REPORT ON KUKAGAMI LAKE PROPERTY,
KELLY TOWNSHIP, ONTARIO
NTS 41I/15
PREPARED FOR NICKELDALE RESOURCES INC.

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MINING LANDS SECTION

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SUMMARY

The Nickeldale Resources Inc. Kukagami Lake property, consisting of 37 claims, is situated in Kelly Township, Ontario.

The property is underlain by a medium-grained, green-white, mottled gabbro sill (Nipissing Diabase) which intrudes Huronian metasedimentary rocks belonging to the Gowganda Formation. Prospecting for sulphide-rich zones within the gabbro identified several lithogeochemical anomalies, 1.5 to 6 times background, returning values of up to 175 ppm Ni, 971 ppm Cu, 141 ppb Pd, 51 ppb Pt and 77 ppb Au. The humus geochemical survey outlined 11 multi-element anomalies on the property. All exhibit anomalous Pt-Pd values of up to 45 ppb and 41 ppb, respectively, and are coincident with anomalous or elevated geochemical values in Cu, Ni and Au. The ground geophysical surveys extended and further defined the property geology. The magnetometer survey mapped the regional arcuate trend of the underlying Nipissing Diabase. The magnetic data also suggests that an intrusive feature, possibly an olivine diabase dyke or a subsequent phase of the Nipissing Diabase, has intruded the southwest portion of the claim block. The VLF electromagnetic survey results are inconclusive as many of the anomalous responses are thought to be associated with topographic or conductive edge effects.

It is recommended that further prospecting be carried out in the vicinity of the eleven multi-element humus geochemical anomalies identified on the property during the 1986 program. As most of the property is covered by a thin veneer of humus and glacial overburden, stripping and detailed sampling of the anomalous geochemical areas would be the most cost effective method to investigate the target areas.

INTRODUCTION

This report, prepared by Derry, Michener, Booth & Wahl (DMBW) for Nickeldale Resources Inc., presents the results of a detailed exploration program consisting of humus geochemical sampling, geological mapping, magnetic and VLF electromagnetic surveys carried out on the Kukagami Lake property from October 14th to November 4th, 1986. Additional geophysical surveys on the ice portion of the lake were completed during the period January 15th to 31st, 1987. The work was recommended as Phase I of a two-phase exploration program outlined in the preliminary report prepared by DMBW for Nickeldale Resources in May 1986 (Hartwick, 1986).

PROPERTY LOCATION AND ACCESS

The property comprises 37 claims, located in Kelly Township, Ontario, approximately 45 km northeast of Sudbury and 62 km northwest of North Bay (Figure 1). The property covers most of the large peninsula extending into the northern part of Kukagami Lake. The west shore of Kukagami Lake is easily accessible from an all-weather road which runs north off Highway 17, 3 km west of Callum. The property can then be reached by boat from Loney's Sportsman's Lodge, or from the west shore of Kukagami, which is serviced by a gravel road which continues north from the Sportsman's Lodge.

The east part of the property can be reached by a series of lumber roads which branch off the main access road and follow the east shore of Kukagami Lake. Boat access is easier, however, as these roads are not mapped and their condition is unknown.

Access to the northeast portion of the property is aided by a trail which starts at the south shore of the peninsula at the eastern limits of the large bay.

The property consists of the following 37 unpatented mining claims (see Figure 2):

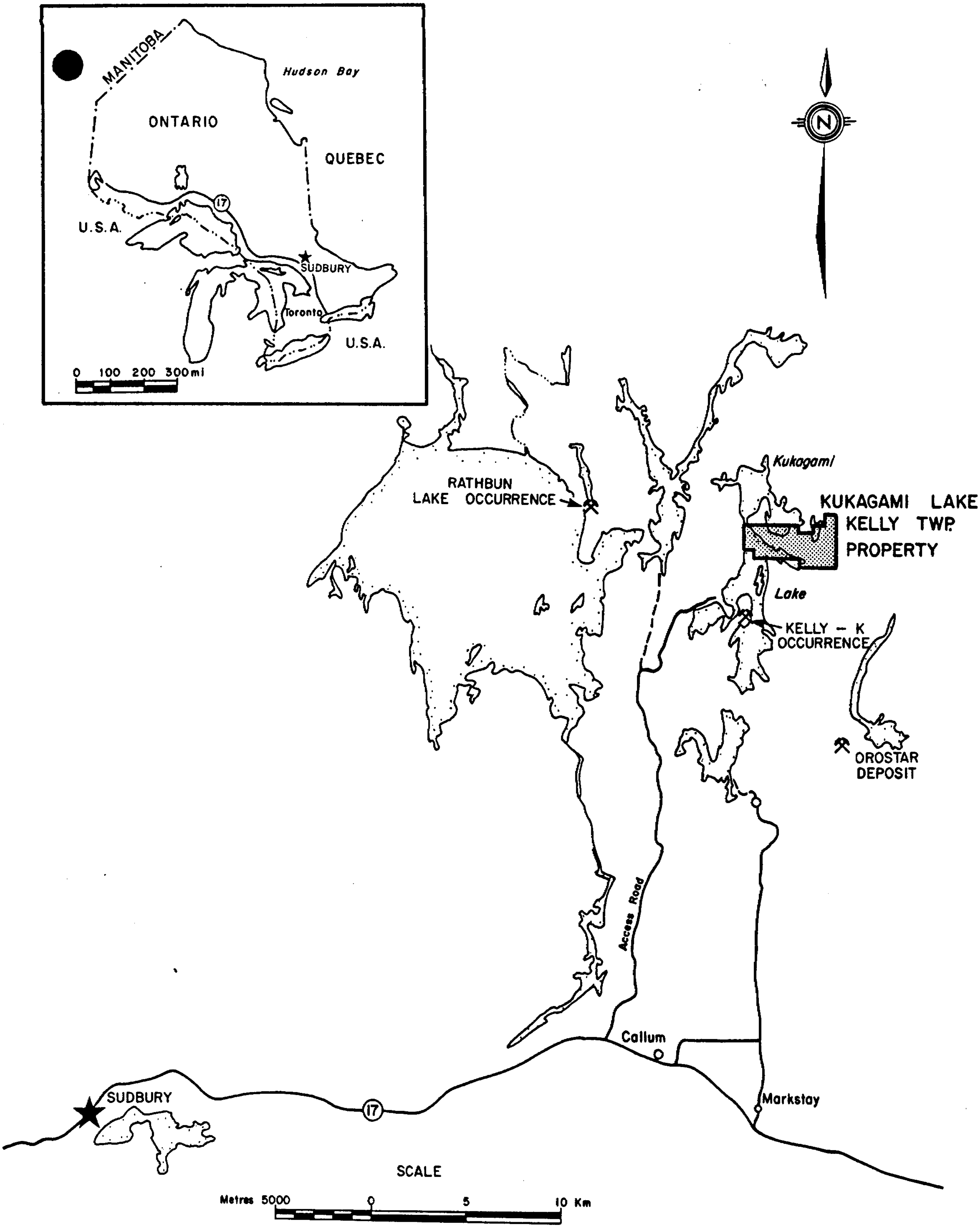


FIGURE 1

-LOCATION MAP-

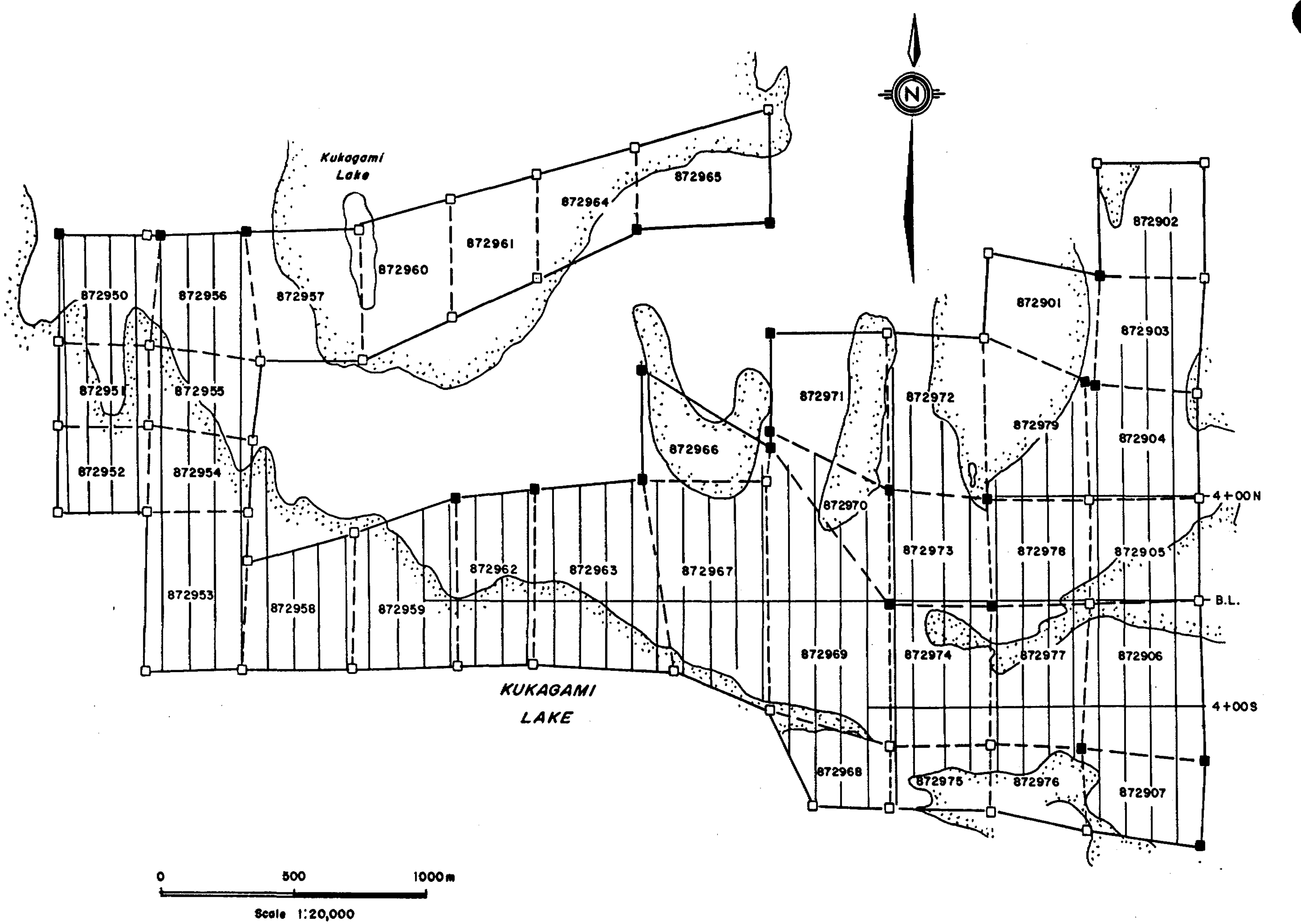


FIGURE 2
CLAIM MAP AND GRID LOCATION

Claim No.	No. of Claims	Date Recorded
872901 - 872907 inc.	8	May 14, 1986
872950 - 872979 inc.	29	May 14, 1986

The southwest portion of the property covers Kukagami Lake itself and was not surveyed during the present program. The claims cover most of the large peninsula in the north part of Kukagami Lake, with the exception of claims 864797 and 864798, 864806 to 864812, which are not owned by Nickeldale Resources Inc. and form a "hole" in the center of the property.

Lines were cut and chained in the north portion (North Grid, lines 0E to 8E), and the south portion (South Grid, lines 0W to 30W) of the claim group. A total of 45 line km were cut, including baselines and tielines. The winter surveys covered the southwest portion of the claim block and totalled about 17 line km of baselines and survey lines.

TOPOGRAPHY AND VEGETATION

The topography of the property is rugged, with a number of large cliffs. The base elevation of the property is approximately 278 m (Kukagami Lake mean water level) and the highest point is about 351 m, in the extreme northeast section of the property. Outcrop is abundant and occurs on most of the topographic highs. Small swamps and creeks occur in the low-lying areas, but the property is generally very well drained.

Mature, open forest covers most of the area. Tree species include white pine, jack pine, birch, poplar, black spruce and cedars and alders in low-lying areas. The southeast portion of the property is clearcut and criss-crossed by numerous skidder trails.

EXPLORATION HISTORY

The first recorded work in the area was carried out in 1896 by Gold Cliff Mines Limited and concentrated on a prominent outcrop ridge running the length of a large peninsula in Kukagami Lake immediately north of the Nickeldale Resources property. Detailed prospecting along the eastern edge of the ridge resulted in the discovery of two auriferous quartz veins. Extensive stripping exposed a series of east-west striking "small veins with rusty quartz and copper pyrites" within diorite (Nipissing gabbro) (Coleman, 1898). One of the quartz veins was reported to contain a significant amount of visible gold prompting Gold Cliff Mines to drive a 55 m long adit from the base of the ridge near the shore line of Kukagami Lake westerly under the surface showing to determine if the veins widen or coalesce near the gabbro-metasediment contact. The adit reportedly intersected two quartz veins, one 12 cm wide at 30 m and the second 60 cm wide at 43 m. Both veins were reportedly gold bearing; however, no assays are available.

In 1959, the Ontario Geological Survey carried out the first regional mapping of Davis and Kelly Townships (Thomson and Card, 1963). The regional mapping (1 inch to ½ mile) identified gross geological features but did not report textural characteristics of either the gabbro or the metasediments.

In February 1969, Kennco Exploration Company completed airborne magnetic and electromagnetic surveys over a five township area including most of Kelly Township. The survey was carried out to locate anomalous conductive zones within favourable geologic environments known to host base metal deposits and to provide a means by which the anomalous zones could be prioritized for ground followup. One of the anomalous areas selected for ground followup included the property now held by Nickeldale Resources Inc.

During the 1969 and 1970 field seasons, Kennco carried out regional geological mapping, trenching and diamond drilling utilizing a light weight Winkie drill and the more conventional diamond drill. Although the assessment files are incomplete, it appears that Kennco's exploration efforts were concentrated in two areas: one designated as the Northwest trench area, located approximately 150 m north of the northwest corner of the property, and the second area designated as the East trench area, located just off the property, approximately 100 m south of Nickeldale claim 872965 (Map 87-04-01). Sixteen holes were drilled for an aggregate total of 1,886 m. Eight of the holes were Winkie holes, each averaging about 30 m in length; the remaining 8 holes averaged about 200 m in length and were presumably drilled with a conventional diamond drill. The drilling encountered several base metal intersections, notably in hole No. 6, located in the east trench area, which reportedly intersected 0.48% Cu and 0.24% Ni over 7.5 m, including 0.59% Cu and 0.30% Ni over 1.8 m. The samples were apparently not analysed for platinum or the platinum group metals (PGMs) (O.G.S. Assessment Files).

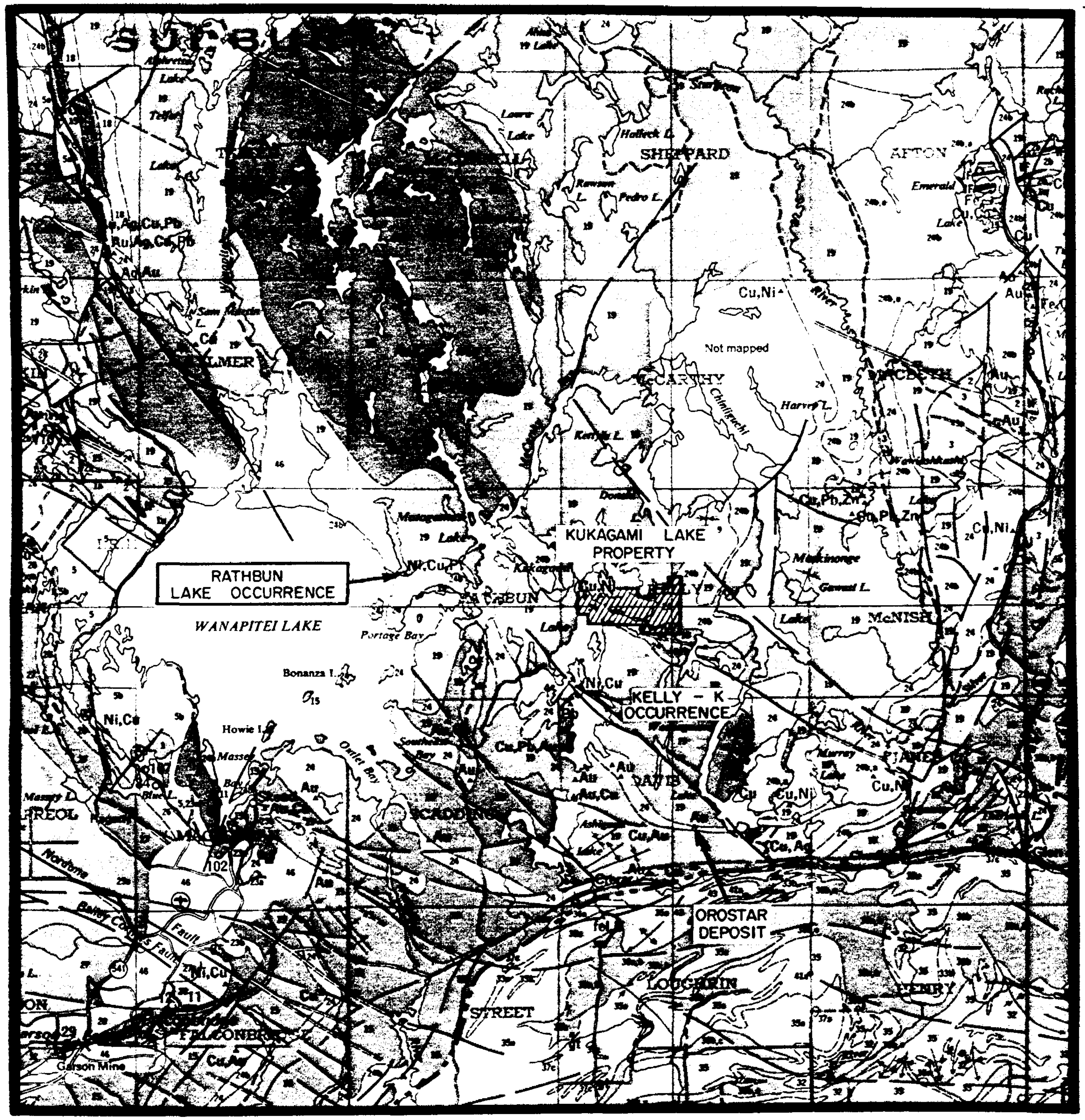
Prior to the present exploration program, no work was carried out on the property since the last recorded work by Kennco Exploration Ltd.

REGIONAL GEOLOGY AND EXPLORATION MODEL

The Kukagami Lake area is predominantly underlain by a metasedimentary sequence of interbedded conglomerate, greywackes and arkoses of the Gowganda Formation which comprises part of the Huronian Cobalt Group of Middle Precambrian age (Figure 3). These rocks typically strike between N35°E and N15°W and dip easterly at 15° to 35°.

The entire metasedimentary sequence has been intruded by mafic intrusive rocks of the Nipissing Diabase suite grading from a relatively unaltered gabbro to a hornblende gabbro, metagabbro and amphibolite. Typically the intrusive is sill-like and unconformably overlies the Gowganda Formation metasediments.

Several northwesterly trending late Precambrian diabase and olivine diabase dykes have also been regionally identified in the Kukagami Lake area.



Scale 1:253,440 or 1 Inch to 4 Miles

Miles 2 1 0 2 4 6 8 10 12 14 16 18 20 Miles

Metres 5000 0 10 20 30 Kilometres

LEGEND

SUPERIOR, SOUTHERN AND GRENVILLE PROVINCES

PRECAMBRIAN

LATE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS[b]

43 *Unsubdivided.*
43a *Diabase, quartz diabase dikes.*
43b *Olivine diabase dikes.*
43c *Gabbro, norite, pyroxenite, peridotite stocks.*
43d *Partly serpentinized peridotite and minor olivine gabbro stocks.*

ALKALIC ROCK-CARBONATITE COMPLEXES[c]

42a *Carbonatite.*
42b *Nepheline and alkalic syenites and associated mafic and ultramafic rocks.*
42c *Fenite.*

INTRUSIVE CONTACT

GRENVILLE PROVINCE

FAULT CONTACT

SUPERIOR AND SOUTHERN PROVINCES

MIDDLE PRECAMBRIAN

LATE MAFIC INTRUSIVE ROCKS

29 *Unsubdivided.*
29a *Matagabbro, trap, lamprophyre.*
29b *Peridotite, pyroxenite, and amphibolite with minor diorite and trondhjemite.*

LATE FELSIC INTRUSIVE ROCKS[d]

28 *Unsubdivided.*
28a *Quartz monzonite with minor granite, granodiorite and trondhjemite.*
28b *Trondhjemite, granodiorite, and quartz diorite with minor diorite and gabbro.*

INTRUSIVE CONTACT

SUDBURY NICKEL IRRUPTIVE

27 *Granophyre.*

26 *Norite-gabbro, quartz norite, quartz gabbro and transition, sublayer, and offset rocks.*

INTRUSIVE CONTACT

WHITEWATER GROUP

CHELMSFORD FORMATION

25a *Greywacke, minor siltstone.*

ONWATIN FORMATION

25b *Carbonaceous slate.*

ONAPING FORMATION

25c *Lapilli tuff, breccia, felsic flows and intrusions, and minor carbonate and cherty rocks.*

NIPISSING DIABASE

24 *Unsubdivided.*
24a *Pyroxene gabbro, minor pyroxenite.*
24b *Hornblende gabbro, metagabbro, amphibolite.*
24c *Granophyre.*

FELSIC INTRUSIVE ROCKS

23a *Albite granite, syenite, and granophyre[f].*
23b *Porphyritic quartz monzonite, and granite[g].*

INTRUSIVE CONTACT

HURONIAN SUPERGROUP[h]

COBALT GROUP

BAR RIVER FORMATION

22 *Quartz sandstone, hematitic siltstone, and sandstone.*

GORDON LAKE FORMATION

21 *Siltstone, argillite, sandstone.*

LORRAIN FORMATION

20 *Quartz sandstone, micaceous and aluminous quartz sandstone, quartz-feldspar sandstone, and minor conglomerate, and siltstone.*

GOWGANDA FORMATION

19 *Conglomerate, sandstone, siltstone, and argillite.*

QUIRKE LAKE GROUP

SERPENT FORMATION

18 *Quartz-feldspar sandstone with minor siltstone, calcareous siltstone, and conglomerate.*

ESPANOLA FORMATION

17 *Limestone, dolostone, siltstone, and sandstone.*

BRUCE FORMATION

16 *Conglomerate with minor sandstone and siltstone.*

HOUGH LAKE GROUP

MISSISSAGI FORMATION

15 *Quartz-feldspar sandstone with minor siltstone, argillite, and conglomerate.*

PECORS FORMATION

14 *Siltstone, argillite, and greywacke with minor quartz-feldspar sandstone.*

RAMSAY LAKE FORMATION

13 *Conglomerate with minor sandstone and siltstone.*

ELLIOT LAKE GROUP

McKIM FORMATION

12 *Siltstone, greywacke, and argillite with minor quartz-feldspar sandstone.*

MATINENDA FORMATION

11 *Quartz-feldspar sandstone with minor conglomerate and siltstone.*

VOLCANIC ROCKS[j]

SALMAY LAKE FORMATION

10 *Mafic metavolcanics with minor intermediate and felsic metavolcanics, mafic intrusions and intercalated metasediments.*

COPPER CLIFF FORMATION

9 *Felsic and intermediate metavolcanics with minor felsic intrusions and intercalated metasediments.*

STOBIE FORMATION

8 *Mafic metavolcanics and intrusions with abundant intercalated metasediments including greywacke, siltstone, pyritic metasediments and quartz-feldspar sandstone.*

ELSIE MOUNTAIN FORMATION

7 *Mafic metavolcanics and intrusions with minor intercalated metasediments and felsic pyroclastics and felsic intrusions.*

MAFIC INTRUSIVE ROCKS

6 *Unsubdivided.*
6a *Gabbro, anorthositic gabbro, gabbroic anorthosite and metamorphosed equivalents.*
6b *Metagabbro and porphyritic metagabbro dikes.*

UNCONFORMITY, INTRUSIVE CONTACT

EARLY PRECAMBRIAN

FELSIC INTRUSIVE AND METAMORPHIC ROCKS

5 *Unsubdivided granitic and migmatitic rocks.*
5a *Quartz monzonite, granite, granodiorite, trondhjemite, syenite and minor pegmatite and aplite.*
5b *Predominantly migmatitic metavolcanics and metasedimentary rocks.*
5c *Trondhjemite, granodiorite, and minor quartz monzonite and quartz diorite.*
5d *Felsite, quartz and feldspar porphyry, trondhjemite, granodiorite.*

INTRUSIVE CONTACT

MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS

4 *Unsubdivided.*
4a *Quartz diorite, diorite, gabbro.*
4b *Pyroxenite, peridotite, dunite, serpentinite.*
4c *Lamprophyre, carbonatite dikes and intrusive breccia[k].*

INTRUSIVE CONTACT

METASEDIMENTS

3 *Greywacke, siltstone, chert, and arkose with minor metavolcanic rocks, and derived migmatites.*

METAVOLCANICS

FELSIC TO INTERMEDIATE METAVOLCANICS

2 *Unsubdivided.*
2a *Phyolite, dacite flows with minor felsic intrusions and felsic pyroclastics.*
2b *Felsic to intermediate pyroclastics —tuff, breccia, and agglomerate—with minor flows, metasediments and intrusive rocks, and derived migmatites.*

MAFIC TO INTERMEDIATE METAVOLCANICS

1 *Unsubdivided.*
1a *Basalt and andesite flows with minor mafic pyroclastics and mafic intrusions.*
1b *Interflow metasediments and mafic pyroclastics.*

IF *Iron formation and ferruginous chert (associated with units 3, 32, 33, 34, 35).*

(from OGS Map 2362)

FIGURE 3

-Geology of the Wanapitei Lake–Kukagami Lake Area-

The mineralization currently known in the Wanapitei-Kukagami Lakes area consists of numerous base and precious metal occurrences hosted by Nipissing gabbro. The mineralized zones exhibit a close spatial relationship to the folds and undulations in and along the gabbro-metasediment contact; the most noteworthy being the Rathbun Lake Ni-Cu-Pt occurrence.

The Rathbun Lake occurrence is located in the northwest quarter of Rathbun Township approximately 1 km north of Portage Bay on Lake Wanapitei, about 9 km west of the Nickeldale Kelly Township property (Figure 3). The Rathbun Lake occurrence is a massive sulphide zone up to 30 m long and between 30 cm and 60 cm wide (Koulomzine, 1955), hosted by Nipissing gabbro in proximity to the contact with the Gowganda metasediments.

The mineralogy of the zone, as reported by Dressler (1982) consists of chalcopyrite, pyrrhotite, magnetite and minor covellite within a matrix of plagioclase, quartz, epidote, chlorite and minor biotite. Selected representative grab samples by Dressler returned the following range of values:-

Sample Description	Pt oz./ton	Pd oz./ton	Au oz./ton	Ag oz./ton	Cu %	Ni %
Representative Massive Sulphide Grab Sample	0.056 to 1.08	0.17 to 34.6	0.002 to 0.36	0.17 to 1.98	5.11 to 19.92	0.11 to 2.86
Representative Disseminated Sulphide Grab Sample	0.07	0.16	N.R.	N.R.	1.31	0.29

N.R. - Not Reported.

The results of trenching and diamond drilling on the Rathbun property carried out by Dolmac Mines in 1959 indicate that the higher grade sections occur in proximity to folds and undulations in and along the gabbro-metasediment contact. This observation, combined with the opinion of Naldrett (see Hartwick, 1986), suggests that the Rathbun occurrence represents a hydrothermal base and precious metal deposit that has been concentrated along syn- or epimagmatic structural weakness commonly associated with intrusive margins.

Other similar noteworthy occurrences include the Kelly-K and Orostar deposits (Figure 3).

Geological mapping of the property concentrated on the following:-

1) accurately mapping the location of the contact between the Nipissing Gabbro and Gowganda Formation metasediments,

2) prospecting and sampling along the contact for Rathbun Lake type Ni-Cu-Pt occurrences,

3) prospecting and sampling sulphide-rich areas in the Gabbro, and

4) mapping any systematic structural or textural changes in the Gabbro which could be related to mineralization, such as layering, grain size variation or shearing.

PROPERTY GEOLOGY AND MINERALIZATION

The Nickeldale Kukagami Lake property is underlain by a sill of Nipissing Diabase (Gabbro), which intrudes Huronian metasedimentary rocks belonging to the Gowganda Formation.

Gowganda Formation Metasediments

The Gowganda Formation sediments which the Nipissing Diabase intrudes on the Nickeldale property are comprised of three different lithologies. Sediments to the south of the gabbro on the south grid are predominantly matrix supported pebble conglomerates. The conglomerate has a matrix of quartz-rich, black to grey silt-sandstone, containing rounded granitoid clasts from 1 cm to 6 cm in size. Minor amounts of pyrite occur in both clasts and matrix at several locations. Pebble conglomerate is interbedded with black to grey silt-sandstone, similar to the conglomerate matrix.

The sediments which occur on the northwest contact of the sill on the North Grid are white-grey, fine-grained quartzite.

Nipissing Diabase

The Nipissing Diabase which outcrops on the central portion of the property is a medium-grained, green-white mottled gabbro composed of feldspar and pyroxene laths approximately 1 mm to 2 mm long. The rock has a typical gabbroic, felted appearance caused by interlocking crystals of plagioclase feldspar and pyroxene. Black-green pyroxene crystals often weather to a rusty brown colour seen on many weathered surfaces. Large, 1 mm to 3 mm black pyroxene crystals also form secondary fracture in-fillings in small fractures and joints and form distinctive patterns on many of the large cliff faces on the property. Light green epidote occurs in a few areas, forming tiny veinlets in the gabbro. Rare quartz veins from 2 mm to 5 mm were seen in a few locations.

The gabbro is generally massive and unfoliated. One small shear, approximately 4 cm wide, trending 110^{o} (sinistral), was noted in the eastern part of the property. The major structural feature of the gabbro are two joint sets which occur throughout the sill. The intensity and spacing of the joints does not appear to bear any relation to the distance from the contact with the metasediments. The most pervasive joint set trends roughly northwest-southeast, and the second, less pervasive set trends roughly northeast-southwest. Joint spacing varies greatly, from 5 cm to several meters.

In the eastern part of the property, the gabbro has a lighter, more dioritic appearance, and contains a small amount of pinkish K-feldspar. Sample 028 is typical of the slightly dioritic rock found from line 0W to line 8W on the South Grid (see geochemical analysis next page).

Generally, the gabbro within the property boundaries is relatively homogenous. Grain size ranges from pegmatitic to fine-grained, but is generally medium-grained, and does not vary systematically to indicate layering or chill margins. Pegmatitic phases of the gabbro are commonly found in small pockets, with pyroxene crystals up to 3 cm. Both fine and coarse-grained phases often occur within the same outcrop. There is no gradual and systematic coarsening of grain size, change in composition or structural features away from the contact with the metasediments.

Contact with Metasediments

The location of the gabbro/metasediment contact was mapped in detail and the revised position of the contact is shown in Maps 87-04-01 and 87-04-02. The contact generally occurs over approximately 25 m although the actual contact is only well exposed in the central area of the South Grid (lines 24, 25, 26W). In this location the contact is not a sharp intrusive contact and appears to consist of an area containing large (meters wide) inclusions of metasediments (matrix-supported pebble conglomerate) in the intruding gabbro. The gabbro close to the contact is generally medium-grained and a distinct chill margin could not be identified.

Most gabbro outcrops close to the contacts of the sill were examined, but no sulphide mineralization was found specifically related to the contact. A number of core boxes containing packsack drill core were located close to the southern contact at line 25W; however, the drill pipe was not located. The core was unmineralized, entirely black, fine-grained siliceous siltstone, with the rare granule or pebble included.

Mineralization

Prospecting for sulphide-rich areas in the gabbro yielded ten grab samples containing from 1% to 3% sulphides. Eight samples from the South Grid and one from the North Grid were analyzed and the results are presented below. These grab samples all consisted of medium-grained gabbro with from 1% to 3% sulphides, including pyrite, chalcopyrite, and pyrrhotite. Except for the presence of sulphides, these samples had no other distinguishing textural characteristics, nor does sulphide content appear to be related to distance from the contact.

Sample	Location	Ni(ppm)	Cu(ppm)	Pd(ppb)	Pt(ppb)	Au(ppb)
011	L1000W,100N	167	1000	10	15*	23
012	L1000W,110N	52	144	2	15*	2
013	L1000W,325N	175	971	141	51	77
014	L1200W,75N	45	209	3	15*	2
015	L800W,125N	50	155	8	15*	8
016	L800W,50N	39	131	2*	15*	7
026	N of 22W on claim line	134	368	85	26	13
027	L100W,1350N	57	141	224	54	15
031	L825E,0N	214	605	118	84	32

* - Limit of detection of assay method.

In order to determine background values, four samples of typical, unmineralized (non-sulphide bearing) gabbro were also taken and returned the following values:-

Sample	Location	Ni(ppm)	Cu(ppm)	Pd(ppb)	Pt(ppb)	Au(ppb)
001	L2150W,85S	61	89	12	15*	19
006	L1910W,120S	39	106	14	15*	7
008	L1735W,55N	45	146	15	15*	5
028	L3000W,360N	23	32	5	15*	2

* - Limit of detection of assay method.

In addition, Finn et al. (1982) gives background values for non-sulphide bearing gabbronorite of the Wanapitei Intrusion, approximately 9 km west of the Kukagami Lake property. The non-sulphide bearing samples in his study contained less than 2 to 20 ppb Au, less than 20 to 35 ppb Pt and less than 10 to 70 ppb Pd.

From this comparison of mineralized and unmineralized gabbro it appears that background platinum content in the intrusion is very low (less than 15 ppb.) Samples 013, 026, 027 and 031 returned platinum values from 1.5 to 6 times background.

It is significant that the highest Pt value was returned from Sample 031, which contains slightly uneven, "blebby" concentrations of sulphides, as opposed to the more evenly disseminated sulphides in the other samples with lower Pt values. The blebby texture of the sulphide indicates it is of primary magmatic origin, and is an important feature because of its association with anomalous Pt values in the gabbro (see Hartwick, 1986).

No significant mineralization was found in the Gowganda metasediments. One sample of typical pebble conglomerate was analyzed and returned the following background values:-

Sample	Location	Ni(ppm)	Cu(ppm)	Pd(ppb)	Pt(ppb)	Au(ppb)
030	L0W,800S	51	64	less than 2	less than 15	3

HUMUS GEOCHEMICAL SURVEY

Humus samples for geochemical analysis were taken at 50 m intervals on the North and South grids. A total of 733 samples were collected, dried and analysed for nickel, copper, palladium, platinum and gold. Nickel and copper were analyzed using atomic absorption with lower detection limits of 2 ppm and 1 ppm respectively. Palladium, platinum and gold were analyzed by fire assay/DC Plasma methods with lower detection limits of 2 ppb, 15 ppb, and 1 ppb, respectively (see Maps 87-0s4-03 to 87-04-12, inclusive).

Background values for each element were established by considering the range of values found across the grid.

Background platinum, palladium and gold content of humus collected from the Kukagami Lake grids appear to be similar to Finn's range of values in gabbronorite (discussed previously). Background platinum content of the humus appears to be less than the lower detection limit (less than 30 or 15 ppb) and palladium is slightly higher, with background values from 20 to 25 ppb. The background concentration of gold in the humus ranges from 5 to 10 ppb. Nickel and copper background values have larger ranges, with a "normal" range of copper values being between 300 and 400 ppm and nickel between 100 and 200 ppm.

The highest platinum value obtained from the humus was 86 ppb, approximately 6 times the background value of 15 ppb. Seventeen humus samples contained more than 40 ppb platinum, or 2 to 3 times background.

Although little is known about the behaviour of platinum in the surface environment it is clear that these humus samples indicate areas of anomalous platinum concentrations.

During a previous property visit by Hartwick, a small number of humus samples were analysed and compared with assays of surface grab samples over a mineralized trench. The following comments were made (Hartwick, 1986):-

> "There appears to be an excellent correlation between the Pd, Cu and Ni content of the humus and rock samples. The palladium content of the humus was essentially identical to that of the rock. This one-to-one correspondence is highly significant because it indicates that a detailed geochemical humus sampling survey will be a viable exploration medium on the property."

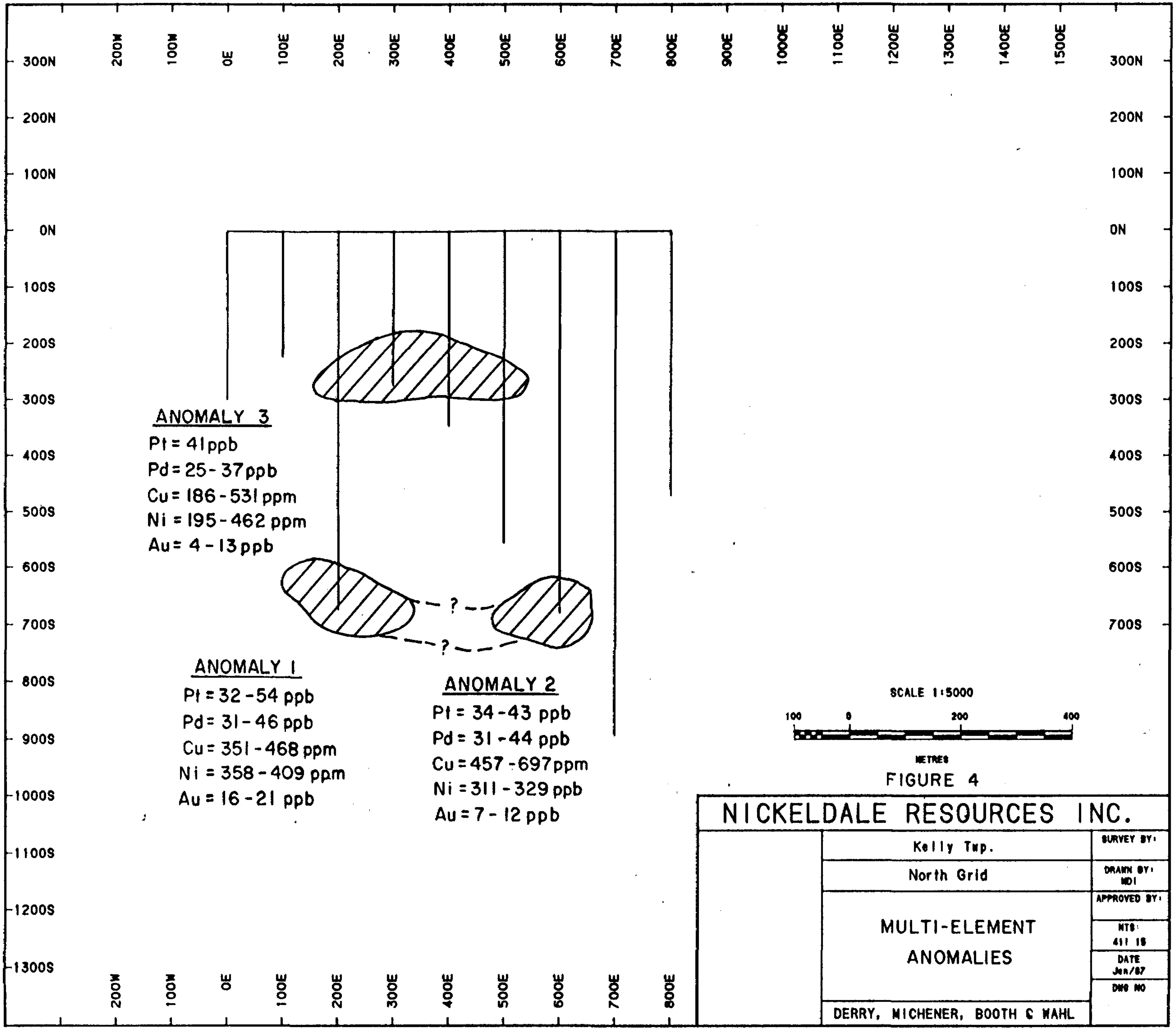
The definition of significant geochemical anomalies focused on areas where both platinum and palladium were above background levels. If these areas were also defined by elevated copper, nickel and gold values they were outlined and numbered as "multi-element" anomalies. Three anomalies from the North

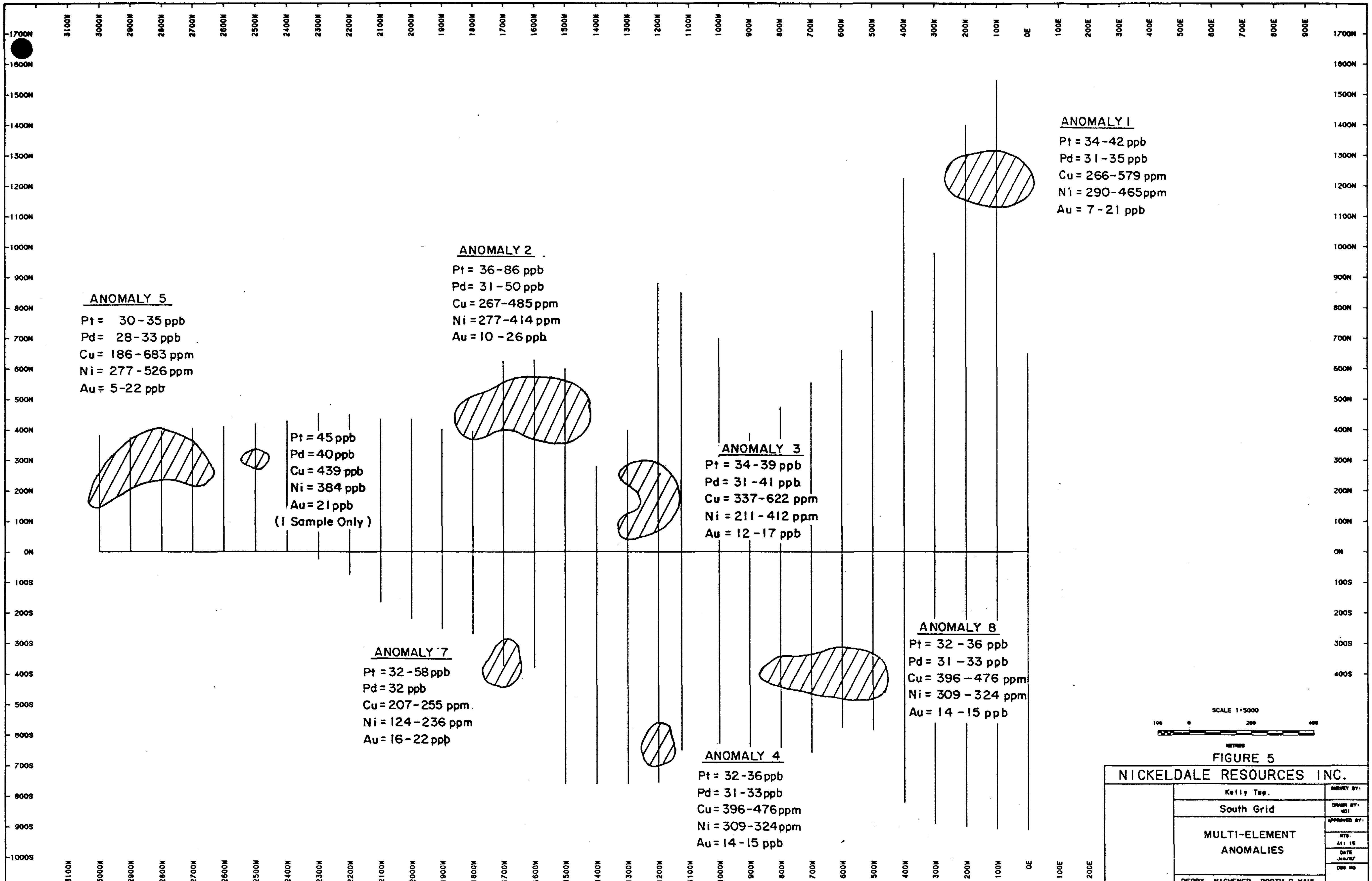
Grid and eight anomalies from the South Grid are shown in Figures 4 and 5.

Two multi-element anomalies can be seen clearly on the North Grid and a third, broader and less well defined area is also outlined. Anomaly 1 occurs at the south end of line 200E, on the shore of Kukagami Lake. Platinum and gold values are 2 to 3 times background and palladium values are 2 to 4 times background. Nickel and copper values are also elevated 1.5 to 2 times background. Anomaly 2 is similar but copper values are higher - 2 times background - and gold is only slightly above background (7 to 12 ppb). The third multi-element anomaly on the North Grid is a broader area occurring between lines 200E and 500E, from 200S to 300S. Platinum values range between 31 and 41 ppb (2 times background), and Pd, Ni and Cu values are all elevated, at least in parts of this broad area. Gold values are generally not elevated in Anomaly 3 and range from 4 to 11 ppb.

Eight multi-element anomalies were identified on the South Grid, in which platinum and at least three other elements were found to be considerably above background values.

Anomaly 1, located between lines 100W and 200W from 1200N to 1300N, contains platinum values ranging from 34 to 42 ppb. Copper and nickel are also elevated above background and palladium values of 31 to 35 ppb (1.5 times background) occur in the area. Only one significantly high gold value occurs in the area covered by Anomaly 1 (21 ppb). The second anomaly is located between lines 1600W and 1700W, from 450 to 650N. Five platinum values from 2 to 6 times background are located in this area. Palladium values range from 32 to 50 ppb, also 2 to 3 times background. Gold values range from 17 to 30 ppb, and nickel and copper are also 2 times background. Anomaly 3, located between lines 1200W and 1300W, from 100N to 300N, contains 6 platinum values greater than 2 times background (ranging from 34 to 39 ppb). Gold is also slightly elevated, ranging from 14 to 17 ppb. Palladium values range from 31 to 41 and nickel and copper values are also high in a few samples. The platinum and palladium anomaly is broader in area than the anomalous values of the other elements.


ANOMALY 3
Pt = 41ppb
Pd = 25 - 37ppb
Cu = 186 - 531 ppm
Ni = 195 - 462 ppm
Au = 4 - 13 ppb
ANOMALY 1
Pt = 32 - 54 ppb
Pd = 31 - 46 ppb
Cu = 351 - 468 ppm
Ni = 358 - 409 ppm
Au = 16 - 21 ppb
ANOMALY 2
Pt = 34 - 43 ppb
Pd = 31 - 44 ppb
Cu = 457 - 697 ppm
Ni = 311 - 329 ppb
Au = 7 - 12 ppb
SCALE 1:5000
METRES
FIGURE 4
NICKELDALE RESOURCES INC.
Kelly Twp.
North Grid
MULTI-ELEMENT
ANOMALIES
DERRY, MICHENER, BOOTH & WAHL
SURVEY BY:
DRAWN BY: MDI
APPROVED BY:
NTS: 41I 15
DATE Jan/87
DWG NO


ANOMALY 1
Pt = 34-42 ppb
Pd = 31-35 ppb
Cu = 266-579 ppm
Ni = 290-465ppm
Au = 7-21 ppb
ANOMALY 2
Pt = 36-86 ppb
Pd = 31-50 ppb
Cu = 267-485 ppm
Ni = 277-414 ppm
Au = 10-26 ppb
ANOMALY 5
Pt = 30-35 ppb
Pd = 28-33 ppb
Cu = 186-683 ppm
Ni = 277-526 ppm
Au = 5-22 ppb
Pt = 45 ppb
Pd = 40 ppb
Cu = 439 ppb
Ni = 384 ppb
Au = 21 ppb
(1 Sample Only)
ANOMALY 3
Pt = 34-39 ppb
Pd = 31-41 ppb
Cu = 337-622 ppm
Ni = 211-412 ppm
Au = 12-17 ppb
ANOMALY 7
Pt = 32-58 ppb
Pd = 32 ppb
Cu = 207-255 ppm
Ni = 124-236 ppm
Au = 16-22 ppb
ANOMALY 8
Pt = 32-36 ppb
Pd = 31-33 ppb
Cu = 396-476 ppm
Ni = 309-324 ppm
Au = 14-15 ppb
ANOMALY 4
Pt = 32-36 ppb
Pd = 31-33 ppb
Cu = 396-476 ppm
Ni = 309-324 ppm
Au = 14-15 ppb
SCALE 1:5000
100 0 200 400
FIGURE 5
NICKELDALE RESOURCES INC.
Kelly Twp.
South Grid
MULTI-ELEMENT ANOMALIES
SURVEY BY:
APPROVED BY:
DATE Jan/87
DWG NO
DERRY, MICHENER, BOOTH & WAHL

Anomaly 4 contains elevated platinum and palladium values, with gold from 14 to 15 ppb, and only minor copper and nickel anomalies. It is located at line 1200W between 600 and 700S. Background or slightly above background gold values occur. Anomaly 5 occurs between line 2900W and 3000W from 100N to 300N. The high palladium values define the anomaly and consist of 8 values between 28 and 35 ppb. Platinum values of 32, 33 and 35 ppb are located in the east part of the anomaly. Smaller (in area) nickel and copper anomalies also occur within Anomaly 5. Three gold values, 2 to 3 times background, occur.

Anomaly 6 is a very distinct but small anomaly consisting of only one sample. All five elements are elevated above their respective background values. The values for the sample located at line 2500W, 300N are as follows: Pt = 45 ppb; Pd = 40 ppb; Au = 21 ppb; Ni = 384 ppm and Cu = 439 ppm. Anomaly 7 is a weaker anomaly centered on line 1700W at 300S. Platinum values of 32 and 53 ppb and two palladium values of 32 ppb are located in this small anomaly. Gold, nickel and copper are also slightly elevated above background.

Anomaly 8 stretches from line 500W to 800W at approximately 400S. Three platinum values from 37 to 41 ppb and five palladium values from 28 to 35 ppb define this broad anomaly. Nickel and copper values are also approximately 2 times background values. Gold is background or slightly above background.

GEOPHYSICAL SURVEYS

Magnetic Survey

A Scintrex MP-2 proton magnetometer was used to measure the total magnetic field. Instrument specifications are contained in Appendix II. Readings were taken every 25 m along the grid lines except in areas of high magnetic gradients where a station interval of 12.5 m was maintained. A magnetic base station recorder was used to monitor the diurnal variations for the summer survey. Diurnal correction control for the winter survey was obtained by looping through pre-established base stations at intervals that did not exceed one and one half hours. Survey line separation was 100 m. A total of 46.1 line kilometres of magnetic data were obtained in this way for a total of approximately 2,000 readings.

The results were corrected for diurnal variations. A regional total field value of 58,000 nanotesla (nT) was subtracted from all readings. The resulting values were plotted and contoured at an interval of 250 nT and are shown on maps 87-04-13 and 87-04-14 at a scale of 1:5,000 (see maps in pocket).

Background magnetic values are approximately 58,400 nT. Except for one major feature in the southwest part of the claim block, magnetic responses tend to be erratic with local anomalous zones having amplitudes from 200 to 400 nT above background. In a few areas, especially on the extreme east boundary of the area, there are isolated anomalies of 600 to 1000 nT above background. As a whole, these anomalies form an arcuate trend pattern with east to east northeast directions indicated in the east part of the survey grid, east-west trends in the central part, and northwest to west northwest trends in the west part of the property.

The only magnetic feature of any significant extent is a west northwest trending anomaly located at the extreme southwest part of the property over the water portion of the claims. This feature has an average amplitude of 1000 nT above background with portions exceeding 1600 nT above background.

The asymmetrical contour patterns of all the anomalies on the property suggest that the regional dips are southerly. (i.e. southeast, south or southwest).

The magnetic survey has mapped the general regional arcuate trend of the underlying Nipissing Diabase sill rocks within the Gowganda sediments. The discontinuous, rather spotty magnetic responses throughout the land portion of the grid reflects the erratic magnetite content of the underlying gabbroic rocks.

The more definitive magnetic response in the southwest part of the claim block is not typical of the magnetic responses seen on the land. The amplitude and characteristics of this anomaly suggest that the source is probably a late intruding dyke structure rather than a comformable sill body. An outcrop of olivine diabase on islands near this anomaly is indicated on OGS map 2037. Alternatively, the feature, conceivably, might be part of the same sill complex but may represent an earlier or later intrusive phase.

VLF Electromagnetic Survey

The VLF electromagnetic survey utilized a Crone Radem instrument to measure the dip of the secondary field component produced by the VLF transmitter station at Cutler, Maine (24.1 KHz). Measurement of the dip in a direction at right angles to the secondary field lines were taken every 25 m along the survey line. A total of 46.1 line kilometres of data or about 1,850 readings were collected in this way.

The results were plotted in profile form at a scale of 1:5,000. The conductors detected by the survey are indicated by dip direction changes, using the Crone convention, from plus (north dip) to minus (south dip) proceeding in the north direction as shown on Maps 87-04-15 and 87-04-16. Dips are plotted at a scale of 1 cm equals 10°.

The VLF EM dip angle profile map shows a rather erratic pattern of low amplitude conductive responses scattered about the survey grid. Most of the areas where appreciable line to line continuity is apparent, are associated with lake shorelines or a drainage course. The highest amplitude responses are recorded along the shorelines. In other areas, on the land parts of the grid, any conductive responses having possible line to line continuity have low amplitudes and are not considered significant.

The VLF electromagnetic results were inconclusive. Many of the responses are thought to be associated with topographic effects, as the land area is rugged, or conductive edge effects related to the lake shorelines or swamp/drainage areas.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the geological mapping carried out during the 1986 exploration program, there does not appear to be a spacial relationship between the sulphide-rich zones mapped within the gabbro and the contact with the metasediments as originally proposed. The limited lithogeochemical data also suggests that a more complex relationship exists between the PGM and the associated sulphides. Other concentrating mechanisms, such as structural upgrading, may be a consideration.

The humus geochemical survey outlined 11 multi-element anomalies on the property. All exhibit anomalous Pt-Pd values and are coincident with anomalous or elevated geochemical values in Cu, Ni and Au. The ground geophysical surveys extended and further defined the property geology. The magnetometer survey mapped the regional arcuate trend of the underlying Nipissing Diabase. The magnetic data also suggests that an intrusive feature, possibly an olivine diabase dyke or a subsequent phase of the Nipissing Diabase, has intruded the southwest portion of the claim block. The VLF electromagnetic survey results are inconclusive as many of the anomalous responses are thought to be associated with topographic or conductive edge effects.

It is recommended that further prospecting be carried out in the vicinity of the eleven multi-element humus geochemical anomalies identified on the property during the 1986 program. Overburden cover is thin for most of the property and stripping and sampling would be the most cost effective approach to further exploration investigations. Confirmation of the anomalous geochemical values would then justify more comprehensive sampling with diamond drilling.

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CERTIFICATE OF QUALIFICATION

I, Kay V. Scott, of 25 Westmoreland Avenue, Toronto, Ontario, do hereby certify that:-

1. I am an exploration geologist employed by Derry, Michener, Booth & Wahl, Consulting Geologists and Engineers of Toronto.

2. I am a graduate of the University of Waterloo with the degree of B.Sc. Honours Geology in May 1984.

3. I have been practising my profession since graduation.

4. I have not received, nor do I expect to receive, any interest, directly or indirectly, in Nickeldale Resources Inc.

5. I was personally involved in the geological and geochemical field surveys and subsequent office compilation and reporting.

6. I consent to the use of this report in submissions for assessment credits and for similar regulatory requirements.

Kay Scott

Kay V. Scott, B.Sc.

Toronto, Ontario
March 27, 1987

CERTIFICATE OF QUALIFICATION

I, Roderick W. Woolham of the town of Pickering, Province of Ontario, do hereby certify that:-

1. I am a geophysicist and reside at 1463 Fieldlight Blvd., Pickering, Ontario, L1V 2S3.

2. I graduated from the University of Toronto in 1961 with a degree of Bachelor of Applied Science, Engineering Physics, Geophysics Option.

3. I am a member in good standing of the following organizations: The Association of Professional Engineers of the Province of Ontario (Mining Branch); Society of Exploration Geophysicists; South African Geophysical Association.

4. I have been practising my profession for a period of more than 25 years.

5. I am an Associate with Derry, Michener, Booth & Wahl, Consulting Geologists and Engineers.

6. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the properties or securities of Nickeldale Resources Inc. or any affiliate.

7. I personally was involved with the technical supervision of the geophysical surveys and office compilation and writing of this report.

8. I consent to the use of this report in submissions for assessment credits and for similar regulatory requirements.

Dual 63.1718

R. W. Woolham, P. Eng.

REGISTERED PROFESSIONAL ENGINEER
R. W. WOOLHAM
PROVINCE OF ONTARIO

Toronto, Ontario
March 27, 1987

APPENDIX I

HUMUS GEOCHEMISTRY ASSAY SHEETS

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Ottawa, Onta[redacted]
Canada K1J[redacted]
Phone: (613) [redacted]2220
Telex: 053-3233

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 016-4932 (COMPLETE)

REFERENCE INFO:

CLIENT: DERRY, MICHENER, BOOTH & WAHL
PROJECT: NIC101

SUBMITTED BY: K. SCOTT
DATE PRINTED: 24-NOV-86

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ni	Nickel	363	2 PPM	HCl-HNO3, (1:3)	Atomic Absorption
2	Cu	Copper	363	1 PPM	HCl-HNO3, (1:3)	Atomic Absorption
3	Pd	Palladium	363	2 PPB	AQUA REGIA	FireAssay/DC Plasma
4	Pt	Platinum	363	15 PPB	AQUA REGIA	FireAssay/DC Plasma
5	Au	Gold	363	1 PPB	AQUA REGIA	FireAssay/DC Plasma

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
ORGANIC OR HUMUS	363	-10	363	SIEVE -10	292

REMARKS: < MEANS LESS THAN.

REPORT COPIES TO: KAY SCOTT

INVOICE TO: KAY SCOTT

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REPORT: 016-4932

PROJECT: NIC101 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L9W-150N		99	140	11	<30	10
DUPLICATE		95	142			
L9W-100N		86	162	8	<30	5
L9W-50N		395	533	24	42	13
L8.5W-000		295	266	22	<30	11 ✓
L9W-50S		371	447	26	<30	13
L9W-100S		143	163	7	<30	3
L9W-200S		176	241	8	<30	4
L9W-250S		257	276	15	<30	8
L9W-300S		236	279	16	<30	7
L9W-350S		217	234	13	<30	6
DUPLICATE		220	260			
L9W-450S		299	308	18	31	10
L9W-550S		271	505	17	<30	8
L9W-600S		194	339	13	<30	6
L8.75W-400S		308	390	23	<30	9 ✓
~~L8.5W-00~~		~~326~~	~~290~~	~~21~~	~~<30~~	~~8~~
L9.3W-400N		245	260	11	<30	6
L8.25W-400S		447	471	32	<30	12 ✓
L8W-450N		210	187	9	<30	6
DUPLICATE		224	206			
L8W-400N (TL)		267	331	21	<30	11 ✓
L8W-350N		295	281	16	<30	7
L8W-300N		158	385	43	<30	6
L8W-250N		247	239	17	<30	6
L8W-200N		255	321	20	<30	10
L8W-150N		201	186	17	<30	7
L8W-100N		234	241	18	<30	9
L8W-50N		293	282	21	<30	6
L8W-00		286	314	19	30	11
L8W-300S		153	175	4	<30	<2
L8W-350S		98	160	8	<30	2
L8W-400S		278	339	25	<30	8
L8W-450S		156	239	9	<30	<2
L8W-500S		180	240	11	<30	11
L8W-550S		269	310	17	<30	5
L8W-600S		334	340	24	<30	8
L7.5W-400N		265	374	22	41	9 ✓
DUPLICATE		275	383			
L7.5W-00		341	277	21	34	10 ✓

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PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L7.5W-400S		433	361	35	41	13 ✓
L7W-400N		421	348	30	40	12
L7W-00		273	256	19	<30	8
L7W-250S		276	385	17	<30	8
L7W-300S		345	378	23	<30	11
L7W-350S		283	231	20	<30	9
L7W-400S		217	293	13	<30	5
L7W-450S		169	208	12	<30	6
DUPLICATE		165	204			
L7W-500S		138	181	4	<30	6
L7W-550S		207	231	15	<30	5
L7W-600S		294	261	23	36	9
L7W-650S		360	473	16	<30	7
L6.5W-400N		251	211	22	<30	7 ✓
L6.5W-00		148	159	9	<30	4 ✓
L6.5W-400S		290	302	23	<30	11 ✓
L6W-650N		217	197	17	32	5
DUPLICATE		231	201			
L6W-600N		275	242	15	31	12
L6W-550N		213	267	21	46	12
L6W-400N		304	281	26	50	16
L6W-350N		321	254	26	55	14
L6W-300N		297	307	17	<30	9
L6W-250N		263	217	17	37	9
L6W-200N		323	307	20	<30	11
L6W-150N		129	152	12	<30	5
L6W-100N		346	273	21	30	9
L6W-50N		317	2069	20	<30	9
L6W-00		318	255	21	<30	8
L6W-200S		129	232	8	<30	5
L6W-250S		266	427	17	<30	9
L6W-300S		284	359	15	<30	6
L6W-350S		336	404	24	<30	7
L6W-400S		490	351	28	37	11
L6W-450S		418	334	35	37	13
DUPLICATE		410	334			
L6W-500S		207	307	18	<30	6
L6W-550S		255	287	22	30	10 ✓
L5.5W-400N		254	378	19	<30	7 ✓
L5W-775N		217	236	17	<30	7

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REPORT: 016-4932

PROJECT: NIC101 PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L5W-750N		274	256	20	<30	8
L5W-700N		244	303	21	<30	9
L5W-650N		365	353	30	<30	10
L5W-600N		265	274	21	<30	6
L5W-525N		300	276	17	<30	4
DUPLICATE		298	289			
L5W-500N		218	194	16	<30	12
L5W-450N		296	366	22	<30	8
L5W-400N		337	392	26	<30	12
L5W-350N		274	388	18	<30	8
L5W-300N		262	302	17	<30	5
L5W-250N		301	345	26	<30	11
L5W-200N		118	194	15	<30	8
L5W-150N		260	321	20	<30	6
DUPLICATE		253	337			
L5W-100N		214	264	15	<30	7
L5W-100S		152	121	9	<30	4
L5W-150S		240	292	13	<30	6
L5W-200S		189	228	8	<30	2
L5W-250S		212	286	14	<30	7
L5W-300S		288	395	26	<30	11
L5W-350S		372	494	27	<30	11
L5W-400S		437	512	33	<30	15
L5W-450S		293	311	24	<30	11
L5W-500S		125	118	12	<30	7
L5W-550S		288	308	20	<30	10
L4.5W-400N		366	339	24	<30	9 ✓
L4.5W-400S		327	339	25	<30	10 ✓
L4W-1200N		280	421	21	<30	9
L4W-1150N		271	374	18	<30	5
L4W-1100N		192	162	15	<30	7
L4W-1050N		302	313	17	<30	6
DUPLICATE		345	333			
L4W-1000N		74	63	8	<30	<2
L4W-950N		148	210	12	<30	5
L4W-900N		238	248	21	<30	8
L4W-850N		371	344	25	<30	9
L4W-800N		339	338	28	<30	15
L4W-750N		250	198	14	<30	11
L4W-700N		336	333	22	<30	9

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PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L4W-650N		362	339	23	<30	58
L4W-600N		222	266	18	<30	180
DUPLICATE		255	286			
L4W-550N		284	311	25	38	13
L4W-500N		254	251	17	<30	19
L4W-450N		205	231	16	<30	10
L4W-400N		275	330	25	32	23
L4W-350N		154	208	13	<30	11
L4W-300N		374	314	21	<30	327
L4W-250N		280	426	25	<30	19
L4W-200N		315	278	26	35	12
DUPLICATE		311	305			
L4W-150N		203	166	10	<30	8
L4W-100S		188	242	11	<30	12
L4W-150S		212	257	11	<30	7
L4W-200S		300	278	19	<30	12
L4W-250S		267	241	22	<30	12
L4W-300S		219	189	16	<30	8
L4W-350S		182	170	12	<30	9
L4W-400S		307	277	25	<30	14
L4W-450S		199	276	18	<30	11
L4W-500S		115	186	8	<30	4
L4W-550S		233	204	13	<30	19
L4W-650S		124	151	7	<30	4
L4W-700S		245	262	18	<30	11
L4W-750S		322	320	22	<30	12
L4W-800S		273	395	27	<30	11
L3.5W-400N		320	278	29	<30	13
L3.5W-400S		102	143	14	<30	5
DUPLICATE		107	150			
L3W-950N		156	161	21	<30	7
L3W-900N		279	254	24	<30	11
L3W-850N		120	179	18	<30	8
L3W-800N		239	291	21	<30	11
L3W-750N		208	206	23	<30	8
L3W-700N		149	217	18	<30	6
L3W-650N		241	254	19	<30	9
L3W-600N		231	388	23	<30	8
L3W-550N		235	260	21	<30	8
DUPLICATE		240	259			

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L3W-500N		212	193	19	<30	7
L3W-450N		204	213	20	<30	6
L3W-400N		318	250	33	<30	9
L3W-350N		327	304	36	<30	10
L3W-300N		431	373	42	39	15
L3W-250N		298	256	20	<30	7
L3W-100S		310	269	29	<30	9
L3W-150S		209	201	27	<30	8
DUPLICATE		211	197			
L3W-200S		310	355	24	35	16
L3W-250S		226	227	19	<30	12
L3W-300S		321	276	23	43	13
L3W-350S		304	253	22	33	12
L3W-400S		72	124	6	<30	7
L3W-450S		413	442	37	44	18
L3W-500S		389	420	34	40	17
L3W-550S		271	340	23	31	12
L3W-600S		284	265	24	38	13
L3W-650S		215	206	16	<30	7
L3W-700S		289	273	23	31	11
L3W-750S		290	330	14	<30	8
L3W-800S		327	379	26	<30	17
L3W-850S		323	324	27	41	22
L3W-900S		171	157	9	<30	6
L2.5W-400N		226	297	19	36	10
L2.5W-400S		231	191	13	<30	15
DUPLICATE		266	217			
L2W-1400N		263	269	13	<30	7
L2W-1350N		370	334	29	38	13
L2W-1300N		278	313	21	31	9
L2W-1250N		307	376	18	30	10
L2W-1200N		294	460	18	34	9
L2W-1150N		465	579	38	42	21
L2W-1100N		373	325	24	<30	12
L2W-1050N		438	412	31	<30	15
L2W-1000N		369	328	25	<30	14
DUPLICATE		401	333			
L2W-950N		344	385	23	<30	8
L2W-900N		251	272	20	<30	9
L2W-750N		319	310	17	<30	7

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L2W-700N		269	380	24	<30	10
L2W-650N		351	435	25	<30	9
L2W-550N		210	211	13	<30	3
L2W-500N		209	155	12	<30	7
L2W-450N		160	275	10	<30	5
DUPLICATE		159	291			
L2W-400N		251	269	23	<30	9
L2W-350N (A)		229	261	14	<30	5
L2W-350N (B)		345	305	29	<30	12
L2W-300N (A)		350	358	25	<30	13
L2W-300N (B)		316	383	24	<30	13
L2W-250N		337	306	23	<30	12
L2W-200N		305	507	24	<30	10
L2W-150S		213	239	19	<30	10
L2W-200S		196	200	16	<30	5
L2W-450S		138	150	7	<30	4
L2W-500S		239	228	19	<30	11
L2W-550S		360	324	28	33	11
L2W-600S		269	241	13	<30	5
L2W-650S		258	295	14	<30	3
L2W-700S		222	223	15	<30	4
L2W-750S		211	277	12	<30	3
L2W-800S		381	314	27	<30	8
DUPLICATE		413	336			
L2W-850S		321	314	21	<30	8
L2W-900S		335	226	30	<30	11
L1.5W-400N		237	255	15	<30	5
L1.5W-400S		234	205	14	<30	4
L1W-1550N		239	260	19	<30	6
L1W-1500N		256	237	23	<30	9
L1W-1450N		157	176	10	<30	4
L1W-1400N		258	241	15	<30	4
L1W-1350N		246	240	23	<30	7
DUPLICATE		217	255			
L1W-1300N		239	205	17	<30	14
L1W-1250N		236	246	20	<30	4
L1W-1200N		309	311	30	37	9
L1W-1150N		408	396	35	35	17
L1W-1100N		290	266	16	<30	7
L1W-1050N		206	182	13	<30	7

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L1W-1000N		273	249	18	<30	13
L1W-950N		292	282	27	30	13
DUPLICATE		322	296			
L1W-900N		206	178	<4	<30	3
L1W-850N		240	244	20	<30	9
L1W-775N		208	213	16	<30	8
L1W-750N		208	179	18	<30	13
L1W-700N		242	222	18	<30	8
L1W-650N		346	438	28	<30	19
L1W-600N		219	208	17	<30	8
L1W-550N		292	255	22	<30	11
L1W-500N		278	287	23	<30	11
L1W-450N		308	340	30	35	15
L1W-400N		204	222	29	33	20
L1W-350N		122	202	9	<30	52
L1W-300N		215	219	11	<30	8
L1W-250N		240	253	20	<30	13
L1W-100S		221	226	23	34	17
L1W-150S		334	313	20	<30	11
L1W-200S		253	219	19	<30	8
DUPLICATE		274	235			
L1W-250S		220	198	19	30	9
L1W-300S		157	175	13	<30	9
L1W-350S		245	215	26	31	10
L1W-400S		311	448	24	<30	17
L1W-450S		54	65	4	<30	2
L1W-500S		264	273	17	<30	7
L1W-550S		286	244	22	<30	11
L1W-600S		248	283	20	<30	10
L1W-675S		168	147	9	<30	5
DUPLICATE		168	151			
L1W-700S		190	210	19	<30	7
L1W-800S		317	288	24	<30	12
L1W-850S		275	280	14	<30	7
L1W-900S		291	234	18	<30	4
L0.5W-400N (TL)		155	156	7	<30	3 ✓
L0.5W-400S		205	220	15	40	7 ✓
L0W-650N		249	201	12	<30	5
L0W-600N		229	242	22	<30	8
DUPLICATE		248	259			

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101 PAGE 8

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L0W-550N		213	257	19	<30	8
L0W-500N		214	283	16	<30	6
L0W-450N		262	246	21	<30	8
L0W-350N		30	43	<4	<30	<2
L0W-00		107	147	5	<30	2
L0W-150S		207	180	13	<30	6
L0W-200S		309	224	24	<30	8
L0W-250S		202	179	15	<30	6
L0W-300S		225	175	13	<30	11
L0W-350S		212	215	18	<30	9
L0W-400S		174	142	15	<30	5
L0W-450S		227	233	18	<30	9
L0W-500S		291	255	21	<30	9
L0W-550S (A)		335	422	28	30	13
L0W-550S (B)		247	253	15	<30	5
L0W-600S		422	438	29	<30	12
L0W-650S		233	248	19	<30	9
DUPLICATE		255	266			
L0W-750S (A)		196	187	14	<30	3
L0W-750S (B)		367	358	26	31	10
L0W-800S		178	170	12	<30	6
L0W-900S		245	301	17	<30	17
L0E-00		282	250	22	30	23
L0E-50S		248	270	18	<30	9
L0E-100S		241	238	17	<30	8
L0E-150S		337	326	20	<30	7
L0E-200S		307	291	26	46	13
DUPLICATE		360	302			
L0E-250S		209	239	15	<30	7
L0E-300S		211	195	14	<30	7
L0.5E-00		183	182	10	<30	4
L1E-00		217	197	9	<30	3
L1E-50S		152	162	8	<30	8
L1E-250S		324	293	22	<30	13
L1.5E-00		389	384	30	34	12
L2E-00		305	381	20	<30	10
DUPLICATE		364	403			
L2E-50S		307	321	26	30	11
L2E-100S		293	257	14	<30	10
L2E-150S		337	435	30	33	13

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L2E-200S		195	186	12	<30	5
L2E-300S		361	390	26	38	11
L2E-350S		214	206	18	<30	8
L2E-400S		214	253	23	32	12
L2E-450S		334	277	26	35	14
L2E-500S		290	316	29	32	11
L2E-550S		293	328	22	<30	14
L2E-600S		358	351	31	32	16
L2E-650S		409	468	46	52	21
L2.5E-00		308	318	15	<30	28
L3E-00		303	279	16	<30	9
L3E-50S		266	227	12	<30	6
L3E-125S		288	323	21	<30	9
L3E-175S		322	359	26	<30	12
DUPLICATE		350	361			
L3E-225S		462	531	37	31	13
L3.5E-00		259	217	15	<30	7
L4E-00		249	248	11	<30	2
L4E-50S		309	297	28	<30	8
L4E-100S		258	219	20	<30	10
L4E-150S		222	228	13	<30	7
L4E-200S		265	284	20	<30	6
L4E-250S		310	296	20	31	4
L4E-300S		349	314	30	34	6
DUPLICATE		370	342			
L4E-350S		272	267	14	<30	<2
L4.5E-00		217	200	11	<30	<2
L5E-00		259	262	17	<30	3
L5E-50S		274	283	22	<30	5
L5E-100S		274	310	19	<30	5
L5E-150S		236	234	18	<30	4
L5E-200S		305	344	20	<30	<2
L5E-250S		328	337	25	41	5
DUPLICATE		303	360			
L5E-300S		346	364	21	<30	4
L5E-350S		462	389	27	<30	4
L5E-400S		275	259	19	<30	3
L5E-450S		187	171	9	<30	2
L5E-500S		245	272	15	<30	3
L5E-550S		285	291	21	<30	4

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L5.5E-00		296	280	20	<30	3
L6E-00		202	280	12	<30	<2
L6E-50S		199	219	11	<30	<2
L6E-100S		354	385	28	31	4
L6E-150S		296	305	24	32	3
L6E-200S		344	339	23	32	3
L6E-250S		256	241	15	<30	<2
L6E-300S		353	302	18	30	4
L6E-350S		163	164	10	<30	<2
L6E-400S		189	199	16	<30	<2
L6E-450S		127	284	15	<30	2
DUPLICATE		122	278			
L6E-500S		191	225	12	<30	<2
L6E-550S		140	138	12	<30	<2
L6E-600S		311	457	31	34	7
L6E-650S		329	697	44	43	12
L6.5E-00		177	289	17	<30	2
L7E-00		212	255	16	<30	<2
L7.5E-00		140	217	14	<30	<2
L8E-00		195	219	21	<30	3
L8E-50S		206	306	21	30	2
DUPLICATE		213	316			
L8E-100S		210	381	23	31	3
L8E-150S		191	267	22	<30	<2
L8E-200S		261	321	26	<30	16
L8E-250S		274	252	28	<30	16
L8E-300S		218	321	24	<30	14
L8E-350S		233	392	30	<30	15
L8E-400S		194	266	22	<30	8
L8E-450S		202	288	22	<30	10
DUPLICATE		201	300			
L8.5E-00		231	248	19	<30	8
T1		73	121	5	<30	<2
T2		206	303	19	<30	6
T3		174	323	41	<30	5
T4		158	177	10	<30	3

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
BCC SOIL PULP STD 86		30	28			
		19	25			
		29	24			
Number of Analyses		11	11	0	0	0
Mean Value		25.3	26.0			
Standard Deviation		4.80	1.67			
Lowest Value		19	23			
Highest Value		33	28			
BCC CHEMICAL BLANK		2	1			
		<2	<1			
		3	1			
		<2	2			
		<2	2			
		<2	2			
		<2	<1			
		<2	<1			
		<2	<1			
		<2	1			
		<2	<1			
Number of Analyses		11	11	0	0	0
Mean Value		1.3	1.0			
Standard Deviation		0.65	0.65			
Lowest Value		2	1			
Highest Value		3	2			

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Geochemical Lab Report

REPORT: 016-4932

PROJECT: NIC101

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
STD						
				95	100	9
				100	94	10
				101	97	10
				93	94	10
				102	100	11
				99	104	9
				99	100	10
				116	98	9
						13
				100	98	13
				103	100	10
				112	110	11
				105	104	
				104	100	9
				106	109	9
Number of Analyses		0	0	14	14	14
Mean Value				102.5	100.6	10.2
Standard Deviation				6.07	4.78	1.37
Lowest Value				93	94	9
Highest Value				116	110	13
BCC ROCK PULP STD 86		94	304			
		95	305			
		85	245			
Number of Analyses		11	11	0	0	0
Mean Value		90.5	267.5			
Standard Deviation		4.52	26.72			
Lowest Value		85	230			
Highest Value		99	305			

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Geochemical Lab Report

REPORT: 016-5024 (COMPLETE)

REFERENCE INFO:

CLIENT: DERRY, MICHENER, BOOTH & WAHL
PROJECT: NIC101

SUBMITTED BY: K. SCOTT
DATE PRINTED: 24-NOV-86

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ni	Nickel	18	2 PPM	HCl-HNO3, (1:3)	Atomic Absorption
2	Cu	Copper	18	1 PPM	HCl-HNO3, (1:3)	Atomic Absorption
3	Pd	Palladium	18	2 PPB	AQUA REGIA	FireAssay/DC Plasma
4	Pt	Platinum	18	15 PPB	AQUA REGIA	FireAssay/DC Plasma
5	Au	Gold	18	1 PPB	AQUA REGIA	FireAssay/DC Plasma

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
ORGANIC OR HUMUS	18	-10	18	SIEVE -10	18

REMARKS: < MEANS LESS THAN.

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Geochemical Lab Report

REPORT: 016-5024

PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L7E 50S		114	285	25	<30	14
DUPLICATE		112	274			
L7E 100S		166	225	19	<30	8
L7E 150S		166	310	21	<30	8
L7E 200S		152	300	21	<30	8
L7E 250S		112	278	18	<30	15
L7E 300S		79	119	10	<30	3
L7E 350S		125	196	12	<30	6
L7E 400S		146	230	14	<30	3
L7E 450S		164	251	12	<30	3
L7E 500S		75	195	12	<30	2
DUPLICATE		78	191			
L7E 550S		79	162	10	<30	5
L7E 600S		62	103	9	<30	5
L7E 650S		140	170	10	<30	5
L7E 700S		62	110	8	<30	3
L7E 750S		118	328	13	<30	6
L7E 800S		176	187	7	<30	3
L7E 850S		178	279	13	<30	6
L7E 900S		147	345	18	<30	5
DUPLICATE		158	366			

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Geochemical Lab Report

REPORT: 016-5024

PROJECT: NIC101

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
BCC SOIL PULP STD 86		26	26			
Number of Analyses		1	1	0	0	0
Mean Value		26.0	26.0			
Standard Deviation						
Lowest Value		26	26			
Highest Value		26	26			
BCC CHEMICAL BLANK		<2	<1			
Number of Analyses		1	1	0	0	0
Mean Value		1.0	0.5			
Standard Deviation						
Lowest Value		<2	<1			
Highest Value		<2	<1			
STD				118	118	12
Number of Analyses		0	0	1	1	1
Mean Value				118.0	118.0	12.0
Standard Deviation						
Lowest Value				118	118	12
Highest Value				118	118	12

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Geochemical Lab Report

REPORT: 016-5024

PROJECT: NIC101 PAGE 3

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
BCC ROCK PULP STD 86		86	246			
Number of Analyses		1	1	0	0	0
Mean Value		86.0	246.0			
Standard Deviation						
Lowest Value		86	246			
Highest Value		86	246			

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Geochemical Lab Report

REPORT: 016-4911 (COMPLETE)

REFERENCE INFO:

CLIENT: DERRY, MICHENER, BOOTH & WAHL
PROJECT: NIC101

SUBMITTED BY: K. SCOTT
DATE PRINTED: 24-NOV-86

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ni	Nickel	352	2 PPM	HCl-HNO3, (1:3)	Atomic Absorption
2	Cu	Copper	352	1 PPM	HCl-HNO3, (1:3)	Atomic Absorption
3	Pd	Palladium	352	2 PPB	AQUA REGIA	FireAssay/DC Plasma
4	Pt	Platinum	352	15 PPB	AQUA REGIA	FireAssay/DC Plasma
5	Au	Gold	352	1 PPB	AQUA REGIA	FireAssay/DC Plasma

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
ORGANIC OR HUMUS	352	-10	352	SIEVE -10	280

REMARKS: < MEANS LESS THAN.
~~SAMPLES REC'D IN DUPLICATE & GIVEN A&B~~
DESIGNATION: L24W 300N, L23W 300N, L21W 50N,
L21W 150S.

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Geochemical Lab Report

REPORT: 016-4911

PROJECT: NIC101 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L30.5W 300N		248	376	23	<30	18
DUPLICATE		267	380			
L30W 350N		173	328	18	<30	9
L30W 300N		152	444	22	<30	10
L30W 250N		242	266	28	<30	12
L30W 200N		277	456	28	<30	12
L30W 150N		526	416	31	<30	13
L29.5W 300N		259	318	30	<30	11
L29W 350N		302	359	34	32	15
L29W 300N		327	533	35	35	22
L29W 200N		256	386	31	<30	12
DUPLICATE		280	388			
L29W 150N		205	337	21	<30	10
L29W 100N		240	370	24	<30	14
L29W 50N		283	435	20	<30	10
L29W 250S		355	300	25	<30	10
L28W 400N		102	127	3	<30	3
L28W 350N		175	225	18	<30	10
L28W 300N		290	683	35	33	20
L28W 250N		138	265	13	<30	5
DUPLICATE		139	265			
L28W 200N		165	239	18	<30	8
L28W 150N		183	258	14	<30	5
L28W 100N		217	333	23	<30	9
L28W 50N		84	134	8	<30	3
L27.5W 300N		257	398	24	<30	11
L27W 400N		180	141	6	<30	2
L27W 350N		110	253	8	<30	8
L27W 250N		138	186	8	<30	23
L27W 200N		170	262	15	<30	9
L27W 150N		148	205	11	<30	9
L27W 125N		85	133	4	<30	4
L27W 00N		207	215	20	<30	10
L26.5W 300N		194	357	20	<30	14
L26W 400N		104	135	3	<30	5
L26W 350N		134	189	13	<30	6
L26W 300N		245	196	11	<30	7
L26W 250N		359	413	27	32	17
DUPLICATE		346	427			
L26W 200N		133	151	5	<30	7

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L26W 150N		124	220	11	<30	7
L26W 100N		194	301	15	<30	9
L25W 400N		227	280	26	<30	14
L25W 350N		196	252	17	<30	9
L25W 300N		384	439	40	45	21
L25W 250N		182	269	14	<30	9
L25W 200N		205	228	20	<30	9
L25W 150N		190	318	22	<30	10
DUPLICATE		194	341			
L25W 100N		164	249	21	<30	12
L24.5W 300N		181	237	23	<30	11 ✓
L24W 425N		164	254	23	<30	11
L24W 400N		155	291	18	<30	10
L24W 350N		111	185	18	<30	9
L24W 300N(A)		59	137	8	<30	4
L24W 300N(B)		179	217	21	30	11
L24W 250N		224	301	27	33	11
DUPLICATE		236	305			
L24W 200N		219	263	17	<30	10
L24W 150N		103	192	14	<30	8
L24W 100N		135	189	15	<30	12
L24W 50N		195	287	28	31	14
L23.5W 300N		198	219	14	<30	7 ✓
L23W 450N		174	255	20	<30	11
L23W 400N		208	439	24	31	12
L23W 350N		156	245	21	36	10
L23W 300N A		228	249	23	<30	10
L23W 300N B		103	120	8	<30	4
L23W 250N		138	179	17	<30	8
L23W 200N		113	120	7	<30	4
L23W 150N		175	219	16	<30	9
L23W 100N		257	407	28	36	14
L23W 50N		264	375	21	<30	12
L23W 00		420	573	37	30	18
L22.5W 300N		274	281	24	<30	11 ✓
DUPLICATE		257	285			
L22.5W 00		223	349	20	<30	9 ✓
L22W 450N		172	209	16	<30	9
L22W 400N		216	248	20	<30	10
L22W 350N		311	549	30	<30	13

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L22W 300N		152	195	18	<30	8
L22W 250N		187	257	20	<30	10
L22W 200N		180	181	15	<30	6
L22W 150N		215	210	23	<30	9
L22W 100N		87	151	6	<30	3
DUPLICATE		77	144			
L22W 50N		204	248	20	<30	7
L22W 00		264	267	27	<30	11
L21.5W 00		353	472	20	<30	9 ✓
L21W 500N		178	198	13	<30	7
L21W 450N		144	156	12	<30	6
L21W 400N		102	180	12	<30	5
L21W 350N		109	124	10	<30	4
L21W 300N		158	267	15	<30	8
DUPLICATE		146	2562			
L21W 250N		128	162	11	<30	5
L21W 200N		93	129	10	<30	6
L21W 150N		157	175	14	<30	175
L21W 100N		196	218	17	<30	12
L21W 50N A		206	280	20	<30	11
L21W 50N B		157	234	17	<30	11
L21W 00		211	285	27	<30	13
L21W 50S		162	247	22	32	8
L21W 100S		132	246	17	<30	6
L21W 150S(A)		113	472	30	31	15
L21W 150S(B)		245	366	28	<30	13
L20W 435N		219	300	23	<30	12
L20W 400N		104	127	12	<30	6
L20W 350N		179	242	19	<30	8
L20W 300N		165	296	11	<30	7
L20W 250N		172	241	20	<30	15
L20W 200N		188	193	13	<30	8
DUPLICATE		186	195			
L20W 150N		260	275	24	<30	12
L20W 100N		184	223	17	<30	8
L20W 50N		122	167	11	<30	5
L20W 00		165	202	22	<30	8
L20W 50S		130	151	15	<30	5
L20W 100S		174	216	25	<30	7
L20W 150S		272	465	31	<30	10

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L20W 200S		362	467	39	44 *	21
L19.5W 00		216	250	25	<30	12 ✓
DUPLICATE		219	265			
L19W 400N		190	198	10	<30	6
L19W 350N		88	131	6	<30	4
L19W 300N		136	175	13	<30	10
L19W 250N		93	141	7	<30	5
L19W 200N		210	236	15	<30	13
L19W 150N		250	347	23	<30	12
L19W 100N		188	160	16	<30	7
L19W 50N		207	2582	28	<30	11
DUPLICATE		199	258			
L19W 00		176	264	18	<30	13
L19W 50S		134	265	11	<30	5
L19W 100S		73	136	9	<30	7
L19W 150S		180	159	12	<30	5
L19W 200S		183	195	18	<30	6
L19W 250S		117	167	11	<30	6
L18.5W 00		204	270	28	31	10 ✓
L18W 386N		192	276	10	<30	30
L18W 350N		146	210	9	<30	5
L18W 300N		57	93	8	<30	6
L18W 250N		139	216	14	<30	8
L18W 200N		104	265	21	<30	9
L18W 150N		179	207	23	<30	13
L18W 100N		228	253	29	36 *	14
L18W 50N		117	146	12	<30	7
L18W 00		162	184	11	<30	3
L18W 50S		139	204	15	<30	8
DUPLICATE		145	211			
L18W 100S		114	122	15	<30	10
L18W 150S		160	223	13	<30	6
L18W 200S		173	226	19	<30	9
L18W 250S		291	467	27	<30	13
L18W 290S		257	298	20	<30	18
L17.5W 00		196	201	23	31	10 ✓
L17W 600N		178	307	20	<30	8
L17W 550N		222	264	39	<30	9
L17W 500N		414	443	50	86	26
DUPLICATE		435	401			

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L17W 450N		339	409	39	43	17
L17W 400N		167	267	12	<30	10
L17W 350N		146	158	21	<30	14
L17W 300N		205	231	22	<30	15
L17W 250N		256	362	36	45	16
L17W 200N		254	308	26	30	16
L17W 150N		255	213	29	33	16
L17W 100N		171	221	14	<30	11
DUPLICATE		180	236			
L17W 50N		168	223	17	<30	12
L17W 00		135	210	14	39	5
L17W 50S		120	147	14	<30	6
L17W 100S		145	348	20	<30	11
L17W 150S		182	216	14	<30	10
L17W 200S		172	209	12	<30	4
L17W 250S		130	135	10	<30	4
L17W 300S		124	255	32	32	16
L17W 345S		236	207	32	53	22
L16.5W 00		124	170	14	<30	9
L16W 633N		179	227	25	<30	14
L16W 600N		70	84	7	<30	5
L16W 550N		135	222	21	35	9
L16W 500N		277	321	32	36	15
L16W 450N		232	308	31	45	17
L16W 400N		326	485	41	50	18
L16W 350N		170	210	19	<30	9
DUPLICATE		183	229			
L16W 300N		175	279	12	<30	6
L16W 50N		232	302	28	43	15
L16W 00		273	314	32	40	16
L16W 50S		300	288	27	39	17
L16W 100S		206	284	24	30	12
L16W 150S		157	246	18	<30	11
L16W 200S		181	252	23	<30	13
L16W 250S		282	349	34	<30	14
L16W 300S		154	163	14	<30	8
DUPLICATE		163	173			
L16W 350S		200	243	24	<30	12
L15.5W 00		264	336	24	<30	14
L15W 600N		132	162	18	<30	10

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L15W 550N		84	109	14	<30	5
L15W 500N		90	228	12	<30	7
L15W 450N		249	310	34	<30	17
L15W 400N		231	442	29	<30	14
L15W 350N		186	248	22	<30	10
DUPLICATE		200	264			
L15W 300N		223	258	19	<30	19
L15W 275N		166	235	25	<30	12
L15W 150N		82	199	9	<30	9
L15W 100N		156	280	16	<30	9
L15W 50N		186	188	17	<30	9
L15W 00		161	176	15	<30	8
L15W 50S		190	255	20	<30	9
L15W 100S		226	255	25	<30	11
L15W 150S		241	273	32	31	14
L15W 200S		196	237	17	<30	6
L15W 250S		276	314	27	33	15
L15W 300S		260	311	33	35	15
L15W 350S		354	332	22	<30	12
L15W 400S		276	379	22	<30	11
L15W 500S		229	364	21	<30	11
L15W 550S		222	321	26	<30	12
L15W 600S		162	193	14	<30	7
DUPLICATE		163	196			
L15W 650S		168	293	25	<30	10
L15W 700S		308	430	35	<30	14
L15W 750S		206	340	31	36	14
L14.5W 00		151	255	25	<30	9 ✓
L14W 150N		193	219	18	<30	9
L14W 100N		153	241	14	<30	7
L14W 50N		225	264	23	30	11
L14W 00		225	223	20	<30	9
L14W 50S		240	367	34	<30	14
DUPLICATE		213	395			
L14W 100S		114	300	22	<30	10
L14W 150S		129	222	17	<30	8
L14W 200S		129	325	18	<30	8
L14W 250S		159	266	27	32	11
L14W 300S		190	280	22	<30	10
L14W 350S		261	298	24	<30	9

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L14W 500S		292	350	26	<30	11
L14W 550S		213	273	19	<30	12
DUPLICATE		229	285			
L14W 600S		122	184	12	<30	5
L14W 650S		127	210	16	<30	16
L14W 700S		110	122	15	<30	9
L14W 750S		188	228	18	<30	7
L13.75W 400S		278	368	27	<30	11 ✓
L13.5W 00		172	319	22	<30	12 ✓
L13.25W 400S		182	361	27	<30	12 ✓
L13W 350N		246	439	24	<30	14
L13W 300N		189	258	25	<30	11
L13W 250N		412	622	41	39	17
L13W 200N		98	442	33	<30	14
L13W 150N		296	294	27	34	14
L13W 100N		231	288	31	35	12
L13W 50N		208	348	23	31	9
L13W 00		187	292	21	<30	9
L13W 50S		183	190	15	<30	7
L13W 100S		177	200	15	<30	8
DUPLICATE		179	208			
L13W 150S		183	308	26	<30	14
L13W 200S		209	418	16	<30	8
L13W 250S		255	270	17	<30	7
L13W 300S		204	260	20	<30	14
L13W 350S		149	202	21	<30	17
L13W 450S		291	306	25	<30	9
L13W 550S		164	235	21	<30	8
L13W 600S		166	167	11	<30	3
L13W 650S		163	232	16	<30	5
DUPLICATE		169	255			
L13W 700S		171	220	21	<30	13
L13W 750S		138	141	7	<30	3
L12.75W 400S		246	300	31	<30	10 ✓
L12.5W 00		204	226	21	<30	8 ✓
L12.25W 400S		248	306	25	<30	10 ✓
L12W 885N		97	211	8	<30	4
L12W 850N		187	194	17	<30	7
L12W 800N		126	252	14	<30	7
DUPLICATE		141	263			

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L12W 750N		112	233	11	<30	7
L12W 700N		173	255	16	<30	5
L12W 650N		171	223	17	<30	8
L12W 600N		172	205	24	32	12
L12W 550N		103	144	12	<30	5
L12W 500N		155	183	16	<30	8
L12W 450N		95	127	10	<30	7
L12W 400N		124	164	13	<30	7
L12W 350N		112	218	18	<30	14
L12W 300N		151	252	20	<30	11
L12W 250N		211	313	31	36	14
L12W 200N		223	310	31	37	14
L12W 150N		260	337	31	39	14
L12W 100N		162	235	20	<30	10
L12W 50N		191	232	24	36	16
L12W 00		195	286	28	38	12
L12W 50S		174	281	25	34	14
DUPLICATE		198	280			
L12W 100S		167	246	27	38	13
L12W 150S		239	300	31	36	14
L12W 200S		173	224	20	35	7
L12W 250S		198	302	21	<30	11
L12W 300S		222	265	24	<30	12
L12W 350S		199	209	26	<30	11
L12W 450S		151	171	17	<30	8
L12W 500S		198	233	24	32	11
L12W 550S		223	284	29	32	11
DUPLICATE		244	281			
L12W 600S		324	396	32	32	15
L12W 650S		313	445	31	36	14
L12W 700S		309	476	33	33	14
L12W 750S		261	345	25	32	11
L11.5W 00		138	140	8	<30	8
L11.5W 400S		289	379	28	<30	11
L11.25W 400S		190	261	17	<30	7
L11W 875N		143	347	22	<30	9
DUPLICATE		120	301			
L11W 825N		303	512	27	<30	15
L11W 775N		253	353	27	<30	12
L11W 725N		128	214	4	<30	3

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L11W 675N		124	105	10	<30	4
L11W 600N		198	363	13	<30	6
L11W 550N		129	216	16	<30	8
L11W 500N		178	308	16	<30	8
L11W 450N		252	308	21	<30	10
L11W 400N		189	326	22	<30	10
L11W 350N		173	196	17	<30	7
L11W 300N		151	159	19	<30	7
L11W 250N		177	209	18	<30	9
L11W 200N		225	303	26	<30	11
L11W 150N		194	344	27	<30	26
L11W 100N		209	273	22	<30	9
L11W 50N		190	256	25	<30	9
L11W 00		213	292	26	<30	8
DUPLICATE		223	288			
L11W 50S		162	449	16	<30	8
L11W 100S		189	262	21	<30	14
L11W 155S		147	219	17	<30	9
L11W 200S		167	257	12	<30	4
L11W 300S		129	277	14	<30	6
L11W 350S		218	343	25	33	10
L11W 450S		222	220	24	32	10
L11W 500S		195	214	21	<30	9
L11W 550S		212	285	17	<30	10
DUPLICATE		226	291			
L11W 600S		138	196	11	<30	8
L11W 650S		160	205	12	<30	6
L10.75W 400S		200	300	23	<30	11 ✓
L10.5W 00		195	251	23	<30	10 ✓
L10.25W 400S		194	275	21	<30	10 ✓
L10W 700N		108	119	6	<30	4
L10W 650N		208	237	18	<30	10
L10W 600N		199	294	24	33	11
DUPLICATE		195	278			
L10W 550N		156	257	15	<30	9
L10W 500N		166	273	20	<30	8
L10W 450N		205	330	30	38	14
L10W 400N		183	215	23	<30	11
L10W 350N		141	244	15	<30	5
L10W 300N		165	241	15	<30	10

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SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
L10W 250N		198	353	26	<30	19
L1CW 200N		130	170	14	<30	8
L10W 150N		201	388	31	<30	14
L10W 100N		120	181	18	<30	7
L10W 50N		234	332	22	<30	12
L10W 00		283	430	32	<30	9
L10W 200S		114	381	24	36	15
L10W 250S		246	296	24	<30	9
L10W 300S		211	372	19	<30	7
L10W 350S		242	308	27	<30	12
L10W 450S		200	253	20	<30	6
DUPLICATE		200	247			
L10W 500S		188	279	21	<30	5
L10W 550S		188	213	24	<30	10
L10W 600S		145	200	22	<30	9
L9.75W 400S		172	218	18	<30	6 ✓
L9.5W 00		130	238	15	<30	7 ✓
L9.25W 400S		219	293	21	<30	9 ✓
L9W 375N		136	207	10	<30	8
L9W 350N		179	303	24	<30	9
L9W 300N		132	147	13	<30	2
DUPLICATE		131	147			
L9W 250N		138	234	18	<30	9
L9W 200N		98	173	12	<30	4

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BONDAR-CLEGG

Geochemical Lab Report

REPORT: 016-4911

PROJECT: NIC101

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
BCC SOIL PULP STD 86		25	27			
		25	24			
		26	28			
Number of Analyses		11	11	0	0	0
Mean Value		26.9	25.5			
Standard Deviation		2.21	1.51			
Lowest Value		25	23			
Highest Value		32	28			
BCC CHEMICAL BLANK		3	<1			
		<2	<1			
		2	<1			
		3	<1			
		2	<1			
		2	<1			
		4	<1			
		2	<1			
		2	<1			
		<2	<1			
		<2	<1			
Number of Analyses		11	11	0	0	0
Mean Value		2.1	0.5			
Standard Deviation		0.94	0.00			
Lowest Value		<2	<1			
Highest Value		4	<1			

Bondar-Clegg & Company Ltd.
5420 Canotek Rd.,
Ottawa, Ont
Canada K1J
Phone: (613) 749-2220
Telex: 053-3233

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 016-4911

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
STD				100	94	9
				101	100	10
				104	108	11
				103	98	10
				105	101	10
				103	101	10
				102	98	12
				100	101	11
				104	100	11
				114	109	11
				104	103	10
				135	129	13
				94	88	10
				132	125	12
				104	108	18
				106	99	10
Number of Analyses		0	0	16	16	16
Mean Value				106.9	103.9	11.1
Standard Deviation				11.13	10.44	2.09
Lowest Value				94	88	9
Highest Value				135	129	18

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
BCC ROCK PULP STD 86		78	253			
		83	256			
		83	279			
Number of Analyses		11	11	0	0	0
Mean Value		82.8	264.2			
Standard Deviation		4.31	8.64			
Lowest Value		73	253			
Highest Value		88	279			

Bondar-Clegg & Company Ltd.
5420 Canotek Rd.,
Ottawa, Ont
Canada K1J
Phone: (613) -2220
Telex: 053-3233

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 016-5373 (COMPLETE)	REFERENCE INFO:

CLIENT: DERRY, MICHENER, BOOTH & WAHL
PROJECT: NIC101

SUBMITTED BY: K. SCOTT
DATE PRINTED: 8-DEC-86

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ni	Nickel	25	2 PPM	HCl-HNO3, (1:3)	Atomic Absorption
2	Cu	Copper	25	1 PPM	HCl-HNO3, (1:3)	Atomic Absorption
3	Pd	Palladium	25	2 PPB	AQUA REGIA	FireAssay/DC Plasma
4	Pt	Platinum	25	15 PPB	AQUA REGIA	FireAssay/DC Plasma
5	Au	Gold	25	1 PPB	AQUA REGIA	FireAssay/DC Plasma

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
ROCK	25	-200	25	CRUSH,PULVERIZE -200	25

REMARKS: < MEANS LESS THAN.

REPORT COPIES TO: KAY SCOTT

INVOICE TO: KAY SCOTT

Bondar-Clegg & Company Ltd.
5420 Canotek Rd.,
Ottawa, On[redacted]
Canada K1[redacted]
Phone: (613)[redacted]-2220
Telex: 053-3233

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 016-5373

PROJECT: NIC101

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
001		61	89	12	<15	19
DUPLICATE		58	88			
006		39	106	14	15	7
008		45	146	15	<15	5
011		167	1000	10	<15	23
012		52	144	<2	<15	2
013		175	971	141	51	77
014		45	209	3	<15	2
015		50	155	8	<15	8
016		39	131	<2	<15	7
017		380	1150	86	42	70
DUPLICATE		391	1190			
018		2035	4880	2109	296	129
019		6570	1524	6569	993	411
020		477	1350	1031	274	49
021		2170	4570	4119	297	161
022		270	687	405	57	28
023		78	72	21	<15	3
024		50	122	26	<15	2
025		3600	9065	4079	599	1204
DUPLICATE		3765	9270			
026		134	368	85	26	13
027		57	141	224	54	15
028		23	32	5	<15	2
029		29	111	7	<15	<1
030		51	64	<2	<15	3
031		214	605	118	84	32
032		730	2480	21	15	57

Bondar-Clegg & Company Ltd.
5420 Canotek
Ottawa, Onta
Canada K1J 8
Phone: (613) 749-2220
Telex: 053-3233

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 016-5373

PROJECT: NIC101 PAGE 2

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
BCC SOIL PULP STD 86		28	27			
Number of Analyses		1	1	0	0	0
Mean Value		28.0	27.0			
Standard Deviation						
Lowest Value		28	27			
Highest Value		28	27			
BCC CHEMICAL BLANK		<2	<1			
Number of Analyses		1	1	0	0	0
Mean Value		1.0	0.5			
Standard Deviation						
Lowest Value		<2	<1			
Highest Value		<2	<1			
STD				111	115	8
				106	112	12
Number of Analyses		0	0	2	2	2
Mean Value				108.5	113.5	10.0
Standard Deviation				3.54	2.12	2.83
Lowest Value				106	112	8
Highest Value				111	115	12

Bondar-Clegg & Company Ltd.
5420 Canotek Rd.,
Ottawa, Ont
Canada K1J
Phone: (613) [illegible]9-2220
Telex: 053-3233

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 016-5373

PROJECT: NIC101 PAGE 3

STANDARD NAME	ELEMENT UNITS	Ni PPM	Cu PPM	Pd PPB	Pt PPB	Au PPB
BCC ROCK PULP STD 86		90	243			
Number of Analyses		1	1	0	0	0
Mean Value		90.0	243.0			
Standard Deviation						
Lowest Value		90	243			
Highest Value		90	243			

APPENDIX II

INSTRUMENT SPECIFICATIONS

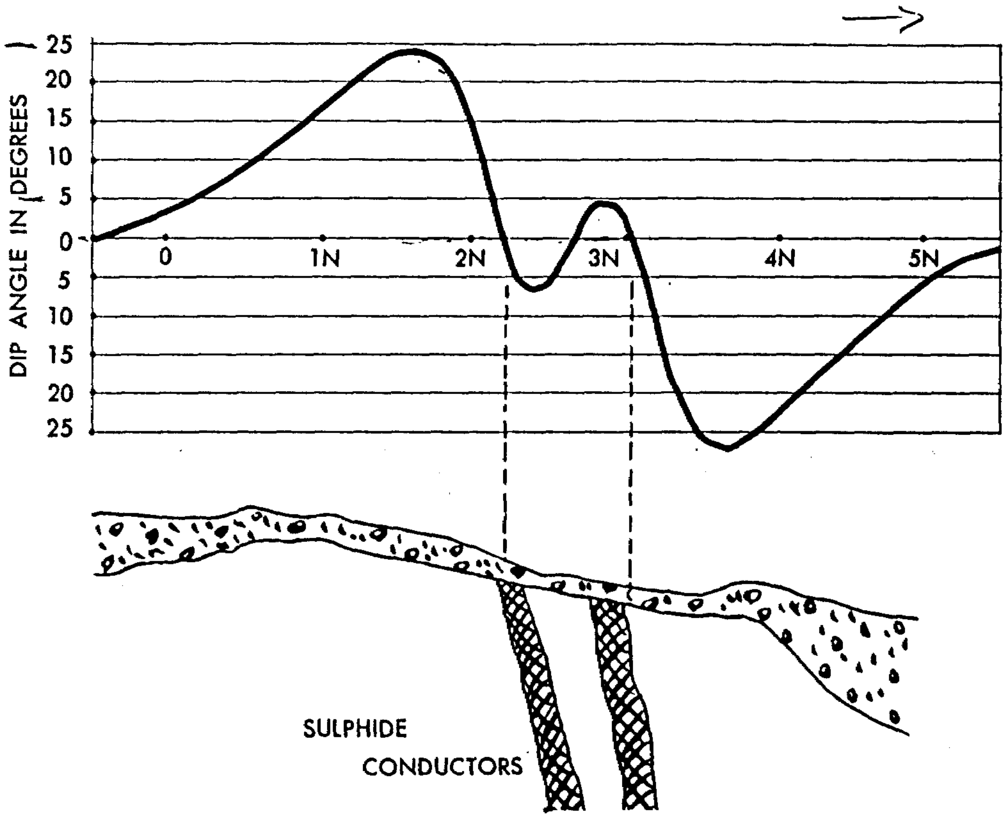
TECHNICAL DESCRIPTION OF MP-2 MAGNETOMETER

SCINTREX

RESOLUTION	1 Gamma.
TOTAL FIELD ACCURACY	± 1 Gamma over full operating range.
RANGE	20,000 to 100,000 gammas in 25 overlapping steps.
INTERNAL MEASURING PROGRAMME	Single reading — 3.7 seconds. Recycling feature permits automatic repetitive readings at 3.7 seconds intervals.
EXTERNAL TRIGGER	External trigger input permits use of sampling intervals longer than 3.7 seconds.
	5 digit LED (Light Emitting Diode) readout displaying total magnetic field in gammas or normalized battery voltage.
DATA OUTPUT	Multiplied precession frequency and gate time outputs for base-station recording using interfacing optionally available from Scintrex.
GRADIENT TOLERANCE	Up to 5000 gammas/metre.
POWER SOURCE	8 alkaline "D" cells provide up to 25,000 readings at 25° C under reasonable signal/noise conditions (less at lower temperatures). Premium carbon-zinc cells provide about 40% of this number.
SENSOR	Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance.
HARNESS	Complete for operation with staff or back pack sensor.
OPERATING TEMPERATURE RANGE	−35°C to +60°C.
SIZE	Console, with batteries: 80 x 160 x 250mm. Sensor: 80 x 150mm. Staff: 30 x 1550mm. (extended) 30 x 600 mm. (collapsed)
WEIGHTS	Console, with batteries: 1.8kg. Sensor: 1.3kg. Staff: 0.6kg.

SCINTREX LIMITED
222 Snidercroft Road,
Concord, Ontario, Canada L4K 1B5
TELEPHONE (416) 669-2280, TELEX 06-964570

Example of a RADEM traverse over a Banded Conductor in the Timmins area of Ontario.



SPECIFICATIONS

READOUT — Dip angle of resultant VLF magnetic field component from an inclinometer of ± ½ degree sensitivity

NULL INDICATOR — Both audio (loudspeaker) and visual by means of an averaging field strength meter

TUNING — Preset switch tuning

BATTERIES — 2 of 9 volt Eveready # 216, independent test indicators

STATIONS — Standard 5 stations — Cutler, Maine 17.8; Seattle, Wash. 18.6; Ft. Collins, Colorado 20.0; Annapolis, Md. 21.4; Balboa, Panama 24.0 KCs.

— Optional — N.W. Cape, Australia 15.5; Lualualei, Hawaii 23.4; Rugby, England 16.0 KCs.
Other stations as they become operational

WEIGHT — Receiver — 4 lb. Leather Case — 2 lb. Shipping Weight — 15 lb.

PRICE — $2,250.00 Canadian

RENTAL — $150.00 per month

41110NE0009 2.9955 KELLY

900

May 20, 1987

Your File: 87-30
Our File: 2.9955

Mining Recorder
Ministry of Northern Development and Mines
199 Larch Street
Sudbury, Ontario
P3E 5P9

Dear Sir:

RE: Notice of Intent dated April 29, 1987
Geophysical (Electromagnetic, Magnetometer),
Geological and Geochemical Surveys on Mining
Claims S 872902, et al, in Kelly Township

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

Gary L. Weatherson, Manager
Mining Lands Section
Mineral Development and Lands Branch
Mines and Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

SH/mc

cc: Nickeldale Resources Inc
Suite 500
67 Richmond Street West
Toronto, Ontario
M5H 1Z5

R.W. Woolham
Suite 410
20 Richmond Street East
Toronto, Ontario
M5C 2K9

Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
Sudbury, Ontario

Encl.

Ministry of Northern Development and Mines
Ontario

Technical Assessment Work Credits

File	
	2.9955

Date	Mining Recorder's Report of Work No.
April 29, 1987	87-30

Recorded Holder
NICKELDALE RESOURCES INC

Township or Area
KELLY TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic ______ days	
Magnetometer ______ days	
Radiometric ______ days	
Induced polarization ______ days	
Other ______ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 31 days	
Geochemical 16 days	S 872902 to 907 inclusive 872950-51-55-56-59-62-63 872967 to 970 inclusive 872972 to 979 inclusive
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

828 (85/12)

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File	
	2.9955

Date	Mining Recorder's Report of Work No.
April 29, 1987	87-30

Recorded Holder

NICKELDALE RESOURCES INC

Township or Area

KELLY TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic 20 days Magnetometer 20 days Radiometric ____ days Induced polarization ____ days Other ____ days Section 77 (19) See "Mining Claims Assessed" column Geological ____ days Geochemical ____ days Man days ☐ Airborne ☐ Special provision ☒ Ground ☒ ☐ Credits have been reduced because of partial coverage of claims. ☐ Credits have been reduced because of corrections to work dates and figures of applicant.	S 872903 to 907 inclusive 872950-51-55-56-59-62-63 872967 to 970 inclusive 872973 to 978 inclusive

Special credits under section 77 (16) for the following mining claims

10 DAYS MAGNETOMETER
10 DAYS ELECTROMAGNETIC

S 872902-72-79

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

828 (85/12)

2.9955

Ontario

(Geochemical and Expenditures)

REPORT OF WORK # 87-31 (Kelly Twp)

The Mining Act

Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): Magnetic, Electromagnetic ~~Geology Geochemical~~	Township or Area: Kelly
Claim Holder(s): Nickeldale Resources Inc	Prospector's Licence No.: T 4724
Address: Suite 500, 67 Richmond St. W. TORONTO M5H 1Z5	
Survey Company: Derry Michener Booth and Wahl	Date of Survey (from & to): 01 01 87 – 31 01 87 (Day, Mo., Yr.) / Total Miles of line Cut: 6 km
Name and Address of Author (of Geo-Technical report): R.W. Woolham/K.V. Scott 20 Richmont St. E Suite 410, TORONTO M5C 2R9	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

~~Performed on Claim(s)~~

File No. S. 872950

Calculation of Expenditure Days Credits

Total Expenditures $ ______ ÷ 15 = Total Days Credits ______

Instructions

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)
April 7/87	R.W. Woolham

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
S	872952	
	953	
	954	
	872958	

RECEIVED

3

Total number of mining claims covered by this report of work. 4

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
240	1987 04 22	[signature]
	Date Approved as Recorded: 87.4.29	Branch Director: [signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

R.W. WOOLHAM, Suite 410, 20 RICHMOND ST. E

TORONTO, ONT. M5C 2R9

Date Certified	Certified by (Signature)
April 10/87	R.W. Woolham

Aerial Cableway
Boundary
International
Interprovincial
District, Township, Indian Reserve
Approximate
Lot, Concession
Approximate
Park Boundary
Bridge
Road, Railroad
Building
Chimney
Cliff, Pit, Pile
Contours
Interpolated
Approximate
Depression
Control Points
Horizontal
Vertical
Culvert
Falls
Double line river
Fence, Hedge, Wall
Feature Outline (Construction features, etc.)
Flooded Land
Lock
Marsh or Swamp
Mast
Mine Head Frame
Outcrop

Pipeline (above ground)
Railroad
Single Track
Double Track
Abandoned
Turntable
Road
Highway, County Township
Access (road of doubtful maintenance or significant driveway)
Trail, Bush Road (portage, alley)
Rapids
Double line river with multiple rapids
Double line river with multiple rapids
Reservoir
River, Stream, Canal
Approximate
Direction of flow
Rock
Shoal
Spot Elevation (lake elevations)
Tower
Transmission Line
Poles
Pylons
Tunnel
Utility Poles
Wharf, Dock, Pier
Wooded Area

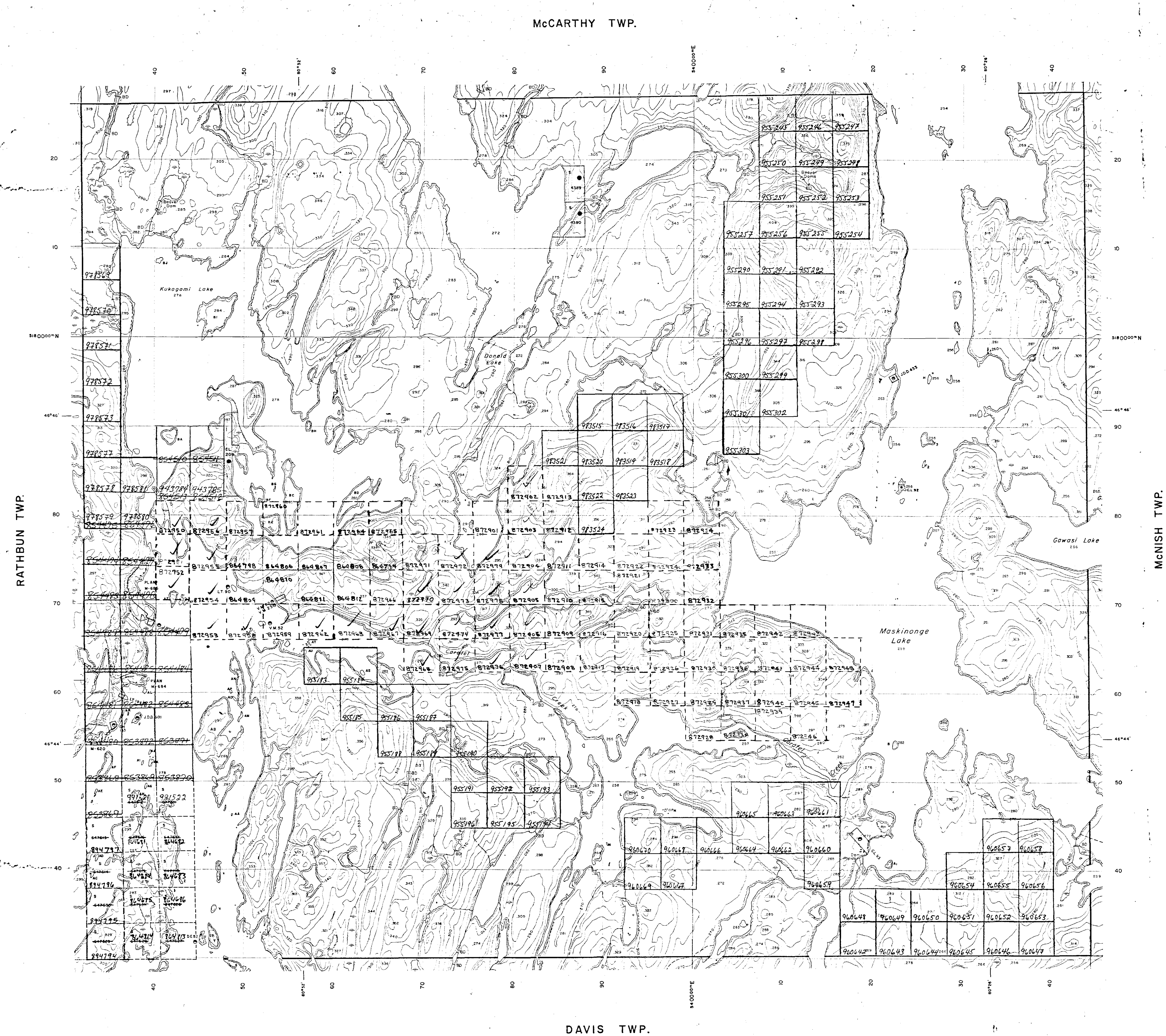
AREAS WITHDRAWN FROM DISPOSITION

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

Description	Order No.	Date	Disposition	File

NOTES

SUBDIVISION OF KELLY TWP. INTO LOTS AND CONCESSIONS WAS ANNULLED 18 SEPT. 1953.



41110NE0009 2.9955 KELLY

200

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.

Metres 500 0 1000 Metres
Chains 10 0 10 20 30 40 50 60 70 Chains
Feet 500 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000

GRID ZONE 17

TOWNSHIP

KELLY

M.N.R. ADMINISTRATIVE DISTRICT
SUDBURY
MINING DIVISION
SUDBURY
LAND TITLES / REGISTRY DIVISION
SUDBURY 6-3033

Ministry of Natural Resources
Land Management Branch
Ontario

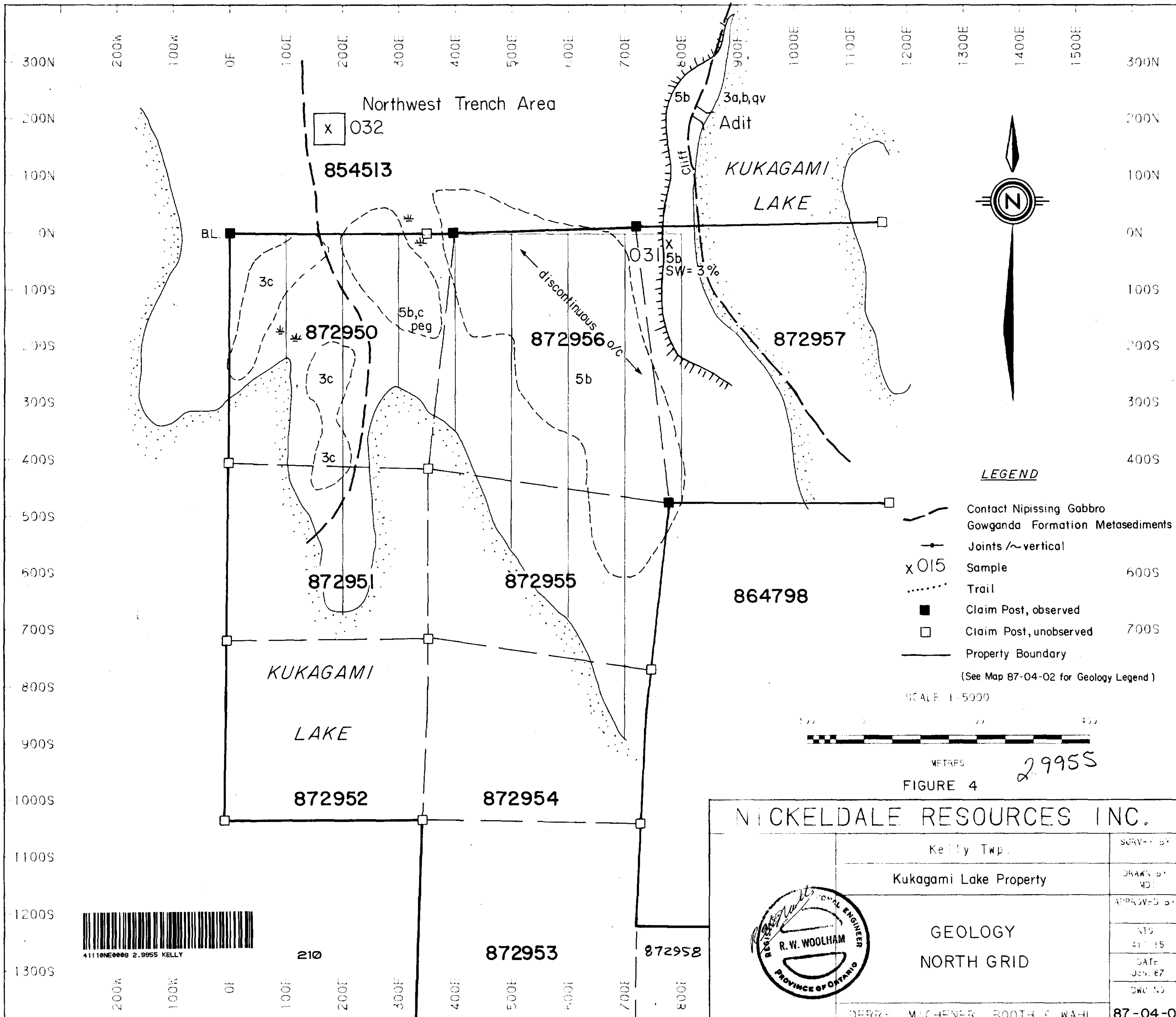
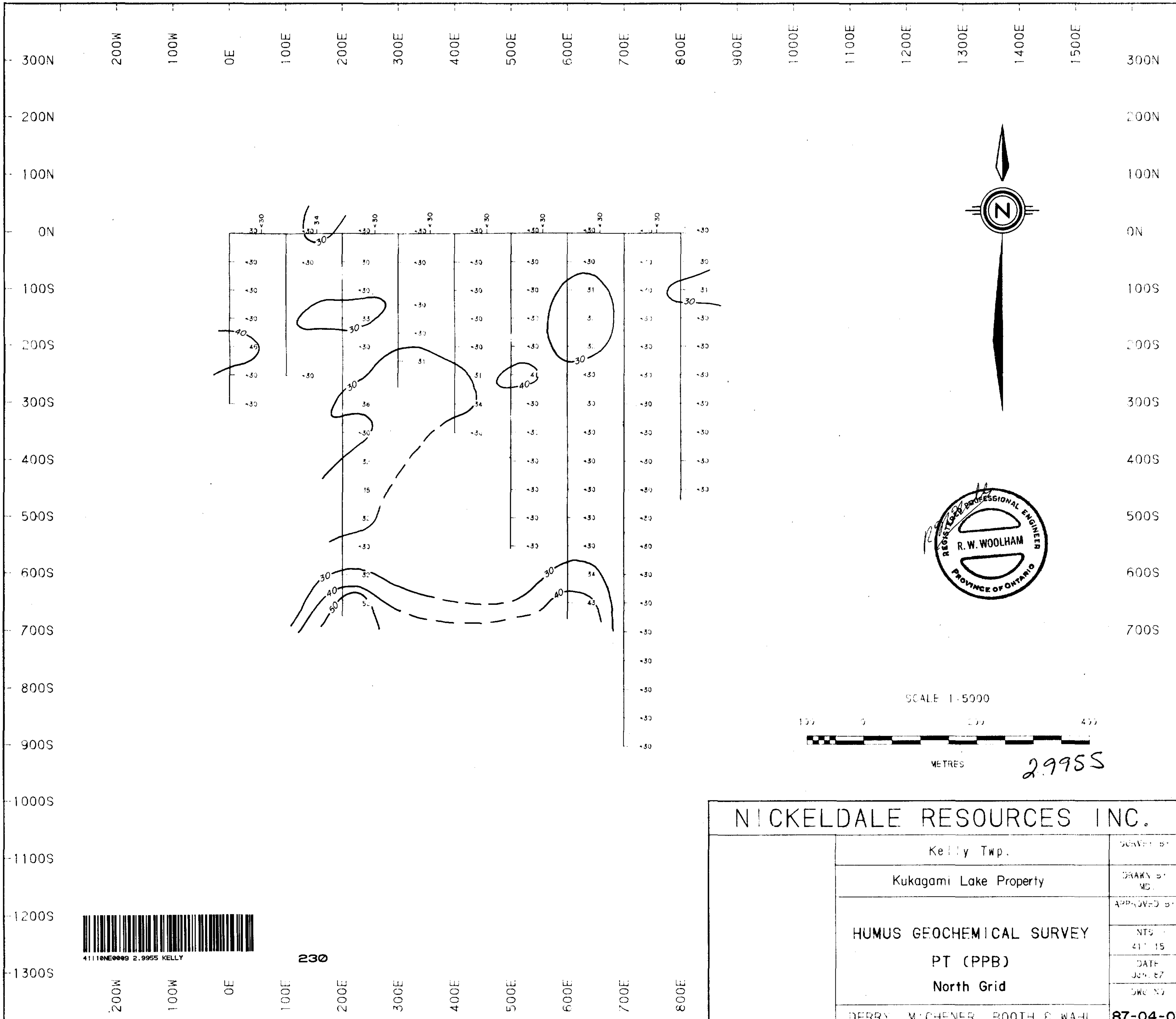
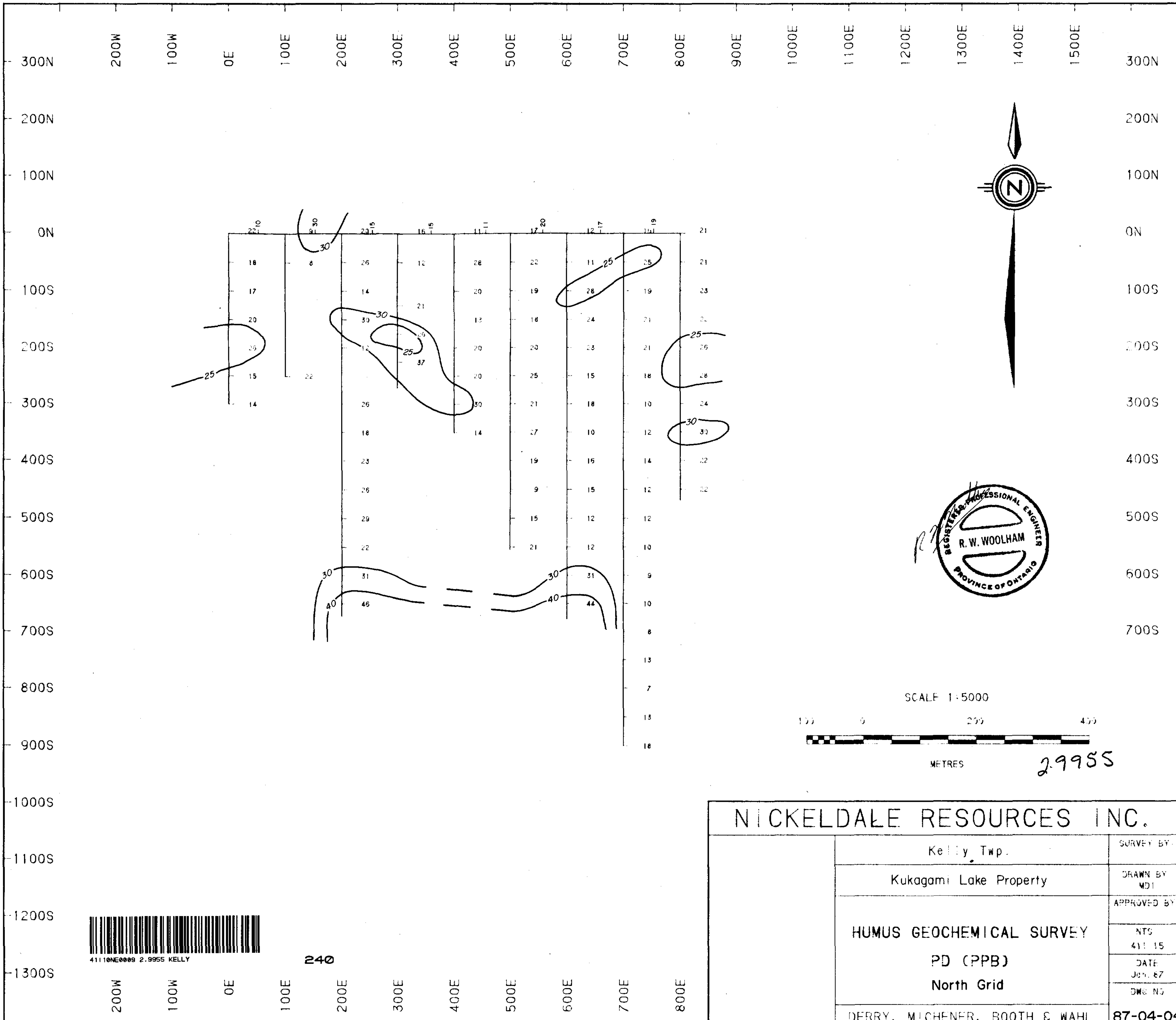
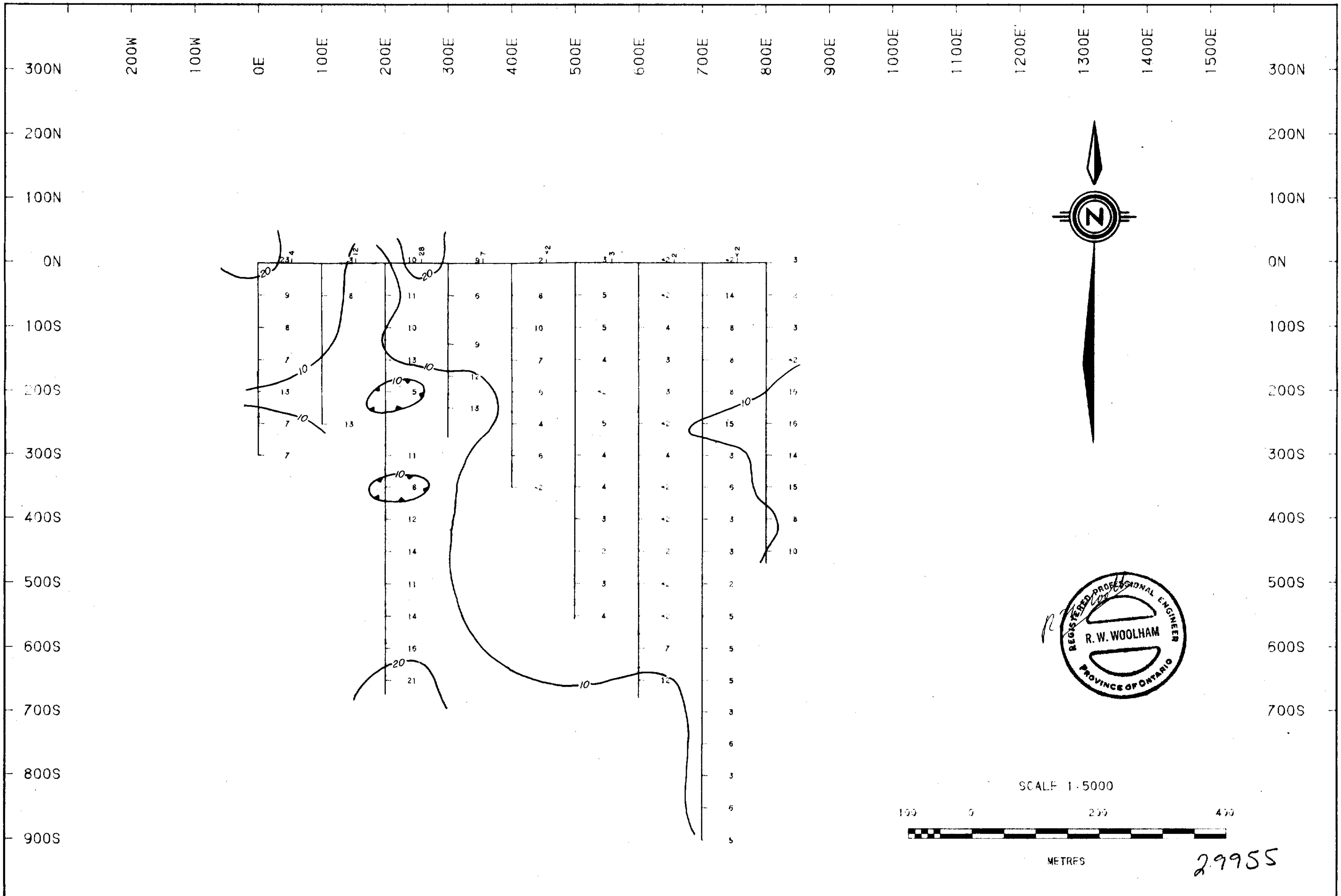

Northwest Trench Area
x 032
854513
5b
3a,b,qv
Adit
Cliff
KUKAGAMI
LAKE
B.L.
x
031
5b
SW= 3%
3c
5b,c
peg
872950
872956
discontinuous o/c
872957
3c
5b
3c
872951
872955
864798
KUKAGAMI
LAKE
872952
872954
872953
872958
210
LEGEND
Contact Nipissing Gabbro
Gowganda Formation Metasediments
Joints /~vertical
x 015
Sample
Trail
Claim Post, observed
Claim Post, unobserved
Property Boundary
(See Map 87-04-02 for Geology Legend)
SCALE 1:5000
METRES
2.9955
FIGURE 4
NICKELDALE RESOURCES INC.
Kelly Twp.
Kukagami Lake Property
GEOLOGY
NORTH GRID
R. W. WOOLHAM
PROVINCE OF ONTARIO
DERRY, MICHENER, BOOTH & WAHL
87-04-01
41I10NE0009 2.9955 KELLY

FIGURE 4


East Trench Area
872965
864797
872966
872971
827972
872901
872902
872903
872979
872904
872970
872973
872978
872905
872959
872962
872963
872967
872969
872977
872906
872974
872968
872975
872976
872907
KUKAGAMI
LAKE
Discontinuous o/c
Continuous o/c
Continuous o/c 5b
Discontinuous o/c (5b,a)
Cliff
bldrs & scree
W.P.
4+00N
B.L.
4+00S
x 001
x 002
x 003
x 004
005
x 011
x 012
x 013
x 014
x 015
x 016
026 x
x 027
5b,sv=<19%
5b,sv=3%
5b,sv=1%
5b,sv=1-2%
5b,c,peg
LEGEND
Contact Nipissing Gabbro / Gowganda Formation Metasediments
Joints / ~ vertical
x 015 Sample
Trail
Claim Post, observed
Claim Post, unobserved
Property Boundary
Swamp
5 Nipissing Diabase
5a fine grained
5b medium grained
5c coarse grained
massive unless rated
pervasively jointed
sulphides visible (%)
3 Huronian Sediments (Gowganda Fm)
3a pebble conglomerate matrix supported
3b siltstone
3c quartzite
FIGURE 5
29955
NICKELDALE RESOURCES INC.
Kukagami Lake Property
GEOLOGY
SOUTH GRID
R. W. WOOLHAM
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
87-04-02
220
41I10NE0009 2.9955 KELLY


200W 100W 0E 100E 200E 300E 400E 500E 600E 700E 800E 900E 1000E 1100E 1200E 1300E 1400E 1500E
300N 200N 100N 0N 100S 200S 300S 400S 500S 600S 700S 800S 900S 1000S 1100S 1200S 1300S
N
R. W. WOOLHAM
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
SCALE 1:5000
METRES
2.9955
41I10NE0009 2.9955 KELLY
230
NICKELDALE RESOURCES INC.
Kelly Twp.
Kukagami Lake Property
HUMUS GEOCHEMICAL SURVEY
PT (PPB)
North Grid
DERRY, MICHENER, BOOTH & WAHL
DRAWN BY MD
87-04-03


300N
200N
100N
0N
100S
200S
300S
400S
500S
600S
700S
800S
900S
1000S
1100S
1200S
1300S
200W
100W
0E
100E
200E
300E
400E
500E
600E
700E
800E
900E
1000E
1100E
1200E
1300E
1400E
1500E
N
REGISTERED PROFESSIONAL ENGINEER
R. W. WOOLHAM
PROVINCE OF ONTARIO
SCALE 1:5000
METRES
2.9955
41I10NE0009 2.9955 KELLY
240
NICKELDALE RESOURCES INC.
Kelly Twp.
Kukagami Lake Property
HUMUS GEOCHEMICAL SURVEY
PD (PPB)
North Grid
DERRY, MICHENER, BOOTH & WAHL
SURVEY BY:
DRAWN BY
MDI
APPROVED BY:
NTS
41I 15
DATE
Jan. 87
DWG NO
87-04-04



NICKELDALE RESOURCES INC.

Kelly Twp.

Kukagami Lake Property

HUMUS GEOCHEMICAL SURVEY

AU (PPB)

North Grid

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY

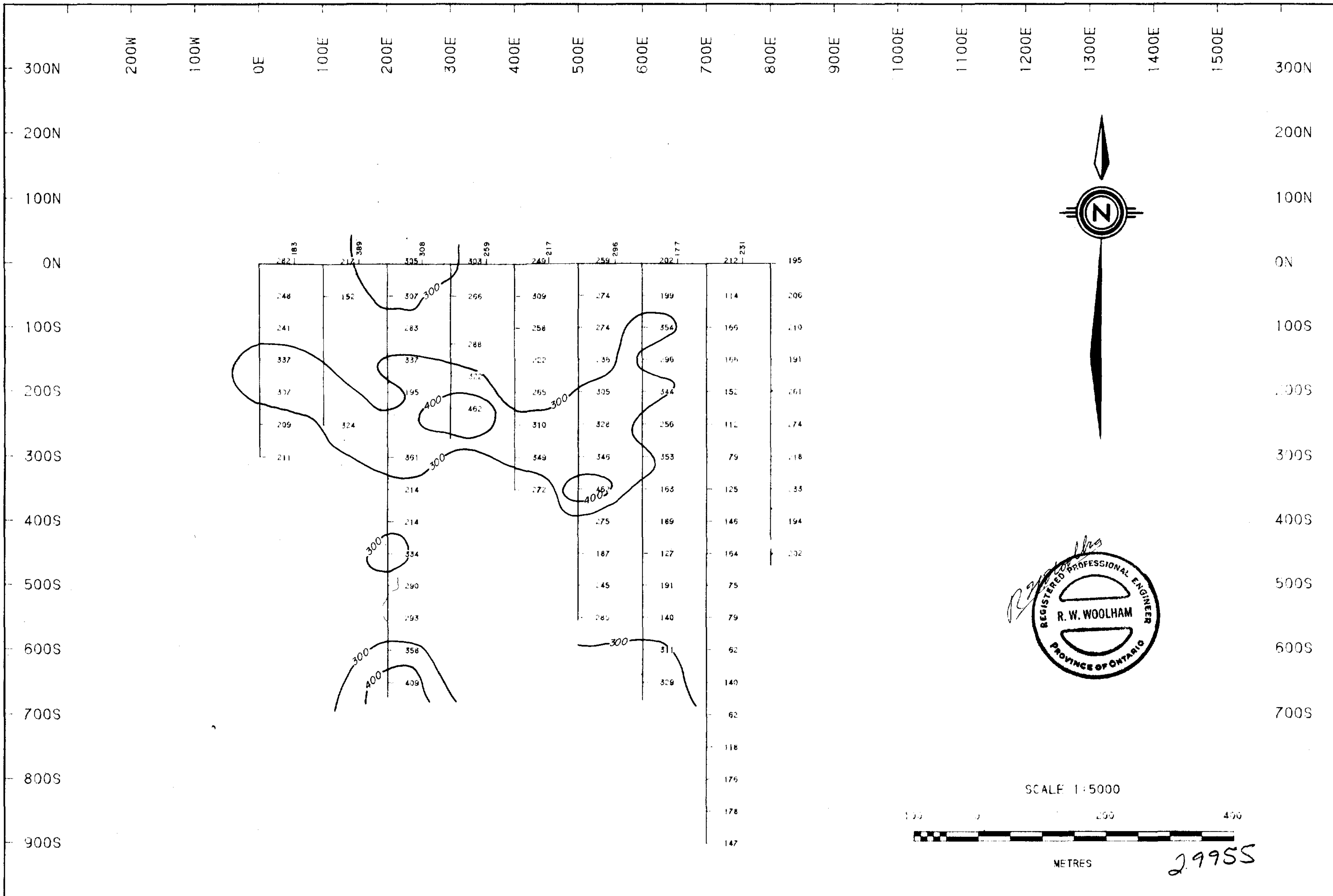
DRAWN BY MDI

APPROVED BY

NTS 41I 15

DATE Jan/87

DWG NO 87-04-05



NICKELDALE RESOURCES INC.

Kelly Twp.

Kukagami Lake Property

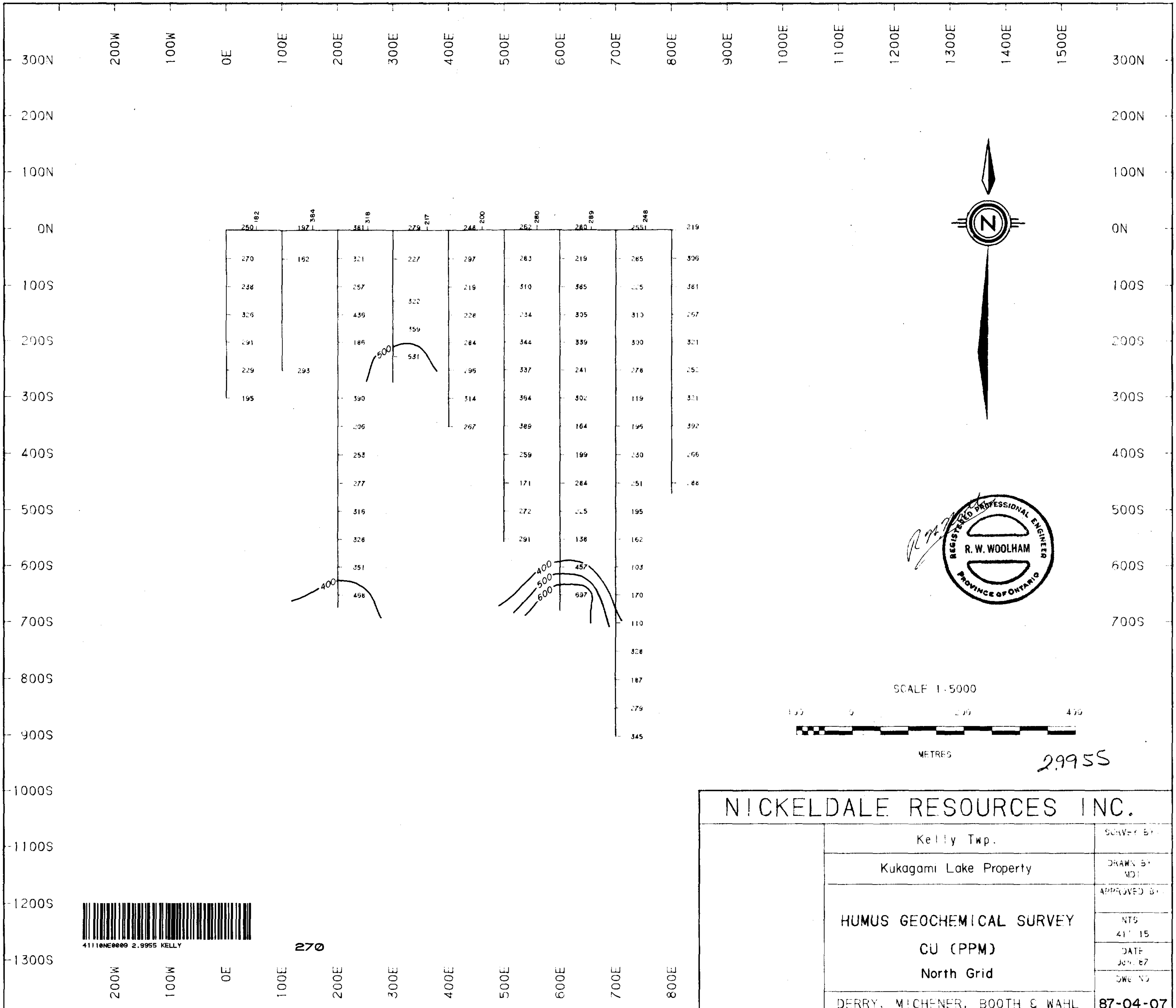
HUMUS GEOCHEMICAL SURVEY

NI (PPM)

North Grid

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY	
DRAWN BY	MDI
APPROVED BY	
NTS	41 I 15
DATE	Jan. 87
DWG NO	87-04-06



NICKELDALE RESOURCES INC.

	Kelly Twp.	SURVEY BY
	Kukagami Lake Property	DRAWN BY
		APPROVED BY
	HUMUS GEOCHEMICAL SURVEY	NTS 41 I 15
	CU (PPM)	DATE
	North Grid	DWG NO
	DERRY, MICHENER, BOOTH & WAHL	87-04-07


NICKELDALE RESOURCES INC.
Kelly Twp.
Kukagami Lake Property
HUMUS GEOCHEMICAL SURVEY
PT (PPB)
South Grid
DERRY, MICHENER, BOOTH & WAHL
87-04-08
SCALE 1:5000
METRES
R. W. WOOLHAM
280
2.9955


NICKELDALE RESOURCES INC.
Kelly Twp.
Kukagami Lake Property
HUMUS GEOCHEMICAL SURVEY
PD (PPB)
South Grid
DERRY, MICHENER, BOOTH & WAHL
87-04-09
SCALE 1:5000
METRES
R. W. WOOLHAM
2.9955
290

NICKELDALE RESOURCES INC.
Kelly Twp.
Kukagami Lake Property
HUMUS GEOCHEMICAL SURVEY
AU (PPB)
South Grid
DERRY, MICHENER, BOOTH & WAHL
SURVEY BY
DRAWN BY
APPROVED BY
NTS
DATE
DWG NO
87-04-10
SCALE 1:5000
METRES
R. W. WOOLHAM
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
N
29955
300

NICKELDALE RESOURCES INC.

Kelly Twp

Kukagami Lake Property

HUMUS GEOCHEMICAL SURVEY

NI (PPM)

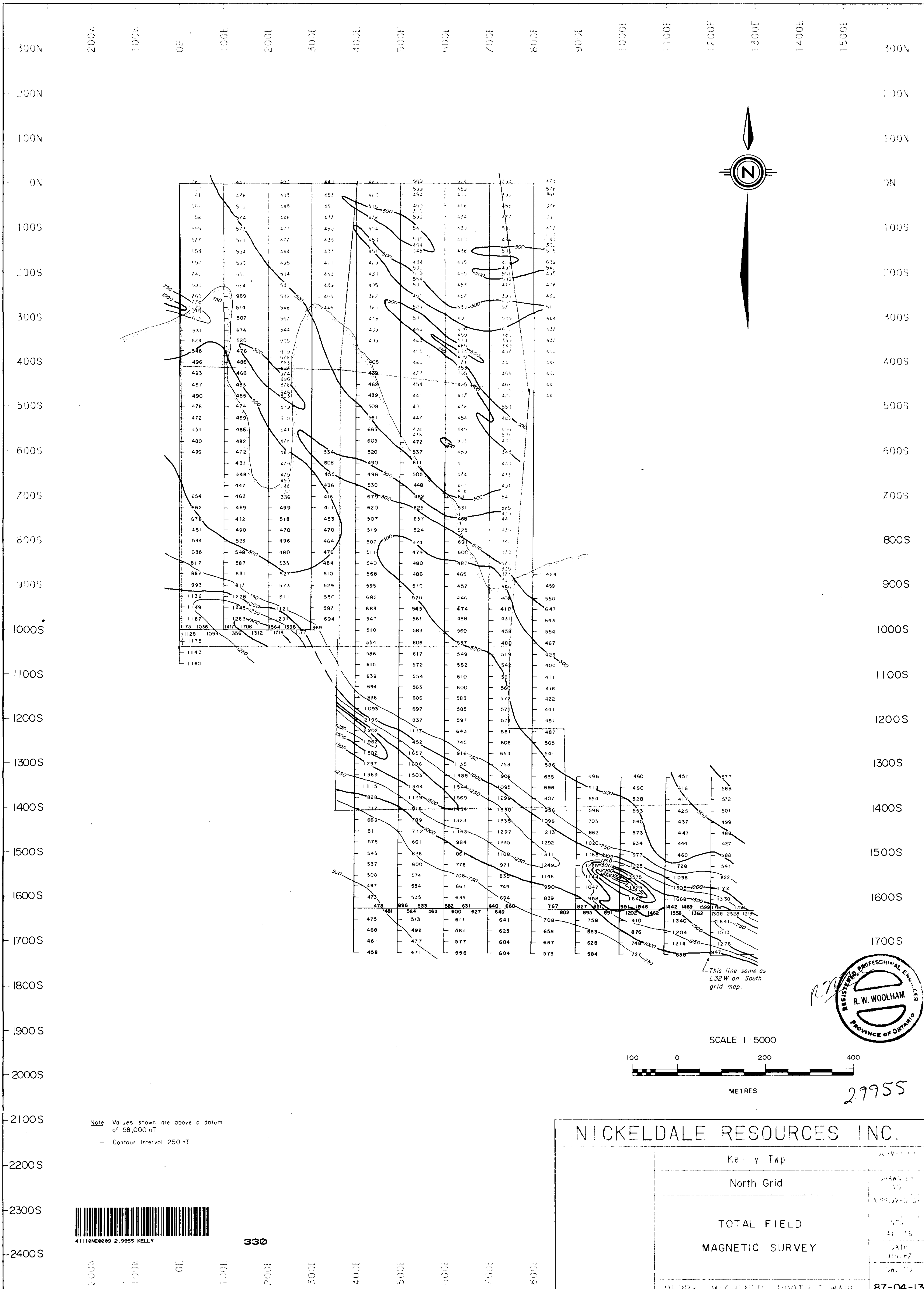
South Grid

DERRY, MICHENER, BOOTH & WAHL

SURVEY BY	
DRAWN BY	MD
APPROVED BY	
NTS	41 I 15
DATE	Jun. 87
DWG. NO.	87-04-11

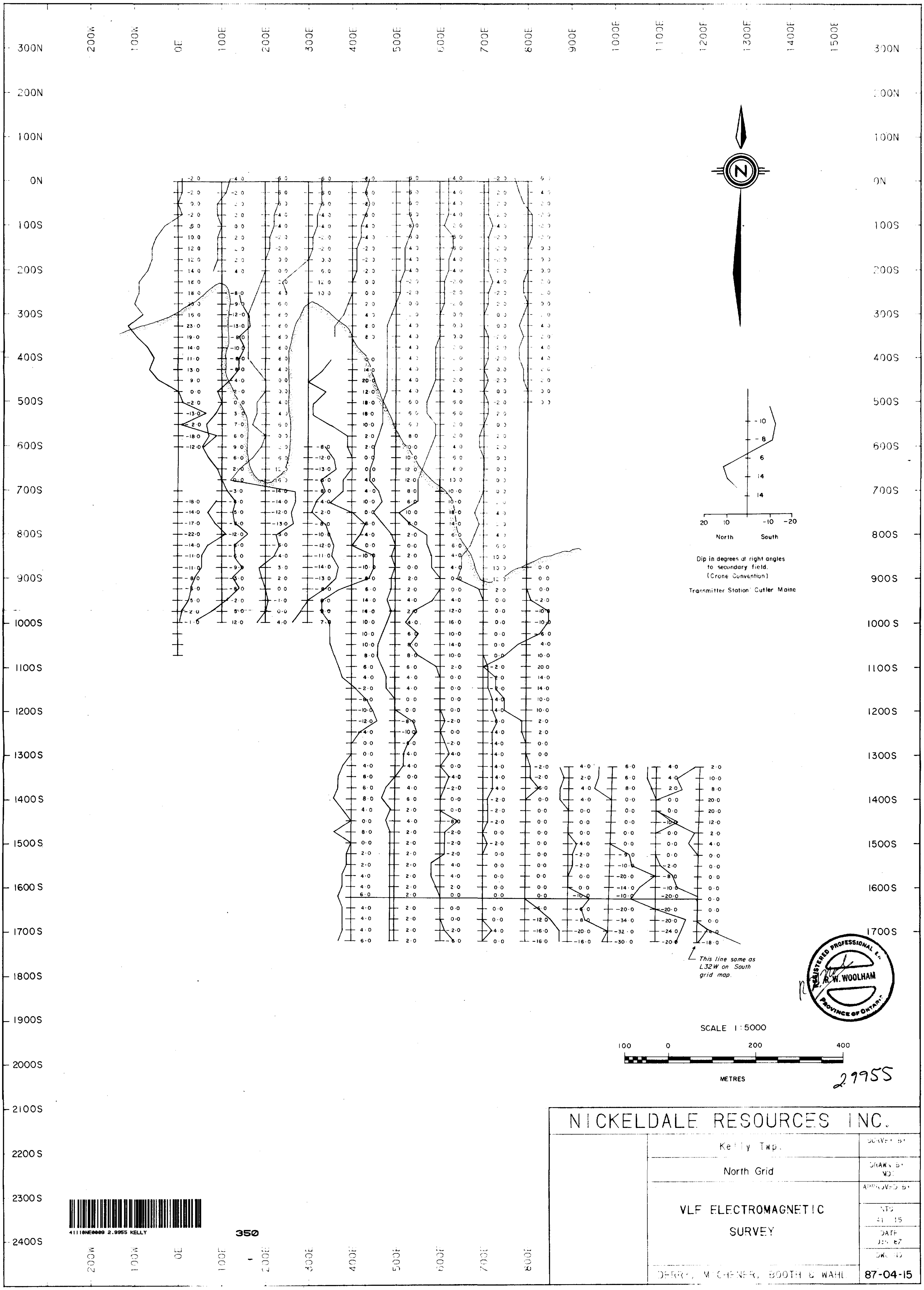
NICKELDALE RESOURCES INC.

Kelly Twp.	SURVEY BY:
Kukagami Lake Property	DRAWN BY: MD
HUMUS GEOCHEMICAL SURVEY CU (PPM) South Grid	APPROVED BY: NTS 41 15 DATE Jun 87 DWG NO
DERRY, MICHENER, BOOTH & WAHL	87-04-12



NICKELDALE RESOURCES INC.
Kelly Twp.
North Grid
TOTAL FIELD
MAGNETIC SURVEY
DERRY, MICHENER, BOOTH & WAHL
87-04-13
SCALE 1:5000
100 0 200 400
METRES
Note: Values shown are above a datum of 58,000 nT
— Contour interval 250 nT
This line same as L32W on South grid map
R. W. WOOLHAM
PROVINCE OF ONTARIO
29955
330
41I10NE0009 2.9955 KELLY


NICKELDALE RESOURCES INC.
Kelly Twp.
South Grid
TOTAL FIELD
MAGNETIC SURVEY
DERRY, MICHENER, BOOTH & WAHL
SURVEY BY:
DRAWN BY: MDI
APPROVED BY:
NTS 41I 15
DATE Jan./87
DWG NO 87-04-14
Note: Values shown are above a datum of 58,000 nT
— Contour Interval 250 nT
This line same as L12E on North grid map.
SCALE 1:5000
METRES
29955
R. W. WOOLHAM
PROVINCE OF ONTARIO
340



Dip in degrees at right angles to secondary field. (Crone Convention)
Transmitter Station: Cutler Maine
North
South
This line same as L32W on South grid map.
SCALE 1:5000
METRES
R. W. WOOLHAM
REGISTERED PROFESSIONAL
PROVINCE OF ONTARIO
29955
NICKELDALE RESOURCES INC.
Kelly Twp.
North Grid
VLF ELECTROMAGNETIC SURVEY
DERRY, MICHENER, BOOTH & WAHL
87-04-15
41I10NE0009 2.9955 KELLY
350


This line same as L12E on North grid map.
Dip in degrees at right angles to secondary field. (Crane Convention)
Transmitter Station : Cutler Maine
North
South
R. W. WOOLHAM
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
SCALE 1:5000
METRES
29955
360
NICKELDALE RESOURCES INC.
Kelly Twp.
South Grid
VLF ELECTROMAGNETIC SURVEY
DERRY, MICHENER, BOOTH & WAHL
SURVEY BY:
DRAWN BY: MDI
APPROVED BY:
NTS 41 I 15
DATE Jan./87
DWG NO
87-04-16