

016197

Swim Lakes
relogs

ANVIL 1976

DDH 7601
7606-08

Swim 761

763

764

765

& other 01

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Code	From	To	Unit	Code	Description
	10 14 16	20 22 23 25 27			
L	11200	11200	01	31#	Overburden
	11200	11060	02	3DB	medium grey carb chl musc phyllite with interbands of granular greenish ^{to yellowish} to off white calc silicate rx probably consisting of interbands of gte act ±epi±calc nit sulphides - some calc sil on W swim hill - apparently as in ^{nose of} SIAK Ridge ~ 1/2 to 3/4 phyllitic overall - Gradational contact -
L	11060	11310	00	3G10	medium grey carb chl musc phyllite as above with less common gte act po layers similar to above but appear ^{folded} to be veinlets at least in part nit po overall - non limy
L	11310	11820	00	04	zone of broken core of bad recovery - some rx seem sheared - possible fault zone but orientation uncertain - some shears definitely steep ~ 85° dip & with horizontal slicks much of 156-5 core just closely broken along S ₂ - less commonly S ₁ - several bull quartz masses may contribute to general chaotic mess. 151-168 rx are greener - possible chl altm or thin mv layer ~ below 168 rx are like underlying phyllites but less broken 157-166 5' core loss - also some post D ₂ fault gouge - major fault crush zone could be washed away
	11512				finely streak color banded greenish grey ^{chl musc ± quartz} phyllite - soft non limy with prominent py cubes some gone to pg - a few gte act po layers of veinlets ^{po D₂} - some thin granular calc sil gte act (epi?) layers but not too prominent generally similar to phyllites with gte act layers in 645 holes, but not as much gte act and doesn't have

130

chaotic

Code	From		To		Unit		Code		Description
	10	14	16	20	22	23	25	27	
									doesn't have the regular sym of phyllites in 64s holes but is commonly flat
									Becomes a slight amount more carb below 325' but ???
									at ~445 starts to get regular finely granular - several lute-bull gtz chl & po masses below
									460' zone of 430' with minor talena near 2 1/2" bands of po. issue with chl or act.
	486								medium grey mass chl phyllite as above with local carbonaceous sections and thin interbands of granular greenish calc sil as above but with many irregular D ₂ folded layers of gtz (act or chl) & po with tr cpy
									— Aborted start early in season —

Code	From	To	Unit	Code	Description
1	10	14 16	20	22 23 25 27	
L	10	12 0	01	#1	H ₂ O + OB
L	12 0	18 90	02	5B27	Blue gray carbonaceous phyllite interlayered with greenish calc silicate and limy layers no good limestone. generally devoid of sulphides.
L	18 90	15 10	03	3G0	Rx generally similar to above but more limy some blue gray calc phyllite but not so much greenish calc silicate. Many granular gtz chl (act?) po stringers along S and as E folds - steep Fth zone 130-133 last 10' of core broken
L	15 10	16 80	04	3G8	Silt punky earthy ^{green} chl phyllite slightly limy v. broken - some interlayers of gray calc phyllite
L	16 80	14 86	05	3G0	Distinctive unit ^{labeled} gray/gray & greenish gray ^{is gray to act. or act. to gray} phyllites with ^{po} cubes - Parker layers moderately carbonaceous but unit as a whole only slightly so. Becomes more carb near base (last 30') - Poor in sulphides except for (Fe in cubes) and a few gtz po chl stringers. Generally more limy (unmarked 281-284)
L	14 86	15 09 5	06	3G06	Rx similar to above but with many gtz po (chl/act?) stringers & a bit more gtz chl (or act) rx
L	15 09 5	15 15 0	07	3G7	^{to slightly brownish} Greenish well laminated chloritic calc silicates.
L	15 15 0	15 43 0	08	3G97	Bluish gray carb phyllite interlayered with green calc silicates similar to better developed zone overlying

Code	From	To	Unit	Code	Description
1	10 14 16 20	22 23 25 27			
L	5430	5540	019	3G197	Rx as above but with lighter colored almost turquoise c.s. layers
L	5540	5630	110	3G177	greenish to brownish c.s. as above but with more bluish gray pelitic interbeds v. minor lime
L	5630	6511.5	111	3G171	(cont.) bluish gray phyllite with many po gtz chl stringers 622-677 relatively poor in po bearing stringers but with bluish green (trig.?) chlt gtz stringers
L	6515	6945	112	3G176	looks like sequence may have been finely bedded carb med gray & non carb lt gray pelitic phyllite and then invaded by stringers & deformed. but some stringers could easily be beds. Strange rx one folded veinlet(?) with only half a hinge!
L	6945	7250	113	3G96	
L	7250	7385	114	4C7	about 50% sulphides 727.5 - 728.2 80% py >> po minor mt. 729.5 - 730.5 mass po + minor mt/cpy 733.5 734.5 mass p + minor cpy 734.5 738.5 mass py >> mt in carb gangue minor cpy gal remainder gray chlt med. phy with po gtz + chl veinlets(?) as above & below
L	7385	8184	115	3G9	Gray & greenish gray phyllites locally strongly carbonaceous & making graph phy over few" esp 757-770 - pink on lot of post O ₂ lxn & chloritization light veining. Many gtz po chl stringers but not as many as above sulphides - some gray phyllites display patchy chloritization as though strongly altered pre O ₂ grades down to 6
L	8184	8198	116	4C7	Sulphide bearing micaceous chlt med stert & gray phyllite with bedded po chlt gtz stringers. ~ 20% sulph mostly po.

Lithologic Log

Code	From		To		Unit		Code	Description
	10	14	16	20	22	23		
L	8985		9300		17		3G1	Grey phyllite with pge string and light grey micaceous gteite also with stringers only a few % sulph - about same ex as above sulphides except for gteite
L	9300		9750		18		4C7	sulphide becoming more gteite as above interbedded with grey pelitic phyllite. section generally same as one just above but different from first in that virtually no py little if any int no carbonate gangue and no substantial massive sections ~ 25% po overall minor cpy & gal.
L	9750		9760		19		3G7	Green banded to granular calc sil
L	9750		9825		20		3G9	grey phy with POC stringers - locally fairly carbonaceous + few inches mic gteite
L	9825		9825		21		3G7	lt green dk green banded c.s.
L	9835		10670		22		3J0	

Lithologic Log

76-1

Code	From		To		Unit		Code		Description
	10	14	16	20	22	23	25	27	
L	1101970		1101080		23		367		med green calc silicate band
L	1101080		110290		24		360		slightly carb 5 bluish grey phyllite with ^{1/2} greenish ss bands along s = crystallized s, layers 1008-1014 - somewhat more carbonaceous pelitic material
L	110290		110340		25		360		Med grained green mottled white meta ign looking rx
L	110340		1104110		26		3691		med to dark grey carbonaceous phyllite with light gtz + act + chl layers - competent gtzose layers much thicker ^{6x} s' disruption
L	1104110		112250		27		3613		light grey very competent moderately hard very quartz rich section - seems to be actinolitic gtzite interbedded with grey pelitic material - grey phyllite forms s film with gtz rich material in lithons. locally quite lmy esp 11090-1125 1107 1/2 - 1219 phyllite layers more prominent and darker grey - more carbonaceous
L	112250		113310		28		3631		Rx very similar to above but on the average more lmy with a few lsf sections (gradational to arbitrary boundaries could be broken further)
L	113310		113690		29		361		grey phyllite phyllite inter layer with actinolite to lt green gtzite as above not much lmy last 4' markedly carbonaceous
L	113690		113720		30		367		light green granular med-fine gr ss band
L	113720		113910		31		3691		grey mostly to markedly carbonaceous phyllite with interbedded gtzose material as above but phyllitic component dominant (at least 60%) (rather gradational & arbitrary lower contacts)

Code	From	To	Unit	Description
L 110	14 16	20 22 23 25 27	01 #	OB + H ₂ O
L 117	16 0	02 5AE		Amorphous phyllite to graphitic list - dk grey to black
L 117	16 0	02 5AE		Wentley to moderately carbonaceous limy phyllite grades to "grey" phyllite (light green to white shaly) and limy graphitic phyllite as above) but dominantly is thin grey calcareous rich layers intercalated with grey phyllite
L 121	13 0	04 3609		Grey phyllite intercalated with light grey beds. Flans along s ₁ ubiquitous pyrite - only local carbonate in granular - phitic component + locally quite carbonaceous
L 135	10 0	05 3610		335-360 m core recovery as above 360-380 m as above broken & described grading downwards into underlying unit
L 138	10 0	05 3610		Grey phyllite finely interbedded with thin silt phyllite & granular gneiss
L 147	10 0	06 368		It green - bl phyllite folia separating granular gneiss chert lenses - generally granular to above but color distinctly lighter olive green - lacks grey beds do to complete lack of pelitic material and seems more gneiss - non limy
L 152	11 0	07 3610		grey pelitic phyllite interbedded with thin granular chert layers - grey phyllite generally only locally calcareous

78-4

Lithologic Log

Logged By: _____

Code	From	To	Unit	Code	Description
1	10 14 16	20	22 23	25 27	
					and gteose layers more gteose and below 340' very limy
L	13610	13805	08	5B7	light olive green to yellowish green ^{limy} chl phyllite with light colored gteose of calcite rich stringers
L	13805	14010	09	5B2	Med grey carb-phyllite with disrupted ^{to greenish} lt grey gte calc. act-chl(?) layers.
L	14010	15019	10	5B0	medium ^{non limy} grey limy phyllite with more regular ^{interlayering} along <u>S₁</u> and in lithons limy layers commonly with act or chl g gte
L	15019	15210	11	3B0	Heavily gte veined section otherwise structurally as above but no lime - grey phyllite interlayered with greenish gte act or - some fine med/ht grey grey green bedding preserved in phyllites locally
L	15210	15517	12	3J5	lt greenish to yellowish green act g tekt generally well banded - and with tr of calcite but mostly gte.
L	15517	16030	13	5B07	medium grey limy phyllite with short sections of non limy phyllite and phyllitic lst - also some non firing interlayers of greenish gte act calc silicates.
L	16030	16515	14	5B02	dark grey more carbonaceous limy phyllite + minor phyllitic lst - actually ^{grey} phyllites about 50%

Just like what is on hillside of Sauron Lake would look like

Code	From	To	Unit	Code	Description
	10 14 16	20 22 23 25 27			
L	16555	16620	15	5B08	med grey lmy chl phyll ± mid grey lmy phyll.
L	16620	16950	16	5B0	med grey lmy phyllitic as above
L	16950	17630	17	5B17	med grey siliceous and calc silicate phyllitic very minor calcite
L	17630	17780	18	4C7	silphide bearing ^{micaeous} gtzide ^{1/16-1/8} po lenses separated by ^{very thin} siliceous chl talca 768-778 2' core recovery - may have found away 8' silphides. minor sphal bearing ribbon banded at very top. Very minor lime with ^{very} rich layers c10% sulph mostly po in recovered portion - some good po + nat core checks in remainder
L	171280	181525	19	5B0	med grey and lmy phyllitic with abdt greenish chl act gtz layers some with po - minor bedded H grey / dk grey greenish grey phyllite
L	181525	18580	20	3J7	yellowish green act gtzite - calc sil as so common in these ex
L	181580	18660	21	3G0	generally med lmy grey carb phyllitic locally good bedding preserved
L	18660	18930	22	3G7	grey phyllite interbedded with H green act chl gtz ex on fracture such to several inches ~ 70% act greenish ex - only to of time

Lithologic Log

Logged By: _____

Code	From	To	Unit	Code	Description
	10 14 16 20	22 23 25 27			
L	8930	9565	23	3G8	finely interlam med ^{greenish} grey phyllite and light green gte act chl rx no obvious bit banding on much finer scale & no thick granular bands (po + pyrites) $\frac{2}{3}$ grey $\frac{1}{3}$ green
L	9565	9625	24	3G8	lt green chl phyllite with ^{very} minor grey sfolia looks like the thin green phyllite beds in bedded rx
L	9625	9780	25	3G8	Mixed grey & green phyllite commonly bedded as just above
L	9780	9870	26	3C3	coarsely mottled carbonate pct rock with texture suggestive of altered greenstone
L	9870	9980	27	3G8	lt green chl phyllite and gte act rx
L	9980	10420	28	3G8	Mixed bedded grey phyllitic green chl phyllite and gte act chl rx non limy rather arbitrary contact.
L	10420	10820	29	3G8	as above but more green component than grey
L	10820	11470	30	3G8	strongly broken and heavily quartz veined zone of grey phyllite lt grey phyllite & greenish phy - some gte act chl bands & last 20' a little limy
L	11470	12000	31	4C7	sulphide zone - sulphide bearing more gte ranges from lt grey gte with no sulphide but with more chl folia to massive sulphides but most diss to bands - some grey phyllite locally - a 20% sulphide mostly po but some max 5 cov

Lithologic Log

Logged By: _____

Code	From	To	Unit	Code	Description
1	10 14 16	20 22 23	25 27		
L	12100	12220	32	36J	med grey phyllite and phyllitic gtzite + cat gtzite generally free of sulph < 1% po
L	12220	12450	33	36F	Sulphide rich zone - Sulphid gtzite with pyromuscbl Foliated grades to near massive sulph with gtz gangue and to sulph free ^{to grey} gtzite 1222-1225 80% sulph po>>py substant gangue locally 1225-1235 4/5% banded sulphingtzite 1235-1245 several short sections mass potforpy with arsen ~ 30% sulph overall
L	12450	13590	34	36I	Very broken section of grey phyllite with quite a bit of it grey gtzite - lots of post D ₂ brecciation - strange rx hard to give a name. - to broken to continue drilling at 1359. gtzite veining above average but not too much.
					End of hole 1859

76-07
 1082

Code	From	To	Unit	Code	Description
1	10 14 16	20 22 23	25 27		
	10	11035			Casing no recovery see 76-06 R.R. core of blk graphitic phyllites in this interval.
	11035	1118		3G1	^{mid-} dk gray carbonaceous meso chl phyllite with minor vlt gray gtzose silty layers - cut by steep even clev S ₂ ? non limy
	1118	11215		3E1	st graphitic phyllite - black with white gtz stringers along S ₂ - non limy - minor py in gtz stringers
	11215	11219		3G1	carb phy a.s. interlayered with ^{weirhard} lt gray gtzose sandstone - locally with ss bra frags in carb phy matrix non limy
	11219	11444		3F1	lt gray - med gray finely stallove thinly bedded 1st, indurated with thin folia of graph phy
	11444	15102		3G1	Remarkably homogeneous mid-dk gray carbonaceous meso chl phyllite - soft non siliceous non limy but clearly more carb than "normal" phy - with common ^{darker} graphitic S ₂ folia in a few sections approaching graphitic phyllite over a ^{short dist} short dist in 172-173 206-208 (very broken) - generally just a little more carb above 190' 8" thinly bedded lt greenish-gray ss a.a. at 155' & scattered layers same rx at 189-192 - minor gray siltstone @ 332' generally nil pyrite - a little scattered esp where a little more graphitic than usual cut by a shallowly-dipping well developed even clev which looks like S ₂ - good S ₂ preservation in typical D ₂ lithons <u>but</u> there appears to be a fabric cut by S ₂ (?) & cutting S ₁ dipping @ ~45° - in some places this fabric seems to cut S ₂ - rather perplexing as it appears as a widely spaced fract cleavage and is most unlike S ₂ while the shallow dipping clev is what S ₂ usually looks like - might be late clev cut by S ₂ because of post D ₂ flex slip on S ₂ surfaces. see samples selected to illustrate these various relations around 207-250

Lithologic Log

Logged By: MA

7608

Code	From	To	Unit	Code	Description
1	10 14	16 20	22 23	25 27	
	0	4.4			OB
	4.4	9.4			dk grey to black graphitic phyllite w sh scattered white gte stringers - mil sulphides
	9.4	6.323			Medium grey to slightly dark grey musc chl-graph phyllite - not quite as carbonaceous as 7607 but close esp to last part of 7607 (i.e. 190') - more variable than 7607 but variation hardly worth logging as unlikely to be of value in correlation locally more carb than normal but nothing substantial. vastly different from 7607 in that S ₂ is only weakly developed to not at all and S ₁ seems to be down Flm - probably S ₁ Rot. into S ₂ on limb of D ₂ fold - ∴ S ₂ is prev but seems unlikely as rx are v fgr. - good S ₂ 255-265 & scattered below that but not much above gte veins particularly abdt in last half of hole where S ₂ is more abundant
		15.3123			EOH [rx not too different from Dm.72 hole on Delta claims (bottom phyllites) and upper part of the CED hole that bottomed in amygdaloidal phyllites - of course like 76-07 & not too far from "Normal" grey phyllite of the district although generally finer grained.]

Code	From	To	Unit	Code	Description
	10 14 16 20 22 23 25 27				
L	10 0	11 0	01	#	oB + broken rx
L	11 0	14 0	02	5B0	limy gray phy.
L	14 0	18 0	03	5BC	lt green limy chl phy s' porph lt green metabasite with minor limy phyll
L	18 0	25 0	04	5B0	limy gray phyllite - medium gray to very light gray typical limy phyllite - quite homogeneous but with some non limy & more carbonaceous bands. For example 49-71 but even these layers have at least some limy bands. also minor interbands of limy chl phyll 139.5-141 This is clearly the limy phy unit and subdivisions are pointless at the present time 398-438 15 loss limy & locally bedded - may be = to bedded unit of late 617-638 fault zone Post D ₂ ?? at least in part but could be of 2 ages - chloritized (X. above s' below identical)
L	25 0	28 0	05	5CD	Metabasite & limy chl phyll (trace of sheared carbonated ign rx ?) 810-825 scattered good ign text.
L	28 0	31 0	06	5B0	limy phyllite but med - dk gray & much more carbonaceous than above with gravel downwards (into more normal limy phyll - (same unit of a graph horizon ???)) minor st. to bands.
L	31 0	32 0	07	5B0	gray limy phyllite like (less carb than) perhaps a tad more than 4
	32 0	33 0	08	5B0	limy chl phy
	33 0	34 0			limy gray phy
	34 0	35 0	09	5B0	limy chl phy

C-1

Strongly Homed

