# ASSESSMENT REPORT
on
DIAMOND DRILLING

KLONDIKE GOLD CORP.

QUARTZ CREEK, RWH PROPERTIES

Sawmill Creek, Rome Creek Area

Fort Steele Mining Division

NTS 82 F/8 & F/9 E

Latitude 49° 33' N
Longitude 116° 02' W

Owners: L.D.Morgan, Cranbrook, B.C.
R.D.C.Kennedy, Kimberley, B.C.
P.Klewchuk, Kimberley, B.C.
G.M.Rodgers, Skookumchuck, B.C.
Klondike Gold Corp., Vancouver, B.C.

Operator: Klondike Gold Corp.
1000-675 West Hastings St.
Vancouver, B.C.
V6B 1N2

Work performed from Aug. 1 to Sept. 20, 1996

Report by: Peter Klewchuk, P. Geo.
December, 1996

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# 1.00 INTRODUCTION

## 1.10 Location and Access

The Quartz Creek and RWH properties are located from 12 to 18 kilometers southwest of Kimberley, B.C., in the Fort Steele Mining Division (Fig. 1). The claim group straddles Perry Creek and covers portions of Sawmill Creek drainage to the north and Rome Creek drainage to the south. The property is centered approximately at 49° 34' N Latitude, 116° 02' W Longitude.

Access to the property is via good logging roads off the main Perry Creek road which is accessible in Wycliffe from the old highway between Kimberley and Cranbrook. Recent logging activity has resulted in additional road access within the claim block.

## 1.20 Physiography

The property is situated west of the Rocky Mountain Trench within the Moyie Range of the Purcell Mountains. Topography is moderate mountainous terrain with glacially rounded hillsides ranging from 1220 meters in Perry Creek to more than 2000 meters.

Vegetation cover is mainly of pine, larch and fir. Part of the property has been clear-cut logged and the northern portion was burned by the large Pitt Creek fire around 1950. These areas are in various stages of regeneration and locally contain thick stands of immature trees.

## 1.30 Property

The Quartz Creek and RWH properties are composed of 113 claim units in three 4-post and seventy-two 2-post claims. Included in the properties are the Peter Rock, Quartz Creek, Saw, Rainbow, Burn, Qtz.Ck., RWH and DCJ claims (Fig. 2)

## 1.40 History

The Quartz Creek and RWH properties overly Sawmill, Rome and France Creeks, tributaries of Perry Creek which is an historic placer gold producer. Sawmill Creek is one of the best placer gold producing tributaries of Perry Creek and has thus been actively prospected for bedrock sources of the gold for many years.

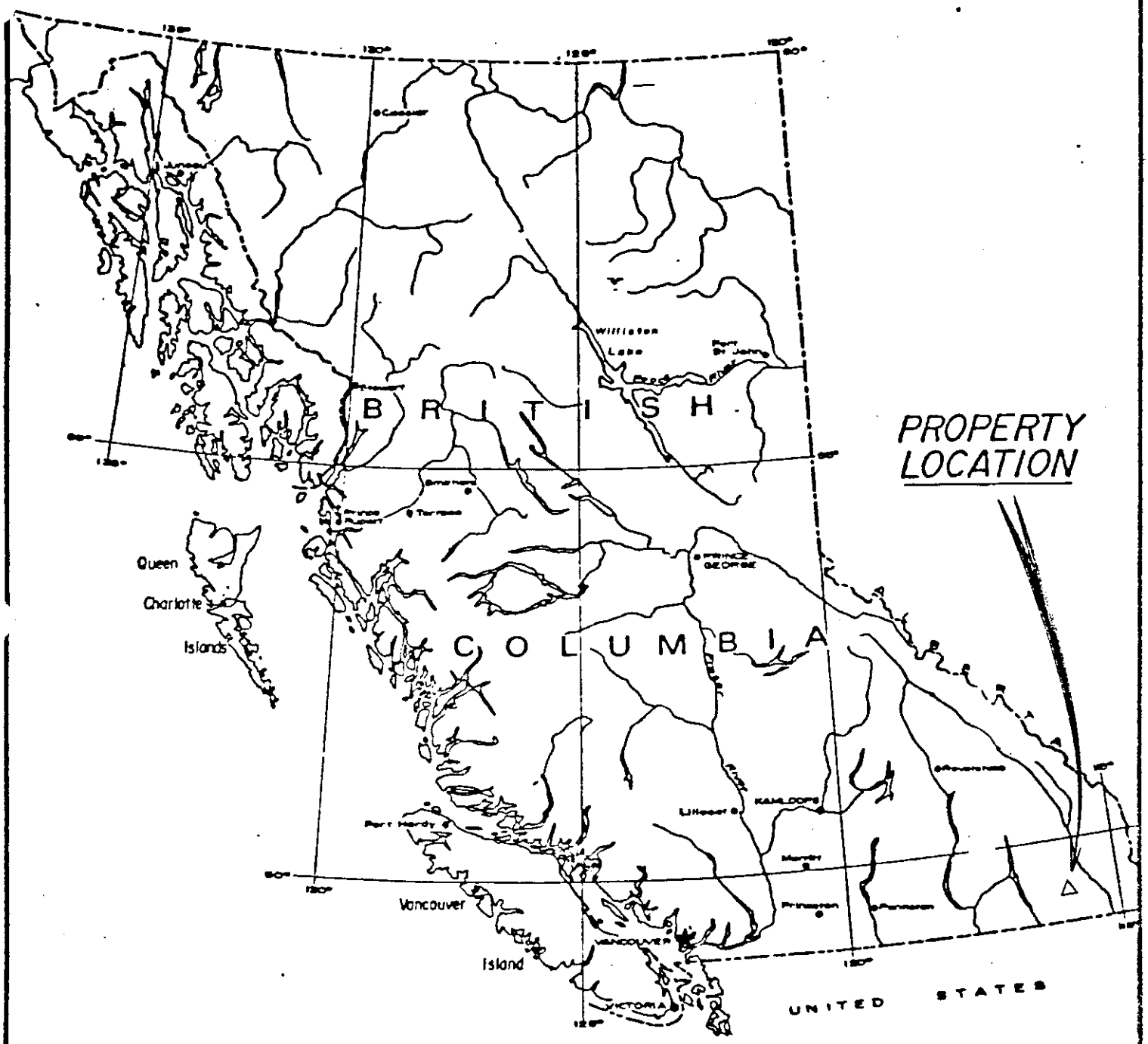


**Figure 1**
**Quartz Creek / RWH Properties**
**Location Map**

PITT 5 + 209692 *183* 45X3W

209691 *182* 25X2W

RAINBOW 318464 3NX4E

PETER ROCK 209744 *397* 35X35

ROME 209664 *40* 1NX1W 5565

PERTH 210230 *2617*

RWH 7 340687 46X56

RWH 7 340687 46X56 (232802)

L 13526

L 14907 c.a.

L 14908 c.a.

NTS 82 F/9 E

NTS 82 F/8 E

116°00'00"

49°30'00"

5493312

5486976

5480640

Paisley Cr.

Paris Cr.

Dublin Cr.

Petty Cr.

Rome Cr.

Lisbon Cr.

Glasgow Cr.

London Cr.

Waverley Cr.

0 1 2 Km

**Figure 2**
**Quartz Creek / RWH Properties**
**Claim Map**
**Scale 1:31,680**

Four known lode gold prospects occur within the boundaries of the claims. From the north these are Quartz Hill (also known as Kimberley Goldfields), the Golden Egg (also known as Price's Pit), the Birdie Lode and Rome Creek. Each of these prospects has seen minor production with gold occurring within quartz veins that also carry minor base metal and iron sulfides. The quartz veins typically can be related to important structures, thus exploration activity for lode gold has been focused on structural control.

### 1.50 Scope of Present Program

In 1996, Klondike Reef Mines Ltd. undertook a program of diamond drilling to test a number of exploration targets on the claim block. The drill holes tested geological and geophysical targets. Five holes were drilled for a total length of 592.77 meters.

## 2.00 GEOLOGY

### 2.10 Regional Geology

The Quartz Creek and RWH properties are underlain by Precambrian (Helikian) age Purcell Supergroup rocks of the Aldridge, Creston and Kitchener Formations.

The oldest rocks in the region are of the Aldridge Formation and consist predominantly of thick basinal turbidites. These are progressively overlain by shallower water quartzites and siltstones of the Creston Formation and siltstones and silty carbonates of the Kitchener Formation. Voluminous intrusions of basic sills and lesser dikes are associated primarily with the Aldridge Formation but are known to extend into the Kitchener Formation.

Cretaceous granodiorite and quartz monzonite intrusives cut through these rocks and are probably related to most of the gold mineralization in the area.

Rock units of the region are broken into a series of fault blocks by north-striking predominantly west-dipping normal and reverse faults and easterly-striking transcurrent faults.

Detailed interpretation of structure is hindered by the character and thickness of some of the litho-stratigraphic units. For example the Middle Aldridge Formation is lithologically quite uniform over a thickness of almost 2500 meters. Furthermore glacial drift cover is locally quite extensive and recessive-weathering structural breaks (that might host gold mineralization) are mostly not exposed.

## 2.20 Property Geology

The northern part of the Quartz Creek property is cut by the major ENE oriented St. Mary Fault which separates younger Creston Formation siltstones on the south from older Aldridge Formation siltstones and quartzites to the north. The fault is a complex feature in the claim area and has probably influenced younger northeast structures that are more directly related to the gold mineralizing process. Widespread alteration including development of chlorite, silica, hematite and albite occur proximal to the St. Mary Fault and may be related to this structure.

Bedding typically strikes NNE with steep to moderate west dips. Occasional NW-striking beds demonstrate local minor folding.

The Quartz Hill prospect occurs just north of the St. Mary Fault, within Aldridge Formation lithologies. A reported 1373 tons of gold-mineralized quartz were shipped to Trail B.C. in the early 1970's with 0.25 ounces gold per ton recovered.

In the central part of the claim block Creston Formation siltstones, quartzites and argillites are present, hosting the Birdie Lode prospect.

Further south, in the Rome and France Creek drainages, Creston Formation also hosts the Rome showings.

## 3.00 DIAMOND DRILLING

In 1996, Klondike Gold Corp. drilled 5 holes on the Quartz Creek and RWH properties. All of the holes are NQ in size (7.3 cm. diam.). Drill hole location is shown in Figure 3. Holes QC 96-1 & 2 were drilled to test one known and one geophysically-inferred structure near the Birdie Lode prospect. Holes QC 96-3 & 5 were drilled on geophysical IP anomalies and hole Qc 96-4 was drilled on a prospecting discovery of surface gold mineralization.

Samples were collected from intervals considered more likely to host gold mineralization. These were analyzed by Bondar Clegg in North Vancouver, B.C. All samples were analyzed for geochemical gold and a 33 element ICP package by standard geochemical techniques. Gold values are included in the drill logs as Appendix 1 and complete geochemical analyses are provided in Appendix 2

### 3.1 DDH QC 96-1

Drill hole QC 96-1 tested a previously identified VLF-EM anomaly west of the Birdie Lode structure. It was collared approximately at 1 km on the Sawmill Creek road, oriented at an azimuth of 061°, inclined at minus 45° and drilled to 77.4 meters total depth.

The hole collared in Creston Formation siltstones, silty argillites and silty quartzites and remained in similar lithologies through most of its length. Between 62.75 and 63.2 meters the hole cut a quartz vein associated with a minor fault zone. A series of samples were collected (see Appendix 1 & 2) with the best gold value being 38 ppm gold. This quartz vein/fault zone is interpreted to be the cause of the VLF-EM anomaly.

### 3.2 DDH QC 96-2

Drill hole QC 96-2 tested the northern extension of the Birdie Lode structure. The hole was collared on the Sawmill Creek road and drilled westerly at an azimuth of 255° and a dip of minus 45°. Total length of the hole is 56.1 meters.

DDH QC 96-5

DDH QC 96-4

DDH QC 96-3

DDH QC 96-2

DDH QC 96-1

Pitt Creek

Sawmill Creek

Cayoosh Creek

0 500 1000 1500
meters

**Figure 3**
**Quartz Creek / RWH Properties**
**Drill Hole Location Map**
**Scale 1:20,000**

The hole collared in siltstones, argillites and quartzites of the Creston Formation and remained in generally similar lithologies for its entire length. Between 32.5 and 34.2 meters the hole encountered a quartz vein zone with minor included sediments. Just below this zone, between 36.6 and 40.7 meters, a weaker quartz vein zone with estimated 15% quartz veins was encountered. A number of samples were taken of these zones with the best gold value being 17 ppm gold (see also Appendix 1 & 2). The main quartz vein zone is interpreted to be the northern extension of the Birdie Lode structure.

### 3.30 DDH QC 96-3

Drill hole QC 96-3 tested a geophysical Induced Polarization anomaly. The hole was collared on a spur road below the Quartz Hill prospect and drilled easterly at an azimuth of 085° and a dip of minus 50° to a total depth of 192.6 meters.

The hole collared in an albite-chlorite breccia and continued through generally altered and brecciated Middle Aldridge sediments to its final depth. Minor disseminated pyrite is common through most of the altered sections. Two gabbros were intersected, from 67.4 to 113.0 meters and from 153.0 to 158.5 meters. A number of samples were collected and analyzed for gold with the highest value being 14 ppm gold (see also Appendix 1 & 2).

### 3.40 DDH QC 96-4

Drill hole QC 96-4 tested a surface occurrence of gold mineralization exposed by a relatively new logging road a short distance west of the Quartz Hill prospect. The hole was collared from near the end of a logging skid road and drilled easterly at an azimuth of 095° and an inclination of minus 50°.

The hole collared in a chlorite-albite altered siltstone and continued through generally similarly altered Aldridge Formation lithologies to its final depth of 96.4 meters. Between 15.95 and 16.2 meters a zone of siliceous altered siltstone is similar in character to the surface zone of gold mineralization. This zone returned only 17 ppb gold (see also Appendix 1 & 2). Minor disseminated pyrite is common through much of the chlorite-altered siltstone, locally getting up to about 6%.

The disseminated pyrite is interpreted to be the cause of the geophysical anomaly.

## 3.50 DDH QC 96-5

Drill hole QC 96-5 tested a geophysical Induced Polarization anomaly which crosses the upper part of the Lisbon Creek drainage. The hole was collared on the east side of Lisbon Creek (Fig. 3) and drilled easterly at an azimuth of 115° and a dip of minus 50°.

The hole collared in argillaceous sediments of the Aldridge Formation and remained in generally similar lithologies to its final depth of 204.8 meters. Two zones of core are chloritic-altered, from 85.4 to 92.3 meters and from 147.6 to 184.5 meters. Narrow quartz veins are present through much of the core. Minor disseminated pyrite is also present through much of the core, typically about 1% or less. No significant increases in pyrite concentration were noted. Although minor, the pyrite is probably the cause of the geophysical anomaly. A number of samples were collected, of both quartz veining and chlorite alteration. The highest gold value detected is 24 ppb (see also Appendix 1 & 2).

# 4.00 CONCLUSIONS

Five diamond drill holes were successfully completed on the Quartz Creek and RWH properties in 1996.

DDH QC 96-1 tested a VLF-EM anomaly immediately west of the Birdie Lode structure and identified a quartz vein/fault zone as the cause of the geophysical anomaly.

DDH QC 96-2 tested the northern extension of the Birdie Lode structure and intersected a weakly gold-mineralized quartz vein zone.

DDH QC 96-3 tested an Induced Polarization anomaly and identified a build-up of disseminated pyrite as the cause of the IP anomaly.

DDH QC 96-4 tested a surface zone of gold mineralized and intersected similarly altered material but with low gold values.

DDH QC 96-5 tested an Induced Polarization anomaly and intersected only weakly disseminated pyrite mineralization which may be the cause of the geophysical anomaly.

## 5.00 STATEMENT OF COSTS

| | | |
|---|---|---|
| Diamond Drilling | 592.77m @ $55.76/m | $33052.85 |
| Report | 3 days @ $250.00/day | 750.00 |
| | Total Cost | **$33802.85** |

## 6.00 AUTHOR'S QUALIFICATIONS

As author of this report I, Peter Klewchuk certify that:

1. I am an independant consulting geologist with offices at 246 Moyie Street, Kimberley, B.C.

2. I am a graduate geologist with a B.Sc. degree (1969) from The University of British Columbia and an Msc. degree (1972) from the University of Calgary.

3. I am a Fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, For the past 21 years.

5. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 19th day of December, 1996.


Peter Klewchuk
P. Geo.

# Drill Hole Record

| | |
|---|---|
| Property: | Quartz Creek |
| District: | Fort Steele |
| Hole No: | QC 96-1 |
| Length of Hole: | 77.4 meters |
| Commenced: | August 17, 1996 |
| Completed: | August 18, 1996 |
| General Location: | 1km up Sawmill Creek Road on Perry Creek |
| Co-ordinates: | 116°10'W longitude, 49°32'22"N latitude |
| UTM: | 5,487,900m N., 568,925m W. |
| Elevation: | 1364 meters |
| Inclination: | -45° |
| Azimuth: | 061° |
| Dip Test Results: | None |
| Hole/Core Size: | NQ |
| Logged By: | Peter Klewchuk |
| Objective: | Test VLF anomaly west of Birdie Lode structure |
| Location of Core: | 3380 Wilks Road, Cranbrook |
| Drilled By: | Lone Ranger Diamond Drilling |
| Type of Drill: | Longyear 44 |
| WP7 File No: | Tplog.2 |
| Owner: | Klondike Gold Corp.<br>1000-675 W. Hastings Street<br>Vancouver, B.C., V6B 1N2 |
| Operator: | Klondike Gold Corp.<br>1000-675 W. Hastings Street<br>Vancouver, B.C., V6B 1N2 |

| Meters | Description |
|---|---|
| 0-6.1 | CASING; NO CORE |
| 6.1-33.2 | SILTSTONE, SILTY ARGILLITE, SILTY QUARTZITES<br>Light to medium gray-green, variably orange-brown oxidized from surface weathering. Appears predominantly medium and thick bedded with minor thin bedded and laminated zones. Bedding planes are somewhat indistinct and there is a weak to moderate cleavage sub-parallel to bedding. A few fractures near the top are filled with orange-brown clay and small rounded pebbles. At 11.2m strong Mn alteration in one 5cm wide zone occurs just above a clay seam. A few thin qv are present, generally crosscutting bedding at 70° but locally sub-parallel to bedding. Cross-cutting veins are vuggy and weakly limonitic. Bedding: 22° at 6.7m; 28° at 15.5m; 32° at 26.5m; 37° at 31m. Cleavage typically at 35 - 45° to core axis. |
| 33.2-34.9 | HEMATITIC ARGILLACEOUS QUARTZITE<br>Medium gray-green with bands of light to dark purple hematitic argillite. Laminated and thin bedded, interlayered silty quartzite and argillite. Mostly irregular, lensey bedding, at 35° to core axis. |
| 34.9-56.1 | SILTSTONE, SILTY QUARTZITE, SILTY ARGILLITE<br>Pale gray-green to medium gray. Medium and thin bedded, locally laminated; may be a few thick beds. Bedding planes are somewhat indistinct. Faint lavender laminae occur locally in gray-green silty quartzites. Local narrow zones of fault gouge are present; bedding - parallel or at close to 90° to core angle. A few small qv are scattered through the interval; some cut core at 75 - 80° to core axis, up to 5cm wide; some are more irregular and carry minor pyrite or limonitic hematite. Most qv are clean, milky white with minor chlorite. Bedding: 37° at 36.6m; 35° at 42.5m; 40° at 53m. |

56.1-57.6 SILTSTONE, SILTY QUARTZITE SILTY ARGILLITE, QUARTZ VEINING
Very light gray-green; may be kaolinized. About 5% thin qv up to 6cm wide, typically at 70° to core angle, sub-parallel to bedding. A few thinner qv are lensey, more irregular. Qv are milky white, locally weakly limonitic. Bedding at ~45° to core axis.

57.6-58.5 QUARTZ VEINING, MINOR SILTSTONE, ARGILLITE
Est. 85% vein quartz, 15% pale gray-green siltstone and argillite. Quartz is massive. Milky white to very weakly limonitic. Angular fragments of sediment are scattered through the quartz, concentrated below 58.1m.

SAMPLE QC - 1 57.6 - 58.5 0.9m 38 ppb Au

58.5-62.75 SILTSTONE, QUARTZ VEINING
Pale gray-green siltstone, silty quartzite and silty argillite with 15 - 20% quartz veining ranging up to 20cm thick. Vein quartz is typically milky white, weakly limonitic at best, and developed at 80° to 30° to core axis, mostly crossing bedding at shallow angles, locally parallel to bedding. Quartz veining increases below 62.0m to 30 - 35% and is more (still weak) limonitic.

SAMPLE QC - 2 62.0 - 62.75 0.75m 19 ppb Au

62.75-63.20 QUARTZ VEIN
Massive, mottled off-white to weakly limonitic mottled quartz. Wavy 'laminae' of greenish muscovite are present. Local small vugs are weakly limonitic. Both contacts are/appear to be at 50 - 60° to core axis.

SAMPLE QC - 3 62.75 - 63.20 0.45m <5 ppb Au

| Meters | Description |
|---|---|
| 63.2-64.15 | MAX 0.7M CORE RECOVERED<br>SILTSTONE, ARGILLITE, QUARTZ VEINING, LIMONITIC AND ARGILLIC ALTERATION<br>Mixture of altered sediments and ~12 - 15cm of quartz veining. Weak to moderate argillic and limonitic alteration. Clay gouge near 64.15m may be a fault contact probable minor core loss. Qv range from 1 - 2mm wide to ~8cm wide, at 50 - 80° to core axis.<br><br>SAMPLE QC - 4 63.2 - 64.15 0.95m 6 ppb Au |
| 64.15-70.6 | SILTSTONE AND ARGILLITE, MINOR QUARTZITE<br>Light to very light gray-green. Laminated to medium bedded. Below 67.25m there are scattered narrow zones of clay gouge with minor limonitic alteration. Bedding at 45 - 50° to core axis. |
| 70.6-74.8 | ALTERATION AND FAULT ZONE; SILTSTONE<br>Predominantly limonite-stained siltstone; originally light gray to pale lavendar. Variably brecciated with limonitic fractures, scattered thin quartz veins (some with chlorite) and possible oxidized pyrite. Fault gouge zones occur at 70.7m, 71.2m, 71.3m, 74.0m and 74.8m. Core is quite broken, locally rubbly with local minor core loss. Most fracturing is parallel or sub-parallel to bedding at 45 - 50° to core axis.<br><br>SAMPLE QC - 5 70.9 - 72.2 1.3m (1.0m recovered) 10 ppb Au<br>QC - 6 72.2 - 73.5 1.3m <5 ppb Au<br>QC - 7 73.5 - 73.8 0.3m >conc limonitic fractures <5 ppb Au<br>QC - 8 73.8 - 74.8 1.0m 15cm core loss <5 ppb Au |
| 74.8-77.4 | SILTSTONE, SILTY QUARTZITE, MINOR ARGILLITE<br>Light blue-gray to gray-green. Medium and thin bedded. Bedding at 30 - 35° to core axis. Limonitic fractures. |
| 77.4 | END OF HOLE |

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA P. KLEWCHUK GEOSCIENTIST

# Drill Hole Record

| | |
|---|---|
| Property: | Quartz Creek |
| District: | Fort Steele |
| Hole No: | QC 96-2 |
| Length of Hole: | 56.1m |
| Commenced: | August 18, 1996 |
| Completed: | August 19, 1996 |
| General Location: | Sawmill Creek Road 0.7km |
| Co-ordinates: | 116°10'46"W longitude, 49°32'25'N latitude<br>5488000m N., 569070m E. |
| Elevation: | 1358 meters |
| Inclination: | -45° |
| Azimuth: | 255° |
| Dip Test Results: | None |
| Hole/Core Size: | NQ |
| Logged By: | Peter Klewchuk |
| Objective: | Test north extension of Birdie Lode structure |
| Location of Core: | 3380 Wilks Road, Cranbrook |
| Drilled By: | Lone Ranger Diamond Drilling |
| Type of Drill: | Longyear 44 |
| WP7 File No: | Tplog.3 |
| Owner: | Klondike Gold Corp.<br>1000-675 W. Hastings Street<br>Vancouver, B.C., V6B 1N2 |
| Operator: | Klondike Gold Corp.<br>1000-675 W. Hastings Street<br>Vancouver, B.C., V6B 1N2 |

| Meters | Description |
|---|---|
| 0-30.48 | CASING; NO CORE |
| 30.48-32.5 | SILTSTONE AND ARGILLITE, MINOR QUARTZITE<br>Mainly light gray-green, minor light gray and bluish-gray. Thin bedded and laminated. Some fractures are weakly limonitic. Bedding at 40° to core axis. |
| 32.5-34.2 | QUARTZ VEIN ZONE 15-20% QUARTZITE, SILTSTONE, ARGILLITE<br>White milky to greenish chloritic quartz with generally indistinct contacts. Most veins (up to 10 or 15cm wide) are bedding parallel with a somewhat mottled, healed breccia texture. A few later qv cross-cut the bedding-parallel set; these are at 75 - 85° to core angle, are vuggy and weakly limonitic. At 32.7m a 3 cm wide fault gouge zone of orange-brown clay is bedding-parallel. Broken core near 33.3 and 34.1m. Bedding: 40° at 32.7m; 30° at 34m. |

| | | | | |
|---|---|---|---|---|
| SAMPLE | QC- 9 | 32.5 - 33.1 | 0.6m | <5 ppb Au |
| | QC-10 | 33.1 - 33.6 | 0.5m | <5 ppb Au |
| | QC-11 | 33.6 - 34.2 | 0.6m | <5 ppb Au |

| | |
|---|---|
| 34.2-36.6 | SILTSTONE AND ARGILLITE<br>Light to medium gray-green locally blue to lavendar tinted. Variably limonitic throughout. Thin bedded and laminated. Bedding at 45° to core axis, cleavage at 30°. Dendritic pyrolusite is developed adjacent to a few fractures. |

36.6-40.7 QUARTZITE, QUARTZ VEINING, MINOR SILTSTONE AND ARGILLITE

Pink-gray, locally very light gray-green. Variably limonitic. Medium and thin bedded, possible a few thick beds. Quartzites are fine-medium grained, with a minor argillite component but thin lenses of wavy argillite are common. Quartz veins range up to 15cm wide, occur throughout and comprise an estimated 10 - 15% of the interval. Most are bedding-parallel at 40 - 50° to core axis. A few qv are more irregular and cross-cut bedding; these are typically more strongly limonitic.

| | | | | |
|---|---|---|---|---|
| SAMPLE | QC-12 | 36.6 - 37.5 | 0.9m | <5 ppb Au |
| | QC-13 | 37.5 - 38.3 | 0.8m | <5 ppb Au |
| | QC-14 | 38.3 - 38.8 | 0.5m | 17 ppb Au |
| | QC-15 | 38.8 - 39.4 | 0.6m | <5 ppb Au |

40.7-56.1 SILTSTONE AND ARGILLITE, MINOR QUARTZITE

Light to medium blue-gray and gray-green. Thin bedded and laminated with a few medium thick beds. Near 42.3m, 35cm of core is 80% qv, milky white, bedding-parallel and cross-cutting veins. At 33.75m is a narrow zone of clay gouge. Core is moderately broken and limonitic between 43.3m and 44.3m. At 50.75m a 3-4cm qv in broken core contains ragged patched of fine pyrite. At 53.04m a 1cm wide irregular very vuggy and pyritic qv cuts core at 50°, at a high angle to bedding. Minor Pbs is also present. Minor fine to medium disseminated euhedral pyrite occurs within the sediments below 51.5m. Py tends to be more abundantly developed in argillite bands. Bedding: 45° at 42.6m; 38° at 43m; 40° at 56m.

56.1 END OF HOLE

# Drill Hole Record

| | |
|---|---|
| Property: | Quartz Creek |
| District: | Fort Steele |
| Hole No: | QC-96-3 |
| Length of Hole: | 192.6m |
| Commenced: | August 19, 1996 |
| Completed: | August 22,1996 |
| General Location: | Sawmill Creek |
| Co-ordinates: | 116°08'15'W longitude, 49°34'19"N latitude<br>5491620m N., 567835m E. |
| Elevation: | 1840 meters |
| Inclination: | -50° |
| Azimuth: | 085° |
| Dip Test Results: | None |
| Hole/Core Size: | NQ |
| Logged By: | Peter Klewchuk |
| Objective: | Test I.P. Anomaly |
| Location of Core: | 3380 Wilks Road, Cranbrook |
| Drilled By: | Lone Ranger Diamond Drilling |
| Type of Drill: | Longyear 44 |
| WP7 File No: | Tplog.4 |
| Owner: | Klondike Gold Corp.<br>1000-675 W. Hastings Street<br>Vancouver, B.C., V6B 1N2 |
| Operator: | Klondike Gold Corp.<br>1000-675 W. Hastings Street<br>Vancouver, B.C., V6B 1N2 |

0-40.2 CASING; NO CORE

40.2-41.7 ALBITE-CHLORITE BRECCIA
Pink white with anastomosing chlorite veinlets. Crackle breccia texture with some local fabric at ~15° to core axis. Disseminated tan to lighter reddish brown leucoxene? occurs throughout, in association with chlorite and minor disseminated medium grained pyrite.

SAMPLE QC-16 40.2 - 41.7 1.5m <5 ppb Au

41.7-43.8 CHLORITIC SILTSTONE
Medium gray-green. Some recognizable thin beds, healed breccia texture. Limonitic fractures. Local fine disseminated tan colored leuccoxene? and medium grained pyrite. Bottom 20cm is mainly pink-white quartz, in part forming a matrix to strongly chloritic siltstone or gabbro.

43.8-45.1 FAULT GOUGE
Clay and rock chip breccia. Mostly dark green; upper 30cm is limonitic. Some quartz fragments, locally calcareous. Probably gabbro below 44.35, may be above as well.

45.1-45.45 FOLIATED GABBRO OR INTENSELY CHLORITIZED SILTSTONE
Dark green, siliceous. Wavy foliation at 40 - 60° to core axis. Disseminated tan-brown leucoxene? is common (est 1 - 2%).

45.45-67.4 CHLORITE-ALTERED SILTSTONE, CHLORITE BRECCIA, CHLORITE-ALBITE BRECCIA
Predominantly medium green, ranging from pale gray-white to dark green. Overall appearance is mottled and brecciated with intensity of (healed) brecciation quite variable. Shear fabric tends to be at 40 - 50° to core axis, sub-parallel to bedding (eg. at 61.7m bedding is at 35°, shearing at 55° to core angle). Chlorite is pervasively developed, more intense along

fractures. Albitization and/or silicification is developed irregularly through the interval; these zones are variably brecciated and chloritized. Fine disseminated brownish leucoxene? is evident throughout much of the interval; pyrite occurs locally, disseminated to patchy. Near 62m small clusters of specular hematite occur with minor pyrite in a bleached, albitic or silicified zone. More argillaceous bands display small porphyroblasts of chlorite or chloritoid.

SAMPLE QC-17 63.3m - 63.9m 0.6m <5 ppb Au
local more intense breccia with chlorite, albite, pyrite.

67.4-113.0 GABBRO

Medium-dark green, fine-medium grained. Both contacts are at ~50° and parallel to foliation rather than bedding - could be a dike or sill. Lots of internal textural variation. Overall there is a foliation fabric at ~50° to core axis. Extensive development of small, irregular quartz and calcite veins. These have a tendency to be developed parallel or sub-parallel to foliation but with considerable variability. Irregular vein development of magnetite and hematite, locally with epidote, occurs down to at least 95m. These veins are parallel, sub-parallel, and cross cutting foliation; some occurrences are blotchy irregular patched. Foliation is somewhat more prominent from 67.4 to 69m and from 101 to 107m. Calcite veining is minimal or absent below about 104m; quartz veining continues. Between about 107m and 113m tan colored, disseminated ragged patches of leucoxene? are common (possibly related to $CaCO_3$ depletion?) Strongly chloritic altered throughout.

SAMPLE QC-18 82.30 - 82.45 0.15m Mt. Ep. <5 ppb Au
QC-19 108.65 - 109.5 0.85m Gabbro, leucoxene <5 ppb Au

113.0-118.5 CHLORITE-ALBITE ALTERED AND BRECCIATED SILTSTONE
Medium-dark green with patches of pale pink-light gray. Overall the texture is a healed breccia, generally foliated at 55° to core angle. Minor fine grained pyrite is locally disseminated through the breccia. Minor tan leucoxene? also occurs locally.

118.5-123.3 ALBITIC AND/OR SILICEOUS ZONE: BRECCIA
Light pink-brown-gray with patchy chloritic zones. General mottled character with a variably foliated, variably brecciated texture. Fine pyrite occurs through parts of the interval, more concentrated over 15cm near 121.7m. Lower contact is gradational with increasingly banded character below 122m. Foliated at 48 - 60° to core axis.

SAMPLE QC-20 121.6 - 121.8 0.2m 14 ppb Au

123.3-125.6 BANDED CHLORITIC BRECCIA
Darker colored, more chloritic phase. Albite and/or silica altered with a foliated, brecciated texture. Chlorite is a dark, blackish-green. Minor fine pyrite occurs locally, typically concentrated along chlorite fractures. Foliation at 50° to core angle.

125.6-129.0 ALBITE-CHLORITE BRECCIA
Light to medium gray to pale gray-green. Similar style banded breccia but lighter colored and less chloritic. Only very minor pyrite is present. Foliation at 50 - 55° to core axis.

129.0-135.2 ALTERED SILTSTONE, WEAKLY BRECCIATED
Light, medium and darker gray green to dark green. Variably chloritic and albitic with weak healed breccia texture throughout. Bedding tends to be recognizable through most of the interval. 129-131 is darker green, more chloritic, with a higher concentration of fine disseminated PY (est. 1%).

Some Py is preferentially concentrated along laminae, some is in thin veinlets. 60cm long QV 5-6mm wide, at 0 - 15° to core axis, occurs from 129.1 - 129.7m. Bedding: 60° at 129.5m; 46° at 132.5m; 43° at 134m.

135.2-143.2 CHLORITE-ALTERED SILTSTONE, MINOR ALBITE
Somewhat more chloritic, albitic and more brecciated than previous interval but not strongly dissimilar. Thin QV over 30cm near 135.8m have dark green-black chlorite and may cause increased chloritization locally. Patchy albitization and narrow zones of healed breccia are present. Fine disseminated to thin veinlet pyrite occurs with some of the chlorite. At 139.0 a 7cm length of core is pale gray-green fault gouge. Bedding: 50° at 138m; 53° at 141.8m.

143.2-150.1 CHLORITE-ALBITE ALTERED SILTSTONE/BRECCIA
Medium green with irregular nebulous patches of light pink-brown-white albitization. Bedding recognizable through most of the interval with scattered zones of breccia. Minor pyrite is present, concentrated locally with more intense chlorite and with small breccia patches. At 48.25m a 3cm wide band of clay gouge is at 65° to core axis. Bedding: 60° at 195m; thin 3cm wide QV at 55° to core axis hosts local train of specular hematite.

150.1-153.0 CHLORITIC SILTSTONE
Medium green, thin and possible medium bedded. Bedding at 45° to core axis, cleavage is sub-parallel at 50° to core axis. Minor Py is common; disseminated and concentrated in small bedding and cleavage-parallel lenses.

153.0-158.5 GABBRO
Medium grain, quite massive, mottled by patchy albitization/silicification. Zone is a chlorite-albite breccia in part. Rubbly core 156.8-157.3 with 20 - 30cm core loss may be a minor fault. Minor Py is common; disseminated in albitic zones and locally concentrated in breccia veins with chlorite.

158.5-159.0 CHLORITIC SILTSTONE
Variably colored from pale gray to dark green, mottled. Bedding indistinguishable. Bottom 12cm is foliated at 57° to core axis. Minor quartz (albite?) veining is present. Minor pyrite is concentrated along foliation-parallel lenses.

159.0-162.15 ALBITE-SILICA ALTERED ZONE, CHLORITE BRECCIA.
White, pale pink, light gray to darker gray-green, mottled. Texture is massive to mottled with local vague to distinct banding/foliation at 55° to core axis. 159.2 - 159.4 local development of reddish-brown mineral that looks like ZnS (leucoxene?), interstitically developed in healed chlorite breccia.

162.15-167.9 BRECCIATED CHLORITIC SILTSTONE
Light, medium and dark gray-green. Locally with patchy pink albitization. Healed breccia texture throughout with cleavage at 85° to core axis disrupting bedding at 60° to core axis. Narrow zones of more intense brecciation are scattered through the interval. These are commonly chloritic with disseminated and vein pyrite. Below 166.5m core is a darker brown-black color - chlorite or biotite alteration. 167.3 - 167.9m a 4 - 6cm vuggy QV parallel to core angle. Disseminated pyrite is common through most of the interval est. 2 - 3%.

| | | | | |
|---|---|---|---|---|
| SAMPLE | QC-21 | 163.1 - 163.25 | 0.15m | <5 ppb Au |
| | QC-22 | 165.1 - 165.4 | 0.3 m | <5 ppb Au |

167.9-172.3 ALBITE - CHLORITE BRECCIA
Mottled light gray to medium green, locally pink to light brown. Healed breccia texture throughout with chloritic fractures. Minor disseminated to vein pyrite is common, mostly in the top 2m. Breccia fabric tends to be at 50 - 60° to core axis.

SAMPLE QC-23 168.4 - 168.9 0.5m <5 ppb Au
QC-24 168.9 - 169.5 0.6m <5 ppb Au

172.3-192.6 CHLORITIC SILTSTONE, LOCAL CHLORITE - ALBITE BRECCIA
Medium green to gray-green. Appears thin and medium bedded, cleavage/foliatiion is quite intense; some srongly foliated zones are micaceous. At 184.9m a 7cm wide zone of albite-chlorite breccia with minor pyrite is developed at close to 90° to core axis. 187.65 to 188.55m is albite-chlorite breccia with variably developed disseminated Py. Breccia fabric tends to be at 50 - 60° to core axis but with some irregularity. Cleavage/bedding throughout the interval is at 50 - 60° to core axis.

SAMPLE QC-25 187.65 - 188.55 0.9m m 8 ppb Au

192.6 END OF HOLE

# Drill Hole Record

| | |
|---|---|
| Property: | Quartz Creek |
| District: | Fort Steele |
| Hole No: | QC 96-4 |
| Length of Hole: | 61.87m |
| Commenced: | August 22, 1996 |
| Completed: | August 23, 1996 |
| General Location: | Sawmill Creek |
| Co-ordinates: | 116°08'03"W longitude, 49°34'23'N latitude |
| Elevation: | 1900 meters |
| Inclination: | -50° |
| Azimuth: | 095° |
| Dip Test Results: | None |
| Hole/Core Size: | NQ |
| Logged By: | Peter Klewchuk |
| Objective: | Test surface zone of gold mineralization |
| Location of Core: | 3380 Wilks Road, Cranbrook |
| Drilled By: | Lone Ranger Diamond Drilling |
| Type of Drill: | Longyear 44 |
| WP7 File No: | Tplog.5 |
| Owner: | Klondike Gold Corp.<br>1000-675 W. Hastings St.<br>Vancouver, B.C., V6B 1N2 |
| Operator: | Klondike Gold Corp.<br>1000-675 W. Hastings St.<br>Vancouver, B.C., V6B 1N2 |

0-6.1m CASING; NO CORE

6.1-15.95 CHLORITE BRECCIA/SILTSTONE
Light gray-green, whitish albitic patches, darker green chlorite veinlets, Some thin beds of laminae are evident, at 60° to core axis but bedding is mostly masked by healed breccia texture. A few veins are limonitic, most are just chlorite. Sections of the core are broken and rubbly, with some core loss evident. 12.95 - 16.46 with ~2.0m core loss.

SAMPLE QC-26 14.6 - 15.95 (?) only 30 - 40cm of rubbly core; interval may be less than 1.35m. <5 ppb Au

15.95-16.2 SILICIOUS ALTERED SILTSTONE
Mottled light gray to gray-green. Healed breccia texture. Appears silicified, transitional zone to underlying quartz-vein zone(?). Patchy limonite.

SAMPLE QC-27 15.95 - 16.2 0.25m 17 ppb Au

16.2-16.46 SILICIFIED SILTSTONE, MINOR QUARTZ VEINING
Mottled pale gray-white to gray-green. More intensely silicified, with thin (1-2mm) light gray quartz veins which are limonitic, vuggy and carry minor disseminated Py. Core is broken and rubbly and zone could be >0.26m.

SAMPLE QC-28 16.2 - 16.46m 0.26m 6 ppb Au

16.46-189 CHLORITIC, BRECCIATED SILTSTONE
Light gray-green, mottled and brecciated, variably limonitic. Core is quite broken, locally rubbly, 2 sections of clay fault gouge; 10cm at 17.1m and 5cm at 17.8m. Fine disseminated Py occurs over 12-15cm near 18.2m.

Bedding/cleavage at 55° to core axis.

SAMPLE QC-29 16.46 - 17.07 0.52m (20cm <5 ppb Au
recovered

18.9-23.7 CHLORITIC SILTSTONE, ARGILLITE AND QUARTZITE
Light gray to medium gray-green. Thin and medium bedded mixture of argillite to quartzite. Argillites are most strongly chloritic; medium to thick (~30cm) quartzites are silicified, weakly brecciated and pyritic. Some albitization may also be present. Bedding and cleavage are sub-parallel at 55 - 60° to core axis.

23.7-24.0 CHLORITE-PYRITE BRECCIA
Light gray to gray-green, brecciated quartzite and silty argillite. Pyrite is more intensely developed than in adjacent zones; est. 4 to 6%, strongly disseminated. Bedding/cleavage at 60° to core angle.

SAMPLE QC-30 23.7 - 24.0 0.3m <5 ppb Au

24.0-39.6 CHLORITIC BRECCIATED SILTSTONE
Variably light gray to gray-green. Thin and medium bedded. Patchy brecciation occurs throughout and obscures bedding. Patchy albitization occurs through much of the interval, with a glassy silicified texture. Disseminated fine-grained pyrite occurs throughout, typically concentrated with more intense brecciation. 25.9 - 30.0 is a vuggy altered section with fine disseminated Py. At 24.9m dark blue-black hematite is developed on a chloritic fracture parallel to core angle.

SAMPLE QC-31 25.9 - 26.0 0.1m

39.6-41.1 ALBITE ALTERED ZONE (ALBITE-CHLORITE BRECCIA)
White, mottled, with green chloritic fractures locally. Massive healed breccia texture; foliated breccia fabric at ~60° to core angle near upper contact. Very minor disseminated Py is present. Both contacts are in broken, rubbly core zones, probable minor faults.

41.1-61.87 CHLORITE-ALBITE BRECCIA
Variably light gray to medium and dark green,. Some thin and medium beds evident at 55° to core axis. Brecciation occurs throughout but intensity varies. Areas of more intense chlorite breccia can be matrix (chlorite) supported; most is clast supported. Minor disseminated PY occurs in some areas of brecciation. Albitization and/or silicification is fairly prevalent with wide zones of more massive, brecciated light gray albite. Very minor fine disseminated Py can be present. Locally faint bluish patches suggest disseminated hematite. At 48.7m there is local development of tan brown leucoxene(?).

| | | | | |
|---|---|---|---|---|
| SAMPLE | QC-32 | 48.5 - 49.1 | 0.6m | 18 ppb Au |
| | QC-33 | 57.0 - 57.4 | 0.4m | <5 ppb Au |

61.87 END OF HOLE

Core is stored at 3380 Wilks Road, Cranbrook, B.C.

# Drill Hole Record

| | |
|---|---|
| Property: | QUARTZ CREEK |
| District: | Fort Steele |
| Hole No: | QC-96-5 |
| Length of Hole: | 204.8m |
| Commenced: | August 28, 1996 |
| Completed: | September 1, 1996 |
| General Location: | Upper West Lisbon Creek |
| Co-ordinates: | 116°09'34"W longitude, 49°34'37"N lat |
| Elevation: | 1955 meters |
| Inclination: | -50° |
| Azimuth: | 115° |
| Dip Test Results: | None |
| Hole/Core Size: | NQ |
| Logged By: | Peter Klewchuk |
| Objective: | Test IP anomaly |
| Location of Core: | 3380 Wilks Road, Cranbrook |
| Drilled By: | Lone Ranger Diamond Drilling |
| Type of Drill: | Longyear 44 |
| WP7 File No: | Tplog.12 |
| Owner: | Klondike Gold Corp.<br>1000-675 W. Hastings St.<br>Vancouver, B.C., V6B 1N2 |
| Operator: | Klondike Gold Corp.<br>1000-675 W. Hastings St.<br>Vancouver, B.C., V6B 1N2 |

0-15.2 CASING; NO CORE

15.2-35.0 ARGILLITE, SILTY ARGILLITE

Pale gray to medium blue-gray. Laminated and very thin bedded. Alternating light gray, medium gray and very finely laminated blue-gray bands. Bedding at 55° to core axis is disturbed by cleavage at 60° to core angle. Locally beds are folded, related to movement along cleavage-parallel fractures. Minor disseminated pyrite occurs throughout, locally concentrated along cleavage planes. Thin vuggy quartz veins are locally present and carry minor pyrite.

| | | | | | |
|---|---|---|---|---|---|
| SAMPLE | QC-34 | 17.1 - 17.8 | 0.7m | Thin QV | <5 ppb Au |
| | QC-35 | 32.3 - 32.6 | 0.3m | Thin QV | <5 ppb Au |

35.0-83.2 ARGILLITE

Light to medium gray-blue and gray-green. Laminated and very thin bedded throughout; rare medium thick beds. 35.0m is about where light gray bands disappear; this interval consists of alternating medium gray "massive" argillite and darker gray very finely laminated bands. Minor pyrite occurs throughout; finely disseminated and concentrated locally in irregular patches or as lenses along bedding or cleavage planes. Scattered thin, vuggy pyritic quartz veins are present. Bedding is at 55 - 60° with considerable disturbance along sub-parallel cleavage.

| | | | | | |
|---|---|---|---|---|---|
| SAMPLE | QC-36 | 37.5 - 37.9 | 0.4 m | thin vuggy pyritic QV | <5 ppb Au |
| | QC-37 | 47.7 - 48.6 | 0.9 m | thin QV | 24 ppb Au |
| | QC-38 | 69-45 - 69.7 | 0.25m | thin QV | 9 ppb Au |
| | QC-39 | 72.0 - 72.1 | 0.1 m | 4 2-5mm QV | <5 ppb Au |

83.2-85.4 CHLORITIC ARGILLITE, QUARTZ VEINS

Medium green, cut by numerous irregular quartz veins. Adjacent zones show increased chloritization toward this interval. Strong tectonic deformation; cleavage obliterates bedding. 5 - 10cm of broken core at 83.25 may be a minor fault. Minor pyrite occurs throughout, disseminated and in thin ragged veinlets. 83.25 - 83.5m is more siliceous, more pyritic (est 4 - 5%). Cleavage at 55° to core axis.

| | | | | |
|---|---|---|---|---|
| SAMPLE | QC-40 | 83.2 - 83.5 | 0.3m | <5 ppb Au |
| | QC-41 | 83.5 - 84.1 | 0.6m | <5 ppb Au |
| | QC-42 | 84.1 - 85.2 | 1.1m | <5 ppb Au |

85.4-92.3 CHLORITIC ARGILLITE

Medium gray green. Originally thin bedded and laminated; bedding almost completely obscured by sub-parallel cleavage at ~55° to core axis. A few thin quartz veins are present, mostly parallel to bedding and cleavage, some cross-cutting. Minor pyrite occurs throughout, disseminated and in cleavage-parallel discontinuous lenses.

92.3-147.6 ARGILLITE

Medium gray-green to darker blue-gray. Laminated and thin bedded. 92.3m is approximately where stronger chloritization diminishes and when bedding is more distinctive. Weaker chloritization and cleavage-related deformation occurs throughout this interval. A few thin quartz veins are scattered through the interval, both parallel to cleavage/bedding and cross cutting. Some quartz veins are vuggy, limonitic with disseminated pyrite. Minor pyrite occurs throughout, est. 1.5%; disseminated, as bedding/cleavage-parallel discontinuous lenses and locally as small ragged patches.

| | | | | |
|---|---|---|---|---|
| SAMPLE | QC-43 | 127.0 - 127.3 | 0.3m thin x-cutting QV with Py & PbS | 12 ppb Au |
| | QC-44 | 127.85 - 129.1 | 0.25m more abundant disseminated Py | <5 ppb Au |

147.6-184.5 CHLORITIC ARGILLITE

Medium gray-green to darker green. Thin bedded and laminated but bedding is mostly obliterated by bedding-sub-parallel cleavage. Locally small scale folding is evident, apparently related to cleavage (ie. tectonic). A few thin, irregular, vuggy and limonitic quartz veins occur locally. Some are bedding/cleavage parallel, some are cross-cutting. Between 156 and 177m small pods of quartz and dolomite? are disseminated through the core, locally comprising 5 or 10%. In places these are limonitic. Minor hematite occurs in some limonitic vugs but no obvious sulfides. Pyrite is disseminated through some of the entire interval but it is minor, est <1%. At a few places (eg. 153.4m, 154.15m and 161.15m) there are narrow shear zones up to 4cm wide, cleavage sub-parallel, with quartz, fine specular hematite and minor fine disseminated pyrite. Cleavage/bedding is typically at 60 - 65° to core axis.

| | | | | | |
|---|---|---|---|---|---|
| SAMPLE | QC-45 | 153.55 - 153.9 | 0.35m | hematite-qtz zone | <5 ppb Au |
| | QC-46 | 168.95 - 169.25 | 0.3 m | thin QV | <5 ppb Au |

184.5-185.5 FAULT ZONE

22cm core recovered (~80cm core loss between 182.7 - 185.5m may be within this fault zone). Limonitic orange-brown to gray-green, clay gouge and small argillite fragments. Shear fabric at ~60° to core axis, parallel to bedding, cleavage. No evidence of fault zone in HW or FW sediments - evidently a bedding/cleavage parallel zone.

185.5-204.8 CHLORITIC ARGILLITE

Medium to dark gray-green. Thin bedded and laminated with sub-parallel cleavage, largely obliterating bedding. A few thin quartz veins are scattered through the interval. At 197.6m a 5 - 6cm wide zone at 60° to core axis is pegmatitic with white feldspar, light gray quartz and pale brown dolomite. Styolitic chlorite-pyrite seams cut through the pegmatite zone. Minor disseminated pyrite occurs throughout; locally there are fine, thin irregular veinlets of pyrite. Est. 1 - 2% pyrite. Bedding is at 53°, cleavage at 60° to core axis.

204.8 END OF HOLE

# Bondar Clegg
## Inchcape Testing Services

Geochemical Lab Report

CLIENT: KENNECOTT CANADA INC.
REPORT: V96-01617.0 ( COMPLETE )

PROJECT: CRANBROOK
DATE PRINTED: 11-OCT-96 PAGE 1

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB | Ag PPM | Cu PPM | Pb PPM | Zn PPM | Mo PPM | Ni PPM | Co PPM | Cd PPM | Bi PPM | As PPM | Sb PPM | Fe PCT | Mn PPM | Te PPM | Ba PPM | Cr PPM | V PPM | Sn PPM | W PPM | La PPM | Al PCT | Mg PCT | Ca PCT | Na PCT | K PCT | Sr PPM | Y PPM | Ga PPM | Li PPM | Nb PPM | Sc PPM | Ta PPM | Ti PCT | Zr PPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QC-1 | | 38 | <.2 | 12 | 9 | 8 | <1 | 6 | 1 | <.2 | <5 | <5 | <5 | 0.20 | 64 | <10 | 25 | 135 | 3 | <20 | <20 | 12 | 0.62 | 0.92 | <.01 | 0.01 | 0.11 | 3 | 1 | <2 | 7 | <1 | <5 | <10 | <.01 | <1 |
| QC-2 | | 19 | <.2 | 38 | 15 | 11 | <1 | 6 | 1 | <.2 | <5 | <5 | <5 | 0.21 | 27 | <10 | 24 | 99 | 6 | <20 | <20 | 13 | 0.85 | 1.11 | <.01 | 0.01 | 0.19 | 3 | 2 | <2 | 10 | <1 | <5 | <10 | <.01 | 1 |
| QC-3 | | <5 | <.2 | 18 | 10 | 2 | <1 | 4 | <1 | <.2 | <5 | <5 | <5 | 0.19 | 26 | <10 | 40 | 180 | 2 | <20 | <20 | <1 | 0.10 | <.01 | <.01 | <.01 | 0.06 | 1 | <1 | <2 | <1 | <1 | <5 | <10 | <.01 | <1 |
| QC-4 | | 6 | <.2 | 12 | 43 | 28 | <1 | 7 | 3 | <.2 | <5 | <5 | <5 | 0.46 | 411 | <10 | 120 | 106 | 5 | <20 | <20 | 22 | 0.42 | 0.12 | 0.01 | 0.01 | 0.20 | 4 | 2 | <2 | 3 | <1 | <5 | <10 | <.01 | 2 |
| QC-5 | | 10 | 0.3 | 7 | 8 | 15 | <1 | 6 | 4 | <.2 | <5 | <5 | <5 | 0.82 | 281 | <10 | 65 | 40 | 4 | <20 | <20 | 31 | 0.63 | 0.13 | 0.03 | 0.01 | 0.21 | 3 | 2 | 3 | 2 | <1 | <5 | <10 | <.01 | 3 |
| QC-6 | | <5 | <.2 | 5 | 6 | 16 | <1 | 10 | 4 | <.2 | <5 | <5 | <5 | 0.89 | 153 | <10 | 39 | 108 | 5 | <20 | <20 | 25 | 0.60 | 0.18 | 0.02 | 0.05 | 0.18 | 3 | 2 | 2 | 3 | <1 | <5 | <10 | <.01 | 3 |
| QC-7 | | <5 | <.2 | 10 | 6 | 19 | <1 | 8 | 4 | <.2 | <5 | <5 | <5 | 0.97 | 619 | <10 | 45 | 100 | 5 | <20 | <20 | 24 | 0.66 | 0.23 | 0.03 | 0.05 | 0.18 | 3 | 3 | 3 | 3 | <1 | <5 | <10 | <.01 | 3 |
| QC-8 | | <5 | <.2 | 4 | <2 | 21 | <1 | 12 | 5 | <.2 | <5 | <5 | <5 | 1.23 | 142 | <10 | 60 | 121 | 7 | <20 | <20 | 34 | 0.98 | 0.49 | 0.03 | 0.06 | 0.31 | 3 | 3 | 3 | 5 | <1 | <5 | <10 | <.01 | 4 |
| QC-9 | | <5 | <.2 | 6 | <2 | 18 | 1 | 8 | 3 | <.2 | <5 | <5 | <5 | 0.69 | 63 | <10 | 40 | 163 | 4 | <20 | <20 | 20 | 0.48 | 0.11 | 0.03 | 0.01 | 0.21 | 2 | 2 | <2 | 2 | <1 | <5 | <10 | <.01 | 2 |
| QC-10 | | <5 | <.2 | 6 | 6 | 10 | <1 | 7 | 2 | <.2 | <5 | <5 | <5 | 0.48 | 52 | <10 | 28 | 203 | 3 | <20 | <20 | 15 | 0.31 | 0.04 | 0.01 | 0.01 | 0.13 | 1 | 1 | <2 | 1 | <1 | <5 | <10 | <.01 | 2 |
| QC-11 | | <5 | <.2 | 7 | <2 | 31 | 1 | 11 | 5 | <.2 | <5 | <5 | <5 | 0.71 | 85 | <10 | 62 | 194 | 5 | <20 | <20 | 23 | 0.79 | 0.46 | 0.06 | 0.01 | 0.27 | 3 | 2 | 3 | 5 | <1 | <5 | <10 | <.01 | 3 |
| QC-12 | | <5 | <.2 | 11 | <2 | 26 | <1 | 11 | 4 | <.2 | <5 | <5 | <5 | 0.62 | 65 | <10 | 46 | 200 | 6 | <20 | <20 | 23 | 0.56 | 0.18 | 0.06 | 0.01 | 0.24 | 3 | 2 | <2 | 2 | <1 | <5 | <10 | <.01 | 3 |
| QC-13 | | <5 | <.2 | 5 | <2 | 18 | 1 | 8 | 3 | <.2 | <5 | <5 | <5 | 0.60 | 58 | <10 | 52 | 153 | 5 | <20 | <20 | 30 | 0.44 | 0.03 | 0.08 | <.01 | 0.25 | 3 | 2 | <2 | 1 | <1 | <5 | <10 | <.01 | 3 |
| QC-14 | | 17 | <.2 | 5 | 6 | 14 | 3 | 9 | 3 | 0.5 | <5 | <5 | <5 | 0.47 | 133 | <10 | 48 | 144 | 3 | <20 | <20 | 9 | 0.27 | 0.02 | 0.02 | <.01 | 0.14 | 2 | 1 | <2 | <1 | <1 | <5 | <10 | <.01 | 1 |
| QC-15 | | <5 | <.2 | 4 | <2 | 12 | 1 | 7 | 2 | <.2 | <5 | <5 | <5 | 0.56 | 84 | <10 | 42 | 143 | 2 | <20 | <20 | 10 | 0.30 | 0.02 | 0.02 | 0.01 | 0.14 | 2 | 1 | <2 | <1 | <1 | <5 | <10 | <.01 | 2 |
| QC-16 | | <5 | <.2 | 2 | <2 | 4 | <1 | 8 | 4 | <.2 | <5 | <5 | <5 | 0.69 | 241 | <10 | 8 | 48 | 20 | <20 | <20 | 20 | 0.59 | 0.75 | 0.97 | 0.10 | 0.06 | 7 | 3 | 3 | 3 | <1 | <5 | <10 | <.01 | 2 |
| QC-17 | | <5 | <.2 | 7 | <2 | 9 | 2 | 15 | 14 | <.2 | <5 | <5 | <5 | 3.46 | 112 | <10 | 5 | 96 | 28 | <20 | <20 | 6 | 0.57 | 0.75 | 0.18 | 0.08 | 0.03 | 2 | 3 | 3 | 3 | <1 | <5 | <10 | 0.02 | 2 |
| QC-18 | | <5 | <.2 | 2 | <2 | 46 | 2 | 57 | 22 | <.2 | <5 | <5 | <5 | 4.78 | 624 | <10 | 12 | 168 | 101 | <20 | <20 | 1 | 2.18 | 2.25 | 1.84 | 0.04 | 0.07 | 20 | 5 | 8 | 11 | <1 | 5 | <10 | 0.13 | <1 |
| QC-19 | | <5 | <.2 | 2 | <2 | 24 | 2 | 50 | 5 | <.2 | <5 | <5 | <5 | 3.46 | 347 | <10 | 8 | 54 | 97 | <20 | <20 | 10 | 2.58 | 2.83 | 0.83 | 0.06 | 0.08 | 10 | 3 | 14 | 17 | <1 | 15 | <10 | <.01 | <1 |
| QC-20 | | 14 | <.2 | 17 | 8 | <1 | 2 | 59 | 132 | <.2 | 6 | 7 | <5 | 4.26 | 220 | <10 | 3 | 29 | 4 | <20 | <20 | <1 | 0.16 | 0.50 | 0.90 | 0.08 | 0.05 | 13 | 3 | <2 | <1 | <1 | <5 | <10 | <.01 | 3 |
| QC-21 | | <5 | <.2 | 17 | <2 | 17 | 3 | 22 | 20 | <.2 | <5 | <5 | <5 | 2.99 | 333 | <10 | 5 | 48 | 26 | <20 | <20 | 4 | 1.52 | 2.10 | 0.55 | 0.05 | 0.04 | 6 | 3 | 8 | 10 | <1 | <5 | <10 | <.01 | 4 |
| QC-22 | | <5 | <.2 | 10 | <2 | 19 | 3 | 21 | 13 | <.2 | <5 | <5 | <5 | 2.92 | 303 | <10 | 14 | 46 | 20 | <20 | <20 | 5 | 1.48 | 2.17 | 0.75 | 0.04 | 0.10 | 8 | 3 | 8 | 9 | <1 | <5 | <10 | <.01 | 4 |
| QC-23 | | <5 | <.2 | 5 | <2 | 21 | 3 | 21 | 29 | <.2 | <5 | <5 | <5 | 2.73 | 240 | <10 | 7 | 46 | 31 | <20 | <20 | 11 | 1.60 | 2.31 | 0.61 | 0.05 | 0.03 | 8 | 3 | 8 | 11 | <1 | <5 | <10 | <.01 | 4 |
| QC-24 | | <5 | <.2 | 9 | <2 | 18 | 3 | 19 | 28 | <.2 | <5 | <5 | <5 | 2.44 | 257 | <10 | 8 | 54 | 25 | <20 | <20 | 13 | 1.35 | 2.09 | 0.68 | 0.08 | 0.02 | 8 | 3 | 7 | 9 | <1 | <5 | <10 | <.01 | 5 |
| QC-25 | | 8 | <.2 | 39 | <2 | 13 | 3 | 19 | 99 | <.2 | 7 | <5 | <5 | 4.97 | 428 | <10 | 4 | 39 | 28 | <20 | <20 | <1 | 1.19 | 1.65 | 1.68 | 0.05 | 0.03 | 17 | 3 | 5 | 7 | <1 | <5 | <10 | <.01 | 3 |
| QC-26 | | <5 | <.2 | 7 | <2 | 22 | 2 | 16 | 13 | <.2 | <5 | <5 | <5 | 2.35 | 424 | <10 | 75 | 21 | 5 | <20 | <20 | 37 | 0.83 | 0.29 | 0.05 | 0.01 | 0.26 | 4 | 4 | 2 | 3 | <1 | <5 | <10 | <.01 | <1 |
| QC-27 | | 17 | <.2 | 3 | <2 | 15 | 1 | 10 | 2 | <.2 | <5 | <5 | <5 | 1.29 | 22 | <10 | 25 | 45 | 5 | <20 | <20 | 27 | 0.74 | 0.23 | 0.03 | 0.03 | 0.15 | 3 | 3 | <2 | 2 | <1 | <5 | <10 | <.01 | <1 |
| QC-28 | | 6 | <.2 | 4 | <2 | 4 | <1 | 6 | 6 | <.2 | <5 | <5 | <5 | 1.10 | 30 | <10 | 9 | 83 | 2 | <20 | <20 | 11 | 0.26 | <.01 | <.01 | 0.05 | 0.04 | 2 | 2 | <2 | <1 | <1 | <5 | <10 | <.01 | <1 |
| QC-29 | | <5 | <.2 | 28 | <2 | 21 | 1 | 16 | 9 | <.2 | <5 | <5 | <5 | 1.73 | 149 | <10 | 47 | 60 | 5 | <20 | <20 | 41 | 0.89 | 0.31 | 0.04 | 0.01 | 0.25 | 4 | 5 | 3 | 3 | <1 | <5 | <10 | <.01 | <1 |
| QC-30 | | <5 | <.2 | 7 | 8 | 34 | 3 | 20 | 16 | <.2 | <5 | <5 | <5 | 3.48 | 333 | <10 | 32 | 56 | 17 | <20 | <20 | 7 | 1.57 | 1.55 | 0.49 | 0.03 | 0.20 | 5 | 2 | 7 | 14 | <1 | <5 | <10 | <.01 | 1 |

Appendix 2. Geochemical Analyses

# Bondar Clegg
## Inchcape Testing Services

Geochemical Lab Report

CLIENT: KENNECOTT CANADA INC.

REPORT: V96-01617.0 ( COMPLETE )

PROJECT: CRANBROOK

DATE PRINTED: 11-OCT-96 PAGE 2

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB | Ag PPM | Cu PPM | Pb PPM | Zn PPM | Mo PPM | Ni PPM | Co PPM | Cd PPM | Bi PPM | As PPM | Sb PPM | Fe PCT | Mn PPM | Te PPM | Ba PPM | Cr PPM | V PPM | Sn PPM | W PPM | La PPM | Al PCT | Mg PCT | Ca PCT | Na PCT | K PCT | Sr PPM | Y PPM | Ga PPM | Li PPM | Nb PPM | Sc PPM | Ta PPM | Ti PCT | Zr PPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QC-31 | | <5 | <.2 | 11 | <2 | 36 | 2 | 18 | 13 | <.2 | <5 | <5 | <5 | 3.56 | 129 | <10 | 42 | 43 | 9 | <20 | <20 | 7 | 1.27 | 0.97 | 0.19 | 0.05 | 0.22 | 4 | 3 | 2 | 10 | <1 | <5 | <10 | <.01 | <1 |
| QC-32 | | 18 | <.2 | 3 | <2 | 13 | 1 | 11 | 2 | <.2 | <5 | <5 | <5 | 0.94 | 142 | <10 | 12 | 88 | 9 | <20 | <20 | 20 | 0.54 | 0.60 | 0.39 | 0.07 | 0.09 | 6 | 2 | 3 | 3 | <1 | <5 | <10 | <.01 | 1 |
| QC-33 | | <5 | <.2 | 4 | <2 | 29 | 2 | 13 | 4 | <.2 | <5 | <5 | <5 | 2.34 | 347 | <10 | 18 | 73 | 22 | <20 | <20 | 20 | 1.35 | 1.57 | 0.34 | 0.05 | 0.06 | 4 | 2 | 7 | 11 | <1 | <5 | <10 | <.01 | <1 |
| QC-34 | | <5 | <.2 | 43 | 19 | 76 | 1 | 27 | 15 | <.2 | <5 | <5 | <5 | 3.73 | 264 | <10 | 35 | 33 | 12 | <20 | <20 | 14 | 2.13 | 1.56 | <.01 | 0.01 | 0.20 | 3 | 3 | 5 | 17 | <1 | <5 | <10 | <.01 | 2 |
| QC-35 | | <5 | 0.2 | 30 | 29 | 83 | 4 | 20 | 5 | <.2 | <5 | <5 | <5 | 4.45 | 157 | <10 | 29 | 28 | 10 | <20 | <20 | 23 | 1.82 | 1.09 | <.01 | 0.01 | 0.18 | 2 | 4 | 3 | 11 | <1 | <5 | <10 | <.01 | 2 |
| QC-36 | | <5 | <.2 | 29 | 31 | 81 | 4 | 22 | 18 | <.2 | 9 | <5 | <5 | 5.25 | 259 | <10 | 37 | 31 | 11 | <20 | <20 | 15 | 1.93 | 1.41 | 0.02 | 0.02 | 0.23 | 9 | 4 | 5 | 15 | <1 | <5 | <10 | <.01 | 3 |
| QC-37 | | 24 | <.2 | 17 | 15 | 51 | 2 | 17 | 9 | <.2 | 6 | <5 | <5 | 3.40 | 207 | <10 | 34 | 29 | 7 | <20 | <20 | 10 | 1.15 | 0.84 | 0.09 | 0.02 | 0.22 | 5 | 4 | <2 | 9 | <1 | <5 | <10 | <.01 | 3 |
| QC-38 | | 9 | <.2 | 137 | 360 | 405 | 5 | 249 | 64 | 1.8 | 19 | <5 | <5 | 9.48 | 864 | <10 | 7 | 471 | 194 | <20 | <20 | 6 | 3.64 | 2.44 | 0.47 | <.01 | 0.06 | 29 | 5 | 11 | 34 | <1 | 13 | <10 | <.01 | 2 |
| QC-39 | | <5 | 0.2 | 8 | 55 | 73 | 2 | 12 | 5 | <.2 | <5 | <5 | <5 | 3.38 | 399 | <10 | 26 | 56 | 13 | <20 | <20 | 19 | 1.93 | 1.67 | 0.09 | 0.03 | 0.16 | 5 | 7 | 4 | 17 | <1 | <5 | <10 | <.01 | 3 |
| QC-40 | | <5 | <.2 | 9 | <2 | 66 | 4 | 29 | 14 | <.2 | 6 | <5 | <5 | 4.77 | 124 | <10 | 16 | 46 | 16 | <20 | <20 | 11 | 1.58 | 1.55 | 0.07 | 0.04 | 0.11 | 3 | 3 | 3 | 14 | <1 | <5 | <10 | <.01 | 3 |
| QC-41 | | <5 | <.2 | 9 | <2 | 63 | 2 | 24 | 12 | <.2 | 6 | <5 | <5 | 3.83 | 105 | <10 | 16 | 53 | 17 | <20 | <20 | 7 | 1.40 | 1.36 | 0.09 | 0.06 | 0.12 | 4 | 3 | 3 | 12 | <1 | <5 | <10 | <.01 | 3 |
| QC-42 | | <5 | <.2 | 8 | <2 | 59 | 2 | 28 | 14 | <.2 | <5 | <5 | <5 | 3.62 | 160 | <10 | 30 | 37 | 14 | <20 | <20 | 7 | 1.71 | 1.56 | 0.08 | 0.04 | 0.21 | 3 | 2 | 2 | 14 | <1 | <5 | <10 | <.01 | 3 |
| QC-43 | | 12 | 0.5 | 36 | 317 | 86 | 9 | 22 | 13 | 0.6 | 7 | <5 | <5 | 3.57 | 83 | <10 | 22 | 29 | 8 | <20 | <20 | 6 | 0.79 | 0.47 | 0.09 | 0.02 | 0.25 | 6 | 3 | <2 | 4 | <1 | <5 | <10 | <.01 | 3 |
| QC-44 | | <5 | <.2 | 39 | 44 | 72 | 2 | 21 | 13 | <.2 | 5 | <5 | <5 | 4.08 | 902 | <10 | 32 | 25 | 8 | <20 | <20 | 5 | 1.44 | 1.36 | 0.98 | 0.02 | 0.20 | 56 | 3 | 3 | 10 | <1 | <5 | <10 | <.01 | 2 |
| QC-45 | | <5 | <.2 | 41 | <2 | 51 | 2 | 18 | 10 | <.2 | <5 | <5 | <5 | 3.09 | 467 | <10 | 32 | 30 | 12 | <20 | <20 | 17 | 1.40 | 1.43 | 0.41 | 0.02 | 0.20 | 15 | 3 | 3 | 13 | <1 | <5 | <10 | <.01 | 2 |
| QC-46 | | <5 | <.2 | 3 | 26 | 81 | 2 | 18 | 10 | <.2 | <5 | <5 | <5 | 2.81 | 1031 | <10 | 69 | 34 | 9 | <20 | <20 | 28 | 1.51 | 1.30 | 0.15 | 0.02 | 0.23 | 14 | 4 | 4 | 12 | <1 | <5 | <10 | <.01 | 2 |