

PH01-07

0-3.00m OVERBURDEN

3.00-3.60m DIABASE DYKE - fine-grained, grey colored, uniform texture, trace diss py
Contacts not distinguishable

3.60-11.00m FELSIC VOLCANIC - Siliceous, light grey-green color, fine-medium-grained foliated, near diabase the felsic volcanic is more altered showing rounded dark fragments (possibly diabase) surrounded by bleached siliceous light green felsic volcanic

4.60-4.90m muscovite-rich fractured/brecciated textures with py/cpy in clots (~2cmx0.5 cm)

Distinct foliations seen at 6.00m where it is less altered (foliation 50CA 6.45m), light pink-beige color along foliation

Felsic volcanic is quartz-rich with few blue quartz eyes throughout and darker layers with diss sulfide (including sph) and phlogopite and with a few coarse-grained quartz veins

Foliation 8.78m 60CA; 9.72m 70CA

11.00-31.00m DIABASE DYKE - Fine-grained with few anhedral to euhedral (lath shaped) plagioclase (≤ 1 mm) ; trace diss py-po; upper contact not observed; lower contact 10CA; Increase grain size slightly and more greenish-grey color towards center of dyke; chill contacts at both ends

24.10m Finer grained, grey color, cubic pyrite to 5%; siliceous, irregular altered felsic volcanic "xenolith" @ 27.00-27.23m; trace cpy, sph, py and @ 27.38-27.90m with py; qtz eyes, coarse-grained qtz, po, py, sph, trace cpy, foliated (60-80CA); see py ($\pm$ cpy) in center of bands of po ($\pm$ sph) on the outside and with sph farther outside

31.00-41.83m FELSIC VOLCANIC - medium-grained, grey color, sillimanite-rich and qtz eyes throughout; qtz veins throughout $\pm$ py, po, trace cpy; foliation defined by sulfide layers 60CA @ 32.00m and 35.10m; local zones of qtz rich with coarse-grained sericite/muscovite, chlorite, biotite throughout; sulfides throughout in variable percentages; lesser sulfides in the more altered zones; dominantly py, po, lesser sph, cpy parallel to foliation; sulfides wrap around individual qtz grains; best intersection is from 31.00-38.38m with sericite-qtz zone @ 34.00-34.24 and qtz eyes, possibly sillimanite and lesser sulfides

32.64-32.86m Alteration: top half is black (biotite, chlorite alteration) and mottled with light green-grey matrix; below this is light green-grey alteration; upper contact 60CA, bottom 70CA; sulfides decrease to nil from contacts towards center

35.42m Qtz vein 60CA 3 cm wide with overall sulfides within vein (3%) with cpy>po and trace sph

36.53-36.89m Qtz rich with coarse grained sericite/muscovite and fine-grained po, py, trace cpy sulfides (overall 5%), variable foliation angles; coarse grained muscovite/quartz vein @ 36.63m 80CA with coarse grained pyrite

37.43-37.67m black (chlorite/biotite) alteration with wispy lighter grey minerals, variable foliation, ~7% sulfides max, dominantly po which appears to overprint alteration of felsic volcanics

38.22m Alteration of felsic volcanics: Purple-green bleached appearance and increasing downhole; quartz veins throughout with green alteration along contacts (60-70CA) with py blebs; minor sph and biotite? In some qtz veins, some with epidote alteration and garnet

39.06-41.93m Very altered/deformed felsic volcanic rocks, black-purple bands with mottled and

torn apart with fine-grained green alteration; trace to nil sulfide minerals, <0.5cm wide qtz eyes, qtz veins throughout <1-4cm wide (60-70CA) with green, white alteration along contacts ± py blebs ± garnet, trace sph?, foliation 70CA, lower contact crosscut by diabase dyke (60CA)

41.83-51.44m DIABASE-ALTERATION ZONE-FAULT ZONE (?) - Fine-grained (aphanitic) dark grey uniform texture (chill margin)

42.08-42.64m Coarse-grained quartz vein, top contact 50CA with diabase breccia and minor sphalerite and py blebs, biotite alteration in diabase; lower contact 30CA ~30cm biotite rich zone in diabase breccia, minor py, tr sph

42.92-43.19m Diabase - Very fine-grained dark grey-black (chill) with very small (~1mm or less) rounded plg porphyry; @ 43.00m: very fine-grained "enclave" of diabase and minor py along upper contact; lower contact 60CA crosscutting felsic volcanic

43.19-44.50m FELSIC VOLCANIC - foliation 50CA, light grey within (<0.5cm wide) darker layers; sulfides overall ~1-2 % max (dom py); py along fractures (eg 10 CA @ 43.50m and 20CA @ 43.70m); Qtz vein ~70CA ~6 cm wide with py/marcasite, trace sph

44.50-45.35m DIABASE DYKE: Fine-grained, dark grey, trace diss py, contact not distinguishable

45.35-48.90m FELSIC VOLCANIC - Green-grey alteration gradually becoming lighter colored downhole; foliation 70CA; Fine-grained diss py along foliation decreasing downhole, overall ~2% sulfides to <1% downhole; 47.60-50.31m Rusty fractures in bleached siliceous felsic volcanic

48.60-50.31 ALTERATION/ FAULT ZONE with DIABASE DYKE

48.60m 3 cm wide dark green alteration vein @ 50CA; altered diabase dyke with minor py; fine-grained dark grey with green alteration (49.90-51.16m)

51.16-51.31m FAULT GOUGE - Ground core and mud

51.31-51.44 - DIABASE DYKE - in contact with felsic volcanic below (70CA), ~ 3cm wide green alteration and minor py in felsic volcanic at this contact

51.44-69.00m FELSIC VOLCANIC - Light grey, quartz rich with <0.5 cm wide darker layers (foliation 60-70CA); siliceous and bleached appearance ± qtz eyes; alteration includes chlorite ± epidote with lesser sulfides, minor alteration overall; darker layers are discontinuous and have 1-3% diss py locally throughout; sulfides overall po, py, cpy?, minor sph along darker layers and ~0.5 cm wide but max 4 cm (overall 3-5% sul); Qtz veins throughout, irregular (40-60 CA) crosscutting foliation (40CA @ 49.50m), minor py, trace sph; 53.00m Sulfides rim a siliceous clast of felsic volcanic; Towards the bottom of unit ~67.40m, felsic volcanic is less foliated and recrystallized (migmatitic texture) with few sulfides

69.00-78.50m RHYOLITE - Very fine-grained (aphanitic) pink-tan colored with pink and white feldspar porphyry; quartz eyes, 3-5% amphibole (<0.5 cm), unfoliated, minor py along fractures; gradual change to color from dark purple to tan downhole; upper contact is fractured and indistinguishable

78.50 EOH