

ASSESSMENT REPORT
on
ROTARY AND DIAMOND DRILLING

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FRAN PROPERTY

Moyie Lake Area

FORT STEELE MINING DIVISION
BRITISH COLUMBIA

NTS 82 G/5 W
TRIM 82G.031

UTM 5,471,000N 585,000E

For

KLONDIKE GOLD CORPORATION

By

PETER KLEWCHUK, P. Geo.

June, 2002

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,868

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1.00 INTRODUCTION

This report describes a program of rotary and diamond drilling completed on the Fran property in the Moyie Lake area during March and April, 2002.

1.10 Location and Access

The Fran property is located about 13 kilometers south-southwest of Cranbrook, B.C., and is centered approximately at UTM coordinates 585,000E, 5,471,000N (Fig. 1).

The property is readily accessible via Highway 3/95 south of Cranbrook, B.C. The Hidden Valley Road north of Moyie Lake crosses the property as do a number of tributary logging roads. The site of the drill hole reported on here is accessed by taking a short road off the Hidden Valley road through the southwest corner of the government gravel pit which is just east of Highway 3/95. Approximate UTM coordinates of Drill Hole F-02-1 are 5,470,540N, 584,160E.

1.20 Physiography

The Fran property is located in relatively low elevation, undulating valley bottom topography immediately north of Moyie Lake. Elevations range from 935 to 1220 meters. Forest cover consists mainly of fir, pine and larch. Parts of the Fran property have been fairly recently clear-cut logged.

1.30 Property

The Fran property is comprised of 49 claim units in 2 four-post claims and 13 two-post claims (Fig. 2) and includes the Fran, Fran 2 to 10, Fran 15 to 17 and Fran 20 and 21 mineral claims.

1.40 History of Previous Exploration

The Fran property lies between the Fors and Vine properties which have each been extensively explored for base metal sedex (sedimentary-exhalative) type deposits like the world-class Sullivan orebody at Kimberley, B.C. Deep drilling on these two properties, to test equivalent stratigraphy that hosted the Sullivan deposit, indicated that a possible thickening in Sullivan-equivalent host strata could exist on the Fran claims.

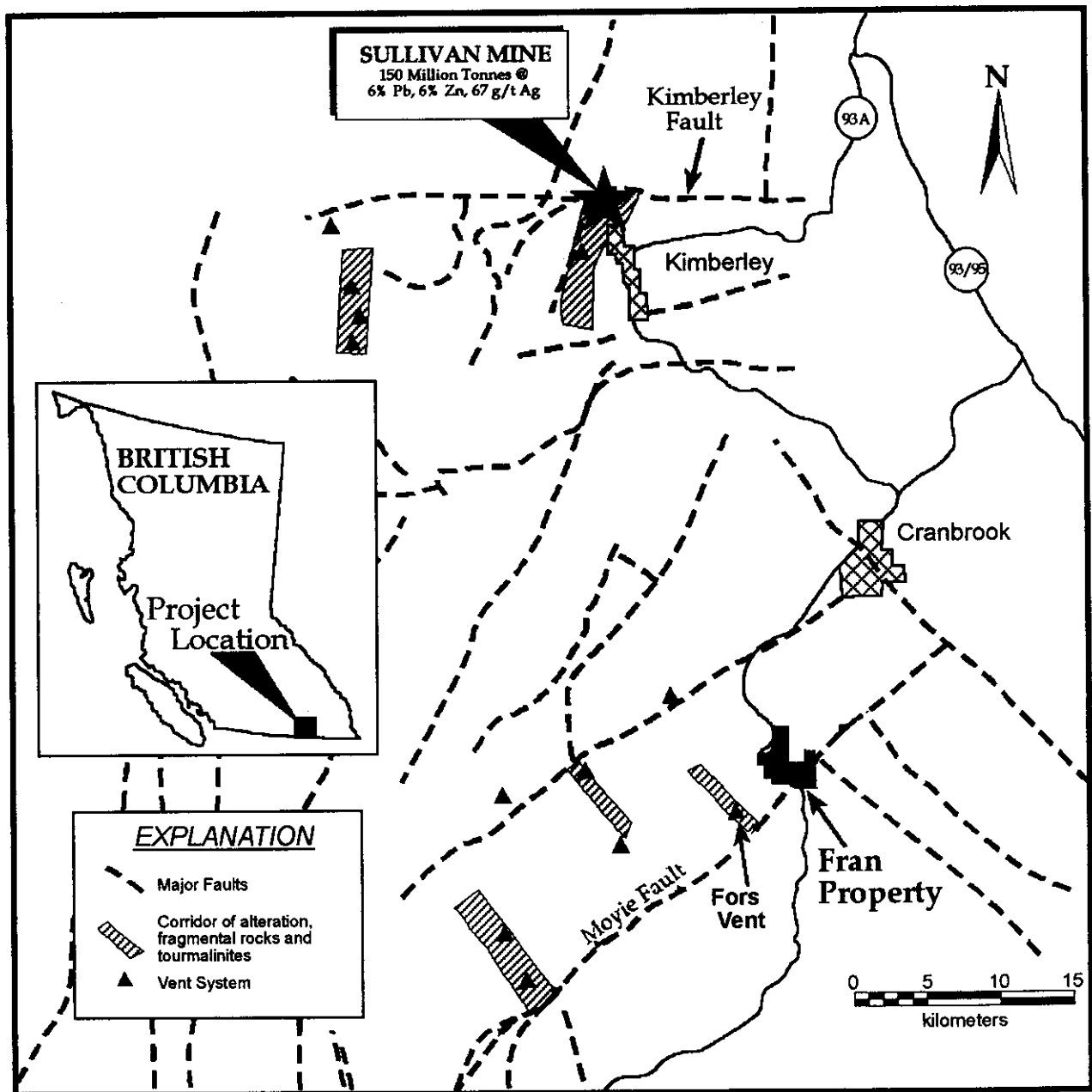


Figure 1. Property Location Map

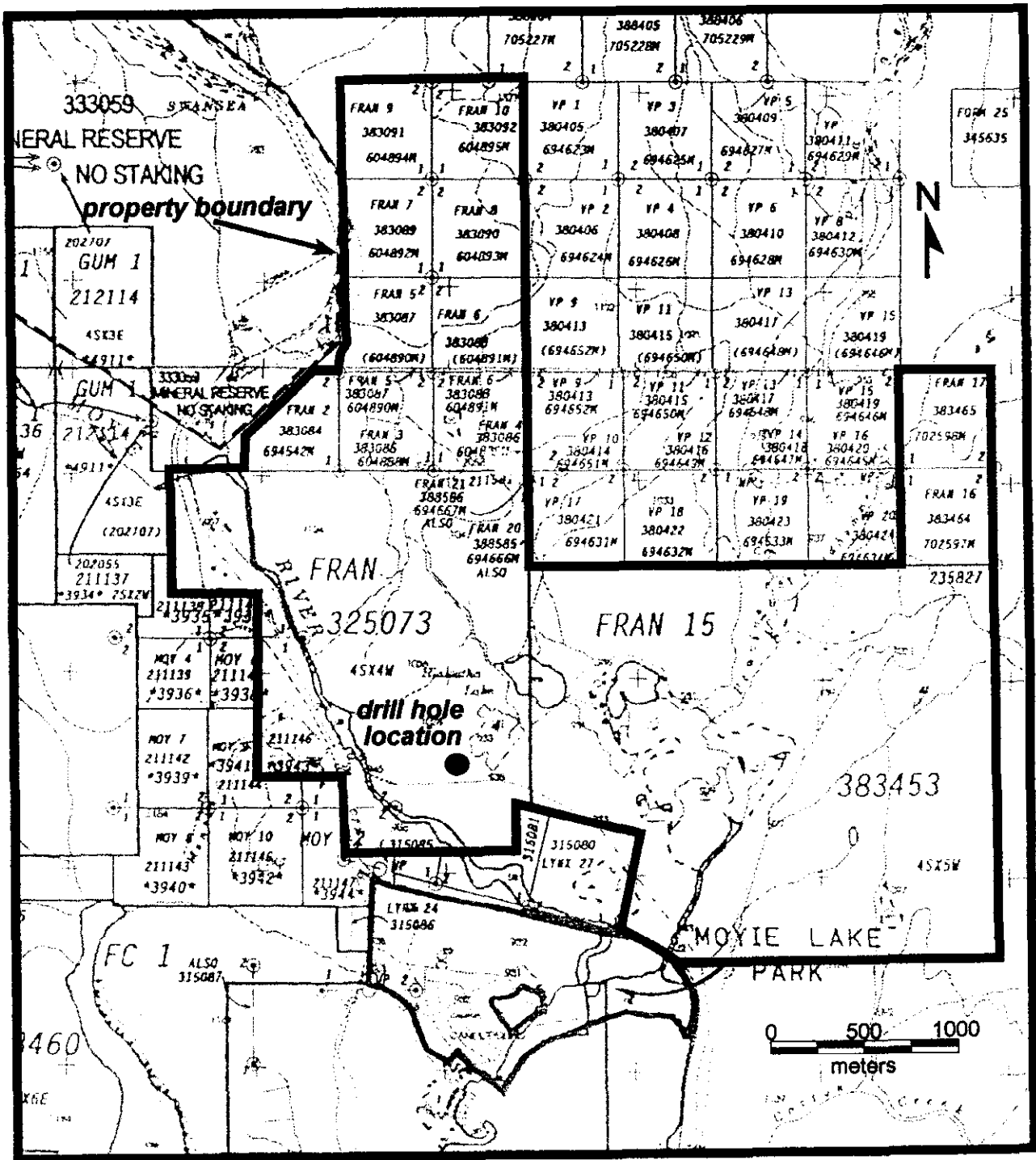


Figure 2. Claim and Drill Hole Location Map

1.50 2000 Program

Between February and April, 2002 a single, vertical, rotary and diamond drill hole was completed on the Fran mineral claim just north of Moyie Lake. The hole was drilled to test the lower-middle Aldridge Formation contact, stratigraphy that hosted the world-class Sullivan sedex zinc-lead-silver deposit just north of Kimberley, B.C.

2.00 GEOLOGY

2.10 Regional Geology

Bedrock on the Fran property is part of the Mesoproterozoic Purcell Supergroup, a thick succession of fine-grained terrigenous clastic and carbonate sedimentary rocks exposed in the core of the Purcell Anticlinorium in southeast British Columbia. The Purcell basin was formed by block faulting in an intracratonic setting on the western margin of the Precambrian North American Craton.

The oldest known member of the Purcell Supergroup is the Aldridge Formation, a thick sequence of fine-grained siliciclastic rocks deposited largely by turbidity currents. Reesor (1958) has divided the Aldridge Formation in the Purcell Mountains into three informal units: rusty weathering siltstone, quartzitic wacke and argillite of the lower Aldridge Formation; grey weathering quartz wacke and siltstone of the middle Aldridge Formation; and laminated argillite of the upper Aldridge Formation.

The lower Aldridge Formation, whose base is not exposed, has a maximum known thickness of about 1500 meters within southeastern British Columbia. The middle Aldridge is about 2500 meters thick and includes periodic inter-turbidite intervals of thin bedded, rusty-weathering argillites some of which form finely laminated marker beds that are time stratigraphic units and which can be correlated over great distances within the Aldridge basin and equivalent stratigraphy in the United States. The upper Aldridge Formation is about 300 meters thick.

The lower and middle units of the Aldridge Formation are host to a proliferation of gabbroic to dioritic composition Moyie Intrusions, predominantly as sills. These intrusions are interpreted to be penecontemporaneous with deposition of their host sediments (Hoy, 1989).

The Aldridge Formation is gradationally overlain by shallower-water deltaic clastics of the Creston Formation. The Creston Formation is in turn overlain by predominantly dolomitic siltstones of the Kitchener Formation.

The Purcell Anticlinorium is transected by a number of steep transverse and longitudinal faults. The transverse faults appear to have been syndepositional (Lis and Price, 1976) and Hoy (1982) suggests a possible genetic link between sedex style base metal mineralization and syndepositional faulting.

Longitudinal faults which more closely parallel the direction of basin growth faults may have played a similar role. The world class zinc-lead-silver sedex Sullivan orebody, which occurs at the upper contact of the lower Aldridge Formation, is part of a NNE oriented structural corridor that hosts extensive evidence of disturbed sedimentation and hydrothermal vent products as well as base metal sulfides. This corridor is parallel to longitudinal basin growth faults and is probably related to such a structure.

2.20 Property Geology

The Fran property straddles the Moyie Fault; north of this structure the claims are underlain by the middle informal member of the Aldridge Formation; south of the Moyie Fault is younger Kitchener Formation. Bedrock exposure north of the Moyie Fault is limited to less than 5% of the surface area and consists of argillites, siltstones and quartz wackes.

Aldridge stratigraphy exposed on the Fran claims is relatively low in the middle Aldridge and provides an opportunity to drill test the lower-middle Aldridge contact, which is host to the Sullivan orebody at Kimberley.

3.00 ROTARY & DIAMOND DRILLING

3.10 Introduction

The Fran drill hole was collared in 2001, initially with a diamond drill. Overburden could not be completely drilled through and a rotary drill was employed to try and case off the overburden. The rotary drill did not successfully get through all of the overburden and the diamond drill tried a second time to get to bedrock. This also was unsuccessful and the rotary drill returned to drill a smaller rotary hole within the existing casing. In February, 2002 the rotary drill deepened the hole to 140.2 meters from which point the diamond drill continued and finally reached bedrock at a depth of 208.8 meters. The vertical hole, NQ in size (7.3 cm in diameter) was collared on the Fran mineral claim and completed to 560.2 meters on April 6, 2002. The hole is located approximately at UTM coordinates 584,160E, 5,470,540 N and an elevation of about 940 meters (Fig. 2). Rotary drilling was carried out by Owens Drilling Ltd. of Cranbrook B.C and diamond drilling was carried out by LeClerc Diamond Drilling Ltd. of Cranbrook B.C. The program was funded by Klondike Gold Corporation of Vancouver, B.C. Drill core was logged by the author and is stored at Vine Properties, off Hidden Valley road, 19 km south of Cranbrook, B.C. A diamond drill hole log is provided as Appendix 1 and Figure 3 is a graphic log .

3.20 Results

Drill hole F-02-1 collared in middle Aldridge Formation rocks after penetrating 208.8 meters of overburden. Middle Aldridge Formation lithologies encountered are typical siltstones, quartzites and argillites, commonly medium and thin bedded with some thicker-bedded quartzites. Bedding style is common for the Aldridge with mostly planar bedding. Two intrusive bodies were encountered; from 363.3 to 363.8 a narrow fine-grained, calcareous gray-green dike was intersected and from 447.7 to 450.4 m a narrow gabbro sill was drilled. (Appendix 1 and Figure 3).

Pyrrhotite is somewhat more concentrated as thin laminations and disseminations near 460.6 meters, in association with a generally more argillaceous section of core that may be equivalent stratigraphy to the Sullivan orebody at Kimberley.

4.00 CONCLUSIONS AND RECOMMENDATIONS

Diamond drill hole F-02-1 successfully tested the lower-middle Aldridge Formation contact, stratigraphy which at Kimberley hosted the world-class Sullivan sedex zinc-lead-silver orebody. The strata which characterizes this contact is much more argillaceous than normal middle or lower Aldridge stratigraphy and is associated with minor laminated and disseminated pyrrhotite.

5.00 REFERENCES

- Hoy, T., 1982 The Purcell Supergroup in southeastern British Columbia: sedimentation, tectonics and stratiform lead-zinc deposits. In : Precambrian sulphide deposits; H.S. Robinson Memorial Volume (R.W Hutchison, C.D. Spence, and J.M. Franklin, Eds.) Geol. Assoc. Can. Special Paper 25.
- Hoy, T., 1989 The age, chemistry and tectonic setting of the Middle Proterozoic Moyie Sills, Purcell Supergroup, Southeast British Columbia; Canadian Journal of Earth Sciences, V.26, p. 2305-2317.
- Lis, M.G. and Price, R.A., 1976 Large scale block faulting during deposition of the Windermere Supergroup (Hadrynian) in southeastern British Columbia: Geol. Surv. Can. Paper 76-1A, p135-136.
- Reesor, J.E., 1958 Dewar Creek map-area with special emphasis on the White Creek Batholith, British Columbia: Geol. Surv. Canada, Memoir 292, 78 p.

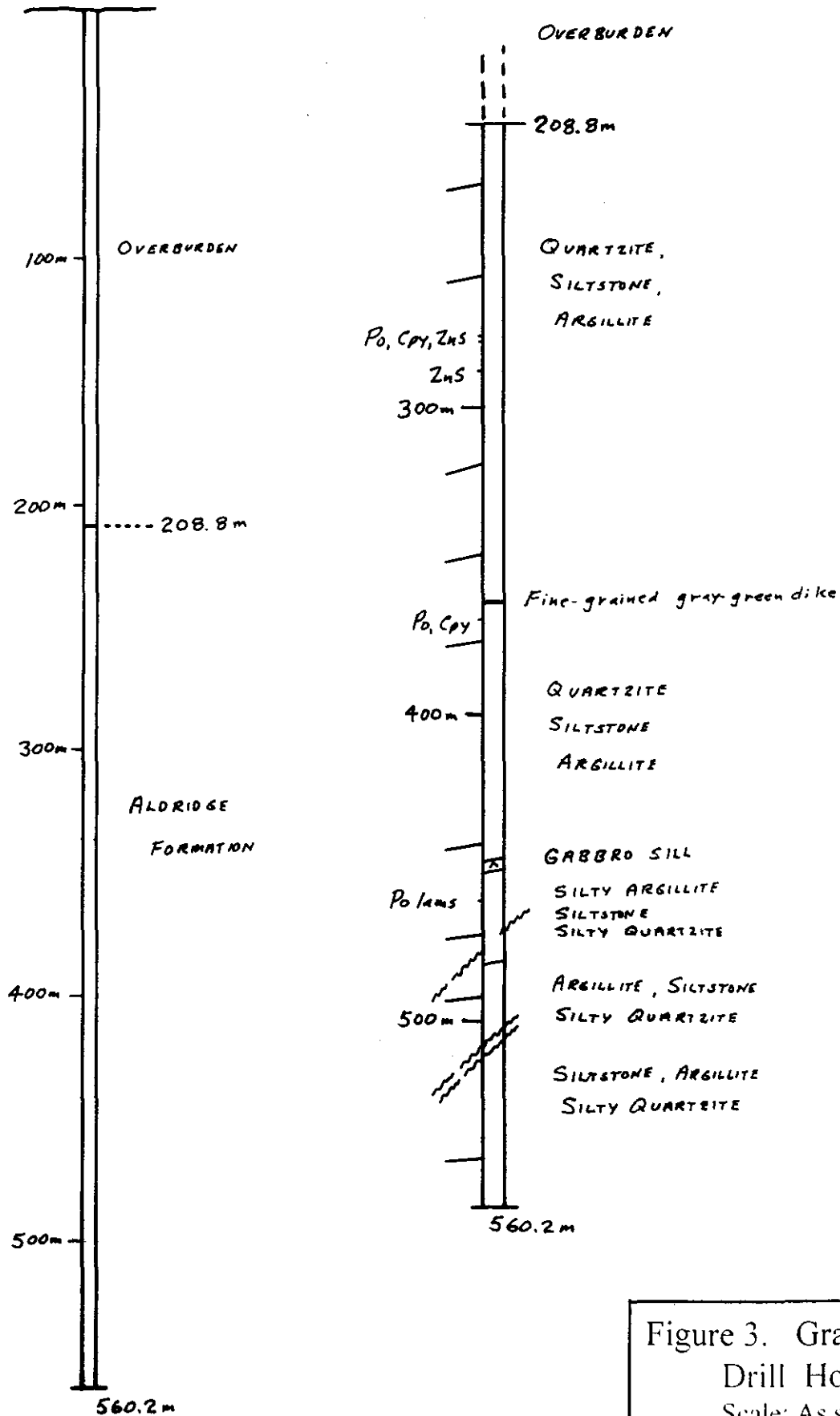


Figure 3. Graphic Log
Drill Hole F-02-1
Scale: As shown
June, 2002

6.00 STATEMENT OF EXPENDITURES

Drill Contractor: Owens Drilling Ltd, Deepening cased hole	\$ 5,000.00
Drill Contractor: LeClerc Drilling Ltd., Cranbrook, B.C. One hole, F-02-1, 140.2 to 560.2m	43,026.85
Contractors: Super Group Holdings Ltd. P. Klewchuk, P. Geo. 5.5 days @ \$353.10/day Drill supervision, log core, report	1,942.05
B. Collison, Labourer 3 days @ \$198.00/day Haul core	594.00
Total Cost	\$50,562.90

7.00 AUTHOR'S QUALIFICATIONS

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

1. I am an independent 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 M.Sc. 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 British Columbia.
4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 27 years.
5. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 11th day of June, 2002.

Peter Klewchuk
Peter Klewchuk
P. Geo.



Appendix 1.

DIAMOND DRILL LOG

Property: Fran	Hole Number: F-02-1	Depth: 560.2m
Core Size: NQ	Location: E N	Elevation: 940m
Collar Bearing: -	Collar Dip: -90°	Casing: 207.9m
Commenced: ~Nov., 2001	Completed: April 6, 2002	Core Storage: Vine
Logged By: P. Klewchuk, P. Geo. Date: April 4-6, 2002		
Drill Contractor: LeClerc Drilling Ltd., Cranbrook, B.C. Owens Drilling Ltd., Cranbrook, B.C.		

Depth, m		Description
From	To	
0	~208.8m	<p>OVERBURDEN, CASING, no core.</p> <p>This upper portion of the hole was drilled initially with a diamond drill rig, then with a water well rig, and finally with a diamond drill again.</p>
208.8-363.3		<p>QUARTZITES, SILTSTONES and ARGILLITES</p> <p>Middle Aldridge Formation Metasediments. Light, medium and darker gray; mostly medium and thick bedded. Bedding near 210 m at 80° to core axis (c/a). Upper core is pyrite-chlorite altered. Py is smeared along fractures and occurs as thin irregular bedding-parallel bands. Locally contacts of thin argillite bands can be disrupted on a small scale with mm-scale offsets on healed high angle fractures.</p> <p>Near 216 m a few near-vertical (20° to c/a) 2-3 cm wide QV are present with locally abundant biotite and chlorite.</p> <p>Near 227 m bedding at ~80° to c/a.</p> <p>228.1 m to 228.9 m is mostly quartz veining at ~20° to c/a with abundant dissem. biotite, concentrated on vein margins. Very minor dissem. chlorite.</p> <p>Bedding near 237 m at 70 - 80° to c/a (sub-horizontal).</p> <p>243.5 - 244 m is mostly QV ~35° to c/a with dissem. biotite and irregular patches of po. 2 -3 mm diam. Pink garnet porphyroblasts (grain aggregates) occur nearby in quartzites.</p> <p>Bedding at 257 m at 77° to c/a. Dissem po common in some beds.</p> <p>At 270.9 m narrow 1.5 cm band of bedding-parallel fragmental. Chloritic and bleached (albitic?).</p> <p>276.5 - 277.2 m Quartz vein at 65 - 70° to c/a with abundant coarse irregular patches of po and associated cpy. Minor biotite, chlorite and sphalerite.</p>

Drill Log p.2

At 286.2 m 12 - 15 cm wide QV at $\sim 40^\circ$ to c/a with biotite and chlorite concentrated on margins.

At 288.8 m chlorite-altered argillite band contains swirly chlorite-po-ZnS bands (very minor ZnS).

291.7 m bedding at 78° to c/a.

Near 295.4 and 299.3 m 50 cm concentrations of QV, with biotite, po, minor cpy and white patchy calcite.

301.2 - 302.7 Local healed fracturing with chlorite, epidote, po and calcite.

316.2 - 316.9 m Series of Quartz-sulfide veins at $5 - 25^\circ$ to c/a. Quartz veins to 3 cm wide have sharp, planar contacts and include po, py, muscovite, biotite and minor cpy. Sulfide veins are at high angle to bedding but more irregular and are mainly po with lesser py, cpy.

Muscovite and biotite are common. The largest sulfide vein is ~ 10 cm long and is terminated on bedding-parallel irregular veinlets, indicating that sulfides have been injected along bedding-parallel zones and across bedding. Bedding at 318.5 m at 73° to c/a.

Quartz veins with biotite, chlorite, muscovite, po, py and cpy occur near 323.5 & 327.5 m, oriented at $30-50^\circ$ to c/a. Some are obviously lensey.

At 334.0 m minor fracture sulfides with some quartz; includes po, py cpy, ZnS, actinolite, chlorite. Bedding at 347.5 m at 78° to c/a.

At 352.8 m 5 cm wide fault zone at 80° to c/a. Dark gray to black argillaceous matrix (may be weakly graphitic) to lensey bands of white to med. gray calcite. Internal fault banding is up to 45° to c/a. Fault is probably bedding sub-parallel. No obvious sulfides.

At 353.1 m thin, discontinuous py-calcite-quartz rich bands are bedding-parallel. 1 mm - 6 mm wide.

363.3-363.8 m

INTRUSIVE DIKE

Fine-GRAINED, gray-green color. Calcareous with thin lensey white and yellowish calcite veinlets. Upper contact is sharp at 25° to c/a. lower contact is parallel to bedding at $\sim 77^\circ$ to c/a.

363.8-447.7 m

QUARTZITES, SILTSTONES and ARGILLITES

Medium gray, ranging to light gray and dark gray. Predominantly medium thick beds with some thin bedded zones and some thick beds.

At 366.8 m narrow discontinuous sulfide veinlet of mainly po, py, minor cpy, at $\sim 35^\circ$ to c/a.

At 368.6 m 12 cm wide po-qtz-calcite vein sub-parallel to bedding, at $\sim 60^\circ$ to c/a, with minor py and cpy.

At 371.6 m 25 cm wide QV at 30° to c/a with po, biotite, chlorite and calcite. Bedding at 80° to c/a at 375.5 m.

- 389.1-389.3 Rubbly, ground core but with minimal loss. Some brecciation with fracturing at $\sim 20^\circ$ to c/a. May be a minor fault zone.
404 m bedding at 85° to c/a.
At 405.6 m 15 cm band of bedding-parallel slump fragmental with ragged, elongate "bedding-parallel" argillite clasts in more siliceous matrix.
At 408 m 10 cm wide vein of granular quartz at $30-40^\circ$ to c/a, with biotite & chlorite. Bedding at 85° to c/a at 418.5 m.
425.6 - 428.7 m Four narrow QV 3-5 cm wide, $30-70^\circ$ to c/a with some biotite, chlorite.
441.0 - 442.8 Thin bedded zone. Wavy, some lenticular bedding, at $\sim 80^\circ$ to c/a.
- 447.7-450.4 GABBRO SILL
- Fine to medium grained, gray-green color. Massive texture with scattered white calcite veinlets. Most veinlets are at $80-90^\circ$ to c/a. Both contacts // to bedding at $80-85^\circ$ to c/a. ~ 15 cm of sed at each contact are bleached, albitized.
- 450.4-457.0 SILTSTONE, SILTY ARGILLITE, ARGILLITE
- Medium gray, varying to lighter and darker gray. Commonly greenish, chloritic. Medium, thick and thin bedded. More siliceous, thicker beds are commonly mottled pale brown-green and sericite-altered. Bedding at $80-85^\circ$ to c/a.
454.4 to 455.6 m is thin bedded argillite, greenish with dissem. chloritoid(?) porphyroblasts.
- 457.0-481.8 SILTY ARGILLITE, SILTSTONE, minor SILTY QUARTZITE
- Zone of mixed lithologies with moderately strong argillite composition and scattered quartzites. Variably gray, medium and thick bedded, with few thin beds and narrow laminated zones. Common fairly massive argillite units have dissem. pale green chloritoid (?). Bedding at 85° to c/a. FAULT ZONE 474.0-474.7 m. Broken, rubbly core. Fractured and brecciated. Minor calcite patches and veinlets near FW contact. 30 cm of argillite above 457.0 m hosts narrow irregular calcite veinlets. Few narrow po lams at 460.6 m. Also minor dissem. and fracture po.
- 481.8-504.9 ARGILLITE, minor SILTSTONE, few SILTY QUARTZITES
- Medium to darker gray. Medium, thick, and few thin beds, with bedding commonly indistinct. More argillaceous than overlying interval, fewer quartzites. At 487.9 m is a 25 cm wide zone of biotite-actinolite

alteration. A few po lams are scattered through the interval. eg near 488.6 m and 493.0 m. At 496.4 m 2 cm wide irregular band of abundant yellow-green garnet(?). At 496.6 m minor dissem. reddish ZnS occurs with small irregular patches of po. Bedding at 80-85° to c/a.

504.9-510.0

Probable FAULT ZONE.

Broken core, some rubbly. Est. 1.7 m core loss. Mostly siltstone fragments, weakly chloritic with some py on fracture surfaces. Minor quartz veining near 509.3 m.

510.0-560.2

SILTSTONE. SILTY ARGILLITE, minor SILTY QUARTZITE

Variably gray, commonly slightly brownish from biotite alteration. Predominantly medium bedded with scattered thin beds and a few thick beds. Dissem. po occurs locally with scattered small lensey po veinlets. Bedding at 85° to c/a.

560.2

End of Hole

Signed

Peter Klewchuk

Peter Klewchuk, P. Geoscientist

