Assessment Report on the

### 2016 DRILLING PROGRAM

on the

### **BOULEVARD PROJECT, YUKON**

Grant Number	Claim Name	Grant Number	Claim Name
YC46726 - YC46733	Tiger 1 - Tiger 8	YD51301 - YD51328	XT 301 - XT 328
YC64776 - YC64871	BLVD 1 - BLVD 96	YD51331 - YD51358	XT 331 - XT 358
YC65316 - YC65319	AVE 1 - AVE 4	YD51361 - YD51378	XT 361 - XT 378
YC81284 - YC81315	DRIVE 1 - DRIVE 32	YD51595 - YD51640	XY 95 - XY 140
YC82926 - YC83031	BLVD 97 - BLVD 202	YD51642 - YD51701	XY 142 - XY 201
YC98845 - YC98852	HAN 1 - HAN 8	YD51801 - YD51810	BDW 1 - BDW 10
YD08611 - YD08694	SOL 1 - SOL 84	YD51901 - YD51932	XZ 1 - XZ 32
YD12511 - YD12516	VIP 501 - VIP 506	YD61666 - YD61667	VIP 326 - VIP 327
YD15231 - YD15248	GRT 1 - GRT 18	YD62088 - YD62097	VIP 388 - VIP 397
YD15269 - YD15270	GRT F 19 - GRT F 20	YD62182 - YD62195	VIP 342 - VIP 355
YD15271 - YD15286	GRT 21 - GRT 36	YD62198 - YD62200	VIP 358 - VIP 360
YD49101 - YD49194	BDW 11 - BDW 104	YD62233 - YD62244	VIP 433 - VIP 444
YD50701 - YD50754	XY 1 - XY 54	YD62257 - YD62268	VIP 457 - VIP 468
YD50756 - YD50780	XY 56 - XY 80	YD62287 - YD62292	VIP 487 - VIP 492
YD51236 - YD51238	XT 236 - XT 238	YD62299 - YD62300	VIP 499 - VIP 500
YD51240	XT 240	YD62301 - YD62309	VIP 361 - VIP 369
YD51242	XT 242	YD62384 - YD62387	VIP 384 - VIP 387
YD51244	XT 244	YE27193 - YE27206	XY 81 - XY 94
YD51269 - YD51286	XT 269 - XT 286	YE27207	XY 141

WHITEHORSE MINING DISTRICT Dates Worked: July 19 – August 11, 2016

NTS 50k Mapsheet: 115J13, 115J14 UTM 566,500E; 6,969,000N (NAD 83, Zone 7)

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### SUMMARY

The Boulevard Project ("Boulevard"), consisting of 4 contiguous properties: Boulevard, Tiger, Solitude and YCS, is an early stage exploration project, operated by Independence Gold Corp. ("InGold" or "the Company"). Work completed in 2016 focused primarily on drill testing geologic, geophysical and soil targets. Activities over the past ten years have targeted structurally hosted, orogenic gold mineralization. During this time, InGold and its predecessors have conducted multiple rounds of soil geochemical surveys, collecting more than 20,000 soil and rock samples within the project's boundary. This year, a total of 2,946 metres (m) were drilled on the Boulevard Project including, 1,401 m at the Sunset-Sunrise Zone and 1,545 m at the Denali Zone. The 2016 drill program successfully confirmed gold mineralization associated with quartzites and quartz veins hosted within the schist package.

### INTRODUCTION

The Boulevard Project, comprising 888 quartz claims, is located in west-central Yukon approximately 135 km south of Dawson City, Yukon, 35 km south of Kinross Gold Corp's White Gold deposit, and contiguous to the western side of the Coffee Gold project owned by Goldcorp Inc. (Figure 1).

Drilling programs were completed on the Sunset-Sunrise and Denali Zones on the Boulevard Project. Two reverse circulation drill programs were conducted between July and August, 2016. This report provides a discussion of results, interpretations and recommendations for the two programs. The authors participated in and managed the programs. The Statements of Qualification are contained within this report.

The objective of the drilling at the Sunrise-Sunset Zone was to test multi-element soil anomalies and the relationship between southwest-striking quartz veins and southeast-striking quartzite horizons. At Denali, the objective was to follow-up along strike and down-dip from drill hole BV15-03, evaluate the potential for NNW-striking structures and to evaluate the new Kahiltna soil anomaly.



Figure 1 – Location Map

### **CLAIM DATA AND OWNERSHIP**

InGold's predecessor Silver Quest Resources Ltd. ("Silver Quest") acquired the BLVD claims from Rimfire Minerals and Northgate Minerals in July 2009. Through various staking campaigns, and the acquisition of the VIP claims from Goldspike Exploration Inc., the project was expanded in 2010 and 2011. The project was transferred to the Company in January 2012 after Silver Quest was taken over by New Gold Inc. Quartz claims are registered with the Whitehorse Mining Recorder. This report covers 888 contiguous quartz mining claims, an approximate area of 18,568 hectares (ha) which encompasses the entire Boulevard Project.

Boulevard centres on UTM 566,500E and 6,969,0000N (NAD 83, Zone 7) on NTS map sheets 115J13, 115J14, 115O03 and 115O04 as shown on Figure 2 (in pocket). A five-year, Class 3 Permit (LQ00328) was granted to Silver Quest on September 1, 2011 and transferred to InGold in 2012. Claim data for the claims covered in this report are listed below.

Grant Number	Claim Name	Registered Owner		
YC46726 - YC46733	Tiger 1 - Tiger 8	Independence Gold Corp.		
YC64776 - YC64871	BLVD 1 - BLVD 96	Independence Gold Corp.		
YC65316 - YC65319	AVE 1 - AVE 4	Independence Gold Corp.		
YC81284 - YC81315	DRIVE 1 - DRIVE 32	Independence Gold Corp.		
YC82926 - YC83031	BLVD 97 - BLVD 202	Independence Gold Corp.		
YC98845 - YC98852	HAN 1 - HAN 8	Independence Gold Corp.		
YD08611 - YD08694	SOL 1 - SOL 84	Independence Gold Corp.		
YD12511 - YD12516	VIP 501 - VIP 506	Independence Gold Corp.		
YD15231 - YD15248	GRT 1 - GRT 18	Independence Gold Corp.		
YD15269 - YD15270	GRT F 19 - GRT F 20	Independence Gold Corp.		
YD15271 - YD15286	GRT 21 - GRT 36	Independence Gold Corp.		
YD49101 - YD49194	BDW 11 - BDW 104	Independence Gold Corp.		
YD50701 - YD50754	XY 1 - XY 54	Independence Gold Corp.		
YD50756 - YD50780	XY 56 - XY 80	Independence Gold Corp.		
YD51236 - YD51238	XT 236 - XT 238	Independence Gold Corp.		
YD51240	XT 240	Independence Gold Corp.		
YD51242	XT 242	Independence Gold Corp.		
YD51244	XT 244	Independence Gold Corp.		
YD51269 - YD51286	XT 269 - XT 286	Independence Gold Corp.		
YD51301 - YD51328	XT 301 - XT 328	Independence Gold Corp.		
YD51331 - YD51358	XT 331 - XT 358	Independence Gold Corp.		

#### Table 1 – Boulevard Project Claim Information

Grant Number	Claim Name	Registered Owner		
YD51361 - YD51378	XT 361 - XT 378	Independence Gold Corp.		
YD51595 - YD51640	XY 95 - XY 140	Independence Gold Corp.		
YD51642 - YD51701	XY 142 - XY 201	Independence Gold Corp.		
YD51801 - YD51810	BDW 1 - BDW 10	Independence Gold Corp.		
YD51901 - YD51932	XZ 1 - XZ 32	Independence Gold Corp.		
YD61666 - YD61667	VIP 326 - VIP 327	Independence Gold Corp.		
YD62088 - YD62097	VIP 388 - VIP 397	Independence Gold Corp.		
YD62182 - YD62195	VIP 342 - VIP 355	Independence Gold Corp.		
YD62198 - YD62200	VIP 358 - VIP 360	Independence Gold Corp.		
YD62233 - YD62244	VIP 433 - VIP 444	Independence Gold Corp.		
YD62257 - YD62268	VIP 457 - VIP 468	Independence Gold Corp.		
YD62287 - YD62292	VIP 487 - VIP 492	Independence Gold Corp.		
YD62299 - YD62300	VIP 499 - VIP 500	Independence Gold Corp.		
YD62301 - YD62309	VIP 361 - VIP 369	Independence Gold Corp.		
YD62384 - YD62387	VIP 384 - VIP 387	Independence Gold Corp.		
YE27193 - YE27206	XY 81 - XY 94	Independence Gold Corp.		
YE27207	XY 141	Independence Gold Corp.		

## **PROPERTY DESCRIPTION**

#### **LOCATION**

Boulevard is located in the Independence Creek area on the south side of the Yukon River in west-central Yukon, approximately 135 km south of Dawson City, Yukon (Figure 1).

### **CLIMATE AND GEOMORPHOLOGY**

Boulevard lies within the Dawson Range, an area characterized by its rolling hills. Local elevations range from 400 m to 1,700 m above sea level. The higher elevation areas of the property are above tree line and covered with blocky felsenmeer and a thin layer of moss cover. Lower elevations support a mixture of stunted aspen, birch and spruce forest with thick willow and birch brush. Cold north facing slopes contain permafrost, and favour spruce tree growth, in contrast to the warm south facing slopes where permafrost is more intermittent, and aspen and birch trees along with ground brush predominate the vegetation cover of the hill sides.

In spite of the mild summer temperatures, permafrost can be found throughout the geographic region. Locally, permafrost is discontinuous, depending on slope direction, elevation and drainage patterns. Regionally, multiple freeze thaw cycles have resulted in an abundance of

felsenmeer covered slopes and plateaus. The Dawson Range remained unglaciated during the Pleistocene, making outcrops rare, and maintaining a soil profile that is relatively in-place. The few outcrops that are present are located along sparsely vegetated ridges and in main creek drainages.

### INFRASTRUCTURE

Access to Boulevard in 2016 was via Piper Navajo, Cessna Caravan or deHavilland Beaver aircraft operated by Tintinia Air of Whitehorse Yukon. These planes were based in Whitehorse and flew to the Independence airstrip located on the Boulevard claims. Access to other parts of the project was via a Bell 206L3 and/or a Bell 407 helicopter operated by Heli Dynamics of Whitehorse, Yukon.

Alternatively, several barge operators are available for hire to barge supplies down the Yukon River from Whitehorse or Carmacks. A barge landing does not currently exist at Boulevard; however one could be built off claim at the confluence of Independence Creek and the Yukon River with the appropriate permits. Supplies would need to be mobilized by helicopter from there to the project area. There is a barge landing near by at the confluence of Coffee Creek and the Yukon River, this landing belongs to Goldcorp and could be used with permission.

There are no roads that provide access to the Boulevard project.

A tent camp was located 2.7 km north of the Independence airstrip (Camp Coordinates: Lat: 62° 51' 23", Long: -139° 42' 18.5").

### HISTORY

### **PREVIOUS WORK**

A staking rush of historic proportions followed the discovery of the Casino Copper Gold project in 1969. At this time much of the land now included in Boulevard was staked and worked. The first known work in the area was completed by the Dawson Range Joint Venture and consisted of a regional silt sampling program during July and August 1969, targeting Casino-style copper-molybdenum mineralization. Positive results from the regional silt program led to more staking

and the completion of a soil sample grid on the eastern portion of the current Boulevard Project. The soil survey conducted by the Dawson Range Joint Venture identified an anomaly with greater than 10 grams per tonne (g/t) molybdenum over an area of 12 hectares. A follow-up trenching program consisting of 7 tractor trenches was conducted in 1970 resulting in the Toni-Tiger discovery, Minfile occurrence 115J 052, later re-staked by S. Ryan as the Tiger claims in June 2006.

In December of 1969, Fawn Bay Development Company Ltd. and Hanna Gold Mines Ltd. staked the FBH claims on the south-western portion of Boulevard and conducted reconnaissance grid soil sampling and limited geological mapping in 1970 (Minfile 115J 048). At this time two other companies were actively staking in the area. Gold Hawk Exploration Ltd. was staking the Monarch claims a few kilometres south of Toni Tiger, while Northern Empire Mines Ltd. was staking the Keg claims a few kilometres to the west of Toni Tiger. No exploration was carried out at the time on either of these claim blocks (Minfile 115J 050 and 115 051).

The majority of claims staked in 1969 lapsed within a couple of years, and the land lay untouched until 2006. In June 2006, Rimfire Minerals and Northgate Minerals formed a Joint Venture to carry out a regional silt sampling program in selected areas of the Dawson Range, targeting Pogo-style intrusion-related gold systems. Several elevated gold values including one silt sample which returned 323 parts per billion gold (ppb) were returned from a creek draining the land west of Toni Tiger. These samples were followed up on in August of 2006 by prospecting, geological mapping and conducting a reconnaissance style soil sampling grid consisting of approximately 400 samples at 100 m sample intervals (Roberts and Baker, 2007). These results led to the staking of the central core of the Boulevard property in 2007.

In 2007, the Joint Venture between Rimfire Minerals and Northgate Minerals conducted a detailed soil sampling program, collecting 1,707 soils and completed an additional round of staking in 2008 creating the current Boulevard property. During the spring and early summer of 2008, the Joint Venture carried out a significant exploration program consisting of excavator trenching, prospecting, soil sampling and minimal geological mapping. The group returned in the fall of 2008 to extend the soil sampling grid, to complete a ground magnetic and an induced polarization geophysical surveys and completed 7 diamond drill holes (Minfile 115J 050). In July of 2009, the Joint Venture optioned the Boulevard property to Silver Quest, who conducted a short reconnaissance soil sample program that fall.

In 2009, Atac Resources Ltd. was also on the ground in the area, staking and working the Han claims (Minfile 115J 048). Atac Resources Ltd. completed a reconnaissance style soil sample survey consisting of 56 samples on behalf of Archer, Cathro & Associates (1981) Limited (Smith, 2010), who optioned these claims to Silver Quest in December 2009.

During the 2010 field season Silver Quest completed a large exploration program with the help of Equity Exploration Consultants Ltd. The program included a detailed sampling program collecting 4,362 soils, 62 rocks and 8 silt samples, 62.5 line km of ground geophysics, 20 diamond drill holes totalling 3,006 m and minor amounts of prospecting and mapping (Baker 2011). During July of that year, Silver Quest staked the VIP claims (YCS Property), extending the project to the north and truncating Kaminak's ground to the west. In August 2010, Silver Quest acquired the Tiger claims from S. Ryan.

Silver Quest continued to work the Boulevard project in 2011. A variety of contractors as well as Silver Quest staff were used to complete the work. The majority of exploration work focused on soil sampling to identify anomalous geochemical trends in soil, as well as to identify drill targets. A total of 5,473 soil samples were taken, 9 diamond drill holes were completed (1,434 m) and 3,410 line km of airborne geophysics including magnetics and radiometrics were flown. At the end of the season Silver Quest conducted a small staking program, staking 592 claims on the north end of the YCS property; these new claims comprised the Solo property and were allowed to lapse in March 2015.

In December of 2011, Silver Quest was taken over by New Gold Inc. As part of the transaction Silver Quest's Yukon properties were transferred to Independence Gold Corp. In 2012, continued exploration by the Company included the collection of 5,906 soil samples from a variety of detailed sampling grids and selected ridge and spur sample lines which successfully extended the Sunset and Vegas Zones discovered in 2010, by 100 m to reach a total strike length of 2.2 km. Samples were collected at 100 m intervals along ridges, or at 25 m intervals in grid formation. The 2012 season concluded with a 240 m trenching program on the YCS property, which confirmed mineralization in bedrock within the Denali Zone.

No work was completed on the project during 2013 and 2014 due to weak market conditions. InGold, however continued to advance the project with various desktop studies and initiated an RC drill program in 2015. The 2015 drill program consisted of 2,841 m with the objective of testing linear low magnetic trends that were coincident with gold, arsenic and antimony geochemical soil anomalies. The program resulted in the identification of the Sunrise Zone. In the same year on the YCS property a five hole 929.64 m drill program was completed and focused on testing the anomalous trench rock samples identified in 2012 and the northwest-trending Denali Zone soil anomaly.

Today, Boulevard encompasses the Boulevard, Solitude, YCS and Tiger properties.

# **GEOLOGICAL SETTING**

#### **REGIONAL GEOLOGY**

Boulevard is situated within the Yukon-Tanana Terrane approximately 130 km southwest of the Tintina Fault in west-central Yukon. This area is characterized by various pericratonic terranes that were accreted to the ancestral continental margin of North America in the early Jurassic. During the mid-Cretaceous the pericratonic terranes were intruded by a northwest-southeast trending plutonic suite known as the Dawson Range Plutonic Belt (Hart et al., 2004).

### **PROPERTY GEOLOGY**

Boulevard has most recently been mapped and interpreted by G. McKenzie, M. Allan, and C. Hart of the Mineral Deposit Research Unit at the University of British Columbia, as well as by Company geologists and Michael Cooley, a structural consultant. McKenzie (2014) completed a master's research thesis on the geology and mineralization of the Boulevard project (Figure 3). Ryan et al. (2014) recently mapped the Stevenson Ridge area which includes the Boulevard Project area.



Figure 3 – Property Geology

This section summarizes the current understanding of the geology in the project area. Boulevard is underlain by 3 main rock units; the Dawson Range Batholith, the Klondike Schists and the Coffee Creek plutonic suite. The majority of the project is underlain by a west-northwest trending belt of volcanic, hypabyssal and sedimentary rocks, the Klondike Schist assemblage. This assemblage is composed of local variations of schist including variably pyritic chlorite-biotite-actinolite schist, amphibolite, variable micaceous quartzite, biotite feldspar-augen schist and quartz-augen metamorphic rocks. These rocks have been metamorphosed to a greenschist facies as identified by the presence of chlorite, biotite and actinolite assemblages within the package (McKenzie et al, 2012). This late Paleozoic aged assemblage has a number of age dates ranging from 249.6 to 267.2 Ma (McKenzie et al., 2012).

The southern portion of the project is underlain by the Dawson Range Batholith, a medium to coarse grained biotite-hornblende granodiorite of mid-Cretaceous age (dated at 100.2 to 102 Ma). This rock unit is characterized by its massive to lineated nature and locally aligned hornblende

and elongated quartz crystals. The intrusive Dawson Range Batholith is separated from the Klondike schists to the north by a major crustal-scale thrust fault that is marked by minor lenses of ultramafic harzburgite along the fault's surface trace (McKenzie et al, 2012).

The third main rock unit, the Coffee Creek plutonic suite, intrudes metamorphosed mafic schists in the central portion of the project area. The Coffee Creek plutonic suite is composed of medium to coarse grained biotite granite with minor pegmatitic phases. A minor garnet-bearing, quartz-phyric porphyry phase has been identified at the western end of the Coffee Creek pluton (McKenzie et al, 2012). This intrusive has been age dated at 99.4 Ma +/- 0.9 (McKenzie et al, 2012).

McKenzie et al. (2012) identified five major vein types and developed a paragenetic sequence for the veins in the Sunset-Sunrise area based on cross-cutting relationships observed in core drilling. The first two stages (V<sub>1</sub> and V<sub>2</sub>) contain quartz, iron carbonate, chalcopyrite, +/- pyrrhotite. The gold bearing event is V<sub>3</sub>, and these veins are comprised of quartz, iron carbonate, pyrite, arsenopyrite, gold and varying concentrations of sphalerite, galena, stibnite and tetrahedrite. V<sub>3</sub> veins are typically 2-20 mm wide and occur in sheeted sets that cross cut the metamorphic fabric at a very high angle. Geometric reconstructions of vein orientations using the metamorphic fabric yield a southeast strike and dips of 30<sup>o</sup> to the southwest. The final two vein stages (V<sub>4</sub> and V<sub>5</sub>) are comprised of variable amounts of quartz and/or iron carbonate and V<sub>4</sub> contains pyrite.

A number of structural studies have been completed on the project (McKenzie et al., 2012; Sanchez and Ciolkiewicz, 2012, and Cooley, 2015a and 2015b). The following summary is a synthesis of these studies:

- Northeast verging thrust nappes interleave and juxtapose the metamorphic rock package. These thrust faults are sub-parallel with a penetrative foliation (striking east-southeast and dip steeply to the south). The foliation is interpreted as S<sub>2</sub> and is axial planar to isoclinal F<sub>2</sub> folds that are rarely observed. The F<sub>2</sub> fold axes plunge shallowly 10-20° towards the ESE.
- NNW-SSE trending dextral fault zones offset the NNW trending thrust nappes. Seven major structures were identified on the basis of up to 800 m of offset of the ESE trending

magnetic domains (i.e. stratigraphic horizons) but other, similar minor structures are also recognized. These structures are interpreted to postdate the NE directed thrusting.

 Rarely observed NW to NE-trending linear magnetic anomalies locally cross the WNW-ESE structures. Cooley (2015a) interpreted an increased concentration of these northerly trending structural features in the Sunrise area based on the 2015 ground magnetic data. Cooley attributed these linear magnetic highs to mafic dykes emplaced along northerly trending fault structures.

A limited amount of geological mapping was completed in the Denali area in 2015 (Cooley, 2015b). The observed rock types include quartzite, biotite schist, quartz biotite schist and chlorite schist. A quartz-eye feldspar porphyry dyke appears to intrude all of the metamorphic rocks, and an ultramafic unit is interpreted based on elevated Ni, Cr and Mg values, both in soils and in samples from drill hole YCS15-04. A well developed, penetrative foliation was observed in all outcrops (except the porphyry), and this foliation strikes 306° and dips 70° to the northeast. This fabric is weakly folded by a set of open folds that plunge 30° towards 323° and locally cause the foliation to dip to the southwest.

### DRILLING

During the 2016 program, 30 reverse circulation drill holes were completed from 30 different drill sites. The summer drill program ran from July 19<sup>th</sup> to August 11<sup>th</sup> and included 15 holes (1,401 m) at the Sunset-Sunrise target area (Figure 4) and 15 holes (1,545 m) at the Denali target (Figure 5). Collar locations and survey information are provided in Table 2 and drill logs are in Appendix 1. A summary of all the geochemical results are provided in Table 3. The locations of all drill holes are summarized below. A small representative sample of each drilled interval was retained in chip trays and transported to a storage facility in Vancouver, BC. There are no drill chips retained on site.

#### SUNSET-SUNRISE ZONE DRILLING

Four target areas were tested during the 2016 program: the northwestern, central and southeastern portions of the Sunrise-Sunset geochemical anomaly and the Toni-Tiger Mo-Cu showing (Figure 4). All drill holes were drilled generally towards the east to cross-cut the southwest striking, northwest dipping quartz veins that are interpreted to be associated with gold

mineralization. Coincident gold-arsenic-antimony soil anomalies were the primary discretionary tool to position these drill holes. BV16-57 was drilled east of Sunset-Sunrise soil anomaly and tested the Toni-Tiger Mo mineral occurrence. With the exception of the quartz veins, all of the rocks have a well developed and pervasive schistosity and are metamorphosed to upper greenschist or lower amphibolite metamorphic facies. The schistosity within the Sunrise-Sunset area strikes to the southeast and dips steeply to subvertically to the southwest. In contrast, the same pervasive fabric strikes to the northwest in the Denali area and dips moderately to steeply to the northeast.

#### BV16-43

This drill hole is located at the western end of the Sunrise-Sunset soil anomaly and tested a multielement soil anomaly with values up to 505 ppb Au. The geology is comprised of quartz biotite schist with a single 1.5 metre interval of quartz muscovite schist. Quartz veining ranges from 1-15% down to 50 metres and is generally absent, to locally elevated, down to the final depth at 132.6 metres. The highest assay value was 444 ppb Au over 1.5 m and is associated with strongly elevated arsenic (3420 ppm). The single anomalous sample is hosted within a quartz muscovite schist unit.

#### BV16-44

This drill hole is located 20 metres northwest of the high-grade surface trench that returned 6.47 g/t Au over 6.0 m. The geology is dominated by quartz biotite schist with minor intervals of quartzite intersected at the top and bottom of the drill hole. Massive quartz veins occur throughout the drill hole, ranging from absent to 50%. Pyrite content ranges from absent to 7%, appears to be spatially associated with the veins, and occurs both within the wall rock and the quartz veins. Gold grades are weakly elevated and are also spatially associated with the quartz veining. A low-grade intercept of 0.20 g/t Au over 12.2 metres was intersected in the top of the drill hole, coincident with the highest concentration of the quartz veining.

#### BV16-45

This drill collar is located 25 metres southeast of the anomalous trench that returned 6.47 g/t Au over 6.0 m. Gold grades within the soil anomaly returned up to 500 ppb with associated elevated As and Sb values. The hole is dominated by quartz biotite schist with 1.5-3 metre thick intervals of quartzite, cross cut by quartz veins. The quartz veining is spatially associated with the quartzite. A low-grade intercept of 0.18 g/t Au was intersected over 9.1 metres and corresponds to increased



Figure 4: Sunrise and Sunset Geology with 2016 Drill Locations



Figure 5: Denali Geology with 2016 Drill Results

#### Table 2 – Drill Hole Summary Data

		Easting	Northing	Elev	Depth	A - im	Din
	Targerobjective	NAD83-Z7	NAD83-Z7	(m)	(m)	AZIIII	ыр
BV16-43	NE trending magnetic low/Soil anomaly	576132	6966800	1305	124.97	126	-55
BV16-44	NE trending magnetic low/Soil anomaly	576044	6966560	1331	102.11	310	-55
BV16-45	NE trending magnetic low/Soil anomaly	576544	6966510	1304	60.96	130	-55
BV16-46	NE trending magnetic low/Soil anomaly	576732	6965912	1240	70.1	90	-55
BV16-47	NE trending magnetic low/Soil anomaly	577247	6966447	1373	135.64	280	-55
BV16-48	NE trending magnetic low/Soil anomaly	577121	6966691	1294	102.11	110	-55
BV16-49	Magnetic low	577291	6967390	1260	124.97	115	-55
BV16-50	Scissor hole to BV15-31 (discovery hole)	576805	6965912	1247	169.16	272	-50
BV16-51	BV15-31 follow-up	576809	6965935	1252	170.69	270	-50
BV16-52	BV15-31 follow-up	576811	6965885	1243	140.21	270	-50
BV16-53	BV15-31 follow-up	576789	6965812	1230	132.59	270	-50
BV16-54	Discrete soil anomaly	576607	6965995	1250	156.97	110	-50
BV16-55	Soil geochem anomaly and magnetic low	576669	6965862	1227	105.16	119	-50
BV16-56	Soil geochem anomaly and magnetic low	576680	6965601	1179	50.29	120	-50
BV16-57	Toni Tiger soil geochem anomaly	576805	6965692	1211	167.03	300	-50
YCS16-06	Depth potential below 2012 trench	576983	6966109	1287	99.06	90	-55
YCS16-07	Mag low, soil anomaly	566541	6975673	1223	169.17	242	-55
	NNW trending soil anomaly, ENE trending						
YCS16-08	mag low	566497	6975699	1212	201.17	205	-55
YCS16-09	NNW trending soil anomaly	566659	6975604	1217	167.64	205	-55
YCS16-10	Perpendicular to easterly trending soil anomaly	566300	6975498	1218	199.64	335	-55
YCS16-11	Perpendicular to easterly trending soil anomaly	566102	6975500	1220	192.02	155	-55
	300m along strike to SE from YCS15-03; Au,						
YCS16-12	As, Sb; Magnetic low.	567199	6975334	1161	126.49	205	-50
YCS16-13	135m along strike to SE from YCS15-03;	566771	6975524	1203	64.01	205	-50
	Au+As Solis, NVV+NNVV geophysical anomaly						
VCS16 14	As I ( Shapile: Work WNW trending Mag	566416	6975533	1217	80.77	245	-50
10310-14	AS +/- SD Solis, Weak WINW tiending Mag	300410					
	anomaly, 1800 and 435 ppin Au anomaly						
	Solution and the second s						
YCS16-15	As, Sb, NVV + NNVV Geophysics anomaly.	566738	6975568	1210	132.59	205	-50
	anomaly						
	107 m NNW from VCS15-01: NNW trending						
YCS16-16	Au As & Sh soils	566436	6975790	1181	89.92	245	-50
	750 m north of the main Denali Zone Testing						
YCS16-17	directly down hole from the highest soil sample	566527	6976344	1108	105 16	350	-50
1001011	(289 ppb Au, 1110 ppm As)	000021	0010011		100.10	000	00
	Collar is 107 m NNW from YCS15-04: NNW						
YCS16-18	trending Au As & Sh soils testing a high of	566238	6975530	1219	76.2	215	-50
1001010	4.5 g/t Au in soil sample.	000200	0010000		10.2	210	
	450m SW of YCS15-01 NW trending robust						
YCS16-19	Au. As and Sb soil anomaly. Drilling sub-	566148	6975447	1217	115.82	230	-50
	parallel to trench, 15-30m to the NW	000110			110.02		
	32m NNW from YCS15-02: NNW trending Au						
YCS16-20	As and Sb soils.	566483	6975729	1203	117.35	245	-50

#### Table 3 – 2016 Assay Results

Drill Hole	Zone	From (m) To (m) Length (m) Au (			Au (g/t)
BV16-43	Sunset	67.1	68.1	1.5	0.44
BV16-44	Sunset	18.3 30.5 12.2		0.20	
BV16-45	Sunset	21.3 30.5 9.1		0.18	
BV16-46	Sunset	6.1	9.1	3.0	0.29
BV16-47	Sunset	4.6	27.4	22.9	1.19
Incl		4.6	7.6	3.1	4.33
BV16-47	Sunset	97.5	99.1	1.5	0.47
BV16-48	Hollywood		No Signific	cant Results	
BV16-49	Sunset		No Signific	cant Results	
BV16-50	Sunrise		No Signific	cant Results	
BV16-51	Sunrise	41.2	42.7	1.5	0.47
BV16-51	Sunrise	65.5	67.1	1.5	1.39
BV16-52	Sunrise		No Signific	cant Results	
BV16-53	Sunrise	16.8	22.9	6.1	4.36
Incl		18.3	21.3	3.1	8.27
BV16-53	Sunrise	50.3	59.4	9.2	0.36
BV16-54	Sunset	24.4	64.0	39.6	1.58
Incl		24.4 30.5 6.1 7			7.73
BV16-55	Sunset	No Significant Results			
BV16-56	Sunset	18.3	22.9	4.6	3.05
Incl		19.8	21.3	1.5	7.98
BV16-57	Toni Tiger	No Significant Results			
YCS16-06	Denali	19.8 25.9 6.1 0.9			0.98
YCS16-06	Denali	115.8 120.4 4.6 2.3			2.33
Incl		115.8 117.4 1.5 6.			6.35
YCS16-07	Denali	68.6	70.1	1.5	1.78
YCS16-08	Denali	99.1	103.6	4.6	4.28
YCS16-09	Denali		No Signific	cant Results	
YCS16-10	Denali	18.3	19.8	1.5	1.20
YCS16-11	Denali	24.4	29.0	4.6	0.95
YCS16-12	Denali	7.6	10.7	3.1	1.94
YCS16-13	Denali		No Signific	cant Results	
YCS16-14	Denali		No Signific	cant Results	
YCS16-15	Denali		No Signific	cant Results	
YCS16-16	Denali	39.6	59.4	19.8	0.47
Incl		39.6	42.7	3.1	0.71
and Incl		51.8	53.3	1.5	2.22
and Incl		57.9	59.4	1.5	2.27
YCS16-17	Kahiltna		No Signific	cant Results	
YCS16-18	Denali	No Significant Results			
YCS16-19	Denali	No Significant Results			
YCS16-20	Denali	No Significant Results			

pyrite (up to 6%) and up to 2% arsenopyrite. A separate interval returned 1.2 g/t Au over 1.5 metres within quartzite and occurs on the margin of a quartz vein. Arsenic is elevated and returned up to 4150 ppm over 1.5 metres.

#### BV16-46

The drill hole is located 30 metres to the northwest of a trench that returned 4.75 g/t Au over 3 metres. The geology is dominated by quartz biotite schist with irregularly developed, thin bands of quartzite ranging up to 4.5 metres. Quartz veining is extensive (up to 70%) down to a depth of 27 metres. Pyrite ranges from absent to 8% and occurs both with the quartz veins and the wall rock. A low grade intercept of 0.29 g/t Au over 3.04 metres was returned from an interval comprised of quartzite with cross cutting quartz veins.

#### BV16-47

The drill hole is collared 50 metres south of BV16-43 and is positioned directly south of the highest grade soil sample on the property (7,010 ppb Au). The geology is dominated by quartz biotite schist with 1.5-4.5 metre intervals of quartzite. The rocks become increasingly schistose downhole and change to quartz-muscovite schist, quartz-chlorite schist and quartz-chlorite-biotite schist at the base of the hole. Quartz veining is extensive within the top 20 metres, ranging from 1-65% of the rock. Down hole the quartz veining variably comprises 1-25% of the rock. Pyrite is not extensive and ranges from absent to 1%. Significant mineralization was intersected, returning 1.19 g/t Au over 22.9 metres and including 4.33 g/t Au over 3.05 metres. The highest grades are proximal to either the quartzite or quartz veins, and are also related to elevated values of arsenic (up to 3990 ppm).

#### BV16-48

This drill hole is located within the Vegas trend, a separate soil anomaly located approximately 200 m north of the central Sunrise-Sunset trend. The drill hole tested a 2.1 g/t Au rock sample and soil samples that returned up to 1370 ppb Au. The geology is comprised of quartz-biotite schist with two separate 1.5 and 3.05 m intervals of quartzite. No significant results were returned but very weak gold mineralization (10-97 ppb Au) was intersected from the top and extending down to 23 metres. Quartz veining ranges from absent to 15% (typically 1-2%) and pyrite is

minimal. The drill hole collared into a thin band of quartzite which returned 97 ppb Au and 557 ppm As.

#### BV16-49

This drill hole was collared in the central section of the Sunrise-Sunset soil anomaly. It tested an area of multi-element soil anomalies (up to 581 ppb Au) and is adjacent to a north-northwest trending dextral fault interpreted from the airborne magnetic data. The geology variably consists of quartz-biotite schists, quartz-chlorite schists and quartz-chlorite-biotite schists. Quartz veining ranges from absent to 35% but averages 1-3% throughout the drill hole. No significant gold results were returned but the targeted surface soil anomaly could be explained by the subtly elevated gold values in the top 24 metres (8-153 ppb Au).

#### BV16-50

This drill hole is located at the eastern end of the Sunrise-Sunset soil anomaly and tested a circular-shaped multi-element soil anomaly (up to 112 ppb Au). The geology is variably comprised of quartz-chlorite, quartz-biotite, and quartz-chlorite-biotite schists with rare, thin bands of quartzite. Quartz veining ranges from absent to 65% and averages 3-5%. No significant assays results were returned.

#### BV16-51

This drill hole is located at the eastern margin of the Sunrise-Sunset soil anomaly and tested a southeast-trending magnetic low for possible quartzite horizons, as well as a possible north-trending fault interpreted from ground magnetic data. The stratigraphic test proved to be effective as the hole collared in quartzite that extends down to a depth of 10.6 m. Other quartzite bands were intersected but are typically only 1.5 m thick. These resistive horizons occur within a schistose package that includes quartz-biotite, quartz-chlorite, and quartz-biotite-chlorite schist. Quartz veining varies from absent to 30%. Pyrite is fine grained to euhedral and varies from absent up to 15%. Two separate 1.5 m wide intervals returned 0.47 g/t Au and 1.39 g/t Au and are both hosted within, or on the margin of, quartzite horizons. In both cases, pyrite content within these two sample intervals increases to 15% and 12%, respectively.

#### BV16-52

This drill hole is located at the eastern end of the Sunrise-Sunset soil anomaly and was positioned 25 metres north of BV15-40 to follow up on the intercept that returned 15.0 g/t Au over 3.05

metres. A mixed package dominated by quartz-biotite, quartz-chlorite and quartz-chlorite-biotite schists are interlayered with minor, 1.5-3 m interval of quartzite. Quartz veining is minor (up to 10%) with trace to 2% pyrite. No significant gold mineralization was intersected.

#### BV16-53

This drill hole is located at the eastern end of the Sunrise-Sunset anomaly and was drilled using the same pad as BV15-37. It targeted the prospective quartzite intersected in BV15-31 (located 75 m to the northwest), as well as a north-south trending magnetic low anomaly identified from ground magnetic data. A 30 m wide interval of quartzite, starting at 16.8 m down hole, was intersected along with other minor 1.5-3.0 m intervals. These resistive rocks occur within quartz biotite schists. Quartz veining ranges from absent up to 40% but averages 2-5%. Pyrite concentration is minor and ranges from absent up to 4%. Two anomalous intervals were intersected in this drill hole: 4.36 g/t Au over 6.1 m starting at 16.8 m, and 0.36 g/t Au over 9.2 m, starting at 50.3 m. Significant Sb values (up to 3.73%) were returned from these mineralized zones.

#### BV16-54

This drill hole is located in the central portion of the Sunrise-Sunset soil anomaly. It was targeting elevated multi-element soil anomalies and a north trending magnetic anomaly identified from the 2015 ground survey. Over 30% of the geology is comprised of quartzite interlayered with quartz-biotite schist and quartz-chlorite-biotite schist. Two intervals of >50% quartz vein occur within the quartzite rocks. A zone of mineralization was intersected over 39.6 m and returned 1.58 g/t Au. This broad zone included a higher grade 7.73 g/t Au over 6.1 m, starting at a depth of 24.4 m. Significant Sb values (up to 1.39%) were returned from within the higher grade zone.

#### BV16-55

This drill hole is located in the central portion of the Sunrise-Sunset soil anomaly, 180 m north of BV16-54. It was targeting elevated multi-element soil anomalies and a north trending magnetic high anomaly identified from the 2015 ground survey. The geology is comprised of quartz-biotite, quartz-biotite chlorite, and quartz-chlorite schist with three, 1.5 to 6.0 m thick quartzite horizons. Quartz veining varies from absent up to 40%; the two, 1.5 m intervals with the highest concentration of quartz veins correspond to 317 ppb and 102 ppb Au. No other significant results were reported.

#### BV16-56

This drill hole is the western-most test within the Sunrise-Sunset trend. It targeted a multi-element soil anomaly and is located 290 m northwest of BV16-47. The geology consists of quartz-biotite schist with minor quartz-chlorite schist. Almost 20% of the rocks are quartzite with the thickest continuous interval being 7.5 m. Quartz veining ranges from absent to 30% and the higher concentrations of quartz veins are typically hosted within quartzite. One anomalous interval was intersected; 3.05 g/t Au over 4.6 m, including 7.98 g/t Au over 1.5 m.

#### BV16-57

This hole was the first and only hole drilled in the Toni Tiger showing, a molybdenite +/chalcopyrite showing located 1500 m to the northeast of the Sunrise zone. It was targeting a boulder field of quartz-biotite schist that host an array of molybdenite-bearing quartz veins. The drill hole is dominated by a medium grey felsite interpreted to be quartzite, interlayered with quartz-biotite schist and quartz-chlorite-biotite schist. Quartz veining varies from absent to 30% and where present, commonly contains trace to 2% molybdenite. A 76.2 m interval returned 407 ppm Mo and 227 ppm Cu.

#### **DENALI ZONE DRILLING**

#### YCS16-06 to YCS16-10, YCS16-13 and YCS16-15

These seven drill holes were all positioned to test along strike or down dip from YCS15-03 which returned 4.25 g/t Au over 6.1 m. The drill holes were positioned 30-140 m along strike (northwest or southeast) or approximately 50 m down-dip to the northeast. Geology is similar between all of the drill holes and is variably comprised of quartz-muscovite, quartz-biotite, biotite-quartz and quartz-chlorite schist, all interlayered with quartzite. Quartz veining is typically very minor, ranging from absent to 5%. Sulphides are rare and typically consist of trace to locally 2% pyrite. Trace to 1% arsenopyrite is typically associated with the mineralized zones. The significant results from this drilling are summarized in Table 3; the most significant mineralization was reported in YCS16-08 which returned 4.28 g/t Au over 4.6 m. This intercept is approximately 50 m down-dip to the northeast.

#### YCS16-11 and YCS16-12

These two drill holes tested the Denali trend along strike to the southeast with YCS16-12 positioned close to the Goldcorp property boundary. The geology is similarly comprised of an upper sequence of quartzite which is underlain quartz-biotite schist. Both drill holes intersected pyrite rich horizons (up to 8% pyrite) within the quartzite. Quartz veining was minor throughout both drill holes. YCS16-11 returned 0.95 g/t Au over 4.6 m while YCS16-12 returned 1.94 g/t Au over 3.1 m. The mineralized trend is open and trends to the southeast onto Goldcorp's property.

#### YCS16-14

This drill hole was positioned 250 m to the west of YCS15-03 and tested an area with elevated Au, As and Sb soil geochemical data. Gold-in-soil values returned up to 1880 ppb Au. The geology consists of a mixed sequence of quartzites, quartz-biotite schists and quartz-chlorite schist. No significant sulphides or mineralization was intersected.

#### YCS16-16

This drill hole was positioned 150 m northwest of YCS15-01 and tested a north-northwest trending feature defined by the geochemical and ground magnetic datasets. The geology is comprised of an interlayered package of quartzite and quartz-biotite schist. Quartz veining was absent and 1-3% finely disseminated and blebby pyrite was preserved in select quartzite horizons, coincident with the mineralized zones. This drill hole intersected 19.8 m of 0.47 g/t Au, including 1.5 m of 2.27 g/t Au. All mineralization is hosted within quartzite.

#### YCS16-17

This drill hole tested the Kahiltna Au-As-Sb soil anomaly. It is located 700 m north of the main Denali mineralized trend. It was positioned based on the highest gold and arsenic-in-soil anomalies. The geology is comprised of interlayered quartz-biotite schist and quartzite, with the quartzite forming 1.5-18 m thick intervals. No significant quartz veining or sulphides were intersected in the drill hole. No significant results were returned. The lower most quartzite was very weakly anomalous with a single sample returning 152 ppb. Both the arsenic and the antimony were weakly, to locally moderately, anomalous suggesting that this quartzite could be anomalous along strike to the east or west.

#### YCS16-18

This drill hole tested a gold-in-soil anomaly (up to 4530 ppb Au) that is sub-parallel with the primary Denali trend soil anomaly. The geology is comprised of quartz-biotite and quartz-biotite-

chlorite schist with a single 1.5 m interval of quartzite and an 18 m feldspar porphyry unit. No significant mineralization was intersected.

#### YCS16-19

This drill hole tested a multi-element soil anomaly that is located 420 m west of the central Denali trend area. The target is cored by a 495 ppb gold-in-soil anomaly. The drill hole collared into chlorite schist and changed to a layered sequence of quartz-biotite-chlorite schist, chlorite schist and very minor quartzite. The upper 44 m variably has trace to 3% pyrite hosted within the chlorite schist. No significant gold intercepts were reported.

#### YCS16-20

This drill hole tested the same feature that was tested in YCS16-16 described above. The geology is comprised of an interlayered sequence of quartz-biotite schist and quartzite with minor quartz-chlorite and quartz-biotite-chlorite schist. Pyrite occurs in trace concentrations and rarely increases to 2-3% over 5-10 metre intervals. No significant gold values were intersected but a suite of pathfinder elements were elevated within the upper, 18 m thick quartzite horizon. These elements include As, Sb, Sr and Zn.

### SAMPLING PROCEDURES

For each 1.52 metre interval (5 feet), the reverse circulation drill produces approximately 15-25 kilograms of typically dry rock chips (chips measure up to 20 mm diameter) collected and homogenized directly in a bucket. A 2-4 kg representative sample for analysis was collected from each 1.52 m interval. Samples were submitted to SGS Canada Inc.'s laboratory facility in Vancouver, an ISO 17025 certified facility.

Upon arrival at the laboratory, rock chip samples were weighed and dried. Each sample was then crushed to 75% passing 2 mm, split into a 250 gram (g) sample that was pulverized to 85% passing 75 microns (SGS PRP89). A 0.25 g (Inductively Coupled Plasma - ICP) and 30 g (fire assay- FA) subsample was obtained from the resulting material for analysis. Samples were analysed by aqua regia digestion and inductively coupled plasma with optical emission spectroscopy (ICP-OES) analysis for 34-elements (SGS GE ICP14B). Gold was analysed by fire assay and atomic absorption spectroscopy (SGS GE FAA313). If greater than 10,000 ppb Au was returned, a second analysis was completed using lead fusion fire assay and gravimetric

finish. Assay certificates of analysis, laboratory certification and analytical method summaries are presented in Appendix 2.

### QUALITY ASSURANCE/QUALITY CONTROL

For Quality Assurance-Quality Control (QA-QC) purposes, blanks (CDN-BL-10, purchased from CDN Resource Laboratories) were inserted on every sample identification number ending in 20, 50 and 80; while a gold standard (CDN-GS-5R, purchased from CDN Resource Laboratories) was inserted on every sample identification number that ended in 30, 60 and 90. The values from these blanks were used to check for contamination between samples, and gold standards were used to check the consistency of the analytical procedures used by SGS Canada Inc. Erroneous QA-QC results were investigated and appropriate re-analysis undertaken when necessary. Internal SGS Canada Inc. blanks, duplicates, standards and spikes were also used to confirm the accuracy of the analytical methods and instruments.

Two charts below summarize the results from the QA-QC sampling. QA-QC samples passed without any significant concerns. Five samples from a total of 82 blank samples submitted returned results ranging from 6-9 ppb, which is less than 2 times the detection limit (5ppb Au; Figure 6). All the gold standards returned gold values less than or greater than 2 standard deviations from the expected value (Figure 7). As a result no QA-QC failures were reported.



Figure 6 - Blank Gold Values (CDN-BL-10) from the 2016 drilling programs.



Figure 7 - Gold standard values (CDN GS-5Rfrom the 2016 drilling programs. The expected gold standard value, along with the 1<sup>st</sup> and 2<sup>nd</sup> standard deviation values are indicated.

### **DISCUSSIONS AND CONCLUSIONS**

A total of 1,545 m was drilled at the Sunset and Sunrise Zones (including a single 88.39 m drill hole at the Toni Tiger showing) in fifteen RC drill holes. A total of 1,401 m was drilled at the Denali Zone in fifteen RC drill holes. Discoveries were made in all the areas tested and are summarized below:

#### SUNSET-SUNRISE ZONE

• The close relationship between mineralized intervals, quartzite host rock and quartz veining was further supported by 2016 drilling. Gold mineralization is most commonly hosted within quartzite, or on the margin of quartzite within quartz-rich, quartzite-biotite schist. There are examples of barren quartzite so an interpreted second controlling factor

for gold mineralization is proximity to quartz veins. The density of quartz veining in this years eastwardly-directed drill holes (compared to the historic, northeasterly-directed drill holes) suggests that we are cross cutting the veining (i.e. veins are southwest striking).

- Drill holes from all three core areas (northwestern, central and southeastern) within the Sunrise-Sunset soil anomaly returned anomalous results (Figure 4). BV16-47 (1.19 g/t Au over 22.9 m) was positioned in the heart of the northwesternmost zone and is spatially associated with quartzite and two, 1.5 m wide intervals of >50% quartz veining. Pyrite occurs in association with the quartz veining but is mainly hosted within the wall rock and only rarely within the veins.
- BV16-54 returned the best results of the program (1.58 g/t Au over 39.6 m including 7.73 g/t Au over 6.1 m), and is associated with quartzite horizons occurring with quartz biotite and quartz chlorite-biotite schists, cross cut by quartz veins. Pyrite occurs within the quartzite wall rock and the quartz veins. There are two 1.5 metre intervals with rare chips of massive stibnite.
- BV16-53 is in the southeastern margin of the Sunrise area and tested along strike to the southeast from the multiple quartzite horizons intersected in BV15-31 and BV15-35.
  BV16-53 returned 4.36 g/t Au over 6.1 m hosted within quartzite with up to 7% quartz veins. This quartzite is interpreted to be continuous with the same rock intersected in BV15-31 and BV15-35 located 80 m to the northwest. This stratigraphic horizon remains open for drill testing to the northwest and southeast.
- BV16-57 intersected a broad zone of quartz veining with trace to locally 2% molybdenite, hosted within metasedimentary rocks. This drill hole returned 407 ppm Mo and 227 ppm Cu over 76.2 m.

#### **DENALI ZONE**

- Gold mineralization appears to be associated with stratigraphic contacts between quartzite and quartz-biotite schist. Like the Sunrise-Sunset zone, gold mineralization is more commonly hosted within quartzite but also does occur within schists. Quartz veining is not consistently related to gold mineralization.
- The detailed drill follow-up of BV15-03 variably returned comparable grades in the drill holes along strike and down dip to the northeast (Figure 5). BV16-08 returned 4.28 g/t Au over 4.6 m and is associated with weakly disseminated pyrite and trace arsenopyrite, developed along contacts between quartz biotite schists and quartzites. The intercept in

BV16-08 suggests there could be a shallow to moderate northeast plunge controlling mineralization but this structural geometry is not observed in outcrop.

- Drilling in BV16-11 and BV16-12 (1.94 g/t Au over 3.1 m) extends the Denali mineralization to the southeast towards the Goldcorp property boundary where the trend remains open for expansion.
- BV16-16 tested a north-northwest trending multi-element geochemical anomaly and intersected discontinuous, moderately oxidized mineralization (0.47 g/t Au over 19.8 m) hosted within quartzite and with minor disseminated pyrite mineralization.
- The soil sampling in the north Denali area lead to the discovery of the Kahiltna Anomaly, an east-west trending, gold-arsenic-antimony soil anomaly located 700 m north of the main Denali trend. The soil anomaly is open for expansion to the west. A single drill hole (YCS16-17) tested this trend but did not return any significant results.

### RECOMMENDATIONS

The following recommendations can be made for the Sunrise-Sunset and Denali Zone areas.

#### SUNSET-SUNRISE ZONE

- The northwestern, central and southeastern target areas within the 2,300 metre Sunrise-Sunset soil anomaly require further evaluation. Groundtruth Exploration's GT probe is recommended to complete soil-bedrock interface sampling along a series of lines within the cores of these three anomalies. This work should be done prior to follow-up drilling and could potentially help in vectoring into areas of mineralized quartzite.
- The broadest intervals of gold mineralization consistently occur in the drill holes that are drilled east-west. Although this seems to support the geological model of southwest striking quartz veins, diamond core drilling is required, using oriented core, to more accurately define the geometry of the veins and the stratigraphic package. Drilling should be oriented towards the east-northeast to cross-cut both the veins and the quartzite horizons, and should step out to the east-southeast and west-northwest from the existing intercepts using 25-50 m spacing.
- North-trending controlling structures, as identified from ground magnetic dataset, should also be considered for follow-up drilling around BV16-54.
- Using both the geochemical and geophysical datasets, further prospecting should be completed on the Boulevard property in areas that are structurally complicated and have multi-element (Au+As+Sb) anomalies.
- More detailed mapping should be completed to define the extent of quartz veining around the Toni Tiger showing (drill hole BV16-57). An understanding of the geology could help to define targets for continued follow-up drilling within the extensive molybdenum and copper soil anomaly.

### **DENALI ZONE**

- The mineralization within BV16-16 is centred within a north-south trending soil anomaly that is 400 m in length. This target should be tested 200 m to the north and to the south for continued mineralization.
- The Kahiltna soil anomaly must be prospected and additional soil sampling is required to evaluate the full western extent. Groundtruth Exploration's GT Probe rig can do a modified "trench" sampling program where it samples the bedrock-soil interface at a depth of 1-2

m, at 5 metre spaced intervals, along a specific line. 500 m of trenching using this method is recommended to evaluate the bedrock beneath this soil anomaly.

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### STATEMENT OF QUALIFICATIONS

I, David Gale, PGeo, MSc, of 3358 Passaglia Place, Coquitlam, British Columbia, hereby certify that:

I am a graduate of the Memorial University of Newfoundland having obtained the degree of Bachelor of Science in Geology in 1994 and am a graduate of Queen's University in Kingston having obtained a Master's of Science degree in Geology in 1997.

I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (#27366).

I have been continuously employed in the mineral exploration industry in Canada since 1994.

I am currently employed as a Senior Geologist, by Independence Gold Corp. Suite 1020-625 Howe Street, Vancouver, British Columbia, Canada, V6C 2T6.

I am the author of the report entitled "2016 Drilling Program on the Boulevard Project, Yukon" dated February 21, 2017.

I helped to manage, log rock chips and reviewed the geological work on site reported herein.

Dated this 21<sup>st</sup> day of February, 2017.

David Gale, PGeo, MSc

### STATEMENT OF QUALIFICATIONS

I, Kendra A. Johnston, PGeo, BSc, MBA of Suite 206-1550 Barclay Street, Vancouver, British Columbia, hereby certify that:

I am a graduate of the University of Victoria, British Columbia having obtained the degree of Bachelor of Science in Earth and Ocean Science and Geography, 2005 and Smith School of Business at Queen's University having obtained the degree of Masters in Business Administration.

I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (#37719).

I have been continuously employed in the mineral exploration industry in Canada since 2005.

I am currently employed as Manager, Corporate Development, by Independence Gold Corp. Suite 1020-625 Howe Street, Vancouver, British Columbia, Canada, V6C 2T6.

I am an author of the report entitled "2016 Drilling Program on the Boulevard Project, Yukon" dated February 21, 2017.

I helped to manage the work program and reviewed the geological work reported herein.

Dated this 21<sup>st</sup> day of February, 2017.

Kendra A. Johnston, PGeo, MBA, BSc,

# STATEMENT OF EXPENDITURES

#### **Boulevard Statement of Expenditure**

	<u>Quantity</u>	<u>Rate</u>		<u>Cost</u>	
Soil/Rock Sample Analysis	2,039	\$26.50		\$54,033.50	
Sample Shipping	3	\$300.00		\$900.00	
Senior Geologist day(s)	75	\$500.00		\$37,500.00	
Padbuilder/technician days	84	\$500.00		\$42,000.00	
Camp support staff day(s)	50	\$500.00		\$25,000.00	
Driller day(s)	92	\$0.00		\$0.00	
Pilot day(s)	25	\$0.00		\$0.00	
Planning and reporting day(s)	20	\$500.00		\$10,000.00	
Camp Costs (per man day)	326	\$250.00		\$81,500.00	
Fixed Wing Flight(s)	16	\$3,500.00		\$56,000.00	
Helicopter Hour(s)	112	\$1,650.00		\$184,800.00	
Helicopter Fuel (drums)	78	\$350.00		\$27,300.00	
Drilling Contract	23	\$10,850.00		\$249,550.00	
		Subtotal:		\$768.583.50	
					-
		Supervision:	12%	\$92,230.02	
		Total:		\$860,813.52	
		Claims Worked:	14	\$61,486.68	per claim worked
		Claims Grouped:	888	\$969.38	per claim grouped

Date(s) Worked: July 19 - Aug 11, 2016

Work Completed by: Independence Gold Corp., Northspan Drilling and All In Exploration

# APPENDIX 1 DRILL LOGS

# Legend

CAS	Casing	ppm	parts per million					
QBS	Quartz Biotite Schist	Ox	Oxidation 1-5 with 1: very weak, 2:Weak, 3: Moderate, 4: Strong and 5: Intense					
QMS	Quartz Muscovite Schist	Qtz	Quartz					
CS	Chlorite Schist	SX	Sulphides					
QTZT	Quartzite	cm	Centimeter					
GR	Granite	mm	Millimeter					
ARG	Argillite	ру	Pyrite					
VN	Vein	ро	Pyrrhotite					
From, To	measured in metres	сру	Chalcopyrite					
ppb	parts per billion	aspy	Arsenopyrite					
-1	Below Detection Limit	LB	Logged By					
Qtz Vn	Quartz Vein (pct)	dk gy	Dark Grey					
Lt bn	Light Brown	gn	green					
or	orange	wt	white					
str	Strong	Diss	Disseminated					
med	Medium	wk	Weak					
tr	Trace							
From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
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0	15			OB			 	
10	15	E00004827	Grey	QBS	Grey quartzite with 30% strongly oxidized fractures, homogenous rocks with weak fabric, quartz vein contact parallel to fabric: black selvages in wall rock along contact, no pyrite	2		
15	20	E00004828	Grey	QBS	As above, 30% strongly oxidized fractures and moderate patchy-selective oxidation +/0 rocks. Quarz vein is strongly oxidized with trace pyrite	5	0.1	
20	25	E00004829	Grey	QBS	Quartzite as above with trace pyrite; Quartz vein is 50% strong oxidation; very small quartz vein chips; 30% of chips have strong fracture oxidation and 10% pervasive moderately strong.	3	0.1	
25	30	E00004831	Grey	QBS	Quartzite as above; rare oxidized chips	5	0.1	
30	35	E00004832	Grey	QBS	Quarzite as above, with slightly stronger foliation; still trace disseminated pyrite, quartz vein is white with minor chilorite and black biotite (?), rarely oxidized, speck silvery mineral in quartz vein (aspy?).	4	0.1	
35	40	E00004833	Dark Grey	QBS	Mixed 40% quartzite as above and 60% brownish biotite rich quartzite (almost QBS). Quartz vein is tiny chips, generally moderate-strongly oxidized.	1		
40	45	E00004834	Brown Grey	QBS	Mixed as above; white quartz looks gradational within quartzite rathern than in vein contact; one speck possible aspy.	1		
45	50	E00004835	Dark Grey	QBS	Mixed as above but 75% grey quartzite with up to 1% disseminated pyrite; two types of quartzone dirty and partly banded quartzite, other white quartz vein speck aspy (lost it).	1		
50	55	E00004836	Dark Grey	QBS	As above; difficult to distinguish quartz vein from quartz banding; some white quartz has strong chlorite blebs	5	0.1	
55	60	E00004837	Grey	QBS	As above; appears to be predominantly dirty banded quartz (35%) of chips with minor possible quartz vein (white); dirty quartz has trace pyrit and possible trace aspy.	2		
60	65	E00004838	Grey	QBS	Predominantly dirty quartzite and biotite rich near schistose chips; 1% white very small quartz vein chips; trace to 1% pyrit in both guartzites.	1	1	
65	70	E00004839	Brown	QBS	Mixed dirty brown quartzite with varying abundance brown biotite (10-30%), with 60% biotite poor dirty quartz-quartzite banded with other quartzite trace white quartz vein tiny chips no sulphides in quartz veins.	1	0.1	
70	75	E00004840	Brown Grey	QBS	As above, rare white quartz chips shows parallel to fabric	0.1	0.1	
75	80	E00004842	Brown Grey	QBS	As above, trace carbonate on dirty quartz piece.	0.1		
80	85	E00004843	Grey	QBS	Mixed quartzite with 30% brown biotite-poor quartzite as above with brown bitoite rich and grey biotite poor quartzite; less dirty quartz bands.	2		
85	90	E00004844	Brown Grey	QBS	Predominantly brown biotite rich quartzite (almost schistose) and homogenous grey quartzite; white quartz vein (?) chips show blebby pyrite and rarely HCL reaction.	4	0.1	
90	95	E00004845	Dark Grey	QBS	As above; rare white carbonate is along foliation.	0.1	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
95	100	E00004846	Brown	QBS	Mixed quartzite as above; moderate foliation cabonate vein material appears to have more abundant sulphide than quartz vein-quatz bands with tarnished pyrite blebs (~2% but few chips).		0.1	
100	105	E00004847	Brown	QBS	Mostly dirty brown biotite poor quartzite with blebby pyrite (1-2%) plus pyrite along fractures in grey homogenous quartzite.		2	
105	110	E00004848	Brown	QBS	As above except quartz vein material has 2% pyrite.	5	0.1	
110	115	E00004849	Grey	QBS	Mostly grey homogenous quartzite; quartz vein is moderately oxidized.	15	0.1	
115	120	E00004851	Grey	QBS	Mostly homogenous massive to banded grey quartzite with fine trace disseminated pyrite and greenish	5	0.1	
120	125	E00004852	Grey	QBS	As above but more foliated	2	1	
125	130	E00004853	Grey	QBS	Back to dirty biotite poor quartzite; 30% moderate to strongly oxidized chips, mostly quartz but also dirty quartzite; dirty quartzite has 1-2% very fine disseminated pyrite	3	0.1	
130	135	E00004854	Brown Grey	QBS	Predominantly grey banded quartzite with 15-25% bitoite, 1% white quartz mm scale bands; 2% oxidized fractures			
135	140	E00004855	Grey	QBS	As above with very fine trace disseminated pyrite.	1	0.1	
140	145	E00004856		QBS	As above; 3% sulphides in very small carbonate chips with possibly aspy; host rocks has very fine disseminated pyrite (trace): 10% oxidized chips.	3	1	
145	150	E00004857	Grey	QBS	Mix of dirty biotite poor and banded grey quartzite both have trace very fine disseminated pyrite; quartz in chips are along foliation: 10% oxidized fracture chips		0.1	
150	155	E00004858	Brown Grey	QBS	Predominantly dirty brown biotite poor quartzite with trace dissminated pyrite; banded and moderately foliated; cabonate veins are weakly HCl reactive (quartz veins carbonate altered?)	4	0.1	
155	160	E00004859	Light Grey	QBS	As above; 80% bright white quartz vein material non HCl reactive and slightly banded - no sulphides. 5% strongly oxidized chips.	10	0.1	
160	165	E00004861	Light Grey	QBS	As above; evidence white quartz is parallel to foliation; 5% oxidized chips (strong)	5	0.1	
165	170	E00004862		QBS	As above; evidence white quartz is parallel to foliation		0.1	
170	175	E00004863	Grey	QBS	As above; 2% strong to intense oxidized chips. There is no clear evidence any of the white quartz/carbonate is cross cutting veins; there is ~30% white quartz in chips; speck possibly aspy in whitish (dirty) chip		0.1	
175	180	E00004864	Grey	QBS	As above; 10% white quartz (hardness >6) but moderate HCl reaction)		0.1	
180	185	E00004865	Grey	QBS	Interval more biotite rich, almost no white quartz			
185	190	E00004866	Dark Grev	QBS	As above, almost schistose; <5% white quartz but these chips all have sulphidesup to 10% and possible aspy: calcite banding in large chip.		0.1	
190	195	E00004867	Grey	QBS	As above; 10% translucent quartz (no sulphides); 10% dirty-white quartz with pyrite and trace possible aspy; host rock is quartz rich; banded to near schistose with trace blebby pyrite.		0.1	
195	200	E00004868	Grey	QBS	Predominantly dirty biotite poor quartzite with previous biotite rich quartzite (25%); white to dirty quartz ~10% each as above; 3% strongly oxidized chips		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
200	205	E00004869	Brown Grey	QBS	Almost all dirty biotite-poor quartzite with 20% white quartz (again not likely vein but part of unit).			
205	210	E00004870	Grey White	QBS	Mixed 50/50 dirty quartzite and biotite rich quartzite. 35% quartz (never clearly vein material); 4% strongly oxidized host has blebby pyrite.		1	
210	215	E00004872	Grey	QBS	As above but 70:30 dirty biotite poor quartzite. 40% of chips have moderate chlorite alteration. 4% clean white quartz.		2	
215	220	E00004873	Light Grey	QMS	Predominantly dirty quartzite as above. 30% of chips moderately to less commonly strong chlorite altered; host has trace blebby pyrite		0.1	
220	225	E00004874	Grey	QBS	Mixed grey quartzite and dirty quartzite with 5%+ diseminated and blebby pyrite plus 1% or more aspy with host rock and probably quartz bands. 3% oxidized chips (strong).		5	
225	230	E00004875	Dark Grey	QBS	Predominantly biotie rich quartzite with ~20% of previous sulphide-rich unit; Biotite rich has trace pyrite; 5% white quartz chips.		1	
230	235	E00004876	Dark Grey	QBS	As above but biotite rich quartzite has ~2% disseminated and blebby pyrite; 1% oxidized strong chips; rare magnetically susceptible chips.		2	
235	240	E00004877	Grey	QBS	Mixed dirty quartzite and biotite-rich quartzite together have +5% disseminated and blebby pyrite plus possible trace aspy; 5% white quartz.		5	
240	245	E00004878	Dark Grey	QBS	As above; 2% disseminated and blebby pyrite; 1% white quartz.		2	
245	250	E00004879	Dark Grey	QBS	Mixed as above; ~2% disseminated and blebby trace white quartz.		2	
250	255	E00004881	Grey	QBS	As above; 2% pyrite disseminated and blebby; 5% white quartz.		2	
255	260	E00004882	Brown Grey	QBS	Predominantly biotite poor dirty quartzite with blebby and disseminated pyrite up to 4%; $^{1\%}$ white quartz but this is banded veinlet.		4	
260	265	E00004883	Brown Grey	QBS	As above; ~2% disseminated and blebby pyrite.		2	
265	270	E00004884	Grey	QBS	Predominantly grey quartzite with ~20% dirty quartzite; ~6% disseminated and blebby, maybe fractured pyrite; <1% white quartz		6	
270	275	E00004885	Dark Grey	QBS	As above; 3% pyrite as above; no white quartz		3	
275	280	E00004886	Grey	QBS	As above, almost schistose; 4% pyrite as above.		4	
280	285	E00004887	Dark Grey	QBS	Dark grey quartzite predominantly, no white quartz; 3-4% fine dissemianted, blebby and fracture pyrite		4	
285	290	E00004888	Dark Grey	QBS	As above; 4% pyrite as above; 1% white quartz.		4	
290	295	E00004889	Dark Grey	QBS	As above; 6% pyrite as dissminated, blebby and fractures; 8% white quartz sometimes associated with strong chlorite alteration. 3% strongly oxidized chips.		6	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
295	300	E00004891	Dark Grey	QBS	As above; 20% white quartz chips, 4% pyrite and vein as above; very small chips this interval		4	
300	305	E00004892	Dark Grey	QBS	As above; 15% white quartz chips; 3% pyrite		3	
305	310	E00004893	Dark Grey	QBS	Dark grey, borderline schistose, 20% white quartz chips, 3% pyrite as dissminated and blebs and fracture fill		3	
310	315	E00004894	Dark Grey	QBS	As above, borderline schistose, 15% white quartz chips, 2-3% pyrite as dissminated and blebbs.		2.5	
315	320	E00004895	Dark Grey	QBS	Dark grey. White quartz pieces dropped off to ~1%, pyrite still good as disseminated and blebs.		3	
320	325	E00004896	Dark Grey	QBS	Dark grey, impure quartzite with 5-10% biotite very weak fabric, borderline schistose; pyrite increase as dissminated/blebs/fracture fill, trace chlorite alteration in select fragments.		5	
325	330	E00004897	Dark Grey	QBS	70% QBS, 30% quartzite; QBS has moderate fabric, 20-25% biotite, dark grey; pyrite good, occurs in both units as predominantly blebs/fracture fill and disseminated.		4	
330	335	E00004898	Dark Grey	QBS	As above, with ~25% quartzite fragments; increase in white quartz> veining?; Pyrite strong as disseminated/blebs/stringer, ~1mm pyrite stronger cutting fabric noted; chlorite appearing in select fragments.	3	5	
335	340	E00004899	Dark Grey	QBS	As above; ~15% of fragments quartz rich with weak fabric; pyrite +/0 as blebs/disseminated/fracture fill, stronger cutting fabric.	2	4	
340	345	E00004900	Dark Grey	QBS	As above; ~10% of fragments quartz rich with weak fabric; slight pyrite decrease but occurs in same nature.	2	2	
345	350	E00004901	Dark Grey	QBS	As above but slightly less defined fabric; pyrite +/0 predominately disseminated and blebs	3	3	
350	355	E00004902	Dark Grey	QBS	As above; 25% quartz rich pieces; pyrite predominantly disseminated with lesser blebs and fracture fill.	2	3	
355	360	E00004903	Grey	QBS	70% quartzite, 30% QBS as above; quartzite is medium to dark grey, ranging from clean to ~10% biotite; pyrite slight decrease, appears more dominant in QBS.		2	
360	365	E00004904	Grey	QBS	80% quartzite, 20% QBS both as above; 15% white quartz fragments (veining?); pyrite drops but similar nature to above.		1.5	
365	370	E00004905	Dark Grey	QBS	Dark grey, moderate to strong fabric, 25-30% biotite; 5-10% of fragments more quartz rich; pyrite decreasing, occurs as disseminated and fracture fill.	0.1	1	
370	375	E00004906	Dark Grey	QBS	As above, becoming fairly homogeneous, pyrite zone appears to be ending.		0.5	
375	380	E00004907	Dark Grey	QBS	As above but with 12-15% quartz rich fragments; pyrite slightly increased as predominantly blebs.	2	1	
380	385	E00004908	Dark Grey	QBS	As above; pyrite predominantly occurs as fracutre coatings with lesser dissemination.	0.1	0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
385	390	E00004909	Dark Grey	QBS	As above; fairly uniform; pyrite decreasing.	4	0.3	
390	395	E00004910	Dark Grey	QBS	As above; 45% of interval consists of milky white to translucent quartz vein; 0.25% disseminated pyrite in quartz vein; possible trace aspy in quartz vein.	45	0.3	
395	400	E00004912	Dark Grey	QBS	As above; quartz veining gone; pyrite as blebs and fracture coating; one quartz fragment with pssible aspy.	2	0.8	
400	405	E00004913	Dark Grey	QBS	As above, very homogenous; pyrite as blebs/fracture coatings.		0.5	
405	410	E00004914	Dark Grey	QBS	As above; pyrite as blebs/fracture coatings and minor dissemination.		0.8	
410	415	E00004915	Dark Grey	QBS	Similar to above; ~15% quartz rich fragments; probably minor muscovite starting to appear in select pieces.	0.1	0.3	
415	420	E00004916	Grey	QBS	As above but muscovite not as obvious, ~20% quartz rich pieces> quartzite; fabric slightly weaker.		0.2	
420	425	E00004917	Dark Grey	QBS	As above, slightly lower biotite content at 20-25%, fabric slightly weaker dur to lower biotite content.	0.1	0.2	
425	430	E00004918	Grey	QBS	80% QBS as above; 20% quartzite that is medium to dark grey with 5-8% biotite; very weak chlorite alteration giving a faint green tint.	3	0.1	
430	435	E00004919	Dark Grey	QBS	60% QBS, 40% quartzite both as above; very weak chlorite alteration.	4	0.1	

0	15			OB				
15	20	E00004922	Orange Brown	QTZT	100% strongly oxidized chips; appears to be of quartzite but could have significant quartz vein		0.1	
20	25	E00004923	Orange Brown	QTZT	85% strongly oxidized chips; as above. $\sim$ 30% white quartz vein (?); banded to moderately foliated quartzite.	30	0.1	
25	30	E00004924	Orange Brown	QBS	As above.	30	0.1	
30	35	E00004925	Orange Grey	QBS	30% strongly oxidized; grey weakly foliated quartzite with trace pyrite. 15% apparent quartz veins	15	0.1	
35	40	E00004926	Orange Grey	QTZT	60% grey quartzite as above with 40% biotite to muscovite rich schist (QBS-QMS); 5% quartz vein, 30% strongly oxidized plus 25% strongly oxidized and patchy	5		
40	45	E00004927	Orange Grey	QBS	Very small chips (as above was) starting to discern pyrite; 1% as blebbs, possibly disseminated.	5	1	
45	50	E00004928	Grey	QTZT	Light grey predominantly; >5% pyrite as blebs, disseminated, strong; 30% strongly pervasive oxidation and 20% patchy.	5	5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
50	55	E00004929	Grey	QBS	Back to dull grey quartzite harder to see sulphides. ~1% disseminated; <15% oxidation select.	2	1	
55	60	E00004931	Grey	QBS	Small chips - grey to strongly foliation biotite rich quartzite; blebby pyrite, ~2% seen best on white quartz or grey quartz but in darker host as well. Quartz chips half oxidized.	30	2	
60	65	E00004932	Grey	QBS	Mix of quartzite with light banded, grey and biotite-rich quartzite; 2% pyrite as blebby with dissmination (small chips hard to see dissemination). 20% oxidized chips generally on surfaces.	3	2	
65	70	E00004933	Grey	QBS	Predominantly grey quartzite with 2% fine disseminated and blebby pyrite	1	2	
70	75	E00004934	Grey	QBS	As above.	3	2	
75	80	E00004935	Grey	QBS	As above; 15% strongly oxidized chips.	15	2	
80	85	E00004936	Grey	QBS	Mixed grey quartzite and light grey biotite-poor; latter and quartz vein (white) show most pyrite coarse to blebby with individual grains up to 10% pyrite.	10	2	
85	90	E00004937	Grey	QBS	As above; 5% fracture strongly oxidized chips.	10	2	
90	95	E00004938	Grey	QBS	Mixed 3 types of quartzit as mentioned above, blebby pyrite most apparent ~1%; 10% strongly oxidized chips mostly along fractures.	5	1	
95	100	E00004939	Grey White	QBS	Predominantly grey quartzite; lots of coarse, blebby euhedral to fine clusters of pyrite particularly in quartz veins (and thin mm seams).	50	7	
100	105	E00004940	Grey	QBS	Grey quartzite, less pyrite	15	2	
105	110	E00004942	Grey White	QBS	Grey quartzite, getting more biotite-rich	30	1	
110	115	E00004943	Grey	QBS	Grey quartzite, weak foliation but banded.	20	1	
115	120	E00004944	Grey	QBS	Grey quartzite, pyrite less commonly seen on quartz veins.	15	0.1	
120	125	E00004945	Grey	QBS	Dark grey 20-35% biotite banded, strong foliated quartzite with trace dissemination and blebby pyrite in white quartz vein.	5	0.1	
125	130	E00004946	Grey	QBS	As above. 1% blebby and disseminated pyrite.	1	1	
130	135	E00004947	Dark Grey	QBS	As above.	3	1	
135	140	E00004948	Grey	QBS	As above; very fine disseminated pyrite; moderate pervasive chlorite alteration on 40% of chips (more quartz-rich chips).	1	1	
140	145	E00004949	Grey	QBS	Change to grey banded ~15% biotite no visible sulphides; 30% of chips have very weak chlorite.			
145	150	D00017001	Grey	QBS	As above; very trace very fine disseminated pyrite.		0.1	
150	155	D00017002	Grey	QBS	As above; very trace very fine disseminated pyrite. 45% chips have very weak chlorite.	1	0.1	
155	160	D00017003	Grey	QBS	As above; trace blebby pyrite. 35% chips have very weak chlorite. Increased biotite in 40% of chips. Strong foliation banded	5	0.1	
160	165	D00017004	Grey	QBS	As above; trace blebby pyrite. 35% chips have very weak chlorite. Increased biotite in 40% of chips. Strong foliation banded	1	0.1	
165	170	D00017005	Dark Grey	QBS	As above; trace dissemianted pyrite; 30% weak chlorite altered chips.	1	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
170	175	D00017006	Dark Grey	QBS	As above; Predominantly biotite-rich banded with biotite poor grey quartzite.	5	1	
175	180	D00017007	Light Grey	QBS	Change to predominantly dirty biotite-poor banded quartzite with 1.5% pyrite as disseminated and blebs.		1.5	
180	185	D00017008	Light Grey	QTZT	Change to predominantly dirty biotite-poor banded quartzite with 1.5% pyrite as disseminated and blebs.		1.5	
185	190	D00017009	Light Grey	QTZT	Change to predominantly dirty biotite-poor banded quartzite with 1.5% pyrite as disseminated and blebs.	1	1.5	
190	195	D00017010	Dark Grey	QBS	Predominantly dark grey 20-30% banded quartzite with 30% dirty quartzite (as above).		2	
195	200	D00017012	Dark Grey	QBS	As above but 90% dark grey banded biotite rich (30%) quartzite (nearly) schistose, blebby pyrite.	1	0.1	
200	205	D00017013	Dark Grey	QBS	As above.	2	1	
205	210	D00017014	Dark Grey	QBS	As above.		1	
210	215	D00017015	Dark Grey	QBS	As above; less strong foliation, now moderately banded pyrite remains dissminated, blebby increasingly stringy.		2	
215	220	D00017016	Dark Grey	QBS	As above.	0.1	2	
220	225	D00017017	Grey	QBS	As above with 45% dirty biotite poor quartzite, pyrite content increases to ~3% dissemination, blebby, strings	12	3	
225	230	D00017018	Light Grey	QTZT	Change to 80% very light grey banded quartzite with no sulphides; estimated 15% of this is quartz vein because pure white; 20% of last quartzite interval	15		
230	235	D00017019	Light Grey/Br own	QTZT	40% fo very light grey quartzite as above (~5% of whic could be quartz vein), 60% tan dirty quartzite and dark grey quartzite with trace blebby pyrite.	5	0.1	
235	240	D00017021	Light Grey	QTZT	80% very light grey to white quartzite (35% as pure white possible quartz vein) with no sulphides and ~20% dark quartzite with trace-1% pyrite as blebs.	35	0.1	
240	245	D00017022	Light Grey	QTZT	All dirty white to nearly pure white quartzite and maybe 10% quartz vein; very rare blebby pyrite.	10	0.1	
245	250	D00017023	Light Grey	QTZT	As above but a little dirtier to grey quartzite; trace/rare blebby pyrite.	2	0.1	

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From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
10	15	D00017024	Orange White	QV	80% white QV w/ 1% py, euhedral coarse xtals & fn blebs; 35% strongly oxided chips, remainder partially- moderately oxidized; 20% grey to dark grey QTZT	80	1	
15	20	D00017025	Orange White	QV	90% white QV as above; 60% of chips are intense-strongly oxidized w/ remainder partially oxidized (broken chips)	90	1	
20	25	D00017026	Orange White	QV	70% white QV as above (tr py); 30% light to med grey QTZT, no sulfides; 60% str-intensely oxidized, others broken & partially oxid.	70	0.1	
25	30	D00017027	Grey	QTZT	med grey homogeneous QTZT w/ 2% diss & blebby py (some on fracture surfaces); 30% mod-str oxidized chips	10	2	
30	35	D00017028	Grey	QTZT	as above; 20% oxidized chips		3	
35	40	D00017029	Orange White	QV	white QV w/ tr py; 40% med-lt grey QTZT w/ tr py; 70% mod-str oxidized chips	60	0.1	
40	45	D00017031	Grey	QTZT	med grey mod fol QTZT w/ tr fine diss py; 20% oxidized chips		0.1	
45	50	D00017032	Grey	QBS	mixed grey and light grey QTZT; 20% QBS and 30% QV; tr py; 15% oxidized chips	30	0.1	
50	55	D00017033	Dark Grey	QBS	banded med grey & It grey QTZT w/ 20% QBS (barely schistose); tr diss py & bleb py; 15% oxidized chips		0.1	
55	60	D00017034	Dark Grey	QBS	as above; 5% mod oxidized chips		1	
60	65	D00017035		QBS	as above; str-mod fabric; banded; tr py; 15% mod oxid chips	10	0.1	
65	70	D00017036	Grey	QBS	as above; QV has barely tr py (coarse euhedral)	35	0.1	
70	75	D00017037	Light Grey	QBS	Light grey QTZTw/ 3% py and possible 2% aspy; QV difficult to differentiate but also py/aspy bearing; 25% str oxid chips	10	3	
75	80	D00017038	Grey White	QBS	as above but a little more of a mixed suite of grey & lt grey qtz; 25% oxidized chips	30	3	
80	85	D00017039	Brown Grey	QBS	weakly schistose br Bt QBS w/ 30% grey and It grey QTZT; all have ~1% blebby and diss py	5	1	
85	90	D00017040	Grey	QBS	predominately grey to It grey banded QTZT w/ mod-str fol & 5-6% py as diss, blebs & on fractures; 20% QBS; 15% str oxidized chips, mostly on fracture surfaces	5	6	
90	95	D00017042	Grey	QTZT	Mixed QBS & QTZT; 3% py diss/bleb; 2% oxidized chips	1	3	
95	100	D00017043		QBS	mixed as above w/ 30% white QV w/trace py and probable aspy; 5% oxidized chips	30	3	
100	105	D00017044	Grey	QBS	mod grey Bt rich qtz ~ borderline schistose; 20% white QV; tr oxidized frags	20	0.5	
105	110	D00017045	Grey	QBS	as above but slightly less Bt; 35% white QV; tr oxidized frags	35	0.5	
110	115	D00017046	Grey	QBS	as above; QV has dropped off; 10-15% QBS w/ wk-mod fabric	10	0.3	
115	120	D00017047	Grey	QBS	as above; 1-3% QBS frags; str QV'ing ~40%; tr oxidized frags	40	0.5	
120	125	D00017048	Grey	QBS	as above; ~5% QBS; ~ 5% oxidized frags;	20	0.3	
125	130	D00017049	Grey White	QV	55% QV, 45% QTZT as above; ~8% oxidized frags; sulfides predom in wall rock (QTZT) as diss/blebs		0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
130	135	D00017051	Grey White	QV	as above w/ ~40% white QV; slight drop in oxidation	40	0.1	
135	140	D00017052	Grey	QTZT	as above; ~10% QBS; QV'ing dropped off to ~8%; 0.5% py as diss & frac coatings	8	0.5	
140	145	D00017053	Grey	QBS	55% QBS; 40% QTZT, 5% QV; QBS has mod fabric, dk grey; 20-30% Bt; QTZT & QV as above	5	0.5	
145	150	D00017054	Grey	QBS	55% QTZT, 35% QBS, 10% QV all as above; py as diss and blebs occurring in all units	10	0.8	
150	155	D00017055	Grey	QBS	60% QBS, 35% QTZT, 5% QV all as above; rare frags w/ chl alt'n; py appears to be predominately in QBS but visible in all units	5	0.5	
155	160	D00017056	Grey	QBS	med-grey, mod frabric, 15-20% Bt; ~15% qtz rich pieces (QTZT?); predom diss py	3	0.5	
160	165	D00017057	Dark Grey	QBS	as above; ~10% qtz rich frags; py predom as diss w/lesser blebs and fracture coatings	0.1	1	
165	170	D00017058	Dark Grey	QBS	as above; 5-8% qtz rich pieces; rare oxidized frags; rare frags with chl	1	0.5	
170	175	D00017059	Grey	QBS	70% QBS as above; 30% QTZT that is It to med grey and fairly clean; py as diss & blebs	2	1	
175	180	D00017061	Dark Grey	QBS	85% QBS & 15% QTZT both as above; py as diss/blebs & minor fracture fill	2	0.8	
180	185	D00017062	Grey	QBS	55% QBS, 45% QTZT that is med grey, impure w/ 5-10% Bt, many pieces borderline schistose	3	0.3	
185	190	D00017063	Grey	QBS	It to med grey, clean to slightly impure w/ 5-8% Bt; py as blebs and diss	4	0.3	
190	195	D00017064	Grey	QBS	as above but w/ ~20% QBS; rare oxidized frags; py predominately as small blebs	2	0.3	
195	200	D00017065	Grey	QBS	70% QTZT, 30% QBS; QTZT fairly impure w/ a lot borderline schist	5	0.3	
200	205	D00017066	Dark Grey	QBS	dk gy, mod-str fabric, 25-35% Bt; py predom diss	3	0.3	
205	210	D00017067	Grey	QBS	as above but slightly lower Bt content and slightly weaker fabric; 10% impure QTZT; rare oxidized frags	2	0.1	
210	215	D00017068	Grey	QTZT	med grey, impure w/ 5-8% Bt; select pieces w/ v weak fabric; 10% QBS as above; QV'ing increased	10	0.3	
215	220	D00017069	White Grey	QV	60% milky white to pale grey qtz; less than 10% QTZT as above		0.1	
220	225	D00017070	Grey	QBS	55% QTZT, 25% QBS, 25% QV; mixed interval with str QV'ing; QTZT impure w/ 5-10% Bt; QBS mod fabric, 20- 25% Bt	25	0.1	
225	230	D00017072	White Grey	QV	75% white to pale grey QV, remainder is mix of QBS & QTZT; py predom in wall rock		0.3	
230	235	D00017073	White Grey	QV	60% QV, 40% QBS as in interval above; py predom in wallrock		0.1	
235	240	D00017074	Dark Grey	QBS	dark grey, mod-str fabric, 25-35% Bt; fairly homogeneous; ~10% qtz rich pieces; tr diss py	3	0.1	
240	245	D00017075	Dark Grey	QBS	as above, increase in qtz vn'ing; rare oxidation on frags	15	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
245	250	D00017076	Grey White	QBS	55% QBS as above, 45% QV both as above; py predom in wall rock	45	0.1	
250	255	D00017077	Grey White	QBS	60% QBS, 40% QV both as above; possible minor musc; py predom in wallrock	40	0.2	
255	260	D00017078	Grey White	QBS	55% QBS, 45% QV both as above; py predom in wallrock	45	0.3	
260	265	D00017079	Grey	QBS	as above but slightly weaker fabric, wk-mod and lower Bt content, 20-25%, decrease QV	15	0.2	
265	270	D00017081	Grey	QBS	as above, ~10% qtz rich frags, tr diss/blebby py	8	0.1	
270	275	D00017082	Grey	QBS	as above w/ 15% qtz rich frags (QTZT?), decrease in QV; wk chl alt'n	5	0.1	
275	280	D00017083	Grey	QTZT	It-med grey, slightly impure QTZT w/ 5-8% Bt and select pieces show borderline schistose fabric; 10% QBS as above; py as fn diss	5	0.1	
280	285	D00017084	Grey	QBS	as above; increase in QV'ing; ~5% QBS	20	0.2	
285	290	D00017085	Grey	QBS	as above; 10% QBS; str QV'ing; py as diss/blebs	20	0.3	
290	295	D00017086	Grey	QBS	as above; 5% QBS; str QV'ing; py as diss/blebs	20	0.5	
295	300	D00017087	Grey	QBS	as above; 10% QBS; QV decreasing; poss musc	10	0.3	
300	305	D00017088	Grey	QBS	as above; 10% QBS; pieces that appear to be QMS; QV decreased; v wk chl in select frags	3	0.2	

0	10			OB				
10	15	D00017089	Orange Grey	QBS	rusty grey QBS; all chips show wk-mod partial oxidation along foliation planes; Bt >30% ?; rare QV chip str oxidized	1		
15	20	D00017091	Orange Grey	QBS	mixed 70% QBS as above; 30% grey QTZT; 70% oxidized chips - 20% pervasive and str the rest partial & moderate	3		
20	25	D00017092	Orange Yellow	QV	highly oxidized predom QV w/ 30% mixed as above; difficult to recognize protolith; no visible sulfides	70		
25	30	D00017093	Orange	QTZT	highly oxidized; estiamted protolith; tr py	30	0.1	
30	35	D00017094	Orange	QV	as above	70	0.1	
35	40	D00017095	Orange	QV	as above; host rock looks like clean It grey QTZT	60	1	
40	45	D00017096	Orange White	QV	as above; host rock is It grey QTZT; 45% str oxidized 30% mod-partial	70	3	
45	50	D00017097	Orange Grey	QBS	dirty grey QBS w/ minor grey QTZT; mostly partially oxidized chips w/ 15% str pervasive	3		
50	55	D00017098	Orange Grey	QBS	mixed QBS, QTZT, & QV	20		
55	60	D00017099	Orange Grey	QBS	predomin rusty QBS w/20% grey QTZT	5	0.1	
60	65	D00017100	Grey	QBS	as above 10% partial oxidized chips	5	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
65	70	D00017101	Grey	QBS	predom grey dirty QBS w/ 20% grey QTZT; 3% oxidized chips	5	1	
70	75	D00017102	Grey	QBS	as above	1		
75	80	D00017103	Grey	QBS	mixed QBS 60% & grey QTZT 40% the latter w/ tr-1% diss bleb py; no sulfides seen in QBS; 3% oxidized chips	2	0.5	
80	85	D00017104	Grey	QBS	as above but no visible sulfides; 30% wkly oxidized chips			
85	90	D00017105	Orange Grey	QBS	as above w/ tr blebby py; str oxidized QV chips w/ tr py; 10% muscovite	25	0.1	
90	95	D00017106	Grey	QBS	Mixed w/ 60% grey banded QTZT w/ tr diss py & 40% QBS; 5% str oxidized chips	5	0.1	
95	100	D00017107	Grey	QTZT	predom grey QTZT w/ <10% Bt and 15% lt grey Bt-poor QTZT and 30% QBS; QTZT has 1% v fn diss py	1	1	
100	105	D00017108	Grey	QBS	as above w/ 1% diss and bleb py	1	1	
105	110	D00017109	Light Grey	QTZT	change to very Bt-poor transparent QTZT and It grey QTZT (30%); 3% diss & blebby; tr aspy		3	
110	115	D00017110	Light Grey	QTZT	flip ratio from above; ~2% diss fn py and along foliation & blebby; still see tr aspy	1	2	
115	120	D00017112	Light Grey	QTZT	as above 2% fn diss & stringy and blebs	5	2	
120	125	D00017113	Dark Grey	QBS	predominately QBS (65%, dirty br Bt-rich) w/ 35% lt grey QTZT; both ~4% bleb & diss py	3	4	
125	130	D00017114	Dark Grey	QBS	as above less obvious py; 5% str oxidized chips	3	3	
130	135	D00017115	Dark Grey	QBS	80% grey banded QTZT & It grey low Bt (<15%); 20% QBS as above; dirty Qtz horizons seem to have blebby py; overall ~5% py as fn diss, blebs & strings	1	5	
135	140	D00017116	Grey	QBS	as above; 3% str oxidized chips		6	
140	145	D00017117	Grey	QBS	as above but no QBS; sulfides ~4%	2	4	
145	150	D00017118	Grey	QBS	as above; 5% py mostly fractures & blebs and foliation parallel strings w/ diss; 2% str oxidized chips	2	5	
150	155	D00017119	Brown Grey	QBS	Shift to more Bt rich banded dirty Qtz schist w/ It grey QTZT (~20%); py still as above	5	5	
155	160	D00017121	Light Grey	QBS	as above but less Bt & losing schistosity predom a dirty QTZT to grey QTZT	1	7	
160	165	D00017122	Light Grey	QTZT	as above; py as blebs, blotches; fractures= fill & strings and v fn diss (could be higher %); 5% str oxidation		5	
165	170	D00017123	Grey	QBS	as above; 5% str oxid chips	2	7	
170	175	D00017124		QBS	More Bt-rich, schistose fabric 30% QTZT of previous; QBS is banded/layered w/ transparent to semitrans Qtz; still lots of sulfides		7	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
175	180	D00017125	Dark Grey	QBS	as above		5	
180	185	D00017126	Dark Grey	QBS	as above; py as diss, blebs, strings across and along foliation; tr possible aspy (check along small rare white qtz chips)		8	
185	190	D00017127	Black White	QBS	Mixed QBS, strongly banded bk and It grey QTZT & QV; all mineralized with py; ~2% possible aspy in QV; 7% py as diss, blebs and strings	40	7	
190	195	D00017128	Grey	QBS	Mostly grey QTZT (dirty grains are hard to clean and therefore see); seems same as above - diss, bleb py at least 4%		4	
195	200	D00017129	Grey	QBS	mixed QBS & QTZT, as above	1	8	
200	205	D00017131	Grey	QBS	60% QBS, 40% QTZT (very similar to each other and previous interval); ~4% diss and bleb py	2	4	
205	210	D00017132	Light Grey	QTZT	Change to grey-white (It grey) QTZT w/ 1% fn diss py and 3% blebby py	12	4	
210	215	D00017133	Dark Grey	QBS	darker grey QTZT, moderate foliation; blue-green (chl?) alt'n in 5% of chips; still ~3% py diss and bleb		5	
215	220	D00017134	Grey	QBS	well foliated but not predominately schistose; still see blue-green alteration; py diss (~1%) but could be higher as fine grains; 5% str oxidized chips	5	1	
220	225	D00017135	Light Grey	QBS	Mixed grey - It grey well foliated unit w/ tr to 1% py as diss rare blebs; still see blue-green alteration but less		1	
225	230	D00017136	Light Grey	QBS	light grey QTZT with very weak chl alt'n and tr diss	1	0.1	
230	235	D00017137	Light Grey	QBS	Mixed dirty qtz and Bt unit w/ weak to very weak chl alt'n & 1% diss py	1	1	
235	240	D00017138	Grey	QBS	as above; poss 2% diss py (hard to distinquish); 5% oxidized chips	5	2	
240	245	D00017139	Grey	QBS	as above; tr py plus a few chips w/ fracture fill py	5	1	
245	250	D00017140	Grey	QBS	mixed as above; banded to wkly schistose; 7% oxidized chips	2	1	
250	255	D00017142	Grey	QBS	as above but mostly grey QTZT tr to 1% py; white QV has tr euhedral py to bleb py	15	1	

0	15			OB	Probable transition from C horizon to bedrock at 18'			
1 5	20	00017142	Orange	ov	C horizon or str oxidized bedrock; predominately QV material (60%) w/ tr py, strongly oxidized; 40% QTZT,	60	0.1	
12	20	D00017145	Grey	QV	v small chips	00	0.1	
20	25	D00017144	Orange	QBS	100% str-intensely oxidized; tr blebby py; difficult to determine rock type	20	0.1	
25	30	D00017145	Grey	QBS	grey QTZT w/ tr -1% py diss, bleb py; 25% partially moderately oxidized surfaces; v small chips	3	1	
20	25	D00017146	Grey	<b>N</b>	White QV w/ blebby py (1%) and black tiny inclusions often streaky; remainder of chips are QTZT as above;	C.L.	1	
30	35	D00017146	White	QV	25% mod-str oxidized surfaces on chips	60	T	
25	40	D00017147	Light	0777	Change to predom Bt-poor light grey banded QTZT w/ no sulfides; 20% QTZT as above; 10% chips w/ str	F	0.1	
35	40	00001/14/	Grey	QIZI	oxidized surfaces	5	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
40	45	D00017148	Light Grey	QTZT	as above; white qtz (QV?) seems to have blebby tr py; 35% grey QTZT	25	0.1	
45	50	D00017149	Dark Grey	QBS	Change to dark grey Bt-poor QTZT w/ v tr py; wk-mod foliation	1	0.1	
50	55	D00017151	Grey	QTZT	mixed It grey banded QTZT & grey more massive appearing QTZT; 5% oxidized str chips	5	0.1	
55	60	D00017152	Light Grey	QTZT	as above; more translucent qtz; 5% oxidized chips (all v tiny)	5	0.1	
60	65	D00017153	White Grey	QTZT	as above but looking more like a dirty variable QTZT; 15% mod-str oxidized chips generally on one surface	35	0.1	
65	70	D00017154	Grey	QBS	mixed "ugly" QTZT w/ QBS (25%?); tr blebby py; 30% str oxid chips on at least one surface	2	0.1	
70	75	D00017155	Dark Grey	QBS	dark Bt-rich (25-30%) QTZT w/ 1% py most along fracture surfaces but also diss; well foliated	2	1	
75	80	D00017156	Dark Grey	QBS	dark Bt-rich (15-20%) QTZT; 10-15% w/ schistose fabric - QBS; py decrease but still as fracture coatings	3	0.3	
80	85	D00017157	Dark Grey	QBS	60% QBS taht is dk grey, 25-30% Bt, wk-mod fabric; 40% QTZT as above; tr frac coating py	4	0.1	
85	90	D00017158	Dark Grey	QBS	dk grey, 25-35% Bt, mod-str fabric, fairly homogeneous; py as diss and small blebs on fractures	0.1	0.5	
90	95	D00017159	Dark Grev	QBS	60% QBS as above but w/ lower Bt at 15-20%; 40% dk Bt rich (10-15%) QTZT; 0.25% py as fn diss & blebs	1	0.3	
95	100	D00017161	Dark Grey	QBS	60% QBS, 40% QTZT; QBS has mod fabric 25-30% Bt; dk Bt-rich 5-15% QTZT; rare wk chl	5	0.2	
100	105	D00017162	Dark Grey	QBS	as above; ~15% qtz rich frags that may be QTZT - still shows v faint fabric; py as diss and fracture coatings	2	0.8	
105	110	D00017163	Dark Grey	QBS	as above; ~10% qtz rich frags; py predominately a frac coating; rare frags w/ wk chl alt'n	3	1	
110	115	D00017164	Grey	QBS	60% QBS as above; 40% QTZT that is dk Bt rich; rare frags w/ wk chl alt'n	6	0.3	
115	120	D00017165	Grey	QBS	60% QBS, 40% QTZT both as above; increased py as predominately diss w/ minor frac coatings and blebs	5		
120	125	D00017166	Grey	QBS	70% QBS, 30% QTZT both as above; decrease in py, predon diss	3	0.5	
125	130	D00017167	Grey	QBS	70% QBS, 30% QTZT both as above; py & qtz vning dropped off	0.1	0.1	
130	135	D00017168	Dark Grey	QBS	dk grey, mod-str fabric, 20-30% Bt, fairly homogeneous; py predom as frac coatings		0.5	
135	140	D00017169	Dark Grey	QBS	as above but with 15% qtz rich frags that have wk fabric	2	0.3	
140	145	D00017170	Dark Grey	QBS	dk grey, 20-30% Bt, mod-str fabric, homogeneous; tr py		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
145	150	D00017172	Grey	QBS	60% QBS as above; 430% QTZT w/ 5-10% Bt; 10% QV; rare fracs w/ oxid		0.1	
150	155	D00017173	Grey	QBS	50% dark Bt-rich QTZT; 30% QBS as above; 20% white QV; oxidation of select frags	20	0.3	
155	160	D00017174	Grey	QBS	med-dk grey, 20-30% Bt, mod-str fabric, has ~10% qtz rich frags w/wk fabric	3	0.1	
160	165	D00017175	Grey	QBS	75% QBS as above, 25% dk Bt rich (10-15%) QTZT; rare oxidation	3	0.1	
165	170	D00017176	Grey	QBS	75% QBS, 25% QTZT both as above; py predom as frac coat / blebs	2	0.5	
170	175	D00017177	Grey	QBS	as above w/ ~10% qtz rich frags that have no to wk fabric	4	0.1	
175	180	D00017178	Grey	QBS	80% pale grey clean to dk grey Bt rich QTZT, 20% QBS as above; Bt rich frags are locally borderline schistose	6	0.1	
180	185	D00017179	Grey	QTZT	dk Bt rich QTZT that is borderline schistose; rare v wk chl alt'n; v tr diss py	3		
185	190	D00017181	Grey	QBS	med grey, 15-25% Bt, wk-mod fabric; 20% QTZT as above; QV observed that is parallel to fabric; py as fn diss: v wk chl alt'n of select frags	5	0.1	
190	195	D00017182	Grey	QBS	as above but w/~10% gtz rich frags that have poor fabric; v tr py	4		
195	200	D00017183	White Grey	QV	80% whit eto pale gret qtz, 20% QBS as above; tr v fn diss py mostly in QV		0.1	
200	205	D00017184	Dark Grey	QBS	dk grey, mod-srt fabric, 25-35% Bt, homogeneous; py as diss and blebs		0.3	
205	210	D00017185	Dark Grey	QBS	as above; py predom as small blebs		0.1	
210	215	D00017186	Dark Grey	QBS	as above but w/ ~15% qtz-rich frags that have poorfabric; py predom as frac coatings	4	0.3	
215	220	D00017187	Grey	QBS	Bt content and fabric both decreasing; 20% white to pale grey QV	20	0.3	
220	225	D00017188	Grey	QBS	70% QBS as above, 25% dk Bt rich QTZT that is borderline schistose	5	0.1	
225	230	D00017189	Grey Brown	QTZT	70% dk Bt rich QTZT, 15% QV, 15% QBS as above; ~10% of pieces are oxidized	15	0.1	
230	235	D00017191	Grey	QBS	60% QBS, mod str fabric, 25-30% Bt;25% QV, 15% dk Bt rich QTZT; 10% oxidized pieces	25	0.1	
235	240	D00017192	Grey	QBS	70% QBS as above, 20% dk Bt rich QTZT, 5% QV; ~5% of frags oxidized	5	0.2	
240	245	D00017193	Grey	QBS	80% QBS as above, 20% dk Bt rich QTZT w/ no fabric; py as fracture coatings	5	0.1	
245	250	D00017194	Grey	QBS	as above, 25% white to pale grey QV; py as blebs/fracture coating in QBS; v fn diss py in QV	25	0.5	
250	255	D00017195	Grey	QBS	as above but w/ 15% qtz rich frags that have v wk to no fabric; 20% QV; py predom diss	20	0.3	
255	260	D00017196	Grey	QTZT	50% dk Bt-rich QTZT, 40% QV, 10% QBS as above; one piece suggesting vning is parallel to fabric	40	0.3	
260	265	D00017197	Grey	QBS	75% QBS with mod fabric, 25-30% Bt, possible musc, 15% QV, 10% dk Bt rich QTZT	15	0.2	
265	270	D00017198	Dark Grey	QBS	dk grey mod-str fabric, 20-35% Bt; ~10% qtz-rich pieces		0.1	
270	275	D00017199	Dark Grey	QBS	med grey, mod fabric, 20% dk Bt-rich QTZT; rare oxidized pieces	10	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
275	280	D00017200	Grey	QBMS	med grey, good fabric appears to be a qtz + Bt + musc schist; v wk chl alt'n; 8% of frags oxidized	10	0.1	
280	285	D00017201	Grey	QBMS	as above; str QV'ing (40%); ~10% frags oxidized; tr -0.25% pymostly as small blebs in QV	40	0.2	
285	290	D00017202	Grey Green	QCS	green-grey, mod fabric, appears to be QCS +/- musc +/- Bt; py as diss & small blebs	10	0.1	
290	295	D00017203	Grey Green	QCBS	green-grey, mod str fabric, homogeneous; 30-40% chl & 5-10% Bt w/ qtz suggesting QCBS?			
295	300	D00017204	Grey Green	QCBS	as above; v tr diss py	0.1		
300	305	D00017205	Grey Green	QCBS	as above, very uniform; tr to 0.25% py following fabric		0.2	
305	310	D00017206	Grey Green	QCBS	as above, very uniform; v tr py			
310	315	D00017207	Grey Green	QCBS	as above; slight increase in Bt, chl & Bt amounts similar, both ~20%	0.1	0.1	
315	320	D00017208	Grey Green	QCBS	as above; 5% of frags are oxidized	0.1	0.1	
320	325	D00017209	Grey Green	QCBS	as above, 2% of frags are oxidized	0.1	0.1	

0	15			OB				
15	20	D00017210	Orange Grey	QTZT	grey to lt grey QTZT or 'C' horizon; 75% str'ly oxidized chips			
20	25	D00017212	Grey	QBS	grey QTZT as above; foliation not seen; 10% strongly oxidized chips; tr py seeen in rare lt grey qtz		0.1	
25	30	D00017213	Grey	QBS	grey homogeneous QTZT; tr py only seen along fracture surfaces; <5% oxid chips		0.1	
30	35	D00017214	Grey	QBS	as above but slight greenish hue (chl alt'n?); tr py again seen as fracture coating; 5% oxidized chips		0.1	
35	40	D00017215	Grey	QBS	as above; py seen as tr strings along foliation; fol is increasing modto strong; 1% oxid chips		0.1	
40	45	D00017216	Grey	QBS	as above; slow drilling; v hard rock; white qtz as blebby py, overall still trace; 5% str'ly oxid chips	5	0.1	
45	50	D00017217	Green Grey	QBS	as above; tr diss py; 2% oxidized chips		0.1	
50	55	D00017218	Green Grey	QBS	as above; tr diss py; 10% py in rare QV chip	1	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
55	60	D00017219	Green Grey	QBS	as above; py seen as fracture coatingand rare blebs		0.1	
60	65	D00017221	Green Grey	QBS	as above; py as rare diss, string and blebs; rare white QV chips (?) have ~10% euhedral and blebby py	2	0.1	
65	70	D00017222	Green Grey	QBS	as above; white QV v surgary looking; no sulfides in QV	2	0.1	
70	75	D00017223	Green Grey	QBS	as above; py still as tr diss & strings & blebs	1	0.1	
75	80	D00017224	Green Grey	QBS	as above; blebby py is common in white QV or along edges in host rock; rare py in QTZT	15	0.1	
80	85	D00017225	Green Grey	QBS	as above;	1	0.1	
85	90	D00017226	Green Grey	QBS	as above;	2	0.1	
90	95	D00017227	Green Grey	QBS	as above; diss, bleb & string py still occurs in trace amounts		0.1	
95	100	D00017228	Green Grey	QBS	as above; slight change with addition of br Bt along thin planes; py content increasing as diss, blebs & strings - still tr	3	0.1	
100	105	D00017229	Green Grey	QBS	as above; no Bt seen in this interval		0.1	
105	110	D00017231	Green Grey	QBS	as above with 20% brownish Qtz & fn Bt (?) layers; more py common in qtz chips	1	0.1	
110	115	D00017232	Green Grey	QBS	as above; no brownish qtz - Bt; possibly decreasing py; still looks mod-str fol;	0.1	0.1	
115	120	D00017233	Green Grey	QBS	as above;	1	0.1	
120	125	D00017234	Green Grey	QBS	as above;	1	0.1	
125	130	D00017235	Grey	QBS	Changing; either simply half is not chl alt'd or new unit of QTZT, grey to translucent w/ ~1%-2% diss-string w/ blebs; white qtz has no sulfides	5	1	
130	135	D00017236	Green Grey	QBS	Sadly, back to mod chl alt'd QTZT w/ tr diss and bleb py; 15% br Bt interlayered	1	0.1	
135	140	D00017237	Green Grey	QBS	as above;	1	0.1	
140	145	D00017238	Green Grey	QBS	as above; Bt-rich layers increasing	0.1	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
145	150	D00017239	Green Grey	QBS	as above;		0.1	
150	155	D00017240	Green Grey	QBS	as above	1	0.1	
155	160	D00017242	Green Grey	QBS	as above		0.1	
160	165	D00017243	White Grey	QBS	Change to br Bt-rich and translucent qtz QTZT; still only tr py; QV no sulfides; very small chips; yellowish clay in sample; drilling fast now; QV has black septa?	35		
165	170	D00017244	White Grey	QBS	same except QV now has ~2% blebby py and diss; overall onnly tr py in interval; yellowish oxidation & clay mke up 20% of chips	35	0.1	
170	175	D00017245	White Grey	QBS	Mixed QTZT of translucent qtz; br Bt, grey qtz, seems banded, str fol; blue-green alteretion (mod & selective) & yellowish oxidation; white QV has diss & blebby py; country rock has mostly blebby but sometimes diss py	25	1	
175	180	D00017246	Grey	QBS	as above; very diverse mix of chips; QV carries most of sulfides then greenish and translucent br Qtz; 5% of chips have yellow ozidation	20	1.5	
180	185	D00017247		QBS	as above; <5% yellow oxid chips	20	1.5	
185	190	D00017248	White Grey	QBS	As above; py is mostly blebby throughout; mixed chips but predominatelywhite QV; yellow oxidized chips now ~10%	25	2	
190	195	D00017249	Dark Grey	QBS	Change to dk grey QTZT w/ 1% diss and less common bleb py; no QV; slow drilling; mod to well foliated		1	
195	200	D00017251	Dark Grey	QBS	as above; 2% py diss & bleb	3	2	
200	205	D00017252	Light Grey	QTZT	Change to 70% brownish translucent QTZT w/ tr blebby py; QV has coarse py bleb and euhedral xtals	5	0.1	
205	210	D00017253	Grey	QTZT	Change to a med grey QTZT w/ 30% of above QTZT; 0.5% blebby and less diss py; 8% white QV with belbby and euhedral py	8	1	
210	215	D00017254		QBS	as above; mod to well foliated; tr to possibly 1% diss & blebby py; white QV also has 102% py	5	1	
215	220	D00017255	Grey	QBS	as above		0.5	
220	225	D00017256	Dark Grey	QBS	Change to Bt-rich dr grey qtz QBS; blebby trace py; barley schistose	0.1	0.1	
225	230	D00017257		QBS	Change back to med grey QTZT as above w/ ~20% QBS as above	0.1	0.5	
230	235	D00017258	White Grev	QBS	Mis of above QTZT and QBS (very small chips); white QV has coarse euhedral and blebby py; >6 coarse py xtals	40	1	
235	240	D00017259	Grey	QBS	med grey QTZT as above; tr blebby less common & rare diss; some py fracture fill	1	0.1	
240	245	D00017261	Grey	QBS	as above w/ 30% QBS (as above) tr py; ~10% yellowish oxidation mostly on QV or intact margins but some selective on country rock	7	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
245	250	D00017262	Grey	QBS	as above; a good chip shows 2mm white QV w/ chl alt'n along foliation in banded QTZT w/ black spta on both margins; 1% oxidized chips	4	0.1	
250	255	D00017263	Grey	QBS	as above	1	0.1	

0	25			OB				
25	30	D00017264	Grev	OBS	75% QBS, 25% QTZT; QBS is mod-dk grey, mod fabric, 25-30% Bt; QBS dk grey Bt-rich (8-12%) to cleaner lt		1	
23	50	000017204	Grey	Q.55	grey; py predom as sub to euhedral 1-2mm xtals; wk chl alt'n		-	
30	35	D00017265	Dark	OBS	as above, ~10% qtz-rich frags w/ poor frabric, py as predom diss and larger xtals as above (very small	2	1	
			Grey	~	sample)			
35	40	D00017266	Dark	OBS	as above: ~8% gtz-rich frags: wk chl alt'n: ny as diss & blebs	2	2	
		500017200	Grey	455			-	
40	45	D00017267	Grey	QBS	75% QBS as above, 25% dk Bt-rich QTZT; ~10% frags oxidized; py as diss and blebs	5	3	
45	50	D00017268	Dark Grey	QBS	as above, ~15% qtz rich frags; wk chl alt'n; drop in py	4	0.3	
50	55	D00017269	Grey	QBS	55% QBS as above, 25% grey QTZT, 20% QV; oxid appears to be related to QV	20	0.3	
55	60	D00017270	Grey	QBS	med grey QTZT w/ v wk fabric appears to have minor amount chl alt'n & musc; 15% QBS as above	4	0.3	
60	65	D00017272	Grey	QCS	ranges from clean pale green grey to dk Bt (8-15%) rich; select frags w/ v wk fabric; wk chl alt'n; py as diss and blebs; possible tr aspy - v fine	2	0.5	
65	70	D00017273	Green Grey	QCS	green-grey, wk-mod fabric, 25-30% chl, minor Bt +/- musc; tr to 0.25% diss py		0.2	
70	75	D00017274	Green Grey	QCS	as above but with ~5% Bt; tr-0.25% diss py [water causing issues, long delay 23:20 to 23:50]	1	0.2	
75	80	D00017275	Green Grey	QCS	as above; ~10% pieces are qtz dominant; possible QTZT; up to 5% Bt; py as diss and blebs	1	0.8	
80	85	D00017276	Green Grey	QCS	as above; 15% white to pale grey qtz vns; py as diss & blebs	15	0.3	
85	90	D00017277	Green Grev	QCS	as above but dropping chl content 15-25%; ~10% qtz-rich frags w/ granular appearance	0.1	0.1	
90	95	D00017278	Green Grey	QCS	65% QCS as above; 35% white to pale grey QV	35	0.1	
95	100	D00017279	Green Grey	QCS	as above, slight increase in Bt to 5-8%; QV weaker	10	0.1	
100	105	D00017281	Green Grey	QCS	60% QCS, 40% QTZT; chl content has dropped 10-15%, 60% still shows good schistose fabric, remainder has 5-8% in gtz w/ little to no fabric		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
105	110	D00017282	Green Grey	QCS	chl content back up to 25-35%; local Bt-rich frags w/ ~10-15% Bt; rare pistacio frags that could be epidote	2	0.1	
110	115	D00017283	Green Grey	QCS	as above; ~10% frags have enough Bt to class QCBS, some frags qtz & Bt only; tr - 0.2% blebby and fracture coating py	6	0.2	
115	120	D00017284	Green Grey	QCS	as above; fairly uniform, mod-str fabric; ~10% QCBS, v tr diss py	1		
120	125	D00017285	Green Grey	QCBS	similar to above but increase Bt content, 30-40% chl, 5-15% Bt, v. Uniform, mod-str fabric		0.1	
125	130	D00017286	Green Grey	QCBS	as above, v uniform, tr py as diss and frac filling	2	0.1	
130	135	D00017287	Green Grey	QCBS	as above, 15% qtz rich frags, py as diss and frac coating	0.1	0.3	
135	140	D00017288	Green Grey	QCBS	as above, v slight decrease in Bt content, v uniform, 0.25-0,5% py as diss & frac coatings		0.4	
140	145	D00017289	Green Grey	QCBS	as above; v homogeneous, v tr py			
145	150	D00017291	Green Grey	QCBS	as above, slightly weaker fabric, tr - 0.25% diss py		0.2	
150	155	D00017292	Green Grey	QCBS	as above, v uniforml tr py as frac coatings		0.1	
155	160	D00017293	Green Grey	QCBS	as above, 8% white to pale grey QV, tr py as diss & blebs	8	0.2	
160	165	D00017294	Green Grey	QCBS	as above, 10% white to plae grey QV, tr py as diss and frac coatings	10	0.1	
165	170	D00017295	Green Grey	QCS	similar to above but Bt has dropped off, select frags (10-15%) still have some Bt (~5-8%), v tr py	3		
170	175	D00017296	Green Grey	QCS	as above, Bt content slightly higher but still most frags are predom qtz & chl, tr py as diss & frac fill		0.1	
175	180	D00017297	Green Grey	QCBS	Bt content back to ~8-12%, str fabric fairly uniform, chl 30-40%, 0.25% diss & Blebby py	2	0.3	
180	185	D00017298	Green Grey	QCBS	as above, homogeneous, v tr py			
185	190	D00017299	Green Grey	QCBS	as above, Bt content slightly increasing to 10-15%, slightly magnetic in rare pieces, perotitic?, tr-0.25% py as diss and frac coating	0.1	0.2	
190	195	D00017300	Green Grey	QCBS	as above, lower Bt content, select madgnetic frags that have v fn blk shiny xtals			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
195	200	D00017301	Green Grey	QCS	Bt dropped off, select pieces are QCBS (~5-10%), select frags magnetic			
200	205	D00017302	Green Grey	QCS	as above, uniform, str fabric, green-grey 30-40% chl, 2-5% Bt, tr diss py, wkly mag		0.1	
205	210	D00017303	Green Grey	QCS	as above, 4% white to pale grey QV, tr diss py mostly w/ QV, wk mag	4	0.1	
210	215	D00017304	Green Grey	QCS	as above, tr py as doiss and frac coating; wk mag	3	0.1	
215	220	D00017305	Green Grey	QCBS	Bt increase to 8-10%, as above. Gn-gy, mod-str fabric, 35-45% chl, fairly uniform, v tr py, wk mag			
220	225	D00017306	Green Grey	QCBS	as above, v uniform, v tr py, wk mag			
225	230	D00017307	Green Grey	QCBS	increasing Bt content, near equal amounts Bt & Chl, v tr py	5		
230	235	D00017308	Dark Green	QCBS	as above; chlorite is weakly silicified (scratches with steel); Bt content ~10-15%; wkly magnetic w/ only a few chips attracted t magnet; probably a fairly massive unit as foliation does not seem that strong; chl felty & >35%	3	0.1	
235	240	D00017309	Dark Green	QCBS	as above; QV'ing is probably bands in rock; no sulfides	1	0.1	
240	245	D00017310		QCBS	as above			
245	250	D00017312	Green Grey	QCBS	Looking more qtz rich - chips are harder (moh ~5)		0.5	
250	255	D00017313	Green Grey	QCBS	as above; felty chl rarely visible; Bt frequently brownish; py as blebs; still wkly mag.		0.5	
255	260	D00017314	Green Grey	QCS	less or no Bt seen; slight increase in chl; wk oxidation on fracturesin 20% of chips	1	0.5	
260	265	D00017315	Green Grey	QCS	harder than previous intervals; looking more like a QTZT w/ chl than a schist (without seeing previous intervals I would call this a chl altered QTZT - maybe this has a rougher texture); str mag; tr bleb & diss py		0.1	
265	270	D00017316	Green Grey	QCS	as above; more py blebby predom		1	
270	275	D00017317	Green Grey	QCS	~30% chl in a wkly foliated QTZT, 25% magnetite, str mag; tr blebby py		0.1	
275	280	D00017318	Dark Grey	QCBS	Change to predominately Bt-rich dk grey QTZT w/ no py; 25% previous chl-rich QTZT which has bleb py; wk to mof foliation; wkly magnetic (rare chips)		0.1	
280	285	D00017319	Green Grey	QCBS	Change to chl - QTZT (35% chl, 10-15% blk Bt); tr blebby to diss py, some chips have ~10% py; almost schistose - strly fol; 30% of previous QTZT	2	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
285	290	D00017321	Grey	QCBS	As above; misture of chl & br Bt in QTZT; varies in Bt & Chl content 5-25% each; py is generally blebby; mod- str fol.; no sulfides in sugary white QV chips; a few small chips are magnetic;	3	0.5	
290	295	D00017322	Grey	QCBS	as abobve; mod mag (only a few v small chips stick to magnet)	5	0.5	
295	300	D00017323	Brown Grey	QBS	Borderline QTZT & QBS; br Bt-rich w/ 2-10% chl; tr py	2	0.1	
300	305	D00017324	Brown Grey	QBS	as above; less chl; wkly magnetic; slightly more schistose	1	0.1	

0	20			OB	soft silty matrix			
20	25	D00017325	Green Grey	QCS	chlorite bearing QTZT to schist, difficult to discern due to small chips and oxidation; top half of interval more oxidized 70% of chips and second half ~40%; estimate that we are in bedrock but could be C Horizon until 22-23'; upper part feels silty	2	0.1	
25	30	D00017326	Green Grey	QCS	as above, 60% oxidized chips mostly flat plates; wk magnetic; no discernable py	2		
30	35	D00017327	Green Grey	QCS	as above; could be str oxid on 25% of oxidized chips (~70%); tr py as blebs	3	0.1	
35	40	D00017328	Orange Grey	QCS	predom grey QTZT w/ minor chl and tr bleb py; 30% of above QCS	5	0.1	
40	45	D00017329	Orange Grey	QCS	as above, 60% of chips are partially oxidized; chl content varies 5-25%; tr py	1	0.1	
45	50	D00017331	Orange Grey	QCS	as above still 60% of chips partially oxidized	1	0.1	
50	55	D00017332	Orange Grey	QCS	as above still 60% of chips partially oxidized; hard to see py so could be higher than tr	3	0.1	
55	60	D00017333	Orange Grey	QCS	as above	2	0.1	
60	65	D00017334	Orange Grey	QCS	As above; py more common in light grey qtz 'sweats' as blebs; 40% of chips are oxidized partially; nonmag	1	0.1	
65	70	D00017335	Orange Grey	QCS	as above; 60% of chips are oxidized; py still only seen as blebs and possibly diss	5	0.1	
70	75	D00017336	Orange Grey	QTZT	as above; 40% of chips partially oxidized but more more are strongly oxidized; banded translucent qtz w/ chl-qtz; diss py more easily seen ~1.5%		1.5	
75	80	D00017337	Orange Grey	QCS	looking more str'ly foliated, partially schistose; 50% of chips oxidized [drilling quickly]	8	1.5	
80	85	D00017338	Orange Grey	QCS	still not schistose; py 2% diss & bleb; 40% of chips mod-str oxidized on one or more surfaces	3	2	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
85	90	D00017339	Orange Grey	QCS	20% schistose chips; 40% partially oxidized chips	4	1	
90	95	D00017340	Orange Grey	QBS	as above; 40% oxidized mod-str chips; blebby py most easily seen	7	2	
95	100	D00017342	Orange Grey	QBS	as above but larger chips to look at; QTZT is two types - chl-rich and a mostly qtz lt grey - grey QTZT; blebby py but rusty spots on pieces may be oxid diss py; Qtz vn (?) has no sulfides	3	1.5	
100	105	D00017343	Dark Grey	QBS	Change to py-rich dk grey ARG, wkly mag; py up to 5% as coarse diss & euhedral xtals; ~30% of above QTZT unit; fairly soft rock drilling well; 5% str oxid chips; white QV has euhedral coarse py	3	5	
105	110	D00017344	Dark Grey	QBCS	Back to a mixed chl-rich QTZT and a grey QTZT; 30% ARG; tr py; wkly fol; nonmag		0.1	
110	115	D00017345	Dark Grey	QBCS	Mixed chl-rich QTZT & a dk grey QTZT; 35% str-intensly oxidized chips of QV and poss lt grey or tan QTZT (seems banded); bleb py in all units	7	1	
115	120	D00017346	Dark Grey	QTZT	as above mixed chl-rich - dk grey QTZT; some chl-rich frags show wk fabric/banding, 15% str oxid frags	2	0.1	
120	125	D00017347	Green Grey	QBCS	~60% of pieces show wk-mod fabric/banding, remainder are chl-rich w/ little to no fabric; oxid has dropped off, tr-0.25% py as diss & frac coatings	2	0.2	
125	130	D00017348	Green Grey	QCS	as above; ~80% of frags show fabric; quite uniform, 30-40% chl	1	0.1	
130	135	D00017349	Green Grey	QCS	as above, fabric slightly less defined, QV w/ small euhedral py xtals	2	0.1	
135	140	D00017351	Green Grey	QCS	mixed QCS, chl-rich QTZT and some frags w/ Bt; 5% oxidized pieces v tr py	2		
140	145	D00017352	Green Grey	QCS	dk gn-gy, 30-40% chl, frabric is not as str (wk-mod); starting to have more Bt (in ~10-15% of frags); v tr py	0.1		
145	150	D00017353	Green Grey	QCS	~60% QCS w/ mod fabric, 40% chl rich QTZT w/ little to no fabric; 5% of frags oxidized	3		
150	155	D00017354	Green Grey	QCS	mix of chl rich QTZT (~60%) and QCS as above; QTZT frags have lower chl content and no fabric, tr diss and frac coating py	2	0.1	
155	160	D00017355	Green Grey	QCS	~60% QCS, 40% chl-rich QTZT, mod fabric, tr diss/frac coating py; rare oxid frags	5	0.1	
160	165	D00017356	Green Grey	QCS	as above, mix of QCS & chl-rich QTZT, v tr py	3		
165	170	D00017357	Green Grey	QCS	as above, ~25% has wk fabric, rare oxid frags; large frags	1		
170	175	D00017358	Green Grey	QBCS	mix of chl-rich QTZT, dk grey QTZT w/ minor Bt and QCS as above, rare oxid frags; py as frac coatings	3	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
175	180	D00017359	Green Grey	QTZT	70% chl QTZT, 30% QCS, increased Qving, tr diss py	15	0.1	
180	185	D00017361	White	QV	65% white to slightly translucent qtz remainder is QCS w/ minor Bt, tr diss / bleb py	65	0.1	
185	190	D00017362	Green Grey	QBS	mixed unit w/ chl-rich QTZT, dl grey QTZT w/ chl-Bt and QCS, 15% QV as above, v tr py [hose blew]	15		
190	195	D00017363	Green Grey	QCS	gn-gy, nmod fabric w/ some wk & str frags, 30-40% chl, 2-5% Bt, v tr py	3		
195	200	D00017364	Green Grey	QCS	fabric wk, borderline schist, high chl content @ 35-45%, Bt 2-5%, rare oxid frags, py as diss & frac coatings	4	0.1	
200	205	D00017365	Green Grey	QCS	similar to above, higher percentage of frags have defined fabric, ~5% oxid frags, 0.25% py as diss/frac coating	5	0.3	
205	210	D00017366	Green Grey	QCS	as above, overall mod frabric w/ some wk & str frags, slight increase in Bt in select frags to 5-8%, ~2% oxid frags, tr diss/frac coat py	1	0.1	
210	215	D00017367	Green Grey	QCS	as above; fabric getting more defined, Bt increasing to near QCBS, rare oxidized frags; tr diss/blebby py	4	0.1	
215	220	D00017368	Green Grey	QCBS	similar to above but Bt content is 8-12%, chl 30-40%, select pieces are qtz rich, py as diss/blebs	3	0.1	
220	225	D00017369	Green Grey	QCBS	as above, slight drop in Bt, ~10% qtz rich frags, increasedd white QV to 10%	10		
225	230	D00017370	Green Grey	QCBS	45% white to pale grey QV; QCBSas above; 0.25% py as diss & frac coating predom in wallrock	45	0.3	
230	235	D00017372	Green Grey	QCBS	as above, fairly uniform; QV'ing has dropped off; py predom as frac coating	4	0.5	
235	240	D00017373	Green Grey	QCBS	similar to above; slight drop in chl, ~10% qtz dominate frags; increase in QV; ~2% oxid frags	8		
240	245	D00017374	Green Grey	QCBS	as above, fairly homogeneous, 30-40% chl, 8-12% Bt; wk-mod fabric; py appears to be frac coating/following fabric	2	0.3	
245	250	D00017375	Green Grey	QCBS	as above; fairly homogeneous, mod fabric tr py that appears to be frac coating	2	0.1	
250	255	D00017376	Green Grey	QCBS	as above, becoming more qtz rich; ~15% of frags qtz dominate w/ lower amounts (5-15%) chl; v tr py QV'ing parallel to fabric	5		
255	260	D00017377	Green Grey	QCBS	as above; select pieces w/ str fabric; v tr py	5		
260	265	D00017378	Green Grey	QCBS	as above; ~5% oxid frags; Bt up to 10-15%	4		
265	270	D00017379	Green Grey	QCBS	60% QCBS as above, 25% dk grey QTZT, 15% white/pale grey QV, py as frac coating	15	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
270	275	D00017381	Green Grey	QCBS	gn-gy, modfabric, 30-35% chl, 5-15% Bt; py as frac coating and diss in QVs	10	0.1	
275	280	D00017382	Green Grey	QCBS	60% QCBS as above, 30% QTZT w/ variable chl content up to 15%, 10% QV, py predom as frac coatings	10	0.3	
280	285	D00017383	Greenish Grey	QBS	50% QTZT ranging from greyish clean to chl rich green grey, 15% QCBS as above, 35% white to pale grey QV, tr - 0.25% py as diss & frac coatings	35	0.2	
285	290	D00017384	Green Grey	QCBS	~70% good QCBS w/ 30-40% chl, 8-12% Bt, mod-str fabric, 30% qtz fraghs (QTZT?) that have variably chl ranging from 5-12%, no to wk fabric; py as diss & frac coatings	3	0.3	
290	295	D00017385	Green Grey	QCBS	gn-gy, moderate to str fabric, 30-40% chl, 8-12% Bt, 10% qtz-rich frags w/ poor to no fabric; tr-0.25% py as diss/blebs	5	0.2	
295	300	D00017386	Green Grey	QCBS	as above, increase of qtz rich frags to ~20%, 10% QV'ing, it is possible som eqtz rich frags are Vn'ing w/ wallrock inclusions ? Or qtz & chl Vn?; tr py diss	10	0.1	
300	305	D00017387	Green Grey	QCBS	similar to above, continued increase in qtz rich frags/QTZT; 10% str oxid frags, tr py as frac coatings	3	0.1	
305	310	D00017388	Grey	QBS	mix of dk grey & chl rich QTZT along w/ some QCBS as above, ~70% QTZT, 30% QBS; py predom as frac coatings, ~3% oxid frags [had to shut down due to excessive water in hole]	4	0.5	

0	10			OB				
10	15	D00017389	Orange	QTZT	Light grey to tan QTZT w/ banding minor Bt ;2% diss, string & blebby py; 90% oxidized strongly; relic py seen in oxid chips plus py xtals preserved	30	2	
15	20	D00017391	Orange	QTZT	mixed suoite of grey - ly grey QTZT & QBS, QCS; mostly banded QTZT; 2% py diss & bleb in QTZT, bleb in QV; 70% oxidized chips	30	2	
20	25	D00017392	Orange Grey	QTZT	Chl-poor grey banded (mm-scale) QTZT w/ diss & euhedral xtals of py, rare blebs (2% py); 35% of chips are str-mod oxidized	10	2	
25	30	D00017393	Orange Grey	QBS	as above; less py (~1%); 15% of chips oxid; chl less commonly seen; slightly darker grey	10		
30	35	D00017394	Dark Grey	QTZT	as above except ~7% of chips str oxid			
35	40	D00017395	Green Grey	QBS	chl increasing mearly a QCS but more banded (could be a schist on more macro scale); py seen as diss & blebby as well as fracture coatings			
40	45	D00017396	Dark Grey	QBS	as above	2	2	
45	50	D00017397	White/D ark Green	QBS	40% as above plus mixed ly grey to translucent qtz & white qtz plus 20% oxid str chips; py as euhedral & blebby plus less diss	30	5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
50	55	D00017398	Dark Grey	QBS	Predom dk gy nonmag QTZT plus 25% chl-QTZT; dk grey QTZT has poss fn Bt up to 35% but can't see actual xtals; coarse euhedral & blebby pyup to 3%; QV also euhedral coarse py	25	3	
55	60	D00017399	White/D ark Grey	QBS	Possibly QBS w/ v fn grained Bt banded w/ lt grey-white qtz; easily 10% coarse to fine diss & blebby py, som eeuhedral; 5% oxidized mod chips; nonmag	30	10	
60	65	D00017400	Green Grey	QCS	Possibly schistose 35% chl in dk grey qtz to whitish qtz; py as above (could be str chl altered version of above but I think I see chl; some chips harder than 6 others softer so ust be chl); nonmag	2	7	
65	70	D00017401	Grey	QBS	very similar to 55-60'; <10% chl-QTZT chips (as above) back to v fn dark to med grey QTZT w/ ~8% py as diss, blebs mostly in the QTZT but also in QV material; 20% str oxid chips	10	8	
70	75	D00017402	Green Grey	QCS	more like 60-65' interval; non mag	1	6	
75	80	D00017403	Grey	QCS	mis of the previous intervals; py ~10%; whitish-ly grey qtz more abundant (not QV)	3	10	
80	85	D00017404		QBS	mix of QCS & QTZT as above; 5% str oxid		4	
85	90	D00017405	Grey	QTZT	as above mix chl QTZT or QCS and dk grey QTZT; most diss blebby py not in QV; chips are harder than 6 (moh)	10	6	
90	95	D00017406	Green Grey	QCS	QCS as above, lower py, more blebby than diss, Qtz in rock is stained yellow-green; wk to moderately magnetic		2	
95	100	D00017407	Green Grey	QCS	Less schistose maybe a chl QTZT; as above but nonmag; more qtz similar to above; 2% oxid fracture coatings		2	
100	105	D00017408	Dark Grey	QCS	as above; chl looking quite dk (soft <6); predom blebby py; nonmag		2	
105	110	D00017409	Dark Grey	QCS	as above; mod mag	1	2	
110	115	D00017410	Black	QBS	mixed QCS 40% as above w/ black ARG 60%; ARG is hard with granular texture & euhedral py; mod-str magnetic	0.1	3	
115	120	D00017412	Dark Grey	QCS	Minor ARG; maybe chl QTZT but abundant chl; py lower ~ tr-1%; nonmag		0.5	
120	125	D00017413	Grey	QCS	predom dk gy QTZT w/ 40% QCS as above; nonmag		4	
125	130	D00017414	White Black	QBCS	dark grey ARG banded w/ or cut by white qtz/QV (looks more banded); soft grey powder scratch; nonmag; blebby py: 25% chl-QTZT or QCS	35	2	
130	135	D00017415	Light Grev	QTZT	Change to It grey - whitish QTZT with 10% + diss fn py and less common blebby py, poss aspy; banded w/ med grey gtz; could be bleaching?	5	10	
135	140	D00017416	Light Grev	QBCS	as above with ~50% chloritic QTZT; py content HIGHER in white-It grey QTZT than green chl QTZT (perhaps easier to see), now 12-15%; some py is euhedral but lots is y fn grained	8	15	
140	145	D00017417	Green Grey	QCS	only 2-3 pieces of above unit; dk green=gy chl w/ diss & blebby py; v wkly mag; very small chips	1	4	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
145	150	D00017418	Green Grey	QCS	mixed dk grey QTZT (dirty) w/ well foliated green & yellow-white qtzite to schist 4% diss & blebby mostly in green QCS; traces of It grey-white QTZT as above; non mag	3	4	
150	155	D00017419	Grey	QCS	as above, a bit less py seen; non mag	1	3	
155	160	D00017421	Green Grey	QCS	as above although more chl-rich QCS		2	
160	165	D00017422	Green Grey	QCS	QCS as above but dirty QTZT probably ARG as it scratches grey easily; ~50:50 mix	3	2	
165	170	D00017423	Grey	QBS	Predom ARG w/ 25% QCS & 30% white-grey qtz; ARG & qtz are interlayered	20	1	
					Mixed dk grey QTZT (QV?), white QV; blk ARG & chl QTZT or QCS; slightly more ARG than others but nearly			
170	175	D00017424	Grey	QBS	an even mix; light grey QTZT is as earlier w/ 10-15% py; white QV is 2-4% pymostly as euhedral and QCS is 3- 4% py	25	5	
175	180	D00017425	Dark Grey	QBS	as above but less It gy QTZT maybe 5%; Arg is sometimes hard, and banded w/ whitish Qtz	5	5	
180	185	D00017426	Grey	QBS	Arg is getting more silicious, more qtz layers (should be QTZT?), 20% QCS, 5% lt gy QTZT w/ 10+% py & tr aspy (>3% in one chip); nonmag	2	4	
185	190	D00017427	Black	QBS	Nearly all ARG, silicified mod/selectively; py down to 1-2% blebbyl still It grey/white qtz banding but not as common		2	
190	195	D00017428	Black	QBS	A bit more qtz banding (flooding) which carries 2% diss py; ARG mostly blebs but also diss & euhedral xtals; nonmag; Arg py is 3% total		3	
195	200	D00017429	Black	QBS	as above, roughy 5% py as above; whitish qtz is more irregular than bands - more flood like	2	5	
200	205	D00017431	Dark Grey	QBCS	ARG graded into this dk grey QTZT, 30% chl QTZT (yellowish qtz banded with dk green fn grained chl); ~1.5% euhedral, blebby & fn diss py; non mag	1	1.5	
205	210	D00017432	Dark Grey	QBCS	as above, could be called a str silicified ARG; str mag	1	1.5	
210	215	D00017433	White Black	QTZT	Above unit 35% and light grey to white QTZT (&QV?) with 10% py diss & blebby; dk grey also more py 3-5% diss and blebby; dk grey is non magnetic	8	8	
215	220	D00017434	Light Grey	QTZT	All light grey to white QTZT (w/QV?); 12% py as v fn diss, fn-mod diss, blebs and euhedral xtals; wkly banded; white 'QV' doesn't seem to have nearly as much py as It grey QTZT (varies from v It grey to It grey); nonmag	10	12	
220	225	D00017435	Black	QBS	Argillite like previous mixed w/ chl-QTZT; ARG is mixed w/ white qtz and carries ~2% often euhedral coarse py; only a trace of above unit in this interval; ARG is variably silicified; nonmag	5	2	
225	230	D00017436	White Black	QBS	Mixed interval of silica flooded 65% ARG w/ 3-5% py; chl-QTZT (banded, str-fol) w/ 2-5% py often blebby and 15% It grey to white QTZT with ~10% fn-mod diss & blebby py; tiny pure white QV doesn't seem to have much py	5	8	
230	235	D00017437	White Black	QBS	Similar to above but less ARG; QTZT is white to It grey, seems to have more mod-coarse euhedral py; Chl- QTZT (or QCS) only 10%	30	7	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
235	240	D00017438	Dark Grey	QBS	80% silicified mod ARG w/ 3% coarse euhedral py and blebby py; appears to have white qtz sweats or flooding (gradational, uneven contacts); Chl-QTZT or QCS ~10% w/ tr to 1% diss py; nonmag	15	3	
240	245	D00017439	White/D ark Grey	QBS	Weak to v wk silic ARG w/ 2% blebby py & whitish qtz sweats; White QV appears to have no py; 15% chl- QTZT (or QCS) has 1-2% blebby py	25	2	
245	250	D00017440	Dark Grey	QBS	ARG as above; QCS increasing to 30% and similar to above	2	1.5	
250	255	D00017441	Grey	QBS	Mix of Chl-QTZT and dirty brownish QTZT (protolith ARG); both carry ~3% diss and blebby py		3	
255	260	D00017442	Black	QBS	Black-dk grey ARG w/ mm scale light grey qtz bands; diss py ~3% and blebby py ~1%; rare 8-10mm dirty qtz bands have 4-5% diss py; non mag	1	4	
260	265	D00017444	Dark Grey	QBS	Dirty QTZT w/ Bt beginning to develop; 1-2% fn diss py & tr blebby py; QTZT is weakly banded w/ white-lt grey qtz; nonmag; very slight greenish hue	0.1	1.5	
265	270	D00017445	Grey	QBS	Similar to above, slightly less py overall, many chips barren but ~20-25% have large clots or 3-4% diss; slight gn colour seen in most chips; wkly mag; v small chips in most samples for last 30'; might be this rock type?		1	
270	275	D00017446	Black	QBS	somewhat similar to above but denser looking black w/ v white qtz 'sweats'; 2% diss fn & blebby py; some mm scale banding; non mag	15	2	
275	280	D00017447	White Black	QBS	Black & white QTZT w/ 1% fn diss py & 2% coarse blebby py; rare Bt seen; most of the white qtz is probably from the QTZT but some could be QV	17	3	
280	285	D00017448	Dark Grey	QBS	as above; maybe less diss py & blebby py and less white qtz (most a greyish); slight greenish colour on 40% of chips	5	2.5	
285	290	D00017449	Dark Grey	QBS	blk, green & white, impure QTZT, minor chl & Bt w/ wk chl alt'n; some white qtz that is likely QV; ~1% diss py & 1% blebby py	2	2	
290	295	D00017451	Green Grey	QBCS	green-greyQTZT w/ lesser whitish green QTZT; py content dropping ~1% split between diss & blebs	3	1	
295	300	D00017452	Grey	QBCS	gn-gy, dk gy & It grey QTZT; ~10% pale green frags w/ str chl alt'n; py as diss & blebs	5	0.8	
300	305	D00017453	Green Grey	QBCS	predom gn-gy chl QTZT, some pieces borderline schistose; 1% py w/ 0.75% as blebs/frac fill, 0.25% diss		1	
305	310	D00017454	Green Grey	QBCS	as above, fairly uniform gn-gy chl-QTZT; 0.75% py mostly as blebs/fracture coatings w/ minor diss	0.1	0.8	
310	315	D00017455	Green Grey	QBCS	chl-QTZT increasing fabric, v close to schistose; gn-gy, homogeneous, Bt up to 5% in select frags; 0.5% py		0.5	
315	320	D00017456	Green Grey	QBCS	as above w/ ~10% qtz dominant frags, py predom as blebs/fracture coatings		0.5	
320	325	D00017457	Green Grey	QBCS	as above; $\sim$ 5% white to translucent qtz frags - likely vning; 0.5% py 3/4 of which is small blebs	5	0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
325	330	D00017458	Green Grey	QBCS	as above, slight increase in qtz dominant frags to 15%; py as diss/blebs	3	0.3	
330	335	D00017459	Green Grey	QBCS	as above; py increases to 1% w/ 0.75% blebs and 0.25% diss, small euhedral py xtals in select QV frags	1	1	
335	340	D00017461	Green Grey	QBCS	similar to above but slightly less chloritic; py w/ fairly even split between diss and small blebs	1	1	
340	345	D00017462	Grey	QBCS	mix of It gy, dk gy and greenish chl-QTZT; increase in py which is mostly in the lighter QTZT, fairly even split between fn diss and small blebs	1	2	
345	350	D00017463	Grey	QBCS	as above, very mixed QTZT of varying composition; py as diss & blebs	2	2	
350	355	D00017464	Grey	QBCS	predom (~60%) chl-QTZT, remainder is mix of light & dk QTZT & QV'ing, ~20% white to translucent QV; py as blebs/frac coating (3/4) and fn diss (1/4)	20	1.5	
355	360	D00017465	Dark Grey	QBS	~80% dark grey QTZT that occasionally has Bt; remainder is chl QTZT and It gy QTZT; rare pieces w/ schistose fabric; 4% py ~3% blebby & 1% fn diss	2	4	
360	365	D00017466	Dark Grey	QBS	becoming more chloritic, still mixed QTZT w/ occassional schistose frags; Bt slightly more prevalent @ 3- 5%; 3% py - ~25 fn diss, 1% blebs	3	3	
365	370	D00017467	Dark Grey	QBS	as above; slight drop in py to 2% fairly even split between diss & blebby	2	2	
370	375	D00017468	Grey	QBS	~60% dk gy Bt containing QTZT, 30% pale grey clean QTZT; 10% v chloritic (alt'd?) QTZT; drop in py still as diss & blebby	1	0.8	
375	380	D00017469	Grey	QTZT	as above, maybe slightly higher amounts of clean & chl QTZT; py content consistent but mostly as diss	2	0.8	
380	385	D00017470	Dark Grey	QBCS	mix of chl & Bt QTZT (~80%) and light grey, cleaner Bt; occassional borderline schistose frags; py as diss and frac coating	0.1	0.5	
385	390	D00017472	Green Grey	QBCS	majority (~75%) is chl QTZT, remainder is mix of Bt rich & clean; occassional schistose frags; diss/bleb py	8	0.5	
390	395	D00017473	Green Grey	QBS	as above; slight increase in chl alt'd frags, py decreasing as diss and small blebs	2	0.3	
395	400	D00017474	Grey	QBS	QTZT is becoming cleaner w/ lower amounts of chl & Bt; ~15% white to translucent qtz - likely vn'ing; ~2% oxid frags; diss/bleb py in QTZT, vns have little sulfides	15	0.5	
400	405	D00017475	Grey	QBS	as above; continued str qtz vn'ing; py increasing as predom fn diss, occassional blebs & fracture coatings	12	1	
405	410	D00017476	Grey	QBS	mix of It & dk grey QTZT; vn'ing dropped off; str py mineralization @ 4%, 2.5% diss & 1.5% blebs	3	4	
410	415	D00017477	Grey	QBS	~50:50 mix of lighter fairly clean QTZT and dk Bt/chl containing QTZT; drop in py to 2% - 2/3 diss, 1/3 bleb	4	2	
415	420	D00017478	Grey	QBS	as above; drop in py to ~1% as predom fn diss	6	1	
420	425	D00017479	Grey	QBS	as above but more Bt/chl QTZT; py decrease to 0.25-0.5% as mostly diss [EoH: out of rods]	1	0.4	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
Drill	Hol	e BV16-52						
0	15			OB				
15	20	D00017481	Light Grey	QCS	pale green chl w/ orangy oxidized qtz; no py seen; oxidation is fairly weak mostly restricted to qtz			
20	25	D00017482	Light Grey	QCS	as above	2		
25	30	D00017483	Orange Grey	QCS	mixed w/ 30% grey QTZT; bit more oxidized, chl pitted and orangy, qtz orange; 5-10% orange oxidized QV; no sulfides seen; larger chips in this interval	10		
30	35	D00017484	Light Grey	QTZT	Grey rough textured QTZT, possibly chl pitting/weathering; less well fol, ~mod; no sulfides; QV is orange oxid; overall oxid is partial/selective; mm banding	5		
35	40	D00017485	Orange Green	QTZT	Green grey well banded chl-QTZT (possibly QCS); large >3cm chips show irregular & regular qtz contacts & banding in qtz w/ v thin chl bands; selectively oxid on Qtz; chl seems to pit rather than go rusty from oxidization; no sulfides but possible cavities	2		
40	45	D00017486	Orange Green	QCS	Difficult drilling, collapsing hole; more foliated but same as above; traces fn diss py much of it oxid strongly; oxid selective to qtz	2	0.1	
45	50	D00017487	Orange Green	QCS	Borderline QCS-chlQTZT; still large chips (w/ much smaller chips as well); str foliation; no pu seen; qtz, both possible vns and bands are orange oxidized, rare white qtz (QV); very dirty looking, rough textured rock	3		
50	55	D00017488	Orange Green	QCS	as above probably should have called it a QTZT w/ chl; well fol, banded; no sulf; v small chips; qtz still selectively oxidized orange	1		
55	60	D00017489	Light Green	QCS	Chl-QTZT, as above but less chl, more greyish qtz; no sulfides seen but relic rusty spots suggest there was py; QV is white and no sulfides	5	0.1	
60	65	D00017491	Green	QCS	as above; oxidation level hard to tell because chl seems to buffer it; Qtz is variably oxid; remnant/relic rusty spots suggest there may have been 1-2% sulfides; wt qtz - no sulfides	10	0.1	
65	70	D00017492	Orange Green	QCS	wet sample; large chips again; As above but more oxidized, fairly selectively but qtz is orange; rusty relics suggest several % py has been oxidized; drilling quickly	10	0.1	
70	75	D00017493	Orange Green	QCS	More oxidized but as above; oxidation is still selective; no py seen but relic suggest several %; some v fresh white QV but no sulf; other qtz id orange		0.1	
75	80	D00017494	Orange Green	QCS	As above, slightly less oxidized, tr py seen and relics again suggest several %; no white QV but orangy qtz is hard to distinguish QV from qtz bands	10	0.1	
80	85	D00017495	Orange Green	QCS	As above; slightly less intense oxidation	5	0.1	
85	90	D00017496	Orange Green	QCS	As above; looking a bit more foliated & slightly less oxidized	5		
90	95	D00017497	Orange	QTZT	Change to It grey QTZT; intense oxidation on 50% of chips, 35% weakly oxidized; no sulf but wkly altered could have diss relics	3		

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
95	100	D00017498	Orange Grey	QCBS	Mixed It gy QTZT (40%) w/ yellowish alt'n (sericite or chl?) 30% black ARG (fairly soft grey scratch) & 30% intensely oxidized chips; only trace euhedral py seen on white QV	5	0.1	
100	105	D00017499	Orange/ Light Grey	QCS	As above mixed unit 60% It grey-white QTZT, 25% ARG; 15% intense oxid'd; 30% of chips are mod-intensely oxid; no sulf seen in anything	10		
105	110	D00017500	Black	QBS	65% black ARG w/ coarse py ~1%); 15% mod-intensely alt'd QV or/and It grey QTZT w/ trace py; ~20% QTZT w/ chl & tr py	10	1	
110	115	D00017501	Orange	QTZT	Strong to intensely oxidized; It grey QTZT and QV?; some It grey QTZT has 10% py ~two possible generations: coarse euhedral & fn diss & stringy; All chips st-intensely oxidized and unable to recognize 60% of chips	15	3	
115	120	D00017502	Orange	QCS	Mix of above plus chl-QTZT, dk QTZT, 40% mod-intensely oxid; similar 2 phases of py; est 5% fine diss & 5%+ coarse euhedral; white QV w/ no sulfides	10	7	
120	125	D00017503	Orange	QCS	Mix as above w/ 65% str-int oxid; some It grey-whitish chips (QTZT) have ~10%+ py (as above); difficult to estimate % of py	5	7	
125	130	D00017504	Orange Grey	QCBS	as above; 35% int-strly oxid; 30% bone white QTZT; 20% ARG; 25% It grey-greenish QTZT w/ 7% py; small chips	3	5	
130	135	D00017505	Green/D ark Grey	QCBS	Mixed chl green QTZT (50%) w/ tr -5% py diss fn & bleb & euhedral; black siliceous ARG or QTZT w/ coarse py (tr-1%); 20% intensely oxid chips	2	5	
135	140	D00017506	Dark Grey	QBS	Mixed dk grey-blk hard QTZT w/ coarse bleb & euhedral py and ~50% greenish chl-QTZT w/ blebby & diss fn py (varies tr - 5%); no oxid seen (still drilling wet)	1	3	
140	145	D00017507	Dark Green Grey	QBS	as above; some chips show gradation between dk grey/blk and lt green grey so assume a banded/ altered unit; It green varies from v pale to med green and appears to be qtz altered by chl' pale med-green shows most py ~3-4%; very slow drilling now		3	
145	150	D00017508	Dark Green Grey	QCBS	Predom chl-QTZT varying between dk grey & vivid green; tr to 1% mostly coarse euhedral or blebby py but some fn diss; 3% intensely oxid chips	2	1	
150	155	D00017509	Orange/ Dark Grey	QCS	As above but w/ 25% str-int oxid chips (can't recognize protolith); one mod oxid chip has 8% fn diss py and appears to be a lt grey or It green QTZT	0.1	1	
155	160	D00017510	Orange/ Dark Grey	QCS	As above but darker w/ less green qtz; 20% intensely oxidized chips; mod magnetic	0.1	1	
160	165	D00017512	Dark Grey	QCBS	Just hard enough not to be ARG; banded w/ less common greenish chl QTZT w/ more freq carries 1-2% fn diss py; darker QTZT has common 3% coarse bleb & euhedral py but both have a bit of both; 20% str-int oxid chips; nonmag	0.1	2	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
165	170	D00017513	Grey	QCBS	Much higher Qtz content, chl-QTZT w/ 40% bk/dk grey QTZT as above; py ~1-2% mostly as blebs, tr diss; 15% int oxidized chips	3	2	
170	175	D00017514	Grey	QBS	As above; dk grey QTZT is a dirty looking crudely banded w/ more translucent to white qtz; less common is chl-QTZT; both have diss to blebby py; still ~15% int-str oxid chips	2	2	
175	180	D00017515	Grey	QBS	as above, a bit more blk/dk gy QTZT tr-1% py mostly blebby; 25-30% str oxid; white QV has 1% euhedral py	5	1	
180	185	D00017516	Grey	QBS	Mixed (like interval165-170') light grey-whitish QTZT w/ chl & dk grey QTZT both w/ tr-2% mostly blebby py but fn diss & strings; 25% str oxid chips (some QV but some unknown)	2	2	
185	190	D00017517	Grey	QBS	Mix again; more whitish, It grey qtz again; 35% dk grey QTZT; 15% str oxid chips (one is only half oxid and is a It grey QTZT w/ 10% fn py); 2% diss & bleb py throughout	10	2	
190	195	D00017518	Grey	QBS	as above; only 5% str oxid chips; NOTE: the small amount of consistently str oxid chips is likely contamination from higher up highly oxid zone; this will contaminate the assays if there is any Au in the oxid zone; Changing procedure to purge and not to c	10	2	
195	200	D00017519	Grey	QCBS	as above; mixed chl-QTZT to dk grey dirty QTZT; 2-3% diss & blebby py; 25% str oxid		3	
200	205	D00017521	Grey	QCBS	ChI-QTZT as above w/ some dk grey QTZT		3	
205	210	D00017522	Grey	QCS	as above		3	
210	215	D00017523	Grey Green	QCS	as above; predominately greenish chl-QTZT w/ It green to grey to dk gy QTZT; 2-3% py blebs & diss; 15-20% oxid (contam)	5	3	
215	220	D00017524	Grey Green	QCBS	as above; ~15-20% oxid contam	5	3	
220	225	D00017525	Grey	QCBS	As above; this unnit is consistent although variable in ratio of It gy to It green to dk QTZT; still 2-3% py diss & bleb; contam ~15% oxid mod-str chips; white QV varies generally has tr-1% euhedral py	3	2	
225	230	D00017526	Grey Green	QCS	Predomgrey green chl QTZT; py content has dropped off, ~tr; no sulf seen in white QV; contamination ~15- 20%	5	0.1	
230	235	D00017527	Light Grey	QCS	As above; 25-30% contam; Couple very large chips, drilling feels softer	8	1	
235	240	D00017528	Light Grey	QCS	mixed white chl-QTZT w/ dk grey dirty QTZT of earlier	5	1	
240	245	D00017529	Light Grey	QTZT	Lt grey to whitish QTZT w/ chl is predom w/ 103% py as diss & bleb; 25% dk gy dirty QTZT; 20% oxid chips (probable contam); sample bucket fuller than expected from drill and getting rock recovery without drilling indicates rock material is falling into ho	2	3	
245	250	D00017531	Dark Grey	QCBS	Predom (60%) dk gy-br dirty QTZT w/ biotite on some chips; well foliated; tr py; green chl-white/lt gy qtz QTZT similar to earlier; also has tr-1% py diss & blebs; 10-15% str oxid chips [hole shut down due to tightening of the rods in the oxidized faulted	1	1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
0	20			OB				
20	25	D00017532	Brown	QTZT	heavily oxid rock that appears to be a dk gy QTZT w/ some Bt; tr diss py [fines in sample are brown and clayey; possible still in subcrop]		0.1	
25	30	D00017533	Brown	QTZT	oxid'd; mostly appears to be dk QTZT w/ possible wk chl alt'n; possible wk fabric [fines in sample are brown and clayey; possible still in subcrop]			
30	35	D00017534	Brown Grey	QBS	oxid'd; as above; select pieces w/ Bt and wk fabric that may be QBS [possible subcrop as above]. no sample collected - bag destroyed.			
35	40	D00017535	Brown Grey	QBS	dk grey, Bt rich QTZT w/ ~10% QBS that is dk gy, mod fabric; 60% oxid; good solid bedrock @ ~38'			
40	45	D00017536	Brown Grey	QBS	dark, Bt-rich QTZT, select pieces borderline schistose; ~40% oxid frags; wk chl; v tr py [small sample]			
45	50	D00017537	Brown Grey	QBS	as above; slight increase in oxid frags; v tr py			
50	55	D00017538	Brown Grey	QBS	dk Bt-rich QTZT as above; oxid staying consistent			
55	60	D00017539	Red Brown	QTZT	as above; str increase in oxid'n, 80% of rock completely oxid'd; original rock type is hard to see	1		
60	65	D00017540	Orange Brown	QTZT	90% str'ly oxid, remainder is It grey fairly clean QTZT, tr fn diss py	5	0.1	
65	70	D00017542	Brown Grey	QTZT	80% dk grey Bt-rich QTZT; 20% lt gy cleaner QTZT; select Bt rich frags borderline schistose; sharp drop in oxid'n but still str		0.1	
70	75	D00017543	Grey	QTZT	75% pale gy QTZT, 20% dk gy QTZT; good py mineralization in It phase @~4% split b/t diss and small blebs; oxid gone	7	4	
75	80	D00017544	Grey	QTZT	as above; py drop to 1% diss/blebs; wk oxid	2	1	
80	85	D00017545	Grey	QTZT	med to pale gy QTZT, 10% frags have 3-5% Bt; py mostly as fn diss w/ minor <1mm euhedral xtals	3	3	
85	90	D00017546	Grey	QTZT	fairly uniform med grey QTZT w/ minor Bt; good py mineralization as a mix of diss/blebs and frac filling/stringers?; possible v wk chl alt'n	2	4	
90	95	D00017547	Dark Grev	QBS	slightly dker w/ higher Bt content compared to above; dk grey 5-8% Bt, rare pieces borderline schistose, drop in py ~1% diss and small blebs	2	1	
95	100	D00017548	Grey	QTZT	mix of dk gy, Bt rich QTZT (60%) and It gy clean QTZT; py as predom diss and some blebs		0.8	1
100	105	D00017549	Grey	QTZT	as above but slightly more Bt-rich QTZT; py as blebs /frac coatings w/ minor diss	3	0.5	
105	110	D00017551	Grey	QBS	as above; ~5% oxid frags; v wk chl; py as diss	2	0.5	
110	115	D00017552	Grey	QBS	as above w/ ~10% QBS that has mod fabric, med grey; py as diss	1	0.3	
115	120	D00017553	Grey	QTZT	as above but slightly lighter grey w/ less Bt; py mostly as diss/small blebs	2	0.5	
120	125	D00017554	Grey	QTZT	becoming mostly light grey clean QTZT w/ only minor Bt; py as diss & frac coatings	1	0.3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
125	130	D00017555	Grey	QTZT	med to It gy, massive, fairly clean QTZT; select frags w/ wk fabric; py predom as fn diss (0.75%) & minor blebs		1	
130	135	D00017556	Light Grey	QTZT	as above, slight sugary texture; py mostly as fn diss w/ minor blebs	0.1	1	
135	140	D00017557	Light Grey	QTZT	as above, possibly slightly dker grey; py as fine diss; Bt content ~3-8%		0.3	
140	145	D00017558	Light Grey	QTZT	as above, clean, clear granular texture; tr-0.25% fn diss py		0.2	
145	150	D00017559	Light Grey	QTZT	clean, granular, lt grey QTZT; ~1.5% fn diss py		1.5	
150	155	D00017561	Light Grey	QTZT	as above; py dropped to 0.5% fn diss		0.5	
155	160	D00017562	Light Grey	QBS	as above, 1% py as diss/small blebs		1	
160	165	D00017563	Grey	QBS	40% QTZT w/ minor Bt, 60% QBS w/ mod fabric, med grey, 20-30% Bt; good py mineralization as ~3% frac fill, 1% diss	0.1	4	
165	170	D00017564	Dark Grey	QBS	60% QBS as above; 40% dk gy Bt-rich QTZT; 2% py prdom as frac coating & minor diss	2	2	
170	175	D00017565	Grey	QTZT	mix of It grey clean QTZT and dk Bt-rich QTZT w/ ~10% QBS as above' 1% py predom as frac coating; 3% oxid frags	3	1	
175	180	D00017566	Dark Grey	QBS	dk gy Bt rich QTZT to QBS; ~25% QBS w/ mod fabric, most seems to be borderline schistose, ~4% oxid; py as frac coatings (~2/3) and diss (1/3)	1	1.5	
180	185	D00017567	Grey	QBS	med grey, 20-25% Bt, mod-str fabric, ~ 20% qtz rich frags w/ poor fabric; ~2% oxid; py predom as frac coatings/blebs		0.8	
185	190	D00017568	Grey	QBS	as above but w/ ~30% qtz rich frags; ~2% oxid frags; py as frac coat +- diss	2	0.5	
190	195	D00017569	Grey	QBS	as above; ~2% oxid frags; py as frag coating/following fabric	0.1	0.8	
195	200	D00017570	Grey	QTZT	It-med grey QTZT w/ variable Bt content ranging from nil to 10%, 15% QBS as above; 1% py as diss and small blebs in It QTZT frags predom	5	1	
200	205	D00017572	Dark Grey	QBS	dk Bt rich QTZT, ~15% frags have wk shistose fabric (QBS), py predom as frac fill	3	0.5	
205	210	D00017573	Grey	QBS	60% Bt rich QTZT locally w/ wk fabric; 40% white to pale grey QV; 2% (1.5% frac coatings, 0.5% diss) py predom in wall rock (QTZT)	40	2	
210	215	D00017574	Dark Grey	QBS	75% dk grey, QBS w/ mod fabric, 20-30% Bt, 25% qtz rich frags w/ no to wk fabric (QTZT), green tinge suggests wk chl alt'n; py predominately as frac coatings	2	0.8	
215	220	D00017575	Dark Grey	QBS	dk grey to greenish grey, 25-35% Bt +- chl; fabric is wk to mod - barely schistose; py as diss/frac coat; wk chl alt'n	2	0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
220	225	D00017576	Dark Grey	QBS	as above but fabric becoming more defined - mod to locally str; py mostly as frac coating	1	0.8	
225	230	D00017577	Dark Grey	QBS	as above; str increase in py as predom frac fill & stringers, qtz & py stringers cuting fabric		4	
230	235	D00017578	Dark Grey	QBS	as above but ~20% Qtz rich frags (QTZT); py still frac fill/stringers		1.5	
235	240	D00017579	Dark Grey	QBS	As above. Mod-str fabric; slight increase in chl; py as diss & frac coat	3	0.8	
240	245	D00017581	Dark Grey	QBS	as above; select frags w/ v str fabric, py as blebs following fabric		0.5	
245	250	D00017582	Dark Grey	QBS	as above, becoming quite homogeneous; py as blebs following fabric & frac coatings	2	0.5	
250	255	D00017583	Dark Grey	QBS	As above but fabric is weaker, wk-mod, ~10% qtz rich frags w/ v wk to no fabric	8	0.3	
255	260	D00017584	Dark Grey	QBS	as above but increase to ~`5% qtz rich frags; py as blebs & frac coat	2	0.8	
260	265	D00017585	Dark Grey	QBS	~80% QBS, 20% pale grey QTZT w/ a granular texture, py as frac coat	2	1	
265	270	D00017586	Grey	QBS	~70% QBS as above, remainder is a mix of light grey QTZT and dark Bt rich QTZT; overall Bt content dropping; py as frac coating	4	0.8	
270	275	D00017587	Grey	QBS	~60% QBS, 40% QTZT both as above; py predom as frac coatings	2	0.5	
275	280	D00017588	Dark Grey	QBS	dk grey to greenish grey; mod-str fabric, 15-25% Bt, ~15% qtz rich w/ wk to no fabric; mod chl alt'n; QV parallel to fabric	5	0.3	
280	285	D00017589	Dark Grey	QBS	as above but but 255 qtz rich frags w/ wk to no fabric; tr-0.25% py as frac coating	2	0.2	
285	290	D00017591	Dark Grey	QBS	555 QBS similar to above but wk-mod fabric; 45% QTZT ranging from pale grey to dk Bt rich; py predom as frac coating	4	0.5	
290	295	D00017592	Grey	QBS	55% mix of pale grey and dark Bt rich QTZT (mostly Bt rich), 45% QBS as above; w/ wk-mod fabric, lower Bt content at 15-25%; py as frac coating & blebs	5	0.5	
295	300	D00017593	Grey	QBS	60% mix clean sugary QTZT and dk Bt rich QTZT, 40% QBS w/ mod to str fabric, tr-0.25% py as frac coat & blebs	12	0.2	
300	305	D00017594	Dark Grey	QBS	80% QBS w/ mod-str fabric, 15-25% Bt; 20% Qtz rich w/ wk to no fabric (QTZT); tr - 0.25% py as frac coating & blebs	3	0.2	
305	310	D00017595	Grey	QBS	60% clean white to pale grey, granular QTZT w/ 10% Bt rich QTZT and 30% QBS as above; py predom as frac coatings	5	0.5	
310	315	D00017596	Grey	QBS	mix of pale-grey clean QTZT (10%) & Bt rich QTZT; <10% QBS; py predom as frac coating w/ minor diss	5	0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
315	320	D00017597	Dark Grey	QBS	dk grey, mod-str fabric, 20-35% Bt; wk-mod chl alt'n; py as frac coatings; <10% Bt-rich QTZT	1	0.3	

0	15			OB				
15	20	D00017598	Grey	QTZT	Grey homogeneous QTZT w/ wkly oxid foliation planes; wkly foliated; rare oxid Qtz piece w/ poss chl speaks & tr py			
20	25	D00017599	White Green/G rey	QCS	Greenish grey chl QTZT; slightly more oxid; no py in QTZT; QV is whitish yellow w/ rare chip showing py or py relics; QV is more oxid than country rock; some qtz is gradational irregular contact w/ QTZT	30	0.1	
25	30	D00017600	Orange	QTZT	Highly oxid chips, mod to intense; no sulfides seen but relic rust common; variable lithology w/ chl QTZT, QV and poss It QTZT; QV shows variable oxid from intense to almost pure white; 60% intensely oxid chips	15	0.1	
30	35	D00017601	Orange	QTZT	as above; QV or light/white QTZT ~35% of chips mostly str-intensely oxid, less oxid'd chips show blebby py, others sometimes show abundant relic py (est 3-4%)	35	3.5	
35	40	D00017602	Dark Grey	QBCS	banded qtz-chl w/ dirty QTZT (looks like v fn Bt in qtz); tr to 1% v fn diss py & bleb; 10% small str oxidized chips; 1% oxidized fractures in QTZT (mod); QV white w/ no sulf	1	1	
40	45	D00017603	Green Grey	QBCS	As above; 2% fn diss py in both green chl QTZT bands & dirty QTZT; White qtz (QV?) also carry py; 3% str oxidized chips	5	2	
45	50	D00017604	Light Grey	QTZT	Light greenish grey QTZT banded w/ less abundant dirty QTZT + chl QTZT; All have 3-8% diss, blebby py; 30% str oxid chips & fracture surfaces of the same rock types; white QV has fine tr diss py	10	5	
50	55	D00017605	Green Grey	QBCS	As above; smaller chips but looks very similar; one chip shows that the Bt may be occurring as an alteration of the chl QTZT; 10% strongly oxid chips; 15% white qtz	15	5	
55	60	D00017606	Orange Green	QBS	As above; less py visible (~3%) still in all lithologises but It grey/green QTZT less common (~10%); 30% str- int oxid chips (not contam - blowby working well); py as fine diss, blebs & coarse euhedral; relic py on strly oxid chips	10	3	
60	65	D00017607	Dark Grey	QBS	As above; 25% mod oxid chips; dk grey QTZT most abundant ~60%; Still about 3% py (some chl-QTZT chips show v.v. Fn dusting of py)	1	3	
65	70	D00017608	White/D ark Grey	QTZT	As above but 50% brownish white qtz chips along w/ 35% dk grey QTZT & 15% grennish chl QTZT; ~1% py as diss blebs & coarse euhedral xtals; 1% oxidized mod-str chips w/ py	3	1	
70	75	D00017609	Dark Grey	QBCS	As above; w/o nearly as much br-wh qtz chips; Predom dk QTZT; Light grey QTZT (25%) carries 3-10% py diss, blebs & c euhedral, the rest ~2-3% py; 25% str oxid chips	4	8	
75	80	D00017610	Grey	QBCS	As above; except dk QTZT & chl-QTZT appear to have only tr-1% py (light grey still 25% w/ 3-10% py); 15% str oxid chips some w/ relic py [slow drilling]	4	4	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
80	85	D00017612	Grey	QTZT	More light grey QTZT w/ 7% dusting of py diss; red mineral w/ silver mineral (looks like galena, moly, stibnite or graphite, ~1% of chips); 30% str oxid chips [drilling faster]	6	7	
85	90	D00017613	Orange Grey	QTZT	Dark QTZT most abundant ~50%; 25% str oxid chips; 20% light grey QTZT (as above) 10% white QV w/ 2% py; 2% red mineral w/ silver mineral	5	4	
90	95	D00017614	Orange Grey	QCBS	As above, less abundant light QTZT & more chl QTZT; 35% oxid str'ly chips; 1% red/silver mineral chips	3	3	
95	100	D00017615	Orange White	QV	Strongly-Intensely oxidized interval (deep orange water flow); 90% of chips str-int oxidized, appear to be either QV or banded light grey QTZT; red & silver mineral ~2-3%; other chips It grey to green grey QTZT w/ dusting of diss py & blebs; fresh white Q	80	4	
100	105	D00017616	Orange/ Dark Grey	QV	50% as above QV (or partially It grey QTZT) w/ gn grey QTZT; latter is unoxidized w/ ~3% py diss & bleb (possibly 5%); 50% is str oxid chips; no red mineral	50	5	
105	110	D00017617	Dark Grey	QCBS	Gn grey QTZT as above, 3-5% diss & blebby py; 25% intensely oxid chips as above; trace red/silver minerals; white QV has euhedral & blebby py	10	5	
110	115	D00017618	Green Grey	QTZT	95% gn grey QTZT w/ 3% py diss & bleb; 3% oxidized chips	3	3	
115	120	D00017619	Dark Grey	QCBS	As above; chl-QTZT w/ 3% py; 20% str-int oxid chips (QV?); trace red/silver mineral & same silver mineral on qtz	10	3	
120	125	D00017621	Orange Grey	QTZT	Mix chl QTZT (40%) as abovew/ 35% mod-str oxid chips (QTZT & QV) and white QV (15%)	15	3	
125	130	D00017622	Orange Green Grey	QBS	Mixed bag of chips again - checked to see if drill hole is caving but not likely " feels like drilling gravel"; lots of silvery mineral specks in fines around the cyclone; This sample mixed like above; 25% oxidized	15	5	
130	135	D00017623	Orange/ Dark Grey	QBCS	A bit cleaner interval 80% Chl-QTZT w/ a little less py (~1% diss and bleb py); 20% str-int oxid chips which appear to be QV w/ 3-5% fn diss py & euhedral xtals of py	30	2	
135	140	D00017624	White Grey	QBS	35% dark grey Chl-Bt QTZT (as above), 30% light grey-br 'dirty' QTZT; 20% white QV; 15% str oxidized chips; some aqua-blue in chl-QTZT (chl alt'n?)	20	4	
140	145	D00017625	Light Green Grey	QTZT	Similar to previous green chl QTZT but lighter green, bluish still w/ dirty dk QTZT (this is the stuff I thought might be Bt alteration); averages ~3% py diss fn & bleb; ~5% str oxidized chips		3	
145	150	D00017626	Green Grey	QBS	as above; 15% str oxid chips [drillers says it feels like thin horizons of oxid rock and water colour quickly changes]; some of the gr-blue QTZT has 10% py so average may be increasing	3	4	
150	155	D00017627	Green Grey	QTZT	Eclectic mix of various coloured QTZT: dk grey, blue-green, greenish yellow, tan and 7% str oxid chips; all have py diss &/or blebs; also trace red/silver mineral (hematite & moly?)	5	3	
155	160	D00017628	Dark Grey	QBS	Most dark grey QTZT w/ minor gr chl QTZT (slight bluish); py dropped off to tr; 7% str oxid chips; QV barren	3	0.1	
From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
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160	165	D00017629	Green Grey	QBS	back to gn grey chl QTZT w/ dark QTZT py content back up to 2-3% diss & bleb; 4% str oxid chips		2.5	
165	170	D00017631	Green Grey	QBS	As above; possibly 3-4% py		3.5	
170	175	D00017632	Orange	QV	Fault zone 60% str oxidized QV, QTZT (as above); overall ~4% diss & bleb py; tr red/silver minerals; wt qtz has 2% euhedral py	35	4	
175	180	D00017633	Orange Grey	QTZT	Mixed bag of grey-white, dk grey, greenish QTZT w/ 2% v fn diss & coarser bleb py; 25% str oxid chips; possible tr aspy in tiny white QV	8	2.5	
180	185	D00017634	Grey	QTZT	Similar to above; 7% str oxid chips; ~3% blebby py w/ tr - 1% fn diss py; tr aspy possible in QV (white QV)	6	4	
185	190	D00017635	Dark Grey	QBCS	Green chl QTZT w/ dk QTZT w/ ~2% py as blebs and fn diss py; ~10% str oxid chips; trace red/silver mineral; a couple of the larger str oxid pieces have ~10% diss/bleb py	10	2	
190	195	D00017636	Dark Grey	QBS	As above but less py - tr diss/bleb & just 3% str oxid chips		0.5	
195	200	D00017637	Green Grey	QBS	As above; 4% oxid chips	12	1.5	
200	205	D00017638	White/D ark Grey	QBS	Green grey chl QTZT w/ dark QTZT as above w/ 40% white QV; allsmall chips but QV shows green chl & 2% diss & blebby py (this could be clean band w/in the QTZT); QTZT has 1-1.5% blebby py as above; 5% str oxid chips	40	2	
205	210	D00017639	Green Grey	QBS	Predom green grey chl QTZT w/ dark QTZT plus ~15-20% of the QV of above although it looks greyer now some pieces w/ 5% py. This is hard to shutdown but otherwise we won't move tonight.)	18	5	

## Drill Hole BV16-55

0	10			ОВ	There was a discrepancy at the end of the hole with the drillers at 330' and logger at 325'. Assumption made that therewas an error by the logger at the beginning because he thought there was 10' casing but actually 15'. Paper log is 5' feet behind. Digit		
10	15	D00017640	Dark Grey	QBS	dk grey, mod-str fabric, homogeneous, 25-35% Bt; 10% oxid frags		
15	20	D00017642	Dark Grey	QBS	as above; wk chl alt'n	2	
20	25	D00017643	Dark Grey	QBS	as above; mod fabric, possible QBCS w/ chl	0.1	
25	30	D00017644	Dark Grey	QBS	as above but w/ slightly wk'er fabric, borderline schistose	2	
30	35	D00017645	Grey	QBS	as above ; slight increase in oxidation	1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
35	40	D00017646	Grey	QBCS	similar to above but appears chl is primary and part of teh fabric; wk-mod fabric, Bt ~ 15-20%, chl ~8-12%; v tr diss py	0.1		
40	45	D00017647	Orange Brown/G rey	QBCS	as above; 50% str'ly oxid - hard to tell rock type but appears to be the same as above; tr diss py		0.1	
45	50	D00017648	Grey	QBCS	as above; still borderline schistose; oxid dropped to ~20%; v large frags, tr-0.25% diss py		0.2	
50	55	D00017649	Green Grey	QCBS	similar to above but chl dominant; chl 15-20%, Bt ~5-15%; tr diss py		0.1	
55	60	D00017651	Grey/Or ange Brown	QCBS	as above; ~10% pale grey QTZT; 30% str'ly oxid; tr py as frac coating			
60	65	D00017652	Grey/Or ange Brown	QBS	~55% med grey chl & Bt containing QTZT, some clean pale grey QTZT; 45% QCBS as above; tr - 0.25% frac coating py	5	0.2	
65	70	D00017653	Grey White	QCBS	55% QBS as above; 40% white QV; ~5% pale grey QTZT; tr diss py mostly in QV	40	0.1	
70	75	D00017654	Green Grey	QCBS	gn-gy, mod-str fabric; fairly homogeneous, 15-25% chl, 5-10% Bt; 0.25% py as frac coat, wk mag	0.1	0.3	
75	80	D00017655	Green Grey	QCBS	as above; ~30% od frags str'ly oxid (or-br); tr py as frac coat, wk mag	5	0.1	
80	85	D00017656	Green Grey	QCBS	as above; ~5% oxid frags; tr py as frac coat, wk mag	1	0.1	
85	90	D00017657	Green Grey	QCBS	as above; ~3% oxid frags; tr-0.25% py as frac coating; wk mag	1	0.2	
90	95	D00017658	Green Grey	QCBS	as above; mod fabric; tr frac coat py; wk mag	2	0.1	
95	100	D00017659	Green Grey	QCBS	as above; fabric slightly less defined; tr diss py	1	0.1	
100	105	D00017661	Green Grey	QCBS	as above but fabric wk - borderline shist; tr-0.25% py as diss; wk mag			
105	110	D00017662	Green Grey	QCBS	as above; fabric maybe slightly better defined, ~10% qtz rich frags; 0.25% frac fill py; wk mag		0.2	
110	115	D00017663	Green Grey	QCBS	80% QCBS as above but slightly higher in qtz, 20% Bt containing QTZT; 0.25% frac fill/blebby py; wk mag	2	0.3	
115	120	D00017664	Green Grey	QCBS	80% QCBS, 20% QTZT as above; 0.25% diss/frac fill py; wk mag; ~3% oxid frags	3	0.3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
120	125	D00017665	Green Grey	QTZT	75% QTZT; 25% QCBS as above; QTZT fairly variable w/ clean frags chl rich frags and Bt rich frags; 5% oxid frags; py as diss & frac coat	4	0.3	
125	130	D00017666	Brown Grey	QTZT	90% mixed QTZT as above, 10% QCBS as above; 20% oxid frags; diss py	3	0.3	
130	135	D00017667	Green Grey	QTZT	predom chl rich QTZT w/ ~10% Bt rich QTZT; ~15% of frags borderline schistose; diss py	2	0.1	
135	140	D00017668	Grey	QTZT	mix pale grey & greenish chl containing QTZT; ~20% chl rich frags have wk fabric; diss & frac coat py	0.1	0.3	
140	145	D00017669	Grey	QBCS	predom chl rich QTZT; ~10% frags w/ wk fabric; 10% frags oxid'd; ~1% diss py		1	
145	150	D00017670	Green Grey	QBCS	green grey chl QTZT, select frags w/ wk fabric; diss py; ~5% frags oxid		0.8	
150	155	D00017672	Green Grey	QBCS	chl-rich QTZT, wk granular texture; rare frags w/ wk fabric; diss & blebby py			
155	160	D00017673	Green Grey	QBCS	increasing chl content up to ~25%; borderline schistose w/ 20-25% of frags showing wk texture (QCS?); py as diss & blebs/frac coat	2	0.8	
160	165	D00017674	Green Grey	QBCS	chl-rich QTZT to QCS, ~25% w/ wk-mod fabric - QCS; py as diss & small blebs		1	
165	170	D00017675	Green Grey	QCS	60% QCS, 40% QTZT as above; QCS has 15-25% chl, wk-mod fabric, hardy schistose; py as diss & blebs		0.8	
170	175	D00017676	Green Grey	QCS	75% QCS, 25% QTZT as above; fabric still weak-mod - borderline schist; py split b/t diss & small blebs		1	
175	180	D00017677	Green Grey	QCS	60% QCS; 40% QTZT; fabric slightly less defined; marginal schist; py as blebs (~2/3) and fn diss		1	
180	185	D00017678	Green Grey	QCS	wk-mod fabric; marginally schist; minor Bt up to $^{5\%}$ ; py as blebs ( $^{3}$ /4) and diss		3	
185	190	D00017679	Green Grey	QCS	as above, fabric becoming slightly more defined; py following fabric and as fn diss		2	
190	195	D00017681	Green Grey	QCBS	60% QTZT, 40% QCS; v similar to above but drop in fabric to not quite schist; chl-rich; QCS frags have wk fabric; py predom as small blebs & minor diss			
195	200	D00017682	Green Grev	QCS	75% QCS, 25% QTZT as above; QCS has mod fabric, 15-25% chl, up to 5% Bt; good py mineralization as blebs following fabric (~2/3) and diss (1/3)		4	
200	205	D00017683	Green Grey	QCS	borderline QCS, fabric is wk; 20% frags w/ no fabric (QTZT); py decreasing but occurs in similar nature		1.5	
205	210	D00017684	Green Grey	QCS	slightly stronger fabric than above; ~25% qtz rich QTZT frags; py as diss & blebs		2	
210	215	D00017685	Green Grey	QCS	wk-mod fabric; 15-25% chl; up to 8% Bt; ~20% w/ poor fabric; py predominately as frac coat/blebs +- diss	0.1	3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
215	220	D00017686	Green Grey	QCS	as above; py predom as blebs/frac coat +- diss	2	1	
220	225	D00017687	Green Grey	QCS	55% QTZT, 45% QCS as above; QTZT has variable content ranging from clean pale grey to chl rich +/- Bt rich; py as blebs +/- diss	1	0.5	
225	230	D00017688	Green Grey	QCS	QTZT w/ variable chl content ranging fromnil to 15%; 15% QCS; py dropped still as small blebs		0.3	
230	235	D00017689	Green Grey	QCBS	as above, variable chl content; 20% QCS w/ wk-mod fabric; QTZT has wk granular texture	2	0.3	
235	240	D00017691	Green Grey	QCBS	increasing chl content, ~40% w/ wk-mod fabric - QCS; 10% of frags have or appear to have feldspar (pinky brown); py as small blebs			
240	245	D00017692	Green Grey	QCS	60% QCS, 40% QTZT; QBS has wk-mod fabric - marginal schist; chl ranges from 10-30%; minor Bt 2-5% and possible musc; tr py as small blebs	0.1	0.1	
245	250	D00017693	Green Grey	QCS	gn-gy, mod fabric, 15-30% chl, 5-10% Bt w/ select frags nearly QCBS; py predom as small blebs		0.8	
250	255	D00017694	Green Grey	QCS	75% QCS w/ wk-mod fabric; 25% qtz rich w/ little to no fabric (QTZT); py as small blebs alined to fabric		1	
255	260	D00017695	Green Grey	QCS	as above, 75% w/ good fabric; py blebs alined to fabric		0.8	
260	265	D00017696	Green Grey	QCBS	similar to above but increased Bt to 8-12%, Bt part of fabric; 20% qtz rich frags w/ poor to no fabric; tr- 0.25% py as small blebs	1	0.2	
265	270	D00017697	Green Grey	QTZT	60% QTZT, 40% QBS as above; QTZT has variable chl & Bt content, ranges from clean to impure	0.1	0.1	
270	275	D00017698	Grey	QTZT	as above, highyl variable composition w/ a mix of pale grey, Bt rich & chl rich; 10% QCBS w/ wk-mod fabric	5	0.1	
275	280	D00017699	Green Grey	QBS	60% QTZT as above, 40% QCBS w/ mod fabric, 15-25% chl, 8-12% Bt, tr-0.25% diss/blebby py	1	0.2	
280	285	D00017700	Dark Grey	QBS	Chl-QTZT w/ predom dirty QTZT (turning to Bt); 1% py as coarse clebs and mod diss; str foliation, almost a schist	1	1	
285	290	D00017701	Green Grey	QCS	back to QCS, 30% dirty QTZT (as above); py content ~ same 0.75-1%; wkly mag (select chips)	1	1	
290	295	D00017702	Brown Grey	QTZT	chl-QTZT & dk br-gy QTZT as above but increasing py to 2% diss & bleb; 30% white qtz (QV) w/ ~8% pyrite blebby, strings and fn diss; QV has chalky to grey appearance and may be banded w/ chl; py sometimes fine strings along foliation	30	4	
295	300	D00017703	Brown Grey	QBCS	predom dk br-gy QTZT w/ chl QTZT; 1.5-2% py as blebs & diss; str fol; wk to mod magnetic	1	1.5	
300	305	D00017704	Brown Grey	QBCS	As above; brownish mineral looks like Bt and is nearly schistose within the mm banded QTZT; py content ~1.5-2%; wk to mod mag	1	1.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
305	310	D00017705	Brown Grey	QCBS	as above; slightly less py ~1.0%; wkly magnetic to mod mag	2	1	
310	315	D00017706	Brown Grey	QBS	As above; py content increasing ~4% fn strings, diss, clots & blebs; tr py on sugary white QV; v wkly mag	2	4	
315	320	D00017707	Brown Grey	QBS	As above; v wkly mag; could be 5% py	0.1	4	
320	325	D00017708	Brown Grey	QBS	As above but py content drops off to ~0.5%; wkly magnetic	1	0.5	
325	330	D00017709	Brown Grey	QBS	As above; very weakly magnetic	1	0.5	

## Drill Hole BV16-56

0	10			OB				
10	15	D00017710	Orange Grey	QBS	variably oxidized, predom QBS w/ QMS in 25%; rock at 9.5'; qtz is pale white to med grey; no sulf seen			
15	20	D00017712	Grey	QBS	no sulf; QV rusty, no py	3		
20	25	D00017713	Grey	QBS	getting more qtz rich; mod oxid on fractures, tr blebby py; rusty QV & white QV (v little of either)	3	0.1	
25	30	D00017714	Grey	QBS	a bit less schistose, rare oxid on fractures; 0.5-0.75% py as fn diss & less common blebs	3	0.8	
30	35	D00017715	Grey	QTZT	change gradational to grey QTZT; 0.5% fine diss py; oxid on 60% of chips; one piece of QTZT has 10% py	3	0.5	
35	40	D00017716	Grey	QBS	as above; oxid on 20% of chips along fractures	1	0.5	
40	45	D00017717	Grey	QBS	30% oxid of light QTZT or QV w/ c. Py blebs; v fine py diss in QTZT	15	1.5	
45	50	D00017718	Grey	QBS	maybe 10% mod oxidized on fractures; no QV	1	1	
55	60	D00017721	Grey	QBS	Grey QTZT banded wkly; 15% oxid chips	1	0.1	
60	65	D00017722	Light Grey	QBS	Light grey; more py on QV	30	2	
65	70	D00017723	Light Grey	QTZT	Lt grey; v fn dusty diss py; tr aspy possibly		4	
70	75	D00017724	Light Grey	QTZT	As above; py a bit coarser; oxid on 15% of fractures (str)		5	
75	80	D00017725	Grey	QTZT	35% light grey QTZT as above; 65% med grey QTZT w/ tr py; bone white QV	15	2	
80	85	D00017726	Grey	QTZT	as above; grey QTZT almost QBS	15	2	
85	90	D00017727	Grey	QTZT	80% med grey QTZT w/ ~0.5% blebby & diss py; 10% light grey QTZT as above; white QV	10	1	
90	95	D00017728	Grey	QBS	med grey; py as diss, blebs & fracture coating	4	2.5	
100	105	D00017731	Grey	QBS	As above but 40% chips str blue-green chl alt'n w/ py, slight increase overall	5	2.8	
105	110	D00017732	Grey	QBS	darker, more Bt-rich QTZT w/ less py - diss & bleb	4	0.5	
110	115	D00017733	Grey	QBS	As above but more schistose; white QV has py diss	3	1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
115	120	D00017734	Grey	QBS	As above but more qtz; 5% oxid chips	2	0.3	
120	125	D00017735	Grey	QBS	As above; wk chl alt ~50% of chips	1	0.5	
125	130	D00017736	Green Grey	QCS	Change to green variable chl content 10-35%; blotchy py blebs	1	0.3	
130	135	D00017737	Green Grey	QBCS	less schistose, chl QTZT w/ 1% bleb and diss py	1	1	
135	140	D00017738	Green Grey	QBCS	As above; blebby patchy (syn: blotchy) py ~0.5%	1	0.5	
140	145	D00017739	Grey	QBCS	As above, lower chl content tr py		0.1	
145	150		Grey	QBCS	As above			
150	155	D00017742	Dark Grey	QBS	predom QBS - brownish BT, 20% chl QTZT; QBS has tr diss py	1	0.1	
155	160	D00017743	Dark Grey	QBS	mix 40% chl QTZT and 60% QBS; tr py		0.1	
160	165	D00017744	Dark Grey	QBS	dk grey QTZT w/ slight greenish colour; blebby py ~0.5%; non mag		0.5	
165	170	D00017745	Dark Grey	QBCS	as above; tr py	1	0.1	
170	175	D00017746	Dark Grey	QBS	as above	0.1	0.1	
175	180	D00017747	Green Grey	QBS	chl content slightly higher giving greenish colour; py content also higher w/ diss, blebs and strings along fol which is mod		0.8	
180	185	D00017748	Dark Grey	QBS	mix higher; chl QTZT & grey QTZT; slight increase in py mostly as poss fracture fill; locally thinly banded	2	1	
190	195	D00017751	Dark Grey	QBS	as above	2	0.5	
195	200	D00017752	Dark Grey	QTZT	as above; white QV, no sulf; str fol	10	0.3	
200	205	D00017753	Grey	QBS	soft dull grey ARG w/ 15% white QV w/ py; overall ~4.5% py as blebs	15	4.5	
205	210	D00017754	Grey	QBS	as above	5	3	
210	215	D00017755	Green Grey	QBCS	back to chl QTZT predominately; ~1% diss & bleb py almost schistose	1	1	
215	220	D00017756	Green Grey	QBCS	as above but schistose; fn diss py seen on some chips; non mag	1	1	
220	225	D00017757	Green Grey	QTZT	less schistose; lower chl:qtz; mod well fol		0.3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
225	230	D00017758	Green Grey	QTZT	As above; brown mineral appears to be altering the rock wkly (Bt alt'n?); 0.5% fn diss py		0.5	
235	240	D00017761	Green Grey	QTZT	As above		0.5	
240	245	D00017762	Green Grey	QBS	As above w/ 15% ARG	1	0.3	
245	250	D00017763	Green Grey	QCS	as above but more schistose & higher chl content; nonmag	1	0.3	
250	255	D00017764	Green Grey	QCS	barely a QCS; diss py common on some chips; white QV barren	1	0.5	
255	260	D00017765	Grey	QTZT	change to grey QTZT; well fol; Arg at bottom of interval	4	0.5	
260	265	D00017766	Dark Grey	QBS	Change to black siliceous ARG or QTZT; banded w/ white qtz; diss & bleb py ~1%; nonmag	1	1	
265	270	D00017767	Dark Grey	QBS	As above; py increasing to 3.5 % as blebs & diss; v wkly mag	3	3.5	
270	275	D00017768	Dark Grey	QBS	As above, a bit more grey looking; nonmag		3.5	
275	280	D00017769	Dark Grey	QBS	As above, a bit more dirty looking (more translucent qtz)	3	3.5	
280	285			QTZT	As above			
285	290	D00017772	Brown Grey	QBS	As above but now schistose predom; white to grey QV has streaky chl & tr diss to 2% bleb py; py content in QBS lower ~1%	15	1.5	
290	295	D00017773	Brown Grey	QBS	As above - mix of QBS & less fol'd dirty QTZT as interval 275-285'	5	1	
295	300	D00017774	Dark Grey	QBS	Similar to above but a bit more black looking; py up to 3% blebby w/ diss; non mag		3	
300	305	D00017775	Dark Grey	QBS	As above; some chips are soft ARG; this unit looks like a v siliceous ARG	2	3	
305	310	D00017776	Dark Grey	QBS	As above; no ARG per se but looks the same; less qtz banding		2	
310	315	D00017777	Dark Grey	QBS	as above; more similar to 300-305'; nonmag		2	
315	320	D00017778	Dark Grey	QBS	As above, more like 305-310'; almost a metallic colour	2	3.5	
320	325	D00017779	Dark Grey	QBS	As above, a bit more light grey qtz and slightly banded; well fol; similar to 310-315'	2	3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
325	330	D00017781	Dark Grey	QBS	As above; py on fractures common, also blebby	2	4	Ļ

## Drill Hole BV16-57

0	7			ОВ	solid bedrock hit ~2' into 5-10' casing run; started sampling/logging at 7'; first sample only 3'; NOTE: somewhere between 17802 & 17808 a sample was missed (not taken); sample bag labeled 17809 was not used and 17810 was collected at interval 140-145' to			
7	10	D00017782	Grey Brown	QV	oxid'd QV w/ ~0.25% moly, tr py, 100% QV; moly as wispy blebs		0.1	
10	15	D00017783	Grey Brown	QV	as above; v faint fabric in some pieces; this may be an extremely silicified rock of some type; tr mo as whispy blebs			
15	20	D00017784	Brown Grey	QTZT	as above; v. Faint fabric, could be a QTZT; ~1% fn blebs <1mm that appear to be mo (?); tr diss py. Relogging suggests that majority of fragments have a weakly developed fabric suggesting that is is QTZT from metasedimentary sequence, and not QV.		0.1	
20	25	D00017785	Brown Grey	QTZT	pale grey white, faint fabric & granular appearance suggesting this is not a QV; ~1% fn blk/gy specks that could be mo? Tr diss py		0.1	
25	30	D00017786	Brown Grey	QTZT	as above; drop in oxid; ~1% fn diss mo? One small stringer observed			
30	35	D00017787	Brown/Li ght Grey	QTZT	As above; slightly more greyish; 1% fn diss/small blebs mo?		0.1	
35	40	D00017788	Brown/Li ght Grey	QTZT	as above; 40% str oxidized; 0.75% diss/blebby mo, tr diss py		0.1	
40	45	D00017789	Brown/Li ght Grey	QTZT	as above, 15% str oxid; 0.5% fn blk-grey diss mo?			
45	50	D00017791	Brown/Li ght Grey	QTZT	as above; ~10% oxid pieces; ~1% fn diss & smallblebs mo?; tr diss py		0.1	
50	55	D00017792	Light Grey	QTZT	as above; select pieces slight greenish hue; 2% white bull qtz vn; clear large 3-4mm blebs of mo 2% overall	2	0.1	
55	60	D00017793	Green/Li ght Grey	QTZT	as above; distinctive green hue; 0.5% diss mo?		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
60	65	D00017794	Green/Li ght Grey	QTZT	as above; 0.25% diss mo?			
65	70	D00017795	Green/Li ght Grey	QTZT	as above; slightly increased green hue; 0.5% mo as 3-4mm blebs and diss			
70	75	D00017796	Green Grey	QTZT	v. Distinct green colour, possible diopside present; v hard rock w/ faint fabric - culd be heavily silic rock; tr - 0.25% mo, tr diss py		0.1	
75	80	D00017797	Green Grey	BCS	60% green-blk rock that is soft and appears to have chl & Bt w/ a wk fabric BCS?? 40% QTZT as above			
80	85	D00017798	Green/Li ght Grey	QTZT	as above; bn-lt gy, hard, qtz-rich rock; <2% of the BCS? From run above; tr diss mo?, tr diss py			
85	90	D00017799	Brown/Li ght Grey	QTZT	as above; ~40% w/ mod oxid, 0.5% diss & blebby mo; tr diss py		0.1	
90	95	D00017800	Grey	CS	mixed interval: soft rock w/ schistose fabric & QTZT as above; schistose unit appears to be a chl schist, in maybe this unit that has been intensely silicified; ~55% CS? Unit, 45% QTZT	1		
95	100	D00017801	Brown Grey	QBS	brownish, grey unit; possible garnet, Bt, qtz skarn; Garnets are trace and form orange brown pinhead size xtls. Not enough to classify as skarn and mostly qtz and biotite defining QBS.			
100	105	D00017802	Brown Grey	QBS	brownish grey; granular; brown minerals that appear to be garnet; v fn greenish minerals - diopside; 3% sugary qtz frags; unit is similar to above. Relogging suggests that garnet is trace if present. Brown mineral mainly biotite with dominantly qtz. Ve			
105	110	D00017803	Brown Grey	QBS	distinct brownish grey; garnet only trace with majority of rock being qtz.			
110	115	D00017804	Brown Grey	QBS	as above; qtz dominant & trace garnet in select frags. Rock mainly qtz and biotite with 1-2% grnts. Grnts form orange brown pinhead size xtls.			
115	120	D00017805	Brown Grey	QBS	as above; 20% frags w/ >95% qtz; 1-2% py as stringers/frac.		1.5	
120	125	D00017806	Green Brown Grey	SKAR N	Some garnet and diopside with qtz, biotite and chl; more of a gn-bn-gy; select frags are v soft and appear to be clay alt'd; py as frac coatings		1	
125	130	D00017807	Brown Grey	QBS	back to bn-gy; qtz dominant with trace to 2% grnt; 3% moly containing QV	3	0.5	
130	135	D00017808	Dark Grey	QTZT	It gy, granular QTZT, select frags w/ garnet and diopside; 10% skarn as above; 0.5% diss py; yellow-green tinge to ~15% of frags - oxid?	2	0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
135	140		Brown Grey	QBS	bn-gy, qtz & +/- garnet as above ~10% QTZT; tr blebby cpy on qtz frag; Sample missed.	2		
140	145	D00017810	Brown Grey	QBS	Mainly QBS and QTZT that is pale grey to white; moly & py on QV; frac coating py	4	0.3	
145	150	D00017812	Brown Green Grey	QBS	bn-gn-gy,		0.1	
150	155	D00017813	Brown Grey	SKAR N	Mixture of QBS, QTZT and possible skarn. Can recognize garnet and diopside so leaving rock code as skarn.	4	0.1	
155	160	D00017814	Brown Grey	SKAR N	as above; 25-35% garnet; up to 10% diopside?; ~2% QV		0.1	
160	165	D00017815	Brown Grey	QTZT	much more qtz rich compared to above, ~1-2% garnet; ~10% frags similar in composition to above. Mainly a brownish-grey qtz rich rock with minor biotite imparting brownish colour.		0.3	
165	170	D00017816	Brown Grey	QTZT	similar to above; minor and variable garnet in various chips; garnet range 5-30%		0.1	
170	175	D00017817	Light Grey	QTZT	75% pale grey QTZT; ~25% skarn of variable composition as above; 10% oxid frags; 0.25% mo as diss/blebs; py as blebs; tr cpy blebs		0.3	
175	180	D00017818	Brown Grey	QTZT	bn-gy, garnet up to 3-4%, dominated by qtz rich frags (QTZT as above); tr py as blebs; mo as blebs/diss		5	
180	185	D00017819	Brown Grey	QTZT	as above; blebby py; tr diss mo	0.1	3	
185	190	D00017821	Grey	QTZT	pale grey to brownish grey, granular QTZT w/ ~25% garnet +/- diopside skarn as above; 5% white QV; mo as diss/small blebs; diss/blebby py	5	1	
190	195	D00017822	Brown/Li ght Grey	QTZT	Primarily white-pale grey QTZT with very minor garnets w/ granular texture; tr-0.25% whispy mo blebs; blebby py	0.1	2	
195	200	D00017823	Brown Grey	QBS	qtz rich skarn? Garnet +/- diopside still present in varying amounts; garnet ranges nil to 20%, 15% frags have diopside ranging 2-10%		0.5	
200	205	D00017824	Brown Grey	QTZT	brownish to greenish grey, qtz + garnet +/- diopside? Skarn; diopside not clear partially based on greenish colour; again highly variable composition; garnet up to 30%; diopside up to 20% in select frags but overall do not comprise significant percentage		0.5	
205	210	D00017825	Brown Grey	QTZT	as above; 10% white QV containing 1% diss/whispy blebs of mo, tr diss cpy; 5% frags have mod oxid	10	0.3	
210	215	D00017826	Brown Grey	QTZT	as above but slight drop in garnet + diopside; 10% Qving w/ diss/blebby moly	10	0.1	
215	220	D00017827	White	QV	60% white bull qtz vn w/ tr diss/blebby mo; remaiinder is skarn as above; 10% frags havemod oxid'n		0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
220	225	D00017828	Grey	QTZT	as above, minor garnet.	3		
225	230	D00017829	Brown Grey	QTZT	80% med grey QTZT w/ granular texture; 20% skarn as above; 20% of frags have mod-str oxid			
230	235	D00017831	Brown Grey	QBS	qtz and biotite with minor garnet. No diopside recognizable. Occurrence of garnet suggests very subtle skarning; 35% white bull qtz	35	0.1	
235	240	D00017832	Brown Grey	SKAR N	qtz + garnet +/- diopside skarn; garnet 10-30%, diopside up to 20% in select frags; blebby py	3	0.3	
240	245	D00017833	Green Grey	QCBS	has wk schistose fabric, green-gy-brown; looks different than above (skarn may be wrong); v brown Bt; 10-20% chl, 10-15% Bt, very uncertain about this unit		0.1	
245	250	D00017834	Green Grey	QCBS	green-gy, mod fabric, chl 15-25%, Bt 10-15%; 2-3mm qtz vnlets x-cutting fabric that contain mo	2		
250	255	D00017835	Green Grey	QCBS	as above, fabric weaker really have to look but ~50-60% of chl + Bt xtals are lined up; tr mo in QV	3	0.1	
255	260	D00017836	Green Grey	QCBS	as above, fabric hard to distinquish; mo containing QVs that appear to xcut fabric	4		
260	265	D00017837	Brown Grey	QBCS	as above but more Bt than chl; Bt 15-25% mostly brown, chln10-15%; fabric still faint; mo containing QV cutting fabric	6		
265	270	D00017838	Brown Grey	QBCS	as above, more qtz rich, 20% pieces, predom qtz w/ little fabric	2	0.3	
270	275	D00017839	Grey	QTZT	~65% bn-gy to gn-gy mixed QTZT containing Bt or chl up to 10%; 35% QBCS as above w/ wk fabric; Qving that is hard to distinquish from QTZT	8		
275	280	D00017840	Brown Grey	QBCS	as previous, faint fabric, Bt>chl, Bt 15-25%, chl 10-15%; 0.25% diss/blebby mo; 0.5% py as frac coating	2	0.5	
280	285	D00017842	Brown Grey	QBCS	as above, fabric becoming better defined; blebby mo in QV	1		
285	290	D00017843	Green Grey	QBCS	as above, slightly more chl; 5% white QV that contains mo	5		

11	15	B00312301	Grey Brown	ОВ	predom schist to blocky QTZT rich, tr to 2% white qtz, rare light grey blocky chips	2	
15	20	B00312302	Green	QMS	less oxidized, more grey block fragments, smaller chips w/ center hole bit, tr-2% rusty vn; tr greenish chips (translucent)	2	
20	25	B00312303	Green	QMS	same; very It grey pulverized cuttings but med grey chips; more QTZT than musc but musc common and often rusty; still schist	0.1	
25	30	B00312304	Green	QBS	as above; slightly less musc; chips smaller and most of sample pulverized; Qtz white to milky white	5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
30	35	B00312305	Green	QMS	more musc schist frags as flat plates along w/ QTZT blocks	2	<u> </u>	
35	40	B00312306	Green	QMS	more blocky QTZT but musc plates common	0.1	<u> </u>	
40	45	B00312307	Green	QMS	as above; tr banding of brown QTZT in grey QTZT; qtz vn is rusty; tr py in QTZT - musc schist	5	0.1	
45	50	B00312308	Green	QMS	as above; no py; trace Bt	0.1	<u> </u>	
50	55	B00312309	Dark Grey	QBS	predom Bt over musc, all most more Bt than QTZT			
55	60	B00312310	Dark Grey	QBS	as above	2		
60	65	B00312312	Grey Brown	QBS		2		
65	70	B00312313	Grey Green	QTZT	med grey w/ light green frags (25%)			
70	75	B00312314	Green	QMS	med grey QTZT w/ musc on fol; no green frags	2		
75	80	B00312315	Green	QMS	as above			
80	85	B00312316	Green	QMS	as above			
85	90	B00312317	Green	QMS			I	
90	95	B00312318	Green	QBS	predom Bt over musc; 10% greenish mikly frags; tr py		0.1	
95	100	B00312319	Green	QBS	as above; up to 2% py althought hard to distinguish py from rusty Bt in chips		2	
100	105	B00312321	Green	QBS	as above; musc uncommon; slightly lighter grey QTZT w/ very fn py		0.1	
105	110	B00312322	Green	QBS	as above; more py still very fn; Bt nearly dominent		5	
110	115	B00312323	Green	QBS	as above; rusty on some surfaces; py probably same amount	2	5	
115	120	B00312324	Green	QBS	as above; slightly less py if at all; nearly more Bt than QTZT; very platy		3	
120	125	B00312325	Green	QBS	as above		2	
125	130	B00312326	Green	QBS	as above; tr py; tr to 5% light greenish chips (milky green colour)	0.1	0.1	
130	135	B00312327	Green	QBS	as above; only tr light milky green frags; tr possible py; Bt remains nearly dominant		0.1	
135	140	B00312328	Grey Green	QBS	40% pale green to dark green translucent frags looking more qtz like; no sulfide seen			
140	145	B00312329	Grey Green	QBS	as above but ~20% greenish frags; 5% qtz as white	5		
145	150	B00312331	Green	BQS	predom Bt; small chips mostly powder; <5% greenish frags	1	0.1	
150	155	B00312332	Greey Grey	BQS	QTZT porportion is white (unlike grey - bk previous) to light grey w/ Bt diss throughout; greenish staining on rare surfaces	2	0.1	
155	160	B00312333	Greey Grey	BQS	as above	2		
160	165	B00312334	White Grey	QBS	more white qtz than Bt now plus oxidized frags but no sulfides			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
165	170	B00312335	Light Grey/Br own	QBS	as above; smallest frags often rusty and large ones along fracture planes	2		
170	175	B00312336	Green	QBS	as above; rare frags have 5% py (darker QTZT pieces)	1	5	
175	180	B00312337	Green	BQS	more Bt rich but otherwise the same; no py seen; 5% green frags; tr oxidation		<u> </u>	
180	185	B00312338	Grey Brown	QBS	as above except more QTZT (white and grey) and light brown QTZT and qtz vein material; tr greeenish frags	15		
185	190	B00312339	Grey White	QBS	as above except very little qtz ad no blond QTZT	3		
190	195	B00312340	Grey White	QBS	as above			
195	200	B00312342	Green	QBS	as above except more abundant oxidation along fractures; wt qtz vn material	2		
200	205	B00312343	Green	QBS	as above except very little oxidation and just tr qtz vn	0.1		
205	210	B00312344	Grey Green	QBS	oxidation on rare fractures; homogeneous	0.1	0.1	
210	215	B00312345	Grey Green	QBS	thin qtz vn perpendicular to fabric; str fabric	4		
215	220	B00312346		QBS	str fabric; increasing qtz			
220	225	B00312347	Green	QBS	str fabric; minor oxidized vn material that is orthogonal to fabric	0.1		
225	230	B00312348	Orange Grey	QTZT	$^{\circ}$ 60% QTZT, 40% QBS; increasing oxidation; orange salt and pepper colour; oxidized QTZT only			
230	235	B00312349	Orange Grey	QTZT	85% QTZT, 15% QBS; light orangy grey			
235	240	B00312701	Grey Orange	QTZT	55% QTZT, 45% QBS; drop in oxidation; Bt bands in fabric		0.1	
240	245	B00312702	Grey Green	QBS	85% QBS, 15% QTZT; good fabric in QBS			
245	250	B00312703	Grey Green	QBS	tr QTZT remaining; good fabric; tr oxidation on select fracture; 30% Bt		0.1	
250	255	B00312704	Grey Green	QBS	60% QBS, 40% QTZT		0.1	
255	260	B00312705	Green	QTZT	minor QBS; weak salt and pepper appearence; fairly massive		0.1	
260	265	B00312706	Green	QTZT	85% QTZT, 15% QBS		0.1	
265	270	B00312707	Grey Green	QBS	good fabric; qtz vn parallel to fabric; some chlt mixed in with QBS ~5-10% of pieces	2	0.5	
270	275	B00312708	Greey Grey	QTZT	blocky, wk sugary texture; very minor Bt; wk fol			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
275	280	B00312709	Greey Grey	QTZT	minor QBS; minor calcite; as above with wk Chlt; minor Hbl		0.1	
280	285	B00312710	Grey Green	QTZT	55% QTZT, 45% QBS; in QBS 30-40% Bt higher than previous; salt and pepper appearence			
285	290	B00312712	Grey Black	QTZT	60% QTZT, 40% ARG; py is slightly coarser in QTZT; ARG massive blk; pinhead py in ARG			
290	295	B00312713	Grey Green	QBS	good fabric; minor qtz vn	0.5	0.1	
295	300	B00312714	Green	QTZT	fairly homogeneous; loc sub mm py vnlts along with diss py		0.5	
300	305	B00312715	Grey Brown	QTZT	increasing oxidation		0.3	
305	310	B00312716	Orange Brown	QTZT	massive; very str oxidation with ~10% whitish grey QTZT		0.1	
310	315	B00312717	Grey Orange	QTZT	oxidation dropped off; 0.5-1mm anhedral to subhedral py		0.5	
315	320	B00312718	Grey Orange	QTZT	same as above except very minor Bt		0.5	
320	325	B00312719	Green	QBS	60% QBS, 40% QTZT; salt and pepper appearence; good fabric in QBS; 25-30% Bt in QBS			
325	330	B00312721	Green	QBS	minor QTZT; higher Bt content up to 40%; str fabric		0.1	
330	335	B00312722	Green	QBS	as above with increasing QTZT to ~15%; tr py in QTZT		0.1	
335	340	B00312723	Green	QTZT	80% QTZT, 20% QBS; diss py in QTZT; possible very wk Chlt alteration		0.3	
340	345	B00312724	Grey White	QTZT	clean QTZT; very wk fabric; sub mm anhedral to subhedral diss py		0.3	
345	350	B00312725	Grey White	QTZT	as above		0.2	
350	355	B00312726	Grey White	QTZT	as above; very faint green tint due to Chlt; py becoming more subhedral to euhedral		0.2	
355	360	B00312727	Grey White	QTZT	slightly impure QTZT with minor flecks of Bt, slight increase in py compared to above		0.3	
360	365	B00312728	Grey Green	QTZT	similar to above in composition; Chlt alteration; very fn grained py		0.3	
365	370	B00312729	Grey White	QBS	55% QBS, 45% QTZT; QTZT as above; QBS has str fabric, 30-35% Bt; py predom in QTZT			
370	375	B00312731	Grey White	QTZT	impure QTZT as above; ~5% fragments of QBS; salt and pepper appearence		0.1	
375	380	B00312732	Grey White	QTZT	as above, rare oxidized surfaces/vnlts; very fn diss py		0.2	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
380	385	B00312733	Grey White	QTZT	as above but w/ increased oxidation		0.2	
385	390	B00312734	Green	QBS	well developed fabric; rare oxidation on fractures; tr very very fn py; 25-30% Bt		0.1	
390	395	B00312735	Grey Green	QBS	weak oxidized vns parallel to fabric; str fabric; fairly homogeneous	0.5	0.3	
395	400	B00312736	Green	QBS	str fabric; rare oxidation; fairly homogeneous		0.2	

0	10			OB				
10	15	B00312737	Grey Orange	QBS	very qtz rich, boardering on QTZT in some pieces; 5 to 10% Bt	0.5	0.1	
15	20	B00312738	Green	QTZT	as above but <5% Bt; oxidation on fracs	2	0.1	
20	25	B00312739	Grey Brown	QBS	Bt present again; schistose frags; sample very ground up	2		
25	30	B00312740	Grey Brown	QBS	as above; fairly heavy oxidation on fractures			
30	35	B00312742	Grey Brown	QBS	nearly QTZT, 10% Bt (very rusty); QTZT has up to 5% py as very fn diss; QTZT is light grey in colour; fracture rusty [second time pulling bit to clean; wet horizon]		5	
35	40	B00312743	Grey Brown	QBS	as above; slightly less bleaching of QTZT; less sulfides		3	
40	45	B00312744	Grey Brown	QBS	as above with possible sericite alteration along fracs and possibly through rock		2	
45	50	B00312745	Grey Brown	QBS	as above; very rusty along fracs	2	2	
50	55	B00312746	Green	QTZT	almost no Bt but same as above	1	4	
55	60	B00312747	Green	QTZT	as above	1	3	
60	65	B00312748	Green	QTZT	as above [drilling fast now]	1	1	
65	70	B00312749	Green	QTZT	as above		1	
70	75	B00312751	Green	QTZT	as above; tr green fragments	1	2	
75	80	B00312752	Green	QTZT	as above; py maybe intense along fracs	1	3	
80	85	B00312753	Green	QTZT	Bt returning ~10%		3	
85	90	B00312754	Green	QBS	more platy		1	
90	95	B00312755	Green	QBS	as above	1	2	
95	100	B00312756	Green	QBS	as above; tr chloritic frags in QTZT w/ 3-5% py; QTZT also has tr-1% py		1	
100	105	B00312757	Green	QBS	as above; no chlt	0.1	0.1	
105	110	B00312758	Light Grey	QBS	as above but lighter grey colour	2	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
110	115	B00312759	Light Grey	QBS	as above	1	1	
115	120	B00312761	Light Grey	QBS	as above		1	
120	125	B00312762	Green	QBS	less Bt (~15%); slightly darker		0.1	
125	130	B00312763	Dark Grey	QTZT	almost no Bt; sightly chloritic which could be alteration but not sure		2	
130	135	B00312764	Dark Grey	QTZT	as above		2	
135	140	B00312765	Dark Grey	QTZT	as above; py more abundant along fracs but also patchy diss		3	
140	145	B00312766	Green	QTZT	as above; less py; lighter colour		1	
145	150	B00312767	Grey	QTZT	mixed very light grey and med grey QTZT; no py	2		
150	155	B00312768	Grey	QTZT	as above; rare mm clots of py in white QTZT	1	1	
155	160	B00312769	Grey	QTZT	increasing Bt (~10%); greenish colour in white QTZT		1	
160	165	B00312770	Grey	QTZT	as above; nearly QBS; evidence of layered lt gy and gy QTZT		2	
165	170	B00312772	Green	QBS	as above; significant qtz vn(?) white with traces of Chlt	25	0.1	
170	175	B00312773	Dark Grey	QBS	as above but darker, Bt maybe increasing; less It QTZT	2		
175	180	B00312774	Green	QBS	predom gy QTZT with fn Bt; rare patchy py	0.1	0.1	
180	185	B00312775	Green	QBS	just enough Bt to change name; tr very fn diss py	1	0.1	
185	190	B00312776	Green	QBS	as above except no py but chips very small this run			
190	195	B00312777	Green	QBS	as above; typical chip size; tr py		0.1	
195	200	B00312778	Green	QBS	as above	1		
200	205	B00312779	Green	QBS	as above			
205	210	B00312781	Green	QBS	as above; rare py along fracs (intense) and diss	2	0.1	
210	215	B00312782	Green	QTZT	no Bt or very little; py along fracs and diss	5	1	
215	220	B00312783	Light Grey	QTZT	as above; lighter colour QTZT as mm layers in gy QTZT	2	1	
220	225	B00312784	Green	QTZT	as above; less It gy QTZT	1	1	
225	230	B00312785	Green	QTZT	as above; no diss py seen but along fracs is common		1	
230	235	B00312786	Green	QBS	Bt present (~15%)		0.1	
235	240	B00312787	Grey Green	QBS	Bt present and 25% light green with darker green translucent frags			
240	245	B00312788	Green	QBS	more Bt (>30%); no green frags; no visible sulfides	1		
245	250	B00312789	Green	QBS	as above			
250	255	B00312791	Green	QBS	as above			
255	260	B00312792	Green	QBS	boarderline QTZT			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
260	265	B00312793	Dark Grey	QBS	as above but slightly darker		0.1	
265	270	B00312794	Dark Grey	QBS	as above	1	0.1	
270	275	B00312795	Dark Grey	QBS	as above; py as fracture fill and diss		3	
275	280	B00312796	Dark Grey	QBS	as above		3	
280	285	B00312797	Dark Grey	QBS	as above but don't see py; Chlt or some green mineral on 10% of frags			
285	290	B00312798	Dark Grey	QBS	as above; less green mineral	2	0.1	
290	295	B00312799	Dark Grey	QBS	as above; 15% green mineral frags			
295	300	B00312800	Dark Grey	QBS	as above			
300	305	B00312801	Light Grey	QTZT	Bt up to 15% but not schistose; lighter grey colour		0.1	
305	310	B00312802	Green	QTZT	as above			
310	315	B00312803	Green	QCS	very little Bt; greenish frags Chlt?	25		
315	320	B00312804	Grey Green	QBS	Bt increasing ~10-15%; green frags ~15%		0.1	
320	325	B00312805	Grey Green	QBS	Chlt altered; mod fabric; ~20% Bt		0.2	
325	330	B00312806	Grey Green	QBS	very wk Chlt alteration; ~25% Bt; slightly >tr Qtz vn	0.2		
330	335	B00312807	Green	QBS	tr very fn py; very wk Chlt; tr Qtz vnlts parallel to fabric; str fabric	0.1	0.1	
335	340	B00312808	Green	QBS	str fabric; rare qtz vning; tr very fn diss py		0.1	

0	5			OB			
5	10	B00312809	Grey Brown	QTZT	rusty QTZT with 10-15% Bt; tr Chlt alteration [strip threads cause delay]	0.1	
10	15	B00312810		QTZT	sampled but no rep - too little material		
15	20	B00312811	Grey Brown	QTZT	as above		
20	25	B00312813	Green	QTZT	as above; no Chlt alteration		

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
25	30	B00312814		QTZT	as above; no Chlt alteration; tr very fn sulfide (py likely); rusty Bt on frac surfaces [blow by broke]			
30	35	B00312815	Green	QTZT	massive; minor Qtz vn; wk oxidation	0.1	0.1	
35	40	B00312816	Green	QTZT	very fn diss py		0.1	
40	45	B00312817	Green	QTZT	as above; slight increase in oxidation	0.1	0.1	
45	50	B00312818	White Grey	QTZT	clean white-grey QTZT; rare Bt; possible Qtz vn			
50	55	B00312819	Green	QTZT	grey; massive; darker than above; tr very fn py		0.1	
55	60	B00312821	Green	QTZT	as above	0.1	0.1	
60	65	B00312822	Green	QTZT	very minor oxidation; elevated Qtz vning	4	0.1	
65	70	B00312823	Green	QTZT	impure QTZT; darker grey; ~5-8% Bt; rare oxidation		0.1	
70	75	B00312824	Green	QTZT	massive; rare oxidation; tr very fn diss py	0.1	0.1	
75	80	B00312825	Green	QTZT	impure QTZT; darker grey; 5-8% Bt; very tr fn diss py			
80	85	B00312826	Green	QTZT	as above; rare pieces with wk Chlt alteration; py still very fn		0.1	
85	90	B00312827	Green	QTZT	as above; Chlt alteration maybe of vns, common on frac surface	0.1	0.1	
90	95	B00312828	Green	QTZT	as above; Bt content is increasing	0.1	0.1	
95	100	B00312829	Green	QTZT	as above; getting darker grey with increasing Bt; no clear fabric		1	
100	105	B00312831	Green	QTZT	as above; very rare oxidation on select fracs; becoming very uniform		0.1	
105	110	B00312832	Green	QTZT	as above; 3mm Qtz vn	4	2	
110	115	B00312833	Green	QTZT	as above; very uniform		0.1	
115	120	B00312834	Green	QTZT	as above; wk fabric in some peices, getting weaker		0.5	
120	125	B00312835	Green	QBS	60% QBS, 40% QTZT; good fabric; 25-30% Bt; fn Qtz vnlts (~1mm) parallel to fabric	2	0.1	
125	130	B00312836	Green	QBS	85% QBS, 15% QTZT; good fabric	0.1	0.1	
130	135	B00312837	Grey Green	QBS	minor amounts QTZT (3-5%); possible Chlt alteration due to green tinge	4	0.1	
135	140	B00312838	Grey Green	QBS	decreasing Bt content 15-20%; mod fabric; very tr fn diss py			
140	145	B00312839	Green	QBS	Bt increasing to 20-25%; fabric well developed	2		
145	150	B00312840	Green	QBS	80% QBS, 20% QTZT; str fabric; very tr fn diss py [minor down time due to boaster issues]	1		
150	155	B00312842	Green	QBS	60% QBS, 40% QTZT; sub mm Qtz vnlt parallel to fabric	1	0.1	
155	160	B00312843	Grey Green	QBS	90% QBS, 10% QTZT; Chlt giving a green colour	3		
160	165	B00312844	Grey Green	QBS	85% QBS, 15% QTZT; Chlt alteration slightly increasing	0.1		
165	170	B00312845	Grey Green	QBS	Chlt alteration decreasing; mod-str fabric; 30-35% Bt; 1-2mm Qtz vn parallel to fabric	4		
170	175	B00312846	Grey Green	QBS	as above; Chlt alteration decreasing	3	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
175	180	B00312847	Green	QBS	decreasing Bt 15-20%; fabric less developed; fn diss py	1	0.1	
180	185	B00312848	Green	QBS	decreasing Bt 10-15%; fabric decreasing; py slightly increasing	1	0.2	
185	190	B00312849	Green	QBS	impure QTZT, dark green; possible very wk Chlt alteration; very fn diss py	2	0.2	
190	195	B00312851	Green	QBS	impure QTZT; ~8% milky Qtz vning; very tr fn diss py	8		
195	200	B00312852	Grey White	QBS	impure QTZT, 5-10% Bt, salt and pepper appearence; ~15% wt-gy Qtz			
200	205	B00312853	Grey White	QBS	as above; tr very fn py on frac surfaces		0.1	
205	210	B00312854	Grey White	QBS	impure QTZT, 10-15% Bt, possible QBS peices, wk fabric in select pieces	2		
210	215	B00312855	Green	QBS	Qtz rich, 15-20% Bt, poor to mod fabric	2		
215	220	B00312856	Green	QBS	as above; occasional pieces that appear to be QTZT	2		
220	225	B00312857	Green	QBS	as above; ~2% white sugary Qtz fragments; tr very fn diss py that appears to be on fractures	2	0.1	
225	230	B00312858	Green	QBS	increasing Bt 15-25%, fabric more developed to mod	0.1	0.1	
230	235	B00312859	Green	QBS	Bt 15-20%, poor to mod fabric	0.1		
235	240	B00312861	Green	QBS	as above; tr very fn py	1	0.1	
240	245	B00312862	Green	QBS	Bt 20-25%, poor fabric; >>1mm Qtz vnlt cutting fabric	2		
245	250	B00312863	Green	QBS	Bt 15-20%, poor to mod fabric; >>1mm Qtz vn cutting fabric			
250	255	B00312864	Grey White	QTZT	salt and pepper appearence, It to med grey with greyish white; ~8% QBS	0.1		
255	260	B00312865	Green	QTZT	fairly uniform; very fn diss py	1	0.1	
260	265	B00312866	Green	QTZT	slightly impure with 1-2% Bt' <1mm anh-subhedral py		0.2	
265	270	B00312867	Green	QTZT	2-3% Bt, fairly uniform		0.1	
270	275	B00312868	Green	QTZT	as above; py slightly coarser		0.1	
275	280	B00312869	Green	QTZT	as above, 2 pieces with oxidation			
280	285	B00312870	Green	QTZT	impure QTZT, ~5% Bt, very faint fabric [Note duplicates are under weight]			
285	290	B00312872	Green	QTZT	as above			
290	295	B00312873	Green	QTZT	impure QTZT, 5-8% Bt; couple fracs with wk Chlt	0.1		
295	300	B00312874	Green	QTZT	increasing Bt to ~10%, very wk fabric in slect pieces, approaching QBS	0.1		
300	305	B00312875	Green	QTZT	slight decrease in Bt to 5-8%, very wk fabric			
305	310	B00312876	Green	QTZT	as above	1		
310	315	B00312877	Green	QTZT	as above	0.1		
315	320	B00312878	Green	QTZT	slight decrease Bt to 5%; very fn py		0.1	
320	325	B00312879	Green	QTZT	as above; tr very fn diss py	0.1	0.1	
325	330	B00312881	Green	QTZT	slight decrease Bt to 3-5%; py slightly coarser mostly on fracs	1	0.2	
330	335	B00312882	Green	QTZT	as above; several ~1mm sub to euhedral (cubic) py xtals	1	0.3	
335	340	B00312883	Green	QTZT	Bt dropping off to 1-3%; slight py decrease		0.2	
340	345	B00312884	Green	QTZT	as above; py decrease again	2	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
345	350	B00312885	Green	QTZT	QTZT becoming fairly clean and homogeneous with >1.5% Bt		0.1	
350	355	B00312886	Green	QBS	clean, uniform; wk Chlt alteration of select pieces		0.1	
355	360	B00312887	Green	QBS	increase in Bt to 3-4%, wk fabric in select peices; wk Chlt			
360	365	B00312888	Green	QBS	impure QTZT with 10-15% Bt, select pieces with wk-mod fabric		0.1	
365	370	B00312889	Green	QBS	as above	2		
370	375	B00312891	Green	QBS	Bt decreasing to 10-15%, rare wk fabric; wk Chlt			
375	380	B00312892	Grey Green	QTZT	Chlt altered; soft, breaks of easy (clay??)			
380	385	B00312893	Grey Green	QTZT	as above; soft (altered?)			
385	390	B00312894	Grey Green	QTZT	pale green, fairly clean QTZT; Chlt/clay? is dropping off, chips are slightly harder			
390	395	B00312895	Grey Green	QTZT	med grey; alteration dropped off; mix of slightly lighter and darker pieces; tr very fn diss py		0.1	

0	10			OB				
10	15	B00312896	Brown	QTZT	predom QTZT with 5-10% Bt and 20% chlt-qtz frags; qtz is light grey to white			
15	20	B00312897	Brown Grey	QTZT	as above with no chlt-qtz frags; very small chips about 10-12 lbs recovery	0.1	0.1	
20	25	B00312898	Green	QTZT	~15% Bt not schistose; qtz is white to light grey with tr py			
25	30	B00312899	Grey Brown	QTZT	as above with possibly 20-25% Bt but not quite schistose; possible tr sericite		0.1	
30	35	B00312900	Dark Grey	QBS	as above but now schistose with >30% Bt	0.1	0.1	
35	40	B00312901	Dark Grey	QBS	as above; trace greenish colour likely chlt alteration		0.1	
40	45	B00312902	Green	QBS	as above but boarderline schistose, still greenish hue (chlt) on many frags along with slight oxidation on <10% frags; py more concident with chlt as seen in one chip (rep sampled)		0.1	
45	50	B00312903	Dark Grey	QBS	very similar to above but lacking schistose and qtz is darker grey; chlt alteration increasing and trace yellow sericite; py fn diss and course euhedral rare		1	
50	55	B00312904	Dark Grey	QBS	as above but schistose; chlt alteration similar	0.1	2	
55	60	B00312905	Dark Grey/Br own	QBS	similar to above but less alteration and either tan/oxidized qtz vn or tan QTZT horizon makes up 35%, latter more likely; tr coarse py; tr reddish mineral		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
60	65	B00312906	Grey Brown	QBS	barely schistose if at all; chlt increases; reddish mineral increasing to 0.25%; tan QTZT ~20-25%		0.1	
65	70	B00312907	Light Grey/Br own	QTZT	change to It grey to whitish QTZT with 30% mod to well oxidized; <10% Bt and less chlt alteration; py fine diss 1%; tr reddish mineral		0.1	
70	75	B00312908	Dark Grey	QBS	change back to previous; oxidation on fracs is mod to rarely str but not commonly seen; py fn diss; tr of above unit		0.1	
75	80	B00312909	Dark Grey	QBS	as above; rare coarser py seen and chlt alteration is sporatic; oxidized fracs less common		1	
80	85	B00312910	Green	QBS	as above; chlt alteration is less common and less intense except rare intense frags; py slightly more common; qtz vn is white to cream colour	1	2	
85	90	B00312912	Dark Grey	QTZT	less Bt at 15% and not schistose; lighter grey qtz; 5% reddish mineral (aspy?); tr diss py; intense chlt alteration on 20% of frags		0.1	
90	95	B00312913	Grey Brown	QTZT	as above but no intense chlt alteration; 20% oxidized frags; very fn py; 1-2% reddish mineral (aspy?)		0.1	
95	100	B00312914	Grey White	QTZT	as above but no chlt alteration and no red mineral; intense-str oxidation on 20%, drill said oxidized interval ~4 inches; wt qtz	20	0.1	
100	105	B00312915	Dark Grey/W hite	QTZT	dark grey QTZT with no visiable Bt and no visible sulfide but slight chlt aleration; 10-15% of frags have oxidation; mod coarse grained py in white qtz (minor horizon?)	45	0.1	
105	110	B00312916	Green	QBS	obvious change, less chlt alteration but locally present; ~5% oxidized chips			
110	115	B00312917	Grey White	QTZT	mixed QBS as above with 60% white QTZT with <5% Bt; <2% oxidized frags		0.1	
115	120	B00312918	Grey White	QTZT	white QTZT with 5-10% Bt and white QTZT with 30% Bt; not alteration; 1% fine diss py in cleaner QTZT but tr in other		1	
120	125	B00312919	White Grey	QTZT	70% white QTZT with 5% str-mod oxidized frags; 35% QBS or Bt rich QTZT			
125	130	B00312921	Light Grey	QTZT	100% white QTZT with 2-5% Bt; tr chlt alteration; tr py; tr reddish mineral		0.1	
130	135	B00312922	Light Grey	QTZT	as above with 3% oxidized (mod) frags; very rare chlt alteration		0.1	
135	140	B00312923	Light Grey	QTZT	as above		0.1	
140	145	B00312924	Light Grey	QTZT	as above; 3% mod oxidized frags			
145	150	B00312925	Light Grey	QTZT	as above; <2% oxidized chips; red mineral still present in tr amounts; light greenish alteration common in chip			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
150	155	B00312926	Light Grey	QTZT	as above; <1% oxidized frags; slightly less chlt alteration but tr py; tr red mineral		0.1	
155	160	B00312927	Grey	QTZT	mixed 35% white QTZT and grey QTZT with <15% Bt and Bt rich QTZT; ~5% oxidized frags; white QTZT shows some chlt alteration		0.1	
160	165	B00312928	White Grey	QTZT	as above but 60% white QTZT; not alteration or py or red mineral			
165	170	B00312929	Light Grey	QTZT	as above but 70% white QTZT with 5-7% Bt; wk chlt alteration common; tr oxidized frags		0.1	
170	175	B00312931	Light Grey	QTZT	as above but 90% white QTZT with 3-5% Bt; rare wk chlt alteration; tr py increase		0.1	
175	180	B00312932	Light Grey	QTZT	nealry pure white QTZT with 1-2% Bt; light greenish colour common with local intense chlt alteration; 1 to 2% py fn to med diss; trace red mineral		2	
180	185	B00312933	Light Grey	QTZT	as above; 3% py as fine, med and cr xtals - actual 2-3mm py grains		3	
185	190	B00312934	Light Grey	QTZT	as above; ~tr to 1% py mostly fn to moderate; chlt alteration rare		1	
190	195	B00312935	Light Grey	QTZT	as above but getting more Bt plus 10% Bt rich frags; just tr chlt and py plus tr red mineral; rare chlt vnlt		0.1	
195	200	B00312936	White Black	QTZT	similar to above but back to nearly pure white QTZT and 30% black QTZT; tr py; barely tr chlt alteration; tr red mineral but looks lighter (pink)		0.1	
200	205	B00312937	Light Grey	QTZT	as above but less dk QTZT (almost none)		0.1	
205	210	B00312938	Light Grey	QTZT	as above; py very fn		0.1	
210	215	B00312939	Light Grey	QTZT	as above; very rare grey QTZT frags have up to 4% py but otherwise tr and fn		0.1	
215	220	B00312940	Dark Grey	QBS	change to QBS; <10% previous QTZT; Bt has slightly red-brown colour		0.1	
220	225	B00312942	Dark Grey	QBS	as above; difficult to distinguish between py and Bt			
225	230	B00312943	Dark Grey	QBS	as above; 10% grey QTZT with up to 4% py; appears to be fn py diss 1% throughout Bt rich QBS but could only be biotite		1	
230	235	B00312944	Dark Grey	QBS	as above; no grey QTZT		1	
235	240	B00312945	Dark Grey/Br own	QBS	as above; Bt is brown		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
240	245	B00312946	Dark Grey/Br own	QBS	as above; one 6mm chip has 30% py so maybe I'm not seeing finer py in brown Bt; will drill two more runs			
245	250	B00312947	Dark Grey/Br own	QBS	as above; not convinced there is str py		0.1	
250	255	B00312948	Dark Grey/Br own	QBS	as above but slightly lower Bt; cannot see py; no alteration			

0	15			OB				
15	20	B00312949	Grey Brown	QMBS	oxidized impure QTZT, 5-10% Bt, pieces with very wk fabric [small sample]		0.1	
20	25	B00312951	Green	QBS	60% QTZT 40% QBS; oxidation decreasing; tr fn diss py, QBS has mod fabric		0.1	
25	30	B00312952	Green	QBS	has 10% QBS, QTZT is impure with 5-10% Bt; oxidation on select fracs		0.1	
30	35	B00312953	Green	QBS	minor QBS, QTZT impure with 10-15% Bt; salt and pepper appearence	1		
35	40	B00312954	Green	QBS	as above; several Hbl needles noted	1	0.1	
40	45	B00312955	Green	QBS	as above; increasing Bt 12-15%	0.1	0.1	
45	50	B00312956	Green	QTZT	very impure QTZT; minor QBS	0.1	0.1	
50	55	B00312957	Green	QTZT	slightly cleaner	1		
55	60	B00312958	Green	QTZT	impure QTZT up to 15% Bt; very fn diss py		0.1	
60	65	B00312959	Green	QTZT	as above; increase oxidation	0.1	0.1	
65	70	B00312961	Green	QBS	80% QBS, 20% QTZT; QBS has poor to mod fabric, 15-25% Bt		0.1	
70	75	B00312962	Green	QBS	as above; poor fabric; possible chlt on select frac surface		0.1	
75	80	B00312963	Grey Green	QBS	60% QBS, 40% QTZT; green appearence due to chlt in QTZT			
80	85	B00312964	Green	QBS	minor QTZT with chlt alteration; QBS has good fabric, 20-30% Bt, very fn diss py	0.1	0.1	
85	90	B00312965	Green	QBS	as above; quite uniform	0.1	0.1	
90	95	B00312966	Green	QBS	uniform, good fabric, 25-35% Bt; slight increase in py as anhedral xtals possibly alined with fabric		0.2	
95	100	B00312967	Green	QBS	as above; py decrease to tr		0.1	
100	105	B00312968	Green	QBS	good fabric; 25-30% Bt; select pieces with chlt alteration (dark green colour)	0.1		
105	110	B00312969	Green	QBS	as above; chlt alteration of select pieces; py is very fn diss; rare wk oxidation on select frac surface		0.1	
110	115	B00312970	Green	QBS	as above; chlt altered frags less common; good fabric		0.1	
115	120	B00312972	Green	QBS	as above; mod fabric; py is very fn (pinhead)	0.1	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
120	125	B00312973	Green	QBS	as above, rare chlt altered pieces; qtz vning with chlt; very tr py	3		
125	130	B00312974	Green	QBS	as above; increase qtz vning ranging from translucent to milky white to greenish white; chlt with select qtz vns. vns possibly parallel to fabric	8		
130	135	B00312975	Green	QBS	10% QBS; QTZT is impure with 8-10% Bt; Bt gives a wk fabric: rare oxidation	2		
135	140	B00312976	Green	QBS	60% QTZT, 40% QBS; select QTZT pieces have wk chlt alteration; QTZT slightly impure with 5-10% Bt	1		
140	145	B00312977	Green	QTZT	impure QTZT with 8-12% Bt; Bt can give a wk fabric; oxidation of select pieces			
145	150	B00312978	Green	QBS	rare pieces of QBS; QTZT becoming slightly cleaner with 5-10% Bt, common translucent/clean qtz pieces (vning); several pieces with purple brownish staining	5		
150	155	B00312979	Green	QBS	as above; slight Bt increase to 8-12%; rare pieces of QBS; very tr diss py	5		
155	160	B00312981	Green	QBS	10% QBS; QTZT is impure with 10-15% Bt but no clear fabric; very wk chlt alteration of select pieces	1	0.1	
160	165	B00312982	Green	QBS	75% QTZT, 25% QBS; QTZT is very impure with ~15% Bt; QBS has wk fabric	1	0.1	
165	170	B00312983	Green	QBS	55% QBS, 45 QTZT; QBS has weak fabric, 20-25% Bt; QTZT is very impure	0.1	0.1	
170	175	B00312984	Green	QBS	minor QTZT (2-3%), mod to str fabric; wk chlt alteration throughout	0.1	0.1	
175	180	B00312985	Green	QBS	~10% QTZT; 15-20% Bt, wk to mod fabric; 1mm qtz-chlt vnlt cutting fabric	1	0.1	
180	185	B00312986	Grey Green	QBS	2-3% QTZT; mod to str fabric; wk chlt throughout (qtz+bt+chlt schist??) hard to tell if primary or alteration	0.1		
185	190	B00312987	Grey Green	QBS	as above	0.1		
190	195	B00312988	Green	QBS	60% QTZT, 40% QBS; salt and pepper appearence; QTZT is fairly clean with 3-5% Bt, very tr diss py; rare oxidation			
195	200	B00312989	Green	QTZT	variable Bt content ranges from 2 to 10%; pieces that are pure QTZT; ~2% QBS			
200	205	B00312991	Green	QBS	Bt dropping of 2-8%; pieces of pure qtz common			
205	210	B00312992	Green	QBS	75% QBS, 25% QTZT; QBS has mod-str fabric; very wk chlt alteration	5		
210	215	B00312993	Green	QBS	failry homogeneous, mod-str fabric, 10-15% Bt; tr very fn diss py		0.1	
215	220	B00312994	Green	QBS	60% QBS, 40% QTZT; QBS has mod-str fabric, 20-25% Bt; QTZT is farily clean with 2-3% Bt			
220	225	B00312995	Green	QBS	70% QBS, 30% QTZT as described above; tr very fn diss py		0.1	
225	230	B00312996	Grey Green	QBS	60% QBS, 40% QTZT; QBS is fairly homogeneous with 25-30% Bt with mod-str fabric; QTZT is green-grey with mod chlt alteration: some chlt looks primary [bit change 03:30 to 05:00]		0.1	
230	235	B00312997	Grey Green	QBS	grey to green; sightly impure QTZT; 30% of pieces have str perv chlt alteration; ~5% QBS			
235	240	B00312998	Greey Grey	QBS	green-grey, 80% QTZT, 20% QBS; QTZT is ~25% altered by chlt	2		
240	245	B00312999	Grey Green	QTZT	90% QTZT, 10 QBS; ~50% QTZT altered by chlt	2		

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
245	250	B00313000	Grey Green	QBS	85% QTZT, 15% QBS; 40% QTZT is chlt alteration	1		
250	255	E00004001	Greey Grey	QTZT	fairly clean green-grey QTZT; 70% of pieces have str chlt alteration			
255	260	E00004002	Greey Grey	QTZT	85% QTZT, 15% QBS; 60% of the QTZT is chlt altered	1	0.1	
260	265	E00004003	Greey Grey	QTZT	as above; QBS has tr py; ~10% of chips are orangy brown with variable chlt alteration; altered QTZT appears to be originally grey	1	0.1	
265	270	E00004004	Greey Grey	QTZT	as above; QBS increasing to 25-30% with 30% brownish Bt; 10% probable qtz vn materal with tr py; brownish Bt looks like bottom of YCS16-09	10	0.1	
270	275	E00004005	Grey/Gr een/Whi te	QTZT	as above but chlt alteration in 30% of QTZT; Bt content may be increasing; white QTZT about 25% (not vn looks dirty 1-2% Bt up to 5%)			
275	280	E00004006	Dark Grey/W hite	QTZT	change to dark grey QTZT with 20% to 30% Bt (not schistose) plus tr fn py and blotchy blebs of py; 15% white QTZT w/ 1-3% Bt (could be vn material) also tr py; no alteration		0.1	
280	285	E00004007	Grey Green	QTZT	change to 60% Bt rich (20%) whitish-grey QTZT and 40% clean white QTZT with 1-3% Bt; former is brown Bt with tr py; latter also tr py and black Bt; white QTZT is wkly chlt altered in 80% of chips; brown Bt QTZT is nearly/partially schistose; there are 2%		0.1	
285	290	E00004008	Light Grey/Br own	QTZT	predom white QTZT with 1-3% Bt; 60% is wkly to mod chlt altered; tr py throughout; 7% str oxidized chips; same as YCS16-09		0.1	
290	295	E00004009	Light Grey/Br own	QTZT	as above but with 20% strongly oxidized chips; chlt alteration slightly weaker (locally str); tr very fn with less common med py		0.1	
295	300	E00004010	Light Grey	QTZT	as above with 1% oxidized chips		0.1	
300	305	E00004012	Grey	QTZT	as above with no oxidized chips; black Bt increasing to 25% in 50% of chips; chlt alteration is very weak in cleaner white QTZT only; tr red mineral		0.1	
305	310	E00004013	Light Grey/Bla ck	QTZT	white QTZT as above with very wk pervasive chlt alteration and locally str; tr py; 25% of interval is black QTZT with very wk chlt alteration pervasively but hard to see		0.1	
310	315	E00004014	Grey Brown	QBS	brownish Bt (same as bottom of YCS16-09); 20% str chlt alteration in blk Bt QBS or QTZT ( may be same as last interval/run); tr py - again hard to distinguish		0.1	
315	320	E00004015	Grey Brown	QBS	as above, ~20% white QTZT chips; brown Bt in white QTZT (is schistose); no sulfides een			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
320	325	E00004016	Light Grey	QTZT	white QTZT with perv very chlt alteration; tr fn-med diss py; Bt 1-3%		0.1	
325	330	E00004017	Light Grey	QTZT	as above		0.1	

0	20		Brown	ОВ	soil and rock, fairly wet and soft, went deeper to ensure seal and avoid water into the hole; chips are blk			
_				-	QTZT (looks like slate) 2% py			
20	25	E00004018	Dark Grey/Br own	QTZT	dark grey qtz, <25 Bt; tr diss and blebby py; wk fabric; 60% oxidized med to str		1	
25	30	E00004019	Grey Green	QTZT	as above; 80% oxidation mod-str		0.1	
30	35	E00004021	Grey Brown	QTZT	as above; 20% oxidized		0.1	
35	40	E00004022	Grey Brown	QTZT	as above; 20% oxidized			
40	45	E00004023	Grey Brown	QTZT	as above; 20% oxidized		0.1	
45	50	E00004024	Grey Brown	QTZT	as above; 55% oxidized chips mod with str less common; tr py, rare blebs		0.1	
50	55	E00004025	Grey Brown	QTZT	as above; 30% oxidized mod-str; banding present med gy to It grey; increase in py fine diss and blebs		1	
55	60	E00004026	Green	QTZT	as above; 10% oxidized; It grey QTZT more common	2	1	
60	65	E00004027	Grey Brown	QTZT	as above; 40% oxidized moderately	2		
65	70	E00004028	Grey Brown	QTZT	as above; 15% oxidized moderately, light grey QTZT seems to have sightly more py (~1%)	1	0.1	
70	75	E00004029	Black	QTZT	change to a dk grey QTZT; very little light or med grey QTZT; dirty sample; <5% chips strongly oxidized	1	0.1	
75	80	E00004031	Black Brown	QTZT	as above with 20% med-light grey QTZT; py seen rarely on fracs in dark QTZT; 10% oxidized		0.1	
80	85	E00004032	Black	QTZT	as above with <5% light-med grey QTZT; <5% oxidized; very dirty (souty)	1	0.1	
85	90	E00004033	Black	QTZT	as above with 1% light to med grey QTZT; tr bleb py [fast drilling, dirty sample]	1	0.1	
90	95	E00004034	Black	QTZT	as above	3	0.1	
95	100	E00004035	Black	QTZT	as above			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
100	105	E00004036	Green	QTZT	change to grey QTZT; slower drilling; strong fabric; 6% py locally chips have 10% blotchy and along fractures(?) and diss (looks good); no alteration		6	
105	110	E00004037	Green	QTZT	as above with patchy chlt alteration mostly wk but rare str and with py; py slightly less abundant and blotchy; there may be musc present but can't see well - more noticable once it dries		4	
110	115	E00004038	Green	QTZT	as above but less py and no alteration; 7% oxidized (mod-str) chips; locally blebby py		2	
115	120	E00004039	Green	QTZT	as above; fairly consistent grey to less abundant It grey QTZT; py on fractures and blebby		4	
120	125	E00004040	Green	QTZT	as above; increasing py very visable blebs, diss and along fracs; very rare green chlt alteration seemingly along fracs		7	
125	130	E00004042	Dark Grey	QTZT	as above; no chlt alteration		7	
130	135	E00004043	Green	QTZT	as above; rare str chlt alteration; more Bt present; <10% QBS; py decreases bu still patchy and diss		4	
135	140	E00004044	Green	QTZT	as above; py still abundant		4	
140	145	E00004045	Green	QBS	change to brown Bt schist; <10% QTZT; some py still visible but maybe 1% diss; looks very much like QBS of YCS16-09 and 10 - brown Bt in white qtz matrix		1	
145	150	E00004046	Green	QBS	as above; no visible sulfide			
150	155	E00004047	Green	QBS	as above with 10% QTZT with blebby py; QBS also has rare bleb py, maybe 1% [still getting very wet sample]		1	
155	160	E00004048	Brown Grey	QBS	as above brown Bt in light grey to white qtz matrix; ~5-10% QTZT from earlier with blebby py (up to 7%); QBS has rare py blebs maybe 1% overall; rare chip with str chlt alteration	1	1	
160	165	E00004049	Brown Grey	QBS	as above; <5% QTZT with good bleb py; QBS has rare blebs of py still		1	
165	170	E00004051	Brown Grey	QBS	as above; <2% QTZT; mod fol; small bebs and diss py		0.5	
170	175	E00004052	Brown Grey	QBS	15-25% brown Bt; <2% QTZT; mod fol; py becoming finer in QBS	5	0.3	
175	180	E00004053	Green	QBS	increasing QTZT to ~25%, less brown Bt; increasing in blebby py to 5%	0.1	5	
180	185	E00004054	Green	QBS	homogeneous, 20-25% Bt, py as blebs, brown Bt less common		5	
185	190	E00004055	Grey Green	QBS	70% QBS, 30% QTZT; QBS has mod fol; QTZT has chlt alteration in select pieces, possible mnor QCS; py blebs decreasing		3	
190	195	E00004056	Green	QBS	mod-str fol, Bt down slightly to 15-25%; ~10% QTZT; py decreasing, mostly as blebs	1	2	
195	200	E00004057	Green	QBS	70% QBS, 30% QTZT; QBS str fol with 20-25% Bt; QTZT pale grey and clean; py as diss primarly in QBS	1	2	
200	205	E00004058	Light Grey	QTZT	80% QTZT, 20% QBS; QTZT is light grey and very clean/massive; py dropped off occuring as fn diss; very fn <<<1mm qtz vnlts in QTZT that occasionally cross-cut	2	0.3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
205	210	E00004059	Light Grey	QTZT	<10% QBS; light grey, massive; possible AsPy noted in one piece; py as fn diss	2	0.2	
210	215	E00004061	Light Grey	QTZT	80% QTZT, 20% QBS; QTZT fairly uniform with minor Bt; py drop to tr fn diss	0.1	0.1	
215	220	E00004062	Green	QBS	80% QBS, 20% QTZT; QBS has mod-str fol, 15-25% Bt which ~25% is brown; py slightly increased as diss in both QBS and QTZT	2	0.5	
220	225	E00004063	Green	QBS	homogeneous, str fol, 30-35% Bt; py predom fn diss		0.3	
225	230	E00004064	Green	QBS	as above; py mostly as fn diss with some small blebs (~1mm)		1	
230	235	E00004065	Green	QBS	as above; 10% QTZT that is pale grey; py as very fn diss		0.5	
235	240	E00004066	Green	QBS	<5% QTZT; homogeneous, str fol, 30-35% Bt with minor brown Bt	1	0.8	
240	245	E00004067	Green	QBS	as above; increase py as fn diss and small blebs up to 1.5mm [bit change 22:10 to 23:30]	1	2	
245	250	E00004068	Green	QBS	80% QBS, 20% QTZT; mod-str fol; increasing py as diss and blebs; rare fracs with oxidation		3	
250	255	E00004069	Green	QBS	str fabric, homogeneous, 30-35% Bt, abundant brown Bt	3	3	
255	260	E00004070	Green	QBS	10% QTZT, str fabric, py increse to 5% diss/blebby, minor qtz vnlts cutting fabric	2	5	
260	265	E00004072	Grey	QBS	5% QTZT; as above; py increasing as predom blebby py	1	7	
265	270	E00004073	Grey	QBS	homogenous, str fol, 30-35% Bt w/ abundant brown Bt, py as diss/blebs and rare fn stringers following fabric	4	8	
270	275	E00004074	Grey	QBS	homogenous, mod-str fol, 20-30% Bt, decrease in py	0.1	3	
275	280	E00004075	Grey	QBS	25-30% Bt, v. Str fol, homogenous, diss/blebby py	0.1	3	
280	285	E00004076	Grey	QBS	homogenous, str fabric, 30-35% Bt w/ abundant brown Bt, py mostly as dissw/ minor blebbs	0.1	3	
285	290	E00004077	Grey	QBS	as above; py decreasing	0.1	1.5	
290	295	E00004078	Grey	QBS	as above, py mostly as fn diss, wk chl alt'n giving a green tinge	0.1	1	
295	300	E00004079	Grey	QBS	as above, py as fn diss	0.1	1.5	
300	305	E00004081	Grey	QBS	as above, py v. fn diss, wk chl alt'n giving a green tinge	0.1	1	
305	310	E00004082	Grey	QBS	as above, py as diss & blebs		0.8	
310	315	E00004083	Grey	QBS	as above, very homogenous, brown Bt becoming more prominent, str fabric	0.1	0.5	
315	320	E00004084	Grey	QBS	as above, very homgenous	0.1	0.3	
320	325	E00004085	Grey	QBS	85% QBS 15% QTZT; QBS as above w/ str fabric & 30-35% Bt, QTZT light grey w/ minor Bt	0.5	0.3	
325	330	E00004086	Grey	QBS	80% QBS, 20% QTZT, salt & pappper appearance, QBS has str fabric, 20-30% Bt, qtz vn cutting fabric	0.5	0.3	
330	335	E00004087	Grey	QBS	55% QBS, 45% QTZT; salt & pepper appearance, QBS has str fol, QTZT psae grey to greenish grey		0.1	
335	340	E00004088	Light Green Grey	QBS	60%, 40% QTZT: as above; py is more commonly seen in QTZT but also in QBS; QBS biotite is black predominately pervasivewk chl alt'n in QTZT		0.1	
340	345	E00004089	Grey	QTZT	60% QTZT 40% QBS as above; tr - 1% patchy & diss py seen in both types; wk patchy chl alt'n seen more in QBS; py in QTZT also seen as strings or vnlets		0.1	
345	350	E00004091	Grey	QBS	70% QBS 40% QTZT as above; patchy chl alt'n		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
350	355	E00004092	Light Grey to Grey	QTZT	55% QTZT 45% QBS as above (salt & pepper); very wet material & small chips		1	
355	360	E00004093	Dark Grey	QBS	80% QBS 20% QTZT as above; py easier to see in QTZT (~1%) but sme diss fn mostly mod-coarse blebs; wk greenish colour throughout (weak chl alt'n)		0.1	
360	365	E00004094	Dark Green Grey	QBS	as above		0.1	
365	370	E00004095	Green Grey	QBS	60% QBS 40% QTZT; QTZT has tr-1% coarse euhedral py; QBS tr py and slightly weaker pervasive chl alt'n	5	0.1	

0	18			OB	soily feel from 15-18'			
18	20	E00004096	Grev	OTZT	Grey QTZT 15% oxidized chips (mod-str); 15% light grey QTZT; moderate banding on mm scale; tr py as	1	0.1	
10	20	200004090	uley	QIZI	blebs and rare vnlets or strings as well as fine disseminations	1	0.1	
20	25	500004007	Brown	ОТ7Т	as above; probably qtz vn material @5% - clean white qtz; blebby tr py; sample small ~1.5 lbs; variable	5	0 1	
20	25	200004097	Grey	QIZI	degree of oxidation	J	0.1	
25	20	500004008	Brown	ОТ7Т	as above: 20% evidized: fine chins	2	0 1	
25	30	200004098	Grey	QIZI	as above, 50% oxidized, fille chips	5	0.1	
20	25	500004000	Brown	ОТ7Т	As above	1	0 1	
50	33	200004099	Grey	QIZI	AS above		0.1	
25	40	E0000/100	Brown	ОТ7Т	Grov OTZT 60% 40% APG: 40% strly oxidized chips		0.1	
35	40	200004100	Grey	QIZI	Grey Q121 00%, 40% ANG, 40% stilly oxidized chips		0.1	
40	15	E0000/101	Dark	ARG	75% APC 25% AT7T w/ tr py particularly along fractures: 5% mod ovidized chips		0.1	
40	43	200004101	Grey	ANU	75% AND 25% QT2T w/ ti py particularly along fractures, 5% mou oxidized chips		0.1	
45	50	F00004102	Dark	ARG	85% ARG 15% OT7T w/ tr pv		0 1	
45	50	200004102	Grey				0.1	
50	55	F00004103	Dark	ARG	95% ARG tr ny appears on fractures: 5% OTZT is grey $w/tr-1\%$ ny		0 1	
50	55	200004105	Grey				0.1	
55	60	E00004104	Dark	ARG	60% ARG 40% dk grey QTZT w/ 1-2% py; QTZT shows banding w/ ly grey qtzite; 5% chips w/ oxidized		0 1	
55	00	200004104	Grey		fractures		0.1	
60	65	F00004105	Dark	ОТ7Т	60% grey OTZT & 40% ARG: ~5% str'ly oxid chins: OTZT has ~tr-1% ny as hlehs		0 1	
00	05	200004105	Grey				0.1	
65	70	F00004106	Dark	ОТ7Т	70% Grey QTZT & 30% ARG; hard to distinquish between; QTZT has blebby py; 15% of chips have oxidized		0 1	
05	/0	200004100	Grey		surfaces		0.1	
70	75	F00004107	Dark	ОТ7Т	80% OTZT: mostly dk-med av but some light grev: blebby py: 15% of chips have oxidized surfaces		0 1	
70	75	200004107	Grey		boo gran. mostry are med by bat some light brey, blebby by, 15% of emps have oxidized surfaces		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
75	80	E00004108	Grey	QTZT	95% QTZT w/ tr diss py & blebs; tr str chl alt'n often w/ py; med grey w/light grey qtzite; 5% ARG as above; 10% str oxidized chips		0.1	
80	85	E00004109	Light Grey	QTZT	Med grey to light grey QTZT w/ tr blebby and fn diss py; mod chl alt'n in 5% of light coloured chips; 5% str oxidized chips		0.1	
85	90	E00004110	Light Grey	QTZT	as above; slightly more py		1	
90	95	E00004112	Grey	QTZT	as above; very wk banding; <5% oxidized chips		0.1	
95	100	E00004113	Dark Brown/G rey	QBS	80% brownish Bt in dk grey qtz schist; 20% QTZT as above; blebby py		0.1	
100	105	E00004114	Brown Grey	QBS	QBS as above: brown Bt is hard to recognize py especially fn diss; Minor QTZT		0.1	
105	110	E00004115	Dark Grey	QBS	maybe up to 25% ARG; dk grey QTZT w/ mod-wk fabric rare banding; blebby py up to 1%; chips are platy (typical of RC cuttings but I must have thought these could be confused with schistosity)		0.1	
110	115	E00004116	Brown Grey	QBS	60% QBS & 40% QTZT; QBS has tr blebby py up to 1%; QTZT also blebby py; light coloured chips show str- mod chl alt'n often w/ py on str'ly altered chips	5	1	
115	120	E00004117	Grey Green	QTZT	60% QTZT & 40% QBS; 35% It grey coloured chips w/ chl alt'n (bleaching of QTZT?); 10-15% of chips have It- med red alteration (hematite?); only tr py		0.1	
120	125	E00004118	Brownis h Grey	QBS	QBS ~70%: br Bt w/ tr blotchy py; 5% dirty QTZT; 15% It greenish to med green chips	10	0.1	
125	130	E00004119	Brown Grey	QBS	85% QBS as above; 15% QTZT w/ green colour rare tr blotchy py	2		
130	135	E00004121	Brownis h Grey	QBS	30% light green chips; rare white qtz w/ <3% bk Bt; QBS as above; light green chips - probably chl alt'n - appears to have grey QTZT or QBS on edge sometimes; could be QV or white qtz horizon			
135	140	E00004122	Brownis h Grey	QBS	60% QBS as above - no visible (discernable) py; 30% light green chips w/ rare dark green chips and thin mm scale vnlets; 10% grey QTZT w/ blotchy py		0.1	
140	145	E00004123	Grey	QBS	85% QBS as above; 15% QTZT ; 1% str oxidized chips			
145	150	E00004124	Grey	QBS	90% QBS as above; 10% grey QTZT w/ fine tr diss py; rare chl alt'd chips			
150	155	E00004125	Brown Grey	QBS	95% QBS as above (no py); 5% grey QTZT w/ blebby & fn diss py			
155	160	E00004126	Brown Grey	QBS	95% QBS as above & 5% QTZT as above			
160	165	E00004127	Brown Grey	QBS	90% QBS as above& 10% QTZT w/ mod patchy to pervasive chl alt'n and tr diss & blotchy py			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
165	170	E00004128	Brown Grey	QBS	90% QBS & 10% QTZT w/ no chl alt'n & tr py			
170	175	E00004129	Brown Grey	QBS	95% QBS & 5% QTZT w/ patchy chl alt'n and tr py			
175	180	E00004131	Brown Grey	QBS	80% QBS & 20% QTZT w/ wk chl alt and tr py; QBS has rare blebs py		0.1	
180	185	E00004132	Brown Grey	QBS	as above		0.1	
185	190	E00004133	Grey	QTZT	Change in rock: Grey QTZT w/ bleb py and fine diss as well as along apparent fractures; 10% QBS as above		3	
190	195	E00004134	Grey	QBS	60% Grey QTZT & 40% QBS as above; QTZT as above w/ patchy wk to locally mod chl alt'n; py is blebby & fn diss up to 5-6% in larger 1 cm size pieces		6	
195	200	E00004135	Grey	QBS	65% QTZT as above & 35% QBS as above; QBS appears to lack py so brings done overall % content		4	
200	205	E00004136	Brown Grey	QBS	Chage to 95% br Bt QBS and 5% grey QTZT as above		0.1	
205	210	E00004137	Grey	QBS	60% QBS & 40% QTZT as above		2	
210	215	E00004138	Grey	QBS	65% QTZT & 35% QBS both as above; QTZT has slightly less py and no chl alt'n; 1% str oxid chips		4	
215	220	E00004139	Grey Brown	QTZT	80% QTZT as above w/ ~4% blebby & diss py; mod to str pervasive chl alt'n; 15% str'ly oxidized chips		3	
220	225	E00004140	Grey	QTZT	75% QTZT, 25% QBS; QTZT is pale grey, wk-mod chl, QBS has str fol, 30-35% Bt, py as diss		1	
225	230	E00004142	Grey	QTZT	85% QTZT, 15% QBS both as above; py as diss and blebs that are partially following fabric		3	
230	235	E00004143	Grey	QTZT	pale grey, massive clean qtz w/ 2-3% Bt, wk chl alt'n, py as diss/blebs		1.5	
235	240	E00004144	Grey	QBS	55% QBS, 45% QTZT as above; QBS has str foliation, 20-25% Bt		0.5	
240	245	E00004145	Grey	QBS	85% QBS 15% QTZT both as above; wk chl alt'n, py as diss and minor blebs		0.5	
245	250	E00004146	Grey	QBS	Homogenous dk grey, str fol, 35-45% Bt w/ abundant brown Bt, <= 1mm qtz +- chl vnlets cutting fabric	1	0.1	
250	255	E00004147	Grey	QBS	as above	2	0.1	
255	260	E00004148	Grey	QBS	as above; qtz vns running near parallel to fabric	2	0.1	
260	265	E00004149	Grey	QBS	as above, qtz vns both parallel to and cutting fabric, py as v. Fn diss	3	0.3	
265	270	E00004151	Grey	QBS	as above, qtz vns running both parallel to & cutting fabric; blebby py noted at margin of qtz vn	4	0.3	
270	275	E00004152	Grey Green	QBS	as above, increasing achl alt'n giving select pieces a green-grey colour (25% of pieces)	2		
275	280	E00004153	Grey	QBS	as above, qtz +- chl vns cutting fabric; one vn 5mm+	4	0.1	
280	285	E00004154	Grey	QBS	as above, ~5% pale green grey QTZT pieces, vns appear to be predom parallel to fabric; +-1mm vnlts	2	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
285	290	E00004155	Light Grey	QTZT	85% QTZT, 15% QBS as above; QTZT is pale grey to translucent nearly 99% qtz w/only minor Bt & chl alt'n * maybe a QV			
290	295	E00004156	Grey	QBS	60% QBS, 40% QTZT both as above salt and pepper appearance, wk chl			
295	300	E00004157	Grey White	QTZT	greyish white uniform clean QTZT 3-5% Bt & Chl, ~1mm Bt + Chl vnlts, py as v fn diss		0.1	
300	305	E00004158	Grey White	QTZT	80% QTZT as above, 20% QBS, wk chl alt'n of QBS, py as blebs		0.1	
305	310	E00004159	Grey	QBS	70% QBS, 30% QTZT as above, QBS dark grey str fabric 30-40% Bt, chl alt'n, py as 1mm scale blebs		0.1	
310	315	E00004161	Grey	QTZT	10% QBS as above; QTZT is pale grey massive, 5-10% Bt +- chl		0.1	
315	320	E00004162	Grey White	QTZT	<2% QBS, grey-white massive QTZT w/ 6-8% Bt, Bt can cause a wk fabric; py as diss and small blebs		0.1	
320	325	E00004163	Grey	QTZT	80% QTZT, 20% QBS; QTZT is impure w/ 8-10% Bt, occasionally giving a wk fabric; QBS has str fabric, 25- 30% Bt; py as diss and blebs in both rocktypes	1	0.3	
325	330	E00004164	Grey	QBS	80% QBS, 20% QTZT as above; QBS has str fabric, 25-30% Bt w/ brown Bt being very common; increasing py as diss/blebs in QBS		0.5	
330	335	E00004165	Grey	QTZT	80% QTZT, 20% QBS as above; QTZT has a green/tan tinge due to chlt; py predom in QBS		0.5	
335	340	E00004166	Light Grey	QTZT	80% QTZT, 20% QBS as above; QTZT is very plae grey to gn-gy to translucent nearly pure qtz (QV?)		0.5	
340	345	E00004167	Grey White	QTZT	95% pure greyish wt qtz, 5% Bt and Chlt; very tr sulfides			
345	350	E00004168	Grey	QBS	str fabric, 30-40% Bt w/ common brown Bt; tr very fn py; 15% QV as above	15	0.1	
350	355	E00004169	Grey Green	QBS	as above, homogeneous; chlt alt'n through out; very fn py following fabric observed	2	0.1	
355	360	E00004170	Grey	QBS	60% QBS, 40% QV that is pure greyish white qtz, 0.25% vn py in QBS	40	0.3	
360	365	E00004172	Grey	QBS	as above w/ 15% QV	15	0.1	
365	370	E00004173	Grey	QBS	as above; <1mm qtz vnlts cutting fabric; very fn diss py	3	0.1	
370	375	E00004174	Green Grey	QBS	as w/ increasing chlt alt'n to mod-str	3	0.1	
375	380	E00004175	Grey	QBS	60% QBS as above w/ 40% qtz vning, qtz is light grey and massive; sharp ct b/t QBS and qtz observed	40	0.1	
380	385	E00004176	Grey Green	QBS	decrease in Bt content to 20-30%, brown Bt uncommon, fabric mod to occasionally str	2	0.1	
385	390	E00004177	Grey	QBS	55% QBS as above, 45% QTZT/QV? Which is greyish white w/ a sugary texture, minor Bt + chlt in qtz		0.1	
390	395	E00004178	Grey	QBS	80% QBS as above, 20% dark green grey massive pieces ARG?		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
395	400	E00004179	Light Grey	QTZT	90% QTZT (QV?) that is pale grey, massive w/ minor Bt (2-3%); 10% QBS as above			
400	405	E00004181	Light Grey	QTZT	as above, ~2% QBS			
405	410	E00004182	Light Grey	QTZT	as above; rare pieces w/ wk fabric caused by Bt in QTZT			
410	415	E00004183	Light Grey	QTZT	as above; 10% QBS as above			

0	10			OB			
10	15	E00004184	Dark Grey	QBS	Grey quartzite with ~20% black biotite and trace-1% disseminated fine pyrite; 30% moderate-strong oxidized chips; trace sericite (yellow soft material) on planer surfaces; moderate fabric with evidence of banding in quartzite.	0.1	
15	20	E00004185	Grey	QBS	As above. Likely not enough sample.	0.1	
20	25	E00004186	Grey	QBS	As above. Up to 1% pyrite disseminated and blebs. 40% oxidized chips (strong)	1	
25	30	E00004187	Grey	QBS	As above. 30% oxidized (strong) chips blebby knots and disseminated pyrite could be higher than 3%.	3	
30	35	E00004188	Dark Grey	QBS	Borderline QBS. 30% biotite which looks reddish.	3	
35	40	E00004189	Grey	QBS	As above.	2	
40	45	E00004191	Grey	QBS	As above. 25% oxidized chips.	1	
45	50	E00004192	Grey	QBS	As above. Still reddish biotite. Almost schist.	3	
50	55	E00004193	Grey	QBS	Predominantly brownish-red biotite in grey quartz. 30% quartzite from above; trace ??? chlorite in chips.	1	
55	60	E00004194	Grey	QBS	30% white quartz with no to strong chlorite alteration. Some oxidized (potassic!) chips.		
60	65	E00004195	Grey	QBS	As above except 5% white quartz with chlorite and no pink-red minerals.	0.1	
65	70	E00004196	Grey	QBS	75% QBS and 25% dark grey quartztite with moderate chlorite alteration and trace-1% pyrite; QBS as above with reddish brown biotite	0.1	
70	75	E00004197	Grey	QBS	95% light grey quartz with reddish black biotite (5-15%), weak pervasive alteration; trace disseminated fine pyrite.	0.1	
75	80	E00004198	Light Grey	QBS	100% as above. No pyrite, no chlorite alteration.		
80	85	E00004199	Light Grey	QTZT	As above by weak patchy chlorite alteration and trace disseminated pyrite; 25% strong oxidized chips.	0.1	
85	90	E00004200		QTZT	As above; this unit has ~20% white quartz with 2-3% biotite and trace coarse pyrite; 20% strong oxidized chips; rest is light grey quartz	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
90	95	E00004201	Dark Grey	QBS	As above, only 1% white quartzite; trace oxidized chips			
95	100	E00004202	Grey	QBS	As above. Very rare euhedral pyrite; dead looking.		0.1	
100	105	E00004203	Grey	QBS	As above. Weak patchy chlorite alteration; rare red mineral			
105	110	E00004204	Dark Grey	QBS	As above. Almost schist increasing biotite 30%? Still patchy chlorite alteration; 15% strong oxidized chips		0.1	
110	115	E00004205	Dark Grey	QBS	As above. 10% oxidized chips.			
115	120	E00004206	Grey	QBS	As above. Sample recovery poor, barely enough for samplesthis sample slightly under weight.		0.1	
120	125	E00004207	Grey	QBS	As aboverare weak patchy chlorite alteration			
125	130	E00004208	Green Grey	QBS	Seems to be two types of quartzite60% as above and 40% medium grey with less biotite, pervasive moderate chlorite alteration and trace pyrite. Rare strong chlorite altered chips.		0.1	
130	135	E00004209	Grey	QBS	Quartzite 70% QBS 30%; QBS is much like previous biotite rich QTZTno sulphide unaltered. Quartzite here is low biotite content +/- very fine; pervasive moderate chlorite alteration and trace fine blebby pyrite.		0.1	
135	140	E00004210	Grey	QBS	Same as above; <10% grey quartzite above with trace pyrite and trace chlorite alteration; QBS is barely schistose (note: could not get duplicate).			
140	145	E00004211	Dark Grey/W hite	QBS	As above except 40% is white quartzite with 2-5% biotite and 5-8% pyrite as disseminated and strings. 60% QBS is similar to above but weak chlorite alteration and trace pyrite.		3	
145	150	E00004213	Grey/W hite	QTZT	45% as above QBS but not quite schistose. Has weak chlorite pervasive to patchy alteration and trace pyrite blebs. 55% white quartzite with <1% biotite but not as much sulphide visible; rare red mineral.		1	
150	155	E00004214	Dark Grey/W hite	QBS	As above except 65% QBS and 45% white quartzite with moderate chlorite alteration and trace pyrite.		0.1	
155	160	E00004215	Dark Grey	QBS	15% white quartzite and 85% QBS as above.			
160	165	E00004216	Grey	QBS	55% QBS as above with trace chlorite alteration and trace pyrite. 15% strongly oxidized chips (appear to be light coloured originally). 30% mixed white-light grey quartzite with trace pyrite; driller said last of ?? oxidized.			
165	170	E00004217	Green Grey	QTZT	70% strongly to intensely chlorite alteredlooks like epidote, pistachio green but varies from previous green colour. QBS 30%; altered appears to be even white quartzite.		0.1	
170	175	E00004218	Grey	QBS	CHANGE: light grey quartzite with ~15% biotite (black) unaltrered and no sulphides; trace intense epidote coloured "chlorite" alteration.			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
175	180	E00004219	Grey	QBS	As above. No intense alteration chips; trace chlorite alteration, trace pyrite. 10% white quartz with 1-5% biotite and trace pyrite.	1	0.1	
180	185	E00004221	Green Grey	QBS	CHANGE: dark grey quartzite with moderate to strong fabric; trace pyrite; 35% of chips are pistachio green and some show ghost banding from quartzite but it is very hard.		0.1	
185	190	E00004222	Green Grey	QTZT	As above; can't see any pyrite.			
190	195	E00004223	Grey	QBS	85% brownish QBS; no alteration, no pyrite. 15% weakly chlorite altered white quartzite with <10% biotite; no pyrite but weakly chlorite altered.			
195	200	E00004224	Brown Grey	QBS	As above with 7% chlorite altered chips			
200	205	E00004225	Light Grey	QTZT	70% light grey quartzite with <5% biotite; 30% QBS; 5% oxidized chips; trace red mineral			
205	210	E00004226		QTZT	As above but 90% quartzite and 10% QBS; no sulphides, no chlorite alteration (note: samples wet since 4213).			

0	5		Grey	OB				
5	10	E00004227	Grev		Moderate to strong fabric, 30-35% biotite, fairly homogeneous, minor oxidation (note: ~3% overburden			
5	10	200004227	Grey	QB3	contamination).			
10	15	E00004228	Grey	QBS	As above, trace pyrite as fine disseminated, ~2% pale green-grey quartzite		0.1	
15	20	E00004229	Grey	QBS	As above, 80% QBS, 20% pale grey impure quartzite, weak chlorite.			
20	25	E00004221	Grey	ОТ7Т	80% quartzite, 20% QBS, quartzite is grey, impure with 10-12% biotite that occassionally forms a weak			
20	25	200004231	Brown	QIZI	fabric.			
25	30	E00004232	Grey	QTZT	<10% QBS, as above, increasing oxidation			
30	35	E00004233	Grey	QTZT	15% QBS. Quartzite is very impure with 10-15% bitoite; biotite can give a weak fabric.			
25	40	500004224	Green		10% Quartzite, strong folidation, 30-40% biotite with brown biotite common, weak chlorite. Oxidation on			
35	40	E00004234	Grey	QBS	select fractures.			
40	45	E00004235	Grey	QBS	Slight decrease in biotite to 25-35%, oxidation is very rare, chlorite alteration giving green tinge.			
45	50	E00004236	Grey	QBS	As above. Very trace disseminated pyrite.			
50	55	E00004237	Grey	QBS	Moderate to strong fabric. 25-30% biotite, very weak chlroite alteration.			
55	60	E00004238	Grey	QBS	As above. Very weak chlorite.			
60	65	E00004239	Grey	QBS	As above. Trace fine dissminated pyrite.	3	0.1	
65	70	E00004240	Grey	QBS	Moderate to strong fabric. Biotite 2-30%, pyrite as fine dissemination. Weak chlorite.	1	0.1	
70	75	500004242	Crow	OT7T	<5% QBS, medium grey. Quartzite ranges from clean (1-2% biotite) to impure with 8-10% biotite, wak		0.1	
70	75	200004242	Gley	QIZI	chlorite.		0.1	
75	80	E00004243	Grey	QTZT	As above. Increasing chlorite alteration, oxidation of ~8% fractures.			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
80	85	E00004244	Green Grey	QBS	85% QBS, 15% Quartzite as above. QBS has moderate to strong foliation, 30-40% biotite, fairly homogeneous, oxidation on 3% of fractures.	2		
85	90	E00004245	Green Grey	QBS	As above. Increase in chlorite alteration giving rock distinct green colour.	0.1		
90	95	E00004246	Grey	QTZT	With 10% QBS, moderate green-grey, massive, impure (8-10% biotite), moderate chlorite, trace pyrite as subhedral <1mm crystals.		0.1	
95	100	E00004247	Green Grey	QTZT	As above, pyrite as disseminated and small blebs on fractures, chlorite alteration decreases.		0.8	
100	105	E00004248	Grey	QTZT	Interval becoming slightly cleaner with ~40% of pieces having minor biotite (2-3%). ~2-3% QBS pieces.		0.1	
105	110	E00004249	Grey	QBS	70% QBS, 30% Quartzite. QBS is dark grey with moderate to strong foliation, 25-30% bitoite			
110	115	E00004251	Green Grey	QBS	55% QBS, 45% quartzite. QBS as above, quartzite fairly impure, medium-dark grey with weak chlorite alteration.		0.1	
115	120	E00004252	Grey	QBS	60% QBS, 40% Quartzite. QBS as above. Quartzite a mix of of impure with biotite and fairly clean, chlorite alteration throughout.			
120	125	E00004253	Grey	QBS	80% Quartzite, 20% QBS. Quartzite is medium to dark grey with 8-15% biotite with very faint fabric. Chlorite alteration throughout.			
125	130	E00004254	Grey	QBS	Dark grey to green grey, homogeneous moderate-strong fabric. 30-40% biotite, weak chlorite alteration.			
130	135	E00004255	Green Grey	QBS	As above, pyrite as fine dissemination.		0.1	
135	140	E00004256	Green Grey	QBS	Homogeneous moderate to strong fabric, strong chlorite, mostly appears to be alteartion, some maybe primary. Very trace pyrite.			
140	145	E00004257	Green Grey	QCS	~5% QBS, green-grey quartz and chlorite, 15-20% chlorite forming weak to moderate fabric in quartz, trace finely disseminated pyrite.	0.1	0.1	
145	150	E00004258	Green Grey	QCS	10% QBS. QCS as described above.	2		
150	155	E00004259	Green Grey	QCS	Green-grey-white 15-20% chlorite forming weak to moderate fabric, minor biotite up to 5%	2		
155	160	E00004261	Green Grey	QCS	As above. Fabric getting slightly more defined. Moderate to occassionally strong.			
160	165	E00004262	Green Grey	QCS	As above. Very trace disseminated pyrite. 1-2% QBS	2		
165	170	E00004263	Grey	QCS	60% QCS as above. 40% QBS with strong fabric. 30-40% biotite.	0.1		
170	175	E00004264	Grey	QTZT	85% Quartzite, 15% QBS as above. Quartzite is pale to medium grey, fairly massive, impure with 8-10% biotite +/- chlorite			
175	180	E00004265	Grey	QBS	Impure quartzite with 8-12% biotite and 1-2% chlorite. 8-10% QBS.			
From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
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180	185	E00004266	Brown Grey	QBS	Dark grey, moderate to strong foliation, 25-35% biotite with abundant brown biotite.	5		
185	190	E00004267	Brown Grey	QBS	Brownish grey, homogeneous, 15-20% predominantly brown platey biotite	4		
190	195	E00004268	Brown Grey	QBS	Brownish grey, homegeneous, 12-20% biotite, mostly brown, slightly granular texture.	1		
195	200	E00004269	Brown Grey	QBS	As above. Trace disseminated pyrite.	0.1	0.1	
200	205	E00004270	Grey	QBS	As above. Very homogeneous.			
205	210	E00004272	Grey	QTZT	Medium grey, 8-12% biotite, slight sugary texture, fairly homogeneous, very fine pyrite, <5% QBS.			
210	215	E00004273	Grey	QBS	As above. ~10% QBS. Pyrite as disseminated ans small blebs.		0.1	
215	220	E00004274	Grey	QBS	Light to medium grey. Biotite content dropping 5-10%. ~2% QBS, trace pyrite as disseminated and fracture coatings, very weak chlorite in select pieces.		0.1	
220	225	E00004275	Grey	QTZT	As above. Becoming slightly more uniform.			
225	230	E00004276	Grey	QTZT	As above. ~10% pieces are pure quartz, bit of a salt and pepper appearance.			
230	235	E00004277	Grey	QTZT	As above, trace pyrite as dissminated, rare oxidation on fracture surfaces, very weak chlorite in rare pieces.		0.1	
235	240	E00004278	Grey	QTZT	As above, in increasing predominantly as small blebs with some dissemination.		0.5	,
240	245	E00004279	Grey	QTZT	As above, pyrite as disseminated and blebs, slight increase in biotite to 8-12%.		0.3	,
245	250	E00004281	Grey	QBS	90% QBS, 10% Quartzite. QBS is dark grey with 25-30% biotite, brown biotite common. Moderate fabric, rare very weak chlorite.			
250	255	E00004282	Light Grey	QTZT	Pale grey clear quartzite, 94% quartz, ~20% of fractures oxidized.			
255	260	E00004283	Light Grey	QTZT	As above, no oxidation with ~2% QBS.			
260	265	E00004284	Grey Green	QTZT	Pale grey to white, very homogeneous, very clear quartz.			

0	5			OB					
5	10	E00004285	Brown	OT7T	Light grey to medium grey banded with trace fine disseminated pyrite. ~25% fine biotite. Moderate to	0 1			
J	10	200004285	Grey	QIZI	strong oxidation on 70% of chips.	0.1			
10	10	E00004286	Brown	OBC	20% quartaite as above 20% OBS: 60% evidized ships	0 1			
10	12	E00004286	Grey	QBS	80% qualizite as above. 20% QBS; 60% oxidized chips	0.1			
15	20	E00004287	Brown	OBC	60% QBS, 40% Quartzite as above. QBS has trace pyrite, QZTZ blebby and disseminated pyrite. 15%	0.1			
15 2	20	EUUUU4287	E00004287	E00004287	Grey	QbS	oxidized chips.	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
20	25	E00004288	Brown Grey	QBS	70% quartzite, 30% QBS as above.		0.1	
25	30	E00004289	Grey	QBS	80% quartzite, 10% QBS, 10% tan quartzite.		0.1	
30	35		Grey	QBS	80% quartzite, 20% QBS (barely schistose). Quartzite has blebby and finely disseminated pyrite.		0.1	
35	40	E00004292	Grey	QBS	Almost schistose.	0.1		
40	45	E00004293	Grey	QBS	Almost schistose.			
45	50	E00004294	Grey	QBS	Almost schistose. Some mm cross cutting white quartz veins.	0.1		
50	55	E00004295	Grey	QBS	Almost schistose.			
55	60	E00004296	Grey	QTZT	Almost schistose.		0.1	
60	65	E00004297	Grey	QTZT	Almost schistose. Lighter grey disseminated and blebby pyrite.		0.1	
65	70	E00004298	Grey	QTZT	Almost schistose. Lighter grey disseminated and blebby pyrite.		2	
70	75	E00004299	Grey	QBS	Almost schistose. 25% QBS brown biotite.		2	
75	80	E00004300	Grey	QBS	Almost schistose. <5% QBS, 5% oxidized strong chips.	0.1	0.1	
80	85	E00004301	Grey	QBS	Almost schistose. ~ QBS.			
85	90	E00004302	Grey	QBS	Still ~20-25% biotite.			
90	95	E00004303	Grey	QBS	Barely not schistose. ~25-30% biotite.			
95	100	E00004304	Brown Grey	QBS	Just schistose, 30-35% biotite brownish trace disseminated pyrite some tarnished.		0.1	
100	105	E00004305	Brown Grey	QBS	As above. Blebby and disseminated pyrite.		1	
105	110	E00004306	Brown Grey	QBS	As above. Blebby and disseminated pyrite.		0.1	
110	115	E00004307	Brown Grev	QBS	Just schistose. Hard to distinguish pyrite from edges of brown biotite but looks like trace to 1% disseminated: rare moderate chlorite alterted chips.		1	
115	120	E00004308	Brown	QBS	Just schistose. Hard to distinguish pyrite from edges of brown biotite but looks like trace to 1% disseminated; rare moderate chlorite alterted chips		0.1	
120	125	E00004309	Brown	QBS	Just schistose. Hard to distinguish pyrite from edges of brown biotite but looks like trace to 1% disseminated: rare moderate chlorite alterted chips.		0.1	
125	130	E00004310	Brown Grev	QBS	As above. Either 10% quartz vein or very low biotite quartzite.	10	0.1	
130	135	E00004311		QBS	As above. Either 15% quartz vein or very low biotite quartzite. Some moderate chlorite alteration in quartz vein.			
135	140	E00004313	Grey	QBS	Some moderate chlorite alteration in quartz vein. Barely schistose. 3% oxidized chips; trace disseminated pyrite.		0.1	
140	145	E00004314	Grey	QTZT	Grey quartzite with ~20% bitotite. Weak chlorite alteration. No visible pyrite.			
145	150	E00004315	Grey	QTZT	As above; 10% moderately oxidized chips. Trace red mineral. Blotchy or in bands.			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
150	155	E00004316	Light grey	QTZT	As above but light grey; Trace red mineral. No chlorite alteration (eprhaps different quartzite).			
155	160	E00004317	Light grey	QTZT	As above; 30% oxidized strong chips; trace pyrite disseminated.		0.1	
160	165	E00004318	Grey	QBS	As above.		0.1	
165	170	E00004319	Grey	QTZT	Mix of white nearly clean quartzite and 10-15% biotite gery quartzite; former has 1% disseminated pyrite; rare green strong chlorite alatered chips. 20% oxidized chips.			
170	175	E00004321	Grey	QTZT	Mix of white nearly clean quartzite and 10-15% biotite gery quartzite; former has 1% disseminated pyrite; rare green strong chlorite alatered chips. 20% oxidized chips.		1	
175	180	E00004322	Grey	QBS	90% darker grey dirty quartzite, trace chlorite alteration			
180	185	E00004323	Grey	QBS	100 darker quartzite. Trace pervasive chlorite alteration.			
185	190	E00004324	Grey	QBS	As above. Weak pervasive chlorite alteration. (drilling greenish dust). Trace pyrite mineralization.		0.1	
190	195	E00004325	Grey	QBS	As above. Weak pervasive chlorite alteration. (drilling greenish dust). Trace pyrite mineralization.			
195	200	E00004326	Grey	QBS	As above. Weak pervasive chlorite alteration. (drilling greenish dust). Trace pyrite mineralization.			
200	205	E00004327	Grey	QBS	As above. No greenish colour.			
205	210	E00004328	Grey	QBS	As above. Yellowish alteration (sericite?). Patchy on 10% of grains.		0.1	
210	215	E00004329	Grey	QBS	As above. Yellow looking, more green now; 20% light grey quartzite have trace pyrite mineralization.		0.1	
215	220	E00004331	Grey	QBS	As above. 30% light grey biotite. Poor quartzite. Trace pyrite mineralization.		0.1	
220	225	E00004332	Light grey	QTZT	White-light grey quartzite with 15% biotite; 1% pyrite as disseminated and blebs; salt and pepper when wet.		1	
225	230	E00004333	Grey	QBS	Darker quartzite with >25% biotite; trace pyrite disseminated; 25% light grey quartzite.		0.1	
230	235	E00004334	Dark Grev	QBS	As above. Dark grey quartzite borderline schistose; no pyrite mineralization, very weak chlorite alteration.	3		
235	240	E00004335	Dark Grev	QBS	As above. Dark grey quartzite borderline schistose; no pyrite mineralization, very weak chlorite alteration.			
240	245	E00004336	Dark Grey	QTZT	50/50 mix of light and dark grey quartzite; 15% reddish mineral as colouration on quartzite chips and darker red chips.	2	0.1	
245	250	E00004337	Light grey	QTZT	As above but no reddish alteration/mineral trace fine and coarse pyrite mineralization.		0.1	
250	255	E00004338	Grey Green	QTZT	As above. No pyrite mineralization. 20% medium to dark green over light grey chips (hard, but I've called this chlorite alteration previouslysort of looks like epidote)			
255	260	E00004339	Grey	QTZT	As above except no green alteration; chlorite alteration in light grey biotite. Poor chips occassionally trace dissminated pyrite.		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
260	265	E00004340	Light grey	QTZT	Change to nearly all light grey quartzite with <5% biotite; pervasive chlorite alteration weakly moderate; trace fine disseminated and blebby pyrite. Micron disseminated pyrite +/0 ~1% to 2%.		0.1	
265	270	E00004342	Brown Green	QBS	Change to dark brownish biotite rich quartz schist; unaltered, no sulphides			
270	275	E00004343	Dark Grey/Gr een	QBS	60% QBS as above, 40% quartzite as below.		2	
275	280	E00004344	Light Grey	QTZT	90% light grey quartzite as above with slightly less chlorite alteration and trace pyrite dissemination; 10% brown QBS.		0.1	
280	285	E00004345	Grey	ARG	Change to dark grey quartzitevery monotonous dull grey colour (argillite?)			
285	290	E00004346	Light Grey	QTZT	Mixed 70% light grey biotitepoor quartzite with chlorite alteration (moderate), trace disseminated pyrite; 10% argillite, 20% QBS brown bitoite.		0.1	
290	295	E00004347	Light Grey	QTZT	All light grey biotite poor (<5%) Quartzite with weak chlorite alteration and no pyrite mineralization.			
295	300	E00004348	Light Grey	QTZT	50% light grey to white very bitoite poor (<2%) quartzite (possibly QV but looks grainy). 50% light grey quartzite with ~10-15% biotite (bk); no sulphides.			
300	305	E00004349	Dark Grey	QBS	Dark grey biotite-rich quartzite with patchy moderate chlorite alteration and blebby pyrite (1%)		1	
305	310	E00004351	Grey	QBS	60% quartzite as above and 40% light grey-white quartzite with <5% biotite. Both are weakly chlorite altered and have trace pyrite dissmination and blebbs.		0.1	
310	315	E00004352	Grey	QTZT	80% light grey-white biotite poor quartzite as above. Trace to 1% red mineral; 20% dark grey quartzite.		0.1	
315	320	E00004353	Grey	QTZT	70% light grey-white biotite poor quartzite and 30% darker grey more biotite rich quartzite, both with blebby and disseminated pyrite (trace); trace red mineral.	5	0.1	
320	325	E00004354	Light Grey	QTZT	Light quartzite as above (95%).	5	0.1	
325	330	E00004355	Light Grey	QTZT	As above, maybe 90% + 10% dark quartzite. Some of the white quartzite may be quartz veins.		0.1	
330	335	E00004356	Light Grey	QTZT	100% light grey-white quartzite as above. Still weak chlorite alteration, trace to 1% disseminated and blebby pyrite; could be some quartz vein but still looks dirty and slightly banded even in white quartzite.		1	
335	340	E00004357	Light Grey	QTZT	100% light grey-white quartzite as above. Still weak chlorite alteration, trace to 1% disseminated and blebby pyrite; could be some quartz vein but still looks dirty and slightly banded even in white quartzite.		1	
340	345	E00004358	Light Grey	QTZT	As above but very weak chlorite alteration and rare stronly chlorite chips. Pyrite content only ~0.5% disseminated blebs and strings.		0.5	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
345	350	E00004359	Light Grey	QTZT	As above; pyrite up to 1%		1	
350	355	E00004361	Light Grey	QTZT	As above. Pyrite 1% disseminated and small blebs.		1	
355	360	E00004362	Light Grey	QTZT	As above, pyrite down to 0.5%		0.5	
360	365	E00004363	Light Grey	QTZT	As above. Very slight increase in chlorite alteration intensity.		0.5	
365	370	E00004364	Light Grey	QTZT	As above with ~3% dark grey biotite rich pieces that have good pyrite mineralization.		0.5	
370	375	E00004365	Light Grey	QTZT	As above with ~10% dark grey biotite rich pieces that have 3-4% disseminated/blebby pyrite overall pyrite average for sample is ~1.5%		1.5	
375	380	E00004366	Light Grey	QTZT	100% light grey to white clean quartzite, very eak to weak chlorite alteration, several 2-3mm cubic pyrite crystals present, pyrit as disseminated.		0.3	
380	385	E00004367	Light Grey	QTZT	As above, ~5% up to 4mm perfect pyrite cubes.		5	
385	390	E00004368	Light Grey	QTZT	As above. Slight increase in grey pieces, pyrite as disseminated blebs and rare larger cubes.		1	
390	395	E00004369	Light Grey	QTZT	75% quartzite as above,25% QBS with moderate to strong foliation. 25-35% biotite, 0.5% pyrite predominantly in quartzite.		0.5	
395	400	E00004370	Grey	QBS	Dark grey, moderate to strong fabric. 25-35% biotite with brown plately biotite common to pyrite as fine disseminated.	2	0.1	
400	405	E00004371	Grey	QBS	As above. Homogeneous, very weak chlorite alteration.	2	0.1	
405	410	E00004373	Grey	QBS	As above. Slight decrease in biotite content to 20-30%	0.1	0.1	
410	415	E00004374	Grey	QBS	As above. Trace to 0.25% fine disseminated pyrite.	1	0.3	
415	420	E00004375	Grey	QBS	As above. Trace very fine disseminated pyrite		0.1	
420	425	E00004376	Grey	QBS	As above. Very fine disseminated pyrite.	2	0.1	
425	430	E00004377	Grey	QBS	As above. Trace dissminated pyrite	1	0.2	
430	435	E00004378	Grey	QBS	As above. Trace to 0.25% fine disseminated pyrite.	1	i '	

0	30		Brown	OB	top of frozen 'C' horizon had QBS; rock at ~33'		
20	25	500004270	Light	OT7T	70% light grey Bt poor <10% w/ wk + prevasive chlt alt'n; no sulfides visible; 30% darker grey (med grey)		
30	35	E00004379	Grey	QIZI	QTZT w/ >20% Bt, no alt'n, no sulfide; 30% oxidized chips [frozen ground]		
35	40	E00004381	Grey	QTZT	60% med grey QTZT, 40% light grey QTZT as above; 30% str-mod oxid chips	0.1	
40	45	E00004382	Grey	QTZT	as above, 75% med grey, 25% light grey; 15% oxid chips		
45	50	E00004383	Grey	QTZT	as above; tr diss py	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
50	55	E00004384	Grey Brown	QTZT	as above; 55% oxid (mod-str) chips		0.1	
55	60	E00004385	Grey	QTZT	as above; 30% oxid (mod-str) chips			
60	65	E00004386	Grey	QTZT	as above; 10% oxid (mod-str) chips			
65	70	E00004387	Grey	QTZT	as above; 15% oxid (mod-str) chips			
70	75	E00004388	Grey	QBS	as above; 5% oxid (mod-str) chips			
75	80	E00004389	Grey	QBS	as above			
80	85	E00004391	Grey	QBS	as above			
85	90	E00004392	Grey Brown	QBS	as above; 35% oxid str chips			
90	95	E00004393	Brown	QTZT	as above; 95% oxid str chips, intense?			
95	100	E00004394	Brown	QTZT	as above; 95% oxid str chips, intense?			
100	105	E00004395	Brown	QTZT	as above; 80% oxid			
105	110	E00004396	Brown Grey	QBS	as above; 40% oxid chips		0.1	
110	115	E00004397	Brown Grey	QTZT	as above; 30% oxid chips		0.1	
115	120	E00004398	Brown Grey	QBS	as above; 30% oxid chips			
120	125	E00004399	Brown Grey	QBS	as above; 30% oxid chips		0.1	
125	130	E00004400	Brown Grey	QBS	as above; 50% oxid chips			
130	135	E00004401	Brown Grey	QTZT	as above; 30% oxid chips		0.1	
135	140	E00004402	Brown Grey	QTZT	as above; 50% oxid chips; diss py		2	
140	145	E00004403	Brown Grey	QBS	as above; 35% oxid chips; diss and blebby py; slightly more Bt; tr red mineral or hemetite		2	
145	150	E00004404	Brown Grey	QTZT	as above; 25% oxid chips		0.1	
150	155	E00004405	Brown Grey	QTZT	as above; 20% oxid chips		0.1	
155	160	E00004406	Brown Grey	QTZT	as above; 25% oxid chips; fn diss py and euhedral med-course		1	
160	165	E00004407	Brown Grey	QTZT	as above; 30% oxid chips; fn diss, blebby py		3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
165	170	E00004408	Brown Grey	QTZT	as above; 25% oxid chips; fn diss, blebby py		2	
170	175	E00004409	Brown Grey	QTZT	as above; 30% oxid chips; fn diss, blebby py		1	
175	180	E00004410	Grey	QBS	as above; 10% oxid chips; tr chlt alt'n		1	
180	185	E00004412	Grey	QBS	as above; tr chlt; tr very fn diss py		0.1	
185	190	E00004413	Grey	QBS	same 95% med grey QTZT w/ 1% diss and blebby py; tr chlt		1	
190	195	E00004414	Grey	QTZT	as above; no alt'n		1	
195	200	E00004415	Grey	QTZT	as above		0.1	
200	205	E00004416	Grey	QBS	Bt (brownish) content increasing to 30-35%, nearly schistose; blebby and diss py		1	
205	210	E00004417	Grey	QBS	as above		1	
210	215	E00004418	Grey	QBS	as above		0.1	
215	220	E00004419	Light Grey/Gr een	QTZT	change to pale green grey QTZT w/ very little Bt and tr diss and blebby py; qtz eyes??		0.1	
220	225	E00004421	Light Green/G rey	QTZT	as above; select chips not coloured green			
225	230	E00004422	Light Green/G rey	QTZT	as above; 5% med grey QTZT		0.1	
230	235	E00004423	Grey	QBS	change to med grey Bt rich QTZT similar to previous; diss py		0.1	
235	240	E00004424	Grey	QBS	as above		0.1	
240	245	E00004425	Grey	QBS	as above; almost schistose		0.1	
245	250	E00004426	Grey	QBS	change to brown Bt rich qtzite just schistose, 55% previous QTZT; ~1-4% (up to) py as diss, blebs, fracture		2	
250	255	E00004427	Grey	QBS	mixed bn Bt rich QTZT (not quite schistose) and med grey QTZT (40-40%) plus 10% lt grey chlt alt'd QTZT		0.1	
255	260	E00004428	Grey	QBS	as above, no It grey QTZT; med grey QTZT has tr diss and blebby py; other QTZT almost schistose, brownish Bt and select wk-mod chlt alt'n		0.1	
260	265	E00004429	Grey	QBS	med grey QTZT with patchy mod chlt alt'n and very tr py diss		0.1	
265	270	E00004431	Grey	QBS	as above bk Bt rich It grey qtzite; more or less pervasively chlt alt'd mod-wk (green dust) no py; 10-15% white qtzite chips			
270	275	E00004432	Grey	QBS	as above but no discernable chlt alt'n			
275	280	E00004433	Grey	QBS	as above very weak chlt alt'n; tr diss py		0.1	
280	285	E00004434	Grey	QBS	as above very weak chlt alt'n; tr diss py		0.1	
285	290	E00004435	Grey	QBS	as above very weak chlt alt'n; tr diss py		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
290	295	E00004436	Grey	QBS	as above no chit alt'n, no py			

10	15	E00004437	Brown	OT7T	brown-grey depending on level of oxid'n, impure QTZT w up to 12% Bt; tr diss py; weathered [Note:	2	0 1	
10	15	200004437	Grey	QIZI	significant overburden contamination of fines in sample]		0.1	
15	20	F00004438	Brown	OBS	60% OBS 40% OTZT as above: OBS bas mod-str fabric 20-30% Bt	2	01	
13	20	200004450	Grey	<u>ч</u> вз			0.1	
20	25	F00004439	Brown	OBS	80% OBS 20% OTZT both as above: oxid'n/weathering decreasing slightly	3	01	
20	23	200004435	Grey	<u> </u>		Ĵ	0.1	
25	30	E00004440	Grey	QBS	as above, becoming fairly homogeneous, fol is generally str; oxid'n is decreasing	1		
30	35	E00004442	Grey	QBS	as above. Slightly weaker fabric; py as fn diss [Note small smaple]		0.1	
35	40	E00004443	Grey	QTZT	med grey, w/ 10-12% Bt, farily massive with faint fabric; 10% QBS as above		0.1	
40	45	E00004444	Grey	QTZT	as above, <5% QBS; slight increase in oxid'n; QTZT becoming slightly cleaner		0.1	
45	50	E00004445	Brown Grey	QTZT	85% QTZT, 15% QBS; increasing oxid'n		0.1	
50		500004446	Brown	0777		_	0.0	
50	55	E00004446	Grey	QIZI	90% Q121, 10% QBS, as above; by as th diss	2	0.3	
55	60	E00004447	Grey	QBS	65% QBS, 35% QTZT; QBS has mod-str fabric, 25-35% Bt; QTZT as above		0.1	
60	65	E00004448	Grey	QBS	as above; oxid'n decreasing			
65	70	E00004449	Grey	QTZT	med grey, impure w/ 8-12% Bt; py as diss and blebs		0.5	,
70	75	E00004451	Grey	QTZT	85% QTZT, 15% QBS both as above		0.3	,
75	80	E00004452	Grey	QTZT	med grey, impure QTZT w/ 10-12% Bt (80% of unit); 20% QBS, med grey, mod-str fabric, 25-30% Bt		0.3	
80	85	E00004453	Grey	QBS	80% QTZT, 20% QBS both as above		0.1	
85	90	E00004454	Grey	QBS	mod-str fabric, 25-35% Bt, minor brown Bt		0.1	
90	95	E00004455	Grey	QBS	as above, ~5% oxidized qtz vn	5		
95	100	E00004456	Grey	QBS	80% QBS, 20% QTZT; QBS has mod fabric, 20-25% Bt; QTZT med grey, impure, 10-12% Bt	2		
100	105	E00004457	Grey	QTZT	fairly impure med-dark grey QTZT, 10-15% Bt, no clear fabric	2		
105	110	E00004458	Grey	QTZT	as above, ~10% of pieces fairly clean qtz		0.1	
110	115	E00004459	Grey	QTZT	as above, becoming slightly cleaner w/ 5-10% Bt; oxid'n on ~15% of fracs			
115	120	E00004461	Grey	QBS	~10% QBS; mix of fairly clean and impure QTZT; py as diss and small blebs		0.3	,
120	125	E00004462	Grey	QBS	med-dark grey, impure QTZT w/ 10-15% Bt, slight granular texture, pieces w/ higher Bt have faint fabric			
125	130	E00004463	Grey	QBS	85% QBS, 15% QTZT; QBS has lower Bt content at ~15-25%, wk to mod fabric (transition b/t QBS and QTZT?)			
130	135	E00004464	Grey	QTZT	<10% QBS; med grey impure QTZT w/ 10-15% Bt, granular appearence; tr diss py	3	0.1	
135	140	E00004465	Grey	QTZT	<10% QBS; QTZT as above; py as diss, one larger cube observed	1	0.3	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
140	145	E00004466	Grey	QTZT	as above, becoming slightly cleaner, 8-12% Bt, minor oxid'n		0.1	
145	150	E00004467	Grey	QTZT	as above, decrease in Bt to 8-10%; oxid'n increased slightly, 20% of fracs			
150	155	E00004468	Grey	QTZT	as above; py as predom diss/blebs w/ minor stringers following fabric		1	
155	160	E00004469	Grey	QBS	as above, ~10% of pieces look like QBS w/ wk fabric and Bt content of 20-25%		0.1	
160	165	E00004470	Grey	QBS	as above, wk fabric in select pieces w/ higher Bt content		0.1	
165	170	E00004472	Grey	QBS	as above, very faint fabric t/o as Bt xtals lining up, 8-15% Bt			
170	175	E00004473	Grey	QBS	as above, fairly homogeneous			
175	180	E00004474	Grey	QBS	as above, 15% QBS pieces with increased Bt and slight schistose fabric (not typical QBS); ~1% QV w/ wk oxid'n of qtz	1		
180	185	E00004475	Grey	QTZT	boarderline QBS, very wk schistose fabric t/o, ~20% could be classed QBS; rare fracs w/ oxid'n	2		
185	190	E00004476	Grey	QBS	as above, ~15-20% could be classsed a schist (QBS); oxid'n on rare fracs	4		
190	195	E00004477	Grey	QBS	as above, 10-20% Bt, ~25% of pieces have schistose fabric (QBS); 8% translucent qtz vn	8	0.1	
195	200	E00004478	Grey	QBS	as above, ~40% of pieces have wk fabric (QBS)	5		
200	205	E00004479	Grey	QBS	as above, Bt 12-15%, still boarderline schist w/ wk fabric/fol, ~25% could be QBS	1	0.1	
205	210	E00004481	Grey	QBS	as above, ~20% w/ wk schistose fabric; tr py as fine diss; oxid'n on select fractures	1	0.1	
210	215	E00004482	Grey	QBS	very similar compostion to above, 15-20% Bt, brown Bt common, fabric is wk but enough to switch to schist		0.1	
215	220	E00004483	Grey	QBS	as above, ~20% of pieces lack significant fabric	2	0.1	
220	225	E00004484	Grey	QBS	as above, 15-25% Bt, wk fabric, 10% w/ little to no fabric; py as diss and very small blebs	0.1	0.3	
225	230	E00004485	Grey	QBS	Bt content and strength of fabric decreasing, boarderline schist, 10-15% Bt			
230	235	E00004486	Grey	QBS	as above, low Bt content, wk fabric, 10-15% Bt		0.1	
235	240	E00004487	Grey	QBS	as above, ~20% QTZT w/ low Bt content and no fabric; oxid'n on 20% of fracs		0.1	
240	245	E00004488	Grey	QBS	15-20% Bt, wk fabric, oxid'n on select fracs; possible very wk chlt alt'n	5		
245	250	E00004489	Grey	QBS	as above, ~15% QTZT			
250	255	E00004491	Brown Grey	QBS	as above, ~10% QTZT, increase in oxid'n to 25%			
255	260	E00004492	Brown Grey	QTZT	80% QTZT, 20% QBS, very impure QTZT w/ 10-12% Bt, fabric lacking; increasing oxid'n	0.1		
260	265	E00004493	Grey	QBS	60% QTZT, 40% QBS; QTZT is impure w/ 10-15% Bt; QBS has wk-mod fabric and slightly more Bt at 15-20%; oxid'n dropping off	1	0.1	
265	270	E00004494	Grey	QTZT	med grey, 8-12% Bt, slight granular texture, select pieces w/ very wk fabric; py as diss and small blebs (mm scale)	1	0.5	
270	275	E00004495	Light Grey	QTZT	60% as above, 40% clean pure greyish white qtz; rare oxid'n		0.1	
275	280	E00004496	Grey	QTZT	med grey, fairly homogeneous w/ 5-8% Bt; py predom as diss		0.3	
280	285	E00004497	Grey	QTZT	as above; py increasing to 0.5-1% as diss and occasional blebs		0.8	
285	290	E00004498	Grey	QTZT	as above, fairly homogeneous		0.5	
290	295	E00004499	Grey	QTZT	as above; 0.5-1% diss/blebby py		0.8	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
295	300	E00004500	Grey	QTZT	as above, slight increase in py to ~1% diss and small blebs		1	
300	305	E00004601	Grey	QTZT	as above; py as diss and blebs, one stringer observed		0.8	
305	310	E00004602	Grey	QTZT	as above, a few oxid'd pieces present		0.5	
310	315	E00004603	Grey	QTZT	med grey, massive, very homogeneous		0.3	
315	320	E00004604	Grey	QTZT	as above, increase in py as diss and small blebs		4	
320	325	E00004605	Grey	QTZT	as above; py 0.75-1% diss/blebby		1	
325	330	E00004606	Grey	QBS	as above; py drop to 0.5%		0.5	
330	335	E00004607	Grey	QBS	as above; py as diss at ~0.25%		0.3	
335	340	E00004608	Grey	QBS	slightly cleaner		0.2	
340	345	E00004609	Light Grey	QBS	becoming very clean, 5-8% platey brown Bt; tr py		0.1	

0	15			OB				
15	20	E00004610	Brown	QBS	well oxidized (100% of chips); no vis sulfides			
20	25	E00004612	Brown	QBS	<20% muscovite, 90% oxidized mod-str [small sample, fine chips]			
25	30	E00004613	Brown Grey	QBS	20-30% muscovite(?); 80% oxidized chips; very small chips		0.1	
30	35	E00004614	Brown	QBS	<10% muscovite; 70% oxidized (str) schips; more qtz rich; Bt poor chips have wk chlt alt'n; tr bleb py		0.1	
35	40	E00004615	Dark Brown/G rey	QBS	brown Bt-rich; no oxidation; tr poss py		0.1	
40	45	E00004616	Brown Grey	QBS	as above; 15% lime green qtz rich chips, str chlt alt'n; tr blebby and diss py		0.1	
45	50	E00004617	Brown Grey	QBS	as above, ~15% wkly chlt alt'd qtz rich white QTZT; ~1% blebby and diss py; poss aspy		0.1	
50	55	E00004618	Green	QTZT	change to intense green (epidote like) alt'n in apparent qtzite; very hard slow drilling; no sulfide; 10% QBS as above	2		
55	60	E00004619	Grey Green	QBS	as above QBS; 15% lime green as above; 20% Bt poor QTZT w/ no py			
60	65	E00004621	Brown Grey	QBS	as above QBS; 20% str chlt alt'd Bt poor QTZT; 1% blebby py		0.1	
65	70	E00004622	Grey	QBS	QBS as above; 40% Bt rich QTZT; str-mod chlt alt'n; 2% diss and bleb py; QTZT is dark green w/ lt gy; x- cutting mm qtz vn	2	2	
70	75	E00004623	Grey	QBS	as above except QTZT has no light green alt'n; <py< td=""><td></td><td>0.1</td><td>1</td></py<>		0.1	1

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
75	80	E00004624	Grey/Da rk Green	QBS	70% QTZT as above (dk green and light green) w/ diss and blebby py (must be str chlt and epidote alt'n)	1	1	
80	85	E00004625	Grey	QBS	as above; no lt green alt'n (epidote?); str chlt; 30% QBS	1	1	
85	90	E00004626	Brown Grey	QBS	as above but 55% brown QBS and 45% QTZT [rep sample has extra white QTZT chips]		1	
90	95	E00004627	Brown Grey	QBS	QBS 60% (as above); 30% dark green QTZT (as above), 10% It grey QTZT w/ 2% globby py and mod chlt alt'n	2	1	
95	100	E00004628	Brownis h Grey	QBS	QBS 70% (as above) 20% dk green QTZT; 10% lt grey QTZT		1	
100	105	E00004629	Brown Grey	QBS	as above, QBS is unaltered w/ poss tr diss py		1	
105	110	E00004631	Brownis h Grey	QBS	90% QBS; 10% dk green QTZT w/ 2% blebby py		0.1	
110	115	E00004632	Brown Grey	QBS	80% QBS; 20% dk grey QTZT (as above but less chlt alt'n)		0.1	
115	120	E00004633	Dark Green	QBCS	95% dk green QTZT; str chlt alt'n; <2% diss and blebby py; 2% of chips str oxid'n		1.5	
120	125	E00004634	Dark Green	QCBS	98% QTZT as above, str fabric; 2% QBS as above		2	
125	130	E00004635	Dark Green	QCS	85% QTZT as above; 15% lt gy-white QTZT w/ mod oxid'n		0.1	
130	135	E00004636	Orange	FPOR	change to 90% orange-brown rock, very hard (<6), clean smooth aphanitic			
135	140	E00004637	Orange	FPOR	as above; looking more oxid'd on surface of most chips; colour mix and more tan, sometimes gradational possible qtz eyes			
140	145	E00004638	Orange Brown	FPOR	as above			
145	150	E00004639	Orange Brown	FPOR	as above; tan (purple) is more common and a black mineral in it; 20% yellowish to greenish chips - same?			
150	155	E00004640	Orange Brown	FPOR	as above; orange to yellowy gradational sometimes qtz eyes more visible in purple tan pieces			
155	160	E00004642	Brown Grey	FPOR	as above orange to grey tan w/ qtz eyes; some oxid'd surfaces			
160	165	E00004643	Brown Grey	FPOR	as above			
165	170	E00004644	Orange Yellow	FPOR	as above; more orangy-yellow; 40% oxidized surfaces			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
170	175	E00004645	Orange Yellow	FPOR	as above			
175	180	E00004646	Orange Yellow	FPOR	as above, 50% oxidized str chips mostly along edges			
180	185	E00004647	Orange Grey	FPOR	same unit but predomiantely greenish grey w/ qtz eyes more visible, less black mineral; still 30-35% orange (sometimes gradational) and 20% oxidized surfaces; no sulfides			
185	190	E00004648	Orange Grey	FPOR	same unit, now greenish grey to lt purple brownish; 20% oxid'd surfaces			
190	195	E00004649	Light Grey/Gr een	QBS	60% dark green QTZT w/ white qtz, bt rich str fabric and tr diss/blebby py, str chlt alt'd; 40% previous unit		0.1	
195	200	E00004651	Dark Grey	QBS	dk green-grey QTZT w/ white qtz as above		1	
200	205	E00004652	Dark Grey	QBS	as above, less banded w/ white qtz but higher diss py		2	
205	210	E00004653	Grey	QBS	as above mixed w/ speckled QTZT w/ fine <20% Bt and oxidized QV; tr hematite on surfaces	5	0.1	
210	215	E00004654	Dark Green	QBCS	dark green QTZT seen earlier, white qtz often mm banded; mod-str chlt pervassively alt'd	1		
215	220	E00004655	Dark Green	QBCS	as above, almost schistose; tr blebby py		0.1	
220	225	E00004656	Dark Green	QCBS	as above, looks like bottom of YCS16-16		1	
225	230	E00004657	Dark Green	QCBS	as above, tr-1% diss fine to med, sometimes euhedral py		1	
230	235	E00004658	Dark Green	QCS	as above, white QV sometimes w/ very str chlt and py	5	0.1	
235	240	E00004659	Dark Green	QCS	as above	3	0.1	
240	245	E00004661	Grey	QCS	as above		0.1	
245	250	E00004662	Grey	QCS	as above		0.1	

5	10	E00004663	Dark Green	CS	dark green, well foliated along thin planes, soft (<6); tr very fn py; 5% oxidized chips	0.1	
10	15	E00004664	Dark Green	CS	as above; mm qtz bands along fol and x-cutting; 5% tan QTZT? [fast drilling]	0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
15	20	E00004665	Dark Green/B rown	cs	55% CS as above; 35% tan QTZT? w/ tr-10% magnetite and 10% QBS		0.1	
20	25	E00004666	Dark Green/B rown	cs	50% CS; 20% chlorite poor grey QTZT w/ tr-4% py + magnetite (rarely)		1	
25	30	E00004667	Dark Green	CS	strongly silicified CS w/ 2%+ diss and stringer py; not magnetic; 5% tan QTZT		2	
30	35	E00004668	Dark Green	CS	strongly silicified CS w/ tr-3% fn and course diss py; occassionally magnetic		3	
35	40	E00004669	Dark Green	CS	as above		1	
40	45	E00004670	Dark Green	CS	as above; very rare magnetic chips; 5% mod oxidized fractures		1.5	
45	50	E00004672	Brown/D ark Green	QTZT	60% light tan sometimes grey QTZT with tr-4% py diss, some black mineral and rarely mangnetite; 40% highly silicified CS ~tr-2% diss py and rarely magnetic		2	
50	55	E00004673	Dark Green/ White	QCS	55% QCS w/ tr-2% diss and blebby py, occassionally mag; 45% CS also tr-2% py and rarely magnetic		2	
55	60	E00004674	White/D ark Green	CS	60% CS as above, 40% QCS as above; rare mm x-cutting QVs in CS		2	
60	65	E00004675	Grey	CS	salt & pepper biotite (20-35%) bearing white QTZT (mod fabric); ~ 10% CS; rare tr py		0.1	
65	70	E00004676	Grey/Da rk Green	CS	mod to well silic CS (70%) as above and 30% salt and pepper QTZT (as above)		1	
70	75	E00004677	Brown/D ark Green	CS	70% str silic CS w/ <2% py; 30% tan QTZT? As above		2	
75	80	E00004678	Dark Grey/Gr een	CS	65% CS as above; 35% grey QTZT w/ <15% biotite or chlt; tr magnetic		0.1	
80	85	E00004679	Brown Grey	CS	55% CS as above w/ QCS; 30% tan QTZT (as above); 15% grey QTZT (as above); mm white qtz vnlt x-cutting vns		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
85	90	E00004681	Brown/D ark Green	cs	65% CS (as above), 35% mixed tan and grey QTZT, variably magnetic, whitish tan has tr-10% magnetite		0.1	
90	95	E00004682	Dark Green	cs	80% str silic CS w/ tr py, some qtz bands, traces magnetite; 20% tan to grey QTZT w/ traces magnetite		0.1	
95	100	E00004683	Green Grey	CS	dark grey, hard, silicified CS; ~15% lt grey QTZT; tr magnetite (wkly mag)		0.1	
100	105	E00004684	Green Grey	cs	as above, minor amounts of Bt (2-3%); ~10% It grey QTZT; tr very fn magnetite		0.1	
105	110	E00004685	Green Grey	CS	as above; becoming fairly homogeneous; tr magnetite (wkly mag)		0.1	
110	115	E00004686	Green Grey	CS	as above, becoming quite dark and uniform, str fabic; silic is decreasing; very wk mag		0.1	
115	120	E00004687	Green Grey	CS	as above, ~5% pale grey QTZT; very wk mag		0.1	
120	125	E00004688	Green Grey	CS	as above, Bt content increasing, ~20% of pieces have up to 10% Bt (maybe transioning to QBS)		0.1	
125	130	E00004689	Green Grey	CS	similar to above, Bt increasing (CBS?), str fabric, homogeneous, wkly mag			
130	135	E00004691	Green Grey	CS	as above, wkly mag, tr diss py	0.1	0.1	
135	140	E00004692	Green Grey	CS	as above, increasing Bt and silic; ~10% QBS?; tr fn diss py		0.1	
140	145	E00004693	Green Grey	CS	as above, fairly homogeneous, ~25% of pieces have Bt		0.1	
145	150	E00004694	Green Grey	QBCS	dark green-grey, homogeneous, 25-35% Bt, up to 5% chlt and wk chlt alt'n; mod-str fabric			
150	155	E00004695	Green Grey	QBCS	as above, tr diss py following fabric		0.1	
155	160	E00004696	Green Grey	QCS	as above, chlt t/o w/ ~10% QCS pieces, remainder has 2-5% chlt w/ Bt in QBS			
160	165	E00004697	Green Grey	QCS	as above, continues to have chlt, ~10% QCS; very tr diss py			
165	170	E00004698	Green Grey	QBCS	as above, ~10% QCS; 5-8% chlt in QBS, 25-30% Bt, tr diss py following fabric		0.1	
170	175	E00004699	Green Grey	QBCS	as above, 5-8% chlt in QBS; appears to have wk chlt alt'n t/o		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
175	180	E00004700	Green Grey	QBCS	as above, ver tr diss py			
180	185	E00004701	Green Grey	QBCS	as above, 5-8% chlt, 20-25% Bt, str fabric, tr diss py following fabric	2	0.1	
185	190	E00004702	Green Grey	QBCS	as above, chlt alt'n increasing	2	0.1	
190	195	E00004703	Green Grey	QBCS	as above, homogeneous, mod-str fabric; tr diss py	0.1	0.1	
195	200	E00004704	Green Grey	QBCS	as above, tr diss py		0.1	
200	205	E00004705	Green Grey	QBCS	as above, tr diss py		0.1	
205	210	E00004706	Green Grey	QBCS	75% QBS, 25% QCS, chlt content increasing; QBS minor chlt 2-5%; QCS has 15-20% chlt			
210	215	E00004707	Green Grey	QBCS	60% QCS, 40% QBS both as above; QBS has minor chlt and QCS has Bt			
215	220	E00004708	Green Grey	QCS	dark gn-grey, mod-str fabric, 20-25% chlt, 5-10% Bt, qtz+chlt+bt schist?; <10% QBS			
220	225	E00004709	Green Grey	QCS	as above, qtz+chlt+bt; <10% QBS; py as fn (pinhead) diss		0.1	
225	230	E00004710	Green Grey	QCS	Bt content dropping, ~25% of pieces clean QCS w/ 15-20% chlt			
230	235	E00004712	Green Grey	QCS	dark green-grey, mod-str fabric, 15-20% chlt, 10-15% Bt; ~10% QBS			
235	240	E00004713	Green Grey	QCS	as above, increasing py as diss and small blebs		0.3	
240	245	E00004714	Green Grey	QBS	75% QBS, 25% QCS; QBS has minor chlt 2-3% as well as mod chlt alt'n; tr diss py	0.1	0.1	
245	250	E00004715	Green Grey	QCS	green-grey, str fabric, 20-25% chlt, minor Bt (1-2%)	3		
250	255	E00004716	Green Grey	QCS	60% QCS similar to above but chlt content dropping 15-20%; 35% pale green-grey QTZT w/ chlt alt'n; 5% QBS			
255	260	E00004717	Green Grey	QBS	65% QTZT, pale green grey; 20% QCS w/ good fabric; 15% QBS			
260	265	E00004718	Green Grey	QBS	75% pale green chlt alt'd; 25% impure Bt rich w/ 10-15% Bt; v. Tr py			

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
265	270	E00004719	Green Grey	QCS	60% QCS, 40% QTZT; QCS has mod fabric, 15-20% chlt; QTZT ranges from clean to 10% chlt; both units have Bt up to 8%			
270	275	E00004721	Green Grey	QCBS	80% QCS, 20% QTZT both as above			
275	280	E00004722	Green Grey	QCS	85% QCS, 15% QTZT, both as above, Bt content slightly lower ~5%			
280	285	E00004723	Green Grey	QCS	green-grey, 25-30% chlt, mod-str fabric, up to 5% Bt, very tr py	0.1		
285	290	E00004724	Green Grey	QCS	as above, very tr to tr diss py	2	0.1	
290	295	E00004725	Green Grey	QCS	as above, ~10% QBS; ~4mm chlt vn cutting qtz vn, QV follows fabric	4		
295	300	E00004726	Green Grey	QBS	60% QBS w/ mod-str fabric, 20-25% Bt; 40% QCS as above			
300	305	E00004727	Green Grey	QBS	str chlt alt'n giving a greenish colour, mod-str fabric, 20-25% Bt	2		
305	310	E00004728	Green Grey	QBS	60% QBS as above, 40% QTZT that is pale grey and predom clean; chlt alt'n of QBS			
310	315	E00004729	Brown Grey	QTZT	tan-grey, massive, homogeneous pure QTZT; wk chlt alt'n gives a greenish tinge			
315	320	E00004731	Brown Grey	QTZT	90% QTZT as above; 10% chlt alt'd QBS			
320	325	E00004732	Green Grey	QBCS	green-grey, mod-str fabric, 30-35% Bt, homogeneous, str chlt alt'n			
325	330	E00004733	Green Grey	QBCS	as above, str chlt alt'n			
330	335	E00004734	Green Grey	QBCS	as above, select pieces w/ very str fabric, str chlt alt'n	2		
335	340	E00004735	Grey Green	QBCS	as above, fabric mod to occassionally str, slight decrease in chlt alt'n	3		
340	345	E00004736	Grey Green	QBCS	as above, str chlt alt'n			
345	350	E00004737	Grey Green	QBCS	as above, decrease in Bt content to 25-30%; str chlt alt'n	0.1		
350	355	E00004738	Grey Green	QBCS	as above, str chlt alt'n	0.1		

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
355	360	E00004739	Grey Green	QBCS	as above, mod fabric, 20-25% Bt; str chlt alt'n; very tr py	0.1		
360	365	E00004740	Grey Green	QBCS	as above, str chlt alt'n, very diss py	1		
365	370	E00004742	Grey Green	QBCS	as above, str chlt alt'n; very tr py as fracture coat; very homogeneous	0.1		
370	375	E00004743	Grey Green	QBCS	as above, str chlt alt'n			
375	380	E00004744	Grey Green	QBCS	as above, str chlt alt'n	2		

0	10			OB				
10	15	E0000474E	Croy	OPS	Lightish grey quarztite with ~20-25% biotite moderate fabric; top half of interval had ~40% quartz vein and	2 5		
10	12	E00004745	Grey	QBS	mixed QMS and quartzite, 5% oxidized, no sulphides seen	2.5		
15	20	E00004746	Grey	QBS	As above; muscovite is common in 1/2 chips so ~10%, 40% oxidized chips.			
20	25	E00004747	Grey	QBS	As above. ~35% moderately oxidized chips			
25	30	E00004748	Grey	QBS	As above; almost schistose, 25% oxidation			
30	35	E00004749	Grey	QBS	As above; almost schistose, 15% oxidation		0.1	
25	40	E00004751	Grey	OT7T	As above light and medium grev quartz 45% evidation	2	0.1	
55	40	200004731	Green	QIZI	As above. Light and medium grey quartz, 45% oxidation	5	0.1	
40	15	E00004752	Grev	ОТ7Т	Darker grey quartzm more abundant and trace disseminated fine pyrite. 25% oxidized chips moderate to		0 1	
40	43	200004732	uley	QIZI	strong, 35% lighter quartzite		0.1	
45	50	E00004753	Grey	QBS	55% 45% dark quartzite and light quartzite. 60% oxidized some intensely, generallt strong.		0.1	
FO		E000047E4	Croy	ОТ7Т	70% dark grey quartzite with trace to 1% blebby and disseminated pyrite; 30% quartzite as above. 25%		1	
50	55	200004754	Grey	QIZI	oxidized moderate to strong with minor intensity (<10%).		T	
55	60	E00004755	Grey	QTZT	90% dark quartzite with trace pyrite, 30% oxidized	5	0.1	
60	65	E00004756	Grey	QTZT	70% dark quartzite, 30% light quartzite	5	0.1	
65	70	E00004757	Grey	QTZT	80% dark quartzite, 20% light quartzite	2	0.1	
70	75	E00004758	Grey	QTZT	As above. 30% fine oxidized chips.	5		
75	80	E00004759	Grey	QTZT	As above. 40% of chips flat surfaces. Strongly oxidized.	5	0.1	
80	85	E00004761	Grey	QTZT	Generally light quartzite with pervasively strong oxidation on 75% of chips, hard to see pyrite		0.1	
OF	00	500004762	Orange	OT7T	Mixed light and dark grey quartzite; no oxidation, trace chlorite and sericite alteration; 15% white granular		0.1	
65	90	200004762	Brown	QIZI	quartzite.		0.1	
00	0.5	500004762	Crow	OT7T	Mix of light and medium grey quartzite, minor dark weak chlorite alteration on light; trace disseminated		0.1	
90	95	E00004763	Grey	QIZI	pyrite.		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
95	100	E00004764	Grey	QBS	As above; a few pieces show its a banded white-medium dark grey quartzite with very weak chlorite alteration.		0.1	
100	105	E00004765	Grey	QBS	As above: "zebra" quartzite very trace disseminated pyrite and very weak selective chlorite alteration; rare chips of cross-cutting rare white quartz veinlets.		0.1	
105	110	E00004766	Grey	QBS	Biotite increasing to make schistose, could be gradational but probably abrupt brownish botite; no alteration, no sulphides.	3		
110	115	E00004767	Grey	QBS	Grey monotone quartzite. No visible sulphides. 20% QBS.			
115	120	E00004768	Grey	QBS	As above but trace fine disseminated pyrite. 30% QBS.	5	0.1	
120	125	E00004769	Grey	QBS	Light to medium grey quartzite with very trace pyrite		0.1	
125	130	E00004770	Grey	QBS	Light to medium grey quartzite with very trace pyrite	1	0.1	
130	135	E00004772	Grey	QBS	Light to medium grey quartzite with very trace pyrite. Almost schistose; very metallic lustre.			
135	140	E00004773	Grey	QBS	Light to medium grey quartzite with very trace pyrite		0.1	
140	145	E00004774	Grey	QBS	Light to medium grey quartzite with very trace pyrite. 2% of chips have strong oxidation fractures.	1		
145	150	E00004775	Grey	QTZT	Light to medium grey quartzite with very trace pyrite. 3% pyrite as fine disseminated and blebs.		3	
150	155	E00004776	Grey	QTZT	Mostly medium grey quartzite. 3% pyrite as disseminated, blebs and strings, and along fractures.		3	
155	160	E00004777	Grey	QTZT	As above but ~1% pyrite; 3% strongly oxidized chips.		1	
160	165	E00004778	Grey	QTZT	As above but ~2% pyrite; trace strongly oxidized chips.		2	
165	170	E00004779	Grey	QTZT	As above. Medium grey quartzite, trace to 1% blebby pyrite, 5% strongly oxidized chips.		1	
170	175	E00004781	Grey	QBS	As above but a bit grainier. Trace pyrite, 10% strongly oxidized chips.	7	0.1	
175	180	E00004782	Brown Grey	QBS	60% QBS, 40% quartzite as above; 30% moderate to strongly oxidized chips on surfaces	1		
180	185	E00004783	Grey	QTZT	70% quartzite as above with very fine 1% disseminated pyrite; cross cutting massive quartz veins, some highly oxidized, 25% strongly oxidized chips	1	0.1	
185	190	E00004784	Grey	QTZT	100% white and medium grey banded; 1% fine disseminated and blebby pyrite	1	1	
190	195	E00004785	Grey	QTZT	Mostly grey; trace patchy disseminated pyrite	1	0.1	
195	200	E00004786	Grey	QTZT	As above; weak pervasive chlorite alteration	1	0.1	
200	205	E00004787	Grey	QBS	As above; almost schistose, biotite increasing; patchy trace disseminated pyrite		0.1	
			Dark					
205	210	E00004788	Brown/G	QBS	Dark brownish QBS with 3% blebby and disseminated pyrite		3	
			rey					
210	215	E00004789	Grey	QBS	As above with 20% Quartzite; 3% pyrite blebs, fine disseminated and fractured		3	
215	220	E00004791	Grey	QBS	As above; Trace pyrite (difficult to discern sulphides)		0.1	
220	225	E00004792	Grey	QBS	50/50 QBS and quartzite as above; trace pyrite		0.1	
225	230	E00004793	Grey	QBS	Grey quartzite with <20% QBS; trace disseminated pyrite.		0.1	
230	235	E00004794	Grey	QBS	As above; <30% QBS; trace disseminated pyrite.		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	РО
235	240	E00004795	Grey	QBS	As above; ~40% QBS. Very similar to quartzite, trace disseminated pyrite		0.1	
240	245	E00004796	Grey	QBS	As ab ove; <25% QBS, possibly trace arsenopyrite.		0.1	
245	250	E00004797	Grey	QBS	grey banded medium grey quartzite with trace disseminated pyrite		0.1	
250	255	E00004798	Grey	QBS	As above with very weak chlorite alteration, pervasive.		0.1	
255	260	E00004799	Grev	OTZT	Very light grey very biotite poor quartzite with 1% blebby pyrite; odd/unusual clay balls in rep sample.		1	
			,	`	Very weak chlorite pervasive alteration.			
260	265	F00004800	Dark	ocs	Dark green with white quartz chips; epidote mm cross cutting veins; does not have felty look of chlorite		0.1	
			Grey	~~~	schist or QCS and doesn't have green dust. Moderate chlorite altered pervasively.			
265	270	E00004801	Dark Grev	QCS	As above; quartz is greenish; <5% chips with epidote.		0.1	
270	275	E00004802	Grev	ocs	More grey now with slight greenish hue, no visible sulphides; 30% biotite (black)			
275	280	F00004803	Grev	OCBS	As above: moderate chlorite alteration		0.1	
			Dark	~				
280	285	E00004804	Grey	QBCS	As above; 30% white quartz probably bands		0.1	
205	200	E00004805	Light	OT7T	Change to white-light grey biotite free to poor (<10%) quartzite; 1% blebs and trace disseminated pyrite;		1	
205	Grey		QIZI	very weak patchy chlorite alteration				
290	295	E00004806	White Grey	QTZT	70% of above white/light grey quartzite and 30% dark biotite-rich quartzite with trace pyrite		0.1	
295	300	E00004807	White Grev	QBS	Banded white to black (dark grey) quartzite, very low biotite <2% to ~30%, trace dissminated pyrite		0.1	
300	305	E00004808	White Grey	QBS	As above except seems gradational weak fabric.		0.1	
305	310	E00004809	Grey	QBS	As above except seems gradational weak fabric.			
310	315	E00004810	Orange	QBCS	As above. A few chips, mostly dark grey, ~10% light white; chips show banding; almost schit			
315	320	E00004812	Dark Grey	QBCS	As above. Trace blebby pyrite.		0.1	
320	325	E00004813	Grey	QBCS	As above. Trace blebby pyrite. 15-20% white quartzite.		0.1	
325	330	E00004814	Grey	QBS	As above.		0.1	
330	335	E00004815	Grey	QBS	As above. More even mix. Light medium and dark grey plus trace magnetite and red mineral.		0.1	
335	340	E00004816	Light	OTZT	Light grey biotite poor (~<10%) with weak chlorite alteration, patchy weak sericite. Trace magnetic			
			Grey		susceptability, trace red mineral (possibly hematite).	<u> </u>		$\square$
340	345	E00004817	Light Grey	QTZT	As above but 1% disseminated pyrite.		1	
345	350	E00004818	Light Grey	QTZT	As above but trace pyrite.		0.1	

From (ft)	To (ft)	SampleID	Colour	Lith Code	Description	Qtz Vn %	PY %	PO
350	355	E00004819	Light Grey	QTZT	As above; trace pyrite, very trace magnetic susceptability chip		0.1	
355	360	E00004821	Light Grey	QTZT	As above; trace pyrit, trace sericite		0.1	
360	365	E00004822	Light Grey	QTZT	As above.		0.1	
365	370	E00004823	Grey	QBS	Medium to dark grey biotite rich quartzite (~30% biotite), very weak chlorite alteration, no sulphides seen.			
370	375	E00004824	Grey	QBS	As above with ~20% biotite weak fabric, trace disseminated pyrite.		0.1	
375	380	E00004825	Green Grey	QBS	As above, but almost schistose; 25% epidote chips (alteration), no pyrite.			
380	385	E00004826	Grey	QBS	As above, slightly richer in biotite in 30% of chips.	1		

## APPENDIX 2 LABORATORY ASSAY CERTIFICATES, CERTIFICATION AND ANALYTICAL METHOD SUMMARIES

### Standards Council of Canada

### Conseil canadien des normes

600-55 Metcalfe Street Ottawa, ON K1P 6L5 Canada 55, rue Metcalfe, bureau 600 Ottawa, ON K1P 6L5 Canada

### SCOPE OF ACCREDITATION

SGS Canada Inc. SGS CANADA MINERALS SERVICES 3260 Production Way Suite E Burnaby, BC V5A4W4

Accredited Laboratory No. 744 (Conforms with requirements of CAN-P-1579 , CAN-P-1587 , CAN-P-4E (ISO/IEC 17025:2005))

CONTACT:	Valerie Kuch
TEL:	+1 705 652 2044
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EMAIL:	valerie.kuch@sgs.com
CLIENTS SERVED:	Mining, Exploration, Research and Industrial Clients - Worldwide
FIELDS OF TESTING:	Chemical/Physical
PROGRAM SPECIALTY AREA:	Agriculture Inputs, Food, Animal Health and Plant Protection (PSA-AFAP), Mineral Analysis
SCOPE ISSUED ON:	2016-02-22
ACCREDITATION	2020-04-05

### CHEMICALS AND CHEMICAL PRODUCTS

### **Chemicals for Agricultural Industry:**

VALID TO:

SPPA Potassium in FertilizersSPPA: Saskatchewan Potash Producers Association, Inc.<br/>(SPPA) Sample Preparation Procedures Standard<br/>Analytical Procedures & Standard Physical Testing<br/>Procedures For The Analysis of Potassium (K2O) and

Standards Council of Canada Accredited Laboratory No. 744

Sodium Chloride (NaCl) in Potassium Chloride & other Fertilizers [K2O; NaCl; KCL]

### **METALLIC ORES AND PRODUCTS**

**Metallic Ores:** 

**Rocks and Ores** 

(Sediments, sands, soils, stones Precious Metals)

### **Mineral Analysis Testing**

(see Note 1 concerning off site physical sample preparation)

### Assay, Umpire Assay Work

### **Mineral Assaying**

GE_AAS12E	Determination of Silver in Geological Samples by Nitric and Hydrochloric Acid (aqua regia) Digestion and Atomic-Absorption Spectroscopy (AAS) [Ag;HCl; HNO <sub>3</sub> ]
GE_AAS42E	Determination of Silver in Geological Samples by Multi-acid Digestion and Atomic-Absorption Spectroscopy (AAS) [Ag; HNO <sub>3</sub> ; HClO <sub>4</sub> ; HF and HCl]
GE_CSA06V	Determination of Total Sulphur and Carbon in Geological Samples Using Infrared (IR) Combustion [S; C; LECO]
GE_FAA313-FAA515	The Determination of Exploration Grade Gold by Lead Fusion Fire Assay and Atomic Absorption Finish [30g.; 50g.; Au; HNO <sub>3</sub> , HCl, AAS]
GE_FAI313-FAI515	Determination of Gold, Platinum and Palladium by Lead Fusion Fire Assay and Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) [Au; Pt; Pd; HNO <sub>3</sub> ; HCl]
GE_ICM14B	Determination of Fifty two (52) Elements in Geological Samples using an Aqua Regia Digestion and a Combination of Inductively Coupled Plasma Emission Spectrometry (ICP-OES) and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) [HNO <sub>3</sub> ; HCl; Al; Sb; As; Ba; Be; Bi; B; Ca; Cd; Ce; Cs; Cr; Co; Cu; Ga; Ge; Hf; In; Fe; La; Pb; Li; Lu; Mg; Mn; Hg; Mo; Ni; Nb; P; K; Rb; Sc; Se; Ag; Na; Sr; S; Ta; Te; Tb; Tl; Th; Sn; Ti; U; V; W; Y; Yb, Zn; Zr]

GE_ICM40B	Determination of Forty Nine (49) Elements in Geological Samples using Multi-acid digestion and a Combination of Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) [HCl; HNO <sub>3</sub> ; HF; HClO <sub>4</sub> , Ag; Al; As; Ba; Be; Bi; Cd; Ca; Ce; Cs; Cr; Co; Cu; Ga; Hf; In; Fe; K; La; Li; Lu; Mg; Mn; Mo; Ni; Nb; P; Pb; Rb; Sb; Sc; Se; Na; Sr; S; Ta; Te: Tb; Tl; Tb; Sn; Ti; W; Ll; V; Yb; Y; Zn; Zrl
GE_ICM90A	Determination of Fifty-five (55) Elements in Geological Samples using Sodium Peroxide Fusion and a Combination of Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) $[Na_2O_2; HNO_3; C_4H_6O_3; Ag, Al; As; Ba; Be; Bi; Ca; Cd;Ce; Co; Cr; Cs; Cu; Dy; Er; Eu; Fe; Ga; Gd; Ge; Hf; Ho;In; K; La; Li; Lu; Mg; Mn; Mo; Nb; Nd; Ni; P; Pb; Pr;Rb; Sb; Sc; Sm; Sn; Sr; Ta; Tb; Th; Tl; Ti; Tm; U; V; W;Y; Yb, Zn; Zr]$
GE_ICP14B	Determination of Thirty-Four (34) Elements in Geological Samples using Aqua Regia Digestion and Inductively Coupled Plasma Emission Spectrometry [Ag; Al; As; Ba; Be; Bi; Ca; Cd; Cr; Co; Cu; Fe; Hg; K; La; Li; Mg; Mn; Mo; Na; Ni; P; Pb; S; Sb; Sc; Sn; Sr; Ti; V; W; Y; Zn; Zr; HCl; HNO <sub>3</sub> ]
GE_ICP40B	Determination of Thirty Two (33) Elements in Geological Samples using Multi-Acid Digestion and Inductively Coupled Plasma Emission Spectrometry (ICP-OES) [HCl; HNO <sub>3</sub> ; HF; HClO <sub>4</sub> ; Ag; Al; As; Ba; Be; Bi; Cd; Ca; Cr; Co; Cu; Fe; K; La; Li; Mg; Mn; Mo; Na; Ni; P; Pb; S; Sb; Sc; Sn; Sr; Ti; W; V; Y; Zn; Zr]
GO_FAG303-FAG505	Determination of Ore Grade Gold by Lead Fusion Fire Assay and Gravimetric Finish $[30g.; 50g.; Au; HNO_3; NH_4OH]$
GO_ICP90Q	Determination of Six (6) Elements in Mineralized Geological Samples (Ore Grade) using Sodium Peroxide Fusion and Inductively Coupled Plasma Emission Spectrometry (ICP-OES) $[Na_2O_2; HNO_3; C_4H_6O_6; Co; Cu; Pb; Mo; Ni; Zn]$
GT GC_GO_XRF76V	Preparation and Determination of Major Element Oxides, LOI by Borate Fusion and Xray Fluorescence Spectrometry [SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , MgO, CaO, Na <sub>2</sub> O, K <sub>2</sub> O, P <sub>2</sub> O <sub>5</sub> , MnO, TiO <sub>2</sub> , Cr <sub>2</sub> O <sub>3</sub> ; V <sub>2</sub> O <sub>5</sub> ; LOI; XRF]

Notes:

The physical sample preparation involving accredited test methods for Minerals Analysis as listed on the scope of accreditation may be performed at SGS Canada Minerals Services - Burnaby, or at off-site

Standards Council of Canada Accredited Laboratory No. 744

## sample preparation locations (Garson, Ontario) that are monitored regularly for quality control and quality assurance practices.

**CAN-P-4E (ISO/IEC 17025):** General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025-2005)

**CAN-P-1579:2014:** Requirements for the Accreditation of Mineral Analysis Testing Laboratories **CAN-P-1587:** Requirements - Accreditation of Agriculture Inputs, Food, Animal Health and Plant Protection Testing Laboratories

Chantal Guay, ing., P. Eng. Vice President, Accreditation Services

Date: 2016-02-22

Number of Scope Listings: 14 SCC 1003-15/919 Partner File #0 Partner:

# CDN Resource Laboratories Ltd.

#2, 20148 - 102nd Avenue, Langley, B.C., Canada, V1M 4B4, Ph: 604-882-8422 Fax: 604-882-8466 (www.cdnlabs.com)

### STANDARD REFERENCE MATERIAL: CDN-BL-10

Recommended values:	
Gold concentration:	$< 0.01 \ g/t$
Platinum concentration:	< 0.01  g/t
Palladium concentration:	< 0.01  g/t

PREPARED BY:CDN Resource Laboratories Ltd.CERTIFIED BY:Duncan Sanderson, B.Sc., Licensed Assayer of British ColumbiaINDEPENDENT GEOCHEMIST:Dr. Barry Smee., Ph. D., P. Geo.DATE OF CERTIFICATION:November 25, 2011

### **ORIGIN OF REFERENCE MATERIAL:**

Standard CDN-BL-10 was prepared using a blank granitic material.

### **METHOD OF PREPARATION:**

The granitic material was dried, crushed, pulverized and then passed through a 270 mesh screen. The +270 material was discarded. The -270 (<53 micron) material was mixed for 5 days in a doublecone blender. Splits were taken and sent to 12 commercial laboratories for round robin assaying. Round robin results are displayed on the next page.

APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

	Percent		Percent
SiO2	69.7	Na2O	3.1
Al2O3	12.3	MgO	2.3
Fe2O3	5.2	K2O	0.9
CaO	3.8	TiO2	0.6
MnO	0.1	LOI	1.9
		S	< 0.1

Statistical Procedures: There was no statistical analysis performed on the data.

Participating Laboratories: (not in same order as table of assays)

Acme Analytical Laboratories Ltd., Vancouver Actlabs, Ancaster, Ontario Actlabs, Thunder Bay, Ontario ALS Chemex Laboratories, North Vancouver AGAT, Mississauga, Ontario AHK, Alaska, USA Alex Stewart, Mendosa, Argentina TSL Laboratories, Saskatoon Genalysis, Perth, Australia Labtium, Finland SGS, Lima, Peru Ultra Trace, Perth, Australia

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12
Sample	Au ppm											
CDN-BL-10-1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-8	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
CDN-BL-10-9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
	Pt ppm											
CDN-BL-10-1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	<0.01
CDN-BL-10-2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
CDN-BL-10-3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01
CDN-BL-10-4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01
CDN-BL-10-5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01
CDN-BL-10-6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01
CDN-BL-10-7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01
CDN-BL-10-8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	<0.01
CDN-BL-10-9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
CDN-BL-10-10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
	Pd ppm											
CDN-BL-10-1	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-5	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01
CDN-BL-10-10	~0.01	<0.01	<0.01	<0.01	<0.01	~0.01	~0.01	~0.01	< 0.01	~0.01	~0.01	~0.01

### Assay Procedure: assays were fire assay, AA or ICP finish on 30g samples.

### Legal Notice:

This certificate and the reference material described in it have been prepared with due care and attention. However CDN Resource Laboratories Ltd. nor Barry Smee accept any liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by

Duran Sanderson

Duncan Sanderson, Certified Assayer of B.C.

Geochemist

Dr. Barry Smee, Ph.D., P. Geo.

# CDN Resource Laboratories Ltd.

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### **REFERENCE MATERIAL: CDN-GS-5R**

Recommended value and the "Between Laboratory" two standard deviations

Gold concentration:  $5.29 \pm 0.35$  g/t (30g Fire Assay / Instrumental) Gold concentration:  $5.29 \pm 0.34$  g/t (30g Fire Assay / Gravimetric)

PREPARED BY:CDN Resource Laboratories Ltd.CERTIFIED BY:Duncan Sanderson, B.Sc., Licensed Assayer of British ColumbiaINDEPENDENT GEOCHEMIST:Dr. Barry Smee., Ph.D., P. Geo.DATE OF CERTIFICATION:May 25, 2015

### **ORIGIN OF REFERENCE MATERIAL:**

Standard CDN-GS-5R was prepared using 765 kg of granitic rock and 35 kg of a high grade gold ore.

#### **METHOD OF PREPARATION:**

Reject ore material was dried, crushed, pulverized and then passed through a 270 mesh screen. The +270 material was discarded. The -270 material was mixed for 5 days in a double-cone blender. Splits were taken and sent to 15 commercial laboratories for round robin assaying. Round robin results are displayed below:

Instrumental	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12	Lab 13	Lab 14	Lab 15
SAMPLE	Au g/t														
GS-5R-1	5.26	5.25	5.24	5.47	5.57	5.13	5.28	5.43		4.84	5.21	5.23	5.07	5.31	5.33
GS-5R-2	5.16	5.34	5.16	5.56	5.65	4.83	5.32	5.39		5.00	5.40	5.25	5.05	5.19	5.36
GS-5R-3	5.33	5.20	4.85	5.35	5.50	5.23	5.34	5.51		5.12	5.47	5.04	5.24	5.26	5.39
GS-5R-4	5.50	5.39	5.59	5.39	5.35	5.16	5.06	5.38		5.14	5.27	5.18	5.06	5.38	5.32
GS-5R-5	5.23	5.19	4.88	5.48	5.42	5.37	5.30	5.43		5.23	5.50	4.86	4.92	5.25	5.46
GS-5R-6	5.49	5.41	5.31	5.58	5.66	5.09	5.38	5.33		4.90	5.29	5.09	5.14	5.28	5.45
GS-5R-7	5.44	5.30	5.08	5.30	5.50	5.05	5.40	5.39		5.04	5.32	4.96	5.25	5.29	5.57
GS-5R-8	5.57	5.37	4.93	5.41	5.37	4.95	5.25	5.5		5.05	5.40	5.02	4.99	5.40	5.46
GS-5R-9	5.32	5.20	5.09	5.52	5.58	5.13	5.28	5.31		4.94	5.47	5.08	5.15	5.21	5.51
GS-5R-10	5.33	5.24	5.34	5.53	5.64	5.15	5.28	5.47		5.02	5.51	5.09	5.08	5.24	5.53
Mean	5.36	5.29	5.15	5.46	5.52	5.11	5.29	5.41		5.03	5.38	5.08	5.10	5.28	5.44
Std. Dev'n	0.1322	0.0841	0.2304	0.0925	0.1147	0.1472	0.0934	0.0670		0.1168	0.1059	0.1200	0.1032	0.0680	0.0846
%RSD	2.46	1.59	4.48	1.69	2.08	2.88	1.77	1.24		2.32	1.97	2.36	2.03	1.29	1.56
Gravimetric															
SAMPLE	Au g/t														
GS-5R-1	5.27	5.43		5.37	4.93	5.00	5.64	5.34	5.31	5.16	5.29	5.12	5.01	5.40	5.33
GS-5R-2	5.32	5.36		5.48	5.06	4.87	5.31	5.46	5.42	5.21	5.35	5.02	5.31	5.47	5.32
GS-5R-3	5.37	5.22		5.34	5.26	5.47	5.30	5.5	5.14	5.18	5.13	5.09	4.98	5.39	5.36
GS-5R-4	5.49	5.44		5.28	5.22	5.33	5.30	5.47	5.01	5.18	5.16	5.04	4.95	5.45	5.27
GS-5R-5	5.47	5.23		5.43	5.44	5.27	5.20	5.37	5.18	5.02	5.40	5.39	4.95	5.37	5.34
GS-5R-6	5.44	5.46		5.51	5.35	4.87	5.77	5.35	5.25	5.26	5.48	5.00	5.24	5.45	5.33
GS-5R-7	5.52	5.40		5.63	5.02	5.00	5.39	5.41	5.45	5.46	5.27	5.02	5.28	5.48	5.29
GS-5R-8	5.64	5.41		5.57	5.34	5.07	5.45	5.15	5.11	5.07	5.54	4.99	5.24	5.45	5.36
GS-5R-9	5.53	5.44		5.46	5.29	5.33	5.12	5.95	5.18	5.02	5.40	5.02	5.09	5.40	5.38
GS-5R-10	5.89	5.20		5.47	5.41	5.27	5.27	5.61	5.04	5.07	5.10	5.14	4.82	5.36	5.30
Mean	5 /0	5 36		5.45	5.23	5 15	5 38	5.46	5.21	5 16	5 31	5.08	5.00	5 /2	5 3 3
Std Dev/r	0.49	0.102		0.106	0.172	0.10	0.102	0.210	0.140	0.132	0.01	0.110	0.170	0.42	0.03/
%RSD	3 21	1 91		1 94	3 31	4 13	3 69	3.85	2.85	2 57	2.81	2 35	3 34	0.79	0.64
/01.00	0.21	1.01	1	1.07	0.01	· · ·	0.00	0.00	2.00	2.01	2.01	2.00	0.07	0.10	0.04

*Note:* Laboratory 9 did not provide data using an instrumental finish. Laboratory 3 did not provide data with a gravimetric finish.

### REFERENCE MATERIAL: CDN-GS-5R

	Percent		Percent
SiO2	57.8	Na2O	2.9
Al2O3	16.1	MgO	4.0
Fe2O3	8.4	K2O	1.8
CaO	6.1	TiO2	0.6
MnO	0.2	LOI	1.7
Total S	0.1	Total C	0.1

### APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

### **Statistical Procedures:**

The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. Data from any one laboratory was removed from further calculations when the mean of all analyses from that laboratory failed a t test of the global means of the other laboratories. The mean and standard deviation were calculated using all remaining data. Any analysis that fell outside of the mean ±2 standard deviations was removed from the ensuing data base. The mean and standard deviations were again calculated using the remaining data. This method is different from that used by Government agencies in that the actual "between-laboratory" standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses, unlike the Confidence Limits published on other standards.

Participating Laboratories: (not in same order as table of assays)

Bureau Veritas (Acme), Vancouver, BC, Canada Activation Laboratories, Ancaster, Ontario, Canada Activation Laboratories, Thunder Bay, Ontario, Canada AGAT, Mississauga, Ontario, Canada ALS Canada, North Vancouver, BC, Canada American Assay Laboratories Inc., Sparks, Nevada, USA Certimin, Lima, Peru Intertek – Genalysis, Perth, Australia Met-Solve Analytical Services, Langley, BC, Canada ALS Loughrea (Omac), Ireland SGS, Lima. Peru SGS, Vancouver, BC, Canada Skyline Laboratories, Arizona, USA TSL Laboratories Ltd., Saskatoon, SK, Canada Ultra Trace Laboratories Ltd., Perth, Australia

Legal Notice:

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Certified by

Jusican Sanderson

Duncan Sanderson, Certified Assayer of B.C.

Geochemist

Dr. Barry Smee, Ph.D., P. Geo.