

Property: TAG
 Commenced: Aug.25/94
 Completed: Aug.26/94
 UTM Coordinates: 414601.1E/6815401.5N
 Contractor: D.J. Drilling Ltd.
 Logged by: P.A. MacRobbie
 Drill:

District: Watson Lake
 Location: Location
 Core Size: NQ
 Claim Reference:
 Tract/Claim:
 Elevation: 1442 m

Hole No.:T94-44
 Length: 106.7
 Cor. Dip:-90°
 True Brg.:
 %Recovery: 98.1

Metres From	To	Plot Code	Description
0.0	9.1	OVB	CASING/OVERBURDEN.
9.1	15.1	FTA	<p>THIN BANDED SERICITE-QUARTZ±CALCITE SCHIST (TFFD/Ffy) - RHYOLITIC TO DACITIC ASH TO LAPILLI-ASH TUFF.</p> <p>Light to medium grey green, well foliated (banded) sericite±silica altered unit similar to the top of T94-43. Fine-grained, light yellowy green sericite is well developed parallel the dominant cleavage (S₂) producing the banded texture. Original S₁/S₀ fabrics are not present. The intervening material comprises stretched and locally folded, quartz±calcite bands, 1-20 mms thick. This unit contains tr-3% very fine-grained, wispy pyrite and fine to medium-grained, euhedral pyrite disseminations.</p> <p>9.1-12.4 moderate to strong sericite alteration. 11.8 S₂ cleavage at 51° to ca.. 12.4-14.4 strong sericite alteration. 12.4-15.1 some late fracture filling pyrite. 14.4-15.1 moderate to strong sericitization and increased silicification(?) towards the lower contact. 14.6 S₂ cleavage at 53° to ca.</p>
15.1	16.4	FF	<p>QUARTZ PHYRIC, AMYGDALOIDAL(?) AND SPHERULITIC(?) RHYOLITE SILLS/FLOWS.</p> <p>Light green grey to medium grey, very massive (dense) and microcrystalline, siliceous spherulitic(?) rhyolite containing 3-10%, euhedral, skeletal to rectangular quartz phenocrysts, tr-15% subrounded to elongate silica blebs (amygdules?) and abundant silica veinlets. Unit contains 2-5% very fine-grained disseminated and fracture filling pyrite.</p> <p>15.1-15.4 light green grey brecciated (auto breccia?) interval containing 80% light grey rhyolite fragments, up to 2 cms and flattened, and occasional quartz phenocrysts set in a sericite + chlorite matrix. 15.4-16.4 more massive rhyolite containing 5-10%, euhedral, <1 mms quartz phenocrysts. Orbicular, diffuse dark and light grey colouration and fractures suggest the presence of spherulites. 16.4 sharp lower contact with no breccia developed.</p>
16.4	20.3	FTCZ	<p>FRAGMENTAL TEXTURED, QUARTZ PHYRIC QUARTZ-SERICITE SCHIST - RHYOLITIC TO DACITIC CRYSTAL-BEARING LAPILLI-ASH TUFF.</p> <p>Light to medium grey green (moderately silica and sericite altered), massive (blocky) to locally banded quartz-sericite schist with occasional quartz-calcite veinlets with tr-5% pyrite-sphalerite±galena. This schist contains locally abundant quartz crystals (<1 mm) and massive, light grey lithic (rhyolite flow/sill?) fragments with rare quartz phenocrysts (2-8 mms) set in a matrix of very fine-grained sericite-quartz.</p> <p>16.4-18.1 quartz crystal rich tuff with diffuse lithic fragments? Likely a crystal-bearing lapilli-ash tuff with lapilli tuff interbeds. 18.1-18.7 appears more fragmental with a higher proportion of lithics. Massive nature due to abundance of dense rhyolite fragments. 18.6 S₂ cleavage at 54° to ca. 18.7-20.3 as above, but contains intervals of sericite-chlorite alteration and a more dense, mottled appearance (lapilli tuff or rhyolite flow/sill autobreccia? - good fragmental textures at 20.1). Lower most 20 cms are strongly sericitic.</p>
20.3	21.1	QZVN	<p>QUARTZ VEIN.</p> <p>Late, coarse-grained quartz vein (5-6 cms) with sericite-chlorite-Fe oxides and clays (surficial leaching?) and containing tr-2% galena.</p>
21.1	23.5	FTL	<p>FRAGMENTAL TEXTURED QUARTZ-SERICITE±CALCITE SCHIST - RHYOLITIC TO DACITIC LAPILLI-ASH TUFF.</p> <p>Light to medium grey green, siliceous Interval containing 5-15% light grey to white silica-calcite fragments (subangular to subrounded, 2-25 mms) and light grey silica fragments (similar to rhyolite fragments in above unit) set in fine sericite-silica matrix. Dark wispy chlorite, associated with tr-3% very fine-grained pyrite disseminations and veinlets, are present throughout. 21.2 S₂ cleavage at 67° to ca.</p>
23.5	25.8	FZXR	<p>RIBBON BANDED QUARTZ-SERICITE±CALCITE SCHIST (TRFA/FB/Ffy) - THIN BEDDED(?) RHYOLITIC TO DACITIC ASH TUFF.</p> <p>Unit comprises light yellowy green sericite (increased serictic alteration relative to above unit) and medium grey silica-sericite interbands, 2-10 mms thick (reflecting an S₁/S₀ fabric?). Silica-calcite occurs as veinlets and discontinuous blebs (lithic fragments or deformed veinlets?). 24.6 2 cleavages present; S₂ at 52° to ca. and S₁ at 46° to ca.</p>

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25.8	26.4	FTA	QUARTZ-SERICITE+CALCITE SCHIST - RHYOLITIC TO DACITIC ASH TO LAPILLI-ASH TUFF. More massive, blocky (decreased sericite content) schist with wispy disseminations of very fine-grained pyrite-pyrrhotite.
26.4	27.5	FZXR	RIBBONBANDED SERICITE-QUARTZ+CALCITE SCHIST (TRFA/FB) - THINBEDDED(?) RHYOLITIC ASH TUFF. Similar to 23.5-25.8; banding not exactly parallel S ₂ - possibly S ₁ ?
27.5	28.6	FZ	QUARTZ-SERICITE SCHIST - RHYOLITIC TO DACITIC ASH TO LAPILLI-ASH TUFF. Increased sericite content with abundant deformed quartz-calcite veinlets and late, coarse-grained quartz veins. 27.7 S ₂ cleavage at 57° to ca.
28.6	28.8	FLT	FAULT. Strongly sericitized and broken zone.
28.8	29.1	TBFA	BANDED QUARTZ-SERICITE SCHIST - RHYOLITIC TO DACITIC ASH TO LAPILLI-ASH TUFF. More siliceous and banded (S ₁ or S ₂ ?) nature than 27.5-28.6 interval.
29.1	39.5	FZXB	LAMINATED TO THINLY BANDED QUARTZ-MUSCOVITE-SERICITE-CHLORITE+GRAPHITE SCHIST AND PHYLLITE - LAMINATED TO THIN INTERBEDDED RHYOLITIC TO DACITIC ASH TUFF, TUFFACEOUS SILTSTONE AND MINOR ARGILLITE. Light to medium green grey to dark grey interval comprising laminated to thinly banded (S ₁) felsic tuff, tuffaceous siltstones with minor argillite and graphitic seams which are transposed parallel the dominant cleavage (S ₂). Light to medium green chlorite is developed parallel S ₂ ; minor chlorite is present with other phyllosilicates parallel S ₁ . This unit is equivalent to "chlorite altered" intervals found in the structural hangingwall in other holes. I prefer this unit to be represent resedimented felsic tuffs and tuffaceous siltstones, possibly with minor argillaceous interbeds. 29.1-29.8 increasing grey colouration and chlorite content; still a grey green quartz-sericite-chlorite schist/tuff. 29.8-30.0 dark to medium grey chlorite+graphite bands containing tr-5% blebby fine-grained disseminated pyrrhotite. 30.0-30.4 medium to dark grey, more tuffaceous and siliceous interval with 10% fine-grained disseminated pyrrhotite+pyrite-chalcopyrite. 30.4-30.6 dark grey, laminated and weakly carbonaceous, chloritic mudstone/argillite with tr-5% blebby fine-grained pyrrhotite disseminations and interlamination. 30.6-33.4 medium green grey, thinly banded siliceous tuff becoming more massive bedded and coarser grained (lapilli-ash tuff?) down hole. Quartz-calcite+Fe-carbonate veins are present. 30.7 2 cleavages present; S ₂ at 54° to ca. and S ₁ at 20° to ca. 33.4-34.6 dark grey to black, finely laminated to thin interbedded chlorite+graphite phyllite and light grey quartz-sericite+calcite schist. Phyllitic interbeds often contain 5-15% very fine-grained pyrrhotite+pyrite 33.9 2 cleavages present; S ₂ at 68° to ca. and S ₁ at 24° to ca. 34.6-36.6 medium green grey, thin bedded siliceous tuff (moderate sericite content, low-nil chlorite). 36.6-37.7 medium grey, very gradational transitional interval, marked by increasing chlorite+graphite content parallel S ₁ (increasing muddy component).
29.1	30.4	FYXB	
30.4	30.6	SA	
30.6	37.7	FYXB	
37.7	38.0	SA	Medium to dark grey interlaminated tuffaceous siltstone (epiclastics) and mudstone/argillite.
38.0	39.1	FYXB	Medium to dark grey interval dominated by resedimented tuffaceous siltstone/wacke?, similar to 36.6-37.7 interval. 38.6 2 cleavages present; S ₂ at 58° to ca. and S ₁ at 57° to ca.
39.1	39.5	SA	Dark grey to black, weakly carbonaceous chloritic mudstone/argillite with disrupted S ₁ being transposed parallel S ₂ .
39.5	42.6	FTAR	RIBBONED TO THINLY BANDED QUARTZ-SERICITE+CHLORITE SCHIST - THIN BEDDED(?) (RESEDIMENTED/EPICLASTIC?) RHYOLITIC TO DACITIC ASH TUFF. Medium green grey unit containing occasional quartz-calcite(Fe-carbonate) bands. S ₁ appears to have been transposed parallel S ₂ . 41.8-41.9 fault; strongly sericite-chlorite altered tuff with minor gouge.
42.6	44.5	FTAB	BANDED TO RIBBONED TEXTURED QUARTZ-SERICITE+CHLORITE SCHIST - THIN BEDDED RHYOLITIC TO DACITIC ASH TUFF. Light to medium green grey, thin to medium banded to ribboned schists. Moderate to strongly sericite + silica altered; some Fe-carbonate associated with siliceous bands. 43.2 S ₂ at 61° to ca. 44.5 good banding/bedding textures. Gradational contact into...
44.5	53.3	FTCZ	BANDED, QUARTZ PHYRIC QUARTZ-SERICITE SCHIST - BEDDED RHYOLITIC TO DACITIC CRYSTAL-BEARING ASH TUFF. Light to medium grey green, more massive bedded(?) to thin bedded(?) tuff containing tr-1% bluish to clear grey, subrounded quartz crystals (1.5-3.5 mms).

			45.7 S ₂ at 60° to ca. 49.7 S ₂ at 53° to ca.
53.3	53.5	FZXB	BANDED TO RIBBONED TEXTURED QUARTZ-SERICITE SCHIST - THIN BEDDED CHERTY TUFF(?) AND/OR RHYOLITIC TO DACITIC ASH TUFF. Thinly banded (<2 cms), strongly sericite altered siliceous tuffs.
53.5	54.4	FZXL	QUARTZ-SERICITE+CALCITE SCHIST (FB/ffy) - RHYOLITIC TO DACITIC ASH TUFF. Light to medium grey green, more massive tuffs with strong light yellowy green sericite alteration. 53.6 S ₂ at 58° to ca.
54.4	55.4	APG3	MINERALIZED (TALC/ANTHOPHYLLITE(?) OR SERICITE/MUSCOVITE(?))-CHLORITE-QUARTZ+Fe-CARBONATE SCHIST WITH LOCALLY DEVELOPED CORDIERITE PORPHYROBLASTS - INTENSELY Mg METASOMATIZED AND MINERALIZED FELSIC TUFF(?). Light to medium green grey, chlorite-talc/anthophyllite(?) schist with interbanded heavy disseminations of very fine-grained pyrite-magnetite-pyrrhotite-sphalerite+galena-chalcopryrite. Cordierite(?) porphyroblasts are well developed up to 3 mms; Fe-carbonate is locally weakly developed.
55.4	56.8	O	SULPHIDE ROCK (O)
55.4	56.1	OA	Well banded, fine-grained magnetite-pyrite+pyrrhotite-sphalerite in a chlorite-silica+Fe-carbonate gangue. 55.9-56.0 coarse-grained quartz-cordierite vein with chloritic fractures and disseminated coarse chalcopryrite+pyrrhotite-sphalerite.
56.1	56.8	OI	Crudely banded, semi-massive (40-60% sulphides), but relatively high grade interval comprising fine- to medium-grained pyrite-sphalerite-galena disseminations in quartz-carbonate bands. Unit has a reddish colouration due to sphalerite content. Lower contact is a 2.5 cm cordierite(?) - Fe-carbonate-chlorite-quartz-chalcopryrite-pyrrhotite vein with chloritic alteration halos. 56.3 S ₂ parallel sulphide banding at 56° to ca.
56.8	62.8	OJ	MINERALIZED (TALC/ANTHOPHYLLITE(?) OR SERICITE/MUSCOVITE(?))-CHLORITE-QUARTZ SCHIST WITH LOCALLY DEVELOPED CORDIERITE PORPHYROBLASTS - INTENSELY Mg METASOMATIZED AND MINERALIZED FELSIC TUFF(?). Fine-grained, light to medium grey, strongly altered interval with abundant quartz+Fe-carbonate veins and swirled, disrupted blebs. S ₁ is still recognizable, but is folded and transposed parallel S ₂ .
62.8	63.5	QZVN	59.6-62.6 increasing chlorite alteration giving a medium to dark green colour to interval; also contains 5-15% chalcopryrite-pyrrhotite+pyrite-sphalerite disseminations. Recognizable small cordierite(?) porphyroblasts appear at 61.0, increasing in size to 35 mms at 62.5; often with retrograde chloritic rims.
63.5	67.1	APO3	61.5 S ₂ cleavage parallel banding at 61° to ca.
67.1	68.7	FLT	62.6-62.7 quartz+Fe-carbonate vein 62.7-62.8 light to medium grey, strongly talc/anthophyllite(?) - chlorite altered tuff with cordierite(?) porphyroblasts, up to 10 mms, altered to Fe-carbonate-silica and with dark green chloritic rims. 62.8-63.3 quartz and Fe-carbonate-quartz-chlorite veins. 63.3-63.4 strongly sheared and altered tuff, as 62.7-62.8 interval. 63.4-63.5 quartz-Fe-carbonate vein. 63.5-63.8 strongly altered tuff, as 62.7-62.8 interval, with cordierites(?) up to 25 mms. 63.8-63.9 fault; gouged altered tuff. 63.9-64.0 strongly altered tuff, as 62.7-62.8 interval, with cordierites(?) up to 25 mms. 63.9 S ₂ parallel banding at 48° to ca.
68.7	69.2	APO3	64.0-64.7 light to medium green, granular massive felsic tuff? (crystal phyric?), strongly sericite-talc/anthophyllite(?) - chlorite altered with 5-15% cordierites(?), up to 12 mms, developed at 64.3-64.5. These porphyroblasts have pyrrhotite-chalcopryrite-carbonate cores and chloritic rims. 64.7-65.8 darker, more chlorite altered interval with 10-30% fine-grained disseminated pyrite-sphalerite (sulphide bands from 64.8-65.1).
69.2	69.6	FLT	65.8-71.5 strong sericite+silica altered tuff? 66.6 S ₂ cleavage at 52° to ca. 69.2 S ₂ cleavage at 55° to ca.
69.6	71.5	ATX3	67.1-68.7 fault; badly broken (minor gouge) due to strong sericitic alteration. 69.2-69.6 badly broken (no gouge). 71.3-72.6 fault; badly broken (minor gouge) due to strong sericitic alteration. 71.5-73.8 light to medium tan grey, strongly talc/anthophyllite(?) - chlorite? - Fe-carbonate altered interval with 2-50% cordierite(?) porphyroblasts (Fe-carbonate altered and retrograding to dark chlorite), ranging in size from 1-3 mms (to 73.2) up to 25 mms. 73.2 S ₂ cleavage at 58° to ca. 73.8-74.1 quartz vein. 74.1-74.6 (?) light green grey to dark green interval containing 80-85% dense (coalescing) cordierites, flattened into S ₂ plane. 74.6-74.7 quartz vein. 74.7-75.2 similar to 71.5-73.8 interval. 75.2-78.3 more granular textured, talc/anthophyllite(?) - chlorite schist with cordierite(?) porphyroblasts. Alteration intensity increases towards the sulphide zone. 76.2 S ₂ parallel banding at 64° to ca. 77.1-78.3 strong silica-carbonate-chlorite + biotite/muscovite(?) veins with increasing chalcopryrite-pyrrhotite content towards the sulphide zone.
71.5	78.3	APX3	

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78.3	94.5	O	SULPHIDE ROCK.
78.3	82.1	OJ	Fine to coarse-grained, semi-massive (40-60%; only crudely banded at best) sulphides in a silica-chlorite-talc/anthophyllite(?) ± calcite matrix (PFOE). 78.3-78.7 70-80%, massive, granular, disseminated, fine to coarse-grained pyrite with minor chalcopyrite in silica-chlorite gangue. 78.7-79.1 20-30%, fine-grained pyrite-pyrrhotite in a granular, fine-grained dark chlorite-calcite-quartz gangue. 79.1-79.5 70-80%, massive, granular, disseminated, fine to coarse-grained pyrite-magnetite ± pyrrhotite-sphalerite in silica-chlorite gangue. 79.5-80.0 10-20%, fine pyrite-pyrrhotite in a dark calcite-chlorite matrix. 80.0-80.2 70-80%, massive, disseminated, fine to coarse-grained pyrite-pyrrhotite-magnetite ± sphalerite in silica-chlorite gangue, similar to 79.1-79.5 interval, but with reduced magnetite content. 80.2-80.4 late, coarse-grained quartz-chlorite (green felted masses)-calcite (bladed habit) vein with 2-5% chalcopyrite-pyrrhotite. 80.4-82.1 70-80%, massive, disseminated (locally banded), fine to coarse-grained pyrite-pyrrhotite-magnetite ± chalcopyrite (1-3%) in a silica-chlorite gangue. Where lower sulphide content, rock is strongly talc/anthophyllite(?) -chlorite altered with flattened cordierites(?) (ie. 80.5).
82.1	89.2	OA	Well banded, granular, fine to coarse-grained, massive pyrite-magnetite-pyrrhotite-chalcopyrite (1-5%) ± sphalerite in a predominantly chloritic gangue. Magnetite occurs as bands and discontinuous, blebby bands. Increasing reddish brown sphalerite occurs mixed with magnetite and pyrite-pyrrhotite bands (OA). 82.9 sulphide banding at 66° to ca. 85.0 sulphide banding at 88° to ca. 88.1 sulphide banding at 82° to ca.
89.2	90.1	ATO	Dark grey calcite-chlorite-silica bands, up to 25 mms, and interbanded light to dark grey talc/anthophyllite(?) -chlorite with fine cordierites(?) and several high grade sphalerite-magnetite-pyrite bands (5-15 mms) (FFO).
90.1	90.8	OA	Well banded, massive magnetite-pyrite-pyrrhotite (OA). 90.8-91.2 similar to 89.2-90.1 interval (FFO).
90.6	91.3	FLT	90.6-91.2 fault; broken and lost core (FLT). 91.2-91.3 quartz-carbonate-chlorite-chalcopyrite ± pyrrhotite-galena veins (QZVN).
91.3	92.1	OA	Well banded, massive magnetite-pyrite-pyrrhotite, similar to 82.1-89.2 and 90.1-90.8 (OA). 91.6 sulphide banding at 59° to ca.
92.1	92.4	OB	92.1-92.2 high grade, massive sphalerite-pyrite-galena ± arsenopyrite in a silica + carbonate gangue (OB).
92.4	94.4	OA	92.2-92.3 lower sulphide content (50%) in dark green chlorite-silica matrix (FFO). 92.3-92.4 massive banded pyrite-sphalerite ± magnetite-galena (OB). 92.4-94.4 well banded, massive magnetite-pyrite-pyrrhotite, similar to 82.1-89.2, 90.1-90.8 and 91.3-92.1 (OA).
94.4	94.5	OF	Strong, heavy pyrrhotite ± magnetite-sphalerite disseminations (OF). Very sharp lower contact with tuffs. 94.3 sulphide banding at 60° to ca.
94.5	102.7	FT	FELDSPAR(?) - QUARTZ PHYRIC QUARTZ-SERICITE ± CALCITE SCHISTS (FD/FQ) - RHYOLITIC TO DACITIC CRYSTAL-BEARING ASH TO LAPILLI-ASH TUFF. Light to medium grey green, siliceous and variably sericite altered, massive (generally not bedded/banded) unit. 96.1 S ₂ cleavage at 56° to ca. 96.1-96.5 weakly banded calcite-quartz in sericite. 96.4 single bluish quartz crystal (2.5 mms) suggesting equivalence to crystal-bearing tuffs in other holes? 96.8-96.9 weakly banded quartz-sericite-calcite schists with occasional, < 1 mm, soft creamy, Fe-carbonate(?) altered feldspar crystals(?). 97.3-97.5 similar to 96.8-96.9. 97.5-97.8 massive, very fine-grained rhyolite dyke/sill (FG) with sericitic fractures. 97.8-102.7 medium green grey (decreased sericite ± silica alteration?), more dacitic?, massive tuffs with 10-15%, 1-10 mms, wispy quartz-calcite fragments (altered pumice fragments??) 99.0 S ₂ cleavage at 61° to ca. 101.4-102.2 more white to tan soft (Fe-carbonate altered?) feldspars(?) crystals, ≤ 0.5-1.5 mms, occurring as crystal-rich bands. 102.0 S ₂ cleavage at 67° to ca. 102.2-102.3 and at 102.6 thin massive very fine-grained rhyolite dykes/sills (FG).
102.7	106.7	FF	QUARTZ PHYRIC, SPHERULITIC(?) RHYOLITE SILL/FLOW (FG). Light green grey to medium to dark grey, massive very fine-grained dense siliceous rhyolite with colouration defining an orbicular (spherulitic?) texture. The rhyolite also contains occasional quartz filled amygdules and tr-10%, 0.5-1 mm quartz phenocrysts. Abundant clear quartz veinlets and quartz-pyrite fractures are present.

END OF HOLE @ 106.7