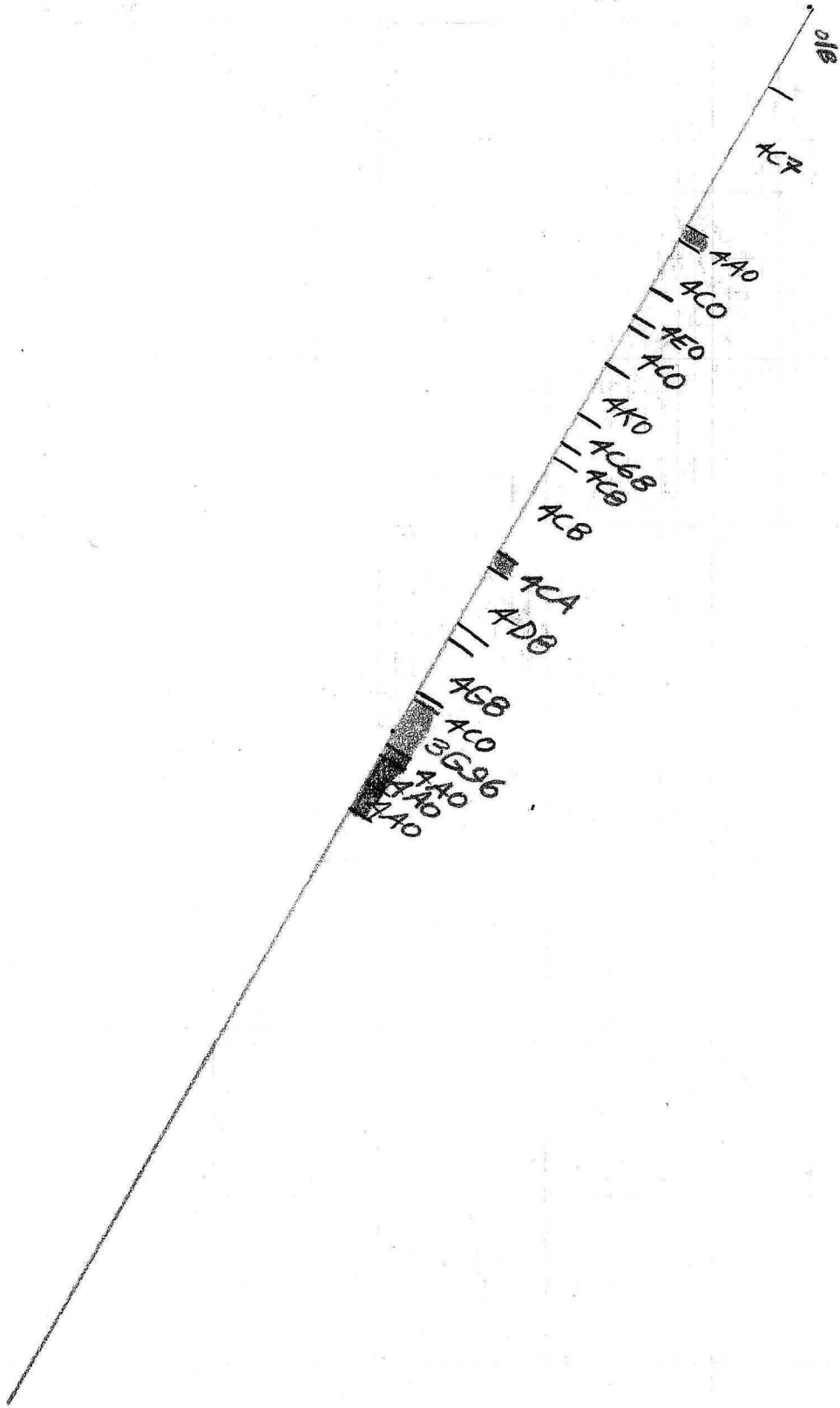


016226

KERR A 4
10/1/78
SVF
1" = 100'



Code	From		To		Unit		Code	Description
	10	14	16	20	22 23	25 27		
L	100	1520	001	#				overburden; broken bedrock
L	1520	11510	002	4C7				generally sulphide-bearing muscovitic gneiss and musc phyllite locally with chl but not cyanophane. Sulphides mostly py in ^{some pd heavy disse} siliceous beds ^{spines} between musc rich folia short calcite rich section (21-22)
L	11590	11590	003	4A0				ribbon banded graphitic gneiss with minor Pb Zn
L	11590	11930	004	4C0				Sulp bear musc gneiss - sulph generally py locally practically sulphid free - also orange weather carb in some siliceous layers with the py (sum to out & in small scale)
L	11920	12110	005	4E0				core missing - taken for Met. Test. (prob mass high grade sulph)
L	2110	12195	006	4E0				massive sulphides mostly Ag py but few % Pb Zn locally layered
L	12195	12450	007	4C0				muscovitic gneiss as above but with less unbedded sulphide - notable in having a few ^{short} or ^{irregularly} massive sulph with flashy high grade Pb Zn (220-231 225-227 240 1/4 - 241 1/2)
L	12450	12795	008	4K0				fine grained massive py with irregular masses to layers of slightly orangish weather (dolerite?) scratches - but hard for carb - s' fissures slightly when powdered not at all if not - good carb (clav.) or calcite???
L	131795	12790	009	4C68				banded massive sulphides - finely banded ^{Pb Zn part} py ± int alternating with st ² py gal sphal ± bar - some py + int layers finely laminated
L	12790	13070	010	4C8				core missing met test

Lithologic Log

Code	From	To	Unit	Code	Description		
	10	14	16	20	22 23	25 27	→ 4A0
L	3070	3750		11	4C8		less finely banded pyritic massive sulph generally Pb Zn poor - quartz gangue. Pb Zn goes with gte rich zones. massive py commonly with mt lam - minor trap gte layers 307'-310' essentially 1/2" to 6" thick massive ^{= mt lam} py interbedded with 1/4" to several inch thick bands with 10-50% py carrying the minor base metals
L	3750	3860		12	4CA		massive to heavily disse py ^{white} gangue interbedded with ^{grey} graphite gte
L	3860	4250		13	4D8		massive py + mt interbedded with white sulphide bearing gte with with 10-50% py - very much like unit 11 but with more Pb Zn still not too much (ore grade) (very similar to Lake zone but with more sulphide)
L	4250	4350		14			core missing met test
L	4350	4715		15	4G8		more finely banded baritic massive sulphides generally with good Pb+Zn just like unit 9 (nothing like this in Lake zone!)
L	4715	4750		16	4C0		mass phyll & sulph gte - 3' core loss
L	4750	5090		17	3G96		^{mass chl} grey carbon. phyllite with scattered gte + sulph stringers as below but sparse
L	5090	5115		18	4A0		ribbon banded graph gte with some py & sp & lesser sphal in white gte stringers couple inches of massive
L	5115	5320		19	4A0		graphitic gte with only minor white py & sphal stringers - other wise similar to 18 & 20 - also like graph gte in road to swim ct.

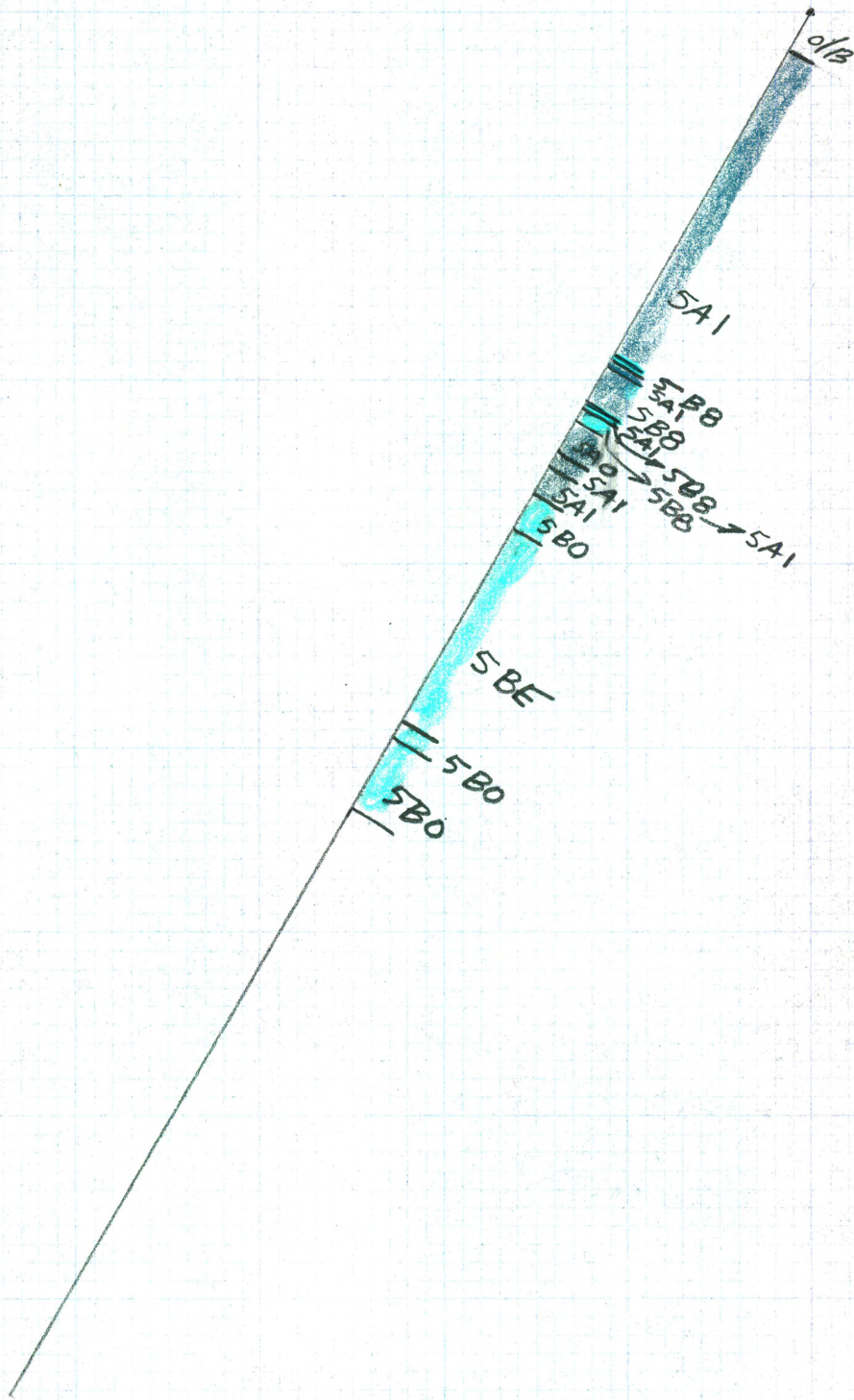
N4 68

39

10'

37'

KERR A7
100 SCALE
JNF
10/11/78



Lithologic Log

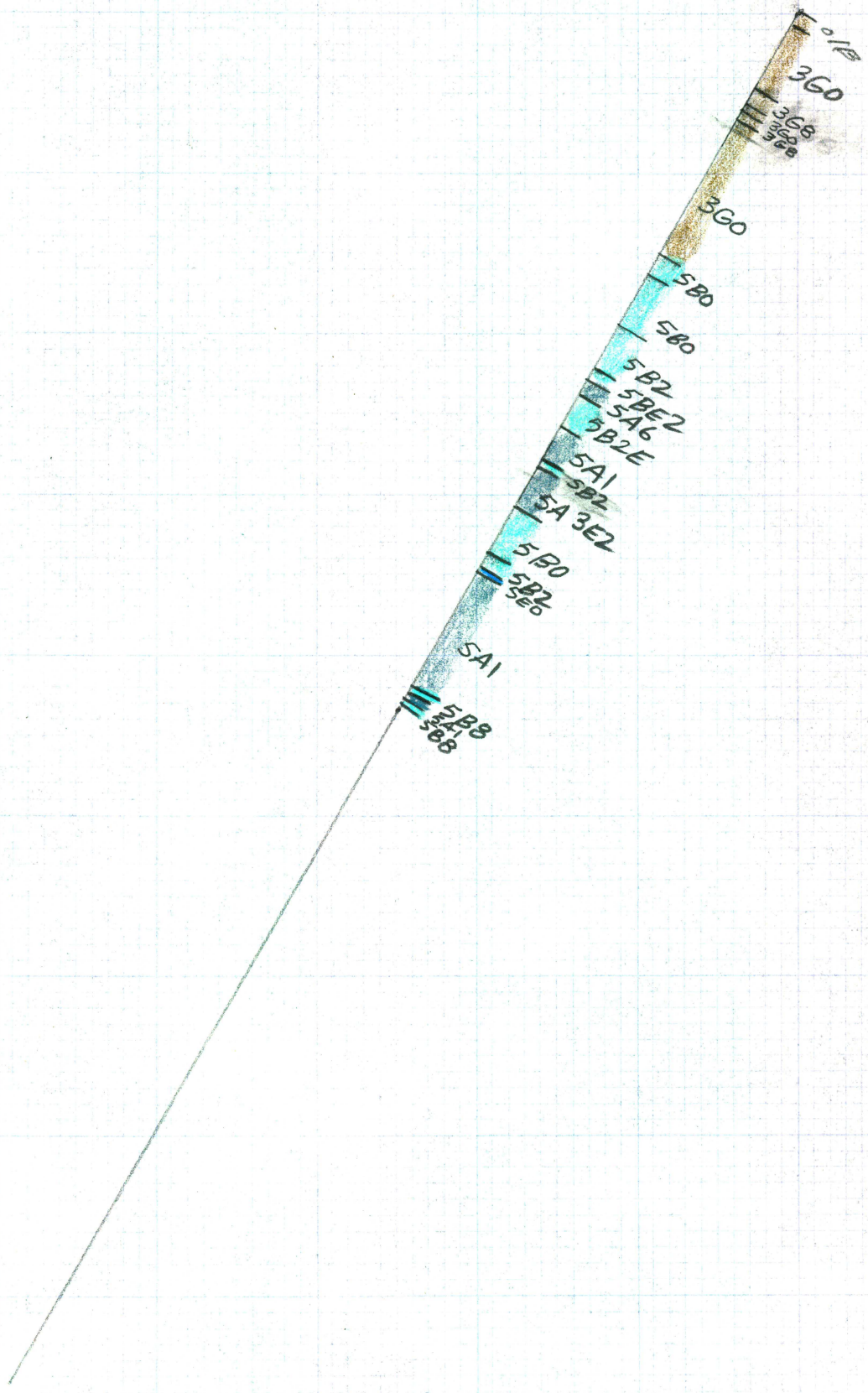
Logged By: _____

07

Code	From	To	Unit	Code	Description
L	10 14 16	20 22 23	25 27		
L	10 0	25 0	001	#1	OB
L	12 15 0	21 16 0	002	5A.1	graphitic phyllite qtz graphitic phyllite and graphitic gtzite - minor sulphides along S ₂ Flw but overall practically none.
L	21 16 0	21 18 5	003	5B.8 ²	buff delicate musc <u>ferulate</u> phyllite - this is the rock on the road to the drilling area near cleared area with oaks (#15)
L	21 18 5	21 21 5	004	5A.1	as #2
L	21 21 5	21 43 0	005	5B.8 ^{musch}	Buff to light green heavy chl phyllite - as #3. soft and flays readily generally. Locally light above granules but will not flay - feldsparite?
L	21 43	21 44	006	5A.1	as #2
L	21 44 0	21 46 0	007	5B.8	as #5
L	21 46 0	21 49 6	008	5A.1	as #2
L	21 49 6	21 55 5	009	5B.8	as #5
L	21 55 5	21 75 0	010	5A.0	graphitic phyllite soft broken core poor recovery
L	21 75 0	21 83 0	011	5A.1	fault zone with graph phy ^{Bxa} & calc veining & halite
L	21 83 0	31 03 0	012	5A.1	shaly heavy graphitic phyllite to graphitic gtzite as #2 - good core
L	31 03 0	31 25 5	113	5B.0	Medium grey heavy phyllite with many sections of phyllite list over been " - several samples for micro fossils

K 1. AB
JDF
NO SCALING
10/1/78

-60° INCLINATION?



Code	From	To	Unit	Code	Description	
1	10	14	16	20	22 23 25 27	
L	100	90	01	#	OB	
L	90	55	02	3G0	medium grey ^{mic chl} phyllite "normal" non limy - non siliceous not markedly carbonaceous is at all - just enough for the grey color. good silty grey fln surfaces.	
L	55	67	03	3G8	6 light green chl phyllite with minor po stringers light olive green to greyish green fln surfaces. - non limy	
L	67	71	04	3G0	as #2	
L	71	78	05	3G8	as #3	
L	78	175	06	3G0	medium grey "normal" phyllite as above Starts becoming calcareous by 175' and is very limy by 190'	
L	175	190	07	5B0	slight, limy and grey phyllite - ~ 15% limy bands can't be distinguished from overlying non limy phyl. by color.	
L	190	226	08	5B0	Very limy phyllite with several phyllite lst bands several samples for conds.	
L	226	258	09	5B2	Distinctly less limy and more carbonaceous phyllite	
L	258	266	10	5BE	2 limy carbonaceous phyl. and dark phyllite lst - good samples for con.	
L	266	276	11	5A6	Generally non limy graphitic phyllite few gtz bands and sulph.	
L	276	299	12	5B2E	Highly carbonaceous limy phyllite with common interbands of phyllitic limestone.	

P8

is same level as
First chl mark
in 75-01
in A7
in A7
~ 480 in A8
~ 215

AS

Code	From	To	Unit	Code	Description
	10 14 16	20 22 23 25 27			
L	2990	3220	135A1		gta graph phy & graph gtaite
L	3220	3280	145B2		grey moderately carbonaceous phyllite slightly limy
L	3280	3565	155A3E2		grey limy graph phy & graph lst 3 samples for cons.
L	3565	3900	165B0		medium grey limy phyllite locally carb generally not
L	3900	3990	175B2		moderately carbonaceous med-dk grey limy ph & graph lst
L	3990	4010	185E0		lt grey phyllitic lst 1 sample for cons.
L	4010	4030	195E2		dk grey phyllitic lst "
L	4030	4860	205A1		graph phy - gta graph phyll & graph gtaite - slightly limy - minor Fe sulph in gta stringers - texturally similar to ribbon banded but not as ^{generally} packed with gta stringers and not as sulphide rich - no base metal sulphide seen. Becomes a little limy toward base but no good lst. - lime seems to be within sulph in gta stringers & in 1/8" thick very limy layers 11 ft
L	4860	4903	215B8		lt green very limy chl phyll
L	4903	4920	225A1		gta graph phyll
L	4920	4940	235B8		lt grey to white varve phyll at top remainder lt green limy chl phyll as above.
		494			EOH

Interim Lithologic Log

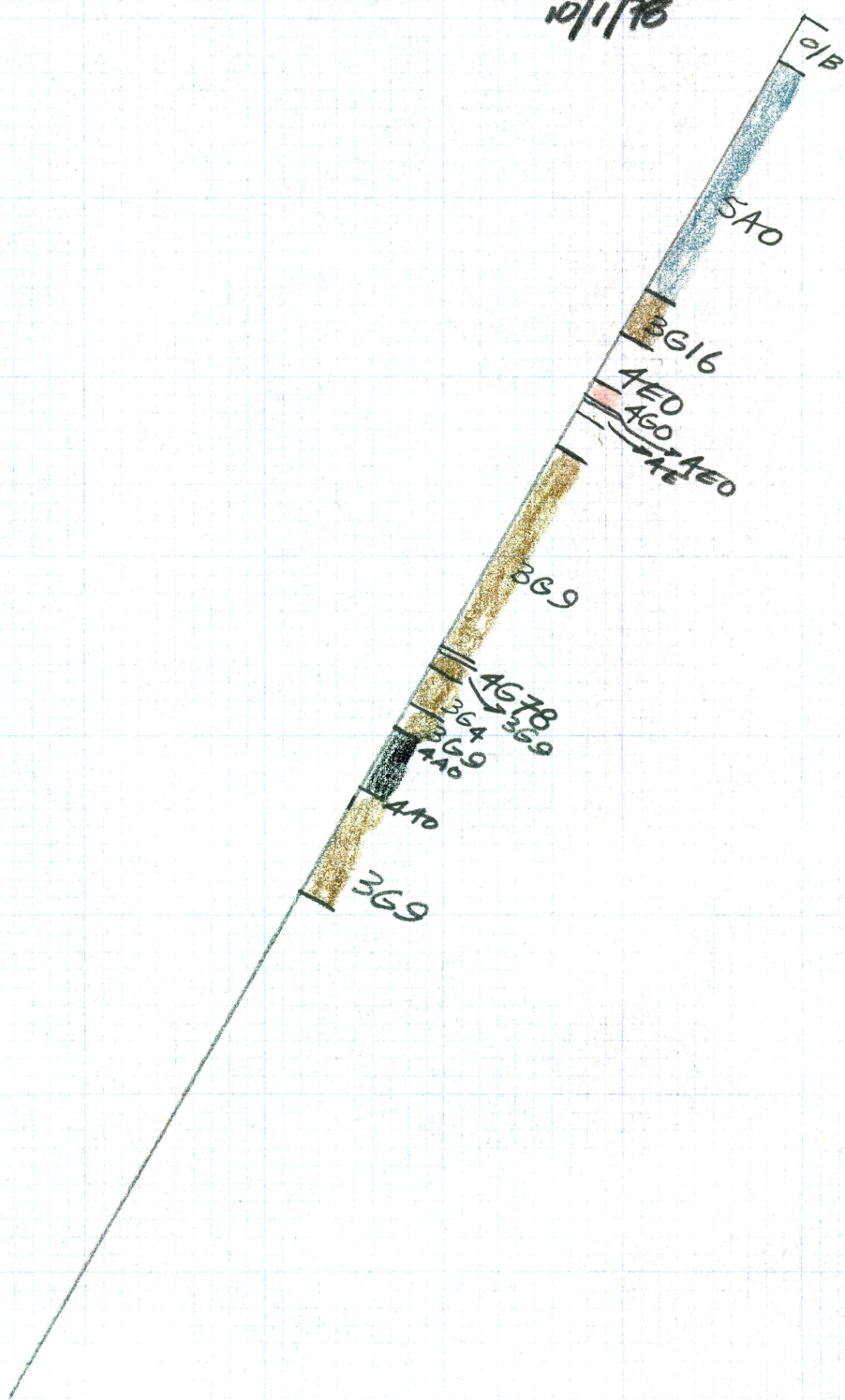
Code	From		To		Unit		Code		Description
	10	14	16	20	22	23	25	27	
L		130	133	001	#				OB
L		1330	1400	002	3G8				Greenish Buff phyl with po stringers
L		1400	1480	003	3G4				Buff Bleached Phyl
L		1480	1511	004	3G4				Inceptively bleached carb musc chl phyl - med grey no po stringers
L		1511	1610	005	3G4				Buff Bleached phyllite with po stringers
L		1610	1706	006	3G4				Bleached phyllite slightly greenish with po stringers
L		1706	1774	007	4				Sulphide zone with some sections of greenish bleached phyl
L		1774	1811	008	3G4				Bleached phyl derived from Greenish phyl - po stringers
L		1811	1882	009	4				3 missing core boxes - sulphide zone ???
L		1882	1897	105	A10				→ 3E Graphitic phyllite with stringers of ribbon banded graph gteite - minor sulph.
L		1899	1923	011	3G10				Greenish phyllite - like bottom of A44 & A42 absolutely barren - no stringers (hanging wall?)

Lithologic Log

R11

Code	From	To	Unit	Code	Description
L	10 14 16	20	22 23	25 27	
L	10 17	001	#		002
L	17 20	50	002	3602	gray to greenish gray very weakly carb. generally non limy phyllite non siliceous very broken & rusty hard to separate from underlying unit into which it grades (arbitrary & ?able contact)
L	50 10 50	003	360		light greenish gray / gray ^{thinly} interbedded phyllites - very similar to the swim ck bedded unit but perhaps more greenish layers generally non limy 89-96 chloritic striae v light green to offwhite to calcite grades locally into Eg 14 green chl phyllite
L	10 50	24 5	004	368	lt green chloritic unit much variation 105-142 medium green & somewhat coarser than average chl phyll locally with calcite stringers commonly quite broken with quite a bit of heating by gte - minor po in gte 142-173 very broken w/ 2/3 core recovery - gassy chloritic rx on above & w/ gte. 173-199 v light green ^{Fig} chl phyllite probably llicaceous commonly with minor po in stringers 199-203 a little inter-layered grey pelitic material 203-208 Eg 14 green chl phyl 210-220 bleached buff to v light green with po gte cal stringers pre O ₂
L	24 8 0	32 0	005	369	medium gray (light grey very weakly carbonaceous phyllite non limy non siliceous "Normal" very minor lt grey gtease layers - largely very generally transp into O ₂ but locally fine lt / med grey bedded preserved a few remnant PO is - like bedded phyllite units

Kr. A28
KOSKANE
JMF
10/1/76



Code	From	To	Unit	Code	Description
	10 14 16 20	22 23 25 27			
L	10 0	12 8 0	001	#	Overburden
L	12 8 0	14 73 0	002	5A10	strongly to moderately graphitic phyllite generally medium to dark grey
L	14 73 0	16 02 0	003	3G16	mass gtz phyllite & mass gtzite generally with only minor sulphides - local short sections of massive sulphide & some small amounts of sulphides in gtz layers - could be vms(?) 196 1/2 - 199 graphitic phyllite as above
L	16 02 0	16 31 0	004	4E0	< 1' of core recovery a few chips of weakly banded pyritic massive sulphides.
L	16 31 0	16 42 0	005	4G0	banded banded massive sulphides py-ant layers alternating with Ba Pb Zn Py massive banding on fine scale generally less than 1" with a few py-ant layers up to a couple of inches
L	16 42 0	16 43 5	006	4E10	py dolo massive sulph - barren
L	16 43 5	16 52 5	007	4E86	banded py-ant / ba Pb Zn Py massive sulphides, some very thick py-ant bands
L	16 52 5	16 57 2	008		py dolo facies minor base metals
L	16 57 2	17 16 5	009		mass phy - mass gtzite minor py - buff to cream colored
L	17 16 5	18 13 0	010	3G9	med to dark grey carbon mass chl phyll

Code	From	To	Unit	Code	Description
1	10 14 16	20 22 23	25 27		
L	40.3	40.55	11	4678	lt greenish cream musc chl phyll with 403-405.5 short section of high grade banded Pb Zn
L	40.55	40.70	12	360	massive sulphides with py + mt layers. - probably stratiform sulphides not a vein
L	41.07	41.5	13	369	med carb med grey musc chl phyll
L	41.50	43.80	14	364	lt grey incipiently bleached musc chl (= + graph?) phyllite
L	43.80	45.55	15	369	Med carb musc chl phyll med - dk grey common qty stringers with or w/o similar to RBG9 but not much sulph
L	45.55	45.60	16	4A0	Ribbon banded graph gylite with 1" bands of v. hg sphal.
L	45.6	45.8	17	460	buff musc gylite with massive to heavy. dissem py layers
L	45.80	47.70	18		conclusion but no core in it
L	47.70	49.50	19	4A0	suppl. long ribbon banded graph gylite musc sphal + copy of gyl except short v. hg bands a few musc gylite layers(?) core badly broken due to splitters + had to work out structures
L	49.50	51.58	20	369	med grey carbon musc chl phyll

Lithologic Log

Code	From	To	Unit	Code	Description
	10 14 16 20	22 23 25 27			
L	00	30	1	#	
L	30	44	2	4E,1	Pyrite Silica massive to 50% diss sulfides, qtz gangue minor base metals, v poor rec. (ie 50% or less chips, etc)
L	44	1015	3	3D,4	White Mica Envelope; sulfide deficient; short sections <4" sulfide bearing Qtzites; base metal poor
L	1015	1210	4	4C,0	Sulfide Bearing Qtzite; sulfides mostly py.; some po. over short sections (<1'); generally base metal poor; locally cupriferous espec where po-rich; chalc in post D ₂ veinlets; sulfides: 10-15%
L	1210	1250	5	4A,0	Ribbon Banded Graphitic Qtzite; 2" sphalerite band
L	1250	1339	6	4C,0	Sulfide Bearing Qtzite; sulfides mainly py, minor galena very lt grey qtz interbands -02A0; locally grades into massive sulfides 6"-1'; total sulfides: 30%
L	1339	1470	7		Interbanded Sequence of musc rich Qtzites and chloritic phyllite w/muscovite (very lt. green); possibly insip bleached
L	1470	1512	8	4C,0	Pyritic Qtzites; as unit 6; total sulfides 15%
L	1512	1650	9	4C,0	Interbanded Sequence of py bearing Qtzites (base metal poor) and chlor phyllite and normal grey phyllite as unit 7
L	1650	1690	10	4A,0	Ribbon banded Graphitic Qtzite; sulfides: py, w/minor galena and sphal; base metal def.
L	1690	1730	11	4C,0	Py rich; base metal deficient Qtzite; py rich; total sulfides 10%
L	1730	1750	12	4A,0	Ribbon banded Graphitic Qtzite; pyritic, w/ base metals
L	1750	2067	13	4C,0	Py bearing Qtzite; muscovitic; py 10%; several 1-2" massive py. bands; mag rich towards base
L	2067	2130	14	4C,8	Py ≅ Mag Qtzites → massive sulfides, minor po., → 2E8; total sulfides: 70%
L	2130	2155	15	4C,0	gradatun contact; Py Qtzites; total py 15-20% good po - mag
L	2155	3528	16	3D,4	White mica envelope; <5% sulfides in stringers; mainly pyrite w/some pyrite.
L	3528	3663	17	4B,7	Po - Musc Rich Qtzites; w/ 40% total sulfides as thin diss. bands to massive bands up to 2"
L	3663	3796	18	3D,4	non-sulfurous;
L	3796	3834	19	4C,7	Py and/or Po bearing Qtzite; total sulfides 30% chalc in post D ₂ veinlets; poor base metals

Lithologic Log

Code	From	To	Unit	Code	Description
	10 14 16 20 22 23 25 27				
L	00	300	1	#	
L	300	1345	2	3G0	Carb. musc-chlorophyll, non calcareous, biotitic??
L	1345	1365	3	3D4	WME.
L	1365	1645	4	4E4	Coily banded massive pyrite w/sphal-gal-mag-barite magnetitic, baritic; → 2E4 & 16; minor carbonate randomly scattered; total sulfides ~80%
L	1645	1660	5	4E0	Massive Pyritic Sulfides w/70% beige white carbonate in which pyrite occurs as stringers and blobs
L	1660	1686	6	4E4	as unit 4
L	1686	1715	7	4E0	as unit 5
L	1715	1975	8	4GE	Massive Sulfides/Sulphates, sub-equal portions massive pyrite - massive barite; → 2GE8, thin to laminae banded, magnetitic
L	1975	1994	9	4E0	Massive Pyrite w/salmon weathered ankerite; total sulfides >80%
L	1994	2090	10		Chlor Musc Phyll w/thin interbanded quartz laminae total sulfides <5%
L	2090	2310	11	4E8	Massive pyritic Sulfides w/approx 5-10% ankerite blubs + magnetite
L	2310	2314	12	4G0	approx 40% pyrite; interval 100% sulphates/sulfides
L	2314	2330	13	4E8	Massive Py., laminae banded w/minor ankerite blobs; minor barite, minor Pb-Zn; total sulfides/sulfates; 100%; magnetite <5%
L	2330	2393	14	4G3	→ 2G38 Baritic pyritic magnetitic
L	2393	2403	15	4B4	total sulfides 15%
L	2403	2407	16	4G3	→ 2G34
L	2407	2436	17	4B4	total sulfides 15%
L	2436	2480	18	4A0	Rib bam graph qtzites → 2A4 good base metals
L	2480	2934	19	4C8	Pyritic-base metal deficient qtzites, minor magnetite Numerous low grade musc-chlor-qtzite interbands Total sulfides variable averaging 25%
L	2934	2986	20	3D4	no base metal sulfides over interval White Mica Envelope
L	2986	3200	21		Interbanded 1D4 and 2C0; approx 50% oxidized lithology thinly interbanded
L	3200	3235	22	3D4	as unit 20
L	3235	3290	23	4B4	2B481 w/silica blobs

Code	From	To	Unit	Code	Description
L	10 14 16	20 22 23	25 27		
L	10 0	15 0	001	#	OB
L	15 0	21 6 5	02	3G0	<p>mass chl grey phyllite with scattered ^{white} quartz bands and scattered quartz lenses along flr. Minor lime in lenses - good grey sheen on flr surface - generally more to only very slightly carbonaceous. - quartz</p>
L	21 6 5	24 0	003	3G0	<p>Buff to light green chl mass phyllite phyllite itself is generally <u>more lmy</u> but many ^{CO2} coated ^{pebbled} seams Top 1/2 of unit tends to be buff bottom 1/2 greenish - greenish buff flr sub at top greenish to greenish grey in bottom</p>
L	24 0	36 8 0	004	3G0	<p>mass chl bb-mud grey phyllite as above - good shiny grey flr surfaces - Many calcite veinlets above 298' but not generally exposed</p> <p>308.5-310 314.5-315 317 318 319-5 322-323 324.5-326 329-330 333.5</p> <p>thin grey phyllite bands - some sampled for conducants</p> <p>340-348 lmy green calc silicates ✓</p> <p>Below 298' the phyllite is slightly lmy but normally more lmy grey phyllite alternating with the above noted list Below ~ 240' with Buff s. below</p>
L	36 8 0	38 0	005	3G0	very lmy ...

M-34

(L)

~~code~~

Inferium Lithologic Log

Code	From	To	Unit	Code	Description
1	10 14 16	20 22 23 25 27			
L	10 00	20 00	001	#1	OB
L	12 00	72 00	002	360	med to lt grey musc chl phy with po stringers
L	172 00	109 00	003	36A	buff phyllite with po stringers
L	109 00	189 00	004	36A	greenish bleached phy with po stringers
L	189 00	290 00	005	368	greenish phy generally without stringers
L	290 00	305 00	006	36A	bleached greenish phy with po stringers
L	305 00	327 00	007	467	gtr py / gtr po sulphides (stringer type??)
L	327 00	331 00	008	36A	buff to greenish bleached phy
L	331 00	430 00	009	368	green phy
L	430 00	492 50	010	36A	greenish to buff phy with many po stringers
L	492 50	531 50	011	4E6	massive sulph baritic at base
L	531 50	536 00	012	4A0	ribbon banded graph gtrta sulphide bearing
L	536 00	582 00	013	369	medium grey carbonaceous musc chl phyll
L	582 00	582 00	014	36A	somewhat altered looking greenish phy
L	584 00	651 00	015	368	greenish phy - very barren no stringers

Interim Lithologic Log

Code	From	To	Unit	Code	Description
	10 14 16 20	22 23 25 27			
L	0 0	20 0	01	#	OB
L	1210 0	1450 0	02	360	gray phyllite - generally no stringers except above 50' where core badly oxidized 20-28 somewhat bleached?
L	1450 0	1197 0	03	36A	Transition zone few to no stringers
L	1197 0	1219 0	04	36A	Buff phyllite with no stringers
L	1219 0	1228 0	05	366	Transition zone - few to no stringers
L	1228 0	1442 0	06	368	Greenish Phyllite - generally without stringers
L	1442 0	1452 0	07	36A	Bleached Phyllite - Buff ? not in BVH log
L	1454 0	1485 0	08	4	Sulphide zone Baritic at Base
L	1485 0	1513 0	09	369	Grungy gray phyllite locally buff locally graphitic
L	1513 0	1525 0	10	4A0	Ribbon banded gray g. t. - Fe sulph
L	1525 0	1537 0	11	36A	Buff Phyllite
L	1537 0	1699 0	12	368	Greenish Phyllite few to no stringers