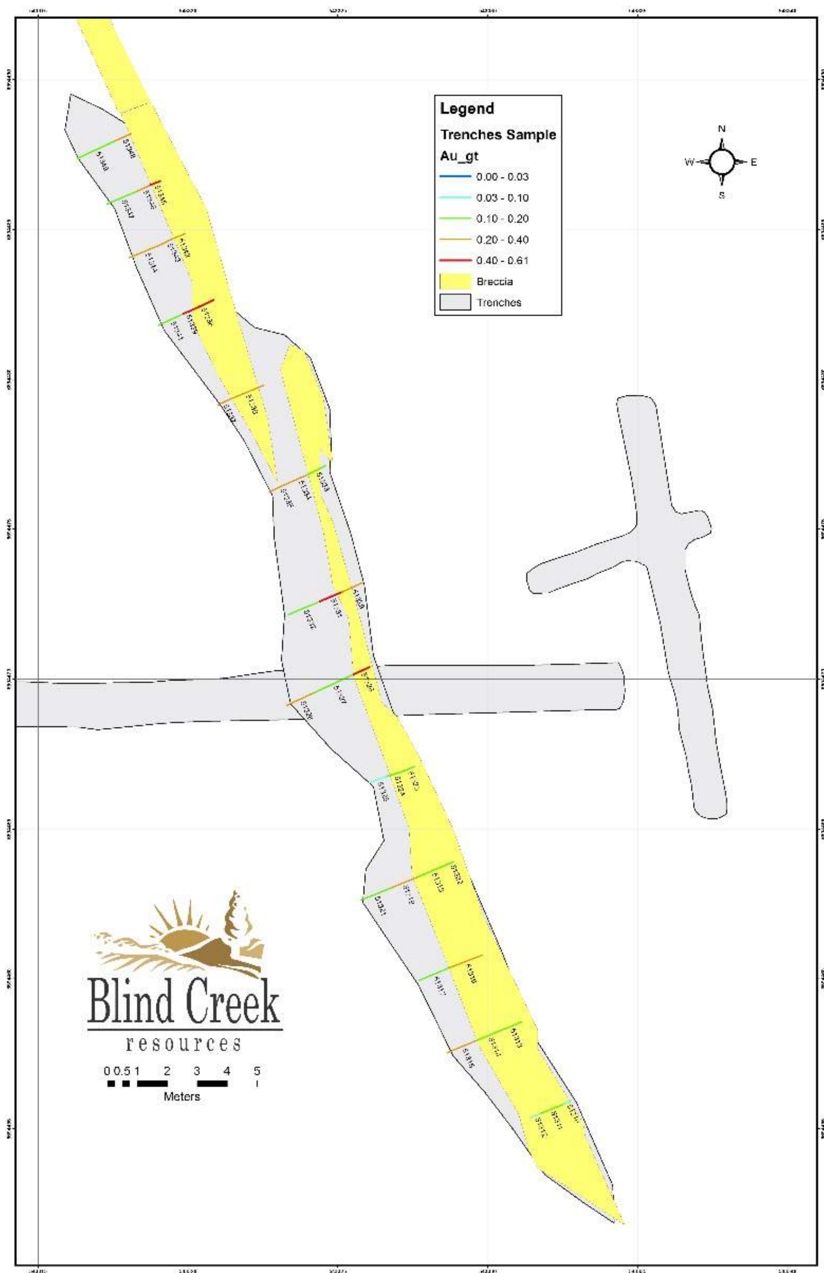


FIGURE 29 SHEAR B CHANNEL SAMPLES

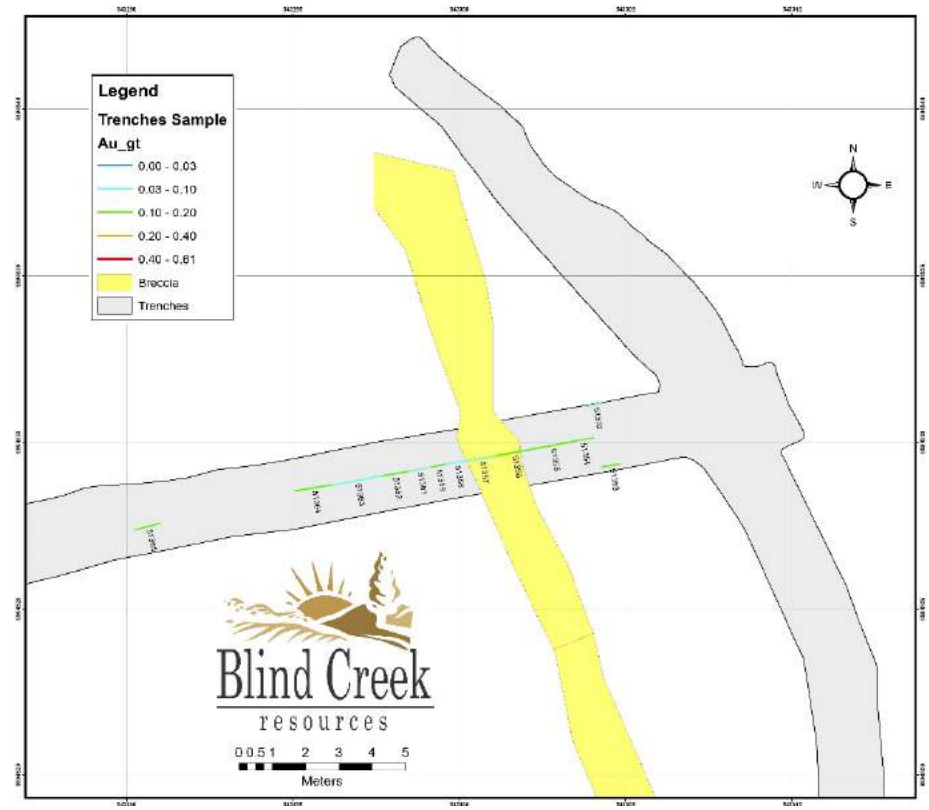


FIGURE 30 SHEAR B NORTH CHANNEL SAMPLES

FIGURE 31 STAGE 1 HYDROTHERMAL BRECCIA AND SILICIFICATION ALONG SHEAR B (DEVINE 2011). SULPHIDE AND QUARTZ CLASTS WITHIN A QUARTZ-SULPHIDE MATRIX. STIBNITE CRYSTAL LINE OPEN SPACE VUGS.

FIGURE 32 STAGE 2 HYDROTHERMAL BRECCIA AND VEIN TEXTURES ALONG SHEAR B (DEVINE 2011). CLASTS OF STAGE 1 QUARTZ BRECCIA, SULPHIDE CLASTS, AND SILICIFIED WALL ROCK ARGILLITE.

Shaft Vein Zone (Figure 33)

Trenching conducted in 2011 excavated approximately 75 m strike length of the Shaft Vein near where a historic surface shaft exists and near the surface projection of the '523 stope'. The '523 stope' was another area bulk sampled by Ampex Mining. In 1993, Ampex mined 30 t with an average head grade of 25.7 g/t Au (Martensson et al, 1996). However, results were less encouraging in other samples mined from this stope.

The 1920's-era shaft was removed and the water level pumped down approximately 5 metres. The 0.40 metre wide vein was exposed in both walls of the shaft where it dips steeply to the east at 82 degrees. The quartz vein exhibits primarily cockscomb textures and weakly brecciated sections. Mineralization consists of pyrite with minor chalcopyrite, arsenopyrite and stibnite.

An east-west trench was excavated above the surface projection of the '523 stope'. The trench was excavated to a depth of 4.5 m and encountered overburden. No additional veining was exposed.

FIGURE 33 SHAFT VEIN TRENCH AND LOCATION OF HISTORIC HEADFRAME (LEFT). VEIN TEXTURES INCLUDE COARSE QUARTZ VEINS WITH WALL ROCK FRAGMENTS AND BANDING (DEVINE 2011)

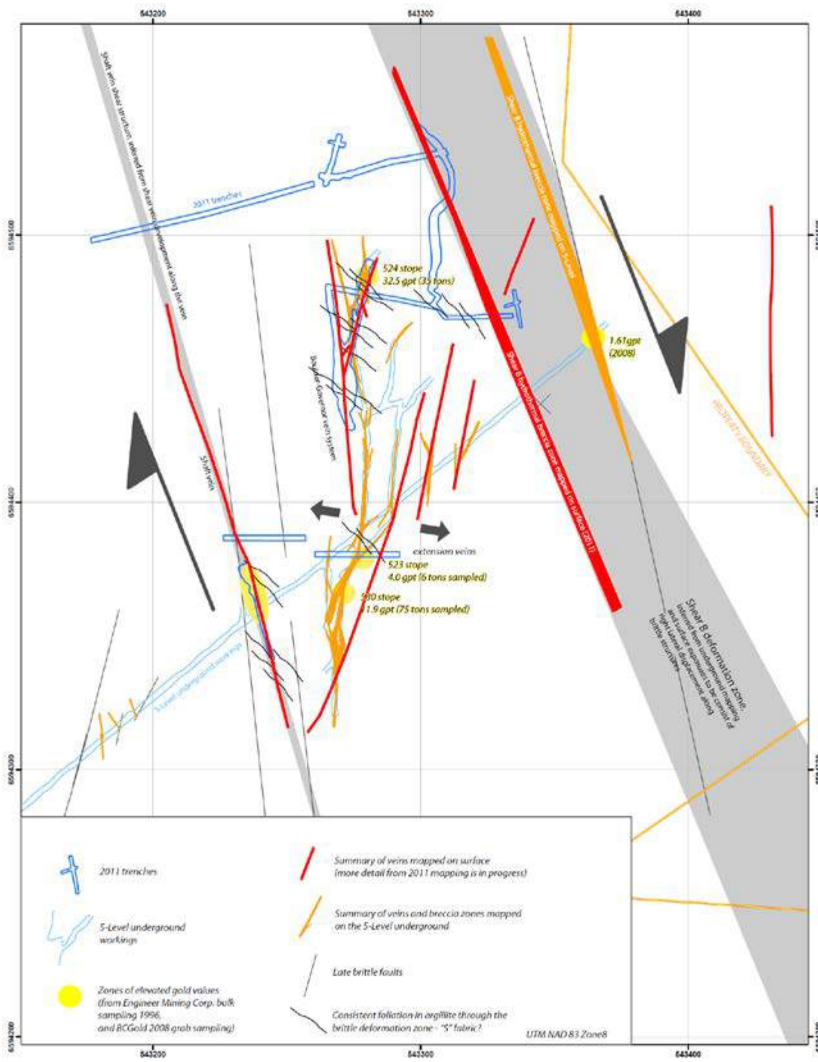


FIGURE 34 GEOLOGIC COMPILATION OF BOULDER-GOVERNOR, SHEAR B, AND SHAFT ZONE SURFACE TRENCHING

Double Decker Vein Zone (Figure 35 & Figure 36)

The Double Decker was excavated above a mineralized shoot that was historically mined between 4 and 5 Levels. The vein on surface had also been previously mined to an unknown extent. The loose material was excavated and the hanging wall taken down approximately 2 m by surface drilling and blasting. The exposed vein pinches and swells with a maximum width of 0.40 m. The vein exhibited a cockscomb texture with up to 0.5% chalcopyrite and malachite.

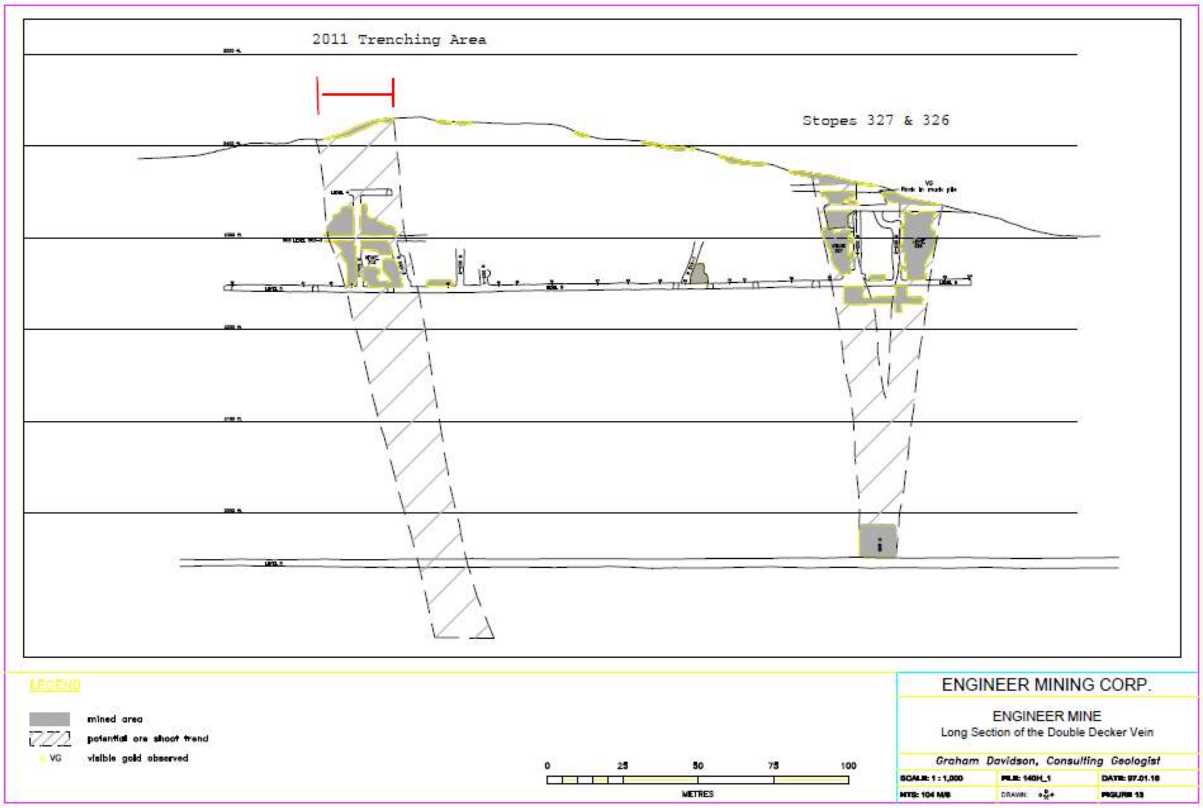


FIGURE 35 DOUBLE DECKER VEIN LONG-SECTION WITH TRENCHING

FIGURE 36 DOUBLE DECKER VEIN - BLASTING AND CHANNEL SAMPLES

6- and 7-Level Dewatering, Geologic Mapping and Panel Sampling

In 2012 the 6 and 7 mine levels were dewatered, which had been flooded since 1928. The levels were accessed via the manway associated with the internal shaft. The levels were surveyed, geological mapped and panel sampled along the length of the Engineer Vein.

Geologists collected 190 panel samples along 1 m lengths of the Engineer Vein on 6 and 7 levels. Multiple cuts across the vein were conducted using a handheld pneumatic chipper with a carbide bit. The average vein width was recorded in a database. Wall rock adjacent to the vein was assumed to have a zero gold value. Samples were submitted to Inspectorate Exploration and Mining Services of Richmond, British Columbia ("Inspectorate") where they were analyzed for gold and other elements using a combination of metallic screen assaying and multi element inductively coupled plasma (ICP) analysis.

On 6 Level, the Engineer Vein was mapped for 84 m along strike. The vein is open in both directions. At the southwest end, the vein widens to 0.8 m in the drift face which is near vertical below the 505-3 shoot mined on 5 Level. At the northeast face, the vein has flared into a stringer zone at the contact of a vertical fault. The old-timers stopped drift mining at the fault but subsequent drilling and geologic mapping on 5 Level indicate that the vein continues past the fault with only minor offset. Drill hole BCGE10-11 intersected 129.0 g/t Au over 1.0 m approximately 25 m past the fault. There were no production stopes on 6 Level (see Figure 37).

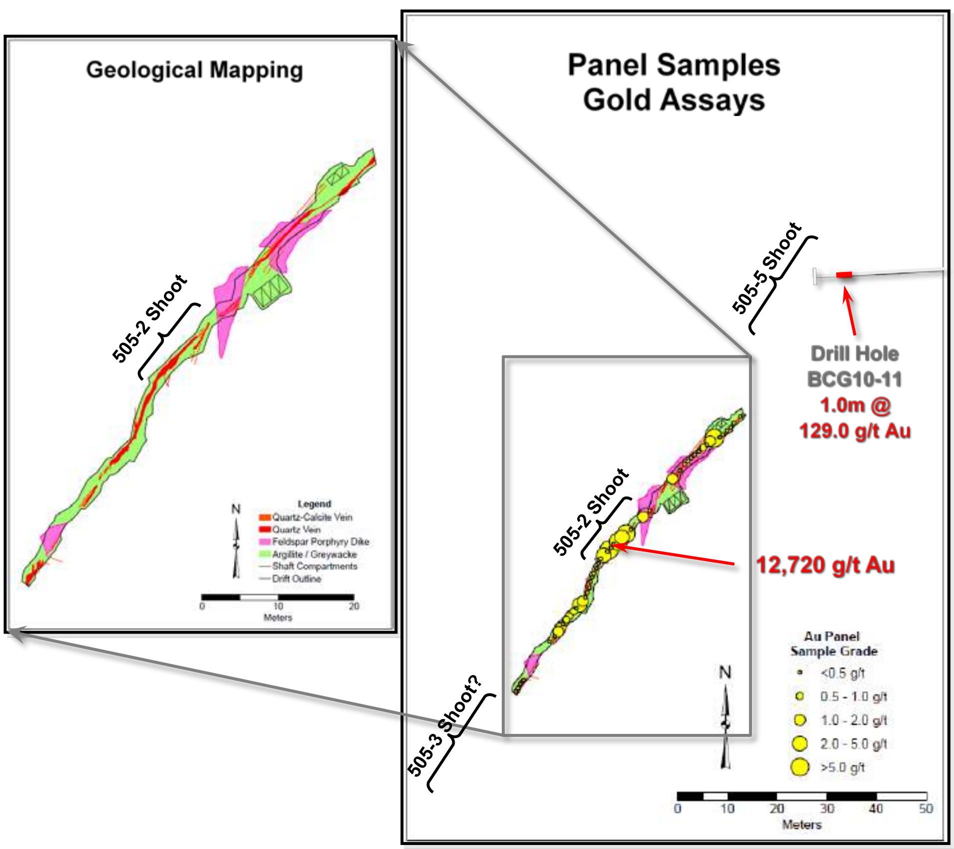


FIGURE 37 GEOLOGIC MAPPING AND PANEL SAMPLE RESULTS ON 6 LEVEL SHOWING DOWNDIP CONTINUITY OF MINERALIZED SHOOTS MINED ON 5 LEVEL

On 7 Level, the Engineer Vein could be mapped along the level for approximately 173 m and three locations were identified with visible gold associated with roscoelite. The vein ranges from 0.5 m to 1.0 m in width for 157 m strike length. The vein is open to the northeast and is 0.6 m wide in the northeast face. At the southwest end of the drift, the vein narrows to 0.2 m. The vein dips vertically and exhibits similar textures and mineralogy to vein exposures mapped in the 5 Level workings. There were no production stopes on the 7 Level (see Figure 38)

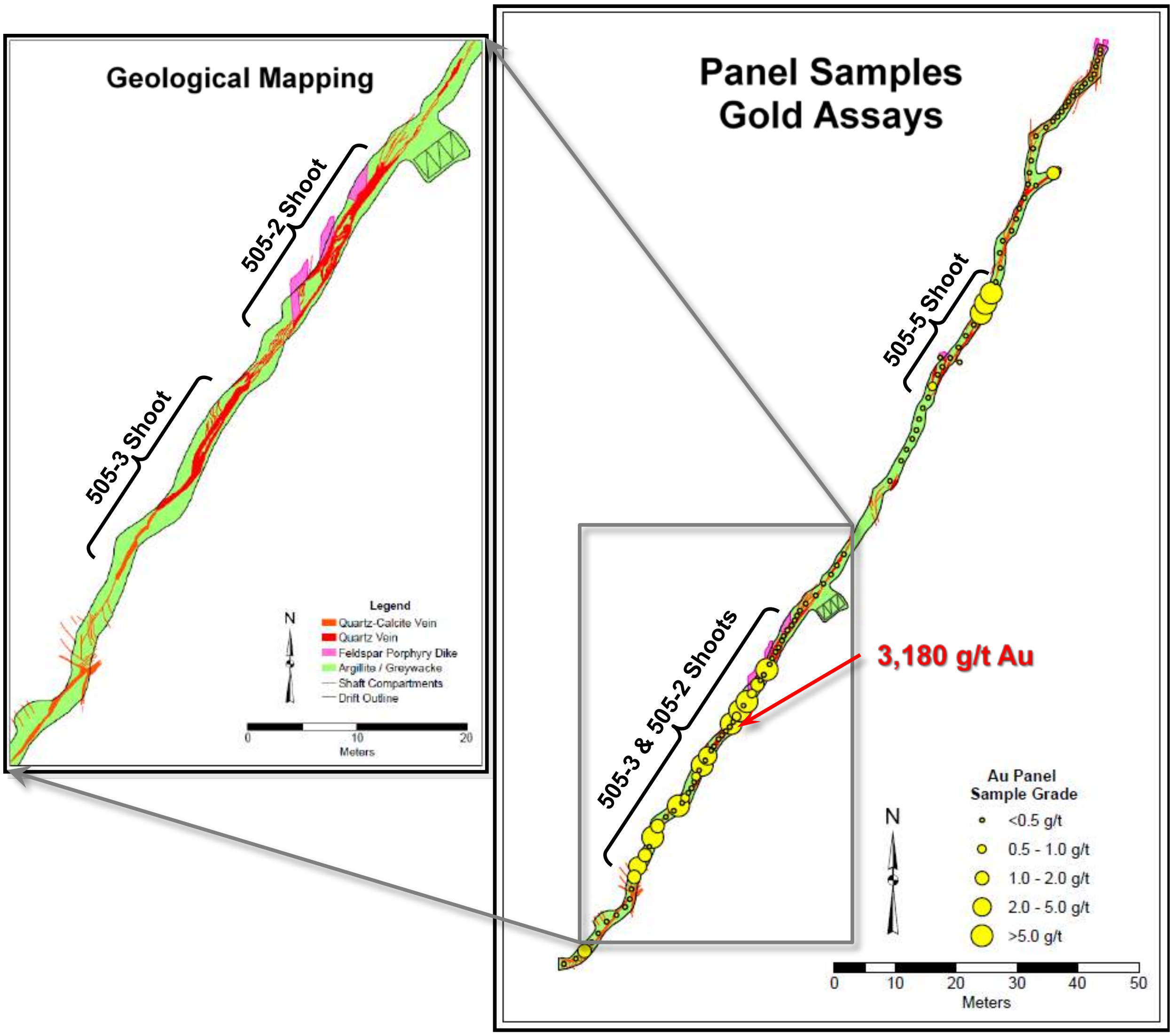


FIGURE 38 GEOLOGIC MAPPING AND PANEL SAMPLE RESULTS ON 7 LEVEL

Postdoctoral Research Project

In 2012, a one-year post-doctoral research project was undertaken along with the Department of Earth and Ocean Sciences (EOS) at the University of British Columbia (UBC). The project was led by Dr. Leo J. Millonig, a post-doctoral research fellow with EOS, and Professor Lee A. Groat (EOS) and Professor Robert Linnen (University of Western Ontario).

The main objective of the project was to develop a geological model to better understand the depositional controls and the source of the high-grade gold mineralization using detailed petrographic, mineralogical, geochronological, fluid inclusion, and stable isotope studies.

The study found the principal mineral assemblage of the Engineer Gold Mine epithermal veins precipitated in response to boiling during a hydrothermal event at 49.90 Ma ± 0.25 Ma. During this event electrum, arsenopyrite, pyrite ± chalcopyrite ± sphalerite ± löllingite ± tetrahedrite-group phases ± allargentum ± acanthite ± hessite ± dyscrasite ± stibarsen ± galena and an unidentified Ag-rich phase were deposited in conjunction with amorphous silica, platy and rhombic calcite, K-feldspar, and vanadian illite. Fluid inclusion and stable isotope data suggest that the mineralized fluid was boiling at ~220 ^{o}C during vein mineralization and had an isotopic composition derived from local meteoric water. Based on these results the Engineer Mine is classified as an epithermal low-sulphidation deposit, which shares similarities with alkaline and subalkaline epithermal low-sulphidation deposits. This is attributed to the fact that the associated Eocene Sloko-Skukum Group volcanic rocks are borderline subalkaline to alkaline in character and that the Jurassic Laberge sedimentary host rocks are vanadium-bearing. These sedimentary rocks contributed the bulk of the vanadium to the Engineer Gold Mine epithermal system. The presence of roscoelite at the Engineer Gold Mine could not be confirmed during this study but did confirm the presence of vanadian illite.

Bulk Samples

In 2011, a bulk sampling and test-milling program was undertaken to investigate the possibility that small volume samples, such as drill core and channel samples, were underestimating the gold grade of the veins due to the high-nugget behavior of the gold mineralization. The company refurbished the 30 t per day gravity separation mill circuit to process the bulk sample material on site. Samples were cut from the sample feed and tails during the milling operation to estimate the gold grade of the bulk samples.

A total of six composite bulk samples for 400 t were mined. Five of the samples representing the Engineer Vein were mined from underground workings and extracted via the 5 Level Portal. The sixth sample was mined by surface trenching the Double Decker Vein. See Table 7 for bulk sample descriptions. Figure 39 and Figure 40 show bulk sample locations in long section view for the Engineer and Double Decker veins, respectively.

The estimated mining head grades for each of the bulk samples are listed in Table 41, and reconciled against the Mineral Resource in Table 42.

TABLE 7 BULK SAMPLE DESCRIPTIONS (2011 PROGRAM)

Bulk Sample	Tonnes Mined	Vein Name / Location	Comments
DD Trench	50	Double Decker Vein / Surface	Surface expression of Double Decker Vein. Recent channel sample returned 979 g/t Au (see press release August 16, 2011)
505-2	95	Engineer Vein / 5 Level	Adjacent to a 1995 – 23 tonne bulk sample assayed 25.9 g/t Au
505-3A	52	Engineer Vein / 5 Level	North face of Stope 505-3; Represents 900 tonne block
505-3B	91	Engineer Vein / 5 Level	Pillar of Stope 505-3; 1995 – 9 tonne bulk sample assayed 18.4 g/t Au
505-5	82	Engineer Vein / 5 Level	Pillar of Stope 505-5
505-6	30	Engineer Vein / 5 Level	Represents 500 tonne block between Raises 505-5 and 505-6;
Total Tonnes Mined	400	-	-

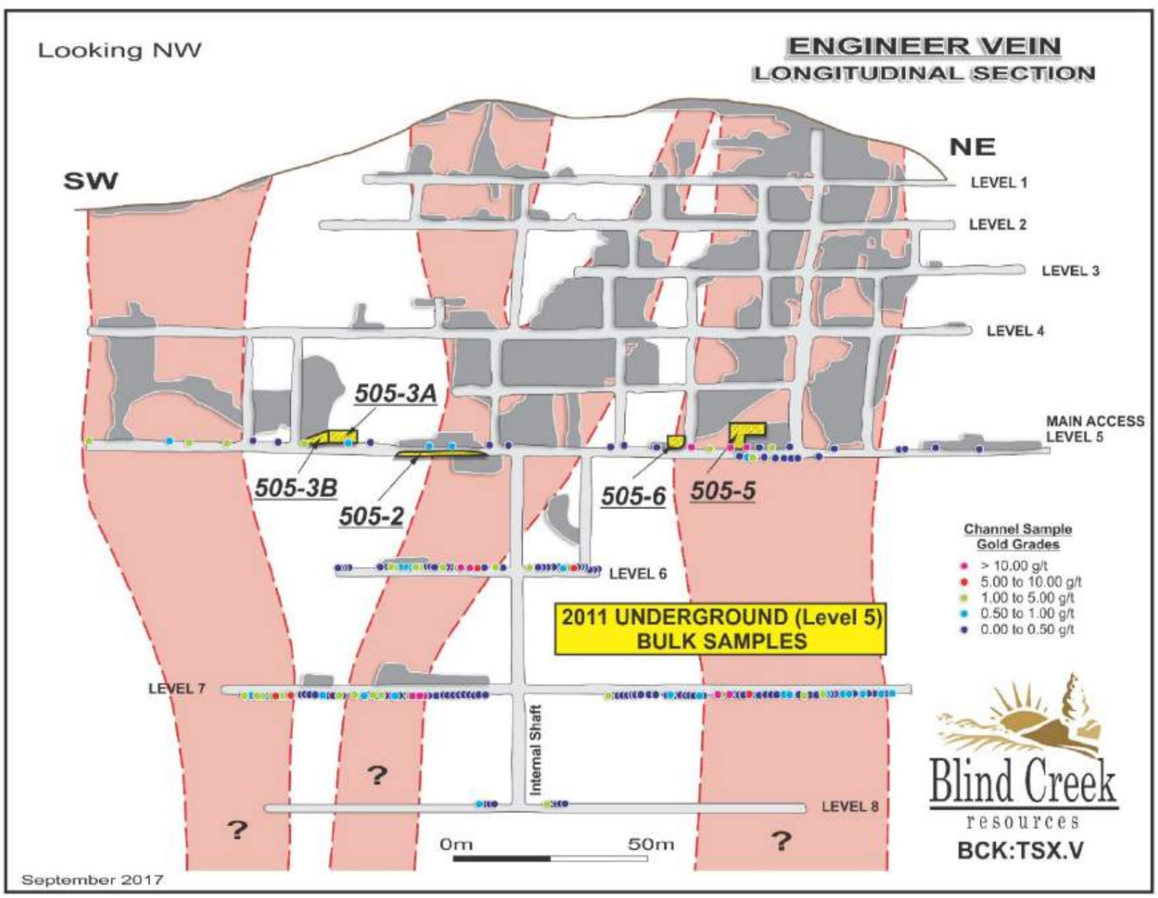


FIGURE 39 ENGINEER VEIN LONG-SECTION SHOWING BULK SAMPLES

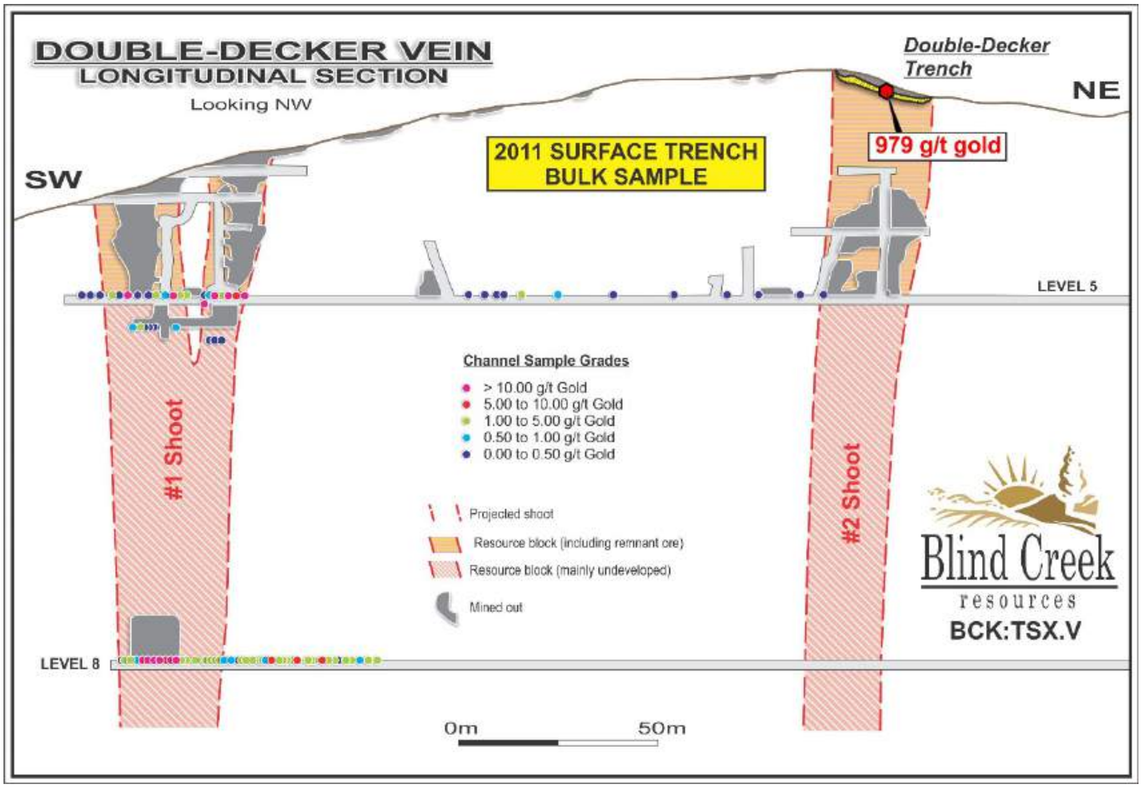


FIGURE 40 DOUBLE DECKER VEIN LONG-SECTION WITH SURFACE BULK SAMPLE

In addition to gold recovered from the gravity separation mill as table concentrate, approximately 14 kg of roscoelite nodules with >5% "wire" gold were recovered while mining bulk sample 505-5. These samples were identified by underground mining personnel and collected prior to being crushed at the mill (Figure 42).

FIGURE 41 PREPARING TO BLAST BULK SAMPLE 505-5 OF THE ENGINEER VEIN FROM 5 LEVEL


FIGURE 42 ELECTRUM / ROSCOELITE NODULES SELECTED FROM BULK SAMPLE 505-5 FROM THE ENGINEER VEIN

A subset of 246 t was processed through the gravity separation mill, producing 969 kg of dry table concentrate grading 2,193 g/t Au (64 oz/t Au). The amount of contained gold in the concentrate was 68.3 ozs (see Table 8). The remaining 154 t of mined material appeared to have a low concentration of vein material and was not processed. It was stockpiled at the mill.

Sampling of the milling stream was conducted at all stages of the crushing, grinding, Deister table, and tailings circuits to determine mining head grade, estimate gold recovery, and assess milling performance. Metallurgy testwork was conducted on the table concentrate to determine composition and estimate gold recovery. Results are further described in Section 13.

TABLE 8 BULK SAMPLES - MILLED TONNES AND CONCENTRATE GRADE (AU G/T)

Bulk Sample	Tonnes Milled	Concentrate Produced (dry kg)	Concentrate Au (g/t)	Concentrate Au(oz/t)	Contained Au (g)	Contained Au (oz)
DD Trench	9.4	23.1	290.6	8.5	6.7	0.2
505-2	40.7	193.6	196.5	5.7	38.0	1.2
505-3A	35.5	194.9	1,251.7	36.5	244.0	7.8
505-3B	68.9	218.9	6,703.3	195.5	1,467.6	47.2
505-5*	69.7	272.3	1,210.2	35.3	329.5	10.6
505-6	21.9	66.3	596.7	17.4	39.6	1.3
TOTAL:	**246.1**	**969.2**	**2,193.1**	**64.0**	**2,125.5**	**68.3**

**Approximately 14 kg of roscoelite nodules with >5% "wire" gold were recovered while mining bulk sample 505-5. These specimens were removed prior to milling and therefore not included in the concentrate grade estimate.*

10 Drilling

Drilling on the Engineer Gold Mine Property (excluding the Wann Prospect) conducted by previous operators, prior to Blind Creek Resources consolidating the Property, is based on material from Davidson (1998), Aspinall (2007), Coates (2010) and Snowden (2011).

Blind Creek Resources conducted a drilling campaign on the Wann Prospect, 4 km south of the Engineer Gold Mine Mineral Resource, prior to consolidation with the Engineer Gold Mine Property. The Wann Prospect drilling was conducted in 2011 and consisted of 3,325.21 m in 17 diamond drill holes (Aspinall 2011).

10.1 Summary

Relatively limited drilling has been undertaken on the Engineer Gold Mine Property (Table 9). In the context of this Technical Report, only 14 holes have intersected the Double Decker and Engineer veins. Of this, there are five intersections on the Double Decker Vein and 11 on the Engineer Vein.

TABLE 9 SUMMARY OF HISTORIC DRILLING AT ENGINEER GOLD MINE PROPERTY (1980 TO 2011)

Year	Number of Holes (Metres Drilled)	Company	Comments
1980	15	Nu-Lady Gold	No significant intersections reported. Data lost.
1981	11	Nu-Lady Gold	Six holes tested northeast extension of Double Decker and Engineer veins. Three tested the Boulder Vein. No significant intersections reported. Nutcracker Vein discovered (0.76 m @ 5.9 g/t Au).
1983	6	Nu-Lady Gold	Tested Nutcracker Vein. Data lost.
1987	8 (1,178 m)	Erickson Gold	Seven holes tested Shear Zone A & B. One hole intersected Double Decker and Engineer veins below 7 Level.
2008	7 (1,846 m)	BCGold Corp	Tested Shear Zone A.
2010	13 (1,218 m)	BCGold Corp	Underground drilling tested Double Decker and Engineer veins.
2011	17 (3,325 m)	Blind Creek Resources	Drill testing the Wann showings within a 180m x 800m corridor.

10.2 1980 to 1983 Nu-Lady Programs

In 1980, Nu-Lady Gold Mines Ltd conducted a 15-diamond drill hole program. No significant intersections were reported, and this data is not available.

In 1981, a further 11 holes were drilled. Six holes tested for strike extensions to the Double Decker and Engineer veins to the north, and three holes were drilled near the Boulder Vein - all with no significant results. A final hole, 81-11 tested an arsenic-in-soil geochemical anomaly and returned 0.76 m at 5.9 g/t Au (Nutcracker Vein).

There are no drill logs or assay certificates for the Nu-Lady drilling programs. Drilling results are derived from 1980-1982 Assessment Reports and hand-drawn drill plan maps. No report for the 1983 program exists. Some drill core from these programs exists but is in poor condition and located near the Hub B headframe.

10.3 1987 Erickson Program

The 1987 drilling program by Erickson Gold Mining Corporation is well documented in Assessment Report #17253 by Smit, 1988. The report includes detailed drill logs, collar coordinates, and assay certificates. The drilling data has been transcribed into a digital database.

The 1987 diamond drilling program consisted of 1,178 m in eight holes. Numerous quartz veins were intersected, some with elevated gold values. Two holes targeting Shear Zone A intersected up to 29 m of mixed quartz vein and silicified and brecciated argillite, with low gold values throughout (average 0.25 g/t Au). Five holes targeted soil geochemical anomalies along Shear Zone B, and two of these returned values around 6 g/t Au within larger sections of quartz veining, breccia and silicified argillite (Smit, 1988).

Drill core from the Erickson drilling is stored in racks with the BCGold drill core. The core racks are near the 1 Level Adit and the remnants of the original stamp mill.

Drill hole 87-106 is the only Erickson drill hole to target the Engineer and Double Decker veins. Drilled toward the southeast, it intersected the Double Decker Vein at the 635 m elevation about half way between the workings on the 5 and 8 levels. The vein occurred immediately below (down-hole) of a dyke and contained dyke fragments in the top 0.7 m. The total cored distance of 1.6 m (0.55 m true width) returned 0.12 g/t Au and 1.7 g/t Ag. The core axis angles were flatter (20° vs. 40°) and the intersection deeper (90 m vs. 75 m) than predicted; so, either the vein plots about 10 m further into the hangingwall than projected (giving a wobble to the dip) or the hole was actually drilled steeper. The interval consists of two quartz-carbonate breccia veins (~40 cm and 20 cm each) containing intense carbonate-sericite±disseminated pyrite, altered argillite fragments (30%) and occasional fine-grained grey bands (potentially tetrahedrite-arsenopyrite-stibnite?) with quartz stringers. The Engineer Vein was not present in this hole. It was expected at an elevation of 510 m, 85 m below the bottom of the main shaft on 8 Level. If the hole was steeper than planned, it may not have been drilled far enough to intersect the Engineer Vein.

TABLE 10 ERICKSON DRILLING - COLLAR COORDINATES (UTM NAD83 ZONE 8N)

Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Length (m)
87-101	543,322.4	6,594,009.0	773.7	295	-55	291.4
87-102	543,394.0	6,594,067.5	802.0	250	-55	319.7
87-103	543,482.4	6,594,276.2	817.5	293	-42	209.7
87-104	543,482.4	6,594,276.2	817.5	295	-59	99.7
87-105	543,368.3	6,594,528.2	797.2	104	-44	142.0
87-106	542,920.3	6,593,962.9	704.1	102	-48	331.3
87-107	543,254.4	6,594,565.3	773.4	103	-44	196.9
87-108	543,411.3	6,594,191.3	803.6	296	-49	187.8

10.4 2008 BCGold Program

In 2008, 7 diamond drill holes were drilled from surface for 1,846 m targeting hydrothermal breccia within a 400 m strike length of Shear Zone A in the vicinity of the mine workings. Table 11 lists the drill hole collar coordinates. Figure 43 displays the drill hole traces with respect to Shear Zone A, the known veins, and the 5 Level underground working projected to surface. The Engineer Gold Mine Crown Grants are also displayed in yellow.

TABLE 11 2008 BCGOLD DRILLING - COLLAR COORDINATES (UTM NAD83 ZONE 8N)

Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Length (m)
BCGE-08-01	543,109.8	6,594,468.2	754.9	219.5	-53.5	373.4
BCGE-08-02	542,876.8	6,594,304.8	738.8	39.5	-51	362.7
BCGE-08-03	543,095	6,594,371	746.6	235	-51	241.1
BCGE-08-04	542,865	6,594,355	737	30	-60	237.4
BCGE-08-05	543,011	6,594,197	769	42	-58	353.3
BCGE-08-06	543,180	6,594,140	760	310	-50	27.4
BCGE-08-07	543,180	6,594,140	760	310	-55	250.4

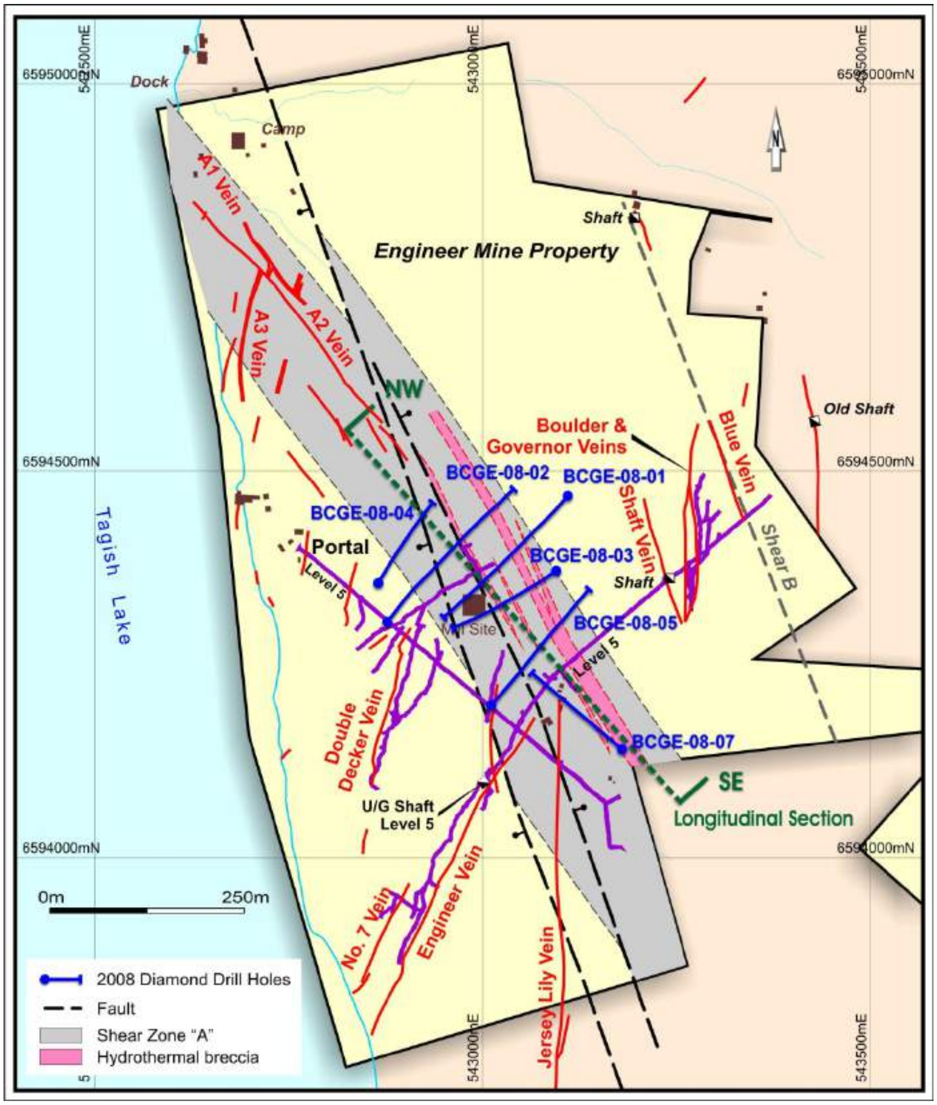


FIGURE 43 2008 DRILL PLAN WITH SHEAR ZONE A, VEINS, AND UNDERGROUND WORKINGS

The objective of the 2008 program was to drill test Shear Zone A in the proximity of the mine workings where historic mining records noted gold mineralization and silicification where 8 Level intersected the shear. Six holes reached target depth, and all returned anomalous gold and silver values over substantial intervals. A summary of results is reported in Table 12. The estimated true widths are approximately 70% of the reported drill core lengths.

The drill core recovery averaged 96% and rock quality (RQD) averaged 71% for the 2008 program. The QP considers the drill sampling methods and sample quality returned representative results for Shear Zone A without any sampling bias.

TABLE 12 2008 SHEAR ZONE A DRILLING - SUMMARY OF RESULTS

Hole ID	From (m)	To (m)	Core Length (m)	Au g/t
BCGE-08-01	44.4 106.6 168.2 226.0 259.4	51.0 115.1 172.6 229.4 265.0	6.6 8.5 4.4 3.4 5.6	0.30 0.23 0.28 0.46 0.56
BCGE-08-02	247.4 318.0	249.9 338.1	2.5 20.1	0.55 0.48
BCGE-08-03	40.9	45.3	4.4	0.39
BCGE-08-04	192.3	194.7	2.4	0.58
BCGE-08-05	202.6 226.5	205.7 258.5	3.1 32.0	0.64 0.44
BCGE-08-06	Hole abandoned in overburden			
BCGE-08-07	29.0	63.0	34.0	0.45

The Shear Zone A hydrothermal breccia is up to 40 m wide at the southeast extent of the drilling program. Towards the northwest, the breccia branches into several fingers with individual lenses ranging from 20 cm to 30 m in width. The hydrothermal breccia is open in both directions and to depth. See Figure 44 for a long section along Shear Zone A that displays the drill hole pierce points with significant mineralized intervals.

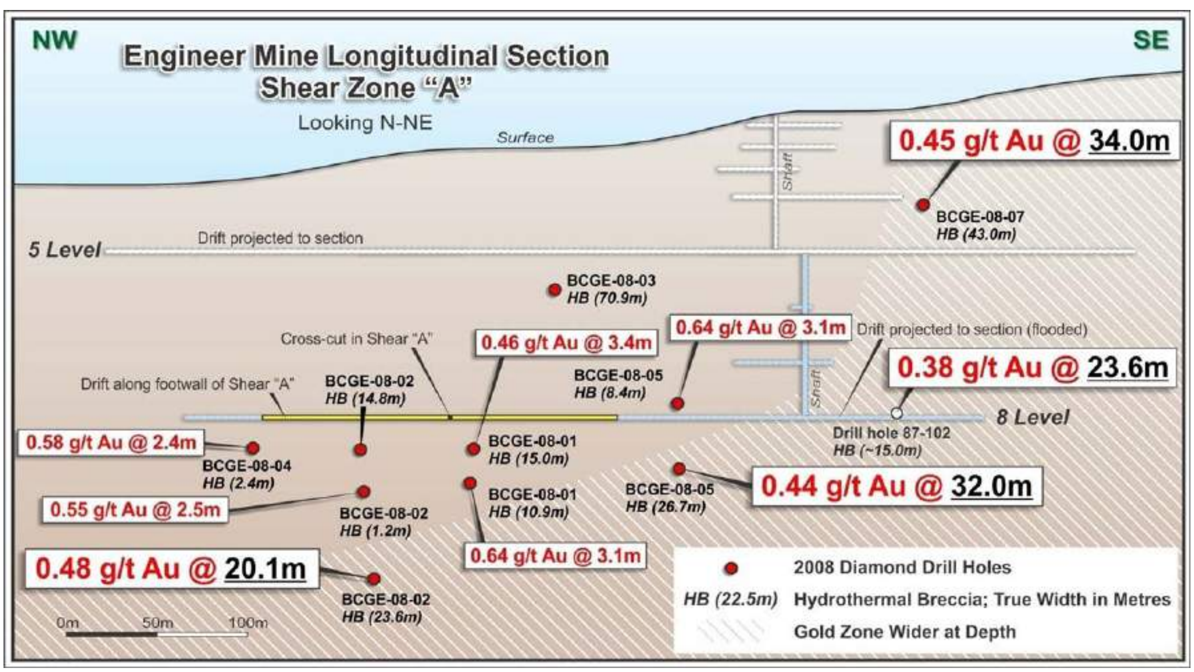


FIGURE 44 SHEAR ZONE A - LONG SECTION

10.5 2010 BCGold Program

In 2010, thirteen HQ diamond drill holes (1,218 m) were completed in two phases, from two underground drill bays located on 5 Level (Table 13 and Figure 45). From the first drill bay (the old hoist room), four holes targeted the Double Decker Vein on 8 Level in an area where 1928 reports indicated 84.3 g/t Au were drifted on. An additional three holes drilled from the same drill bay targeted the Engineer Vein at very low angles. The remaining 6 drill holes were drilled from a second drill bay located a further 30 m along the main crosscut. These holes all targeted the Engineer Vein down dip below the "Bonanza Shoot" between 5 and 7 levels where previous sampling had indicated high grades.

The overall drill core recovery and rock quality are considered good for the 2010 program.

TABLE 13 2010 BCGOLD DRILLING - COLLAR COORDINATES (UTM NAD83 ZONE 8N)

Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Length (m)
BCGE-10-01	543,004.2	6,594,085.4	684	280	-40	188.9
BCGE-10-02	543,004.2	6,594,085.4	684.2	280	-30.5	158.1
BCGE-10-03	543,004.2	6,594,085.4	684.4	279	-25.5	162.9
BCGE-10-04	543,005.5	6,594,082.8	684.4	233	-25.1	64.9
BCGE-10-05	543,009.4	6,594,089.0	684.4	20	-25.1	64.9
BCGE-10-06	543,009.4	6,594,088.7	684.7	23.5	-9	92.4
BCGE-10-07	543,004.2	6,594,144.2	684.2	296.5	-30	160.8
BCGE-10-08	543,066.6	6,594,144.2	684.4	270	-21	36.3
BCGE-10-09	543,066.6	6,594,144.2	684	270	-53	75.3
BCGE-10-10	543,066.6	6,594,144.6	684.2	280	-33	56.1
BCGE-10-11	543,066.6	6,594,143.8	684.4	264	-27	42.4
BCGE-10-12	543,066.6	6,594,144.2	684.3	272	-35	49.9
BCGE-10-13	543,066.6	6,594,144.2	684.2	272	-46	65.2

* Collar coordinates originally surveyed in local grid and translated to UTM.

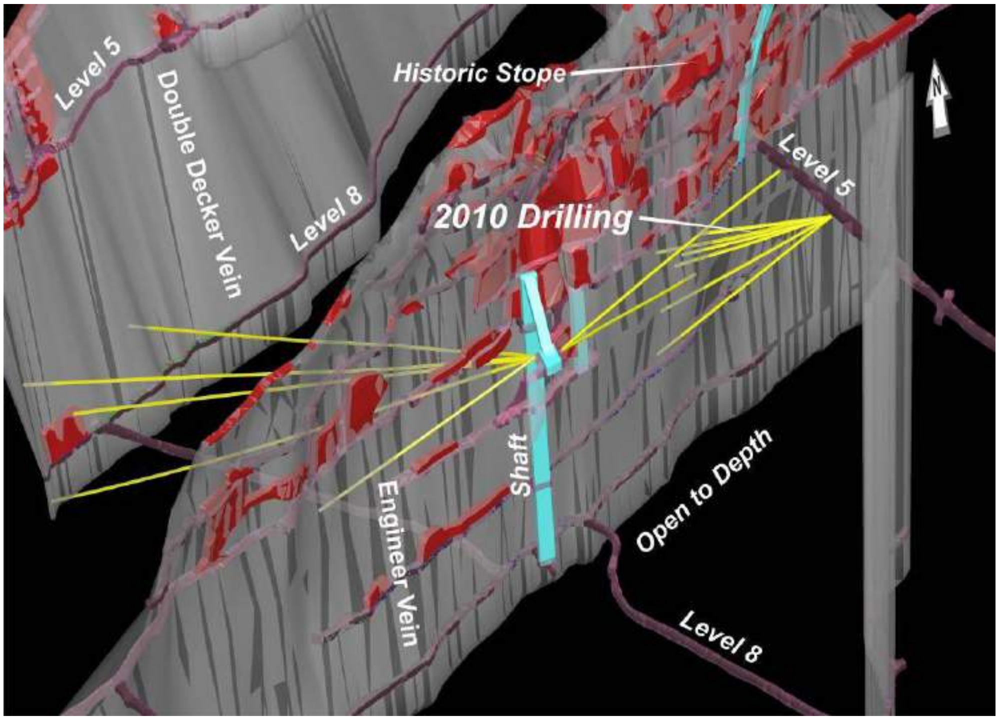


FIGURE 45 2010 UNDERGROUND DRILLING

Hoist Room Drill Bay (Phase 1)

Drill holes BCGE-10-01 to -03, and -07 were collared from a drill bay in the old hoist room on 5 Level. The holes were drilled to the west-northwest and were designed to pierce the Engineer Vein near 5 Level, and the Double Decker Vein near 8 Level.

Holes BCGE-10-01 to -03 were not successful in intersecting the Engineer Vein and intersected a lamprophyre dyke. Geologic mapping of the 5 Level drift and hoist room revealed that the Engineer Vein is cut by the dyke at a shallow, oblique orientation. Hole BCGE-10-07 was adjusted to avoid the vein-dyke intersection and successfully intersected the Engineer Vein which returned 1.0 g/t Au over 0.45 metres.

Three of the four holes successfully intersected the Double Decker Vein at depth. The exception was hole BCGE-10-02 which pierced mine workings above 8 Level where the Double Decker Vein was mined in the 1920s. The best intersection came from BCGE-10-01 which intersected Double Decker below 8 Level and returned 22.3 g/t Au over 0.80 m (Figure 46).

Due to the proximity of the Hoist Room to the Engineer Vein, drill holes BCGE-10-04, -05 and -06 were drilled at azimuths with a low angle to the strike of the vein. Due to the azimuths, the holes were not designed to test Double Decker Vein at depth.

TABLE 14 2010 DOUBLE DECKER VEIN DRILL RESULTS

Hole ID	Core Length (m)	Au g/t	Comments
BCGE-10-01	0.96	22.3	
BCGE-10-02	-	-	Pierced open stope 10 m above 8 Level where vein mined in 1920s
BCGE-10-03	0.95	0.34	
BCGE-10-07	0.45	1.01	

* True width is estimated to be 70-80% of core length

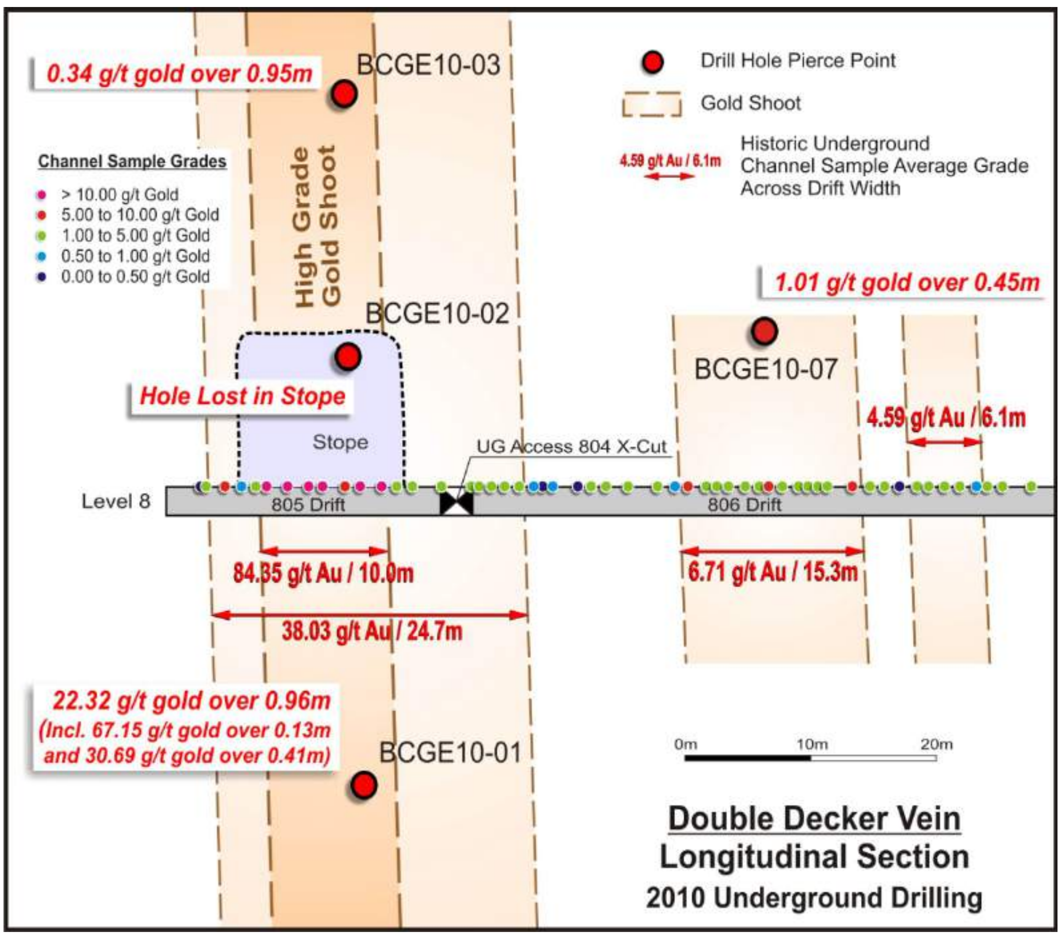


FIGURE 46 DOUBLE DECKER VEIN - LONG SECTION

Cross-Cut Drill Bay (Phase 2)

Due to the complications of intersecting the Engineer Vein from the Hoist Room, a new drill bay was created in the main cross-cut in the footwall of the vein. Drill holes BCGE-10-08 to -13 were all successful in intersecting the Engineer Vein and the most significant intercept was from hole BCGE-10-11 which returned 129.0 g/t Au over 0.60 m (Figure 47).

The Cross-Cut drill holes were not drilled deep enough to intersect the Double Decker Vein.

A summary of the 2010 drilling program can be found in Table 14 and Table 15.

Drill core from 2008 and 2010 is stored in core racks near the 1 Level Adit and the remnants of the original stamp mill.

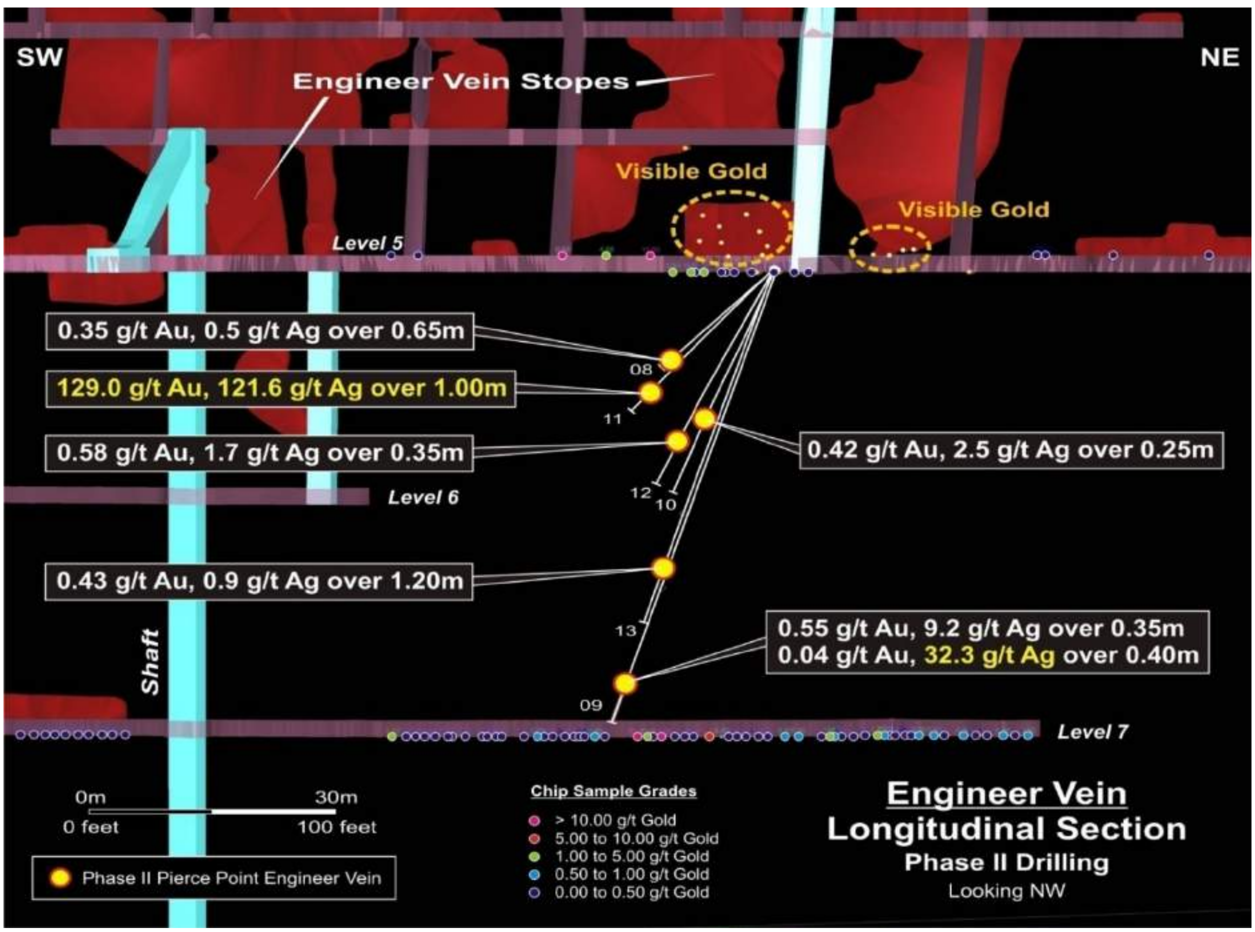


FIGURE 47 ENGINEER VEIN - LONG SECTION

TABLE 15 2010 BCGOLD DRILLING – ENGINEER VEIN RESULTS

Hole ID	Core Length (m)	Au g/t	Comments
BCGE-10-01	-	-	Intersected dyke
BCGE-10-02	-	-	Intersected dyke
BCGE-10-03	0.19	1.2	Vein partially cut by dyke
BCGE-10-04	0.28	0.2	
BCGE-10-05	-	-	Vein not intersected
BCGE-10-06	0.30	0.07	
BCGE-10-07	0.45	9.4	
BCGE-10-08	0.65	0.35	
BCGE-10-09	0.35	0.55	
BCGE-10-10	0.25	0.42	
BCGE-10-11	1.00	129.0	
BCGE-10-12	0.35	0.58	
BCGE-10-13	1.20	0.43	

* True width is estimated to be 50-70% of core length

10.6 2011 Wann Prospect Program

Information regarding the 2011 Wann Prospect drilling program was sourced from Aspinall 2011; a report which was filed for assessment with the BC Ministry of Mines.

Blind Creek Resources conducted a drilling campaign on the Wann Prospect, 4km south of the Engineer Gold Mine Mineral Resource, prior to consolidation with the Engineer Gold Mine Property. The Wann Prospect drilling was conducted in 2011 and consisted of 3,325.21 m in 17 diamond drill holes (Aspinall 2011) (see Table 16).

The 2-stage drilling program focused on a 180 m by 800 m corridor that trends NW-SE and lies proximal to the Llewellyn Fault. The 17 drill holes were completed from five different drill pads. Dip angles ranged from 50 to 90 degrees. The drill core was NTW size (56 mm) and sawn in half for assay analysis.

TABLE 16 2011 WANN PROSPECT DRILLING - COLLAR COORDINATES (UTM NAD83 ZONE 8N)

Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Length (m)
WR2-1-11	542,572	6,589,939	675	030	-60	222.81
WR2-2-11	542,572	6,589,939	675	030	-70	97.54
WR2-3-11	542,572	6,589,939	675	210	-60	131.37
WR2-4-11	542,572	6,589,939	675	210	-80	173.74
WR1-1-11	542,481	6,590,060	673	070	-50	193.55
WR1-2-11	542,481	6,590,060	673	0	-90	185.9
WR1-3-11	542,481	6,590,060	673	250	-70	270.85
WR1-4-11	542,481	6,590,060	673	250	-50	231.65
WR1-5-11	542,481	6,590,060	673	70	-70	222.2
WR3-1-11	542,411	6,590,034	673	0	-90	272.8
WR3-2-11	542,411	6,590,034	673	70	-50	234.7
WR3-3-11	542,411	6,590,034	673	70	-70	323.08
WR3-4-11	542,411	6,590,034	673	250	-70	216.41
WR4-1-11	542,363	6,590,285	670	0	-90	185.9
WR4-2-11	542,363	6,590,285	670	250	-50	190.5
WR4-3-11	542,363	6,590,285	670	70	-70	62.48
WR5-1-11	542,449	6,590,235	660	250	-70	109.73
					TOTAL:	***3325.21***

Anomalous gold and silver mineralization was returned from quartz rich veins. Significant gold assays are reported below in Table 17. Drill core intervals are reported as the true vein widths are unknown.

TABLE 17 2011 WANN PROSPECT DRILLING – SIGNIFICANT ASSAY RESULTS

Hole ID	From (m)	To (m)	Interval (m)	Au g/t
WR2-1-11	33.85	35.0	1.15	1.20
WR2-2-11	33.0	34.0	1.0	2.34
WR2-3-11	73.0	74.0	1.0	1.20
	147.0	148.0	1.0	3.47
WR1-4-11	31.0	33.0	2.0	2.65
	71.0	72.0	1.0	4.45
WR3-2-11	45.0	46.0	1.0	2.29
	78.0	79.0	1.0	11.30
	112.0	113.0	1.0	2.50
WR3-3-11	118.0	119.0	1.0	3.21
	127.0	129.0	2.0	2.92
WR4-1-11	151.0	152.0	1.0	11.30

11 Sample Preparation, Analysis and Security

11.1 Pre 2007

Prior to 1987, no detail exists as to exact sampling methods. All underground samples dating back to 1914 were presumably collected by chipping of faces and backs. Grab samples were also noted from muck piles and trucks.

Pre-1987, no details exist as to sample preparation protocols or sample security. Historical reports note the use of fire assay. A mine site assay laboratory is assumed to have been used when the mine was in operation pre-1930.

During the 1987 field season by Erickson Gold Mining Corp., NQ core was split in half and submitted to Min-En Laboratories of North Vancouver, BC. Samples were analyzed for gold by fire assay or atomic absorption (AA), and a 31 multi-element inductively coupled plasma (ICP). A total of 434 core samples were analyzed. There were no quality control samples inserted into the sample stream and no other sample preparation occurred at the Project site prior to shipping to the laboratory. Original assay certificates are included as an appendix in the report (Smit, 1988).

All drill core was logged on paper and all core is well preserved on site in core racks. Logs are available as part of the Smit (1988) report. A Sperry Sun was used for down-hole surveys. Drill hole collars were surveyed and tied into UTM coordinates. Drilling was contracted to Connors Drilling of Kamloops, BC.

The 1987 drilling program appears to have been conducted in accordance to industry practices at the time.

11.2 Post-2007

During the 2007 season, rock samples were collected from both surface and underground. These were principally chip or grab samples (Aspinall, 2007). Underground samples on 5 Level were chipped across the vein using a hammer and chisel. Grab samples were collected from rock piles and mineralized chutes. All sample locations were noted on a map based on measurement from a cross-cut location. Samples were given a pre-assigned sample number tag and placed in a plastic bag. Sample sites were spray painted onto drive walls (Aspinall, 2007).

During the 2007 program, analysis for gold was done by Atomic Absorption and any sample returning a value above 1000 ppb Au, or 30 ppm Ag was re-analyzed using a 30 g fire assay. No external quality control program was conducted, but the Echo Tech Laboratories, an independent commercial lab of Kamloops, BC reported their internal QAQC on the original assay certificates which is appended to the report (Aspinall, 2007).

2008 and 2010 Drilling Programs

For the 2008 and 2010 drill programs all samples were fire assayed for gold using the following procedure. A 30 g sample is fire assayed using a premixed flux containing 66% litharge, 24% sodium carbonate, 2.7% borax and 7.3% silica. Flux weight per fusion is 150 g. The resultant doré bead is parted and then digested with nitric acid followed by hydrochloric acid solutions and then analysed on an atomic absorption instrument. Gold detection limit was 0.03 g/t Au to 100 g/t Au.

In addition to the gold fire assays, in the 2010 program, any samples containing greater than 3 g/t Au were also submitted for screen fire assay. Rock samples were crushed to P70 -2 mm, split to achieve a 1,000 g sub sample (or less if the original sample size precluded it). The sample was pulverised to P95 -100 µm. The entire sample was weighed, then rolled and homogenised and screened through a 100 µm screen. The resulting -100 µm fraction was homogenised and two sub-sample portions are fire assayed. All of the resulting +100 µm material was fire assayed. The resultant fire assay beads were digested with nitric acid followed by hydrochloric acid and then analysed with an atomic absorption spectrometer. A 0.03 g/t Au detection limit was given.

In addition to the gold assays, all samples in the 2007, 2008 and 2010 programs were analysed by ICP-MS multi-acid digestion. In this procedure a 0.5 g sample was digested with nitric acid, hydrofluoric and perchloric acids. The sample is then taken to dryness and subsequently re-dissolved in an acid solution, which contained beryllium (Be acts as an internal standard) and then bulked with de-ionised water. Samples were analysed by ICP-MS.

No aspect of sample preparation was conducted at site. Samples were delivered directly to the Whitehorse prep facility of Eco-Tech by an independent expeditor. BCGold utilized chain of custody documentation to track the samples. Sample preparation and assaying were conducted by Eco-Tech Laboratories of Kamloops, BC, a certified assayer with ISO 9001:2000 certification and an independent commercial laboratory. The sample preparation, security and assay procedures were appropriate for the programs.

2011 Bulk Sampling

The bulk sampling and test milling component of the 2011 exploration program entailed mining 350 t of composite bulk sample material from underground workings and an additional 50 t from surface trenching. Approximately 246 t of this material was processed on-site using the gravity separation mill and yielded 969.2 kg of sulphide concentrate as three separate products.

The on-site gravity separation mill was utilized to back-calculate the mining grade for the large tonnage bulk samples, incorporating the dilution normally associated with mining. For each of the six composite bulk samples, the contained amount of gold reporting to concentrate was estimated using gravimetric fire assays and/or metallics screen assays. Mill feed, table middlings, and tails samples were collected for gravimetric fire assay at 30 minute intervals to estimate the contained amount of gold reporting to concentrate and to tailings, and therefore mill recovery. The mining grade of the bulk samples was calculated by dividing the total contained amount of gold (in grams) by the tonnes milled.

A total of 151 milling samples and 969 kg of concentrate were shipped from the Engineer Gold Mine Property to Inspectorate Exploration and Mining Services prep lab facility in Whitehorse, Yukon using an independent expeditor. Security tags were utilized and chain of custody documentation was used to track the samples. Inspectorate shipped the samples to their laboratory in Richmond, British Columbia, an ISO 9001:2008 certified laboratory for further processing and analysis. Table 18 lists sample preparation and assaying procedures utilized by the Inspectorate assay laboratory.

TABLE 18 PREPARATION AND ASSAYING PROCEDURES FOR BULK SAMPLE MATERIAL

Sample Name	Sample Description	On-Site Prep	Inspectorate Lab Prep and Assay Procedures
Ball Mill Feed	< ½" Crushed Rock; 1 kg cut across conveyor belt ever 30 minutes; Composited every 4 hours.	Dry; Riffle Split; 1/4 assay, 3/4 metallurgy	(SP-RX-2K) Sample Prep
			(Au-1AT-AA) FA AA Finish
			(Au-Met-1000) Metallic Screen FA
Ball Mill Slurry	< 1/4" Milled Rock; 1 litre Marcy Scale density sample every 30 minutes. Composited every 4 hours.	Dry;	Dry; Screen 30 mesh
			+30 mesh; (SP-PC-500) Sample Prep
			(Au-1AT-AA) FA AA Finish
			-30 mesh; (SP-PC-500) Sample Prep
			(Au-1AT-AA) FA AA Finish
			(Au-Met-1000) Metallic Screen FA
Tailings	<30 mesh; 1 litre sample every 30 minutes. Composited every 4 hours.	Dry;	(SP-PC-500) Sample Prep
			(Au-1AT-AA) FA AA Finish
			(Au-Met-1000) Metallic Screen FA
Middlings	<30 mesh; 1 litre sample every 30 minutes. Composited every 4 hours.	Dry;	(SP-PC-500) Sample Prep
			(Au-1AT-AA) FA AA Finish
			(Au-Met-1000) Metallic Screen FA
Concentrate	<30 mesh; Finish Table product	Dry; Riffle Split; 1.1 kg assay	(SP-PC-500) Sample Prep
			(AuAg-1AT-GV) FA Gravimetric Finish
			(Au-Met-1000) Metallic Screen FA
			(50-4A-UT) Multi-element analysis

After processing and assay analysis by Inspectorate, 806 kg of table concentrate was sold to SiPi Metals Corp, a precious metals refinery located in Chicago, Illinois. Shipping was managed by the metallurgical division of Inspectorate. SiPi determined the concentrate contained a total of 2,177.5 grams (70.0 oz) of gold, of which 2,112.2 grams (67.9 oz) were recoverable and payable.

No employees or officers handled the samples or concentrate after leaving the Engineer Gold Mine Property. Sampling, analysis and security are deemed acceptable for the bulk sampling program.

2012 Panel Sampling of 6 and 7 Levels

Geologists collected 190 panel samples along the length of the Engineer Vein on 6 and 7 levels. Samples were submitted to Inspectorate Exploration and Mining Services of Richmond, British Columbia, an ISO 9001:2008 certified laboratory independent of the issuer. Samples were analyzed for gold, silver and other elements using a combination of metallic screen assaying (method Au-MET1000-AA), high-grade silver (method Ag-4A-OR), and ultra trace 50 element inductively coupled plasma (ICPMS) analysis (method 50-4A-UT).

No employees or officers handled the samples after leaving the Engineer Gold Mine property. Sampling, analysis and security are deemed acceptable for the bulk sampling program.

11.3 2011 Wann Prospect Drilling (Blind Creek Resources)

For the 2011 Wann Prospect drilling program, almost all core was cut using diamond saws, with half being placed back into the core box for future reference. Core samples were placed in polyethylene bags, closed with zap-straps, and then up to five samples were inserted into large rice bags for shipment. The Project Geologist kept custody of the samples until they were delivered to the Alex Stewart Eco Tech sample preparation laboratory in Whitehorse, Yukon. After rejects and pulps were prepared, they were stored by the geologist in Atlin until financing was secured via an Initial Public Offering (IPO).

Sample pulps were returned to the Whitehorse preparation facility in July 2011. They were then shipped to the Eco Tech Laboratory in Kamloops, BC for assay analysis, a certified assayer with ISO 9001 certification. Sample preparation consisted of crushing the core sample in a jaw crusher to -10 mesh ensuring 70% passes through the mesh screen. Every 35^{th} sample a re-split is taken using a riffle splitter to test homogeneity of the crushed material. A 250 g sub sample of the crushed material is pulverized on a ring mill ensuring that 95% passes through a -150 mesh screen.

Multi-element analysis utilized ICP-AES aqua regia digestion. A 0.5 g sample is digested with a 3:1:2 ($HCL:HNO_3:H_20$) solution at 95°C. The sample is analyzed on a Thermo IRIS Intrepid II XSP ICP unit. The lab uses certified reference material to monitor performance of the analysis. Repeat samples (every batch of 10) and re-splits (every batch of 35) are also run to ensure proper weighing and digestion occurred. Any silver or base metal element (Ag, Cu, Pb, Zn) that returned over limit values were re-run using an high-grade assay analysis.

Samples were fire assayed for gold and analyzed using an atomic absorption finish using the following procedure. The sample is fire assayed using a premixed flux containing 66% litharge, 24% sodium carbonate, 2.7% borax and 7.3% silica. Flux weight per fusion is 150 g. The resultant doré bead is parted and then digested with nitric acid followed by hydrochloric acid solutions and then analysed on an atomic absorption instrument. Gold detection limit was 5 ppb to 1000 ppb. Over limit samples were re-assayed using a gravimetric finish.

The sample preparation, security and assay procedures were appropriate for a preliminary stage drilling program. For future drilling programs, certified quality control standards should be inserted into the sample stream prior to shipping samples to the prep laboratory. Sample security should also be improved by sealing rice bags with security tags. To minimize the chance of tampering, sample pulps should remain with the laboratory until assay analysis has been completed.

12 Data Verification

12.1 Pre-2007

Prior to 1987, written reports contain tables and maps of assay data. No assay certificates are available. The QP was thus unable to verify the data, but has no reason to doubt that they exist.

Copies of all assay certificates for the 1987 program are appended to the Smit (1988) report. The QP was unable to view original 1987 assay certificates, but has no reason to doubt assay quality.

12.2 2007-2010 BCGold Corp.

Copies of all assay certificates for the 2007 program are appended to the Aspinall (2007) report. The QP was able to review all original assay certificates and has no reason to question the data.

Copies of all assay certificates for the 2008 and 2010 programs are available in the Blind Creek Resources office. The QP was able to review all original assay certificates and has no reason to question the data.

For the 2010 program, external QC consisted of the insertion of certified reference materials (23), blanks (10) and quarter core field duplicates (8) into the sample shipment stream for a total of 41 additional QAQC samples. This results in 23% of all samples submitted being quality control samples. The QP reviewed the QAQC report provided by Lustig (2011). The following summary is based on that report.

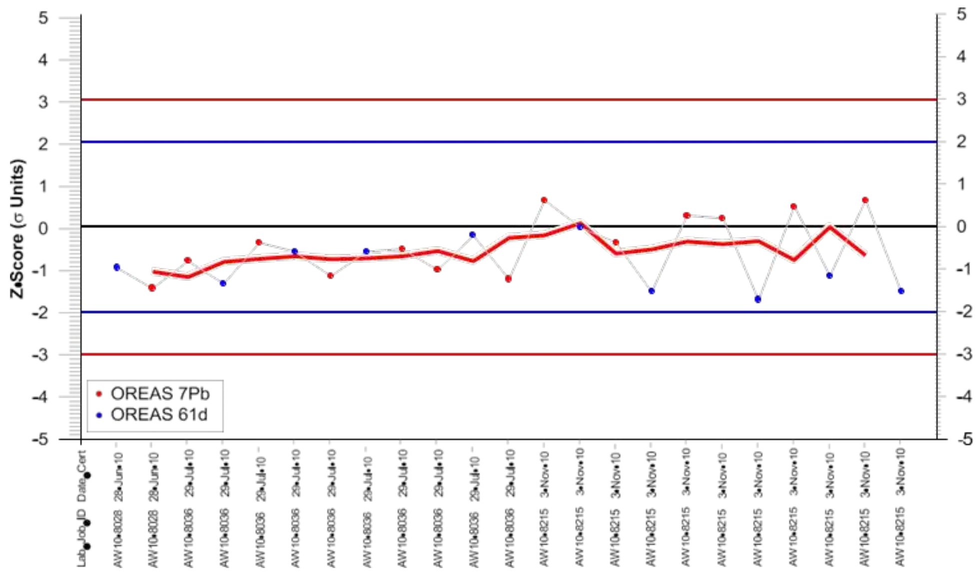
To monitor accuracy, two certified reference materials (standards) were inserted into the sample stream (Table 19). The standards were prepared by Ore Research & Exploration Pty Limited of Australia.

TABLE 19 CERTIFIED STANDARD USED IN 2010 DRILLING PROGRAM

Standard	Gold		Silver	
	Recommended value (g/t Au)	Standard deviation (g/t Au)	Recommended value (g/t Ag)	Standard deviation (g/t Ag)
OREAS 7Pb	2.77	0.053	-	-
OREAS 61d	4.76	0.14	9.27	0.48

The overall results of gold analyses of both standards are shown graphically (Figure 48) with a plot of the z-score. The z-score is essentially in standard deviation units above and below the mean and is useful to view the overall performance of all of the standards. All results are within ±2σ within an overall decreasing low bias.

FIGURE 48 Z-SCORE CHART OF ALL GOLD STANDARDS (LUSTIG 2011)



The individual control chart for standard OREAS 7Pb indicates an overall low bias (Figure 49) with an increase in the bias at the end of the program. Gold analyses of standard OREAS 61d have a slight low bias in the early batches (Figure 50), with the later batches showing a slight high bias. The round robin analyses of both standards indicated on the right side of the chart indicate that most laboratories were either biased low or high, but few actually straddled the recommended value. In this context, the bias observed in the Engineer Gold Mine analyses are within an acceptable range.

FIGURE 49 CONTROL CHART FOR STANDARD OREAS 7PB GOLD ANALYSIS (LUSTIG 2011)

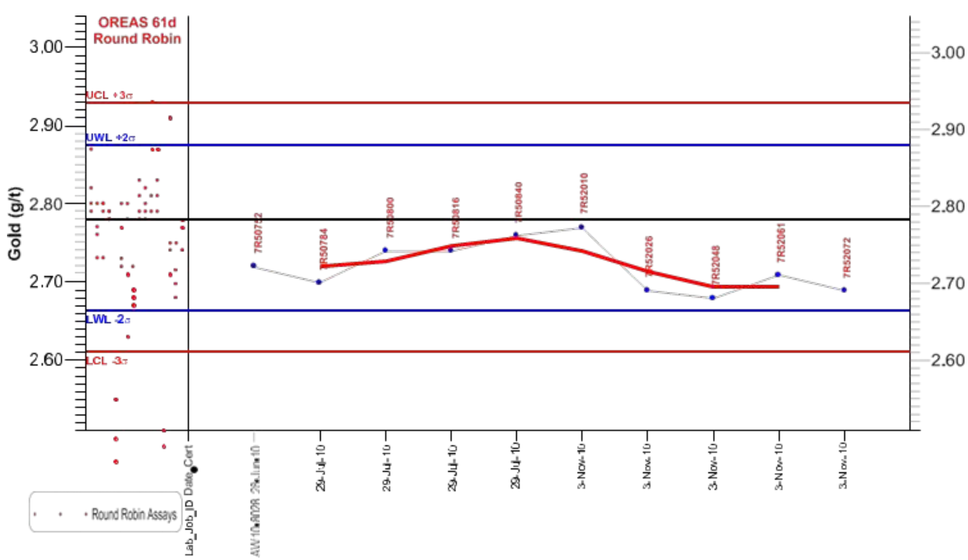
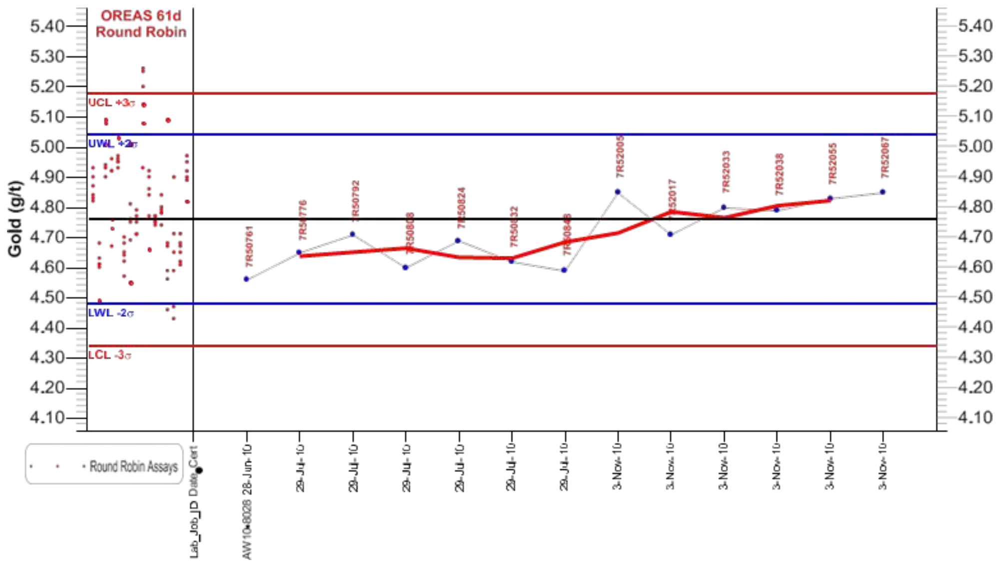
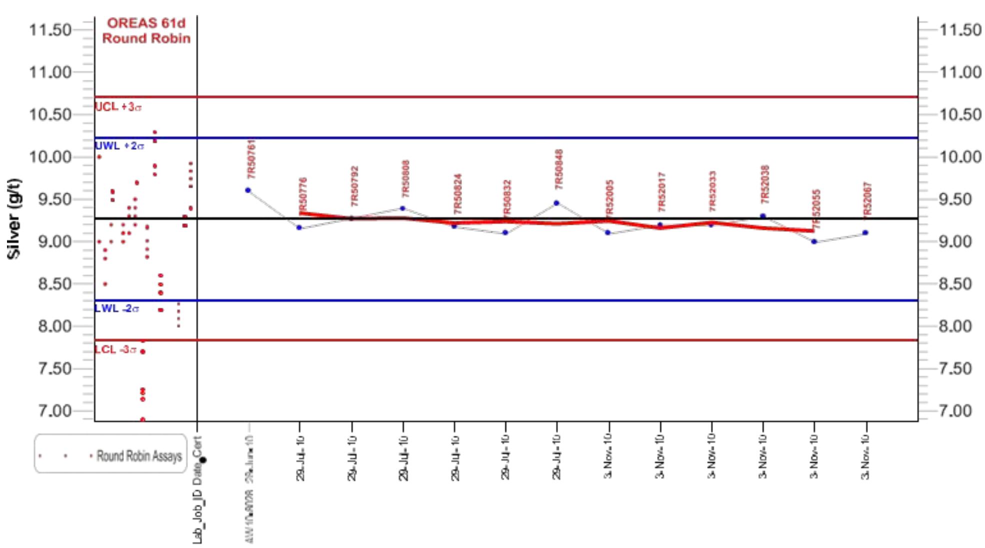


FIGURE 50 CONTROL CHART FOR STANDARD OREAS 61D GOLD ANALYSES (LUSTIG 2011)



As OREAS 61d is also certified for silver, a silver control chart was prepared which indicates all analyses to be very near the recommended value (Figure 51).

FIGURE 51 CONTROL CHART FOR STANDARD OREAS 61D SILVER ANALYSIS (LUSTIG 2011)

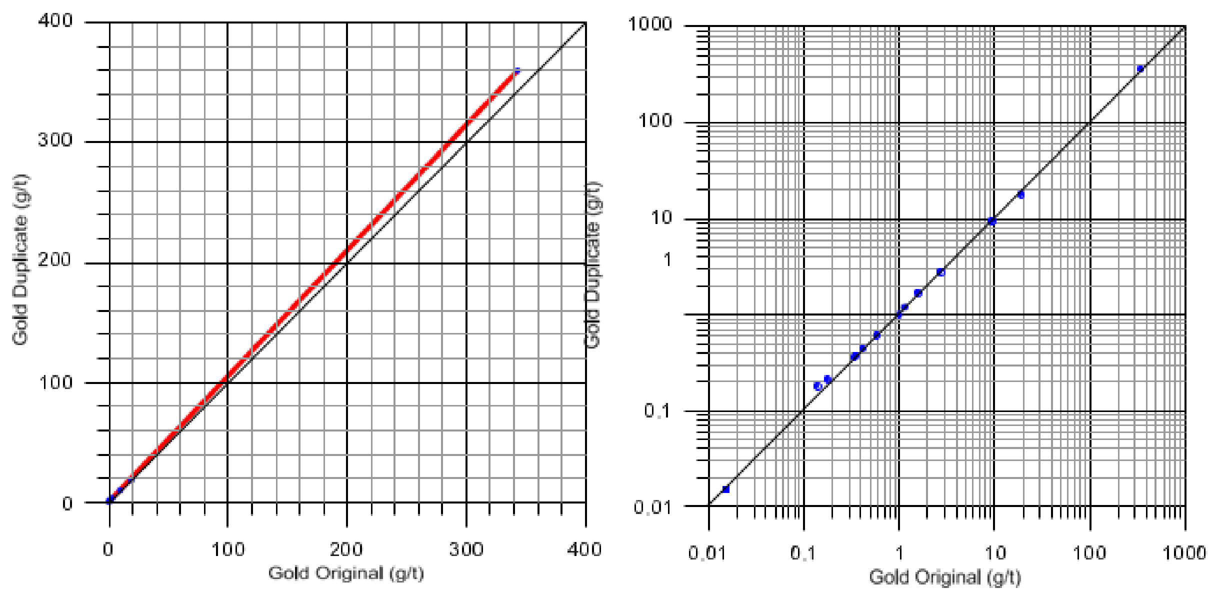


As a measure of precision, eight quarter core duplicate samples were submitted for analyses. In addition to this, Eco-Tech analysed seven duplicates split after coarse crushing and 28 same pulp duplicates.

A large proportion of all of the duplicates returned gold values of less that the detection limit of 0.03 g/t Au; 6 of 8 field duplicates; 6 of 7 preparation duplicates and 12 of 28 pulp duplicates. The few sample pairs above the detection limit indicate that precision of the analyses is acceptable. However, given the small number of above detection they cannot be taken as being representative. A set of high-grade duplicates is required for rigorous evaluation.

The 16 pulp duplicates show a good correlation (Figure 52).

FIGURE 52 SCATTERPLOT OF ALL PULP DUPLICATE SAMPLES: ECO-TECH INTERNAL QC PROGRAM (LUSTIG 2011)



Coarse blank material was submitted as a check on possible contamination during the sample preparation and analytical stages. All samples returned analyses of less than the detection limit for gold.

For the 2007 and 2010 assay data, the QP reviewed all the quality control results and relogged much of the historic drill core during his employment. The QP believes that the results are of an appropriate quality and has no reason to question their validity.

12.3 2011 Blind Creek Resources.

The QP conducted a Wann Prospect site inspection in October 2017. Sulphide mineralization and quartz veining was observed in surface trenches where gold values were reported from rock grab samples and targeted with the drilling program. The QP observed and recorded the UTM coordinates for the drill collar locations. Drill core is stored in racks in Atlin and was inspected for sampling and mineralization. Sample tags could be observed in the drill core boxes that match sample numbers recorded in the drill logs. Assay certificates were available and inspected.

For the 2011 drilling program, the QP did not collect any samples for assay analysis, but believes the data is adequate quality and has no reason to question the validity of the results.

12.4 2011-2012 BCGold Corp.

For the 2011 and 2012 exploration programs of bulk sampling, underground panel sampling, surface trenching, prospecting and soil geochemistry, the QP managed and was directly involved in all aspects of sampling and assay analysis.

Quality control for these programs was actively monitored as such:

- Field duplicates were collected during soil geochemistry programs.
- Blanks and certified standards were inserted in the sample stream for the underground and surface sampling programs.
- Composite and table concentrate samples produced by the gravity separation mill during the bulk sampling program were analyzed by referee laboratories after initial results were received from the primary lab (Inspectorate). Assaying protocols were designed by professional metallurgists working for Inspectorate Labs and Gekko Labs.

The QP believes the results of the above programs were adequate for testing the exploration potential of the Engineer Gold Mine and the data generated was adequate to be used in a mineral resource estimate.

13 Mineral Processing and Metallurgical Testing

On-site mill refurbishment was completed and milling of bulk sample material commenced in September 2011. Approximately 246 t of the bulk sample material was milled. The average feed rate to the ball mill averaged 1.4 t per hour. Mill availability averaged 7.1 hours per day with a substantial amount of time required to flush out the circuit between bulk samples. The ball mill slurry was screened to -30 mesh before pumping to triple deck Deister tables where approximately 2% of the rock mass was concentrated and sent to a finishing table. At the finishing table the concentrate was further refined, producing approximately 800 kg of sulphide-rich concentrate with gold reporting to it. Milling was completed on October 1st.

Sampling was conducted at all stages of the crushing, grinding, Deister table, and tailings circuits to determine mining head grade as well as milling performance. Bulk sample table concentrate was submitted for assay analysis, mineralogical and metallurgical test work. The Engineer Gold Mine mill flow-sheet and the various sampling points are illustrated in Figure 53.

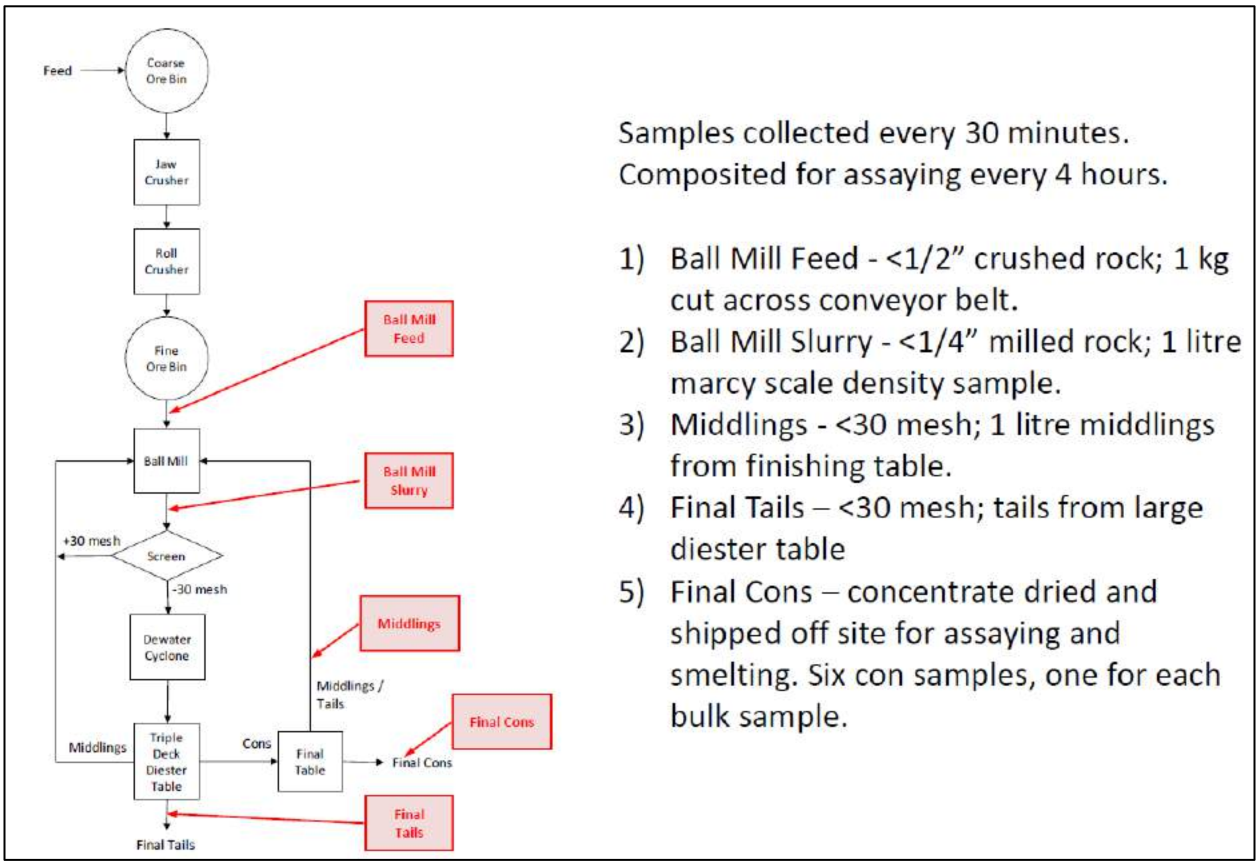


FIGURE 53 ENGINEER MILL - CURRENT FLOW-SHEET AND SAMPLING POINTS

Table concentrate was shipped to Inspectorate Labs for drying, weighing, assaying, and determining multi-element composition. Inspectorate completed limited gold recovery test-work using gravity separation and flotation methods. Inspectorate also created representative sub-samples to ship to Gekko Systems for further metallurgy test-work, and handled the shipment and sale of the concentrate to metals refiner SiPi Metals Corp.

From the approximately 800 kg of concentrate shipped, SiPi determined the concentrate contained a total of 2,177.5 g (70.0 ozs) of gold, of which 2,112.2 g (67.9 ozs) were recoverable and payable.

13.1 Inspectorate Lab: Analysis of Table Concentrate and from 2011 Bulk Sampling / Test-Milling Program

Inspectorate Exploration and Mining Services Ltd. (Richmond, BC) was retained. to perform metallurgical testing on samples collected from the Engineer Gold Mine Property during the 2011 bulk sampling and onsite milling program. The objective of this program was to accurately weigh, sample and analyse a number of production products from the mine site operation. Testing included the following:

- Receiving, weighing and sample drying,
- Mixing, riffling and splitting for analysis
- Assaying
- Gravity separation of one high sulphide product

Three sets of samples were received, dried, mixed, composited and assayed for Au. Table 20 summarizes the results of all samples.

TABLE 20 TABLE CONCENTRATE COMPOSITES FROM 2011 MILLING PROGRAM

	Composite	As Rec'd Wet Weight (kg)	Dry Weight (kg)	Assay g/t Au	Contained Au grams	Contained Au oz
Sample Set 1	DD	19.1	15.50	379.3	5.9	0.189
	2	177.7	167.46	204.7	34.3	1.102
	3A	181.3	172.34	1,324.1	228.2	7.337
	3B	182.5	173.54	6,485.8	1,125.5	36.191
	5	239.6	228.08	1,382.2	315.3	10.137
	6	61.3	58.74	621.2	36.5	1.173
	Totals	**861.5**	**815.66**		**1,745.6**	**56.130**
	Composite	As Rec'd Wet Weight (kg)	Dry Weight (kg)	Assay g/t Au	Contained Au grams	Contained Au oz
Sample Set 2	SB-DD	10.6	7.6	109.6	0.8	0.027
	SB-505-2	35.1	26.1	143.8	3.8	0.121
	SB-505-3A	29.6	22.6	699.7	15.8	0.508
	SB-505-3B	51.9	40.3	1,091.5	44.0	1.414
	SB-505-5	57.3	44.2	322.3	14.2	0.458
	SB-505-6	10.2	7.6	406.9	3.1	0.099
	Totals	**194.7**	**148.4**		**81.7**	**2.628**
		As Rec'd Dry Weight (gr)	Dry Weight (grams)	Assay g/t Au	Contained Au grams	Contained Au oz
Sample Set 3	**Total**	**5,100.0**	**5,100.0**	**58,451.0**	**298.1**	**9.585**

<u>Sample Set #1</u>

Sample Set #1 consisting of 34 pails of damp 10 mesh material was delivered by a BCGold representative to Inspectorate's facility at 113C Platinum Road, Whitehorse, Yukon, then trans-shipped by Canadian Freightways to Inspectorate Exploration & Mining Services Ltd. facilities at 11620 Horseshoe Way, Richmond, BC. The shipment was received in Richmond on October 19, 2011.

The dried material was composited into six composites representing the six bulk samples mined at site. Composites 2, 3A, 3B, 5 and 6 represent the Engineer Vein mined from 5 Level. Composite DD is Double Decker Vein mined from a surface trench.

The composites were weighed, riffle-mixed and samples split out using a continuous rotary splitter. The split samples from each composite included:

a) 1 only 4 kg (approximately) for shipment
b) 3 only 0.5 kg (approximately) for future use
c) 1 only 0.5 kg (approximately) for assay

Split (a) from each composite was shipped to Gekko Systems, 1538 Rand Avenue, Vancouver, for further recovery testwork utilizing gravity and intensive leach amenability (see Section 13.3).

Split (b) packages were returned to the composite containers for future use, including shipping to various smelters to initiate a sale process.

Split (c) was assayed as follows:

a) Au by 1AT fire assay with gravimetric finish
b) ICP 30 element, 4 acid trace level

Sample Set #1 was the bulk table concentrate product created at the Finishing Deister table. The process indicated that a saleable sulphide concentrate can be created from Engineer Vein material using gravity concentration methods. SiPi smelters did not penalize the concentrate during the sale process due to any deleterious elements.

<u>Sample Set #2</u>

Sample Set #2 consisting of 9 pails of wet 18 mesh material was delivered by a BCGold representative to Inspectorate's facility at 113C Platinum Road, Whitehorse, Yukon, then trans-shipped by Canadian Freightways to Inspectorate Exploration & Mining Services Ltd. Facilities at 11620 Horseshoe Way, Richmond, BC. The shipment was received in Richmond on October 28, 2011.

Sample Set 2 was received, weighed and assembled for drying in a secure facility. The dried material was composited into six composites representing the six bulk samples mined at site. The composites were weighed, riffle-mixed and a sample split out using a continuous rotary splitter. The 0.5 kg (approximately) split sample from each composite was assayed as follows:

- Au by metallic screen assay in which approximately 500 g of sample was pulverized and screened on 150 mesh (106 microns). The +150 mesh fraction was assayed to extinction and a split of the -150 mesh fraction assayed. Both fractions were assayed by fire assay with gravimetric finish. The overall Au assay was calculated on a weighted basis.

Sample Set #2 was collected from a sluice tray that was inserted between the ball mill and the screen deck. The sluice tray was set up to capture any coarse gold that could possibly exist and be rejected by the screen deck. The idea was to capture coarse gold prior to being pumped back to the ball mill for re-grind.

Several unsuccessful attempts were made to concentrate the gold using panning and tabling techniques. After which, the sluice tray material was shipped for assay analysis. Although there were significant gold values obtained from the sluice tray material, assaying indicated that the sluice was not capturing any additional gold that would not have been captured in the table concentrate.

The sluice sample SB-505-3B was added to the table concentrate to be sold to SiPi smelter.

Sample Set #3

Sample Set #3 was recovered from the finishing shaker table at the Engineer Mill while processing bulk sample 505-3B. A 2 to 5 cm wide sulphide stream with visible gold was identified and collected by milling personnel at site.

A set of 5 Nalgene jars were delivered to Inspectorate's offices in person by Darren O'Brien, VP Exploration on November 15, 2011. The samples appeared to be very high in sulphide content with a total weight of 5,100 grams.

The sample jars were combined into one composite by Inspectorate personnel and processed on a shaking table to produce a concentrate, middlings product and tailings. The concentrate was further upgraded to a pan concentrate and pan tails. Lab personnel did not identify any visible gold during the gravity test, so all products were recombined and assayed in duplicate for Au by fire assay with gravimetric finish.

The sample was sold to SiPi smelter along with the bulk table concentrate.

13.2 Inspectorate Lab: Potential for Gold Recovery from Tailings Product

Inspectorate Exploration and Mining Services Ltd. (Richmond, BC) was contracted in September 2012 to conduct a series of metallurgical tests to study the potential for gold recovery from the tailings product of the existing gravity recovery circuit at site. The study was designed to test whether the gold lost to tailings is fine grained and free, or locked and associated with other minerals.

Tailings products for the study were used from the 2011 bulk sampling / test-milling program. The tailings product from the onsite mill was still fairly coarse with a grind size of -30 mesh (600 microns). Two separate composites were prepared:

1. Lower Grade (LG) Composite using bulk samples #2, #5 and #6.
2. Higher Grade (HG) Composite using bulk sample #3B.

Head assays for the two composited tailings products can be found in Table 21.

TABLE 21 HEAD ASSAYS FOR TWO COMPOSITED TAILINGS PRODUCTS

Element		Unit	Composite Analyses LG	HG
Gold	Au	g/t	1.33	12.30
Iron	Fe	%	2.64	2.69
Sulphur	S(t)	%	0.63	0.58

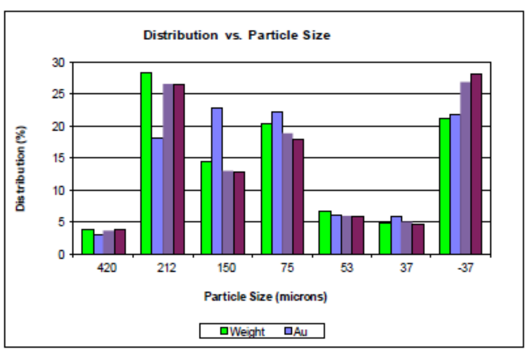
Size-By-Assays Analysis

Size by assay analysis of the tailing products was studied to determine the actual loss distribution. The size-by-assay data indicates that the high-grade composite contains about 80% of the gold in the >75 micron size range, whereas the low-grade has a slightly finer distribution with about 66% of the gold in the >75 micron range. Therefore, better gravity recoverability is expected from the high-grade sample.

Detailed size-by-assay results for the two tailings composites can be found in Table 22 and Table 23.

TABLE 22 SIZE-BY-ASSAYS ANALYSIS (LG TAILINGS COMPOSITE)

Size Fraction		Weight			Assay			Distribution		
Mesh	µm	(g)	Individual % Retained	Cumulative % Passing	Au g/t	Stot %	Fe %	Au %	Stot %	Fe %
35	420	17.9	4.0	96.0	0.80	0.54	2.77	3.0	3.7	3.8
65	212	127.6	28.3	67.7	0.69	0.54	2.70	18.2	26.6	26.5
100	150	64.9	14.4	53.3	1.71	0.52	2.57	22.9	13.0	12.8
200	75	92.3	20.5	32.8	1.17	0.53	2.54	22.3	18.9	18.0
270	53	30.0	6.7	26.2	0.98	0.52	2.54	6.1	6.0	5.9
400	37	22.3	4.9	21.2	1.28	0.57	2.72	5.9	4.9	4.7
-400	-37	95.6	21.2	-	1.10	0.73	3.83	21.7	26.9	28.2
Total calculated		450.7	100.0		1.08	0.58	2.88	100.0	100.0	100.0
Measured					1.33	0.62	2.66			



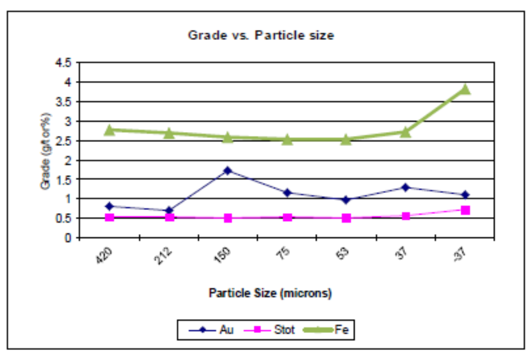
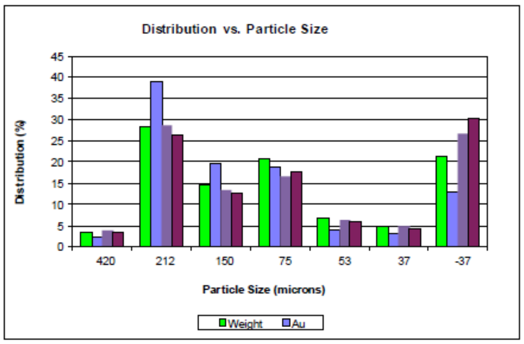
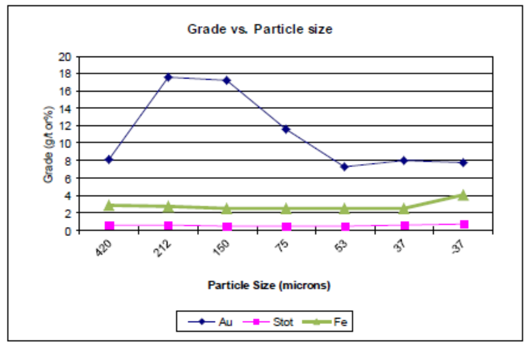


TABLE 23 SIZE-BY-ASSAYS ANALYSIS (HG TAILINGS COMPOSITE)

Size Fraction		Weight			Assay			Distribution		
Mesh	µm	(g)	Individual % Retained	Cumulative % Passing	Au g/t	Stot %	Fe %	Au %	Stot %	Fe %
35	420	12.1	3.4	96.6	8.16	0.61	2.86	2.2	3.7	3.4
65	212	99.1	28.2	68.4	17.53	0.58	2.71	39.1	28.6	26.3
100	150	51.0	14.5	53.8	17.20	0.53	2.51	19.7	13.4	12.5
200	75	72.8	20.7	33.1	11.55	0.46	2.48	18.9	16.6	17.7
270	53	23.7	6.7	26.4	7.24	0.53	2.51	3.8	6.2	5.8
400	37	17.5	5.0	21.4	7.99	0.56	2.48	3.1	4.9	4.2
-400	-37	75.4	21.4	-	7.72	0.71	4.08	13.1	26.6	30.1
	Total calculated	**351.6**	**100.0**		**12.65**	**0.57**	**2.91**	**100.0**	**100.0**	**100.0**
	Measured				12.30	0.58	2.69			





Two-pass Knelson Gravity Concentration on LG Tailings Composite (without re-grind)

Centrifugal gravity separation was tested as a possible method to improve the performance on the LG tailing product as received from the triple shaking table circuit at site. Results showed (Table 24) that the LG sample has a relatively low amenability to centrifugal gravity concentration. 23.7% of the gold can be recovered in a mass representing 4.0% of the total mass; or 38.8% of the gold can be recovered in a mass representing 8.4% of the total mass.

TABLE 24 KNELSON GRAVITY CONCENTRATION ON LG TAILING COMPOSITE

Products	Weight		Assay (g/t)	Distribution (%)
	(g)	(%)	Au	Au
Pan Concentrate 1	1.74	0.1	81.02	7.4
Pan Tails 1	78.41	3.9	3.95	16.3
KC Concentrate 1	**80.15**	**4.0**	**5.62**	**23.7**
Pan Concentrate 2	0.88	0.0	105.63	4.9
Pan Tails 2	85.40	4.3	2.28	10.2
KC Concentrate 2	**86.28**	**4.3**	**3.34**	**15.1**
Total KC Concentrate	**166.43**	**8.4**	**4.44**	**38.8**
Final Tails	1819.70	91.6	0.64	61.2
Calculated Head	**1986.13**	**100.0**	**0.96**	**100.0**
Measured Head			1.33	

Kinetic Flotation Testwork on LG Tailings Composite

Rougher kinetics flotation tests were completed on the LG tailings composite at three different grind sizes (P_{80}= 75 microns, 150 microns, and unground 239 microns). Results showed flotation kinetics and grade-recovery curves are very similar for each grind size, indicating that there is no real benefit in grinding to a finer particle size.

Cleaner flotation tests were then carried out on the LG tailings composite at P_{80} 150 microns and unground (P_{80} 239 microns). The results show that (1) Au grade and recovery were higher in the test done without re-grinding, and (2) further cleaner stages would be required to upgrade the concentrate to a saleable grade, but would result in lower overall recovery (Table 25).

TABLE 25 CLEANER FLOTATION RESULTS ON LG TAILINGS COMPOSITE (NO RE-GRIND)

Product	Weight		Assay			Distribution		
			Au	Fe	S	Au	Fe	S
	g	%	g/t	%	%	%	%	%
1st Cl. Conc.	**18.2**	**0.9**	**105.3**	**17.73**	**13.40**	**86.5**	**5.4**	**21.5**
1st Cl. Tailing	57.9	3.0	2.3	6.77	2.58	6.0	6.6	13.2
Rougher Concentrate	**76.1**	**3.9**	**26.9**	**9.39**	**5.17**	**92.5**	**12.0**	**34.6**
Final Tailing	1856.0	96.1	0.1	2.82	0.40	7.5	88.0	65.4
Calculated Head	**1932.1**	**100.0**	**1.1**	**3.08**	**0.59**	**100.0**	**100.0**	**100.0**
Measured Head			1.3	2.66	0.62			

It was decided not to pursue a combined gravity-flotation test on the LG tailings composite as the gold distribution is such that gravity and flotation methods can recover gold in the same size fractions, and any minimal gains in gold recovery would come at the expense of a lower combined grade.

Gravity-Flotation Testwork on HG Tailings Composite

A combined gravity and rougher concentrate recovery of 82.7% was achieved from the HG tailings composite within a mass of 7.4%. The HG tailings composite were not reground and were tested as received from the onsite mill. Results also showed that a combination of pan concentrate and 1st cleaner stage flotation concentrate would yield a concentrate grade of 616 g/t Au in a 0.9% mass, but at a combined Au recovery of 57.4% (Table 26).

TABLE 26 GRAVITY-FLOTATION TESTWORK ON HG TAILINGS COMPOSITES (NO RE-GRIND)

Product	Weight		Unit	Assay	Distribution
			Au	Au	Au
	g	%		g/t	%
Gravity					
Pan Concentrate	2.4	0.1	132.8	1081.6	13.7
Pan Tails	67.0	3.5	198.8	57.3	20.6
Gravity Concentrate	**69.4**	**3.6**	**331.5**	**92.3**	**34.3**
Flotation					
1st Cl. Conc.	**15.0**	**0.8**	**422.4**	**545.4**	**43.7**
1st Cl. Tailing	58.9	3.1	44.8	14.7	4.6
Rougher Concentrate	**73.9**	**3.8**	**467.1**	**122.1**	**48.3**
Gravity + Ro. Flotation	**143.2**	**7.4**	**798.7**	**107.7**	**82.7**
Final Tailing	1787.4	92.6	167.6	1.8	17.3
Calculated Head	**1930.6**	**100.0**	**966.2**	**9.7**	**100.0**
Measured Head				12.3	

Inspectorate noted that further cleaner stages would be required to upgrade the concentrate to a saleable grade, but would result in lower overall recovery. They also suggested it may be worth exploring a rougher-cleaner flotation test (no gravity) on the HG sample to evaluate recovery using only this method.

Inspectorate recommended the following future testwork:

- Rougher-Cleaner flotation testing on the HG plant tails sample (without centrifugal gravity concentration);
- 2nd and 3rd cleaner stage testing to increase concentrate Au grade;
- Size-by-assay analysis of the rougher and cleaner flotation tails to determine the gold loss distribution among the size fractions.
- Mineralogical study on ground samples to study liberation characteristics and mineral associations.

13.3 Gekko Systems

Gekko Systems Limited of Ballarat, Australia was contracted to conduct bench-scale gravity and leach amenability testwork on mill feed and table concentrate provided from the Engineer Mill. The samples included a 63 kg run-of-mine (“ROM”) sample and a 4 kg table concentrate sample, which represent the 505-3 Shoot of the Engineer Vein.

The initial testwork was designed to indicate the potential of gravity to concentrate the gold in the ROM sample provided by continuous gravity recovery, and to assess its suitability for gravity treatment via Gekko’s InLine Pressure Jig. Intensive leaching of the resultant gravity concentrate tested the leach amenability via the InLine Leach Reactor at the crush sizes investigated.

A secondary testwork program of intensive leaching of the Engineer table feed concentrate was conducted to indicate the amenability and potential for additional gold recovery of the current tabling method via the InLine Leach Reactor.

Initial results were promising but there were indications that the material was not sufficiently liberated to maximize gold and silver recovery. In that program in was found that 71.4% of the gold and 67.8% of the silver could be recovered into 9.67% of the mass. However, analysis of the tails showed that much of the gold and silver remained unliberated at 600 microns.

Highlights of Gekko's initial results included:

- A calculated ROM head grade of 54.9 g/t gold and 40.6 g/t silver.
- High gold and silver recoveries of 71.4% and 67.8%, respectively, using only gravity concentration methods, produced a concentrate grading 379.2 g/t Au and 260.5 g/t Ag.
- Gold and silver recoveries from concentrate of 98% and 90%, respectively, by intensive leaching after 24 hours.
- Engineer mill table concentrate returned 6,738 g/t Au and 2,878 g/t Ag.

Gekko's bench-scale laboratory test-work validated BCGold's previous report for bulk sample 505- 3B of a calculated head grade of 44.6 g/t Au and table concentrate grade of 6,485.8 g/t Au, using the on-site gravity separation mill at Engineer Gold Mine (disclosed in press release dated February 27, 2012).

Gekko recommended to re-grind and re-table the concentrates and tails. In the final testwork program, the concentrates were reground to P_{80} of 106 microns and then underwent a single pass tabling test.

The results showed that the concentrates could be upgraded to recover 87.8% of the gold into 16.0% of the mass. This led to an overall recovery of 61.3% of the gold into 1.55% of the mass. Figure 54 below shows the overall gravity recovery results.

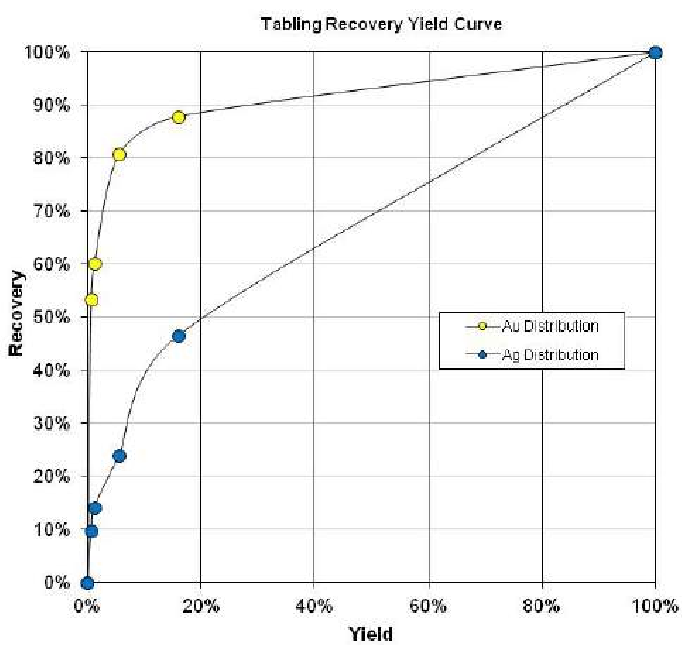


FIGURE 54 GEKKO TESTWORK - OVERALL GRAVITY RECOVERY

Analysis of the tails showed that 73.6% of the gold and 84.2% of the silver that was not recovered after regrinding was finer than 75 µm which is too fine to be recovered by gravity devices. Further 60% of the unrecovered silver was finer than 38 µm.

Gekko concluded from the testwork that Engineer material would respond very positively to using an InLine Pressure Jig (IPJ) as a pre-concentration device to initially recover 71.4% of the gold into 9.67% of the mass. The pre-concentrate could then be ground down to a P_{80} of 106 µm and fed into an InLine Spinner (ISP) to further reduce the mass and achieve an overall recovery of 61.3% of the gold into 1.55% of the mass, or 56.3% gold recovery into 0.54% of the mass.

Gekko recommended further mineralogy analysis on the -75 µm fraction after re-grinding, to understand the characterisation for increased liberation and recovery of gold and silver at finer particle sizes.

Although further study is required to improve metallurgical recovery at finer particle sizes, Figure 55 shows two possible modifications to the current Engineer mill flow sheet that could improve gold recovery. Proposed Flow Sheet #1 incorporates the existing triple deck Deister tables. Proposed Flow Sheet #2 is streamlined as such:

1) Jaw and cone crusher
2) Ball mill (mill to 600 micron)
3) InLine Pressure Jig (recover 71.4% of gold into 9.67% mass; >90% mass to tails)
4) Secondary ball mill (mill to 106 micron)
5) InLine Spinner (recover 61.3% of gold into 1.55% mass; remaining >8% mass to tails)
6) Final concentrate

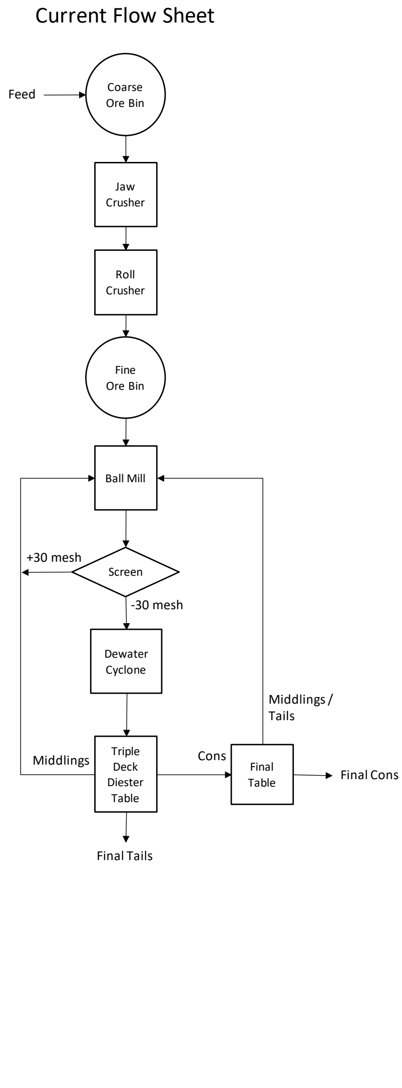


FIGURE 55 GEKKO PROPOSED FLOW-SHEETS FOR MILL MODIFICATIONS

The final leach solution compositions were determined by ICP analysis with a summary of deleterious elements provided in Table 27. Of these elements, the most notable are arsenic and antimony in the final leach solutions of the table feed sample.

TABLE 27 FINAL LEACH SOLUTION ICP RESULTS (DELETERIOUS ELEMENTS)

Element	LBCG (01)	LBCG (02)	LBCG (03)	LBCG (04)
Al	7.2	7.5	5.1	5.8
As	373	505	8.7	4.4
Cu	1.6	4.6	9.9	8.6
Fe	407	571	167	130
Mn	14.9	14.4	3	2.5
Pb	9.4	0.3	1.5	2.6
S	1025	960	209	173
Sb	31.1	24.1	0.9	<0.4
Zn	5.3	2.9	2.8	2.3

** Al, Fe, S reported in parts-per-million (ppm). As, Cu, Mn, Pb, Sb, Zn reported in parts-per-billion (ppb)*

14 Mineral Resource Estimates

14.1 Summary

The November 2017 Mineral Resource estimate for the Engineer Gold Mine is reported in Table 28. This estimate only includes the Double Decker and Engineer veins. This is a restatement of the historic Mineral Resource which was released April 2011 for the Engineer Gold Mine. The location of the resource blocks are shown in Figure 56 and Figure 57. All resources are classified in the Inferred Mineral Resource category. It is assumed that should production ever commence; the veins would be extracted by standard air-leg based narrow vein methods. Grades are diluted to a 1 m mining width.

Table 28 reports the Mineral Resource based on a nominal cut-off of 5 g/t Au where the resource margin is defined by historical payability (see Section 14.4).

Table 28 November 2017 Mineral Resource Estimate at a Nominal 5 g/t Au cut-off

Category	Vein	Tonnage (t)	Average Grade (Au g/t)	Contained Gold (oz)
Inferred	Engineer	30,800	20.6	20,400
Inferred	Double Decker	10,100	13.1	4,200
Total:		**41,000**	**19**	**25,000**

Notes: Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There has been insufficient exploration to define these Inferred Mineral Resources as an Indicated or Measured Mineral Resource, as there are insufficient close spaced drill hole data to adequately define grade and geological continuity for this structurally complex deposit. It is uncertain if further exploration will result in upgrading the Inferred Mineral Resource to an Indicated or Measured Mineral Resource category.

Total tonnes have been rounded to the nearest 500 t and oz to the nearest 100 oz and this may have resulted in minor discrepancies. The global grade is rounded to the nearest 0.5 g/t Au to indicate the accuracy of the estimate. The most likely cut-off grade for this deposit is not known and will need to be confirmed by the appropriate economic studies, but is likely to be around 7 g/t Au.

Figure 56 and Figure 57 are long-sections along the Engineer Vein and Double Decker Vein, respectively. The long-sections show the resource blocks on Shoots 1, 2 and 3 (Engineer Vein) and Shoots 1 and 2 (Double Decker Vein). The resource blocks are classified as 'Inferred'. Resources above 5 Level are predominately related remnant material, whereas those below 5 Level are relatively undeveloped. Access to the Engineer Vein can be achieved with the internal shaft and drift on 6, 7 and 8 Levels. Access to the Double Decker Vein can be achieved with the internal shaft and a cross-cut drift on 8 Level.

There are no Mineral Reserves defined on the Engineer Gold Mine Property.

FIGURE 56 ENGINEER VEIN LONG-SECTION SHOWING RESOURCE BLOCKS

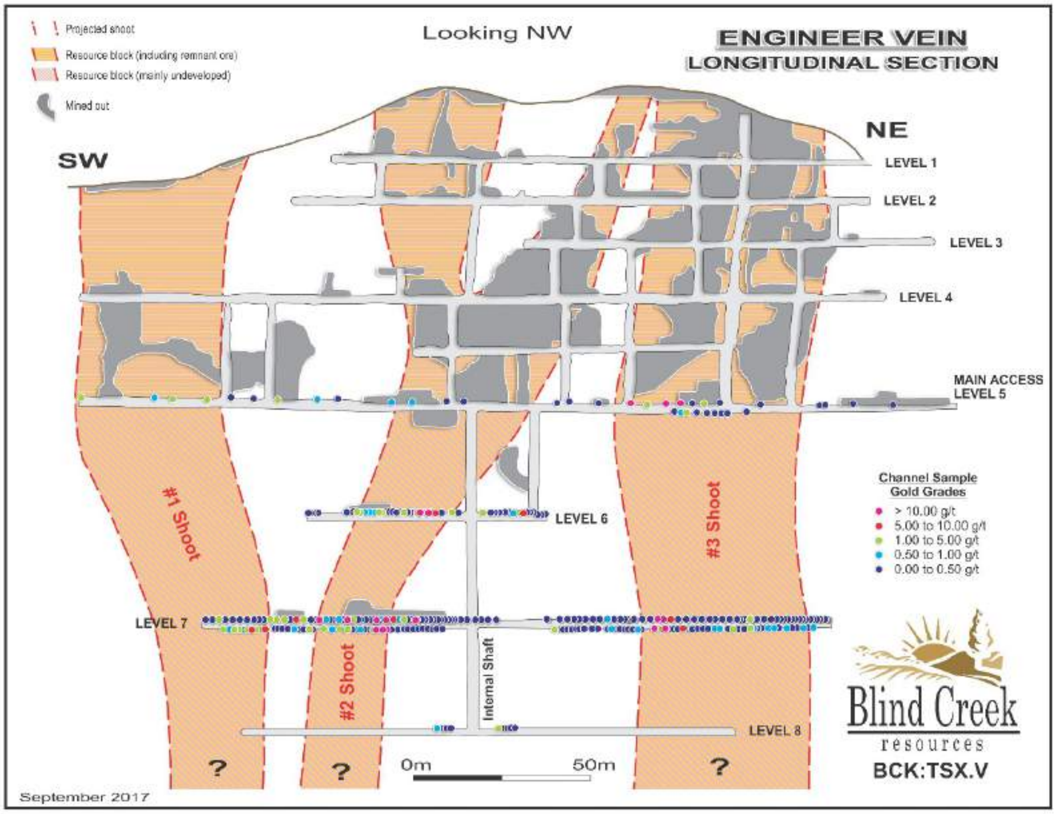


FIGURE 57 DOUBLE DECKER VEIN LONG-SECTION SHOWING RESOURCE BLOCKS

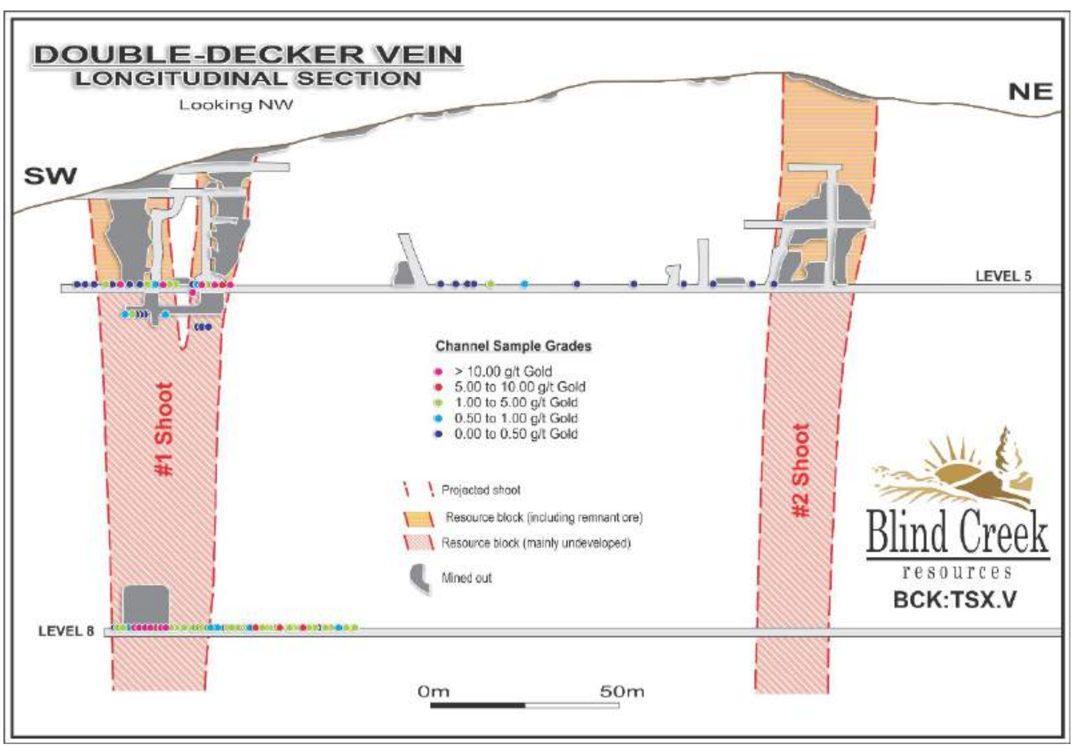


Table 29 and Table 30 report the Mineral Resource at varying cut-off grades to reflect possible extraction scenarios.

Table 29 reports the Mineral Resource based on a nominal assay limit cut-off of 0.1 g/t Au where the entire mineralized shoot is extracted. Note that with a likely operational breakeven cut-off grade of 6-8 g/t Au, the Double Decker resource is potentially marginal.

TABLE 29 NOVEMBER 2017 MINERAL RESOURCE ESTIMATE AT A NOMINAL 0.1 G/T AU CUT-OFF

Category	Vein	Tonnage (t)	Average Grade (Au g/t)	Contained Gold (oz)
Inferred	Engineer	52,600	12.6	21,300
Inferred	Double Decker	18,400	8.1	4,800
Total:		**71,000**	**11.5**	**26,300**

Table 30 reports the Mineral Resource based on a nominal cut-off of 25 g/t Au where the resource margin is defined by historical payability (see Section 14.4). It is likely that the 25 g/t Au cut-off mirrors the visible cut-off that the historical miners applied based on the appearance/disappearance of visible gold.

TABLE 30 NOVEMBER 2017 MINERAL RESOURCE ESTIMATE AT A NOMINAL 25 G/T AU CUT-OFF

Category	Vein	Tonnage (t)	Average Grade (Au g/t)	Contained Gold (oz)
Inferred	Engineer	10,400	60	20,100
Inferred	Double Decker	3,600	30	3,500
Total:		**14,000**	**52.5**	**23,600**

14.2 Disclosure

The Mineral Resource estimate reported herein was prepared by Dr Simon Dominy, formerly Executive Consultant and General Manager (UK) with Snowden. Dr Dominy is a QP as defined by NI43-101. Dr Dominy is independent of Blind Creek Resources as defined by NI43-101.

There are no Mineral Reserves estimated for the Engineer Gold Mine. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. In accordance with CIM Definition Standards, a Mineral Resource may be sub-divided in order of increasing geological confidence, into Inferred, Indicated, and Measured categories. “Measured and Indicated Mineral Resources” are that part of a Mineral Resource for which quantity and grade can be estimated with a level of confidence sufficient to allow the application of technical and economic parameters to support mine planning and evaluation of the economic viability of the deposit. An “Inferred Mineral Resource” is that part of a Mineral Resource for which quantity and grade can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity (CIM, 2005).

Dr. Dominy is unaware of any issues that materially affect the Mineral Resource in a detrimental sense. This conclusion is based on discussions with Blind Creek Resources and his former experience at the Property, where it advised that to the best of its knowledge:

- there are no known material exploration, legal, marketing, socio-economic, political, title, permitting or taxation issues;
- apart from the usual environmental aspects that require consideration as part of any mineral exploration project, there are no known material specific environmental issues; and
- there are no known material mining, metallurgical and/or infrastructure issues.

14.3 Assumptions, Methods and Parameters

Dr. Dominy has independently reviewed the available Engineer mine data and undertaken a current resource estimate based on predominantly historical data together with limited recent drilling results.

The definition of Mineral Resources based substantively on historical data is not unusual (Fraser, Bartlett and Quigley, 2003; Morrison, Storey and Towsey, 2004; Dominy, 2006; Dominy et al, 2009a; Goulios and Metheson, 2009). The study of historical records is an important tool during project evaluation, since it contributes to understanding the orebody, exploration target size and setting expectations. Mine records include documents such as plans, sections, reports, news cuttings, production tabulations, etc. A major advantage for the modern explorer is the capability of computer modelling to display this data in 3D. Historical records can give the explorer substantial information on various deposit characteristics, not least grade and geological continuity, geometry and architecture, mineralogy, metallurgical properties, bulk density and ground conditions. Effectively used, historical records can reduce geological uncertainty and focus evaluation efforts – thus reducing project risk.

Dr. Dominy has been unable to verify all of the historical data, but has in many cases viewed the relevant documents or copies thereof and has no reason to doubt their veracity. Dr Dominy has estimated zones down-dip to previously extracted areas on the Double Decker and Engineer veins.

This estimate is based on the following method and parameters:

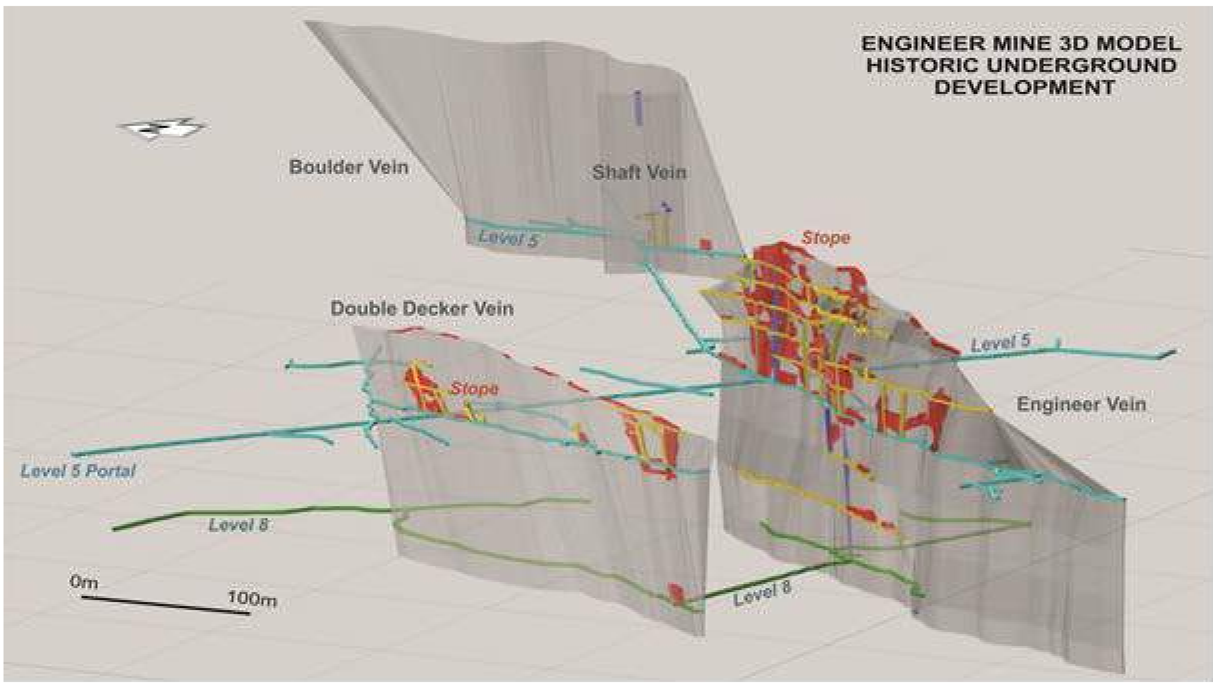
(1) VLP (long section) approach with projection of mineralized shoots down-dip and along strike based on surface exposure and/or underground development;
(2) The global grade applied to each vein structure is based on a probabilistic approach, with grades assigned to domains from historical production figures;
(3) All grades were diluted to minimum stoping width of 1 m; and
(4) A density factor of 2.8 t/m^3 was used which is believed to be conservative. No historic raw bulk density data has been identified.

Based on the maps and sections available, each vein was checked on a level-by-level basis to extrapolate between occurrences along strike and down-dip on the basis of development. It was assumed, where required, that the vein extended no more than 15 m below 8 Level. It should be noted that the VLPs provided no indication of local geological continuity, though with the support of stoped out areas provided a reasonable indication of gross geological continuity.

Dr. Dominy used stoping records to indicate payability (see Section 14.4).

In collaboration with Dr. Dominy, 3D models were created for the Double Decker and Engineer veins using Vulcan software (Figure 58). The vein wireframes were constrained by historical mining records and recent drilling. The Vulcan solids were used to define the primary mineralised material volume. A bulk density factor and payability factor were applied to define tonnage. Areas of mined-out portions were subtracted where required, assuming a 1 m stope width.

FIGURE 58 VIEW OF THE ENGINEER GOLD MINE WORKINGS AND VEINS BASED ON VULCAN MODEL



The estimation method used by Dr. Dominy is effectively a polygonal estimate where a single global grade is assigned to the entire area of each block. Given this application, it is not possible to predict where the resource tonnage will occur within a given block. The estimate is global in nature.

14.4 Payability Factors

Dr. Dominy has used payability factors for this estimate based on interpretation of Historical Data. The use of a payability factor has been common practice in the estimation of gold and other vein systems, and is usually applied to the resource tonnage (e.g. Garnett, 1967; Storrar, 1981; Dominy, 2006). The payability factor provides a measure of the likely mineable resources given 'reasonable prospects for eventual economic extraction'. It effectively acts as a cut-off grade.

In most cases a single factor is applied, though in reality this should be the product of a geological continuity factor and a payability factor to give an effective payability. The continuity factor is a measure of global geological continuity within the resource blocks(s). In many cases it is effectively set at unity.

However, where there is evidence of en-echelon structures or local faulting for example, then a lesser value would be used.

The payability factor can be based upon the percentage of stoped ground versus developed ground, but it can also be based on the relative number of samples in a database above a cut-off or on averaged mined runs along a development drive above a cut-off.

The choice of factors applied is dependent upon the QP. The most appropriate one will be based on an assessment of developed ground in historical or operating workings. Alternatively, the factor may represent the proportion of a projected mineralized shoot present in a block (based on a geological model for mineralisation).

In the experience of Dr. Dominy, effective payability factors for narrow-vein gold deposits generally range between 25% and 75% depending upon cut-off grade applied and deposit type.

14.5 Assignment of Grade

14.5.1 Review of Historical Data

The assignment of grade to the Engineer Gold Mine veins is difficult due to the high nugget effect shown by gold.

Recent drilling on the Engineer Vein has confirmed geological continuity and anomalous grade values. The best hole was BCGE10-11 which intersected the Engineer Vein with a 0.6 m true width at 129 g/t Au (77 g/t Au over 1 m). Drill hole BCGE10-4 intersected a 0.28 m true width Engineer Vein at 0.2 g/t Au.

It is typical that a high-grade intersection may indicate a zone of small influence (potentially <10 m), whereas a low-grade intersection may be located within or proximal to a high-grade zone.

Jutras (2008) reviewed the potential of the Engineer Gold Mine veins and reported the historical channel sample data for each vein (Table 31)

Table 31 Summary of Historical Channel Sample Data for Vein Drive Levels (after Jutras, 2008)

Vein	Gold shoot	Level	Strike Length of Shoot (m)	No. Samples	Mean Grade (g/t Au)	Maximum Grade (g/t Au)
Engineer	#1	5	45	5	2.6	5.9
	#1	7	15	11	4.6	10.2
	#2	5	40	4	0.3	0.5
	#2	7	25	19	8.8	79.4
	#3	5	50	14	30.5	290.0
	#3	7	50	39	5.2	90.3
Double Decker	#1	5	35	20	143.9	2,138.6
	#1	8	15	20	32.8	305.8

The values show anomalous values, but bear the effect of very high grade values that skew the mean. The mean length weighted grade across all shoots (#1, #2 and #3) on the Engineer Vein is 10 g/t Au at a zero cut-off and 16 g/t Au at a 5 g/t Au cut-off. Mean grades on the Double Decker Vein are skewed by the very high grade on 5 Level.

Hamm (1914) reports the channel sampling of a 45 m length of the Engineer Vein on 2 Level. The initial 35 samples were collected from the backs, followed by stripping and re-sampling of the new exposed back. The mean grade of the first set was 113 g/t Au (diluted to 1 m) and the second set 54 g/t Au (diluted to 1 m). Hamm (*op cit*) comments that of the two batches, anomalous gold grades were found in only 7 samples in each batch. The mean grade of both batches was 87 g/t Au. This historical data shows the nature of the mineralisation where most of the gold inventory is held in a relatively small proportion of the rock.

Brinker (1927) reports channel sampling on the 8 Level of the Double Decker Vein. To the west of the cross-cut, this includes 25 m along strike at 38 g/t Au (#1 mineralized shoot), including 10 m at 84 g/t Au. Drill hole BCGE10-1 intersected the Double Decker Vein approximately 21 m below this level and graded at 22.3 g/t Au over 0.8 m true width [≈18 g/t Au over 1 m] (BCGold, 2010c). Mine reports state that the 805 raise was mined on this shoot for approximately 11 m, but ceased due to poor access. On the 5 Level, the shoot was mined in a 20 m shaft and sub-level (505 sub-level).

During 2010, limited channel sampling on the 5 Level was undertaken. These included samples on the Double Decker underhand stope (one sample) and Engineer Vein 505 drive (two samples). Results were (BCGold, 2010b):

- Double Decker – 0.5 m at 537.7 g/t Au and 298.8 g/t Ag
- Engineer – 0.5 m at 794 g/t Au and 642 g/t Ag
- Engineer – 0.5 m at 4.4 g/t Au and 3.1 g/t Ag

The advantage that Engineer Gold Mine has is that it has been an operating mine and that some production records exist. The total documented production from the Mine is 14,263 t at 39.4 g/t Au and 19.5 g/t Ag for 18,000 oz Au and 8,950 oz Ag.

Brinker (1925) reports on stoping the Engineer Vein on the 3 and 4 levels. A 405 ton sample was processed and yielded US$44 per ton (73 g/t Au). This sample underwent some hand sorting to remove waste rock – based on general experience likely to be between 15% and 20%. Brinker then went on to state that a value of US$40 per ton was "a fair indication" of head grade - approximately 66 g/t Au in the Engineer Vein. He subsequently noted that a value of US$25 per ton – approximately 42 g/t Au was appropriate for the Double Decker Vein. The mean gold price during 1925 was US$20.64 per ounce.

Variation in grade can also be seen in the compilation of historical data presented in Table 32. Grades are not strictly comparable given the different sample sizes but serve the purpose of displaying variability.

TABLE 32 COMPILATION OF TRIAL MILLING LOTS FROM VARIOUS STAGES OF ENGINEER MINE HISTORY

Date	Sample No.	Location	Type	Reference	Tonnes (t)	Recovered Grade (g/t Au)
1910	NK	NK	NK	Daughtry (1975)	127	94.8
1913	NK	NK	NK	Daughtry (1975)	272	143.8
1925	NK	505-2R	Raise	Brinker (1925)	32	244.2
1925	NK	401-1	Stope	Brinker (1925)	36	348.8
1925	NK	NK	Stope	Brinker (1925)	367	73.1
1925	NK	NK	NK	Daughtry (1975)	1,542	36.6
Aug 22, 1926	NK	3, 5 & 7L	Stope	Brinker (1926)	41.7	29.4
Aug 25, 1926	NK	3, 5 & 7L	Stope	Brinker (1926)	40.7	28.5
1927	NK	NK	NK	Brinker (1927)	1,374	16.6
1927	NK	NK	Drive	Brinker (1927)	220	15.6
1995	S2	505-1	Stope	Davidson (1998)	122	12.8
1995	S5	505-2S	Stope	Davidson (1998)	23	25.9
1995	S6	505-3	Stope	Davidson (1998)	9	18.4

** NK = Not Known*

Most of the mineralization in Table 32 is believed to be from the Engineer Vein. The total tonnage is 4,206 t at a weighted mean grade of 44 g/t Au. Note that the level of dilution in each lot is unknown and that hand sorting to upgrade the mill feed was common practice. Historical stoping was to 3 ft in width (0.9 m). Samples S2 to S6 taken in 1995 are most likely to represent a modern stoping width with no hand sorting.

Table 33 lists lower grade mining parcels totalling 1,173 tonnes grading 6.5 g/t Au. At a nominal cut-off of 5 g/t Au, the data reports 907 tonnes grading 7.5 g/t Au. This is distinctly different from the high grade (>30 g/t Au) mineralization encountered elsewhere.

TABLE 33 COMPILATION OF LOWER GRADE TRIAL MINING PARCELS REPORTED IN BRINKER (1927)

Tonnes (t)	Grade (g/t Au)
26	14.9
156	5.1
155	7.0
398	6.1
168	12.4
42	1.8
42	3.8
17	2.8
95	2.3
70	3.7
4	6.7
1,173	***6.5***

In addition, Brinker (1927) reports mean channel sample grades within various sections of the Engineer Vein (Table 34).

TABLE 34 SPECIFIC CHANNEL SAMPLE RESULTS REPORTED IN BRINKER (1927)

Level	Location	Reported Grade (g/t Au)
5	724 stope	6.6
5	728 stope	9.9
5	729 stope	8.2
5	5 Level drive	13.3
6	726 stope	4.9
8	327 stope	10.3
8	806 drive	5.6

Brinker (1925) states that very high grade mineralisation accounts for approximately 20% of the vein – with specific reference to the Engineer Vein. It is most likely that this is 20% of a given mineralized shoot, given that the majority of mine development is focussed on projected shoots. Brinker (1925) indicates that the high grade sub-shoots are often greater than 60 g/t Au (>2 oz/t Au). Two trial parcels of high grade mill feed at 40 t and 25 t graded at 93 g/t Au and 75 g/t Au (diluted to 1 m), respectively. Elsewhere, very high grades are recorded – for example, from 2010 sampling on Engineer Vein 5 Level (#3 shoot) 794 g/t Au over 0.5 m (397 g/t Au over 1 m); and Hamm (1914) on Engineer Vein 2,097 g/t Au over 0.35 m (733 g/t Au over 1 m).

Analysis of the foregoing historical data clearly indicates that mineralisation in the Engineer Vein is high-nugget and that very high grades have a restricted continuity. This is not an uncommon effect in epithermal and mesothermal vein systems (Dominy and Platten, 2008; Platten and Dominy, 2001).

The mean payability of mineralized shoots on the Engineer and Double Decker veins determined is 60% and 55% respectively, based on the areas of stoped ground above the 5 Level within the known mineralized shoot zones. In addition, Brinker (1925) records that about 20% of the shoot – by inference a volume within the stoped regions is very high grade material. At the Gwynfynydd gold mine (North Wales, UK), mesothermal veins are characterised by localised very high-grade sub-shoots/pockets that make up around 15% of the defined shoots, but contain 85% of the gold inventory (Platten and Dominy, 2003).

14.5.2 Engineer Grade Estimate

Based on the foregoing discussions, a global grade for each vein is defined based on partitioning into three grade domains:

- Very high grade domain (VHG);
- Moderate grade domain (MG): and
- Low grade domain (LG)

For each domain, a mean grade is assigned (Table 35).

TABLE 35 ASSIGNED GRADES TO ENGINEER MINE GRADE DOMAINS

Domain	Vein	Grade (g/t Au)	Comment
VHG	EV	60	Based on nominal high grade mill feed quoted in Brinker (1925) of US$40 per ton – approximately 2 oz/t Au, though locally higher
VHG	DDV	30	Based on figure quoted in Brinker (1925) of US$25 per ton – approximately 1 oz/t Au
MG	EV & DDV	7.5	Based on lower grade material at a nominal 5 g/t Au cut-off (see Table 33)
LG	EV & DDV	0.1	Nominal low grade

* EV = Engineer Vein; DDV = Double Decker Vein

Global grade assignment for each vein is presented in Table 36 and Table 37 based on payability factors.

Assignment was based on payabilities defined from historical development and stoping patterns. VHG was assumed to be conservative at 15% of shoot area – Brinker (1925) suggested 20%. An entire mineralized shoot comprises the VHG, MG and LG domains and is assumed to represent 100% payability at a nominal 0.1 g/t Au cut-off.

TABLE 36 GRADE ASSIGNMENT FOR THE ENGINEER VEIN AT 0.1 G/T AU AND 5 G/T AU CUT-OFFS

Domain	Mean Grade (g/t Au)	Fraction	Fraction Grade (g/t Au)	Fraction	Fraction Grade (g/t Au)
		0.1 g/t Cut-off		***5 g/t Cut-off***	
VHG	60	0.15	9.0	0.25	15.0
MG	7.5	0.45	3.4	0.75	4.9
LG	0.5	0.40	0.2	-	-
Average:			***12.6***		***20.6***

TABLE 37 GRADE ASSIGNMENT FOR THE DOUBLE DECKER VEIN AT 0.1 G/T AU AND 5 G/T AU CUT-OFFS

Domain	Mean Grade (g/t Au)	Fraction	Fraction Grade (g/t Au)	Fraction	Fraction Grade (g/t Au)
		0.1 g/t Cut-off		***5 g/t Cut-off***	
VHG	30	0.15	4.5	0.25	7.5
MG	7.5	0.45	3.4	0.75	5.6
LG	0.5	0.40	0.2	-	-
Average:			***8.1***		***13.1***

The pay zone defined by stoping and development comprises the VHG and MG domains and is nominally defined at a 5 g/t Au cut-off.

The VHG domain for each shoot is effectively 15% payability.

Global grades have been estimated in the Engineer and Double Decker veins at nominal cut-offs of 0.1 g/t Au, 5 g/t Au and 25 g/t Au (Table 38).

TABLE 38 NOMINAL CUT-OFFS DEFINED FOR THE ENGINEER VEINS

Cut-off Grade (g/t Au)	Basis
0.1	Includes all material within a given mineralized shoot
5	Includes all material inside a mineralized shoot based on the payability (stope) limits
25	Brinker (1925) indicates a breakeven cut-off of about 25 g/t Au based on mining/processing costs at that time. Likely to be the grade at which the miners were able to visually call the very high grade mill feed. Experience shows that generally historic miners operated to a 15 g/t Au to 30 g/t Au "visible gold" cut-off.

14.6 Tonnage Modelling

Resource tonnage for each vein was defined from the Vulcan 3D model. Vein volume was depleted for stopes and development, leaving potential mineable remnant material.

Table 39 and Table 40 present the tonnage and payability figures used to define resource tonnages for the Engineer and Double Decker Vein shoots at the different cut-offs.

An SG value of 2.8 t/m^3 was used. No determinations have been undertaken. The figure is based on general experience of quartz minor-sulphide veins and slate/argillite host rocks.

TABLE 39 TONNAGE AND GRADE CALCULATIONS FOR ENGINEER VEIN MINERAL RESOURCE ESTIMATE

Shoot	Area (m^3)	Mined Area (m^3)	Tonnes (t)	Actual Payability	Tonnes	Grade	Tonnes	Grade	Tonnes	Grade
				Cut-offs:	*0.1 g/t Au*		*5 g/t Au*		*25 g/t Au*	
#1	6,588	497	17,055	0.35	17,100		6,000		3,400	
#2	6,904	2,152	13,307	0.70	13,300		9,300		2,600	
#3	9,933	2,011	22,183	0.70	22,200		15,500		4,400	
				Total:	**52,600**	**12.6**	**30,800**	**20.6**	**10,400**	**60**
			Contained Gold (ozs):			21,311		20,401		20,064

TABLE 40 TONNAGE AND GRADE CALCULATIONS FOR DOUBLE DECKER VEIN MINERAL RESOURCE ESTIMATE

Shoot	Area (m^3)	Mined Area (m^3)	Tonnes (t)	Actual Payability	Tonnes	Grade	Tonnes	Grade	Tonnes	Grade
				Cut-offs:	*0.1 g/t Au*		*5 g/t Au*		*25 g/t Au*	
#1	4,135	682	9,668	0.65	9,700		6,200		1,900	
#2	3,445	341	8,693	0.45	8,700		3,900		1,700	
				Total:	**18,400**	**8.1**	**10,100**	**13.1**	**3,600**	**30**
				Contained Gold (ozs):		4,792		4,254		3,473

14.7 Bulk Sampling Program Results

As previously noted in Sections 9.2 and 11.2, a bulk sampling program was undertaken at the Engineer Gold Mine in 2011. Approximately 350 t was extracted from underground on the Engineer Vein (Figure 39) and 50 t from surface trenching on the Double-Decker Vein (Figure 40).

Only bulk samples 505-2, 5 and 6 (collectively 132.3 t at 5.7 g/t Au) were located in the resource *sensuo stricto*. Samples 505-3A and B lie in a sub-shoot on the edge of #1 Shoot. The sub-shoot zone is likely to be part of the #1 Shoot, and has been extensively stoped in the past (Figure 39). Given that all samples were collected from the Engineer Vein structure and the proximity of 505-3A and B to #1 Shoot, it is not unreasonable to use them in a reconciliation with the resource estimate. They clearly represent the MG and potentially VHG domains (Table 35).

The bulk sample data are summarised in Table 41.

TABLE 41 SUMMARY OF 2011 BULK SAMPLE DATA

Bulk sample	Vein/location	Comment	Mined tonnes (t)	Processed tonnes (t)	Reconciled head grade (g/t Au)
DD trench	Double-Decker/surface	Surface exposure of vein	50	9.4	1.2
505-2	Engineer/5 level	Proximal to 1995 bulk sample	95	40.7	1.6
505-3A	Engineer/5 level	North face of stope	52	35.5	14.5
505-3B	Engineer/5 level	Pillar of stope	91	68.9	44.6
505-5	Engineer/5 level	Pillar of stope	82	69.7	8.5
505-6	Engineer/5 level	Block between raises 505-5 and 505-6	30	21.9	4.3
		All bulk samples		**246.1**	**17.6**
		Engineer bulk samples only		**236.7**	**18.3**
Totals		**Engineer bulk samples >5 g/t Au**		**174.1**	**23.9**

The reconciled head grade for all bulk samples is 17.6 g/t Au, compared to a global resource grade of 11.5 g/t Au at a 0.1 g/t Au cut-off (Table 42).

A reconciliation of bulk sample results with resource grades is provided in Table 42.

TABLE 42 COMPARISON BETWEEN 2011 BULK SAMPLE DATA AND RESOURCE ESTIMATE GRADES FOR BOTH VEINS ACROSS TWO CUT-OFF GRADES

Vein	Cut-off reported (g/t Au)	Resource grade (g/t Au)	Total tonnage [rounded] of bulk sample (t)	Bulk sample grade (g/t Au)	Bulk sample compared to resource grade
Double-Decker	0.1	8.1	9	1.2	-85%
Engineer	0.1	12.6	237	18.3	+45%
Engineer	**5**	**20.6**	**174**	**23.9**	**+16%**
Engineer	25	52.5	69	44.6	-15%

In a real mining scenario, extraction to a 5 g/t Au cut-off is likely to be the most realistic. No >5 g/t Au material was mined from the Double-Decker Vein. The total of all Engineer material above 5 g/t Au is 174 t at 23.9 g/t Au. This is +16% compared to the resource grade of 20.6 g/t Au. Given the high-nugget nature of the mineralisation and global nature of the estimate, a reconciliation of 16% is very reasonable.

During 1995, 154 t of material was mined from the 505-1, 2S and 3 stopes (Table 32) yielding a mill recovered grade of 15.1 g/t Au. Based on the average mill recovery of the 2011 program, the reconciled head grade of the 1995 material could be around 29 g/t Au (around +40% of the resource grade).

Given the results of both the 1995 and 2011 bulk sample programs, the QP considers that in the context of an Inferred Mineral Resource classification (see Section 14.8) – the global estimation method applied is appropriate. Dominy and Edgar (2012) suggest that a potential accuracy for grade and tonnes at the 70% confidence level for an Inferred Mineral Resource in a high nugget system is in the ±35-50% range.

14.8 Mineral Resource Confidence Classification

In determining the application of “Measured, Indicated, and Inferred” classifications to the structurally-controlled vein-hosted Engineer Mineral Resource estimate, the following items were considered:

- Historical production and trial mining data;
- Historical and modern sampling data;
- Results of the various QAQC assessments presented in Section 12;
- Development and drill hole spacing;
- Geological and gold grade continuity; and
- Mineral Resource estimation quality.

Given the very high-nugget nature of the mineralisation and over-reliance on historical data, it was concluded that the tonnage and grade estimates for all shoots on the Double Decker and Engineer veins should be classified collectively as an "Inferred Mineral Resource".

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

Due to the uncertainty which may attach to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

This Mineral Resource is global in nature. From the data available, it is not possible to predict where the mineable grades will be, except that they will be hosted within the defined mineralized shoots. Prediction of high-grade zone size and grade will be particularly difficult. Additional development and drilling will be required to up-rate the resource classification.

The Engineer Inferred Mineral Resource grades have been quoted with a global mean grade rounded to the nearest g/t Au.

14.9 Reasonable Prospects for Economic Extraction

Compliance with the 2004 CIM Definition Standards on Mineral Resources and Reserves requires demonstration that a Mineral Resource has "*reasonable prospects for economic extraction*".

No preliminary economic study has been undertaken at Engineer Gold Mine. It is believed that the Mineral Resource presented in this Technical Report may reasonably support a small narrow-vein mining operation.

Historical production and accessible workings show that the veins can be exploited by selective air-leg means without excessive dilution (minimum stoping width around 1 m). Ground conditions through the mine are generally good.

Fast-track to production may be possible given the existing surface and underground infrastructure. Operational capacity is likely to be initially in the range of 10,000 t to 15,000 t per annum, expanding up to 25,000 t per annum. Based on general experience of other small gold mines globally, it is expected that the operational breakeven cut-off grade at the Engineer Gold Mine to be in the range 6 g/t Au to 8 g/t Au.

In addition, it is proven historically that gold can be extracted by gravity based means that could almost certainly be improved upon with modern technology (for example, in-line pressure jigs and/or centrifugal concentrators).

It is believed that the Engineer Gold Mine Mineral Resource presented in this Technical Report has "*reasonable prospects for economic extraction*" and has additional potential beyond the defined resource with appropriate studies.

15 - 22 Sections Not Applicable to Engineer Gold Mine Project

The Engineer Gold Mine is not considered an advanced project according the NI 43-101 guidelines as there are no Mineral Reserves and no economic analysis disclosed in a Preliminary Economic Assessment or Feasibility Study. Therefore the following sections are not applicable to this technical report:

Section 15	Mineral Reserve Estimates
Section 16	Mining Methods
Section 17	Recovery Methods
Section 18	Project Infrastructure
Section 19	Market Studies
Section 20	Environmental Studies
Section 21	Capital and Operating Costs
Section 22	Economic Analysis

Information on mining methods, mill recovery, and project infrastructure related to historic mining and the bulk sampling program can be found in Section 24 (Other Relevant Data and Information).

Information of Environmental Studies can be found in Section 4 (Property Description and Location).

23 Adjacent Properties

The Tag Property, owned by Taku Gold Corp., is located approximately 10 km north of the Engineer Gold Mine Property is the most significant mineral occurrence in the surrounding area. Gold and silver mineralization at the Tag prospect is hosted in a highly deformed interval of shearing, quartz veining, stockwork and breccia with disseminated to stringer sulphide mineralization hosted within calcareous sedimentary rocks (Taku website, 2017). In 2009, Taku announced an Indicated Mineral Resource at Tag of 250,000 t at 2.97 g/t Au and 12.1 g/t Ag, and an Inferred Mineral Resource of 400,000 t at 3 g/t Au and 9.9 g/t Ag. The Mineral Resource was reported at a 3 g/t Au-equivalent cut-off at US$830/oz Au and US$13.85/oz Ag (Reddick, 2009). The mineral resource is based on 28 diamond drill holes.

The QP has visited the Tag Property but has not evaluated the Mineral Resource. The Tag mineralization appears to be similar style to that found in the Shear A and Shear B zones at the Engineer Gold Mine Property. The QP has not been able to verify the information and therefore the Tag mineralization is not necessarily indicative of mineralization on the Engineer Gold Mine Property.

24 Other Relevant Data and Information

24.1 Mining Methods

The Engineer Gold Mine does not have any NI43-101 compliant economic assessments or proposed mining plans. The Property does contain approximately 5,500 m of historic underground workings including access drifts on 8 mining levels, portal access from 5 and 1 levels, and an internal 3-compartment shaft from 5 to 8 levels. The drifts are typically less than 2 m wide and historic miners generally drifted on veins. The exceptions are the cross-cuts on 5 and 8 levels providing access to the various veins and to the 5 Level Portal (see Figure 59 and Figure 60).

Historic miners created jackleg stopes above the drifts and often did not leave pillars between the mine levels (see Figure 56 and Figure 57). The majority of the mining tonnes were from development on the Engineer and Double Decker veins. There is no crown pillar on the Engineer Vein and stopes are exposed at surface. It is estimated the 14,000 t of material was mined primarily between the years 1913 and 1931 (BC Ministry of Mines Annual Reports 1913 to 1945).

There is no back-filling material within the historic mine workings. Mine levels 6, 7 and 8 are flooded.

Approximately 600 metres of mining track were installed in 1994 on 5 Level along with air and ventilation services. The 5 Level services were utilized in 2011 when 350 t of bulk sample material was mined from the Engineer Vein and extracted via the 5 Level Portal.

In 2012, the interval shaft manway was rehabilitated from 5 to 7 levels (approximately 200 vertical feet) when the 6 and 7 levels were dewatered and geologically mapped and sampled. Ground conditions were generally in good condition. Mining tracks were still in place on 6 and 7 levels but were in poor condition and would need to be rehabilitated.

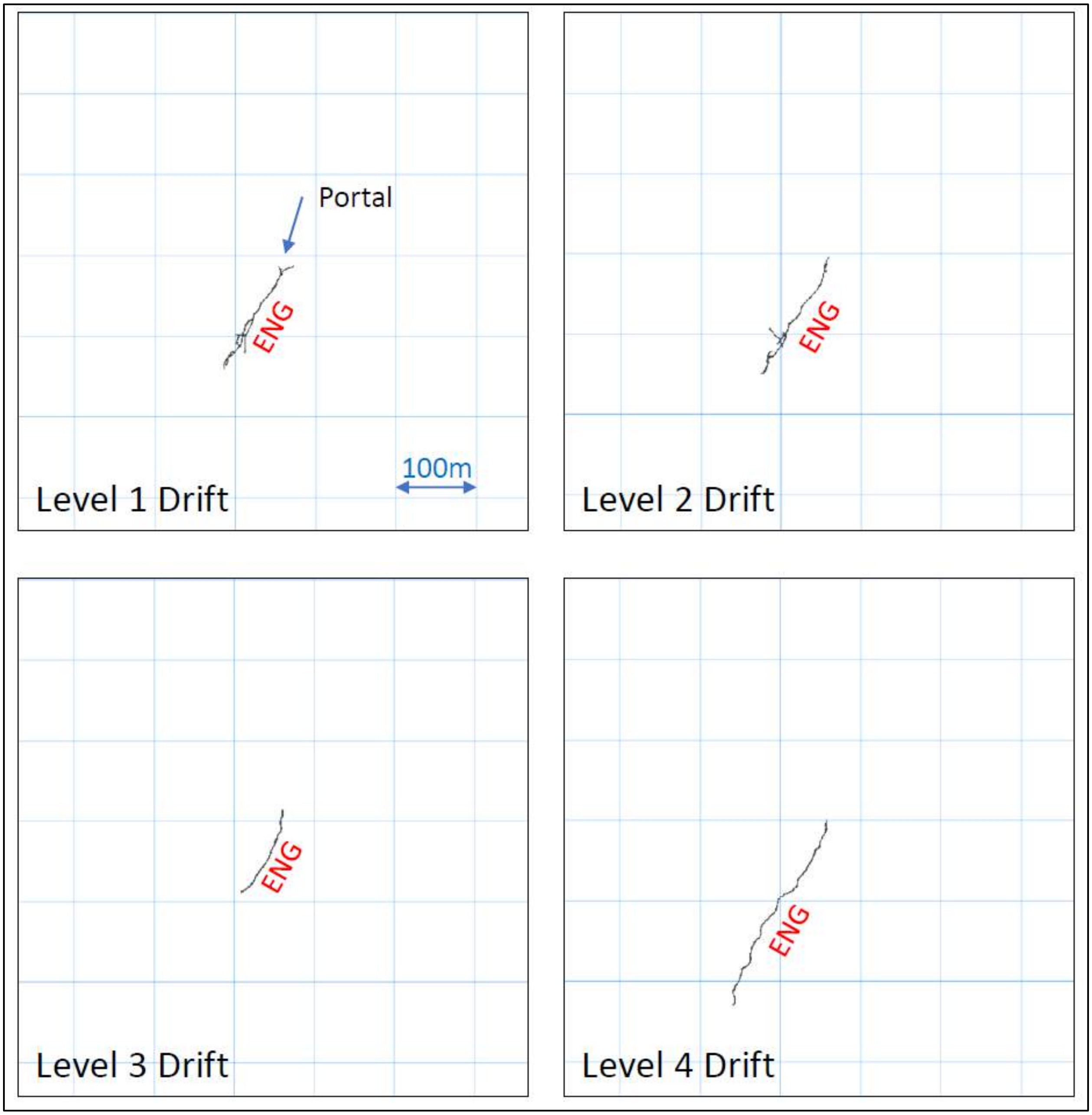


FIGURE 59 HISTORIC MINING DRIFTS (LEVELS 1-4) FOLLOWING ENGINEER VEIN (ENG)

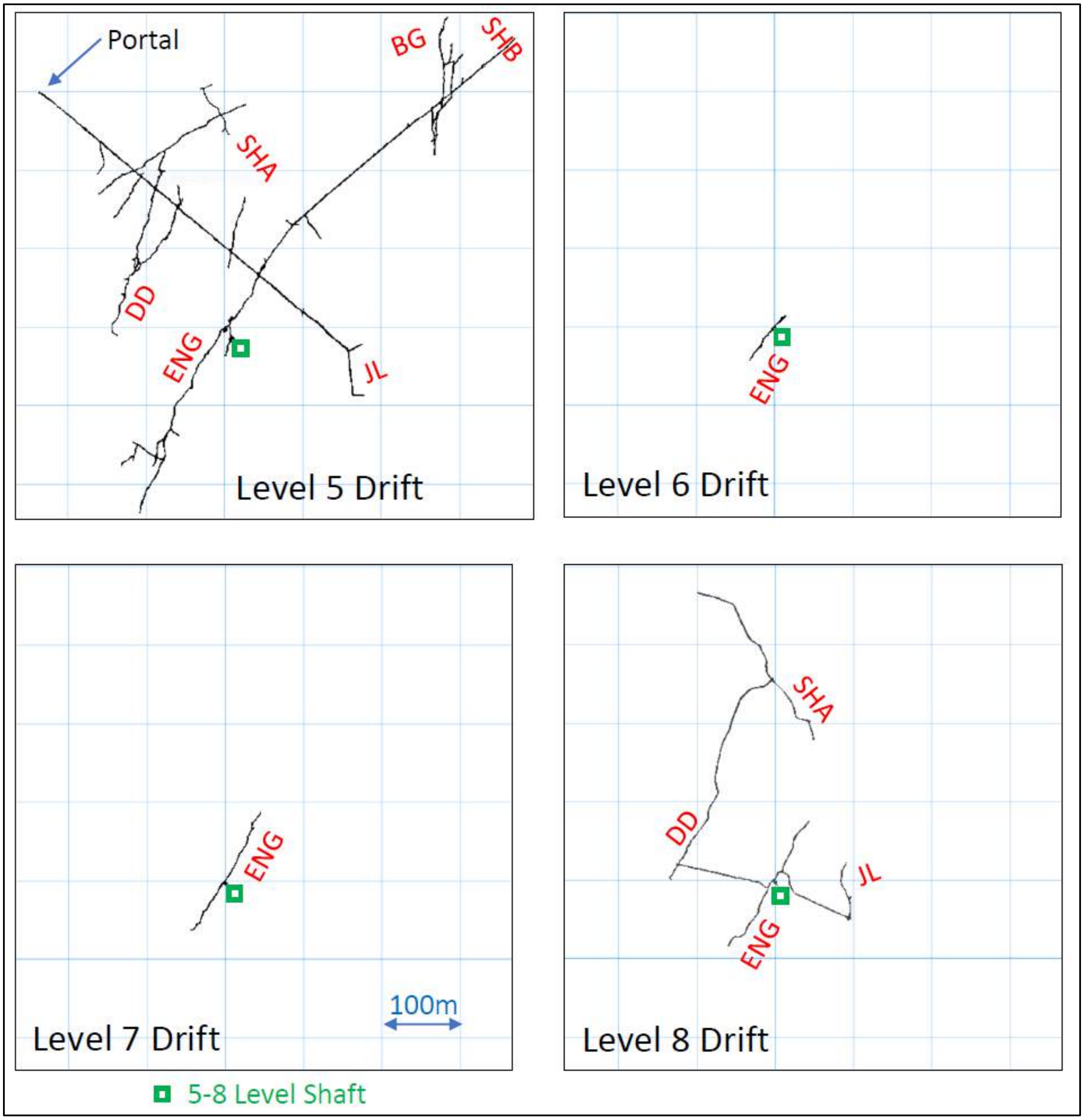


Figure 60 Historic Mining Drifts (Levels 5-8) Following Engineer (ENG), Double Decker (DD), Boulder-Governor (BG), Jersey Lily (JL), Shear A (SHA) and Shear B (SHB). Internal shaft shown in Green.

24.2 Recovery Methods

A bulk sampling and test-milling program was completed in 2011. The 30 tonne-per-day gravity separation mill circuit was refurbished to process the bulk sample material on site. Samples were cut from the sample feed and tails during the milling operation to estimate the gold grade of the bulk samples and the performance of the mill.

A total of six composite bulk samples for 400 tonnes were mined. Five of the samples representing the Engineer Vein were mined from underground workings and extracted via the 5-Level portal. The sixth sample was mined by surface trenching the Double Decker Vein.

A subset of 246 t were processed through the on-site gravity separation mill, producing 969 kg of dry table concentrate grading 2,193 g/t Au (64.0 oz/t). The amount of contained gold in the concentrate was 68.3 ozs.

Sampling of the milling stream was conducted at all stages of the crushing, grinding, Deister table, and tailings circuits to determine mining head grade, estimate gold recovery, and assess milling performance.

The average feed rate to the ball mill averaged 1.4 t per hour. Mill availability averaged 7.1 hours per day with a substantial amount of time required to flush out the circuit between bulk samples. The ball mill slurry was screened to -30 mesh before pumping to triple deck Deister tables where approximately 2% of the rock mass was concentrated and sent to a finishing table. At the finishing table the concentrate was further refined, producing approximately 800 kg of sulphide-rich concentrate with gold reporting to it.

Mill recovery of gold reporting to the table concentrate averaged 51.3%, with a range of 41.8% to 58.6% for the six individual bulk samples.

Metallurgy testwork was conducted on the table concentrate to determine composition and to estimate gold recovery. Analysis of the tails showed that 73.6% of the gold and 84.2% of the silver that was not recovered after regrinding was finer than 75 µm which is too fine to be recovered by gravity devices. Further 60% of the unrecovered silver was finer than 38 µm.

Gekko concluded from the testwork that Engineer Vein material would respond very positively to using an InLine Pressure Jig (IPJ) as a pre-concentration device to initially recover 71.4% of the gold into 9.67% of the mass. The pre-concentrate could then be ground down to a P_{80} of 106 µm and fed into an InLine Spinner (ISP) to further reduce the mass and achieve an overall recovery of 61.3% of the gold into 1.55%

Figure 55 shows two possible modifications to the current Engineer mill flow sheet that could improve gold recovery. Proposed Flow Sheet #1 incorporates the existing triple deck Deister tables. Proposed Flow Sheet #2 is streamlined as such:

1) Jaw and cone crusher
2) Ball mill (mill to 600 micron)
3) InLine Pressure Jig (recover 71.4% of gold into 9.67% mass; >90% mass to tails)
4) Secondary ball mill (mill to 106 micron)
5) InLine Spinner (recover 61.3% of gold into 1.55% mass; remaining >8% mass to tails)
6) Final concentrate

The proposed flow sheets are preliminary in nature. Further study is required to establish plant design, equipment selection, and requirements for energy, water, and process materials.

It should be noted that the metallurgy work and proposed recovery flow sheets detailed in this report utilize material primarily mined from the Engineer Vein.

24.3 Project Infrastructure

The Engineer Gold Mine Property is isolated and requires itself to be self-sufficient in power and supplies. All power is generated on site via a diesel generator. Communications are via satellite phone and/or satellite internet. The current trailer camp at site can host approximately 20 people. In 1995, a small open-air recovery plant was installed at the mine site which consists of primary and secondary crushing (jaw and rolls crushers), a ball mill, jig, and triple deck Deister tables. The mill can process approximately 30 tonnes per day. There is mine waste and a small tailings pond located at the mill site.

Access to the Property from Atlin, BC is by helicopter or float plane (approximately 15 minutes travel time). Winter access to Atlin is also available via snowmobile. In the summer season, boat access to the Property is available from the communities of Tagish (90 km) or by barge from Carcross (80 km) is best for servicing an exploration program. Both communities are located at the north end of Tagish Lake in the Yukon. Beyond each of these towns, excellent highways connect to Watson Lake and Skagway or Whitehorse the main supply centre of the region. Daily flights are available to Whitehorse, Yukon from Vancouver, BC. The distance from Whitehorse to Atlin by Highway is 176 kilometres.

TABLE 43 ENGINEER MILL - LIST OF INFRASTRUCTURE

Engineer Mill

- 30 tonne-per-day gravity separation mill inclusive of the following:
  - 10-tonne coarse ore bin
  - 24" Jaw crusher
  - 24" rolls crusher
  - 20-tonne fine ore bin
  - conveyor belt systems and associated electric drive motors (x4)
  - 4' x 4' ball mill with associated hopper
  - screen deck with associated overs and unders pumps
  - 14' triple deck deister table
  - 4' finishing deister table
  - electrical storage container with associated control switches
  - tool storage container
  - generator storage container
- 10 tonne dump truck
- 931 Caterpillar crawler loader

FIGURE 61 ENGINEER MILL

(1) 10-tonne Coarse Ore Bin
(2) 24” Jaw Crusher
(3) 24” Roll Crusher
(4) 20-tonne Fine Ore Bin
(5) 4’x4’ Ball Mill with Hopper
(6) Screen Deck with Overs and Unders Pumps
(7) 14’ Triple Deck Deister Table
(8) 4’ Finishing Deister Table
(9) Primary Tailings Pond
(10) Secondary Tailings Pond
(11) 150 kW Generator and Electrical Control Panels

FIGURE 62 ENGINEER MILL - CRUSHING CIRCUIT (1)

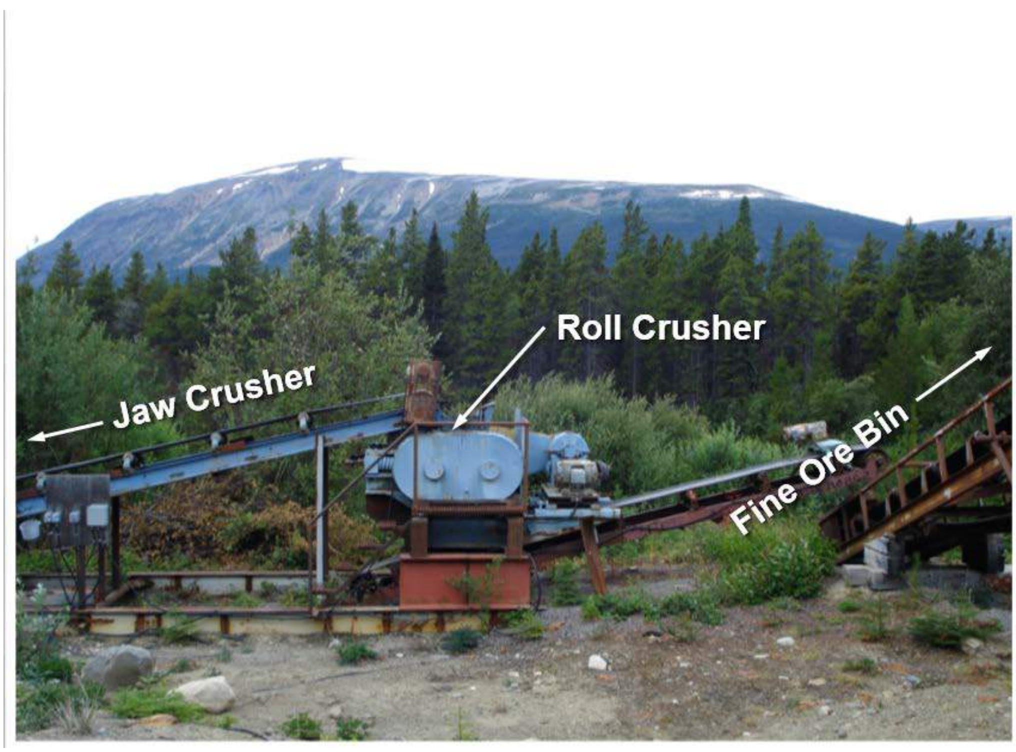


FIGURE 63 ENGINEER MILL - CRUSHING CIRCUIT (2)

FIGURE 64 BALL MILL AND HOPPER

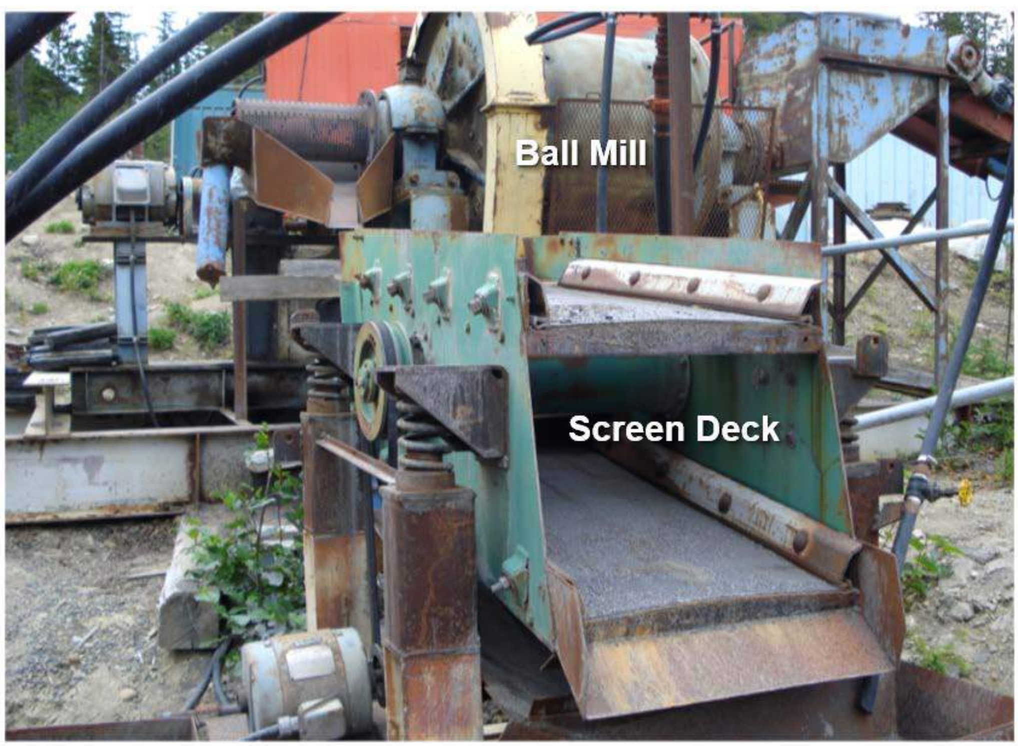


FIGURE 65 SCREEN DECK WITH PUMPS

FIGURE 66 LARGE DEISTER TABLES

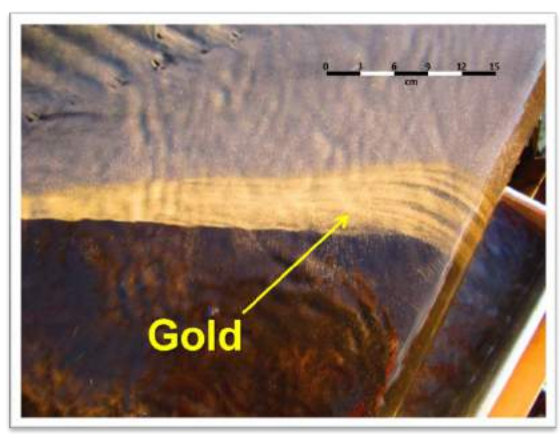


FIGURE 67 FINISHING DEISTER TABLE

25 Interpretation and Conclusions

The Engineer Gold Mine is an advanced exploration Project that possesses a small, but high-grade, Inferred Mineral Resource. Recent diamond drilling, surface trenching, underground sampling, and geological mapping have confirmed the geological continuity of the Engineer and Double Decker veins. Other veins such as the Boulder-Governor, Shaft, Andy and Jersey Lily are targets that could possibly add to the mineral resource base with further exploration success.

Trenching and diamond drilling are suitable for delineating the vein extents, but bulk sampling is the best method for determining grade. Channel and panel sampling are suitable methods for defining mineralized shoots within the veins, but tend to underestimate the gold grade.

The Engineer Gold Mine Project can also be advanced with exploration along the known shear zones (Shear A and Shear B). Shear A has a strike length of over 6 km, while Shear B has a strike length of approximately 4 km. Both shears host significant widths of silica-rich hydrothermal breccia with low-grade gold mineralization near the Historic mine workings. With the exception of the 2008 drill program, there has been very little exploration work completed on these shear zones. Preliminary soil geochemical surveys have shown that these shear structures are anomalous in gold pathfinder elements such as arsenic and antimony. A systematic, property-wide soil survey would be the initial step to identify any higher-grade anomalies for drill testing.

25.1 Bulk Sampling / Test Milling

The bulk sampling at the Engineer Gold Mine in 2011 was designed to:

- Test the effect of large tonnage sampling on grade and grade variability
- Replicate the historic mining grade
- Potentially add gold resources to the current mineral resource
- Refine mining techniques
- Confirm metallurgical recovery using gravity concentration
- Collect sample material for metallurgical test-work

The six bulk samples totalling 246.1 t returned a reconciled head grade of 16.9 g/t Au, including one 68.9 t bulk sample returning 44.6 g/t Au. The bulk samples consistently returned higher gold grades that predicted by smaller volume channel samples collected in previous programs. This can be attributed to the high nugget nature of the vein-hosted gold mineralization that is often associated with nodules of roscoelite and electrum.

Table 44 displays composited gold grade of the bulk samples compared to smaller volume channel samples.

TABLE 44 BULK SAMPLE VS. CHANNEL SAMPLE GOLD GRADE COMPARISON

Bulk Sample		Channel Samples		
ID	Composited Mining Grade (Au g/t)	No. of Samples	Average Grade (Au g/t)	% Difference
DD Trench	1.2	34*	0.95*	+26%
505-2	1.7	2	0.56	+204%
505-3A	14.5	1	0.69	+2,001%
505-3B	44.6	1	2.37	+1,782%
505-5	> 8.5**	3	36.49	N/A
505-6	4.3	2	1.12	+284%

(*) For the 'DD Trench' bulk sample, a total of 35 channel samples were collected from two benches of the Double Decker surface trench with one of these samples assaying 979 g/t Au. The uncut average grade is 27.14 g/t Au when this high-grade sample is included in the calculation.

(**) Bulk sample 505-5 does not include 14 kg of hand specimens with 5% nodules of roscoelite and electrum that were removed prior to crushing at the gravity separation mill. Therefore, it is expected that the composited grade of 8.5 g/t Au is an underestimate of the true grade.

While there were not enough channel samples to return representative grades for each bulk sample, the QP is of the opinion that bulk sampling returned the most representative gold grade for vein-hosted mineralization at the Engineer Gold Mine.

25.2 Metallurgy

Preliminary metallurgical test-work was conducted by Inspectorate Laboratory and Gekko Systems to possibly improve gold recovery by studying the tailings material generated during the 2011 bulk sampling / test-milling program. Both consultants have recommendations that are discussed below.

Inspectorate reported a combined gravity and rougher concentrate recovery of 82.7% was achieved from the HG tailings composite within a mass of 7.4%. Results also showed that a combination of pan concentrate and 1st cleaner stage flotation concentrate would yield a concentrate grade of 616 g/t Au in a 0.9% mass, but at a combined Au recovery of 57.4%

Inspectorate noted that further cleaner stages would be required to upgrade the HG Tailings Concentrate to a saleable grade, but would result in lower overall recovery. They suggested it may be worth exploring a rougher-cleaner flotation test (no gravity) on the HG sample to evaluate recovery using only this method.

Inspectorate recommended the following future testwork:

- Rougher-Cleaner flotation testing on the HG plant tails sample (without centrifugal gravity concentration);
- 2nd and 3rd cleaner stage testing to increase concentrate Au grade;
- Size-by-assay analysis of the rougher and cleaner flotation tails to determine the gold loss distribution among the size fractions.
- Mineralogical study on ground samples to study liberation characteristics and mineral associations.

Gecko's' analysis of the tails showed that 73.6% of the gold and 84.2% of the silver that was not recovered after regrinding was finer than 75 µm which is too fine to be recovered by gravity devices. Further 60% of the unrecovered silver was finer than 38 µm.

Gekko concluded from their test-work that Engineer Vein material would respond very positively to using an InLine Pressure Jig (IPJ) as a pre-concentration device to initially recover 71.4% of the gold into 9.67% of the mass. The pre-concentrate could then be ground down to a P_{80} of 106 µm and fed into an InLine Spinner (ISP) to further reduce the mass and achieve an overall recovery of 61.3% of the gold into 1.55% of the mass, or 56.3% gold recovery into 0.54% of the mass.

Gekko reported two possible modifications to the Engineer flow-sheet that should be investigated. Both with and without the existing triple deck Deister tables. Gekko also proposed to undertake mineralogy analysis on the -75 µm fraction after re-grinding to better understand the characterization for increased liberation and recovery of gold and silver at the finer particle sizes.

The QP is of the opinion that both flotation and gravity metallurgy test-work conducted to date is positive and that further upside in gold recovery should continue to be investigated.

25.3 Resource Estimation

The current Mineral Resource is characterized by a number of uncertainties the led to the Inferred Mineral Resource classification. The risks are reviewed in Table 45.

TABLE 45 RISK MATRIX FOR THE ENGINEER MINERAL RESOURCE ESTIMATE

Factor	Risk	Comment
Bulk density	Moderate	The current value of 2.8 t/m^3 is a default value and not based on verified determinations.
Sample collection, preparation and assaying	High	Historical sampling methods and protocols are not verifiable. With coarse gold (electrum) present in notable quantities, then sampling uncertainty is likely to high as a result of the nugget effect (sampling errors).
QAQC	Moderate-High	No rigorous QAQC program was in operation during historical sampling (pre-2010). The 2010 drilling program and 2012 underground panel sampling QAQC were to industry standard.
Geological data and model	Moderate-High	General geological control is reasonable, though there is a lack of detailed understanding of the geology, in particular small-scale local continuity issues which lead to a high nugget effect. Vein is known to pinch-and-swell and pinch out in places, but extent of characteristic

Factor	Risk	Comment
		unknown.
Grade estimate	High	The grade estimate bears a high uncertainty due to a very high-nugget effect, sampling and historical data uncertainties. The QP has not been able to verify all original assay data. The current estimate relies on a global grade for each vein, applied to an essentially polygonal model. Grades are thus projected over relatively large areas, but with gross geological control. The estimate is global in nature and the exact location of high-grade zones (VHG) is unknown at present.
Tonnage estimate	Moderate-High	The current estimate is reasonable, given that volume is based on a Vulcan model constrained by drilling and development. Actual tonnage will be variable based on bulk density value and variation and payability.
Resource up-rating and extension	Moderate	Resource up-rating will be based on further linear and/or vertical (raise) development. Resource extension will require further drilling. For the Double Decker and Engineer veins, there is immediate potential down dip. Other veins within the mine setting have the potential to provide additional Mineral Resources with appropriate drilling.
Economic factors including mineral processing	Moderate	Based on the current resource, the Engineer Gold Mine has reasonable prospects for economic extraction as a small narrow-vein operation. The Project already has a good infrastructure and plant. Preliminary metallurgical test-work and test-milling indicated gold recovery is achievable using gravity or leaching methods. Further metallurgy work required to optimize gold recovery. No preliminary economic assessment has been undertaken. No Mineral Reserves have been defined.
Accuracy of the estimate	Moderate-High	On a global basis, the QP believes the accuracy of tonnage estimate to be within -50% to -15%, and for grade within ±50% range based on general experience of this style of mineralization. Head grade from the Engineer Gold Mine is expected to be highly variable (potentially up to ±100%) on a short-term (days) small-scale (few 100's t) basis, as is typical of high-nugget effect systems.
Overall rating	**High**	**The current resource estimate carries high uncertainty and risk. This risk is principally related to the use of historical data and a high inherent nugget effect in the Double Decker and Engineer veins. This rating is reflected by the sole use of the "Inferred Mineral Resource" category.**

26 Recommendations

26.1 Shear Zone Target Development and Drill Testing

Shear Zone 'A' and 'B' are exploration targets that justify follow up work. Both shears host significant widths of hydrothermal breccia and low-grade gold mineralization. Preliminary MMI-style soil geochemical surveys appear suitable for identifying gold mineralization and gold pathfinder elements. It is recommended that a systematic, gridded MMI soil survey be conducted to test the strike length of both shears. Any gold, silver, arsenic or antimony anomalies should be investigated by geologic mapping and drill testing.

Shear Zone 'A' and 'B' have current drill targets that can be tested concurrently while the MMI soil geochemistry program is operating. Figure 68 shows a long-section of Shear Zone 'A'. Significant widths of silicification have been identified at the Hub 'A' vein zone that have not seen any modern drill testing. A second target exists to the southeast of the mine workings where the 2008 drilling program indicated that the hydrothermal breccia is thickening to the southeast and to depth.

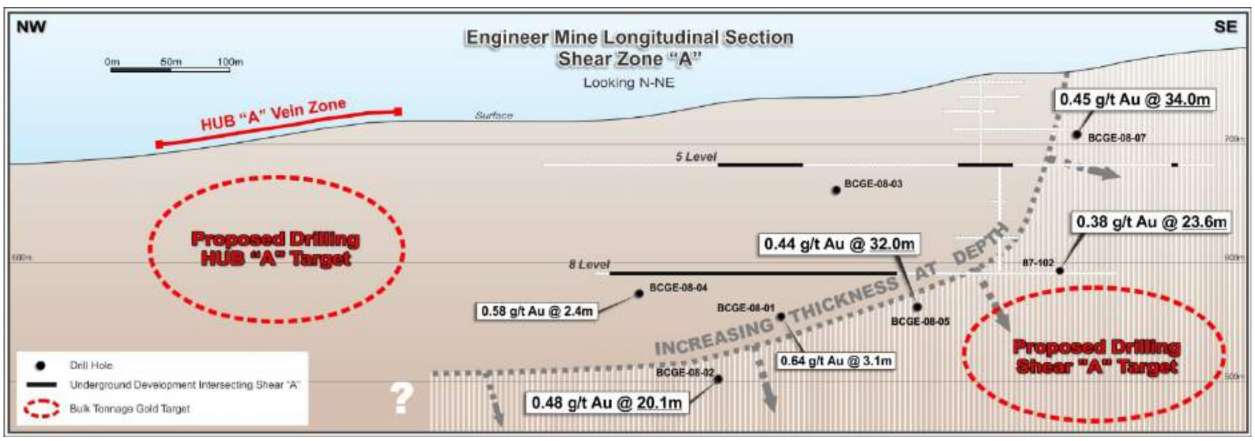


FIGURE 68 SHEAR ZONE 'A' LONG-SECTION WITH DRILL TARGETS

Figure 69 displays a long-section of Shear Zone 'B'. The first drill target sits vertically below the historic Hub 'B' shaft and mine dump. Significant mineralization has been identified in the mine dump but records regarding the Hub 'B' mine workings have been lost. A second drill target exists below the 5 Level of the Engineer Gold Mine where the mine workings cross-cut the shear. Limited drilling and trenching show that gold mineralization could be increasing to depth. Shear Zone 'B' has not been drilled deeper than 150 m vertical depth.

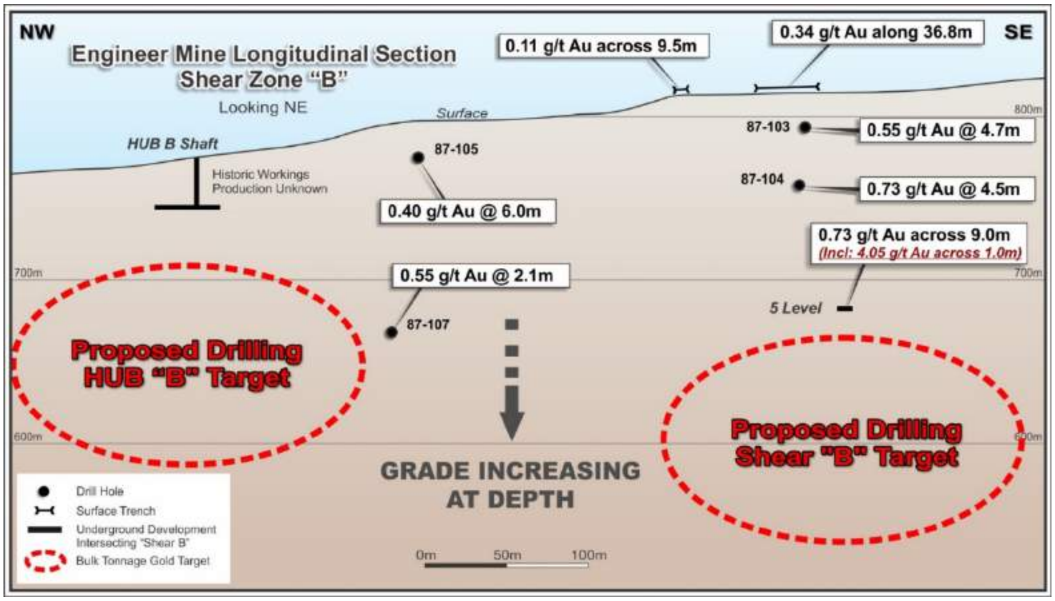


FIGURE 69 SHEAR ZONE 'B' LONG-SECTION WITH DRILL TARGETS

26.2 Wann Prospect

At the Wann Prospect, initial prospecting and drill testing have returned significant mineralization that deserve follow up work. As there is little outcrop exposure in the area, a soil orientation survey should be conducted to determine soil profiles. This should be followed up with a systematic soil survey in an attempt to delineate any geochemical anomalies.

Drill core from the 2011 program should be re-logged and potentially re-sampled to better understand the mineralization in the context of the overall Engineer Gold Mine system.

26.3 Underground Mapping and Sampling / 8 Level

The 2012 program was successful in dewatering the 6 and 7 levels of the mine. The Engineer Vein was geologically mapped and panel sampled on these levels which allowed the geologists to identify the mineralized shoots which form the current Mineral Resource.

It is proposed that a similar program be conducted to dewater the 8 Level of the mine workings. Historic records show that the 8 Level provides exposure not only to the Engineer Vein; but also, the Double Decker Vein, Jersey Lilly Vein, and a considerable strike length of Shear Zone 'A'. Mapping and sampling of 8 Level would add confidence and possibly upside to the current Mineral Resource.

26.4 Bulk Sampling

The 2011 bulk sampling program showed that large tonnage samples return gold grades and grade variability representative of the high-nugget mineralized veins. Bulk sampling also allowed a better estimate of mining and recovery dilution that should be expected with the narrow stope mining.

A program should be designed and budgeted to continue bulk sampling on 6 Level. The design should include driving the 6 Level drift in both directions to access the down-dip extent of the 505-3 and 505-5 stopes. The design should also include sourcing and installing a hoist conveyance system to transport the bulk sample material from 6 Level to the 5 Level Portal.

26.5 Metallurgy

Metallurgy test-work should continue on the tailings material from the 2011 test-milling program with the goal of maximizing gold and silver recoveries. Test-work should continue to investigate and compare flotation vs. gravity concentration methods.

Mineralogy analysis should also be completed on the -75 µm fraction re-grind concentrate to better understand the characterization for increased liberation and recovery of gold and silver at the finer particle sizes.

26.6 Summary of Proposed Costs

The following two-stage program is recommended to continue advancing the Engineer Gold Mine Project. The objective of the program are as follows:

- Targeted exploration along the shear zones to define higher-grade gold mineralization hosted by hydrothermal breccia
- Investigate the Wann prospect in the context of the Engineer Gold Mine mineralized system. Program should include re-logging of 2011 drill core and select re-sampling of mineralized intercepts using QA/QC protocols.
- Investigate the lowest level (8 Level) of the historic mine workings as potential to increase Mineral Resource
- Metallurgy test-work to improve gold recovery circuit of current mill
- Improve grade control, mining costs, and confidence in the Mineral Resource with bulk sampling

Phase 1 of the program (Table 46) can proceed immediately and focuses on resource expansion through finalizing metallurgy test-work and detailed design and costing to rehabilitate the lower levels of the mine. A portion of the program is also designated to expand the soil sampling grid along Shear A and Shear B near the historic mine workings. The proposed Phase 1 budget is C$400,000.

TABLE 46 PHASE 1 – PROPOSED WORK PROGRAM AND BUDGET

Item	Details	Budget (C$)
8 Level Exploration	Design, budget and permit an 8 Level exploration program that includes geotechnical and geologic mapping, and panel sampling.	$50,000
Metallurgy	Mineralogy studies on tails material. Conduct Rougher-Cleaner flotation testing on the tails sample without gravity concentration. Conduct 2nd and 3rd cleaner stage testing to increase concentrate Au grade to saleable grade.	$75,000
Bulk Sampling	Design, budget and permit program to extract 3,800 T sample from 505-3 and 505-5 shoots.	$75,000
Surface Exploration	Soil geochemistry grids investigating Shear A and Shear B	$200,000
	Total:	***$400,000***

A Phase 2 program (Table 47) focuses on surface exploration, exploration of 8 Level of the mine, and processing a bulk sample of the Engineer Vein from 6 Level. The Phase 2 proposed budget is C$5.8M and is contingent upon receiving the necessary permit amendments described in Phase 1.

TABLE 47 PHASE 2 – PROPOSED WORK PROGRAM AND BUDGET

Item	Details	Budget (C$)
Surface Exploration	Soil orientation survey and prospecting at Wann prospect. Re-logging / re-sampling of 2011 Wann drill core	$150,000
Drilling	9,000 m program testing the four target areas defined along Shear A and B, and any new anomalies.	$2,250,000
8 Level Exploration	Dewatering and install services to 8 Level. Geotechnical and geologic mapping, and panel sampling of 8 Level.	$1,000,000
Metallurgy / Mill Improvements	Permit and modifying current mill to process bulk sample utilizing flotation and/or gravity recovery circuit.	$750,000
Bulk Sampling	Dewater 6 Level, install hoist conveyance, install track, drive drifts to 505-3 and 505-5 stopes.	$600,000
	Extract 3,800 T bulk sample	$700,000
	Milling of bulk sample	$350,000
	Total:	***$5,800,000***

27 References

AllNorth Consultants Limited, 2012. "*BCGold Corp. Metal Leaching and Acid Rock Drainage (ML/ARD) Management Plan, Engineer Property*". Unpublished report for BC Ministry of Energy and Mines (Dated: 4th February 2013). pp 46

Association for Mineral Exploration British Columbia (AMEBC), 2015. "*Aboriginal Engagement Guidebook. A Practical and Principled Approach for Mineral Explorers.*". Revised Edition – May 2015. pp 79

Ampex, 1995. "*Report on the Engineer Gold Mine, Atlin Mining Division, British Columbia*." Unpublished report by Ampex Mining Limited for BC Ministry of Energy, Mines and Petroleum Resources (Dated: 18th February 1996; Authors: J Martensson and W Arnholtz). pp 18 plus Appendix.

Aspinall, C, 2007. "*Report on the 2007 Season Surface and Underground Rock Sampling Program with Paragenesis Field Interpretations Made on Selected Vein Systems and Drill Core at Engineer Mine, Tagish Lake, Atlin Mining Division, British Columbia, Canada*." Unpublished report by BCGold Corporation (Dated: 26th November 2007). pp 73 plus Appendices.

Aspinall, C, 2011. "*Stage 1&2 Helicopter Supported Drill Program, 23rd March-June 2011, Wann River Project, within Blind Creek Resources Ltd Tagish Lake Group Claims, Atlin Mining Division, British Columbia*."; Assessment Report 4908310-4908339; dated 12th October 2011.

BCGold, 2009. *"Engineer Mine Geological Map (Scale 1:1,000)."* Unpublished geological map by BCGold Corporation, dated 16th January 2009.

BCGold, 2010a. BCGold Corp. "*Re-Negotiates Engineer Mine Property Agreement*." BCGold Corporation Press Release dated 14th January 2010. pp 2

BCGold, 2010b. "*Sampling Returns High-Grade Values at Engineer Mine Property*." BCGold Corporation Press Release dated 3rd March 2010. pp 3

BCGold, 2010c. "*Extends High-Grade Gold Shoot at Engineer Gold Mine Property*." BCGold Corporation Press Release dated 8th July 2010. pp 2

Brinker, A C, 1925-1927. Series of correspondence related to the Engineer mine during the period 1925 to 1927 from A C Brinker Esq.

Cathro, M, 2008. "Review of Permitting Considerations for the Engineer Mine". Unpublished memorandum to BCGold Corp (Dated February 29, 2008). pp 6

Coates, B F, 2010. *Report on the 2010 Underground Diamond Drilling Program at the Engineer Mine Property, Tagish Lake Area, Atlin Mining Division, British Columbia*. Unpublished report by BCGold Corporation (Dated: 31st December 2010). pp 37 plus Appendices.

Coates, B F, 2013. "*Water Quality Monitoring During De-Watering at the Engineer Mine Project for the Period June-August 2012*". BCGold Corp annual report to the BC Ministry of Environment dated March 10, 2013. pp 92.

Corbett, G J, 2004. *Epithermal and porphyry gold – geological models, in Proceedings of the PACRIM Conference 2004*, pp 15-23 (The Australasian Institute of Mining and Metallurgy).

Corbett, G J and Leach, T M, 1998. *Porphyry-related low-sulphidation gold systems, in Southwest Pacific Rim Gold-Copper Systems: Structure, Alteration and Mineralisation. Society of Economic Geologists, Special Publication 6*, pp 137-200.

Davidson, G S, 1998. *Summary Report on the Engineer Property, Tagish Lake Area NTS 104 M8-9.* Unpublished report for the Engineer Mining Corporation (Dated: 15th January 1998). pp 72.

Dawson, K M, Panteleyev, A, Sutherland Brown, A and Woodsworth, G J, 1991. *Regional Metallogeny, in Geology of the Cordilleran Orogen in Canada. Geological Survey of Canada No 4*, pp 707-768.

Devine, F A M, 2008. *Geological Report on the Engineer Property, British Columbia*. Unpublished report for BCGold Corporation by Merlin Geosciences Inc. (Dated: December 2008). pp 105 plus 3 Appendices.

Devine, F, 2011. *Field Summary of the 2011 Trench Mapping in the Shaft/Boulder-Governor/'Shear-B' Area.* Unpublished report for BCGold Corp by Merlin Geosciences Inc. (Dated: August 20, 2011). pp 16.

Devine, F, 2016. *Report on the 2016 MMI Soil Sampling Survey, Engineer Mine Property, Southern Tagish Lake Area, BC*. Assessment report filed with BC Ministry of Mines. (Dated: October 3, 2016). pp 77.

Dominy, S C, 2006*. Inferred Mineral Resources and gold veins – discussion and case studies, in Proceedings of the Sixth International Mining Geology Conference 2006*, pp 71-83 (The Australasian Institute of Mining and Metallurgy).

Dominy, S C, 2007. *Sampling – a critical component to gold mining project evaluation, in Proceedings of the Project Evaluation Conference 2007*, pp 89-96 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, S C, Annels, A E, Camm, G S, Wheeler, P D and Barr, S P, 1999. *Geology in the resource and reserve estimation of narrow vein deposits. Exploration and Mining Geology, 6*, 317-333.

Dominy, S C, Johansen, G F and Annels, A E, 2001. *Bulk sampling as a tool for the grade evaluation of gold-quartz reefs. Transactions of the Institution of Mining and Metallurgy, 110*, pp B176-B191.

Dominy, S C, Stephenson, P R and Annels, A E, 2003. *Classification and reporting of Mineral Resources for high-nugget effect gold vein deposits. Exploration and Mining Geology, 10*, pp 215-233.

Dominy, S C and Petersen, J S, 2005. *Sampling coarse gold-bearing mineralisation - developing effective protocols and a case study from Southern Greenland, in Proceedings of the Second World Conference on Sampling and Blending 2005*, pp 151-165 (The Australasian Institute of Mining & Metallurgy: Melbourne).

Dominy, S C and Platten, I M, 2007. *Gold particle clustering - a new consideration in sampling applications. Transactions of the Institutions of Mining and Metallurgy, 116*, pp B130-B142.

Dominy, S C and Platten, I M, 2008. *Continuity risk in narrow reef gold deposits – implications for evaluation and exploitation, in Proceedings of Narrow Vein Mining Conference 2008*, pp 31-49 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, S C, Platten, I M and Xie, Y, 2008. *Bulk sampling of complex gold deposits: material characterisation and programme design and management, in Proceedings of the Sampling 2008 Conference*, pp 41-57 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, S C, Xie, Y and Platten, I M, 2008a. *Characterisation of in-situ gold particle size and distribution for sampling protocol optimisation, in Proceedings of the Ninth International Congress on Applied Mineralogy 2008*, pp 175-185 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, S C, Xie, Y and Platten, I M, Y, 2008b. *Gold particle characteristics in narrow vein deposits – implications for evaluation and metallurgy, in Proceedings of the Narrow Vein Mining Conference*, pp 91-104 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, S C, Platten, I M, Edgar, W B, Cuffley, B W and Towsey, C A J, 2009a. *Application of mine records to reduce project risk during the evaluation of historical goldfields, in Proceedings of the Project Evaluation Conference*, pp 145-161 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, S C, Platten, I M, Fraser, R M, Dahl, O and Collier, J B, 2009b. *Grade control in underground gold vein operations: the role of geological mapping and sampling, in Proceedings of the Seventh International Mining Geology Conference 2009*, pp 291-307 (The Australasian Institute of Mining and Metallurgy, Melbourne).

Dominy, S C, Platten, I M and Nugus, M J, 2010. *Application of geology to alleviate sampling bias during the evaluation of high-nugget gold systems, in Proceedings of the Sampling Conference 2010*, pp 75-85 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, S C, Platten, I M and Minnitt, R C A, 2010. *Heterogeneity, sampling errors and the nugget effect in gold ores: implications for evaluation, exploitation and extraction, in Proceedings of the Gravity Gold Conference 2010*, pp 3-17 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Dominy, SC and Edgar, 2012, *Approaches to reporting grade uncertainty in high nugget gold veins*, *Applied Earth Science (Trans. Inst. Min. Metall. B)*, 121, pp 29-42

Edwards, B R and Russell, J K, 2000. *Distribution, nature, and origin of Neogene–Quaternary magmatism in the northern Cordilleran volcanic province, Canada. Geological Society of America Bulletin, 112*, pp 1280-1295.

English, J M and Johnston, S T, 2005. *Collisional orogenesis in the northern Canadian Cordillera: Implications for Cordilleran crustal structure, ophiolite emplacement, continental growth, and the terrane hypothesis. Earth and Planetary Science Letters, 232*, pp 333-344.

English, J M, Johannson, G, Johnston, S T, Mihalynuk, M G, Fowler, M and Wright, K L, 2005. *Structure, stratigraphy and hydrocarbon potential of the central Whitehorse Trough, northern Canadian Cordillera. Bulletin of Canadian Petroleum Geology, 53*, pp 130-153.

Fonseca, A, 2008. *Petrographic Survey on Select Samples from the Engineer Property, BC.* Unpublished report by A Fonseca to BCGold Corporation report (Dated: 26th October 2008*).* pp 45.

Fraser, R M, Bartlett, J K and Quigley, P, 2003. *The role of historical research in the development of the New Bendigo Project, Central Victoria, in Proceedings Fifth International Mining Geology Conference 2003*, pp 119-128 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Gabrielse, H, Monger, J W H, Wheeler, J O and Yorath, C J, 1991. *Part A: Morpho-geological belts, tectonic assemblages and terrane, in Geology of the Cordilleran Orogen in Canada. Geological Survey of Canada No 4*, p 15-28.

Garnett, R H T, 1967. *The Underground Development and Pursuit of Tin Lodes. Pre-print Prepared for the 1967 Technical Conference on Tin. International Tin Council, London*. pp 26 plus Appendix.

Gekko Systems Limited, 2012. *BCGold Corp – Gravity & Intensive Leach Amenability – Testwork Report #T0805*. Unpublished report (Dated: April 2012). pp 32.

Gekko Systems Limited, 2012. *BCGold Corp – Gravity & Intensive Leach Amenability – Testwork Report Brief #T0805*. Unpublished report (Dated: April 2012). pp 6.

Gekko Systems Limited, 2012. *BCGold Corp – Gravity Concentrate Regrind Analysis– Testwork Report #T0922*. Unpublished report (Dated: July 2012). pp 16.

Golder, 2007. *Preliminary Environmental Review – Engineer Gold Mine*. Unpublished report for BCGold Corporation by Golder Associates Limited (Dated: 31st July 2007; Authors: J Frolich, M Wong and B Sander). pp 29 plus Appendices.

Goulios, A and Matheson, M, 2009. *New value in old data: three-dimensional modelling of historical mine records, in Proceedings Seventh International Mining Geology Conference 2009*, pp 95-100 (The Australasian Institute of Mining and Metallurgy: Melbourne).

Hamm, S, 1914. *The Engineer Mine: Atlin Mining District, British Columbia. Unpublished mine operations report to The Canadian Mining and Exploration Company (Dated: 14th July 1914).* pp 17 plus maps.

Inspectorate Exploration & Mining Services Ltd., 2011. *Sample Preparation and Analysis of Table Concentrate Samples Proposal No. 1108510.* Unpublished memorandum (Dated: 11th October 2011). pp 7.

Inspectorate Exploration & Mining Services Ltd., 2012. *Metallurgical Testing of Samples from the Engineer Gold Mine Property of BCGold Corp.* Unpublished report (Dated: 9th February 2012). pp 16.

Inspectorate Exploration & Mining Services Ltd., 2012. *Proposal for a Metallurgical Testing Study of Samples for the BCGold Corp., Engineer Mine Project. Proposal 1207109.* Unpublished report (Dated: 12th September 2012). pp 11.

Inspectorate Exploration & Mining Services Ltd., 2013. *BCGold – Engineer Mine – Project 1300902. LG and HG Composite Metallurgical Results*. Unpublished report (Dated: 30th May 2013). pp 6.

Jensen, E, 2008. *Site Visit to Engineer Mine, Tagish Lake, BC: Summary and Recommendations.* Unpublished report by Bronco Creek Exploration to BCGold Corporation report (Dated: 16th September 2008). pp 13.

Johannson, GG, 1993. *Preliminary report on the stratigraphy, sedimentology, and biochronology of the Inklin Formation in the Atlin lake area, northern British Columbia, in Current Research, Part A. Geological Survey of Canada, Paper 93-1A*, pp 37-42.

Jutras, M A, 2008. *Potential Mineral Resource at the Engineer Mine Project, Tagish Lake, Northwestern, BC.* Unpublished BCGold Corporation report (Dated: May 2008). pp 13.

Lowey, G W, 2003. *Preliminary lithostratigraphy of the Laberge Group (Jurassic), south-central Yukon: Implications concerning the petroleum potential of the Whitehorse Trough, in Yukon Exploration and Geology 2003*, Yukon Geological Survey, pp 129-142.

Lustig, 2011. *QA/QC Review – Engineer Mine*. Unpublished report for BCGold Corporation by G N Lustig Consulting Limited (Dated: February 2011; Author: G N Lustig). pp 8

Mauthner, M H F, Groat, L A and Raudsepp, M, 1996. *The Engineer mine, Tagish Lake, British Columbia. Mineralogical Record, 27*, pp 263-273.

McDonald, B W R, 1987. *Geology and Genesis of Mt Skukum Tertiary Epithermal Gold-Silver Deposit, southwestern Yukon Territory*. Unpublished MSc thesis, University of British Columbia.

Mihalynuk, M G and Mountjoy, K L, 1990. *Geology of Tagish Lake Area (104M/8, 9E). British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1989*, Paper 1990-1, pp 181-196.

Mihalynuk, M G and Smith, M T, 1992. *Highlights of 1991 Mapping in the Atlin-West Map Area (104N/12). Geological Fieldwork 1991*, Paper 1992-1, British Columbia Geological Survey Branch, pp 221-227.

Mihalynuk, M G, 1999. *Geology and Mineral Resources of the Tagish lake Area (NTS 104M/8, 9, 10E, 15 and 104N/12W), Northwestern British Columbia*. Geological Survey Branch, British Columbia Ministry of Energy and Mines, Bulletin 105, pp 217.

Millonig, L J, Beinlich, A, Raudsepp, M, Devine, F, Archibald, D, Linnen, R L, Groat, L A, 2016. The Engineer Mine, British Columbia: An example of epithermal Au-Ag mineralization with mixed alkaline and subalkaline characteristics. Ore Geology Reviews 83 (2017), 235-257, pp 23.

Mišković, A and Francis, D, 2005. *Interaction between mantle derived and crustal calc-alkaline magmas in the petrogenesis of the Sifton Range volcanic complex, Yukon, Canada*. Lithos, 87, pp 104-134.

Morrison, R J, Storey, N J M and Towsey, C A J, 2004. *Management of geological risks associated with quartz reef gold deposits, Charters Towers, Queensland*, in Proceedings of the EGRU Symposium on Mine and Resource Geology, EGRU Contribution No 62. pp 87-106 (James Cook University: Townsville).

Panteleyev, A, 1988*. A Canadian Cordilleran model for epithermal gold-silver deposits*, in Ore Deposit Models, Geoscience Canada Reprint Series 3, pp 31-43.

Pautler, JP, 2010. "*Technical Report on the Tagish Lake Project*", Unpublished report for Blind Creek Resources Ltd; dated November 30, 2010.

Platten, I M and Dominy, S C, 2003. *The occurrence of high-grade gold pockets in quartz reefs at the Gwynfynydd mine, Wales, United Kingdom: a geological explanation of the nugget effect*, Exploration and Mining Geology, 10:249-272.

Reddick, 2009. *Technical Report on the Tag Property, BC*. Unpublished report for CZM Capital Corporation by Reddick Consulting Inc (Dated: 21st December 2009; Authors: J Reddick and TJ Armstrong). pp 53 plus Appendices.

Shirmohammad, F, Smith, P L, Anderson, R G, Loxton, J and McNicoll, V J, 2007. *Preliminary Report on the Triassic and Jurassic Stratigraphy and Palaeontology of the Sinwa and Takwahoni Formations near Lisadele Lake, Tulsequah Map Area, northwestern British Columbia*. Geological Survey of Canada, Current Research 2007-A9, pp 11.

Simmons, S F, White, N C and John, D A, 2005. *Geological characteristics of epithermal precious and base metal deposits*. Society of Economic Geologists 100th Anniversary Volume, pp 485-522.

Smit, H, 1988. *Diamond Drilling Report on the Engineer Property, Atlin Mining Division, British Columbia*. Unpublished report by Erickson Gold Mining Corporation (Dated: 4th April 1988). pp 31 plus Appendices.

Snowden, 2009. *Engineer Mine Bulk Sampling Study*. Unpublished report for BCGold Corporation by Snowden Mining Industry Consultants Limited (Dated: 11th September 2009; Author: S C Dominy). pp 23.

Snowden, 2011. *Engineer Gold Project, BC, Canada; Project No. L502; Mineral Resource Estimate April 2011*". National Instrument 43-101 technical report filed on SEDAR. (Author: S C Dominy). pp 96.

Storrar, C D, 1981. *South African Mine Valuation*. Chamber of Mines of South Africa, pp 470.

Souther, J G, 1967. *Acid volcanism and its relationship to the tectonic history of the Cordillera of British Columbia, Canada.* Bulletin of Volcanology, 30, pp 161-176.

Souther, J G, 1991. *Volcanic regimes, in Geology of the Cordilleran Orogen in Canada*. Geological Survey of Canada No 4, pp 457-490.

Souther, J G, Armstrong, R L and Harakal, J 1984. *Chronology of the peralkaline, late Cenozoic Mount Edziza Volcanic Complex, northern British Columbia, Canada*. Geological Society of America Bulletin, 95, pp 337-349.

Souther, J G and Yorath, C J, 1991. N*eogene assemblages, in Geology of the Cordilleran Orogen in Canada*. Geological Survey of Canada Publication No 4, pp 373-401.

Taylor, B E, 2007. *Epithermal gold deposits, in Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods*. Geological Association of Canada, Mineral Deposits Division, Special Publication No 5, pp 113-139.

Wheeler, J O, Brookfield, A J, Gabrielse, H, Monger, J W H, Tipper, H W and Woodsworth, G J 1991. *Terrane Map of the Canadian Cordillera.* Geological Survey of Canada, Map 1713A, Scale 1: 2,000,000.

Wheeler, J O and McFeely, P, 1991. *Tectonic Assemblage Map of the Canadian Cordillera and adjacent parts of the United States of America*. Geological Survey of Canada, Map 1712A, Scale 1: 2,000,000.

Wordsworth, G J, Anderson, R G and Armstrong, R L, 1991. Pl*utonic regimes, in Geology of the Cordilleran Orogen in Canada*. Geological Survey of Canada, Publication No 4, pp 491-531.

Wright, K L, English, J M and Johnston S T, 2004. *Structural relationship between the Laberge Group and Sinwa Formation on Copper Island, southern Atlin Lake, northwest British Columbia*. Resource Development and Geosciences Branch, Summary of Activities 2004, p 113-120.

28 QP Certificates

Certificate of Qualifications

I, Darren O'Brien, P.Geo, do hereby certify the following:

- I am a co-author of this technical document titled "Engineer Gold Mine, British Columbia, Canada – January 2018 (Amended and Restated)" dated May 9, 2018 (the "**Technical Report**").
- I take responsibility for all sections of the Technical Report with the exception of Section 13 and Section 14.
- I have read the definition of "qualified person" set out in National Instrument 43-101 ("**NI 43-101**") and certify that by reason of my education, affiliation with professional associations, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- I am a graduate of the University of Alberta (1993) and hold a B.Sc. Degree (Specialization) in Geology.
- In 2001 I obtained an Advanced Diploma in Geographic Information Systems (GIS) from the British Columbia Institute of Technology.
- I am registered as a Professional Geologist with the Association of Professional Engineers and Geoscientists Alberta (APEGA), the Professional Engineers and Geoscientists of BC (APEGBC), and a former elected director of The Association for Mineral Exploration British Columbia (AMEBC).
- I have worked in my profession as a Geologist for 24 years, both as an employee of major and junior mining companies, and as an independent consultant. I have worked at a variety of mining and exploration projects in Canada, United States, Central Asia and the Caribbean.
- I have read NI 43-101, Companion Policy 43-101CP, and Form 43-101F1; and the Technical Report has been prepared in compliance with that instrument and form.
- At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report, or part that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- I have been to the Engineer Gold Mine numerous times from 2011 to 2014 to manage and participate in the exploration work described in this Technical Report. I did a field inspection on October 11, 2017 which included inspecting the underground workings.
- I visited the Wann Prospect and inspected the drill core from the 2011 program on October 12, 2017.
- I am independent of Blind Creek Resources Ltd. and Engineer Gold Mines Ltd., as defined by Section 1.5 of NI 43-101, and do not expect to become an insider, associate or employee of the issuer.
- I operate under the business name O'Brien Geological Consulting Inc., a business independent of Blind Creek Resources Ltd and Engineer Gold Mines Ltd.
- The business address of O'Brien Geological Consulting Inc. is 3649 – 153 Street, Surrey, BC, V3Z 0R2.

(signed) "Darren O'Brien"
Darren O'Brien
May 9, 2018

Certificate of Qualifications

I, Dr Simon C. Dominy, FGS(CGeol) FAusIMM(CPGeo), do hereby certify the following:

- I am a co-author of this technical document titled "Engineer Gold Mine, British Columbia, Canada – January 2018 (Amended and Restated)" dated May 9, 2018 (the "**Technical Report**").
- I take responsibility for section 14 of the Technical Report, and have read all other sections.
- I have read the definition of "qualified person" set out in *National Instrument 43-101* ("**NI 43-101**") and certify that by reason of my education, affiliation with professional associations, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- I am a graduate of the University of London, England (1988) and hold a BSc Hons. degree in Applied Geology. In 1993 I obtained a Doctor of Philosophy (PhD) degree in Resource Geology from Kingston University London, England.
- I am a Fellow of the Geological Society of London (FGS) and Chartered Geologist (CGeol), and a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and Chartered Professional Geoscientist (CPGeo).
- I have worked in my profession as a geologist for almost 30 years, both as an employee of junior mining companies and as a consultant. I have worked on a variety of mining and resource development projects across Africa, Australia, Europe and South America.
- I have read NI 43-101, Companion Policy 43-101CP, and Form 43-101F1; and the Technical Report has been prepared in compliance with that instrument and form.
- At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report, or part that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- I completed at site inspection of the Engineer gold mine in March 2011.
- I am independent of Blind Creek Resources Ltd. and Engineer Gold Mines Ltd., as defined by Section 1.5 of NI 43-101, and do not expect to become an insider, associate or employee of the issuer.
- For this project I have operated as a consultant, at the address of: Wey House, 15 Church Street, Weybridge, Surrey KTl3 8NA, UK

(signed) "Simon C. Dominy"
Dr Simon C. Dominy
May 9, 2018

Certificate of Qualifications

I, Michael Redfearn, P.Eng., do hereby certify the following:

- I am co-author of this technical document titled "Engineer Gold Mine, British Columbia, Canada – January 2018 (Amended and Restated)" dated May 9, 2018 (the "**Technical Report**").
- I take responsibility for section 13.
- I have read the definition of "qualified person" set out in National Instrument 43-101 ("**NI 43-101**") and certify that by reason of my education, affiliation with professional associations, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- I am a graduate metallurgical engineer of Michigan Technological University (1968) and hold a B.Sc. Degree in Metallurgical Engineering. In 1963, I obtained a certificate in Mining Technology from the Haileybury School of Mines.
- I am registered as a Professional Engineer with the Professional Engineers and Geoscientists of BC (APEGBC).
- I have worked in my profession as a Metallurgical Engineer for 46 years, as an employee of major and junior mining companies. I have worked at a variety of mining and exploration projects in Canada, United States and South America. I have worked at a major inspection and testing company on projects around the world.
- I have read NI 43-101, Companion Policy 43-101CP, and form 43-101F1; and the Technical Report has been prepared in compliance with that instrument and form.
- At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report, or part that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- I have completed a site inspection of the Engineer Gold Mine on June 20, 2017.
- I am independent of Blind Creek Resources Ltd. and Engineer Gold Mines Ltd., as defined by Section 1.5 of NI 43-101, and do not expect to become an insider, associate or employee of the issuer.
- I operate as an independent Professional Engineer at the address of 9 – 35 Normandy Road North, Whitehorse, YT Y1A 0L4.

(signed) "Michael Redfearn")
Michael Redfearn
May 9, 2018

[STAMPED]