HOLE NO: BKP-T-02 | SECTION: | GRID:WAWAITAN

PROJECT CODE :
TENEMENT :CLAIM 871715
PROSPECT :WAWAITAN
GRID :WAWAITAN
MAP REFERENCE:
LOCATION :THORNELOE TWP
HOLE TYPE :DDH

*** COLLAR COORDINATES AND RL ***

NOMINAL	460.00mN	400.00mE	279.00RL

Pre-collar depth: 305 Final depth: 305.00

Purpose of hole:

Hole status: COMPLETE

Comments:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	183.00	-45.00

*** SUMMARY LOG ***

0.00	7.00	OVERBURDEN
7.00	28.70	MAFIC VOLCANICS UNDIFFERENTIATED MODERATE
28.70	31.70	MAFIC VOLCANICS UNDIFFERENTIATED MODERATE
31.70	43.20	MAFIC VOLCANICS UNDIFFERENTIATED MODERATE
43.20	121.00	MAFIC VOLCANICS UNDIFFERENTIATED WEAK
121.00	125.40	MAFIC VOLCANICS UNDIFFERENTIATED MODERATE
125.40	133.30	WACKES STRONG
133.30	145.80	WACKES MODERATE
145.80	149.60	WACKES STRONG
149.60	156.30	WACKES STRONG
156.30	159.30	WACKES STRONG
159.30	165.20	WACKES MODERATE
165.20	167.00	SILTSTONE/MUDSTONE WEAK
167.00	170.70	WACKES/SILTSTONE/MUDSTONE WEAK
170.70	188.80	WACKES
188.80	197.80	WACKES WEAK
197.80	225.10	WACKES MODERATE
225.10	233.20	WACKES WEAK
233.20	238.00	WACKES MODERATE
238.00	252.90	WACKES STRONG

*** DRILLING SUMMARY ***

DDH	0.00 305.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	16/10/97
Date finished:	16/10/97
Logged by:	B. POLK
Relogged by:	
Sampled by:	

Material left in hole:
Base of complete oxidation:
Top of fresh rock:
Water first encountered:
Water inflow estimate:

*** SIGNIFICANT ASSAYS ***

From	To	Width

2.17907

010

BKP OCT 15 97

HOLE NO: BKP-T-02	SECTION:	GRID:WAWAITAN

252.90	266.40	WACKES/SILTSTONE/MUDS TONE WEAK
266.40	268.80	WACKES MODERATE
268.80	302.00	WACKES WEAK
302.00	305.00	WACKES
305.00		END OF HOLE

DDH DRILL LOG

From	To	Geological Log
0.00	7.00	OVERBURDEN
7.00	28.70	MAFIC VOLCANICS UNDIFFERENTIATED moderate Green-yellow medium gry, medium grained ; fine qtz blebs, foliated, sericitic and ankeritic pervasive , grey wacke blebs ankeritic, crenulated, appears laminated abundant structural info A- ankeritic bands and interlayered sericitic bands 60-70 degrees to core axis // to S1 ; 50% of unit pervasive ankerite and sericite. Bands of pure sericite S- S1- 60-75 degrees to core axis strong crenulation with section weakly crenulated S0 bands are occassionally warped S2 crenulation approx. 60 degrees to S1 (from core axis?) true orientation? 24.5m-fold veins 30dtca crosscutting veins // to fold. 45 degrees to core axis, qtz blebs in ankerite veins veins appear more crenulated up hole more coarse grained band has increased five% pyrite - very fine to fine euhedral pyrite axis is 50 degrees to core axis uphole and adjacent to fold S1 - 50 -60 degrees to core axis 0.35 meter vein of ankerite and qtz with yellow-green strongly sericitized edges ; black hard mineral >5 tourmaline (?) concentrated approx. // to vein edges approx. Equidistant from edges gradual cont. Sericitized 24.35 - 2cm qtz vein with ankerite in sericite, appears to be folded or follow a fold ; fol approx. 55-60 degrees to core axis on both sides of vein concentrations of coarse subhedral shattered pyrite qtz vein appears to be associated with vein fold along S2 (closure) downhole - of fold similar to vein edges - heavily sericited section approx. 0.5m with poss S2 crenulation shattered subhedral pyrite with pressure shadow of qtz following S1 fol. @ 8m -3cm wide coloured med grained section with qtz veining approx. 45 degrees to core axis one-two% disseminated. Fine grained pyrite nine.85m -0.One meter width with coloured fine grained - medium grained qtz vein approx. 30 degrees to core axis one-two% fine grained disseminated pyrite fol approx perpendicular to core axis possible hematite alteration. (?) S RQD - generally 70 some sections less than one of 100 M tr very fine grained-fine grained subhedral pyrite coarse grained locally 9.80-10.10 86901 hematite zone abundant qtz abundant ankerite ; fol // zone 14.90-15.25 86908 yellow grey medium grained 5yb; 30% qtz blebs fine 1mm qtz eyes (?) sericitic, ankeritic // to fol fine qtz bands silc alteration subhedral-euhedral coarse grained pyrite some pressure shadow fol 70 degrees to core axis mineralized contact 18.00-19.00

From	To	Geological Log
		86902 check sample fol , vein, sericite ankerite seds + bleby pyrite minor quartz carbonate alt 22.20-23.20 86903 mixed sericite ankerite seds crenulated one% coarse grained euhedral pyrite 23.20-23.80 86904 ankeritic, sericitic, some crenulation seams of fine grained pyrite 23.80-24.20 86905 qtz ankerite vein with tourmaline 24.20-25.10 86906 crenulated sericitic 25.10-26.10 86907 highly fractured
28.70	31.70	MAFIC VOLCANICS UNDIFFERENTIATED moderate Bluish grey - grey medium grained (?) WACKES with abundant sericite , ankeritic & quartz carbonate alteration. Unit looks granular // foln , gradation contact with units over & under quite possibly coarse clastic abundant sericite & ankeritic alteration pervasive , locally banded minor oxidized S0 & S1 @ 70 degrees to core axis (may not be foln !) RQD of 40 oxidized CO3 locally M. No mineralization evident 29.00-29.90 86909 check sample
31.70	43.20	MAFIC VOLCANICS UNDIFFERENTIATED moderate Variable gry & gry green , highly altered , banded looking rock with abundant sericite & ankeritic alteration minor bands five-15 centimeter of pyritic fine grained material locally banded sericite, ankerite & minor q alteration is moderate throughout a few barren but large quartz carbonate vein , generally foln // minor zone alteration from 37.Eight-38 very strong sericit S0 (?) & S1 @ 70 degrees to core axis (alteration banding) RQD 60 abundant shear related crenulation approx. Equal to 36.Six & 38 meter S2 related M - tr pyrite locally , a few quartz carbonate vein 32.00-33.00 86910 10cm fine grained sericite unit + four one.5cm quartz carbonate veins tr 33.00-33.50 86911 10cm fine grained sericite unit (one% pyrite) 33.50-34.10 86912 one.15cm quartz carbonate vein tr 37.50-38.50 86913 highly crenulate, sericitized volc (zone alteration) 2cm quartz carbonate vein
43.20	121.00	MAFIC VOLCANICS UNDIFFERENTIATED weak Dark green, medium-coarse grained with abundant calcite veins & veinlets throughout upper contact is gradational over one.5m this unit is thick bedded , bedding features obscurred green colour attributed to chloritic alteration five-15% qcc & calcite ans and veinlets throughout a few quartz carbonate veins ane with tourmaline locally abundant pin-point calcite alteration S0 (?) & S1 @ 75 degrees to core axis abundant contortion / crenulation 54-55m S2 RQD 50-70 , vuggy zone 103.Seven-104.Five , weak shear // foln at 103m M tr pyrite in some quartz carbonate veins 44.50-45.50 86914 numerous one-2cm quartz carbonate veins + abundant calcite alteration

From	To	Geological Log
		tr 54.00-55.00 86915 abundant quartz carbonate alteration in crenulated zone , ankerite , calcite, tr 55. 00-56.00 86916 abundant quartz carbonate alteration in crenulated zone , ankerite ,calcite 58.60-59.00 86917 12cm quartz carbonate vein with tr tourmaline 63.00-63.60 85918 sample abundant pin-point cba 102.70-103.70 86919 weakly altered weak shear 103.70-104.70 86920 vugy quartz carbonate veins with tr pyrite (shear?) tr
121.00	125.40	MAFIC VOLCANICS UNDIFFERENTIATED moderate Transitional rock between very weakly altered rocks above & strongly altered below laminated ankerite , sericite & minor quartz carbonate with local granular texture ... Very approx. Equal to rocks at top of hole 30-50% ankerite & quartz carbonate 30% sericite intimate lamination & layering chlorite (20% sericite tr fuchsite associated with some quartz carbonate vein) strongly developed, foln S1 // to S0 (?) at 70-75 degrees to core axis millimeter , local S2 crenulation (one centimeter flat quartz carbonate vein along S2) M tr pyrite + minor seamy fine grained pyrite near end of interval tr arsenopyrite , fine grained blebby 121.00-122.00 86921 moderately altered seds (sericite ankerite,quartz carbonate) 122.00-123.00 86922 moderately altered with one centimeter S2 // quartz carbonate vein, + 3cm foln//qcchv 123.00-124.00 86923 moderately altered 124.00-125.00 86924 moderately altered slightly up hole alteration 125.00-125.40 86925 moderately altered with tr ars & one% pyrite (fine & seamy)
125.40	133.30	WACKES strong Strongly altered, very coarse grained textured , grey, brown grey, green grey seds (?) with no discernable sed textures remaining. Abundant qtz eyes look rounded & clastic upper contact is finer seds, highly altered & sharp @ 127.1meters is sharp at 132.Nine alteration is pervasive & extends from 130-132.1meter litho maintains a very coarse grained , porphyritic looking texture pervasive strong sericite pervasive moderate ankerite + a few ankerite veinlets 2cm quartz carbonate vein @ 130.8m , 6cm quartz carbonate vein 131.Eight 4cm 132. 3 , 12cm 132.Five odd alteration may give rise to very coarse grained texture ... Looks somewhat intrusive strong lineation developed in coarse grained intervals foln is generally poorly developed at 80 degrees to core axis but quartz carbonate veins trend at 65 degrees to core axis RQD of 70 at fracs // to S2 (SE flat) minor tr ars throughout often fine grained euhedral sub-msv blebs associated with sur vein edges locally one% coarse grained pyrite euhedral throughout up to 10% locally (associated with coarse grained material) occasionally sub-msv blebby 125.40-126.40 86926 strongly altered seds with first appearence of arsenopyrite finely disseminated &

From	To	Geological Log
		closely associated with fine grained pyrite near end of interval 126.40-127.30 86927 beginning of coarse clastic (?) unit with two-three% finely disseminated sulfide including .Five% qvns 127.30-128.10 86928 same as above with slightly more sulfide 128.10-129.10 86929 very coarse grained highly altered coarse clastics coarse grained pyrite 129.10-130.10 86930 very coarse grained reddish & greenish altered calcite unit very coarse grained pyrite 130.10-131.10 86931 variably altered porphyritic looking unit 2cm quartz carbonate vein five% very coarse grained pyrite , 3cm quartz carbonate vein with tourmaline bands 131.10-132.10 86932 6cm quartz carbonate vein in porphyry, pyrite is fine - coarse grained disseminated 132.10-133.30 86933 contact zone between c unit & sericite finer unit contact @ 132.Eight 12cm q ankerite vein + four centimeter quartz carbonate vein , vein sericite alteration
133.30	145.80	WACKES moderate Fine grained grey wacke (almost argillites?) with abundant sericite & ankeritic alteration throughout . Rocks are pale ochre to yellow grey a few conglomeratic beds (?) very strong sericite alteration pervasive throughout moderate ankeritic alteration minor chloritic alteration associated with conglom(?) beds very strong locally silicification S0 & S1 @ 80 degrees to core axis S2 not observed M tr-one% fine grained pyrite disseminated throughout 133.30-134.30 86934 sericite, ankeritic , fine grained WACKES with tr-one% pyrite disseminated throughout 134.30-135.30 86935 sericite, ankeritic, fine grained WACKES with tr-one% pyrite disseminated throughout 135.30-136.30 86936 sericite, ankeritic, fine grained WACKES 136.30-137.30 86937 sericite, ankeritic, fine grained WACKES one% arseno 137.30-138.30 86938 sericite, ankeritic , fine grained WACKES 138.30-139.30 86939 sericite, ankeritic, fine grained WACKES + 20 centimeter chloritic conglom unit 139.30-140.30 86940 sericite, ankeritic, fine grained WACKES 140.30-141.30 86941 sericite, ankeritic, fine grained WACKES 141.30-142.30 86942 sericite, ankeritic, fine grained WACKES 142.30-143.30 86943 sericite, ankeritic, fine grained WACKES + 2cm , irregular, tourmaline bearing quartz carbonate vein 143.30-144.30 86944 sericite,ankeritic, fine grained WACKES 144.30-145.30 86945 sericite, ankeritic, fine grained WACKES 145.30-145.80 86946 sericite, ankeritic, fine grained WACKES 3cm irregular quartz carbonate band + avg over 30cm - contact (five% blebby pyrite)

From	To	Geological Log
145.80	149.60	WACKES strong Yellowish ochre , medium - coarse grained seds (?) sed features destroyed by alteration , abundant sericite alteration throughout , local ars pyrite minor alteration envelope magnetite altered zone below sericite alteration is strong & pervasive silicification is strong throughout patchy strong ankeritic alteration S1 (?) S0 @ 75-80 degrees to core axis RQD a few 90 M one-two% local ars + pyrite fine grained bands 145.80-146.80 86947 very sericite silicified WACKES (?) with one% fine grained pyrite in blebs 146.80-147.80 86948 very sericite silicified WACKES(?) 147.80-148.80 86949 very sericite silicified WACKES(?) 148.80-149.60 86950 very sericite silicified WACKES (?)
149.60	156.30	WACKES strong Reddish - dark reddish gry , very coarse highly altered coarse clastic unit. Thin sericite unit (pure sericite + silica) from 155.Three - 155.Six seperated @ reddish coarse clastic units very altered throughout strongly silicified , moderate hematic alteration (?) fine grained magnetite throughout sericite unit near end of interval (see below) ankerite only in veinlet RQD of 30 from 153-155 (FAULT ZONE?) vuggy 70 otherwise S1 @ 75 degrees to core axis (?) M- one-five% fine grained pyrite often associated with magnetite , tr ars locally 149.60-150.60 86951 one% interstitial pyrite in reddish calcite unit 150.60-151.60 86952 one% interstitial pyrite in reddish calcite unit + two 1cm S2 // quartz carbonate veins 151.60-152.20 86953 two% pyrite + abundant magnetite in laminated rock , somewhat vuggy tr ars 152.20-153.20 86954 five% pyrite + abundant magnetite in vuggy calcite unit 153.20-154.20 86955 five% pyrite + abundant magnetite in vuggy calcite unit 154.20-155.40 86956 five% pyrite + abundant magnetite in vuggy calcite unit 155.40-155.70 86957 sericite inter-unit two% magnetite 155.70-156.30 86958 five% pyrite + abundant magnetite in vuggy calcite unit
156.30	159.30	WACKES strong Yellowish, sericite / silc unit approx. Equal to (145.Eight - 149.Six) strong pervasive ankeritic alteration , minor quartz carbonate alteration minor S2 cleavage 156.30-157.30 86959 sericite , silicified WACKES with tr pyrite + ars 157.30-158.30 86960 sericite , silicified WACKES with tr pyrite + ars 158.30-159.30 86961 sericite , silicified WACKES with tr pyrite + ars

From	To	Geological Log
159.30	165.20	WACKES moderate Grey/ochre locally banded altered seds ; sericite + ankerite abundant quartz carbonate vein (coddled ankerite) strong ankeritic alteration (pervasive) + strong sericite alteration, pervasive + pure sericite bands local silicification approx. Equal to numerous large , irregular quartz carbonate veins S0 & S1 , are variable approx. Equal to quartz carbonate veins , generally high less than to core axis S2 is locally well developed RQD 60 tr pyrite throughout, vein edges host semi msv pyrite locally minor blebby dirty pyrite local in some medium grained units 159.30-160.30 86962 1cm , irregular, crenulated quartz carbonate vein in sericite ankeritic seds 160.30-161.30 86963 sericite ankeritic seds 161.30-162.60 86964 abundant grey coddled carbonate quartz carbonate veins with abundant (10%) sulfides along edges + sericite (three-30cm) 162.60-163.60 86965 abundant grey coddled carbonate quartz carbonate veins with abundant (10%) sulfides along edges + sericite (three-30cm) 163.60-164.60 86966 sericite WACKES with abundant irregular quartz carbonate stringers 164.60-165.20 86967 6cm + 24cm quartz carbonate veins , tr pyrite
165.20	167.00	SILTSTONE/MUDSTONE weak Dark gry-black banded weak sericite alteration in bands , tr pyrite , a few blebs of pyrite or bands locally bands are crenulated 165.20-166.70 86968 irregular quartz carbonate alteration , tr pyrite 166.70-168.20 86969 irregular quartz carbonate alteration , tr pyrite
167.00	170.70	WACKES/SILTSTONE/MUDSTONE weak Weakly altered grey-dark grey centimeter bedded grey wacke with minor dark argillite minor irregular quartz carbonate alteration throughout minor local sericite alteration weak patchy ankeritic alteration S0 S1 @ 85 degrees to core axis S2 is observable in irregular quartz carbonate alteration RQD 70 168.20-169.70 86970 irregular quartz carbonate alteration , tr 169.70-170.70 86971 irregular quartz carbonate alteration, tr
170.70	188.80	WACKES Variably grey centimeter - decimeter scale bedded grey wacke showing graded bedding tops uphole very weak patchy ankeritic local weak quartz carbonate alteration very minor local sericite S0 80 degrees to core axis S1 50 degrees to core axis acute S2 locally developed

From	To	Geological Log
		M tr pyrite locally graded bedding changes direction approx. Equal to 187m ...Significant structure or local crenulation ?
188.80	197.80	WACKES weak Same as above with minor ,local silicification & minor quartz carbonate alteration 190.50-191.40 86972 tr pyrite meter two silicified zones (15cm+25cm)
197.80	225.10	WACKES moderate Medium grained grey wacke + minor argillites variably altered ; silicification sericitization ankerite alteration , some intervals are moderately altered , others only weakly altered very strongly silicified medium grained grey wacke (thick bed?) from 197.Eight-203.Four pure silica check sample only variable silica alteration throughout some blue cloudy silicification carries pyrite ars locally banded aer , qtz & coddled ankerite S0 @ 85 degrees to core axis S1 @ 55dtca perpendicular foln (SE strike vert dip?) S2 crenulation rarely locally developed fracture zone 205-206 , well developed foln 220.5m M tr pyrite + ars associated with strongly silicified zone (bluish S102) tr-one% pyrite associated with sericite / quartz carbonate alteration 197.80-198.10 86973 check sample large silicified unit 201.40-201.80 86974 check sample large silicified unit 202.40-203.40 86975 check sample large silicified unit with bluish silica , tr pyrite *sild zone ... Only partially sampled 203.40-204.40 86976 minor argillite , abundant quartz carbonate alteration one% coarse blebby pyrite 204.40-205.40 86977 fine grained grey wacke fractured quartz carbonate alteration 205.40-206.40 86978 sericite alteration + 20 centimeter coddled carbonate , q zone with one% pyrite 206.40-207.40 86979 sericite alteration, minor quartz carbonate alteration tr pyrite 207.40-208.40 86980 argillite with variable alteration, silicification sericitization one% pyrite (fine grained) associated with sericite bands (pale alteration) 208.40-209.40 86981 20cm pale sericite alteration with one% dirty blebby pyrite + arg/ser/qcv alteration 209.40-210.40 86982 variable sericite , silc alteration 210.40-211.40 fuchsite 86983 25cm pale sericite band with fuchsite + one% blebby dirty pyrite 211.40-212.40 86984 50cm silicified sericite zone with tr pyrite + tr pyrite ars in quartz carbonate alteration below 212.40-213.40 86985 weakly altered WACKES with 15 meter ser/silc/zone 213.40-214.40 86986 weakly altered WACKES 214.40-215.40 86987 weakly altered WACKES + minor quartz carbonate alteration 215.40-216.40 86988 abundant quartz carbonate alteration , sila/sern over 60cm 8cm quartz carbonate veil 216.40-217.40

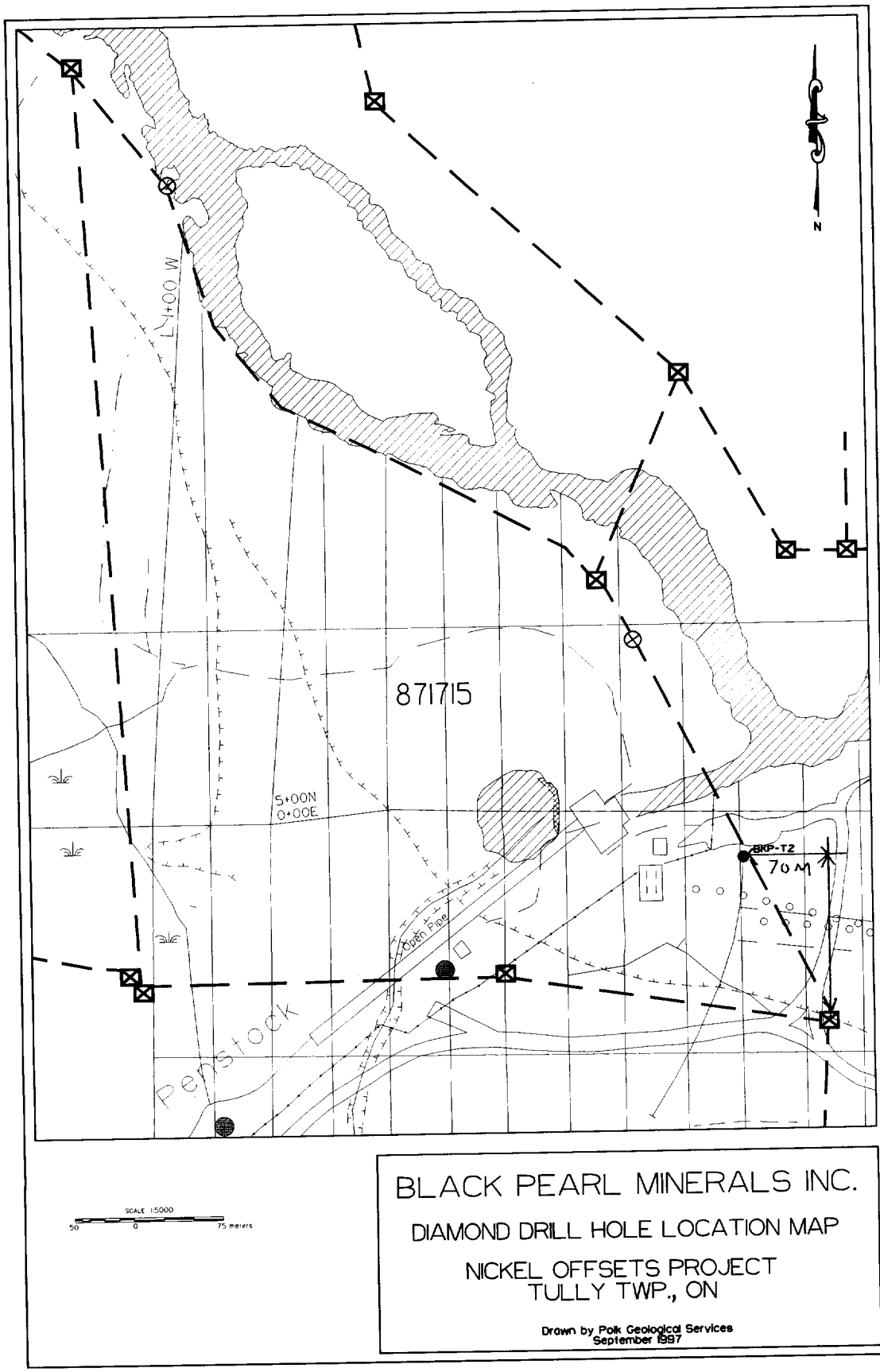
From	To	Geological Log
		86989 abundant quartz carbonate alteration , sila/sern over 30cm 2cm quartz carbonate vein 217.40-218.40 86990 s sericite alteration (banded) 10cm + 2cm quartz carbonate vein with coddled ang 218.40-219.40 86991 variable sericite , silc & quartz carbonate alteration in argillite + WACKES 219.40-220.40 86992 20cm silicified zone 220.40-221.40 86993 minor quartz carbonate alteration in weakly altered WACKES 221.40-222.40 86994 50cm silicified zone + two two-3cm quartz carbonate veins (coddled) 222.40-223.40 86995 variable sericite alteration (weak-moderate) 223.40-224.40 86996 variable sericite alteration (weak-moderate) 224.40-225.10 86997 20cm silicified zone + variable sericite alteration
225.10	233.20	WACKES weak Weakly altered , dark grey , centimeter bedded WACKES sediments graded bedding puts tops downhole (s) , moderately fold minor sericite alteration locally minor quartz carbonate alteration often coddled textured local silicification approx. Equal to quartz carbonate veins very weak patchy ankeritic alteration S0 approx. Equal to 88 degrees to core axis S1 @ 70 degrees to core axis S2 ? tr pyrite locally 229.00-229.60 86998 sericite, quartz carbonate alteration zone over 40cm
233.20	238.00	WACKES moderate Thick bed of medium grained grey WACKES with moderate local silicification & sericitization grey - dark grey variable silicification sericitization locd throughout a few ankerite veins especially in silicified areas weak pervasive ankerite throughout S0 at 75 degrees to core axis (?) foln @ 45 degrees frome core axis rotated xdegrees from bedding tr pyrite associated with silicification 233.20-234.20 86999 minor silicification over six, 8cm tr pyrite 234.20-235.20 87000 minor silicification over six, 8cm tr pyrite 235.20-236.20 86851 minor silicification over six, 8cm tr pyrite + minor quartz carbonate alteration 236.20-237.20 86852 minor silicification over six, 8cm tr pyrite + minor quartz carbonate alteration 237.20-238.00 86853 minor silicification over six, 8cm tr pyrite + minor quartz carbonate alteration
238.00	252.90	WACKES strong Highly altered, pale grey - creamy grey ochre WACKES sediment with no observable sedimentary features the unit is comprised of abundant silicic sericitic & ankeritic alteration associated with minor large q /q ankerite veins , parallel to sub-parallel to bedding (?). Alteration is variable from moderate to very strong & generally pervasive sericite alteration is strong on unit edges , silica is strong inside

From	To	Geological Log
		all structural features are ill defined but most quartz carbonate veins occur at 75 degrees to core axis tr - two% pyrite fine grained & disseminated throughout , locally blebby tr arsenopyrite very fine grained disseminated throughout vg t 246m associated with 33cm quartz carbonate vein 238.00-239.00 86854 s silicification over 20cm , 25cm tr ars , tr pyrite hazy silica moderate ankerite 239.00-240.00 86855 s silicification over 30cm (tr ars, one% pyrite) minor S2 // quartz carbonate veins 240.00-241.00 86856 moderate silicification throughout one% very fine grained pyrite disseminated throughout 241.00-242.00 86857 moderate silicification throughout one% very fine grained pyrite disseminated throughout + 12cm quartz carbonate vein coddled ankerite , sericite edges + two% pyrite tr ars 242.00-243.00 86858 very sericite zone approx. Equal to 25cm quartz carbonate vein network one% pyrite associated with qcvnlts strong silicification with one% pyrite in last 10cm 243.00-244.00 86859 s sericitization silicification , 6cm broken quartz carbonate vein tr pyrite + ankerite , minor fuchsite alteration 244.00-244.50 86860 43cm quartz carbonate vein (coddled ankerite) + s sericite alteration tr pyrite tr ars 244.50-245.20 86861 s sericite alteration , ankerite veinlets carries tr-one% pyrite 245.20-245.80 86862 s sericite alteration approx. Equal to 3cm , irregular,quartz carbonate vein 245.80-246.20 86863 33cm quartz carbonate vein, coddled ankerite , one% blebby pyrite along upper vein edges, s sericite alteration vg @ 246.6m three localities in vein centre 2/3 down vein one- linear bleb in qtz 4mmx1mm two- abundant blebs over 5mmx4mm associated with gry carbonate in qtz three- linear bleb + several specs in qtz 4mmx1mm 246.20-247.00 86864 sericite alteration (s) + one% very fine grained disseminated pyrite + ars 2cm coddled quartz carbonate vein 247.00-248.00 86865 saa with 6cm quartz carbonate vein @ 40dtca 248.00-249.00 86866 saa , silicified abundant quartz carbonate alteration 249.00-250.00 86867 abundant sericitization , silicification + quartz carbonate alteration +ank 250.00-251.00 86868 abundant sericitization, silicification + two% fine disseminated pyrite 251.00-252.00 86869 abundant sericitization , silicification + two% fine disseminated pyrite 252.00-252.90 86870 abundant sericite alteration + ankerite veinlets one% pyrite
252.90	266.40	WACKES/SILTSTONE/MUDSTONE weak Variably altered gry-dark grey-black grey wacke with minor argillite units most sed units are 10's of centimeter thick and show no graded bedding pervasive weak sericite alteration , locally stronger millimeter quartz carbonate alteration S0 @ 85 degrees to core axis S1 @ 70 degrees to core axis

From	To	Geological Log
		tr pyrite locally 252.90-253.90 86871 tr pyrite in weakly sericite silc seds 258.90-259.90 86872 moderately silicified zone 265.40-266.40 86873 moderately sericitized silicified zone above alteration below
266.40	268.80	WACKES moderate Moderately sericite , silica altered sed's , pale grey - greenish grey with a large quartz carbonate vein pervasive sericite alteration pervasive ailc alteration local strong millimeter ankerite as anlts S0 @ 85 degrees to core axis S1 @ 50 M tr fine grained pyrite locally 266.40-267.40 86874 s silicified @ 15cm coddled ankerite quartz carbonate vein 267.40-268.40 86875 s silicified locally , 3cm irregular veinlet tr ars 268.40-268.80 86876 silicification, sericitization minor quartz carbonate alteration
268.80	302.00	WACKES weak Weakly altered variable grain size wackes with locally stronger alteration greenish-pale greyish in colour locally well mineralized pervasive weak locally moderate sericite alteration , occassionally banded local silicification minor quartz carbonate vein alteration pin-point cba approx. Equal to 274.5m minor chlorite S0 75-85 degrees to core axis S1 65 rotated 90 degrees RQD of 50-60 interesting crenulation (sense of motion) 286.Nine M up to two% fine pyrite minor associated with some medium grained beds 274.70-275.70 86877 one% coarse grained pyrite with chlorite / qtz pressure shadows in sericite alteration , minor quartz carbonate alteration 279.00-280.00 86878 weakly sericite altered medium-coarse grained WACKES with abundant coarse grained EUH (two%) pyrite + a few thin quartz carbonate veins with tr ars + one% pyrite 281.00-282.00 86879 variably sericitized WACKES with minor quartz carbonate alteration 282.00-282.50 86880 variably sericitized WACKES with minor quartz carbonate alteration 282.50-283.00 86881 very coarse grained qtz arenite with tr ars (very fine grained disseminated) 283.00-284.00 86882 medium grained sericite WACKES with two% very fine grained pyrite nice looking rock 284.00-285.00 86883 saa with more coarse grained euhedral pyrite 285.00-286.00 86884 coarse grained unit with one% coarse grained pyrite 286.00-287.00 86885 coarse grained unit with one% coarse grained pyrite

From	To	Geological Log
		287.00-288.00 86886 sericite coarse grained seds tr pyrite 288.00-289.20 86887 sericite coarse grained seds with abundant quartz carbonate alteration , minor pyrite 10cm very sericite zone has two% very fine grained disseminated pyrite , tr fuchsite 296.00-297.00 86888 five NE striking , vertical qtz stringer sharp contact + 1cm coddled ankerite S2 associated crenulated stringer tr-one% fine grained pyrite 297.00-298.00 86889 45cm sericite zone two% blebby, dirty pyrite , pin-point cbn 298.00-299.00 86890 sericite seds , weak ankerite , tr pyrite
302.00	305.00	WACKES Grey monotonous , centimeter bedded WACKES with minor argillite minor quartz carbonate alteration local minor ankeritic alteration S0 75 degrees to core axis S2 bottom side S motion tr pyrite (blebby) locally

*** END OF HOLE *** 305.00



BLACK PEARL MINERALS INC.

DIAMOND DRILL HOLE LOCATION MAP

NICKEL OFFSETS PROJECT
TULLY TWP., ON

Drawn by Polk Geological Services
September 1997

Ontario

Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W9760.00454
Assessment Files Research Imaging

Personal information collected on this form is obtained under the authority of the Mining Act. The information will be used to administer the Mining Act. Questions about this collection should be directed to the Manager, Mining Lands Section, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5, Telephone (705) 670-7264.

42A06SW0037 2.17907 THORNELOE

900

and 66(3) of the Mining Act. Under section 8 of the Mining Act, the recorded holder must submit this work and a Statement of Costs, form 0212, within 30 days of the recording date, to the Manager, Mining Lands Section, 6th Floor, Ministry of Northern Development and Mines, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

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OCT 16 1997
fmb 12:50
PORCUPINE MINING DIVISION

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

2.17907

1. Recorded holder(s) (Attach a list if necessary)

Name	Client Number
COMAPLEX MINERALS CORP	302304
Address	Telephone Number
901-1015 4th ST SW	403-265-2846
CALGARY, ALBERTA T2R 1J4	Fax Number 403-232-1421
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☐ Geotechnical: prospecting, surveys, assays and work under section 18 (regs)

☑ Physical: drilling, stripping, trenching and associated assays

☐ Rehabilitation

Work Type	Office Use
DIAMOND DRILLING	Commodity
	Total $ Value of Work Claimed 14,637
Dates Work Performed From 13 Day 08 Month 96 Year To 20 Day 08 Month 96 Year	NTS Reference
Global Positioning System Data (if available) Township/Area THORNLOE	Mining Division Porcupine
M or G-Plan Number G-3229	Resident Geologist District Timmins

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name	Telephone Number 235-4959 Bus
PETER G. ATHERTON	1-705-235-5846 Home
Address P.O. Box 372 PON 1CO	Fax Number 1-705-235-5094
607 Division ST. PORCUPINE ONT	
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

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OCT 17 1997
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4. Certification by Recorded Holder or Agent

I, PETER G. ATHERTON (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent		Date
Peter G Atherton		OCT 2, 1997
Agent's Address	Telephone Number	Fax Number
P.O. Box 372 PORCUPINE ONT PON 1CO	705-235-4959	705-235-5094

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous with the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

AMENDED

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map	Number of Claim Units. For other mining land, list hectares	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg	TB 7627	16 ha	$25, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234566	2	$ 8 892	$ 4,000	0	$4,892
1	P 371712	1		400		
2	P 371713	1		400		
3	P 371714	1		400		2450
4	P 371715	1 80	[illegible]	400	1200	[illegible]
5	P 120711	2 141	[illegible] 6587			6587
6						
7		ATTENCH SEE	ATTACHED			
8		NOTE				
9						
10						
11						
12						
13						
14						
15						
		Column Totals	14 437	1400	1200	13037

I, PETER G ATHERTON (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
[signature]	JAN 12, 1998

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

JAN 12 '98 11:23 PAGE.02

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GEOSCIENCE ASSESSMENT OFFICE

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

Ontario

Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)
W9760.00454

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
DIAMOND DRILLING	305.0 METRES	$ 47.99	$ 14,637
		$ 13907	
Associated Costs (e.g. supplies, mobilization and demobilization).			
Transportation Costs			
Food and Lodging Costs			
		Total Value of Assessment Work	$ 14,637

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OCT 16 1997
PORCUPINE MINING DIVISION

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

RECEIVED
9:30 AM
OCT 17 1997
GEOSCIENCE ASSESSMENT OFFICE

Certification verifying costs:

I, PETER G. ATHERTON (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as AGENT (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
	Oct 10/97

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (705) 670-5881

January 13, 1998

COMAPLEX MINERALS CORP.
SUITE 901, 1015 FOURTH ST. S.W.
CALGARY, ALBERTA
T2R-1J4

Dear Sir or Madam:

Submission Number: 2.17907

Subject: Transaction Number(s):		**Status**
	W9760.00454	Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at benetest@epo.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 11739
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.17907

Date Correspondence Sent: January 13, 1998 **Assessor:** Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9760.00454	871715	THORNELOE	Approval	January 12, 1997

Section:
16 Drilling PDRILL

Assessment work credit has been approved as outlined on the amended Report of Work form submitted.

Correspondence to:
Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
Peter G. Atherton
PORCUPINE, ON, CANADA

COMAPLEX MINERALS CORP.
CALGARY, ALBERTA

Correspondence ID: 11739

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

	Description	Order No.	Date	Disposition	File
R1	SEC. 43/70		17/5/72	S.R.O.	164584

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

SAND AND GRAVEL

G1 GRAVEL — FILE 143834

G2 M.N.R. GRAVEL RESERVE

G3 M.N.R. GRAVEL PIT 258 — FILE 111467

F1 THIS TWP. SUBJECT TO ~~FOREST ACTIVITIES IN 1994/95. FURTHER INFO AVAILABLE ON FILE.~~

F2 THIS TWP SUBJECT TO FOREST ACTIVITY IN 1995-96. FURTHER INFORMATION AVAILABLE ON FILE.

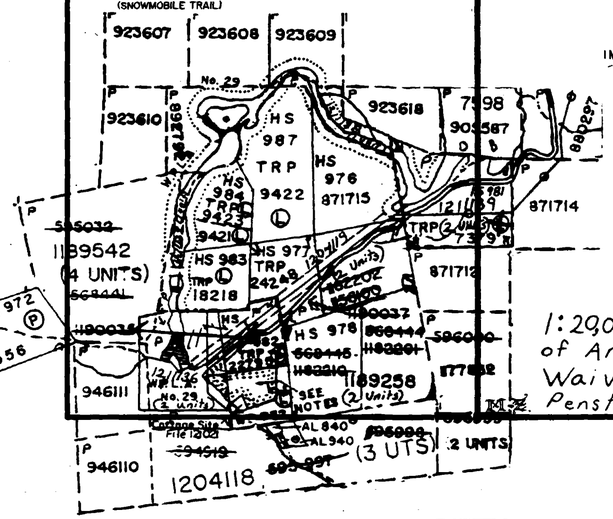
NOTES

Reservation for Deputy Chief Ranger's Headquarters site shown thus [redacted] File: 110657

Flooding Rights on Kenogamissi Lk. & Mattagami R. are reserved to Ont. Hydro — L.O. 7598. File: 1163 vol. 3

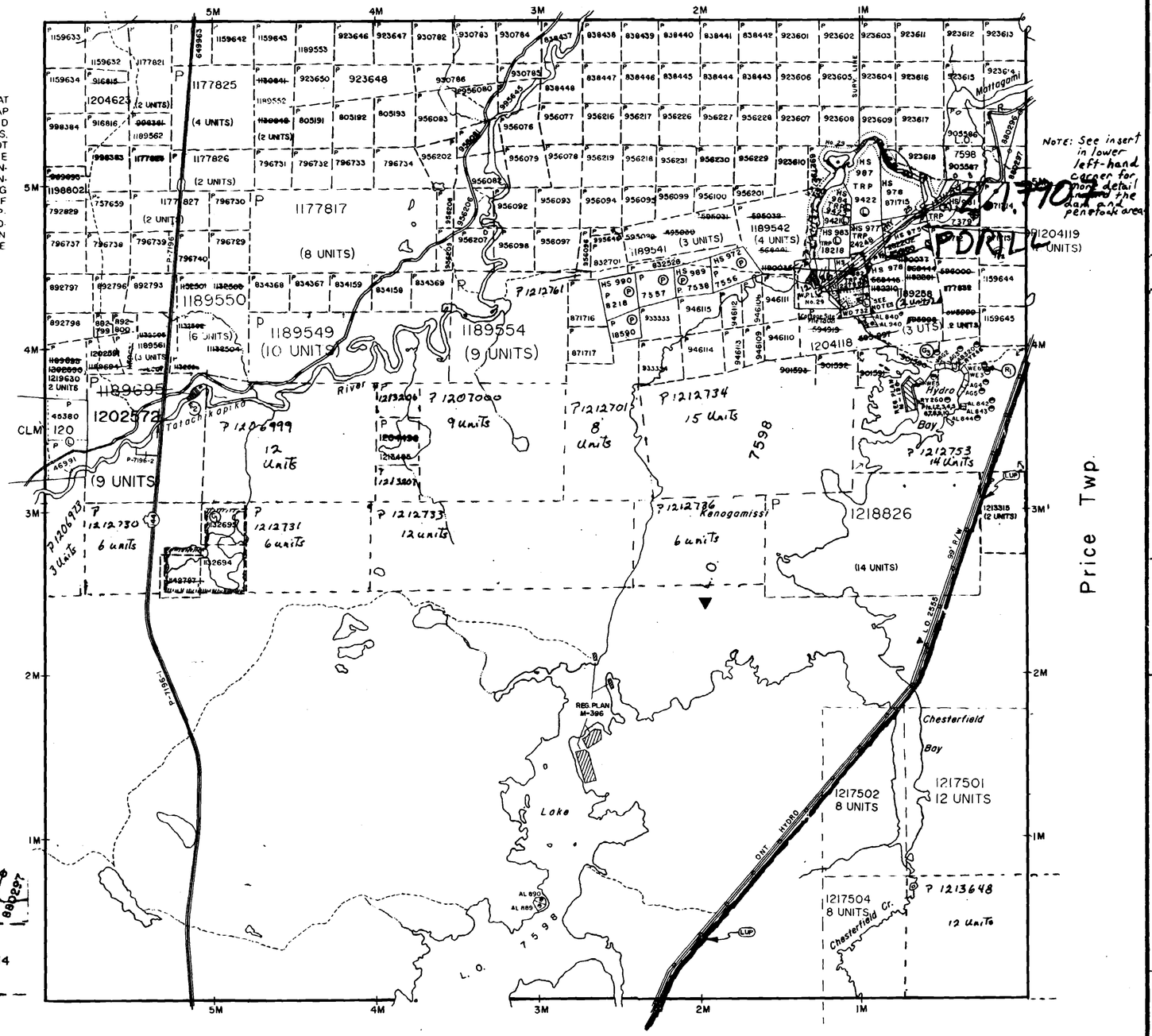
THIS TOWNSHIP LIES WITHIN THE MUNICIPALITY OF THE CITY OF TIMMINS

LUP APPLICATION PENDING UNDER PUBLIC LANDS ACT NOTICE RECEIVED 93-MAR-30 (SNOWMOBILE TRAIL)



1:20,000 Plot of Area Around Waiwaitin Falls (Dam) and Penstock.

Bristol Twp.



Denton Twp.

Price Twp.

McKeown Twp.

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	P or ●
" SURFACE RIGHTS ONLY	◒
" MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	L or ■
" SURFACE RIGHTS ONLY	◨
" MINING RIGHTS ONLY	◧
LICENCE OF OCCUPATION	L.O. or ▼
ORDER IN COUNCIL	OC
RESERVATION	R
CANCELLED	⊗
SAND & GRAVEL	G

NOTE MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 500 1000 2000 (1 KM) (2 KM)

DATE OF ISSUE

OCT 17 1997

PROVINCIAL RECORDING OFFICE - SUDBURY

TOWNSHIP

THORNELOE

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

COCHRANE

Ontario — Ministry of Natural Resources — Land Management Branch

Date	Number
MARCH 1985	G-3229

ACTIVATED JULY 3, 1992 BY D.C.

CHECKED BY G.R.W.

2.17907

42A05SW0037 2.17907 THORNELOE

100N 200N 300N 400N 500N 600N 700N 800N

400E BKP-T2 400E

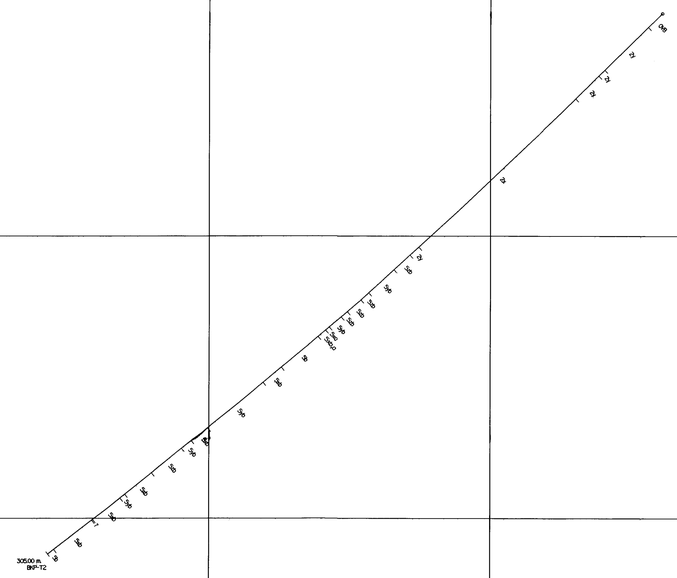
300 300

200 200

100 100

0 0

-100



100N 200N 300N 400N 500N 600N

42A065W0037 2.17907 THORNELOE

210

BLACK PEARL MINERALS INC.

SECTION 400 E

Scale: 1/1000

Drawn by Polk Geological Services