GEOLOGICAL REPORT

ON

NORTHEAST TISDALE TOWNSHIP PROPERTY

(BEAUMONT SHAFT CLAIMS)

TISDALE TOWNSHIP

TIMMINS AREA, ONTARIO

January, 1999

D.R. Pyke
K.M. Cunnison

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NE Tisdale Property
Beaumont Shaft Claims
Tisdale Township
Porcupine Mining Division

(NTS - 42A/NW; G-3976; Lat/Long 48 32'N, 81 14'W)

Introduction

The Beaumont property consists of 11 contiguous claim units located in northeast Tisdale Township, 8 km NNE of the main Timmins City Centre (Figure 1a). Access is excellent, a gravel road extending from Highway 655 in Murphy Township to Highway 101 in Whitney Township, passes through the south part of the claim group.

The property consists of the following claims (Figure 1b & 2):

Claim #	Description	Recorded Holder
P1115310	SW1/4, N1/2, L2, C6	A. Ristimaki
P1182657	NE1/4, N1/2, L3, C6	D. Pyke
P1198985	SW1/4, N1/2, L3, C6	A. Ristimaki
P1193767	SE1/4, N1/2, L4, C6	D. Pyke
P1193768 (2 units)	N1/2, S1/2, L4, C6	D. Pyke
P1193845 (2 units)	SE1/4, N1/2, L2, C6	D. Londry
	NE1/4, S1/2, L2, C6	D. Londry
P1226575	NE1/4, S1/2, L3, C6	D. Londry
P1228934	NW1/4, N1/2, L3, C6	D. Mullen
P1229018	SE1/4, N1/2, L2, C6	A. Ristimaki

The applicants, D. Pyke and K. Cunnison and B. Raine are co-owners of the property

Previous Work

The area was first mapped by Burrows (1915, 1924)), following the discovery of the Timmins gold camp in 1909. Subsequently, Hurst (1939) and Ferguson et al (1968) provided more detailed maps of Tisdale Township and the immediate surrounding area. Fyon (1983) mapped part of the Beaumont and Kinch claims in northeast Tisdale Township as part of a larger study of gold mineralization in the Timmins area. A recently completed airborne magnetic and electromagnetic survey by the Ontario Geological

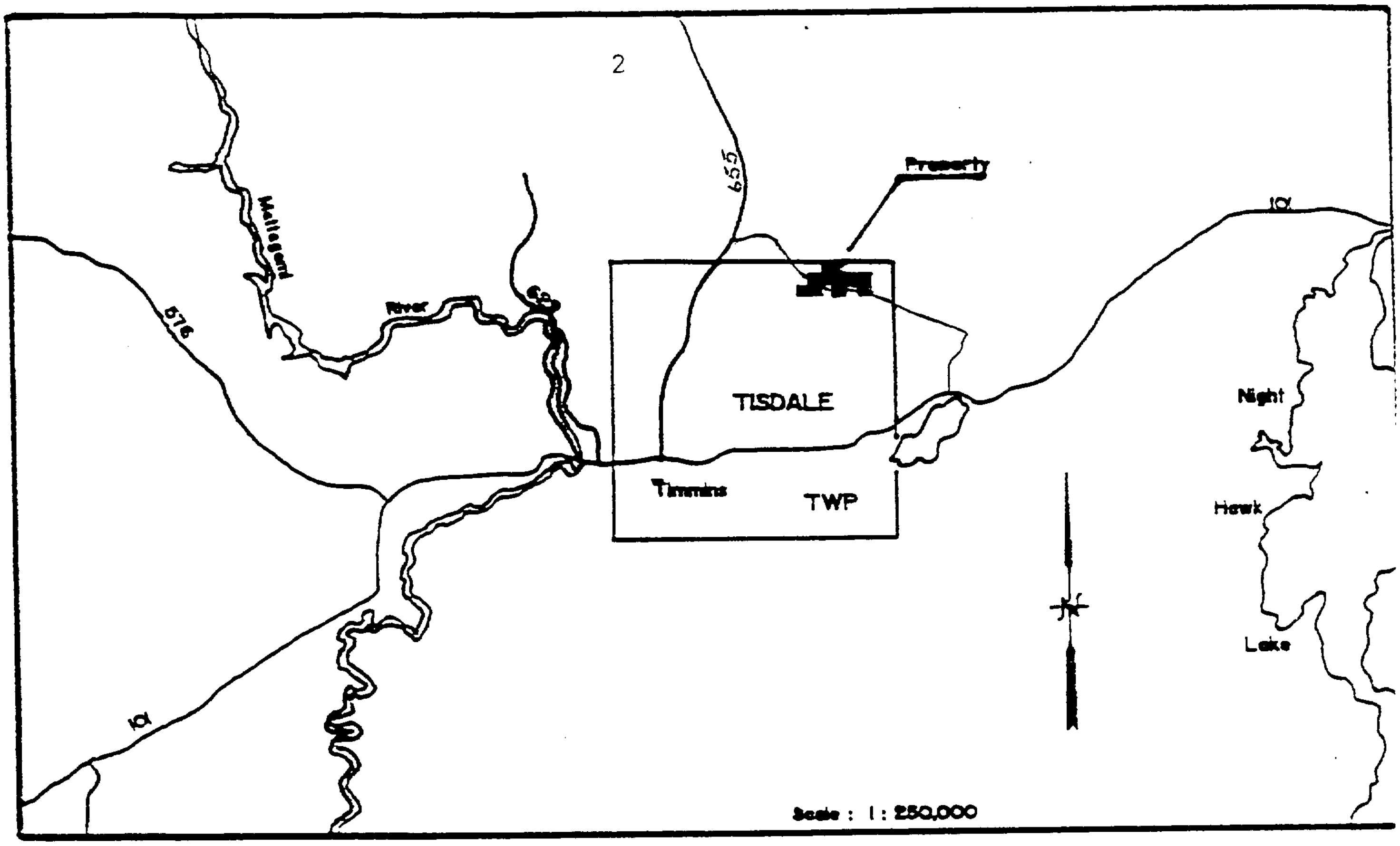


Figure 1 (a) : Location Map

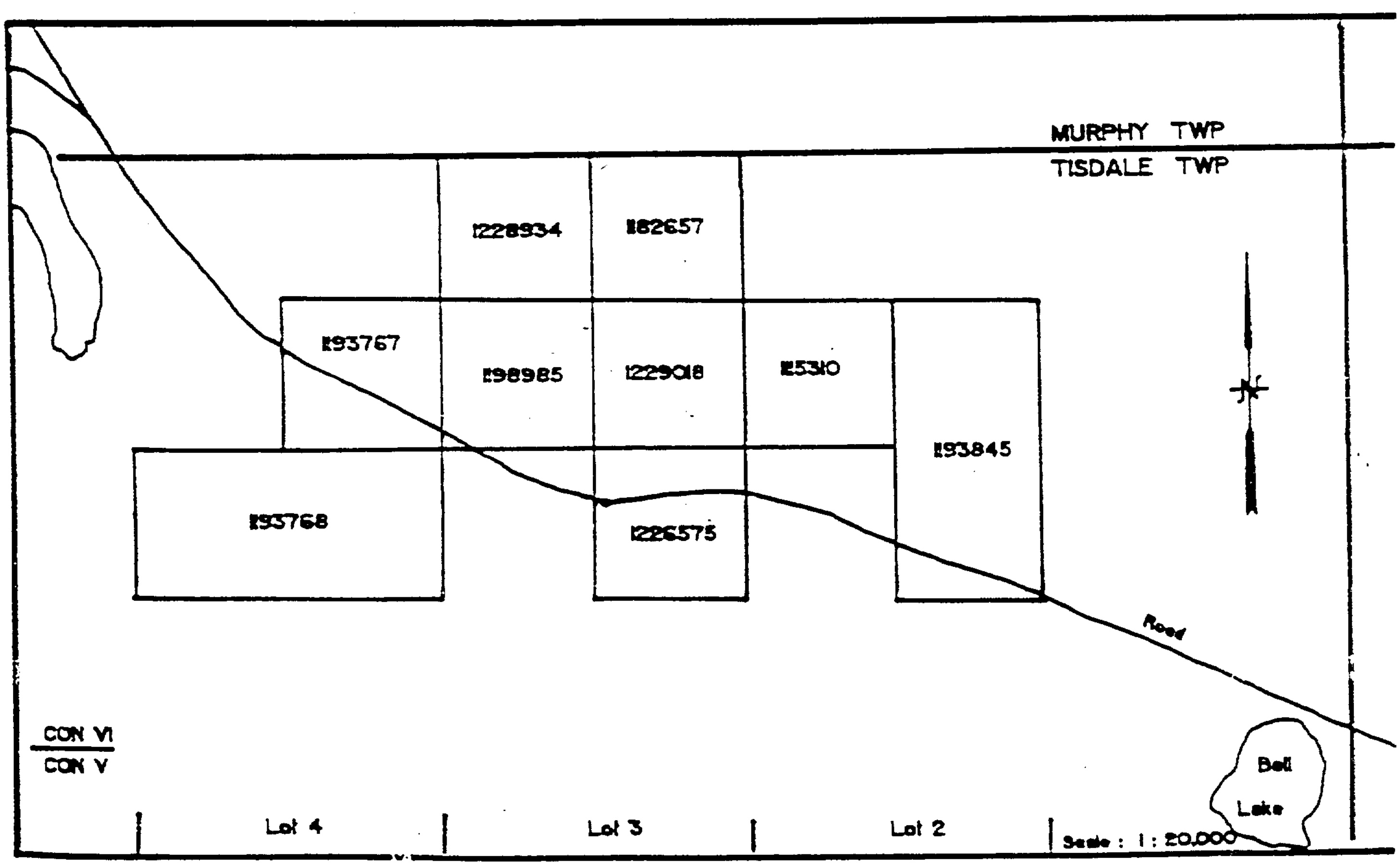


Figure 1 (b) : Claim Map

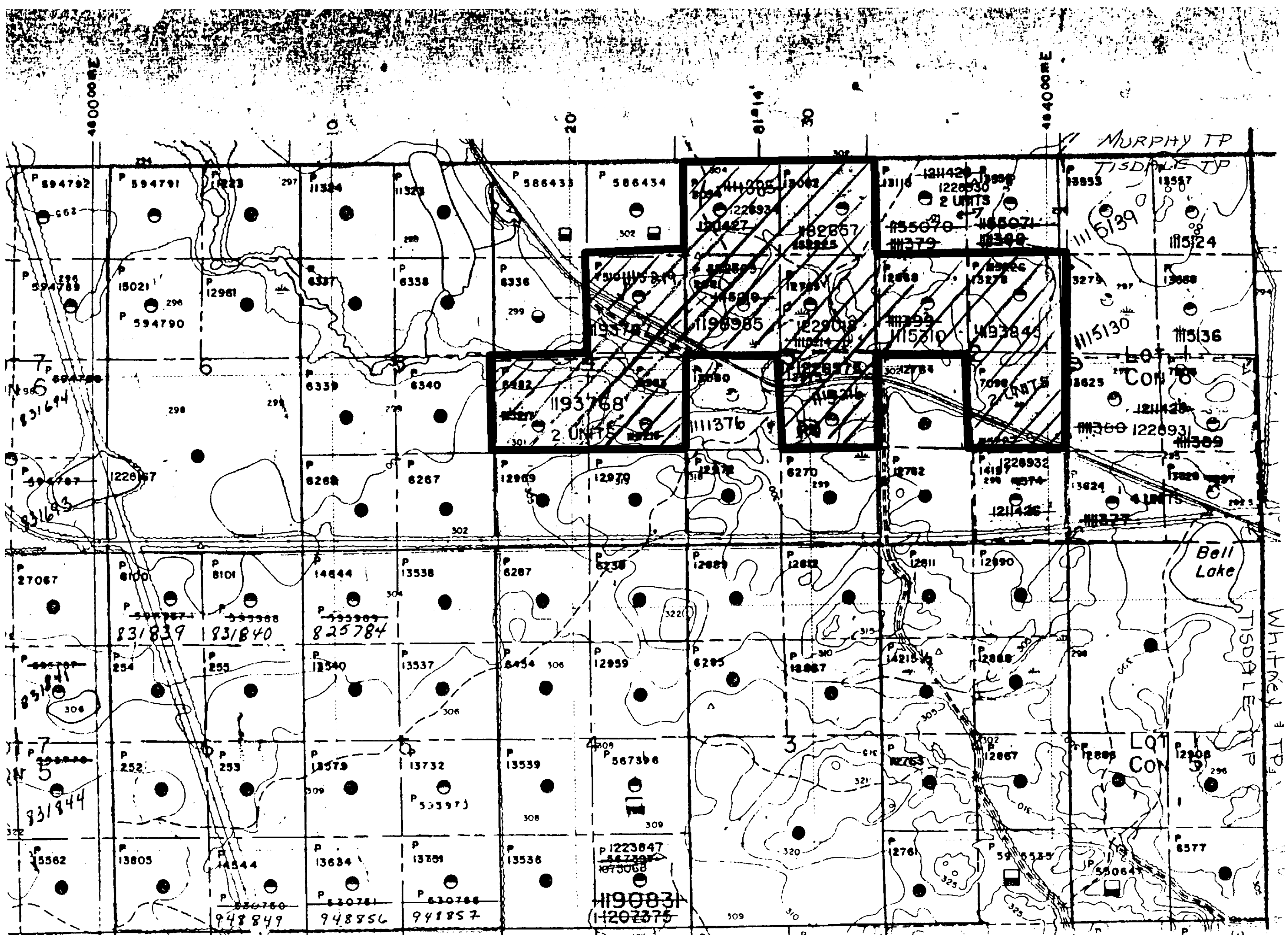


Figure 2 - Claim Map. NE TISDALE TP. Scale 1:20,000

Survey (OGS, 1988; Barlow, 1988) provides a sound geophysical base for the general Timmins area.

Aquisition of the Beaumont property was through staking and took place over the period 1989 through 1997. Prior to 1989 the claims were patented. According to Ferguson et al (1968) most of the current property was first held by North Davidson Mines Ltd, followed by Beaumont Gold Mines Ltd (incorporated 1920), Harris Consolidated Mines Ltd (incorporated 1926) and in 1929 by Ambassador Mines Ltd whose holdings were subsequently acquired by Godden & Associates in 1935 and incorporated as Godden Porcupine Mines Ltd in 1941. In 1953 the name was changed to Godbeau Porcupine Mines Ltd.

Development work consists of a 2-compartment shaft, on the North or Shaft zone (Figure 3), situated on claim P1229018. The shaft was sunk in 1920-21, to a depth of 320 feet; cross cuts were run south for 150 feet on the 150 and 300 foot levels. In 1928 the shaft was deepened to 648 feet and levels established at 480 and 600 feet, with 300 feet of cross-cutting on the lower level. A second shaft, 30 feet deep, was put down on the South zone, 400 feet south of the Shaft zone, on claim P1226575. As well, a number of pits and trenches, largely within the South zone, were also excavated.

There appears to have been limited diamond drilling on the property, with only 12 holes being drilled between 1917 and 1940, for a total footage of approximately 7500 feet (Backman, 1941). Nine of the holes were in the vicinity of the shaft and three were in the SE corner of what is now claim P1193768. In 1954, an additional 4 holes, totalling 2643 feet, were drilled near the shaft to apparently check gold values reported from the earlier drilling (Ferguson et al, 1968). Much of the drill hole data is incomplete, in that even by 1941, considerable core was missing as well as documented footages for reported assays. In addition, sections of core reported as containing "a considerable amount of quartz veining which looked promising for gold values", were apparently not sampled (Backman, 1941). Nevertheless, records of a few assays are available in the assessment files where some good values are reported from the 1940 drilling, particularly in drill hole #2, drilled from south to north, to undercut both the South and Shaft zones. Assay values of holes #1 through #5, drilled in the Shaft and South zone areas in 1940, and as reported by Backman (1941) are as follows:

Hole # 1

432' - 435	-	3'10"	0.12 oz gold/ton

Hole # 2

434' - 435'6"	-	1'6"	-	6.32 oz gold/ton
567' - 569'6"	-	2'6"	-	0.30 " " "
879' - 882'4"	-	3'4"	-	0.33 " " "
924' - 927'	-	3'	-	0.56 " " "
943' - 945'5"	-	2'5"	-	0.16 " " "

(Hole #2 cont....)

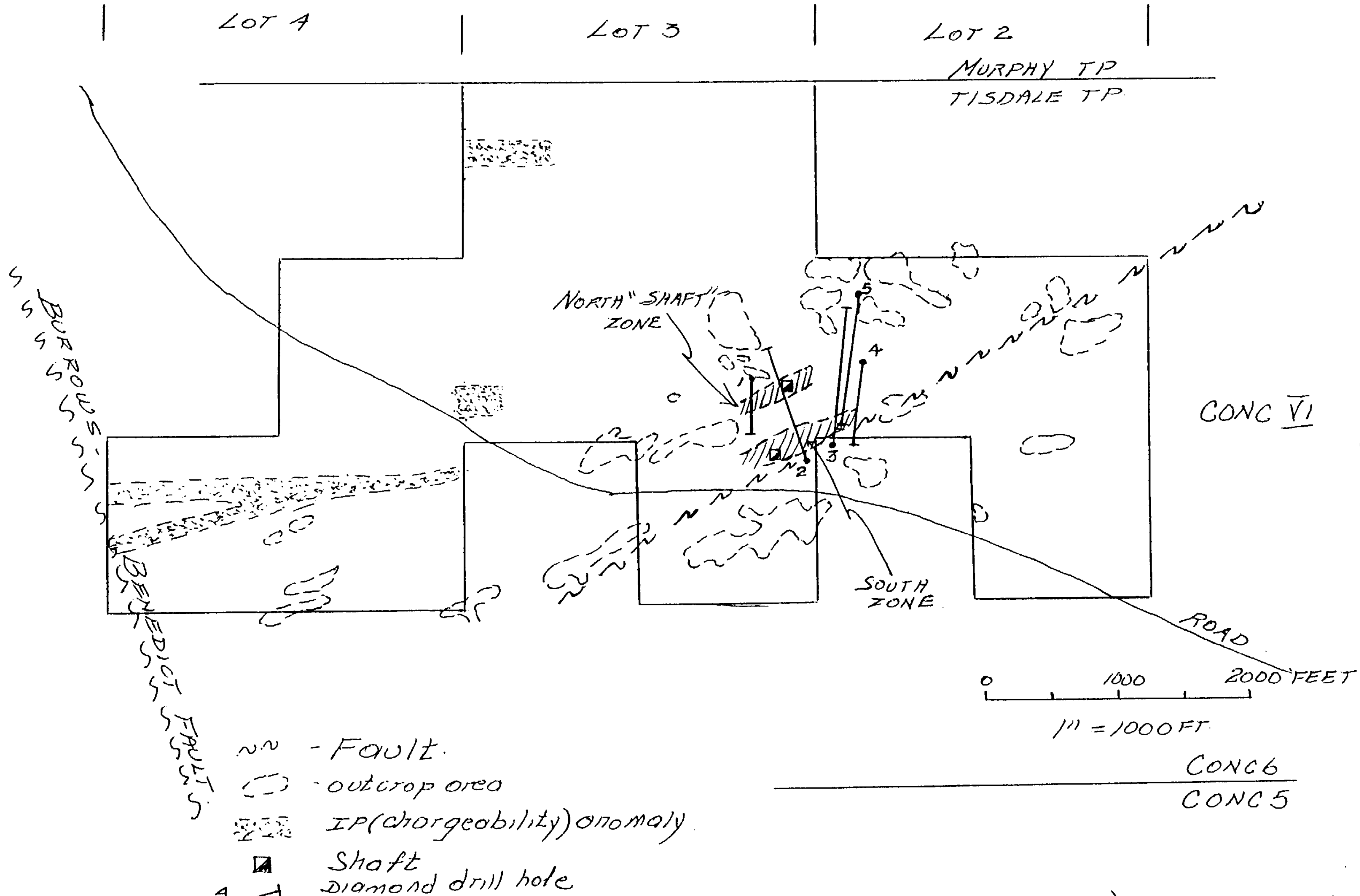


Figure 3 NE TISDALE Property (Beaumont Claims). General outcrop distribution and location of North and South zones, taken from Ferguson et al (1968) and Assessment File T-383.

5

Continuation of Hole #2

945'5"- 948' -	2'7" -	0.14 "	"	"
1032'- 1034'7" -	2'7" -	0.18 "	"	"
1073'- 1075'5" -	2'5" -	0.41 "	"	"
1096'- 1098'	2'	0.21 "	"	"
E.O.H. - 1348'				

Hole # 3

248' no record core length - 0.03 oz gold/ton

No record of footage		
"	"	0.79 oz gold/ton
"	"	1.25 oz gold/ton
"	"	1.05 oz gold/ton
"	"	0.25 oz gold/ton
"	"	0.41 oz gold/ton
"	"	0.65 oz gold/ton

Hole # 4

No record of assay results. 2 specks of V.G. reported

Hole # 5

One sample, no record of location or core length 0.07 oz gold/ton

Holes # 6, #7, #8

No core or records. Holes drilled in SW part of property, now claim P1193768, near former Kinch property.

In 1990, portions of the current claim group were independently held by Moneta Porcupine Mines Inc. and Asarco Exploration Company of Canada Limited. Both companies conducted ground magnetic and VLF surveys on their respective properties. The claims susequently came open and were staked by the present owners.

During the period 1993-97, D. Londry, through a series of OPAP grants, completed ground magnetic, HLEM , VLF, and IP surveys over most of the property. The most recently acquired claims (1997), which include the Shaft and South zones (claims 1226575 & 1229018) have yet to be surveyed.

Present Survey

The present survey was carried out over the period July 23 - October 23, 1998 by D. Pyke, K.Cunnison and B. Raine.

The property was mapped at a scale of 1:5000. Mapping was afforded through a previously cut grid (N-S lines at 100 meter spacings) and an airphoto blow-up at the requisite scale.

Three outcrop areas were power stripped within the areas of previously reported alteration and quartz veining; two within the North or Shaft zone and one within the South zone. The machine employed was a hydraulic excavator Model JD-790. The stripped areas were subsequently washed with a power hose (wajax pump) and mapped/sampled at a scale of 1:250.

A total of 49 lithogeochemical samples and 4 gold assay samples were taken from the general outcrop areas throughout the property; 25 of the samples were submitted for whole rock analyses (WRA) consisting of 11 major and 6 "standard" minor elements (Ba, Rb, Sr, Nb, Zr, Y). In addition 8 of the samples were analysed for 14 rare earth elements (REE) and an additional 17 elements including Cu, Ni, Pb, Zn. Fifty-three samples, taken from the power stripped areas, were analysed for gold. All the analyses were done by Chemex Labs Ltd. of Mississauga, Ontario. A description of all the samples is given in Appendix A.

Twelve polished thin sections were cut for petrographic examination. Two of the sections were used for mineral analyses utilizing the JEOL-8600 Superprobe in the Department of Earth Sciences at the University of Western Ontario.

Regional Geology

The claim group is underlain by a series of east to ENE trending, steeply dipping, south facing mafic and ultramafic flows which form part of the lower Tisdale Group of Ferguson et al (1968). To the east of the property, the same volcanic stratigraphy underlying the general Beaumont claim group swings to the ESE and hosts part of the Pamour, North Whitney, Hallnor and Broulan mines in north Whitney Township. A NE trending fault, as interpreted from airborne magnetics (Barlow, 1988), which passes through the Beaumont property, is in proximity to the Bell Creek, Owl Creek and Hoyle Pond mines (Figure 4). This is considered to be an important fault, for when one views the entire Timmins gold camp, there appears to be a definite spatial relation between NE trending faults (eg. - Dome Fault, Hollinger Main Break, and Destor Porcupine Fault) and the occurrence of many of the major gold mines. In addition, many of the ore bearing vein systems also have a NE trend and plunge (eg. Hollinger-Mcintyre, Banner-Reef, Hoyle Pond).

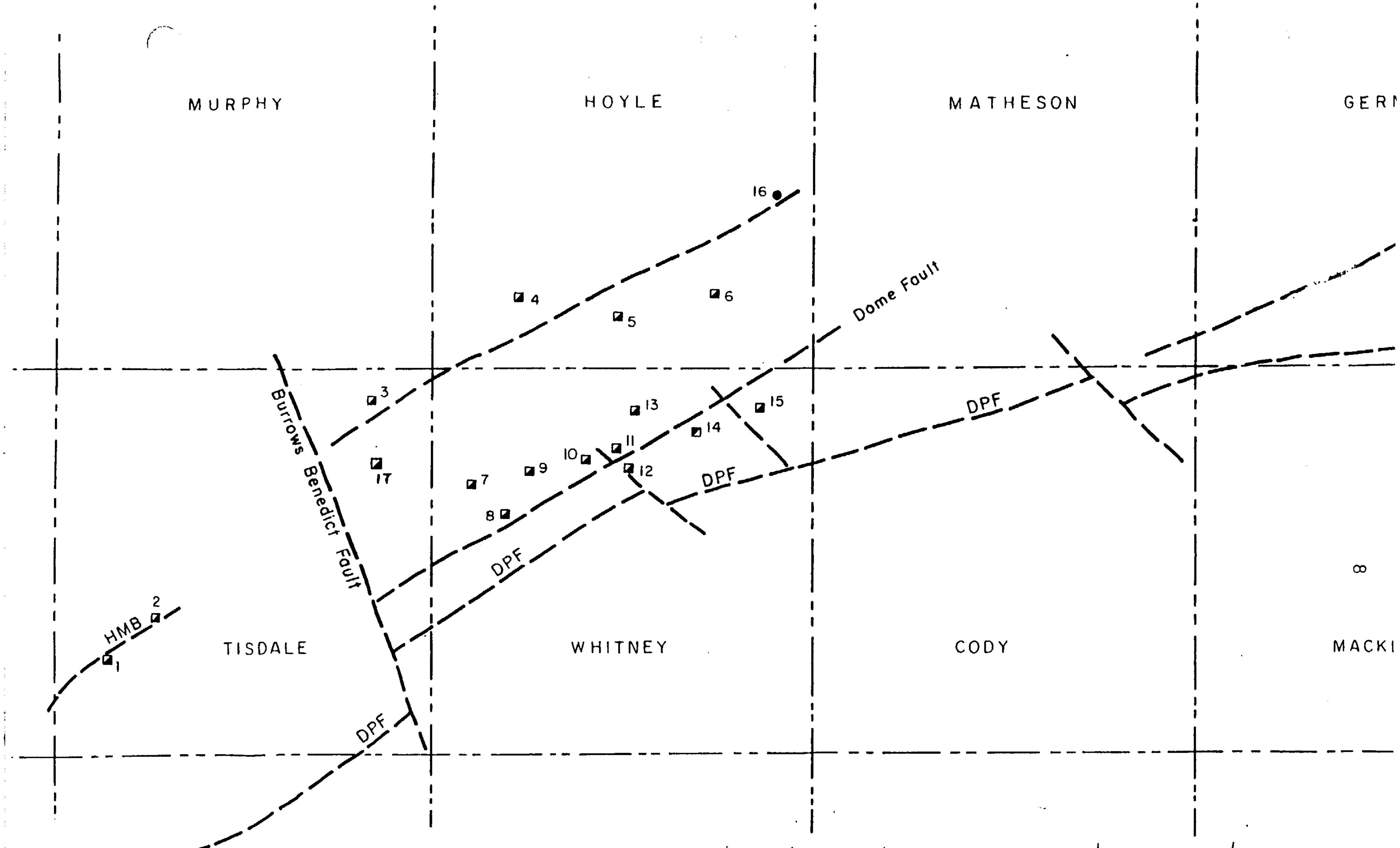


Figure: 4 Location of producing and non-producing mine in north Timmins area, relative to regional northeast faulting.

LEGEND

Destor-Porcupine fault.....	DPF
Hollinger Main Break.......	HMB
Fault.........................	(solid line)
Shaft.........................	(shaft symbol)
Airborne INPUT conductor..	(dot-dash line)

1	Hollinger	8	Hugh Pam	15	Holye
2	McIntyre	9	Reef	16	Hollinger occurrence
3	Beaumont	10	Bonetal	17	Davidson Tisdale.
4	Bell Creek	11	Hollnor		
5	Owl Creek	12	Broulan		
6	Hoyle Pond	13	North Whitney		
7	Banner	14	Pamour		

0 2 4 6 8

1:125,000

Property Geology

The claim group is largely underlain by volcanic rocks of komatiitic affinity, and lesser magnesium-rich and minor high iron tholeiitic basalts. The stratigraphy trends ENE, dips steeply south and faces south.

Peridotitic komatiites occur at four stratigraphic intervals across the property. Where outcrop is sparse or absent, lateral continuity is interpreted from ground magnetic data (Londry, 1998). The peridotitic komatiites (Photograph 1) are serpentinized and typically massive, polysutured, light grey to orange brown weathering and dark blue black to dark green on fresh surfaces. Where pervasively carbonatized (eg. in the Beaumont shaft area), the fresh surface is medium to light grey brown.

Basaltic komatiite is mainly confined to the central part of the claim group and forms large outcrop areas in the northeast part of the property, along and south of TL 2000S. The basalts are both massive and pillowed, weather light to medium grey to buff/orange brown, and are light grey on the fresh surface. Polysuturing is very diagnostic and is particularly well developed in the pillowed facies (Photograph 2). The presence of polysuturing was the single most important field criteria used for delineating the basaltic komatiite units. Pillows are generally small, less than 30-50 cm in diameter; the largest observed was one meter by 30 cm. Pillow rims are thin and both radial fractures and concentric cooling cracks are common . In thin section (Photographs 3-8) the basaltic komatiites are seen to consist of a fine, felty to matted groundmass (80-90 percent of the rock) of shreddy tremolite (15-20%), platy pale green chlorite (50-55%), anhedral to interstitial, untwinned albite (10-15%) and quartz (5-7%). Traces of sphene, leucoxene, apatite and spinel occur within the groundmass. Porphyroblasts of clinozoisite (10-20%) occur throughout the groundmass, are generally subhedral (to locally euhedral) in outline and are weakly to locally extensively replaced by calcium carbonate. Clinozoisite blasts vary in size from 0.3 to 1.0 mm, with coarser grained clinozoisite occurring within more massive outcrops and finer grains occurring in pillowed portions. Microprobe analyses of clinozoisite grains from sample P-23-98 are given in Table 1, and analyses of groundmass chlorite and tremolite from samples P-23-98 and P-10-98 are given in Tables 2 and 3, respectively.

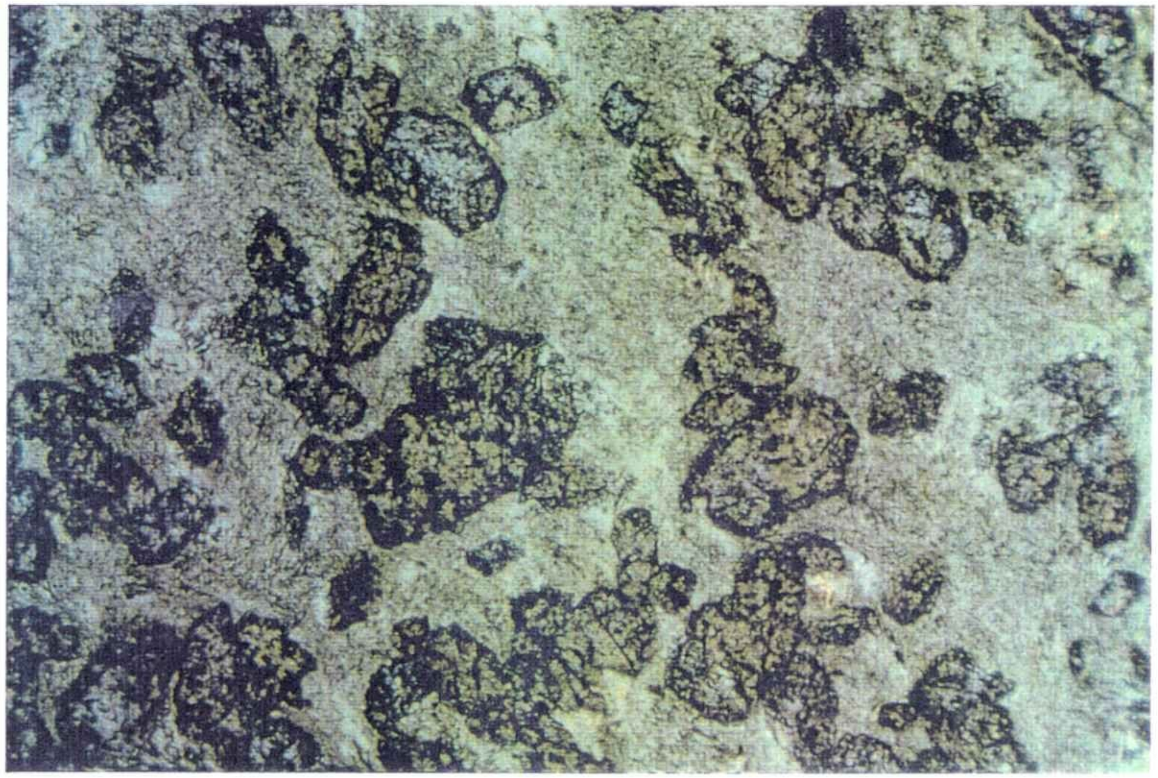
Magnesium-rich tholeiitic basalt largely outcrops in the south part of the property. The pillow basalts are buff weathering, vesicular, fine grained and medium grey green fresh. Possible subcircular variolitic "clots" to 2 cm in diameter occur in the pillowed outcrops near L15E-2420S. The massive basalt is medium grained, medium green fresh and weathers buff to orange brown. In thin section (Photographs 9 and 10), Mg-tholeiites consist of fine grained, platy to shreddy tremolite to actinolitic tremolite (40%), intergrown with pale green, weakly pleochroic chlorite (20%), fine anhedral grains of albitic plagioclase (30 %), clinozoisite (5-7 %) and minor leucoxene and fine quartz. Elongate grains of chlorite and tremolite are often aligned, defining a moderate foliation to the rock. Some samples were seen to contain up to 10-15% anhedral porphyroblasts of carbonate replacing the above minerals.

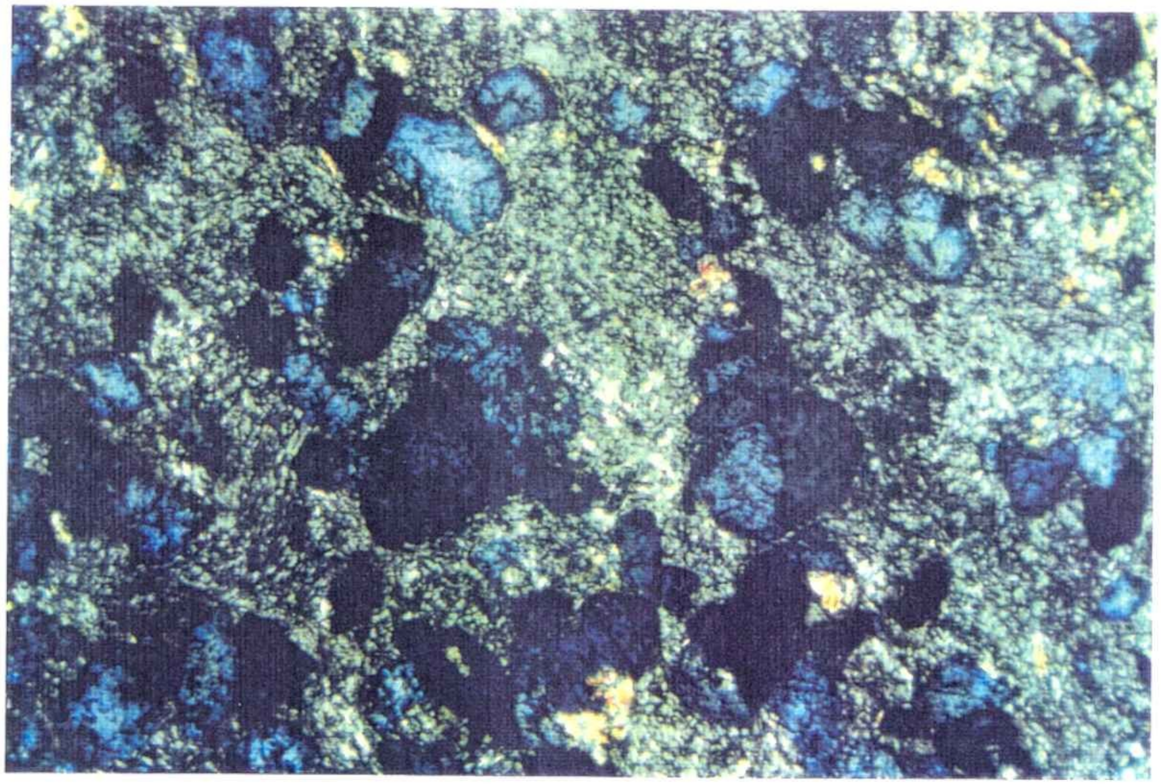
Photograph 1. Polysutured, carbonatized peridotitic komatiite. Outcrop by north end of Trench 2.

Photograph 2. Polysutured, pillowed basaltic komatiite at north end of outcrop by L6E-2100S (sample P-9-98 location). Note the well developed concentric cooling cracks and radial fracturing in the pillow on which pointed end of hammer rests.

Photograph 3. Sample P-54-98. Photomicrograph of pillowed basaltic komatiite. Coarse porphyroblasts of clinozoisite set in a fine matrix of pale green chlorite, tremolite and minor fine albite (showing as very light green in the photograph). Length of photograph is 2.5 mm. Plane light.

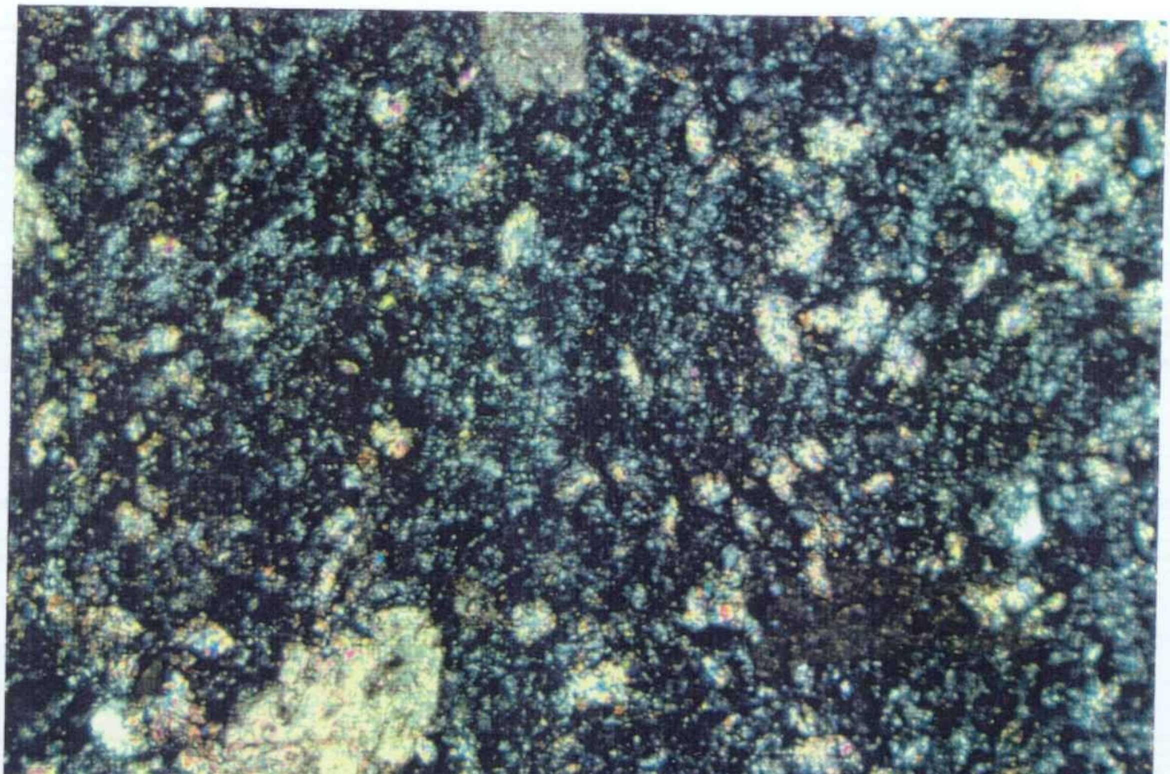
Photograph 4. Sample P-54-98. Same as photograph 3, but polarizers are crossed.





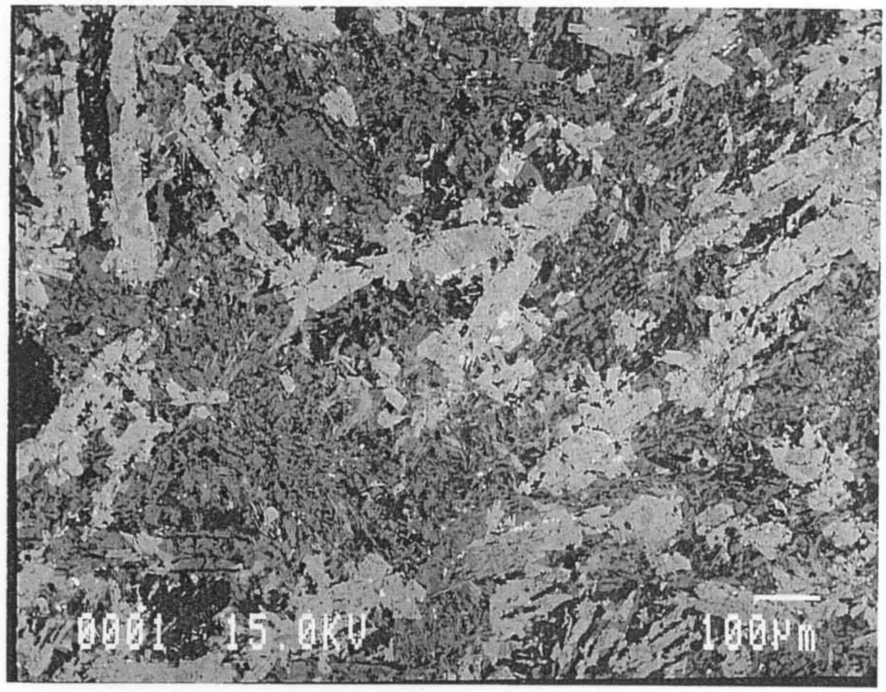
Photograph 5. Sample P-9-98. Photomicrograph of pillowed basaltic komatiite. Very fine matrix of chlorite, tremolite and lesser clinozoisite and albite. The large grains are carbonate replacing clinozoisite porphyroblasts. Length of photograph is 2.5 mm. Plane light.

Photograph 6. Sample P-9-98. Same as photograph 5, but polarizers are crossed.



Photograph 7. Sample P-10-98. Backscatter electron microprobe image of finer grained sample of basaltic komatiite. The large, pale elongate crystals are clinozoisite being replaced by carbonate and lesser albite. The darker grey felty groundmass consists largely of chlorite, minor tremolite, 15-20% albite+quartz (very dark grey) with traces of sphene and apatite (very light small grains in matrix). The very few spinels found in the sample were too small and altered to probe.

Photograph 8. Sample P-23-98. Backscatter electron microprobe image of coarser grained sample of basaltic komatiite. Large, subhedral and relatively unaltered crystals of clinozoisite (cl) occur within a matted to felty groundmass of chlorite (ch), tremolite (t) and up to 25-30% intergrown albite+quartz (al). The very bright, small grains in the matrix are sphene altered to leucoxene.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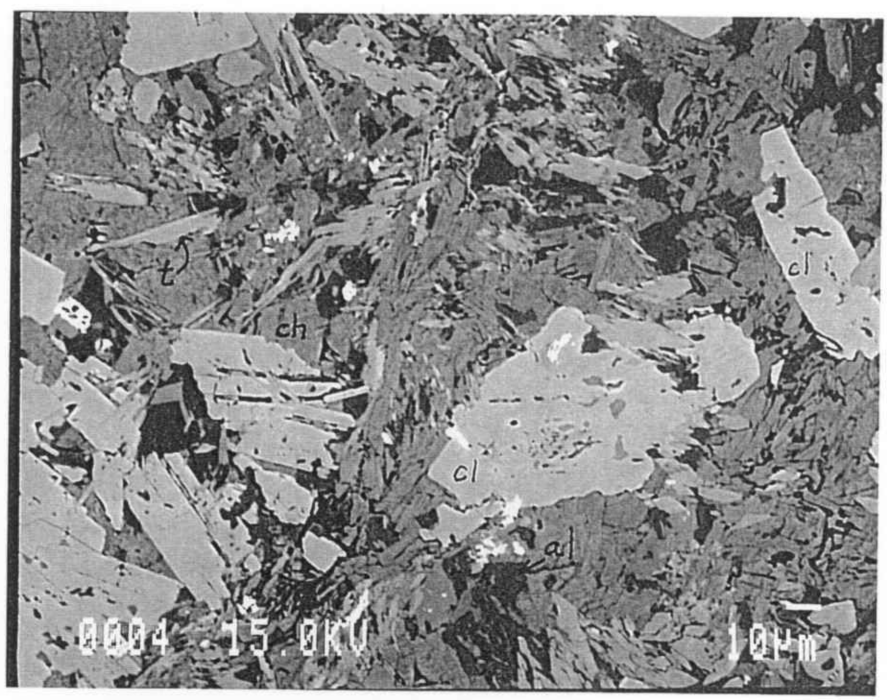
100μm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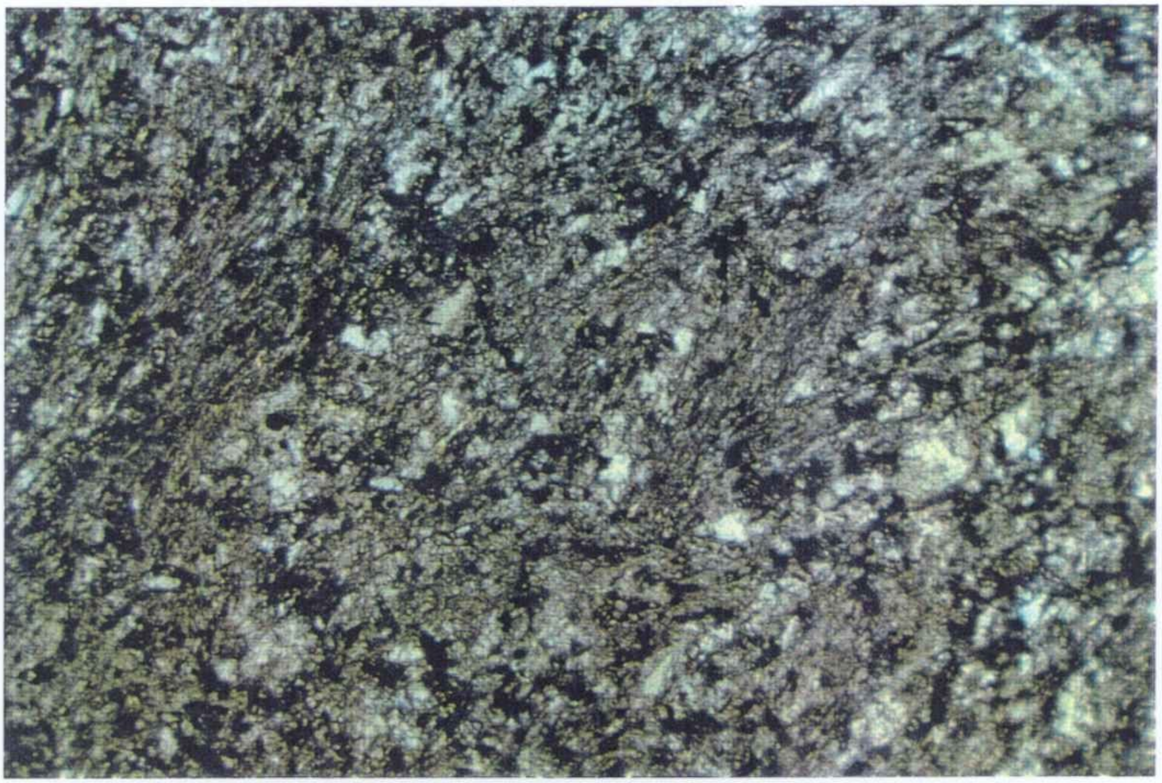
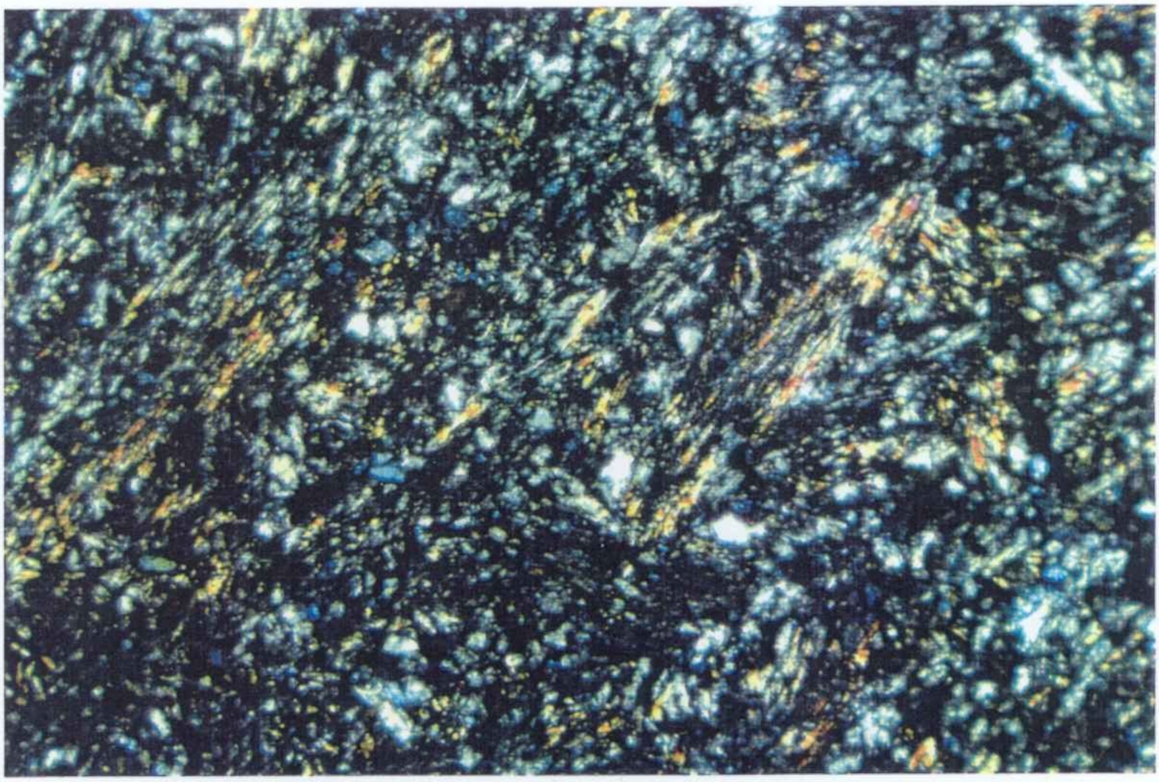
Photograph 9. Sample P-2-98. Photomicrograph of pillowed magnesium tholeiite, consisting of approximately 40 percent tremolite, 20% chlorite, 30% fine albitic plagioclase, 5-7% clinozoisite and up to 2-3% leucoxene.. Chlorite in this sample is somewhat darker green in plane light than chlorite in the basaltic komatiite samples, which is likely due to higher Fe/Mg ratios in this chlorite. Length of photograph is 2.5 mm. Plane light.

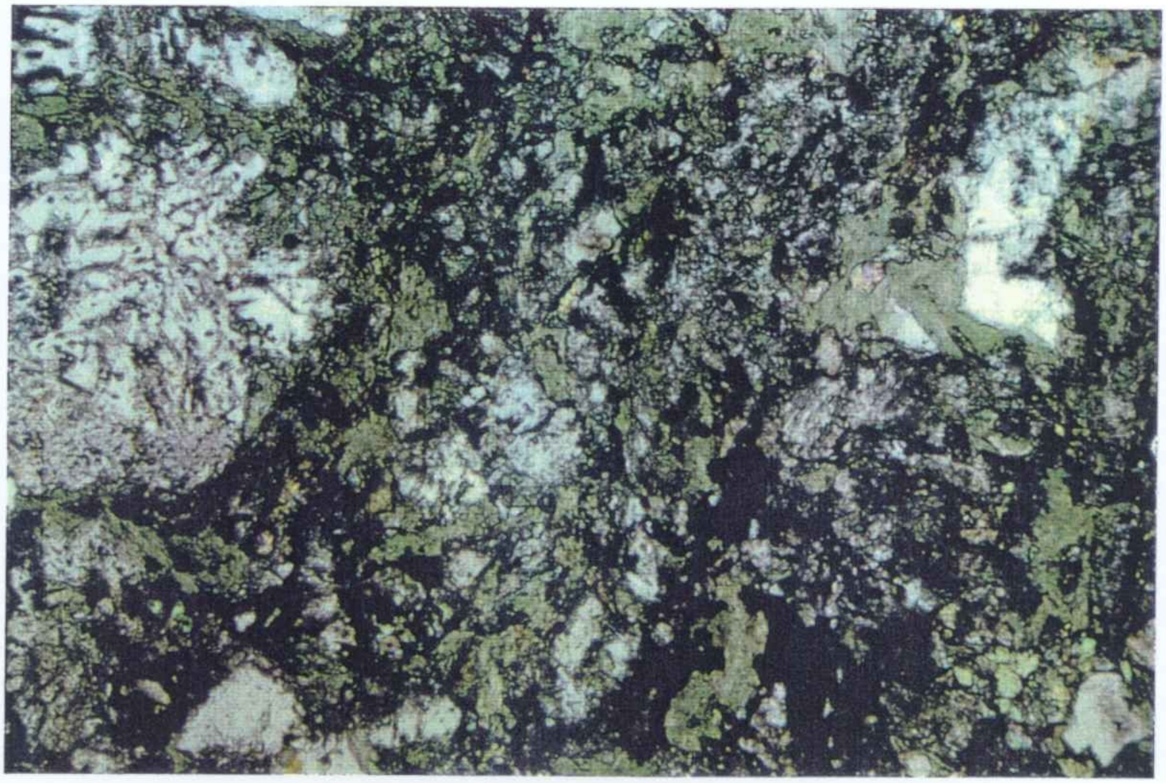
Photograph 10. Sample P-2-98. Same as photograph 9, but polarizers are crossed.

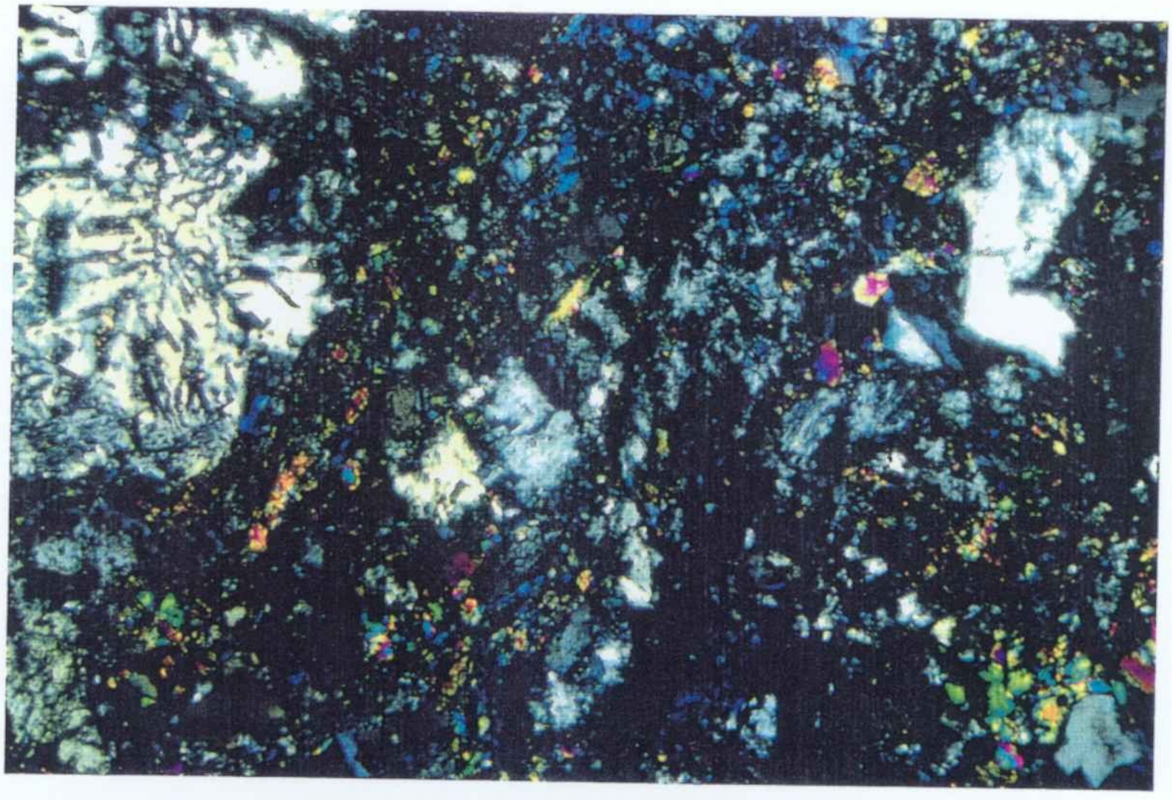




Photograph 11. Sample P-12-98. Photomicrograph of massive iron-rich tholeiitic basalt. Shows symplectitic intergrowth of quartz and plagioclase. The medium to dark green mineral is iron-rich chlorite, occurring within the groundmass and occasionally replacing albite. The sample contains up to 5% opaques, largely sphene and highly leucoxenated ilmenite.

Photograph 12 Sample P-12-98. Same as photograph 11, but polarizers are crossed.





Iron-rich tholeiitic basalt is largely confined to a narrow unit near the south part of the claim group. Both pillowed and massive varieties weather dark grey to orange brown and are dark green on fresh surfaces. One thin section of a massive portion of a flow was examined and seen to contain 50 percent dark green, pleochroic chlorite, 25 percent plagioclase, 10-15 percent quartz, 6 percent fine sphene+leucoxenated ilmenite and 4 percent epidote. Much of the quartz occurs as a symplectitic intergrowth with plagioclase (Photographs 11 and 12), which is often highly characteristic of more silica-rich, high-iron tholeiitic rocks.

Structurally the property appears to contain a steeply dipping, uniform southward facing sequence of flows. Foliations are weak to moderate and for the most part parallel lithological contacts. The most prominent structural feature observed was east-northeast shearing along the peridotitic komatiite - Mg-tholeiite contact (Photograph 19, Figure 7)) in the Beaumont shaft area. Supporting the continuity of this fault to the east is sheared and talc-carbonate altered komatiites outcropping near L14E-2260S. The ground magnetics (Londry, 1998) also support shear movement in this area, suggesting dextral movement (dragging) of the peridotitic komatiite. Continuity of the fault to the west is based largely on projection to correspond with a linear magnetic low on claim 1193768; the intervening magnetics, including the Beaumont shaft area, have yet to be completed. A subparallel fault, in part defining the north contact of the same peridotitic komatiite is interpreted from ground magnetics as defined by a linear low on claims 1193768 and 1193768 and the steep magnetic gradient marking the north contact of the peridotitic komatiite in the area of L7E to L12E - 2200S. Northwest cross faulting is interpreted from offsets in the stratigraphy and deflections/offsets in the ground magnetic data.

Veining and Mineralization

Known mineralization on the claim group is largely confined to intensely carbonatized peridotitic komatiite and Mg-tholeiite in the Beaumont shaft area near BL 2400S and lines 7E and 8E. Here, three outcrops were power stripped; Trench 1 and Trench 3 within the peridotitic komatiite outcropping along strike from the Beaumont shaft and Trench 2, largely within the massive tholeiite south of the main shaft.

Much of the quartz veining within the peridotitic komatiites in trenches 1 and 3 consists of flat lying, narrow (2-20 cm) bull white barren quartz with a predominate shallow dip to the south (Figures 5 and 7, Photographs 13 and 14).). These early (or synchronous(?)) veins are locally cut by prominent shears and narrow quartz ±ankerite veins in zones up to 2 m wide, trending 060 degrees (Figures 5 and 7, Photographs 15 and 16). The 060 vein-shear zones are often highly carbonatized and sericitized, and carry the best mineralization observed - locally 2-5 percent pyrite and trace to 1 percent chalcopyrite, often accompanied by narrow fuchsitic slips (Photograph 16). Veins within the 060 shears are often boudinaged and gently folded, and sulphides are often developed in the highly sericitized wallrock in areas where vein folding-boudinaging occurs.

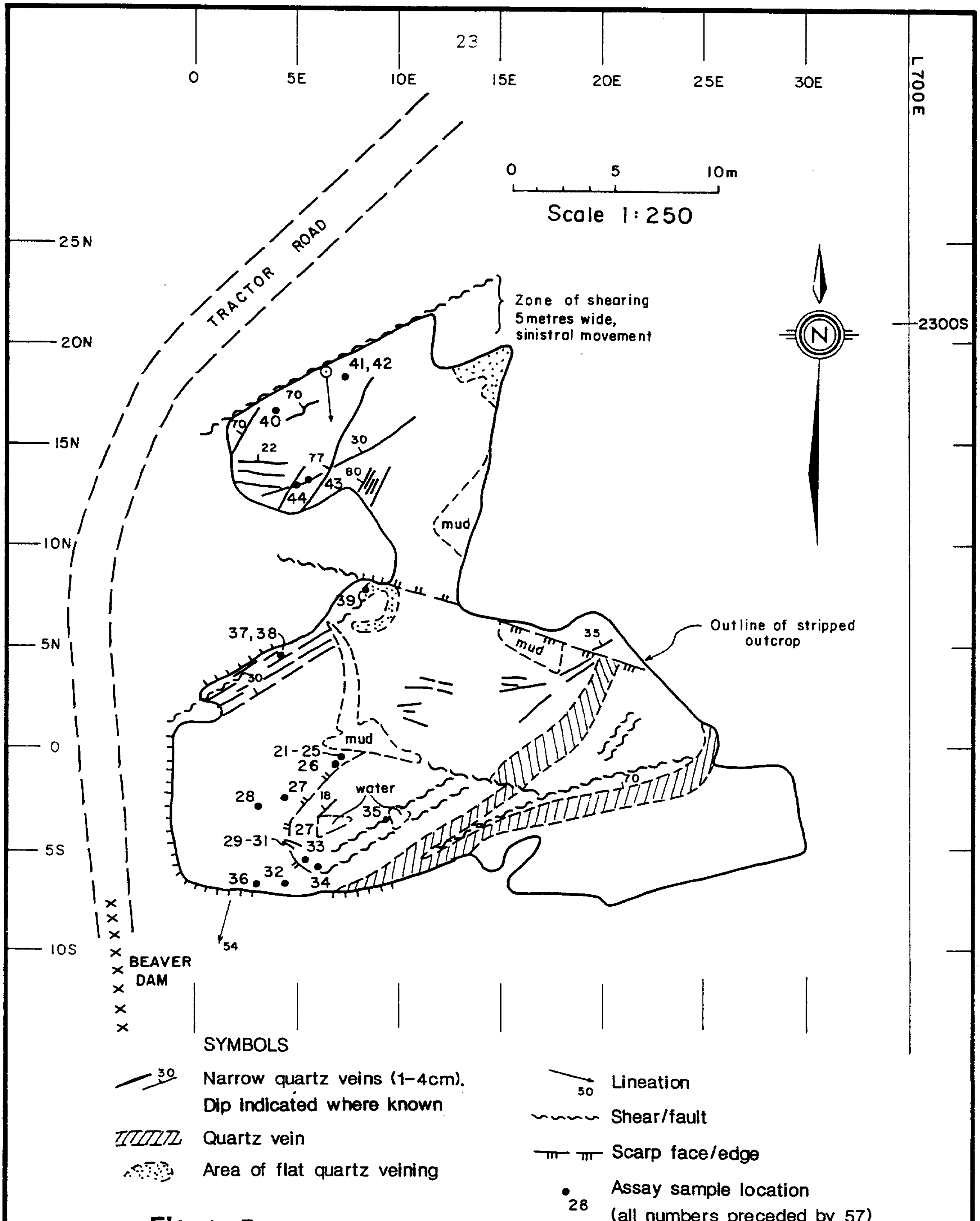


Figure 5.

Trench #1, near Line 700E - 2300S.

Entirely within carbonatized peridotitic komatiite.

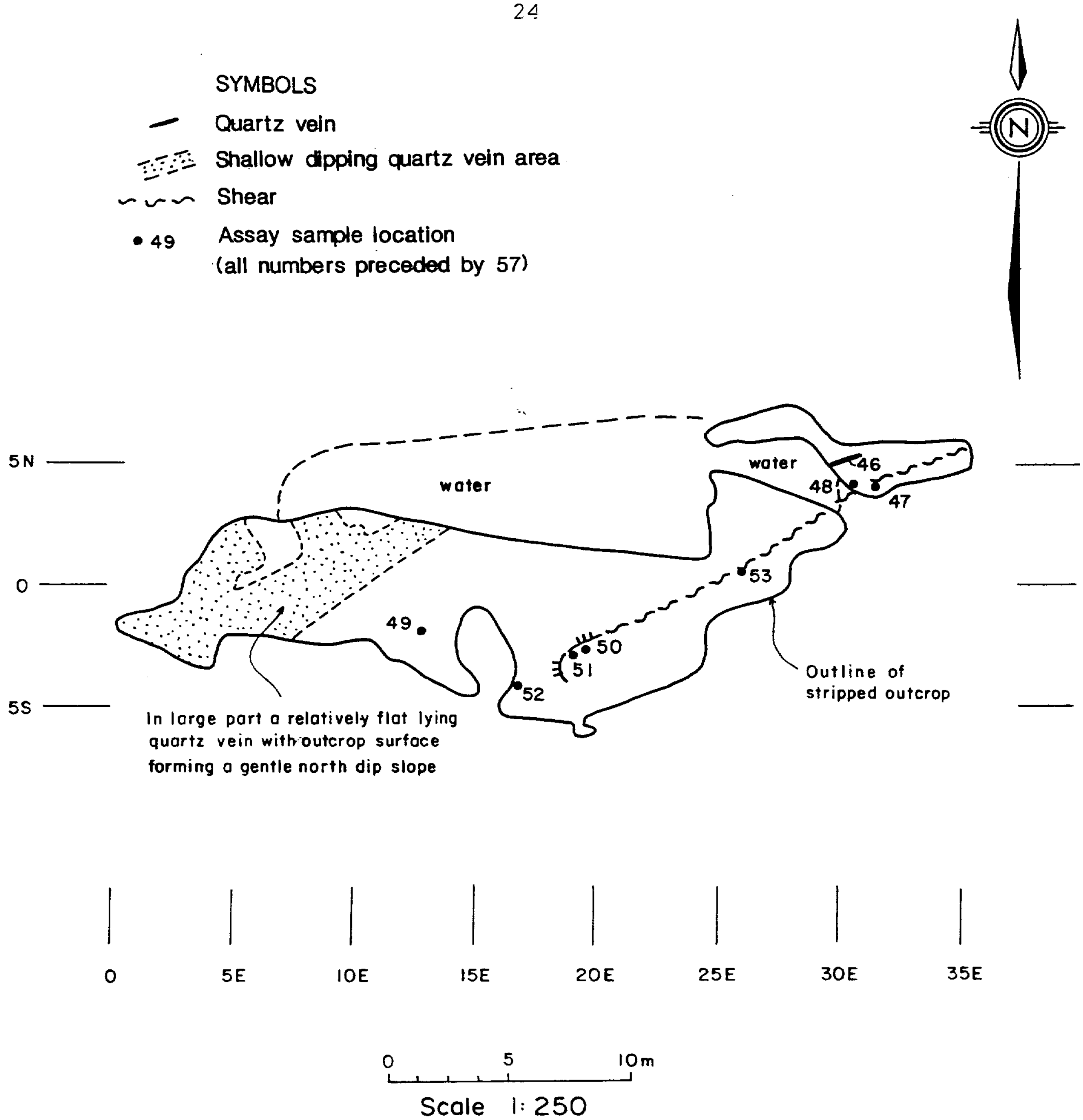


Figure 7.

Trench #3. near Line 750E - 2270S. In North zone, east of shaft .

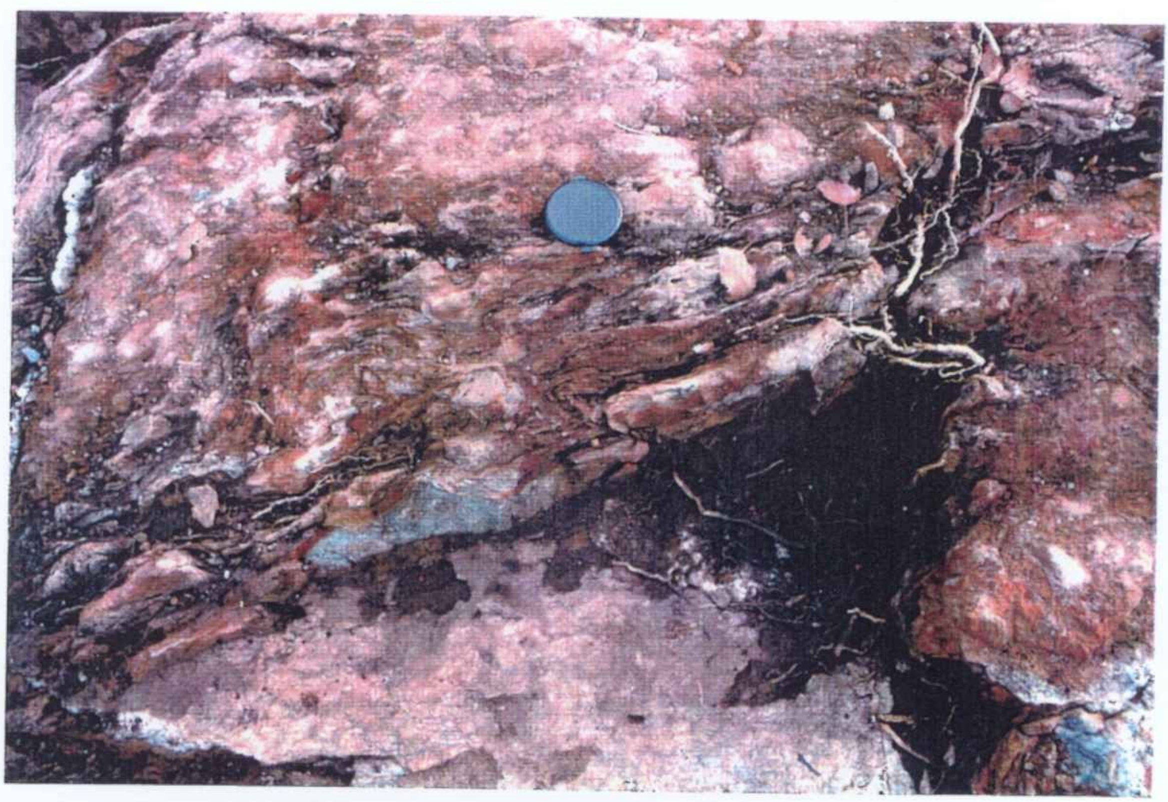
Stripped area is entirely within carbonatized peridotitic komatiite. Exposes large surface areas of relatively flat lying, northerly dipping (15°) quartz veins.

Photograph 13. West end of Trench 1, looking east. Narrow flat lying quartz veins dipping gently south within orange brown weathering, carbonatized peridotitic komatiite. Outcrop is approximately 30 m west of Beaumont shaft.

Photograph 14. Flat lying quartz veins in carbonatized peridotitic komatiite, Trench 3, approximately 40 m east of Beaumont shaft. View is looking east; 15m mark corresponding to L0-15E of Figure 7 is in the foreground. Veining for east end of trench is not shown in Figure 7.

Photograph 15. View looking east in Trench 1. Hammer is on 060 degree shear zone by sample 5734 shown in Figure 5.

Photograph 16. Fuchsite developed in zone of shearing/narrow quartz-ankerite veining within carbonatized peridotitic komatite in Trench 1; near sample 5726 in Figure 5.



Photograph 17. View looking northeast along narrow steep dipping veins in the north part of Trench 1.

Photograph 18. Backhoe stripping outcrop in Trench 2.

Photograph 19. Sheared contact of peridotitic komatiite and Mg-tholeiite at north end of Trench 2. View looking west, shear zone dips steeply north. The small quartz vein exposed at the north edge of the pit at the water line returned one of the higher gold assays at 335 ppb (sample 5703).

Photograph 20. Folding in carbonatized Mg-tholeiite adjacent to sheared contact zone with peridotitic komatiite on extreme right side of photo. View looking west.

Photograph 21. Minor quartz-ankerite veining within weakly sheared and carbonatized Mg-tholeiite located at L30S in Trench 2. Veining contains minor tourmaline, dips steeply north and wall rock is variably pyritized (2-5%). Sample 5706 from this zone (Figure 6) returned a gold value of 300 ppb.

Photograph 22. View looking north along Trench 2 from L45S.

Assays from the 060 degree veining and sheared wall rock were disappointing, the best being 110 ppb (sample 5734). A later narrow, unmineralized vein set at 020/ steep NW is prominent in the north part of Trench 1 (Photograph 17).

Trench 2 (Figure 6, Photograph 22) is largely within strongly carbonatized, massive to strongly foliated magnesium-rich tholeiitic basalt. A deep, water filled pit (old "Cut C" from 1940 assessment reports?) at the north end of the trench exposes along its walls a steep north dipping, highly sheared contact (Photograph 19) with the underlying peridotitic komatiite; the sense of movement appears to be reverse, ie- north side up. The Mg-tholeiitic basalts within 7.0 metres of the contact are intensely sheared and sericitized, and contain common 0.1 to 0.35 metre wide quartz-ankerite-tourmaline veins. The veins are often rolled and boudinaged, and the highly sericite-chlorite-ankerite altered wallrock to the veins commonly contains 2-6% fine disseminated to coarse cubic pyrite. Sample 5703, from the northwest face of the pit assayed 335 ppb gold. This sample was of intensely chloritized and sericitized wallrock to a 0.3 m wide vein, and carried 0.5-1% medium grained clotty pyrite. Several other assay samples from the zone returned anomalous gold values of up to 70 ppb. A 1940 assessment report (T-383, Macpherson (1940)) for the property indicates free gold was found "in quantity" within quartz-ankerite veins from Cut C. Small scale fold structures (Photograph 20) are observed up to a few meters northward from the tholeiite-komatiite contact, occurring in the tholeiite away from the main shear.

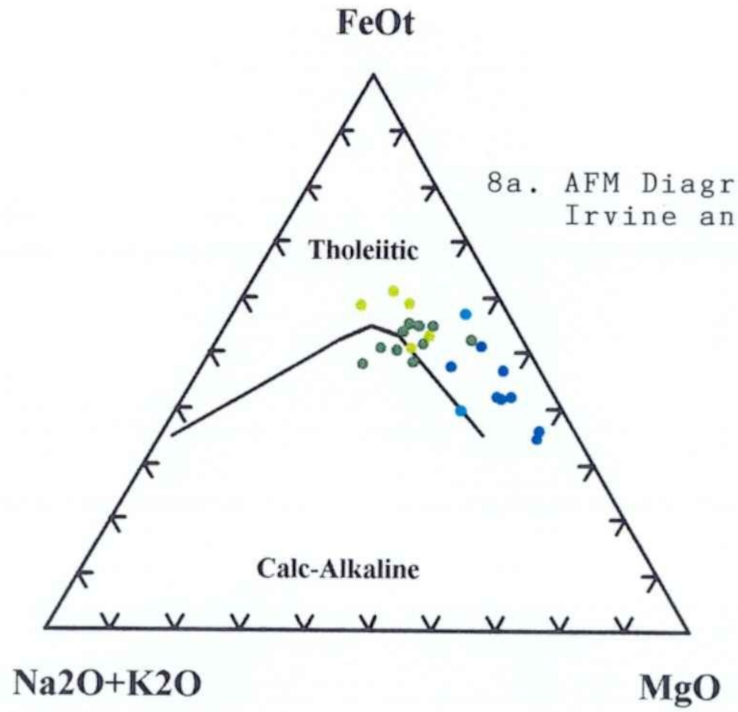
One of the more significant mineralized zones in the trench is at 30S (Figure 3, Photograph 21), where for over 3 metres the basalt is sheared, locally pyritic (3-5%) and contains numerous narrow quartz -ankerite veins, some of which contain tourmaline. The best assay from this zone was 300 ppb (sample 5716). Veining generally trends ENE, subparallel to the major sheared contact, and dips moderately to steeply north. Veins in a number of old trenches and pits elsewhere in the carbonatized basalt forming the South Zone were observed to dip either north or south at moderate to steep angles (40 - 70 degrees), with little evidence for flat veining of any significance.

Geochemistry

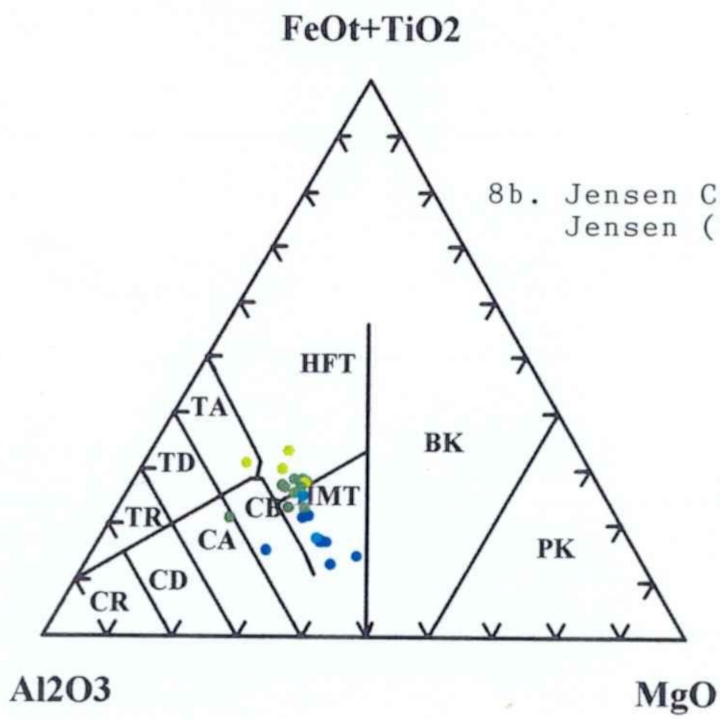
A total of 49 lithogeochemical samples and 4 gold assay samples were taken from the general outcrop areas throughout the property; 25 of the samples were submitted for whole rock analyses (WRA) consisting of 11 major and 6 "standard" minor elements (Ba, Rb, Sr, Nb, Zr, Y). In addition 8 of the samples were analysed for 14 rare earth elements (REE) and an additional 17 elements including Cu, Ni, Pb, Zn. Fifty-three samples, taken from the power stripped areas, were analysed for gold. All the analyses were done by Chemex Labs Ltd. of Mississauga, Ontario. A description of all the samples is given in Appendix A and the geochemical results are contained in Appendix B.

Gold assay results have been discussed in previous sections and will not be further elaborated on here.

Whole rock major and minor element data plots for the 25 samples analyzed are presented in Figures 8 through 10. All of the rocks analyzed were mapped either as basaltic komatiites, magnesium tholeiites or high-iron tholeiites. High-iron tholeiite samples plot within the high iron tholeiite fields on both the AFM diagram and Jensen Plot (Figures 8a and 8b). Magnesium tholeiites plot within the tholeiitic to calc-alkaline fields on the AFM diagram; samples plotting within the calk-alkaline field are likely weakly alkali metasomatized tholeiites. On the Jensen Plot,



8a. AFM Diagram
Irvine and Barager (1971)



8b. Jensen Cation Plot
Jensen (1976)

Figure 8. AFM Diagram (8a) and Jensen Cation Plot (8b) for Northeast Tisdale Township Property samples.

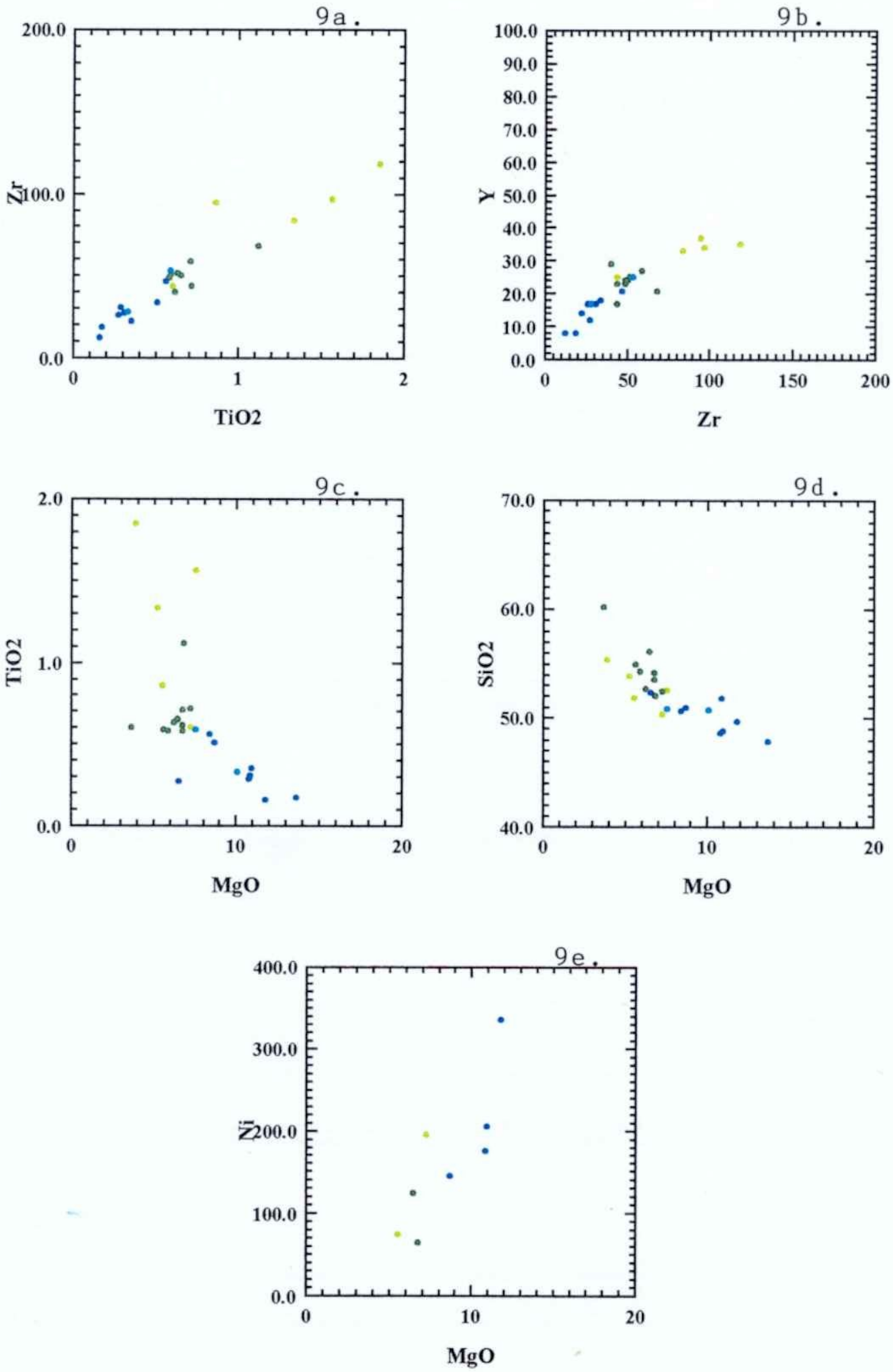


Figure 9. X-Y major and trace element plots for Northeast Tisdale Township Property samples

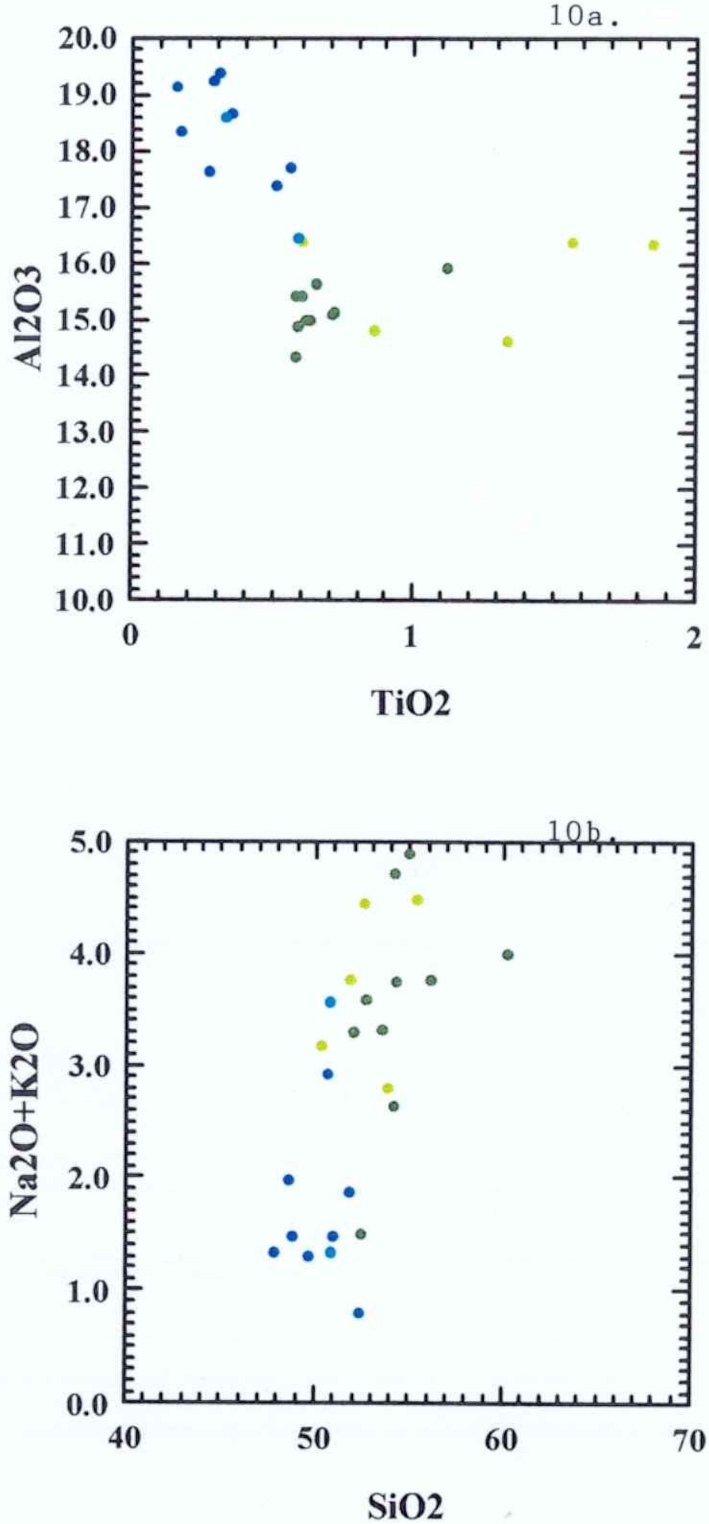


Figure 10. X-Y plots of TiO2-Al2O3 (10a) and SiO2-Na2O+K2O (10b), Northeast Tisdale Township Property samples.

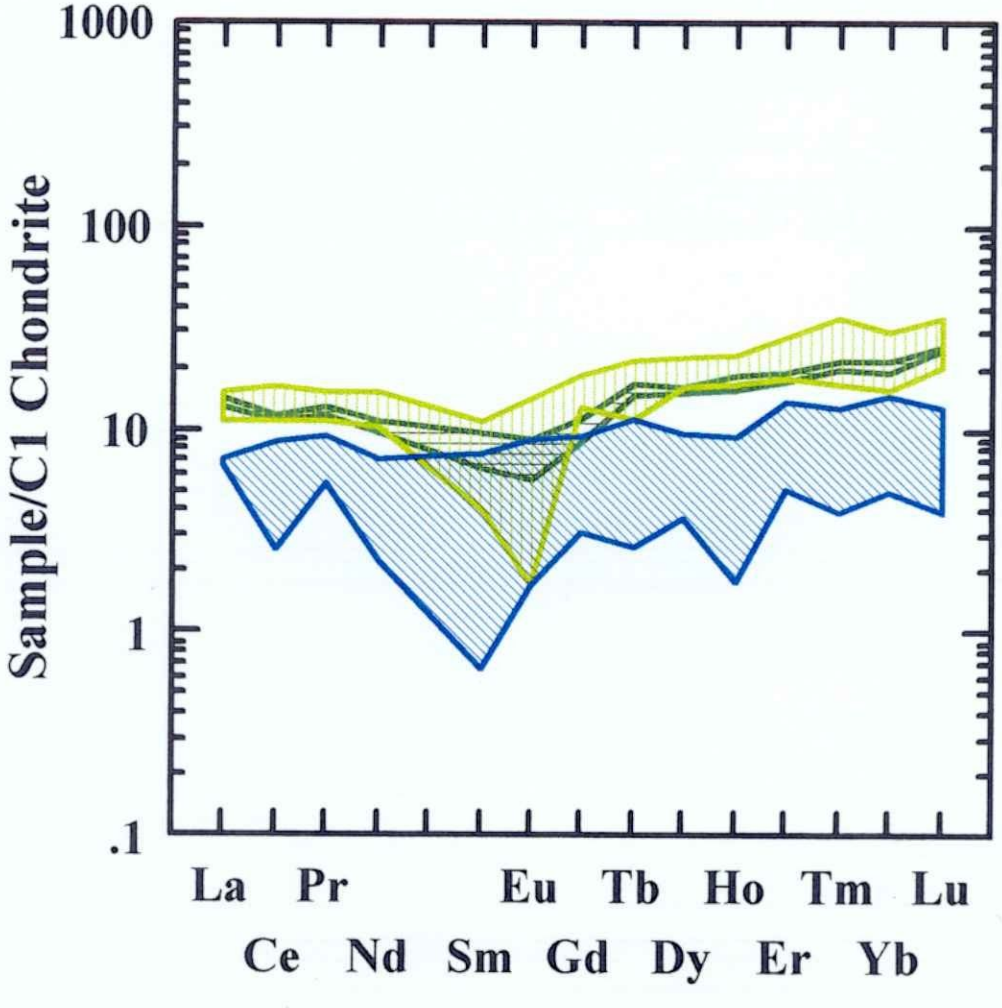


Figure 11. Composite C1 chondrite normalized REE plotfor Northeast Tisdale Township Property samples, showing range of composition for basaltic komatiites (blue) Mg-tholeiitic basalts (dark green) and high-iron tholeiitic basalts (light green).

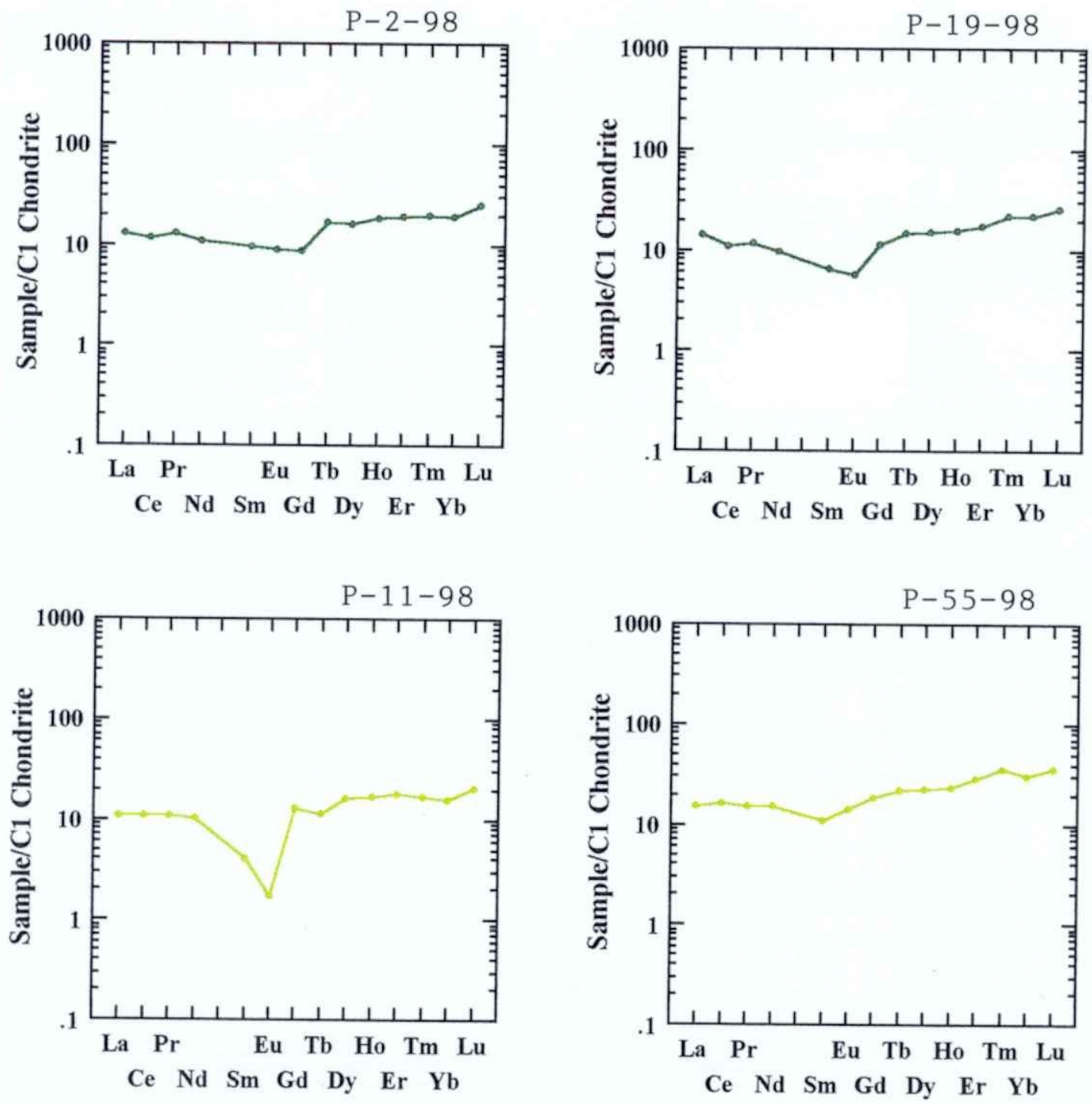


Figure 12. C1 Chondrite normalized REE plot for Mg-tholeiitic basalts (dark green) and high-iron tholeiitic basalts (light green), Northeast Tisdale Township Property.

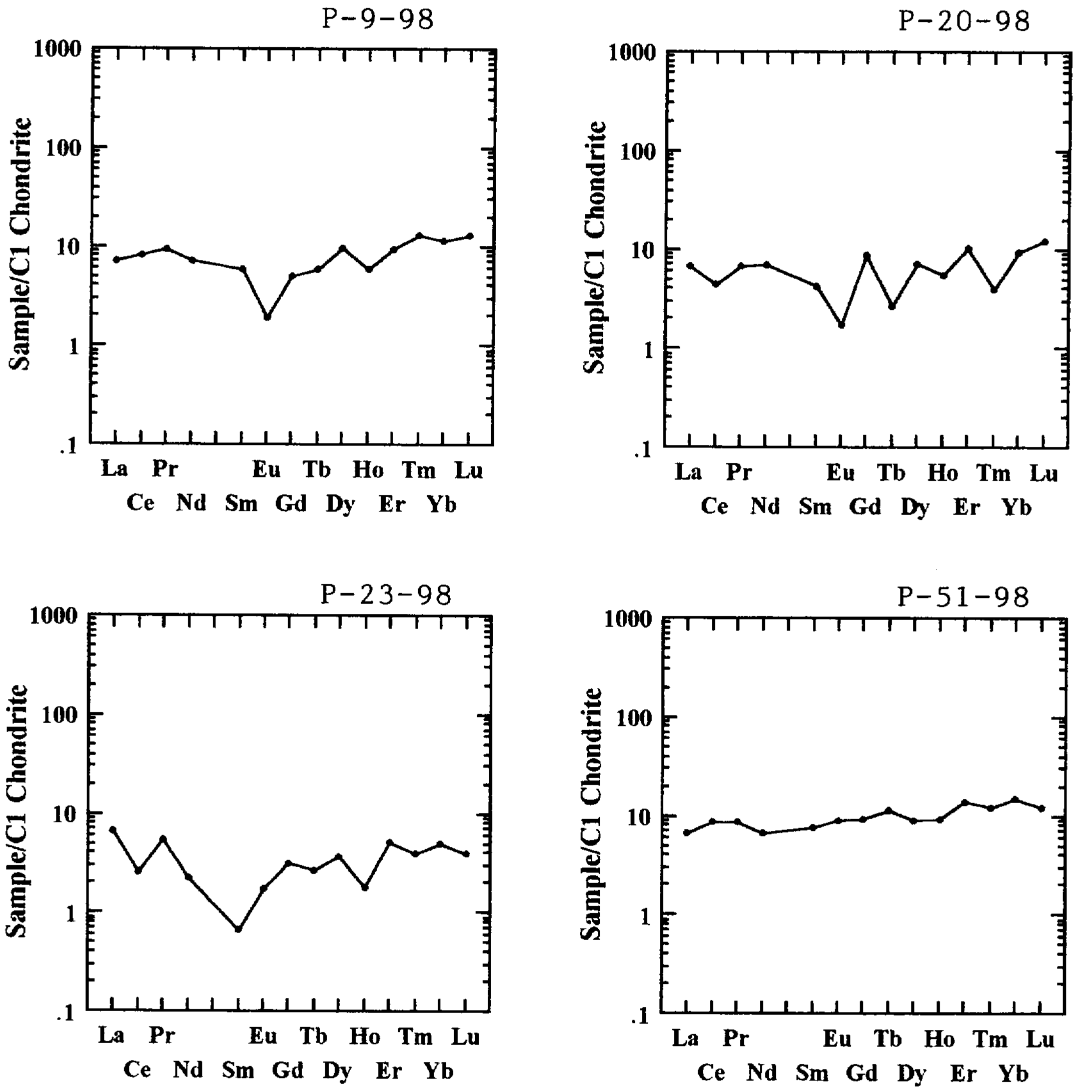


Figure 13. C1 Chondrite normalized REE plot for basaltic komatiite samples, Northeast Tisdale Township Property.

Basis of 25 oxygens

	2	3	4	5
SiO2	39.47	38.95	39.78	38.87
TiO2	0.04	0.06	0.01	0.05
Al2O3	30.47	30.50	30.00	30.42
Cr2O3	0.00	0.03	0.05	0.04
Fe2O3	4.91	4.40	4.83	4.14
MnO	0.05	0.11	0.07	0.14
MgO	0.01	0.00	0.02	0.01
CaO	24.62	25.14	24.07	24.69
Na2O	0.01	0.00	0.09	0.00
Total	99.59	99.19	98.92	98.36
Si	5.9845	5.9389	6.0600	5.9648
Al IV	0.0155	0.0611	0.0000	0.0352
Ti	0.0047	0.0070	0.0010	0.0052
Al	5.4311	5.4215	5.3878	5.4681
Cr	0.0000	0.0040	0.0059	0.0052
Fe	0.5602	0.5049	0.5537	0.4781
Mn	0.0069	0.0138	0.0093	0.0178
Mg	0.0026	0.0000	0.0057	0.0020
Ca	3.9999	4.1073	3.9289	4.0597
Na	0.0039	0.0000	0.0259	0.0013
Tot(cat)	16.0093	16.0584	15.9783	16.0374

2 P10 epidote 1
3 P10 epidote 2
4 P10 epidote 3
5 P10 epidote 4

Epidote Analyses
Basaltic Komatiite Sample P-10-98

Table 1.

Basis of 28 oxygens

	1	2	3	4	5	6	7	8	9
SiO2	27.98	27.54	28.65	28.24	27.72	28.60	28.50	28.44	28.32
TiO2	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.03	0.00
Al2O3	21.32	21.77	20.38	20.79	21.80	21.84	21.67	21.51	21.98
Cr2O3	0.03	0.04	0.01	0.01	0.04	0.12	0.05	0.10	0.07
FeO	16.91	17.44	16.98	17.17	17.26	13.68	13.46	13.42	13.57
MnO	0.25	0.28	0.31	0.34	0.30	0.21	0.17	0.21	0.24
MgO	21.49	21.32	22.24	21.66	21.34	23.74	23.81	24.06	23.68
CaO	0.03	0.04	0.03	0.08	0.05	0.06	0.04	0.07	0.02
Na2O	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.02
K2O	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02	0.00
Total	88.01	88.44	88.60	88.31	88.51	88.26	87.72	87.88	87.90
Si	5.5916	5.4973	5.6896	5.6359	5.5212	5.5984	5.6071	5.5899	5.5655
Al IV	2.4084	2.5027	2.3104	2.3641	2.4788	2.4016	2.3929	2.4101	2.4345
Ti	0.0000	0.0000	0.0004	0.0030	0.0000	0.0011	0.0000	0.0050	0.0000
Al	2.6146	2.6204	2.4611	2.5275	2.6403	2.6386	2.6333	2.5742	2.6580
Cr	0.0051	0.0071	0.0012	0.0012	0.0056	0.0182	0.0073	0.0161	0.0107
Fe	2.8262	2.9114	2.8201	2.8658	2.8751	2.2396	2.2147	2.2060	2.2303
Mn	0.0419	0.0476	0.0524	0.0572	0.0500	0.0343	0.0289	0.0345	0.0407
Mg	6.4004	6.3424	6.5823	6.4423	6.3346	6.9257	6.9813	7.0478	6.9355
Ca	0.0061	0.0083	0.0057	0.0176	0.0098	0.0120	0.0087	0.0146	0.0046
Na	0.0000	0.0000	0.0009	0.0000	0.0000	0.0038	0.0000	0.0096	0.0062
K	0.0000	0.0007	0.0000	0.0000	0.0021	0.0000	0.0039	0.0040	0.0000
Tot(cat)	19.8943	19.9380	19.9241	19.9146	19.9175	19.8732	19.8781	19.9117	19.8860

1 P10 chlorite 1
2 P10 chlorite 2
3 P10 chlorite 3
4 P10 chlorite 4
5 P10 chlorite 5
6 P23 chlorite 1
7 P23 chlorite 2
8 P23 chlorite 3
9 P23 chlorite 4

Chlorite Analyses
Basaltic Komatiite Samples
P-10-98 and P-23-98

Table 2.

Basis of 23 oxygens

	1	2	3	4	5	6	7	8	9
SiO2	56.75	55.55	55.37	55.81	55.83	56.70	45.79	57.06	56.63
TiO2	0.04	0.03	0.02	0.01	0.03	0.00	0.51	0.03	0.05
Al2O3	1.39	1.38	2.05	1.46	2.44	0.89	14.29	1.03	1.17
Cr2O3	0.03	0.07	0.03	0.01	0.02	0.01	0.21	0.04	0.04
FeO	8.33	10.21	9.58	8.24	7.22	7.26	7.03	7.26	8.43
MnO	0.32	0.25	0.20	0.16	0.15	0.22	0.22	0.22	0.23
MgO	18.61	17.25	17.53	18.61	18.87	19.55	15.94	19.57	19.06
CaO	13.28	13.15	13.22	13.39	13.47	13.29	12.32	13.46	13.02
Na2O	0.14	0.07	0.13	0.08	0.22	0.60	1.80	0.10	0.13
K2O	0.03	0.03	0.05	0.03	0.06	0.12	0.05	0.03	0.04
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cl	0.01	0.02	0.00	0.00	0.04	0.29	0.12	0.00	0.00
	98.92	98.00	98.17	97.81	98.35	98.95	98.29	98.81	98.80
O =>F,Cl	0.00	0.00	0.00	0.00	0.01	0.07	0.03	0.00	0.00
Total	98.92	98.00	98.17	97.81	98.34	98.88	98.26	98.81	98.80
Si	7.8912	7.8726	7.8103	7.8538	7.7815	7.8898	6.4745	7.9059	7.8841
Al IV	0.1088	0.1274	0.1897	0.1462	0.2185	0.1102	1.5255	0.0941	0.1159
Ti	0.0047	0.0027	0.0024	0.0013	0.0033	0.0000	0.0540	0.0027	0.0048
Al	0.1187	0.1024	0.1509	0.0959	0.1823	0.0358	0.8565	0.0740	0.0769
Cr	0.0032	0.0082	0.0031	0.0016	0.0023	0.0016	0.0230	0.0048	0.0041
Fe	0.9687	1.2101	1.1301	0.9698	0.8416	0.8449	0.8313	0.8413	0.9815
Mn	0.0372	0.0301	0.0236	0.0190	0.0175	0.0264	0.0268	0.0263	0.0273
Mg	3.8566	3.6434	3.6852	3.9030	3.9197	4.0542	3.3590	4.0410	3.9547
Ca	1.9787	1.9969	1.9981	2.0190	2.0117	1.9815	1.8665	1.9983	1.9423
Na	0.0372	0.0193	0.0348	0.0212	0.0596	0.1620	0.4947	0.0280	0.0347
K	0.0049	0.0050	0.0093	0.0058	0.0111	0.0218	0.0090	0.0052	0.0073
F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cl	0.0024	0.0043	0.0000	0.0000	0.0089	0.0691	0.0298	0.0008	0.0000
Tot(cat)	15.0098	15.0179	15.0375	15.0366	15.0490	15.1283	15.5208	15.0216	15.0336

1 P10 amphibole 1
2 P10 amphibole 2
3 P10 amphibole 3
4 P10 amphibole 4
5 P23 amphibole 1
6 P23 amphibole 2
7 P23 amphibole 3
8 P23 amphibole 4
9 P23 amphibole 5

Amphibole Microprobe Analyses
Basaltic Komatiite Samples P10-98 and P-23-98

Table 3.

	Northeast Tisdale Komatiitic Basalts (pillowed and polysutured)	Northeast Tisdale Komatiite Basalts (massive, non-polysutured)	Munro Township Komatiitic Basalt Sample P9-178	Chondrite Ratios Nesbitt and Sun (1980)
SiO2	50.54	48.78	50.14	
TiO2	0.38	0.17	0.66	
Al2O3	18.33	18.74	13.09	
Fe2O3	10.17	8.52	12.79	
MnO	0.17	0.15	0.19	
MgO	9.34	12.7	10.44	
CaO	9.26	9.6	10.26	
Na2O	1.45	0.78	2.05	
K2O	0.31	0.54	0.04	
P2O5	0.04	0.03	0.06	
Cr2O3	0.01	0.01	0.15	
LOI	5.42	4.83	1.69	
Zr	31	16	36	
Y	17	8	18	
CaO/Al2O3	0.51	0.52	0.78	
Al2O3/TiO2	52	113	19.83	20
Ti/Zr	74	67	110	110
Ti/Y	139	124	220	275
Zr/Y	1.88	1.94	2	2.5
Ti/V	13.65	9.14	15.76	10

TABLE 4. Geochemistry of Northeast Tisdale Property and Munro Township Basaltic Komatiites

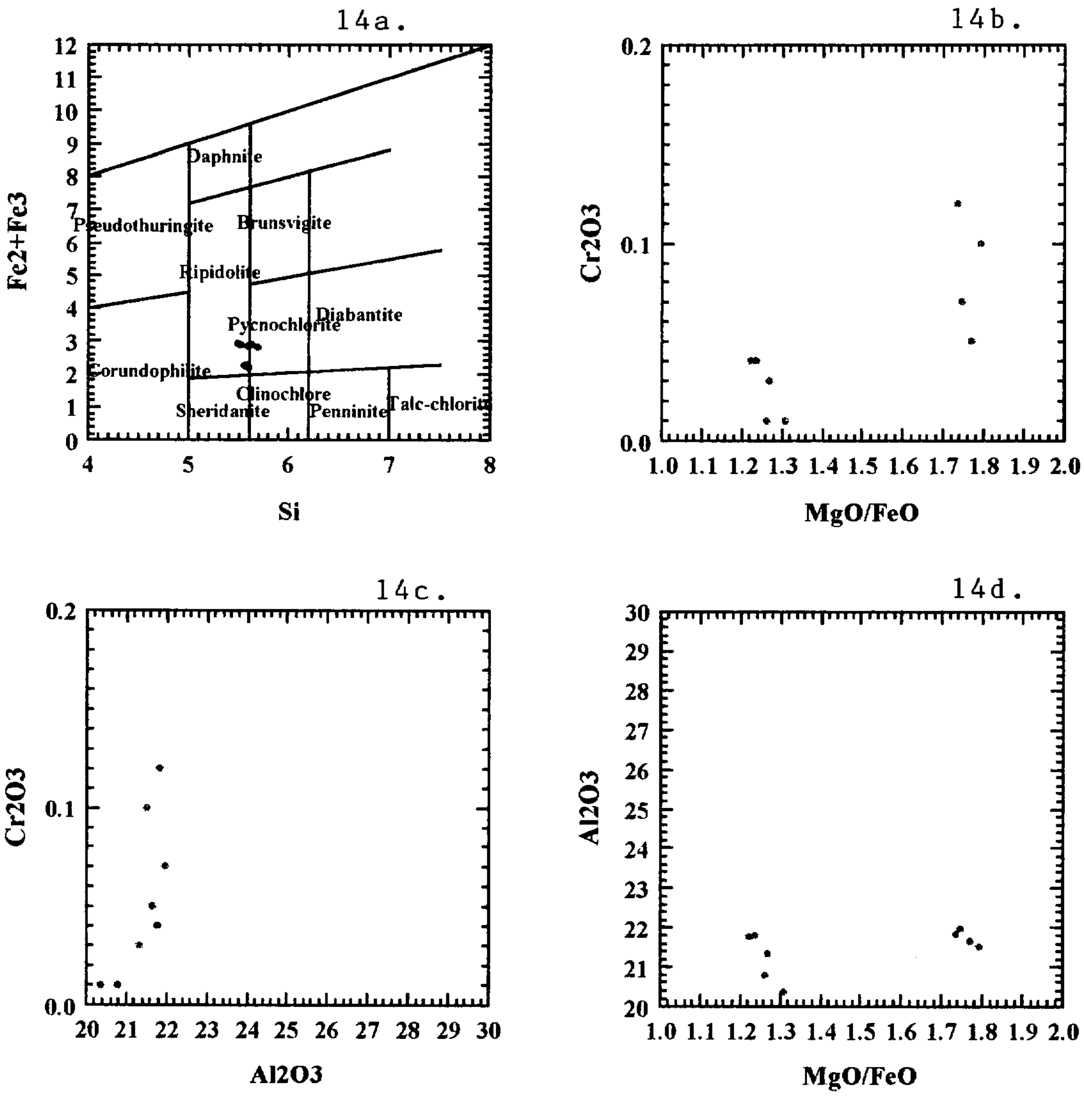


Figure 14. Geochemistry of chlorites, basaltic komatiite samples P-10-98 and P-23-98.

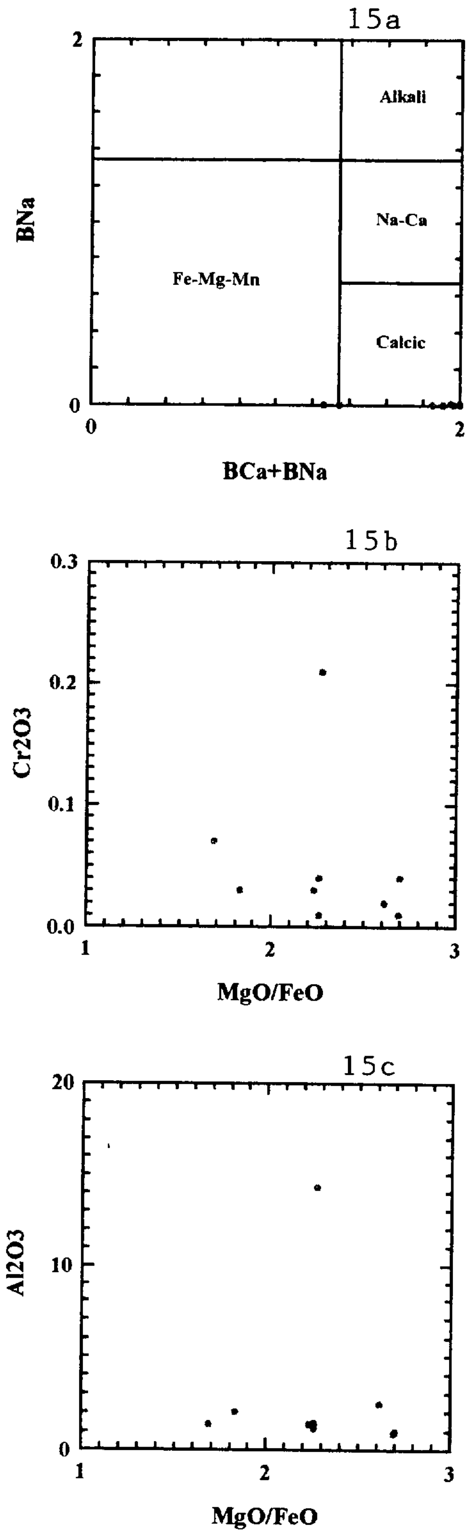


Figure 15. Geochemistry of amphiboles, basaltic komatiite samples P-10-98 and P-23-98.

the magnesium tholeiites generally plot on the iron-magnesium tholeiitic boundary. Basaltic komatiite is mainly confined to the central part of the claim group and forms large outcrop areas in the northeast part of the property. The basaltic komatiites are both massive and pillowed; polysuturing is very diagnostic and is particularly well developed in the pillowed facies (Photograph 2). Basaltic komatiite samples largely plot within the komatiitic field on the AFM diagram, but all plot (unusually) as Mg-tholeiites to calc-alkaline basalts on the Jensen Plot. The basaltic komatiites are unusually enriched in Al_2O_3, as discussed below, which is why they fall within the tholeiitic to calc-alkaline fields on the Jensen Plot. Figures 9 and 10 are X-Y plots of selected major and trace elements for all three rock types. Magnesium and high-iron tholeiites are basalts to basaltic andesites in terms of their anhydrous SiO_2 contents, while basaltic komatiites always have basaltic SiO_2 contents (<52 percent). Basaltic komatiite samples have consistently lower Zr, Y and TiO_2 contents and higher MgO and nickel contents relative to the tholeiites, suggesting a more primitive tholeiitic or komatiite affinity. Figure 10a. is a plot of TiO_2 vs. Al_2O_3, which clearly demonstrates that the basaltic komatiites are highly elevated in Al_2O_3 and appear to exhibit a very different fractionation trend from the tholeiites.

Eight samples were analyzed for rare earth elements, which included four basaltic komatiite, two high-iron tholeiite and two magnesium tholeiite samples. Chondrite normalized REE plots are shown for the samples in Figures 11 through 13; Figure 11 is a composite REE plot showing the general compositional ranges for each rock type, and Figures 12-13 are individual REE plots for each sample. All three lithologies exhibit relatively flat to very weakly positive sloping REE patterns, with the basaltic komatiites exhibiting somewhat lower patterns relative to the tholeiites. Sample P-11-98, an iron tholeiite, exhibits a moderate negative europium anomaly and can be classified as a type "TH1a tholeiite" (Condie and Baragar, 1974). The rather "jagged" nature of many of the basaltic komatiite REE patterns may result from minor element mobility during metamorphism-alteration or from analytical imprecisions occurring at low elemental concentrations, as is the case with these lavas.

The average composition of the six Northeast Tisdale Property pillowed and polysutured basaltic komatiite samples analyzed is given in Table 4, along the average composition of the two massive, non-polysutured komatiite samples. In addition, selected element and oxide ratios have been calculated using the average compositions. In order to compare the geochemistry of the Northeast Tisdale Property basaltic komatiites to "typical" basaltic komatiites from the Munro Township area, the analysis for sample P9-178 (Arndt and Nesbitt, 1982) has been included. P9-178 is an acicular pyroxene basalt from the top of a flow in Cycle 1 komatiitic basalts from the Munro Township area. Selected element and oxide ratios have been calculated for sample P9-178, and have also been included for Chondrite (Nesbitt and Sun, 1980).

The two samples of Northeast Tisdale property massive, non-polysutured flows (?) have significanly lower contents of TiO_2, Fe_2O_3, Na_2O, Zr and Y, and higher contents of MgO when compared to the average composition of the six samples of pillowed, polysutured komatiite. As the extrusive and/or non-cumulate origin of the massive komatiite samples may be suspect, they have not been included in comparisons with Munro Township rocks. Northeast Tisdale basaltic komatiites have similar SiO_2, and only slightly lower MgO, CaO and Na_2O contents compared to Munro sample P9-178. The Northeast Tisdale basaltic komatiites are unusual in that they have extremely low Fe_2O_3, TiO_2 and Cr_2O_3 (<0.01 wt % generally) contents and very elevated Al_2O_3 contents when compared to sample P9-178. Vanadium is comparably very low in Northeast Tisdale basaltic komatiite samples, while Zr is only slightly lower and Y values are roughly equal. The comparably low contents of Fe_2O_3, TiO_2, V and Cr_2O_3 in Northeast Tisdale basaltic komatiite samples suggests that fractionation of vadaniferous ilmenite-magnetite may have played a role in the formation of the resultant magma. The highly elevated contents of Al_2O_3 are difficult to explain, but likely indicate that the basaltic komatiites originally contained very high amounts of calcic plagioclase. The basaltic komatiites occurring on the Northeast Tisdale Township property most likely represent either 1) unusually aluminous basaltic komatiite magmas which had undergone additional magnetite fractionation prior to eruption or 2) very primitive tholeiitic material.

The mineralogy of the basaltic komatiites is tremolite- chlorite- plagioclase (oligoclase?)-quartz-clinozoisite. This assemblage indicates that the rocks are metamorphosed to Upper Greenshist facies. The high abundances of porphyroblastic clinozoisite within basaltic komatiite samples reflects the very high aluminum contents and the prograde dehydration mineral assemblage. Clinozoisite, chlorite and tremolite analyses obtained using the JEOL-8600 Superprobe at the University of Western Ontario are given in Tables 1 through 3 and are examined in Figures 14 and 15. Chlorite compositions straddle the pychnochlorite-ripidolite boundary (Figure 14). Cr_2O_3 values for chlorites are very low, ranging up to 0.13 wt %, with slightly elevated Cr_2O_3 values occuring within chlorites with higher MgO/FeO ratios. Cr_2O_3 contents of tremolites are also very low (Figure 15).

Conclusions and Recommendations

During the present survey, power stripping and sampling of the outcrop areas and old trenches in the vicinity of the shaft returned, at best, only anomalous gold values. Six out of 53 gold assays taken were above 100 ppb, ranging up to 335 ppb. This was not unexpected, as few significant surface assays have been reported from previous work. However, the major 060 degree shears examined, exhibiting strong pervasive carbonatization, quartz-ankerite veining, significant sulphides and anomalous gold values, warrant further exploration work, both along strike and down dip. Virtually no exploration work is recorded as having been performed along strike from the Beaumont Shaft, an area interpreted to contain favorable stratigraphy and be traversed by ENE faulting. In addition, most of the significant assays reported are from early drilling, and the data is generally fragmented and incomplete. Many of the best gold assays were obtained in drilling at depths of greater than 700 feet, and gold assays, although incomplete, continue to be significant towards to bottom of the deeper holes in the Beaumont shaft area. Completion of both ground magnetic and IP surveys is recommended as a first phase of continued exploration prior to diamond drilling.

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APPENDIX A

Sample descriptions for general property samples and trench gold assay samples.

Northeast Tisdale Township Property

Sample Descriptions

Samples taken for Whole Rock Geochemistry, Trace Element Geochemistry, Thin Sectioning and Hand Specimens

WRA = Whole rock analysis
REE = Rare earth element and assorted trace element analyses
PTS = polished thin section.

P-02-98 (WRA, REE, PTS)
Basalt, pillowed, vesicular, fine grained, medium grey green fresh, buff weathering.

P-03-98 (PTS)
Basalt, massive, fine to medium grained, medium grey green fresh, buff weathering.

P-04-98
Basalt, pillowed, vesicular, well foliated, medium grey green, buff weathering.

P-05-98
Basalt, pillowed, weakly vesicular, well foliated, medium grey green, buff weathering.

P-06-98
Basalt, massive, fine to medium grained, medium green.

P-07-98 (WRA)
Basalt, massive, fine to medium grained, medium green, weathers buff.

P-08-98 (WRA, PTS)
Basalt, pillowed, vesicular, light medium grey green fresh surface, variolitic?

P-09-98 (WRA, REE, PTS)
Basaltic komatiite, pillowed, polysutured, light brown grey fresh surface, weakly carbonatized, radial fractures.

P-10-98 (WRA, PTS)
Basaltic komatiite, polysutured, massive(?), light grey fresh, weathers grey.

P-11-98 (WRA, REE, PTS)
Basalt, pillowed, vesicular, medium green fresh, buff weathering.

P-12-98 (WRA, PTS)
Basalt, massive, medium grained, medium to dark green fresh, weathers orange-brown.

P-13-98
Basalt, massive, fine grained, dark green fresh, weathers medium grey, vesicular (?).

P-14-98
Peridotitic komatiite, weakly polysutured, dark grey-green to black fresh, weathers orange-brown.

P-15-98
Peridotitic komatiite, polysutured, medium to dark green fresh, orange brown weathering.

P-16-98 (WRA)
Basalt, massive, fine grained, medium grey green fresh, medium grey weathering.

P-17-98
Basalt, massive, fine to medium grained, medium green, orange brown weathering, locally strongly vesicular.

P-19-98 (WRA, REE, PTS)
Basalt, massive, carbonatized, medium brown grey fresh surface, brown-grey weathering.

P-20-98 (WRA, REE, PTS)
Basaltic komatiite, pillowed, polysutured with radial fractures, weakly foliated, light grey fresh surface and weathers medium grey to buff.

P-23-98 (WRA, REE, PTS)
Basaltic komatiite, massive, light grey fresh surface and weathers light green-grey to buff.

P-24-98 (WRA, PTS)
Basaltic komatiite, pillowed, polysutured, light grey fresh surface and grey to light orange buff weathering, trace pyrite.

P-51-98 (WRA, REE, PTS)
Basaltic komatiite, pillowed, polysutured, light grey fresh surface and light grey to light buff weathering.

P-53-98 (WRA)
Basaltic komatiite, massive, well foliated, light grey to light green grey fresh surface and weathers orange-brown.

P-54-98 (WRA, PTS)
Basaltic komatiite, pillowed, polysutured, medium grey fresh surface and medium grey to buff grey weathering.

P-55-98 (WRA, REE)
Basalt, massive, fine to medium grained, moderately foliated, medium to dark green fresh surface and orange-brown weathering.

P-58-98 (WRA)
Basalt, well foliated, medium grey green fresh surface, light buff brown weathering.

P-62-98 (WRA)
Basaltic komatiite, polysutured, massive (pillowed?), vesicular (?), fine grained, light grey fresh surface and weathers buff brown.

P-65-98 (WRA)
Basaltic komatiite(?), suggestion of polysuturing, pillowed, light to medium grey fresh surface surface and weathers buff.

P-71-98 (WRA)
Basalt, pillowed, vesicular, light grey green fresh surface.

P-72-98 (WRA)
Basalt, massive, medium grained, light grey fresh surface and weathers buff grey.

P-73-98 (WRA)
Basalt, massive, fine to medium grained, medium dull green on fresh surface and weathers medium grey.

5710 (WRA) Sample is from Trench #2 (see Figure 6)
Basalt, massive to weakly foliated, fine grained, dark green grey in colour. Weakly chloritized, <0.3% pyrite as coarse, striated cubes.

5711 (WRA) Sample is from Trench #2 (see Figure 6)
Basalt, strongly carbonatized, weakly sericitized, weakly foliated, fine grained, medium buff to grey in colour, minor coarse pyrite cubes and quartz stringers.

5720 (WRA) Sample is from Trench #2 (see Figure 6)
Basalt, massive with vague suggestion of polysuturing. Weakly to moderately carbonatized, medium dull grey on fresh surface and weathers grey buff.

Northeast Tisdale Township Property

Sample Descriptions for Gold Assay Samples

Samples from Pit #6, South Zone of Beaumont Mines (see geological map for locations)

P-66-98
Quartz vein from dump pile immediately adjacent to pit. Mainly white quartz with minor dark grey quartz and chlorite-carbonate seams. Sample contains 4% cubic pyrite and trace to 0.5% chalcopyrite.

P-67-98
Quartz vein from dump pile immediately adjacent to pit. Mainly white quartz with minor dark grey quartz and chlorite-carbonate seams. Sample contains 5% cubic pyrite and trace to 0.5% chalcopyrite.

P-68-98
White quartz vein with minor crack-seal chloritic seams. 1% disseminated pyrite.

P-69-98
Highly carbonatized wallrock to major quartz vein. The rock is massive, fine to medium grained, buff brown-grey in colour and carries 3% coarse cubic pyrite. 10% quartz veining.

Samples from Trench #2 (see Figure 6)

5701
Sample of quartz-carbonate veining and highly sericitized wallrock from large (> 1 metre) boulder removed from most southerly pit of trench, now deposited on side of trench in rubble pile. 3% fine disseminated pyrite and minor tourmaline seams in sample.

5702
70% quartz-carbonate vein and 30% chloritized-sericitized wallrock. 0.5% medium to coarse grained pyrite in immediate wallrock. The carbonate in the veins is generally coarse and crystalline, forming 2 mm to 2 cm pods within folded and contorted quartz veins. Carbonate most commonly forms along margins to quartz veins. Most carbonate weathers orange-brown and is likely ankerite.

5703
Sample from same location as 5702. Sample of medium green, slickensided chlorite-sericite wallrock. 0.5-1.0% medium grained clotty pyrite.

5704
Sample of highly sericitized, carbonatized and strongly foliated wallrock with 10% veining included. 5-6% coarse cubic pyrite. Veins are generally 0.1-0.3 metres wide, but occur as "swarms" in more strongly foliated to sheared zones.

5705
Quartz-carbonate veining with sericitized wallrock margins. Common vein septa and crack-seal structures. 4-5% coarse cubic pyrite in immediate wallrock and crack-seal septa. Pyrite occurs most commonly where veins are contorted and folded. Sample from same site at 5704.

5706
80% quartz veining, 20% wallrock. 3-5% coarse cubic pyrite in wallrock margins and crack-seal bands.

5707
From central shear zone in north deep pit. Boudinaged and weakly folded quartz-carbonate veins (70%) and sheared, highly sericitized and chloritized wallrock margins (30%). Wallrock bears minor tourmaline. 3% pyrite as fine grained short stringers and clots from 0.1-0.3 mm in size in wallrock margins and less commonly in wallrock crack-seal septa.

5708
From same location as sample 5707. 0.05-0.15 metre wide boudinaged quartz veins (80%). Wallrock (20%) is sheared, dark grey-green with a higher proportion of chlorite to seritice than in sample 5707.

5709
5 cm wide quartz-carbonate vein. Sample taken where the vein is folded, and quite rusty weathering. 5% coarse, disseminated cubic pyrite in rusty carbonate-sericite-chlorite wallrock.

5712
Boudinaged, 3-4 inch wide quartz-carbonate vein with 20% included sericite and carbonatized wallrock. 3% coarse cubic pyrite and lesser fine fracture filling pyrite.

5713
Boudinaged 4-6 inch wide quartz-carbonate vein approximately three feet north of vein sample 5712. 3% pyrite as descirbed in sample 5712.

5714
Sample from same location as 5713. Quartz-carbonate vein, approximately 4 cm wide, very rusty, with numerous crack seal septa and fractures of sericite+chlorite. 3% fine clotty and medium grained cubic pyrite, very minor dendritic black bands of tourmaline.

5715
Wallrock from adjacent to same vein as in 5714. Wallrock is carbonatized, silicified and bears 5% very fine to medium grained pyrite cubes and clots.

5716
Quartz-carbonate-tourmaline vein. Sample is from a 1 foot wide and 1.6 foot long "bulge" in the vein, which is usually only 4-5 inches in width. Fine, rodded, medium grey-brown tourmaline occurs in the margins of the vein. 3-5% pyrite as fine to medium grained disseminated cubes and lesser granular, fracture fillings, associated with black tourmaline.

5717
Quartz veins 4-5 inches in width and carbonatized wallrock. 1% cubic pyrite in wallrock. Vein contains abundant chloritized and sericitized wallrock inclusions.

5718
Quartz vein, composite sample from quartz rubble at the edge of trench. No sulphides observed. Mainly bull white quartz, minor dark grey quartz. Sample contains numerous chloritic slips.

5719
Narrow quartz veins, boudinaged, 6 inches by 16 inches. Very rusty wallrock and vein contains abundant wallrock and sericitic patches.

Samples from Trench #1 (see Figure 5)

Samples 5721-5726 are from a silicified, fuchsite-bearing shear zone containing significant ankerite veining.

5721
Komatiite, strongly sheared and carbonatized with common green fuchsite shears and grey carbonate veinlets. 3% quartz-ankerite veining, 3% pyrite, 1% chalcopyrite.

5722
Peridotitic komatiite, highly carbonatized, sheared and fuchsitic. Minor quartz-ankerite veinlets to 5 mm wide. 1% pyrite with traces of chalcopyrite.

5723
Peridotitic komatiite, carbonatized and sheared, grey quartz veins and minor fuchsite. 2% pyrite and traces of chalcopyrite.

5724
Peridotitic komatiite, strongly foliated, highly carbonatized and fuchsitic, with common grey ankerite-quartz veinlets. 2% pyrite as disseminations and seams along foliation planes. 0.5% chalcopyrite.

5725
Peridotitic komatiite, carbonatized, strongly foliated; both grey and green carbonate (ratio 4:1), green carbonate is in the more foliated portions whereas the grey is more massive and forms boudinaged lenses carrying 1-2 percent pyrite.

5726
Peridotitic komatiite, carbonatized, dark grey, trace pyrite.

5727
From same shear zone as samples 5721-26 but about 3.5m to SW. Peridotitic komatiite, carbonatized, grey brown carbonate. Weak-moderate foliation, no quartz carbonate veins in sample, as was present in 5721-25 samples. Fine patchy disseminated pyrite 1%.

5728
Peridotitic komatiite, carbonatized, medium grey brown, moderate-weak foliation; up to 1% fine disseminated pyrite but no significant veining.

5729
Peridotitic komatiite, carbonatized, grey brown carbonate, moderate foliation, 1-2% pyrite as 1-3mm disseminated cubes. Alot of small scale folding here (6"-12").

5730
Peridotitic komatiite, carbonatized, fine grained, medium brownish grey, massive, pyrite 1-2% as patchy concentrations of 1-2mm cubic pyrite, which is within or close to narrow (5mm) quartz-carbonate veins/fractures.

5731
Peridotitic komatiite, carbonatized, medium grey, medium grained, 1% disseminated pyrite.

5732
Sample of peridotitic komatiite off 70 cm boulder sluffed off of outcrop; significant quartz ankerite veining (10-15%) and some pyrite.

5733
Peridotitic komatiite off strong shear zone which trends 060 degrees. 5% quartz-ankerite veining.

5734
From centre of same shear zone as sample 5733. Trace pyrite

5735
From same shear zone as samples 5733-34, but 5m to east. Strongly foliated, 1% pyrite.

5736
Peridotitic komatiite, carbonatized, significant small scale folding as per samples 5729-31. Minor disseminated pyrite.

5737
Peridotitic komatiite within weak fuchsitic shear zone north of but trending parallel to central shear zone; 1-2% fine pyrite.

5738
Same weak fuchsitic shear zone as 5738. 5% quartz, no sulphides

5739
From same shear zone as 5737-38 but 5m north. Trace sulphide

5740
Peridotitic komatiite, carbonatized, strongly foliated, 5% quartz-carbonate veining, 1% pyrite.

5741
Peridotitic komatiite, carbonatized, 1% pyrite

5742
Same as 5741 with 5% quartz-ankerite veining, trace chalcopyrite

5743
Same as 5742 but with 3-4% pyrite.

5744
Same , with only a trace of pyrite

Samples from Trench # 3 (see Figure 7)

5746
Sample from east end of outcrop from south margin of E-W trending quartz vein with crack seal bands. Wall rock is strongly carbonatized with patches of fuchsite. Very minor disseminated pyrite in wall rock.

5747
Sample from 2 foot wide discontinuous carbonatized shear zone trending at 062 degrees. Sample has 10% quartz veins to 2" with grey sawtooth ankerite margins. Strongly foliated, carbonatized and sericitized with well developed fuchsitic slips; 1% fine disseminated pyrite in wallrock

5748
Composite sample from 1 m length of 2" wide flat vein dipping northeast. Sample is 30 % quartz vein and 70% carbonatized/sericitized fuchsitic wallrock with 0.5% pyrite.

5749
Composite sample from flat vein of 60% crumbly quartz and 40% carbonatized wallrock only locally weakly fuchsitic, but with moderately abundant diffuse coarse carbonate veinlets. Very minor fine disseminated pyrite.

5750
Carbonatized and silicified weak green carbonate rock, quite crystalline with very grey hue and 10% narrow quartz-carb veins with 1% very fine disseminated pyrite. "Grey zone" type alteration?

5751
From same spot as 5750, with 35% quartz and 65% wallrock - weak grey carbonate alteration as in 5750. 1% fine disseminated pyrite.

5752
Good fuchsitic green carbonate rock (80%) and 20% bull white quartz vein; minor (0.5%) fine disseminated pyrite

5753
Sample from central shear zone. 15% bull white flat quartz veining, 85% carbonaized and fuchsitic, medium green rock: 0.5% pyrite.

APPENDIX B

Geochemical analyses - Chemex Labs Ltd.

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: PYKE, DALE

31 DELAIR CRES.
THORNHILL, ON
L3T 2M3

Project :
Comments: ATTN: DALE PYKE CC: K.M. CUNNISON

Page Number : 1
Total Pages : 1
Certificate Date: 06-NOV-199
Invoice No. : I9834566
P.O. Number :
Account : QOL

CERTIFICATE OF ANALYSIS A9834566

SAMPLE	PREP CODE		Al2O3 % XRF	CaO % XRF	Cr2O3 % XRF	Fe2O3 % XRF	K2O % XRF	MgO % XRF	MnO % XRF	Na2O % XRF	P2O5 % XRF	SiO2 % XRF	TiO2 % XRF	LOI % XRF	TOTAL %	Ba ppm	Rb ppm	Sr ppm	Nb ppm	Zr ppm	Y ppm
P-02-98	1646	226	15.07	6.30	< 0.01	10.19	0.18	6.20	0.20	3.45	0.05	54.07	0.63	2.58	98.92	-----	-----	-----	-----	-----	-----
P-07-98	1646	226	13.79	5.80	< 0.01	12.57	2.06	6.47	0.21	2.48	0.05	52.10	0.56	2.83	98.92	650	26	46	4	48	22
P-08-98	1646	226	14.74	7.73	< 0.01	7.48	0.07	3.51	0.16	3.76	0.05	57.57	0.57	3.64	99.28	55	12	64	2	42	22
P-09-98	1646	226	17.35	4.83	< 0.01	9.12	0.81	9.68	0.13	0.87	0.03	46.48	0.28	9.56	99.14	-----	-----	-----	-----	-----	-----
P-10-98	1646	226	18.21	8.16	< 0.01	9.77	0.04	10.15	0.16	1.84	0.03	46.05	0.27	4.53	99.21	25	12	44	2	30	16
P-11-98	1646	226	15.55	8.38	< 0.01	12.38	0.05	6.91	0.27	2.96	0.05	47.84	0.57	3.81	98.77	-----	-----	-----	-----	-----	-----
P-12-98	1646	226	15.64	4.44	< 0.01	12.56	0.19	3.73	0.21	4.10	0.13	53.02	1.77	3.04	98.83	105	18	94	6	114	34
P-16-98	1646	226	15.20	8.06	< 0.01	11.54	0.81	6.55	0.20	2.34	0.09	49.74	1.07	3.10	98.70	175	30	122	4	66	20
P-19-98	1646	226	13.50	6.07	< 0.01	12.35	0.08	6.10	0.20	2.91	0.07	48.22	0.56	9.27	99.33	-----	-----	-----	-----	-----	-----
P-20-98	1646	226	17.67	8.89	0.01	9.57	0.49	10.34	0.17	0.90	0.04	46.18	0.33	4.66	99.25	-----	-----	-----	-----	-----	-----
P-23-98	1646	226	18.15	9.54	< 0.01	7.33	0.28	11.17	0.13	0.94	0.03	47.18	0.15	4.56	99.46	-----	-----	-----	-----	-----	-----
P-24-98	1646	226	16.78	7.72	< 0.01	10.85	0.18	7.97	0.16	2.60	0.05	48.01	0.53	3.68	98.53	60	14	42	4	45	20
P-51-98	1646	226	16.45	8.49	< 0.01	11.15	0.13	8.21	0.18	1.26	0.04	48.26	0.48	4.06	98.71	-----	-----	-----	-----	-----	-----
P-53-98	1646	226	17.17	8.56	0.01	8.72	0.72	12.75	0.15	0.52	0.02	44.74	0.16	5.10	98.62	170	28	52	2	18	8
P-54-98	1646	226	16.46	14.06	< 0.01	6.71	0.05	6.06	0.13	0.70	0.03	48.82	0.25	6.03	99.30	30	10	10	2	24	16
P-55-98	1646	226	14.22	6.39	< 0.01	15.55	0.18	5.31	0.25	3.43	0.09	49.80	0.83	2.53	98.58	-----	-----	-----	-----	-----	-----
P-58-98	1646	226	15.45	2.93	< 0.01	13.04	0.11	7.08	0.37	4.08	0.13	49.57	1.47	4.46	98.69	45	12	42	4	93	32
P-62-98	1646	226	17.59	6.07	< 0.01	9.50	0.06	9.53	0.19	3.32	0.03	48.01	0.31	4.29	98.90	25	10	32	2	27	16
P-65-98	1646	226	15.65	9.30	0.01	12.48	0.06	7.17	0.19	1.21	0.06	48.41	0.56	3.68	98.78	35	12	134	2	51	24
P-71-98	1646	226	13.88	8.37	< 0.01	12.24	0.15	5.00	0.29	2.51	0.12	51.19	1.26	3.93	98.94	75	14	80	4	81	32
P-72-98	1646	226	14.36	11.47	< 0.01	10.04	0.09	6.87	0.24	1.33	0.05	49.82	0.68	4.08	99.03	35	12	74	4	42	16
P-73-98	1646	226	14.47	7.41	< 0.01	12.11	0.08	6.43	0.20	2.45	0.08	51.96	0.68	3.03	98.90	35	12	28	2	57	26
5710	1646	226	12.85	6.98	< 0.01	11.57	0.29	5.36	0.20	2.78	0.05	45.21	0.54	12.68	98.51	45	14	36	2	45	22
5711	1646	226	13.24	5.89	< 0.01	10.76	0.23	5.02	0.24	4.13	0.05	49.01	0.53	9.72	98.82	45	14	14	2	45	22
5720	1646	226	14.04	6.70	< 0.01	11.35	0.08	5.38	0.18	3.34	0.04	49.52	0.53	7.99	99.15	40	14	26	2	45	22

CERTIFICATION: ____________

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: PYKE, DALE

31 DELAIR CRES.
THORNHILL, ON
L3T 2M3

Project :
Comments: ATTN:DALE PYKE CC: K.M. CUNNISON

Certificate Date: 12-NOV-1998
Invoice No. : I9834568
P.O. Number :
Account : QOL

CERTIFICATE OF ANALYSIS A9834568

SAMPLE	PREP CODE		Ba ppm	Ce ppm	Cs ppm	Co ppm	Cu ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ga ppm	Hf ppm	Ho ppm	La ppm	Pb ppm	Lu ppm	Nd ppm	Ni ppm	Nb ppm	Pr ppm
P-02-98	299	297	82.5	7.0	< 0.1	49.5	110	4.0	3.1	0.5	1.7	12	1	1.0	3.0	20	0.6	5.0	125	1	1.2
P-09-98	299	297	90.5	4.5	0.3	54.0	55	2.2	1.4	0.1	0.9	9	< 1	0.3	1.5	10	0.3	3.0	175	< 1	0.8
P-11-98	299	297	21.5	6.5	< 0.1	54.5	75	4.0	2.8	0.1	2.5	12	1	0.9	2.5	15	0.5	4.5	195	1	1.0
P-19-98	299	297	10.0	6.0	< 0.1	43.0	70	3.5	2.6	0.3	2.1	14	< 1	0.8	3.0	15	0.6	4.0	65	1	1.0
P-20-98	299	297	105.5	2.5	< 0.1	51.0	110	1.7	1.6	< 0.1	1.7	11	< 1	0.3	1.5	15	0.3	3.0	205	< 1	0.6
P-23-98	299	297	64.0	1.5	< 0.1	49.0	20	0.9	0.8	0.1	0.6	9	< 1	0.1	1.5	10	0.1	1.0	335	< 1	0.5
P-51-98	299	297	16.0	5.0	< 0.1	47.5	75	2.2	2.2	0.5	1.8	10	< 1	0.5	1.5	10	0.3	3.0	145	1	0.8
P-55-98	299	297	46.0	9.5	< 0.1	54.0	90	5.6	4.5	0.8	3.7	17	3	1.3	3.5	15	0.9	7.0	75	2	1.4

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Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: PYKE, DALE

31 DELAIR CRES.
THORNHILL, ON
L3T 2M3

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Page Number : 1-B
Total Pages : 1
Certificate Date: 12-NOV-1998
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CERTIFICATE OF ANALYSIS A9834568

SAMPLE	PREP CODE		Rb ppm	Sm ppm	Ag ppm	Sr ppm	Ta ppm	Tb ppm	Tl ppm	Th ppm	Tm ppm	Sn ppm	W ppm	U ppm	V ppm	Yb ppm	Y ppm	Zn ppm	Zr ppm
P-02-98	299	297	3.6	1.4	< 1	64.4	0.5	0.6	< 0.5	< 1	0.5	< 1	10	< 0.5	300	3.2	23.5	100	49.0
P-09-98	299	297	18.8	0.8	< 1	34.2	< 0.5	0.2	< 0.5	< 1	0.3	< 1	3	< 0.5	140	1.7	11.0	65	24.0
P-11-98	299	297	0.4	0.6	< 1	39.8	< 0.5	0.4	< 0.5	< 1	0.4	< 1	3	< 0.5	230	2.6	24.0	95	42.0
P-19-98	299	297	0.6	0.9	< 1	41.8	< 0.5	0.5	< 0.5	< 1	0.5	< 1	2	< 0.5	250	3.4	26.0	75	36.5
P-20-98	299	297	11.8	0.6	< 1	178.5	< 0.5	0.1	< 0.5	< 1	0.1	6	1	< 0.5	175	1.5	13.0	60	21.0
P-23-98	299	297	7.0	< 0.1	< 1	107.0	< 0.5	0.1	< 0.5	< 1	0.1	< 1	2	< 0.5	105	0.8	8.0	50	11.5
P-51-98	299	297	1.2	1.1	< 1	64.9	< 0.5	0.4	< 0.5	< 1	0.3	< 1	2	< 0.5	195	2.4	17.5	75	33.0
P-55-98	299	297	2.8	1.6	< 1	52.0	0.5	0.8	< 0.5	< 1	0.9	< 1	6	< 0.5	290	5.0	36.0	90	93.0

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Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: PYKE, DALE **
31 DELAIR CRES.
THORNHILL, ON
L3T 2M3

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CERTIFICATE OF ANALYSIS A9834117

SAMPLE	PREP CODE		Au ppb FA+AA
5701	205	226	< 5
5702	205	226	40
5703	205	226	335
5704	205	226	20
5705	205	226	70
5706	205	226	10
5707	205	226	5
5708	205	226	< 5
5709	205	226	30
5712	205	226	60
5713	205	226	30
5714	205	226	30
5715	205	226	250
5716	205	226	300
5717	205	226	165
5718	205	226	10
5719	205	226	5
5721	205	226	30
5722	205	226	30
5723	205	226	5
5724	205	226	35
5725	205	226	< 5
5726	205	226	< 5
5727	205	226	< 5
5728	205	226	< 5
5729	205	226	60
5730	205	226	75
5731	205	226	50
5732	205	226	10
5733	205	226	10
5734	205	226	110
5735	205	226	20
5736	205	226	< 5
5737	205	226	15
5738	205	226	20
5739	205	226	10
5740	205	226	10
5741	205	226	105
5742	205	226	10
5743	205	226	20

CERTIFICATION: Adriana Alexandru

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: PYKE, DALE **

31 DELAIR CRES.
THORNHILL, ON
L3T 2M3

Project :
Comments: ATTN: DALE PYKE

Page Number :2
Total Pages :2
Certificate Date: 29-OCT-1998
Invoice No. : I9834117
P.O. Number :
Account :QOL

CERTIFICATE OF ANALYSIS A9834117

SAMPLE	PREP CODE		Au ppb FA+AA
5744	205	226	< 5
5746	205	226	< 5
5747	205	226	< 5
5748	205	226	< 5
5749	205	226	< 5
5750	205	226	< 5
5751	205	226	< 5
5752	205	226	< 5
5753	205	226	< 5
5754	205	226	< 5
5755	205	226	340
5756	205	226	50
5757	205	226	< 5

CERTIFICATION:

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: PYKE, DALE

31 DELAIR CRES.
THORNHILL, ON
L3T 2M3

Project :
Comments: ATTN: DALE PYKE

Page Number : 1
Total Pages : 1
Certificate Date: 03-NOV-199
Invoice No. : I9834569
P.O. Number :
Account : QOL

CERTIFICATE OF ANALYSIS A9834569

SAMPLE	PREP CODE		Au ppb FA+AA									
P-66-98	205	226	35									
P-67-98	205	226	35									
P-68-98	205	226	20									
P-69-98	205	226	20									

CERTIFICATION: Adriana Alexandre

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) W0060. 00252

Assessment Files Research Imaging

...ections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this ...t work and correspond with the mining land holder. Questions about this collection ...nt and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

42A11SE2014 2.20321 TISDALE 900

PROVINCIAL RECORDING OFFICE - SUDBURY RECEIVED MAY 24 2000 A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

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

2.20321

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

Name: DALE R. PYKE	Client Number: 184975
Address: 31 DelAIR Cres	Telephone Number: 905-731-1913
THORNHILL ONT L3T 2M3	Fax Number: 905-731-1913
Name: DOUGLAS J. LONDRY	Client Number: 160829
Address: 547 LOACH'S ROAD	Telephone Number: 705-523-5479
Sudbury, ONT P3E 2R3	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: GEOLOGICAL	**Office Use**
	Commodity
	Total $ Value of Work Claimed: 28,213
Dates Work Performed: From Day 23 Month 7 Year 1998 To Day 29 Month 01 Year 1999	NTS Reference
Global Positioning System Data (if available) / Township/Area: TISDALE	Mining Division: Porcupine
M or G-Plan Number: G-3976	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: DALE R. PYKE	Telephone Number: 905-731-1913
Address: 31 Delair Cres Thornhill Ont L3T 2M3	Fax Number: 905-731-1913
Name: Kimberly M. Cunnison	Telephone Number: 519-657-1386
Address: 707-540 Proudfoot Lane, London, Ont N6H 1W4	Fax Number:
Name:	Telephone Number:
Address:	Fax Number:

RECEIVED MAY 24 2000 GEOSCIENCE ASSESSMENT OFFICE

4. Certification by Recorded Holder or Agent

I, DALE R. PYKE (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: D. R. Pyke	Date: May 23/2000
Agent's Address: 31 DELAIR Cres Thornhill Ont / Telephone Number: 905-731-1913	Fax Number: 905-731-1913

0241 (03/97)

PROVINCIAL RECORDING OFFICE - SUDBURY RECEIVED MAY 24 2000 3:30 A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

land where work was performed, at the time work was performed. A map showing the contiguous ... form.

000060. C0252 * final res'd 14

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 7827	16 ha	$26,825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8,092	$ 4,000	0	$4,892
1	1115310	1	1998	~~1200~~ 1158	0	1998
2	1182657	1	1198	1600	0	1198
3	1198985	1	598	1600	0	598
4	1193767	1	598	1600	0	598
5	1193768	2	1998	~~2400~~ 2380	0	1998
6	1193845	2	2598	3200	~~1000~~ 930	~~1598~~
7	1226575	1	7484	1200	3200	3084
8	1228934	1	598	400	0	198
9	1229018	1	11,143	1200	7400	2543
10						
11						
12						
13						
14						
15						
Column Totals		11	28,213	14, ~~400~~ 330	11,600	13,883

I, DALE R PYKE (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
D R Pyke	MAY 23/2000

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)	

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MAY 25 2000
GEOSCIENCE ASSESSMENT OFFICE

0241 (03/97)

2.20321

MAY 25 '00 09:57   905 731 1913   PAGE.02

RECORDED HOLDERS (cont'd)

NAME & ADDRESS	Client #	TEL #
DAVID V. MULLEN 735 MELROSE Blvd Timmins Ont P4N 5H9	173713	705-264-5916
Albert Ristimaki P.O. Box 1060 South Porcupine P0N 1H0	187749	705-235-2211

2.20

Ontario | Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W0060.00252

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, this 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 a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.20

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
FIELD MAPPING	51 man days	$300/day	$15,300
REPORT WRITING, OFFICE, PLOT-DRAFT, PROBE ANALYSES	13 MAN days	$300/day	$3,900
SUPERVISING BACKHOE, WASHING O.C.	10 MAN DAYS	$200/day	$2,000
Probe Analyses	3 hrs	$108/hr	$325
Drafting	8 hrs	55/hr	$440
Analyses (Geochem)	82 samples	24.46/sample	$2006
BACKHOE & FLOAT	26.72 hrs	$85/hr	$2271
Associated Costs (e.g. supplies, mobilization and demobilization).			
Polished sections (13 sections)		19.25/section	$250
Miscellaneous Photo copies, color prints, film etc			171
WAJAX (pump) rental 4 DAYS		52.50/DAY	$210
Transportation Costs			
TRAVEL (truck) 4467 km		$0.30/km	$1,340
Food and Lodging Costs			
		Total Value of Assessment Work	$28,213

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MAY 24 2000
GEOSCIENCE ASSESSMENT OFFICE

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 x 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.

Certification verifying costs:

I, DALE R. Pyke (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 Recorded holder/Agent (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature: D. R Pyke | Date: MAY 23/2000

PROVINCIAL RECORDING OFFICE - SUDBURY
RECEIVED
MAY 24 2000
A.M. 3:30 P.M.
7 8 9 10 11 12 1 2 3 4 5 6

0212 (03/97)

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) 415-9845
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

June 23, 2000

DALE RANDOLPH PYKE
31 DELAIR CRESCENT
THORNHILL, ON
L3T-2M3

Submission Number: 2.20321

Dear Sir or Madam:

		Status
Subject: Transaction Number(s):	W0060.00252	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. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

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 BRUCE GATES by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,

Steven B. Beneteau

ORIGINAL SIGNED BY
Steve B. Beneteau
Acting Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 14998
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.20321

Date Correspondence Sent: June 23, 2000 **Assessor:**

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W0060.00252		TISDALE	Approval	

Section:
12 Geological GEOL
10 Physical PSTRIP
18 Other MICRO

Correspondence to:

Resident Geologist
Porcupine

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

DALE RANDOLPH PYKE
THORNHILL, ON

DOUGLAS JAMES LONDRY
SUDBURY, Ontario

DAVID VICTOR MULLEN
TIMMINS, Ontario

ALBERT JOHANNES RISTIMAKI
SOUTH PORCUPINE, Ontario

Correspondence ID: 14998

MAP SYMBOLOGY

Aerial Cableway
Boundary
Bridge
Building
Chimney
Cliff, Pit, Pile
Contours
Control Points
Culvert
Falls
Fence, Hedge, Wall
Feature Outline
Flooded Land
Lock
Marsh or Swamp
Mast
Mine Head Frame
Outcrop
Pipeline
Railroad
Road
Rapids
Reservoir
River, Stream, Canal
Rock
Shoal
Spot Elevation
Tower
Transmission Line
Tunnel
Utility Poles
Wharf, Dock, Pier
Wooded Area

AREAS WITHDRAWN FROM DISPOSITION

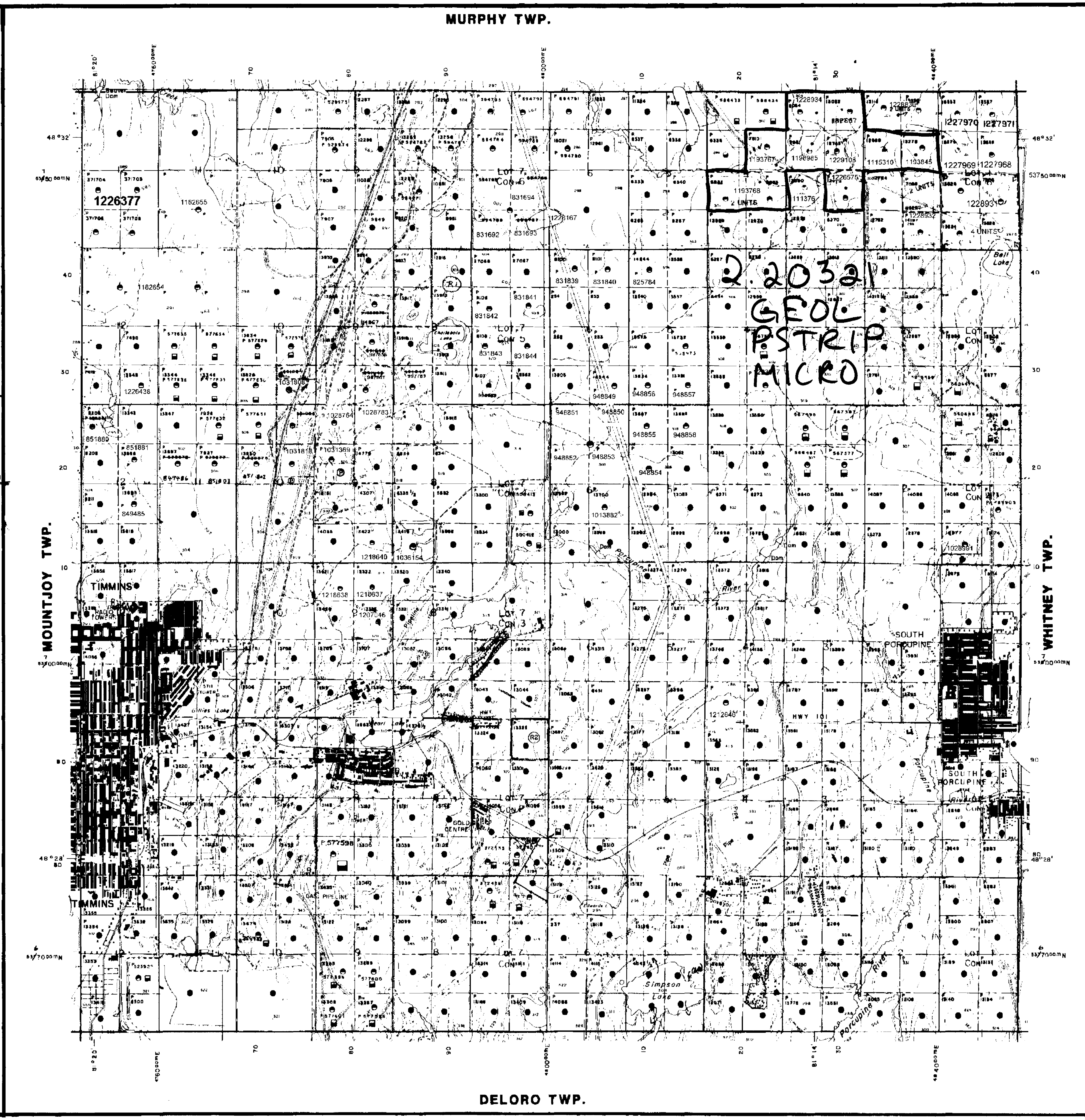
M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

(R2) – THE SURFACE AND MINING RIGHTS ARE WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT RSO 1990, DATED MAY 29, 1996 AT ORDER NO. W-P-23/96 NER

(R1) MINING RIGHTS ONLY WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT RSO 1990 DATED 92-MAY-27 AT 13:20 E.S.T. ORDER NO. W-P-28/92 NER

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.



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	●
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	

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 1:20 000
GRID ZONE: 17

NOTES

REGISTERED PLAN OF SUBDIVISION

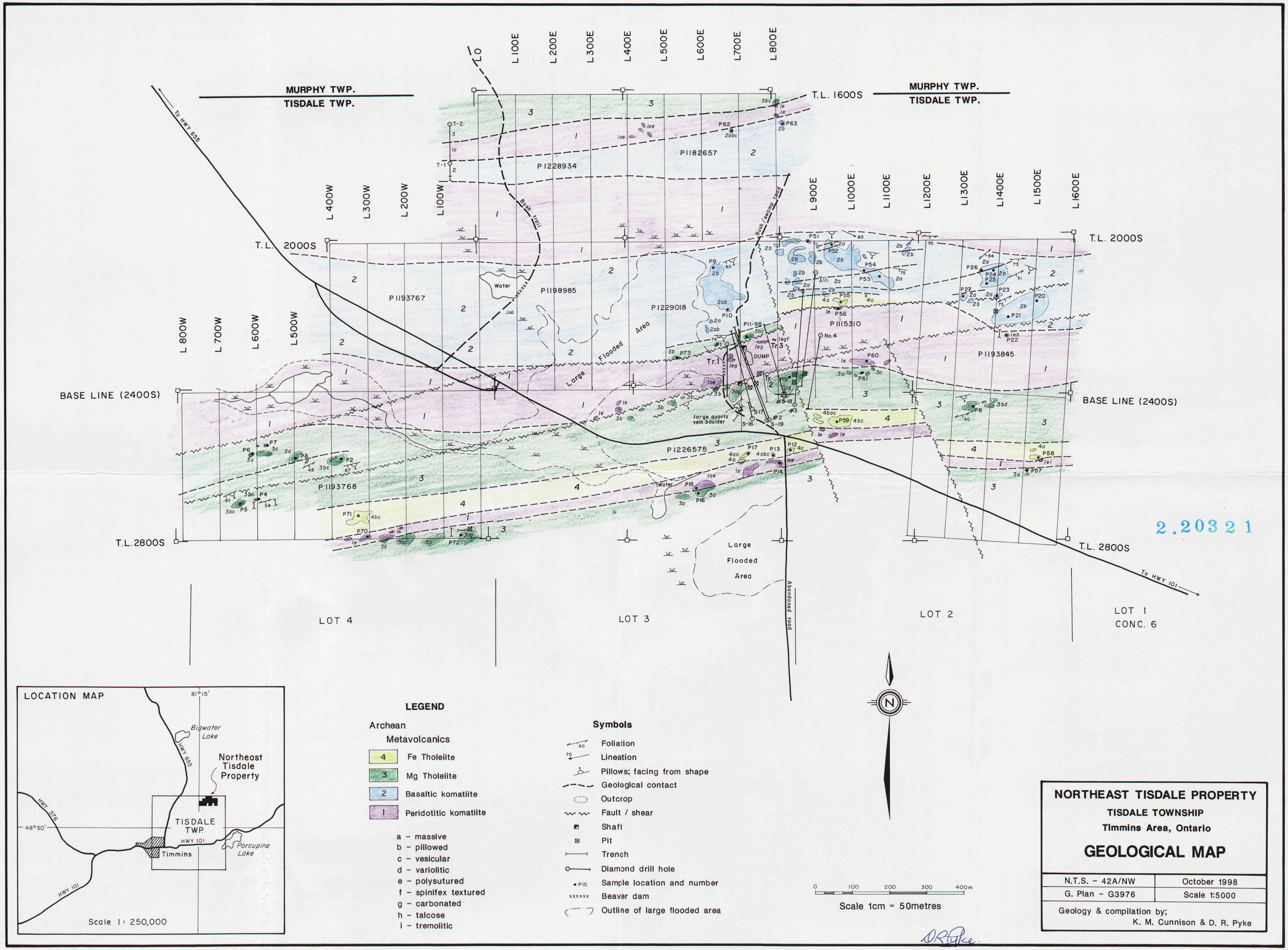
12

TOWNSHIP
TISDALE

M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
COCHRANE

Ministry of Natural Resources, Ontario — Land Management Branch

ORIGINAL COMPILATION JULY 1984 — Number G-3976
REVISED



NORTHEAST TISDALE PROPERTY
TISDALE TOWNSHIP
Timmins Area, Ontario
GEOLOGICAL MAP
N.T.S. – 42A/NW
October 1998
G. Plan – G3976
Scale 1:5000
Geology & compilation by;
K. M. Cunnison & D. R. Pyke
MURPHY TWP.
TISDALE TWP.
T.L. 1600S
T.L. 2000S
BASE LINE (2400S)
T.L. 2800S
To HWY 655
To HWY 101
Bush trail
Bush / swamp road
Abandoned road
Large Flooded Area
Water
LOT 4
LOT 3
LOT 2
LOT 1
CONC. 6
LEGEND
Archean
Metavolcanics
4 Fe Tholeiite
3 Mg Tholeiite
2 Basaltic komatiite
1 Peridotitic komatiite
a – massive
b – pillowed
c – vesicular
d – variolitic
e – polysutured
f – spinifex textured
g – carbonated
h – talcose
i – tremolitic
Symbols
Foliation
Lineation
Pillows; facing from shape
Geological contact
Outcrop
Fault / shear
Shaft
Pit
Trench
Diamond drill hole
Sample location and number
Beaver dam
Outline of large flooded area
Scale 1cm = 50metres
LOCATION MAP
Bigwater Lake
Northeast Tisdale Property
TISDALE TWP.
Timmins
Porcupine Lake
HWY 655
HWY 576
HWY 101
81°15'
48°30'
Scale 1: 250,000
2.20321

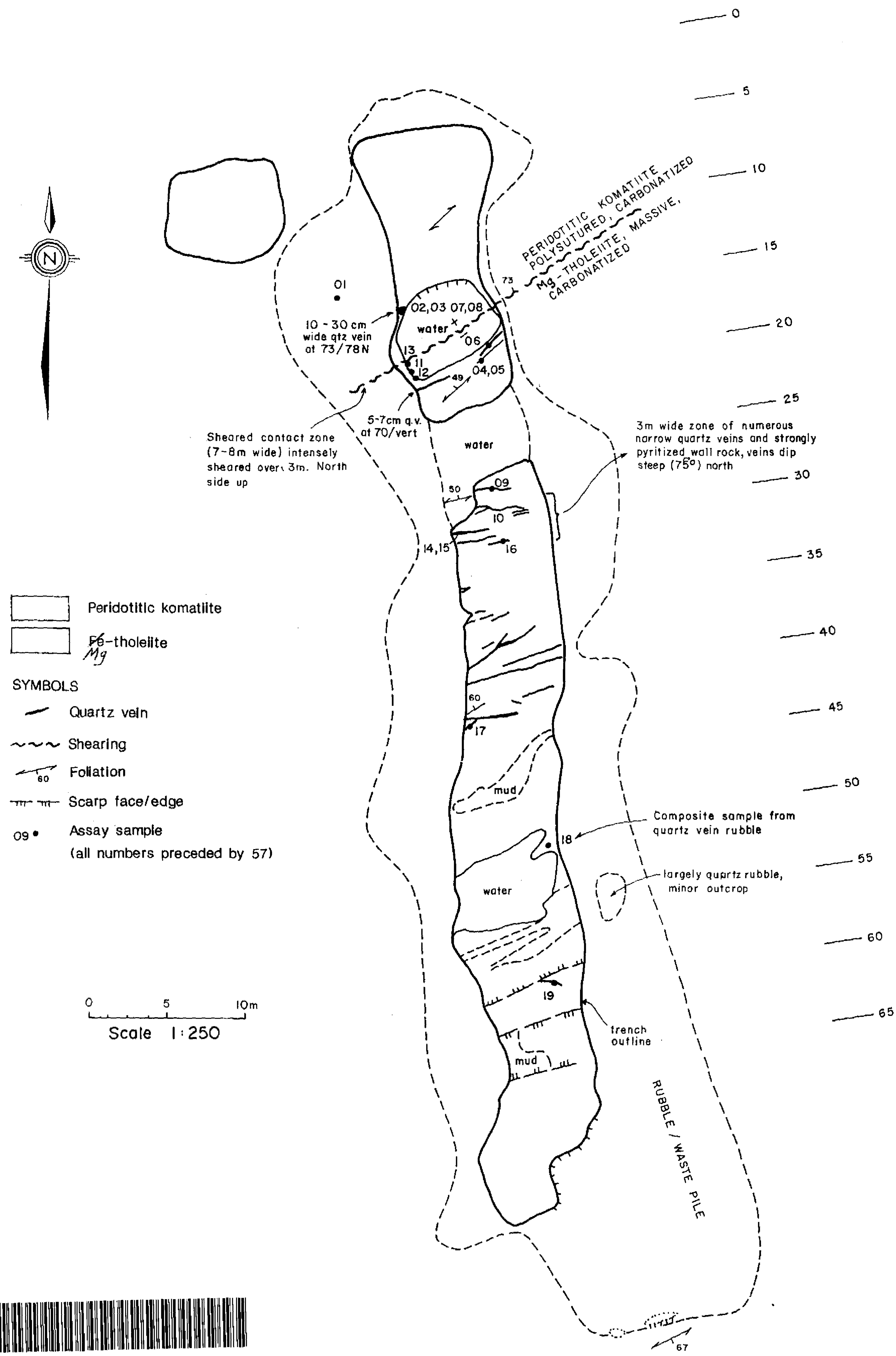


Figure 6.

Trench #2. In South Zone, near Line 800E - 2400S.

Trench crosses sheared contact zone between peridotitic komatiite to north and massive Mg-tholeiite to south.