



32D04NW0041 W8480-00156 GAUTHIER

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SUDBURY CONTACT MINES LTD.

1992 DIAMOND DRILLING SUMMARY

REPORT

FOR

THE DIAMOND LAKE

PROJECT

PREPARED BY

W. A. HUBACHECK CONSULTANTS LTD.

D. W. Christie, B.Sc

April 4, 1994

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SUDBURY CONTACT MINES LTD.

Summary

Sudbury Contact Mines Ltd. is involved in the exploration of two project areas, consisting of 34,110 acres in McElroy, Hearst, McVittie, Gauthier, Arnold, and Katrine Townships in the Province of Ontario.

After detailed ground geophysics was extended on the Diamond Lake Project in April, 1992, a number of new targets were outlined for testing.

Diamond drilling followed in June and July and again in November and December for a total of 1725 metres of diamond drilling in 1992, of which 1573 metres are summarized in this report. The target objective of kimberlite was successfully intersected in three holes. Two holes intersected a north-south trending hypabyssal olivine kimberlite dyke. While one hole intersected a small volcanoclastic kimberlite breccia with the same hypabyssal olivine kimberlite dyke intersecting it.

Further ground geophysics in conjunction with mapping on the Moosehead group and RC (overburden) drilling over the entire property position is planned for 1993 on the Diamond Lake Project.

Diamond drilling will assess discoveries or new targets which are difficult to access with the RC Rig.

During the months April-August, 1992, a series of acquisitions were made as part of Sudbury Contact's expanded diamond exploration program. A total of 45 claims or 14,040 acres were staked in Arnold, Gauthier, Katrine, and McVittie as an addition to the Diamond Lake Project and called the Moosehead Property ("K" and "L").

These new acquisitions were mapped and prospected between June and October with the claim groups recommended for detailed Reverse Circulation Drilling.

In addition, a till sampling program is recommended to aid in further target selection, with follow-up ground geophysics over prospective targets.

Introduction

From 1986 to 1991, exploration programs have been focused on known auriferous targets along the Larder Lake Break and to identify new targets along other structures for drill testing utilizing the extensive data base acquired by Sudbury Contact Mines Ltd. since 1972 in the Larder Lake Gold Camp.

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On March 30, 1992, Sudbury Contact Mines Ltd. issued a press release describing a recent diamondiferous kimberlite discovery west of Larder Lake, Ontario. The discovery of in-situ kimberlite occurrences in 1989 represents the successful fruition of exploration efforts launched by Sudbury Contact in 1987 with the acquisition of the Diamond Lake properties known to host gravel deposits containing kimberlite float boulders.

This report summarizes the 1992 diamond drilling program on the Diamond Lake Project.

Subsequently, the reporting of this discovery by local and national press helped to precipitate a major staking rush in Northern Ontario.

W. A. Hubacheck Consultants Ltd. has been retained exclusively by Sudbury Contact Mines Ltd. managing all of their exploration projects in the Larder Lake Mining Division since 1972.

CURRENT LAND DISPOSITION

The company is involved in the exploration of gold, and diamond properties within its Diamond Lake Project Area consisting of 267 claims, totalling 22,290 acres (as of January 1992); located primarily in McVittie, Hearst, Gauthier, McElroy, Katrine and Arnold Townships of the Larder Lake Mining Division, Ontario (Figures 2, 3 and 4).

The properties are strategically positioned covering portions of the "Kirkland-Larder Lake Fault Structure", which is generally associated with all the producing and former producing gold mines of the Kirkland Lake Gold Camp (Figure 1).

In addition, the properties are located in proximity to north-south structures (namely the Misema River Fault) which are possibly related to major zones of crustal weakness.

<u>Diamond Lake Area Project</u>	<u>Claims</u>	<u>Acres</u>
Diamond Lake Option	49	1960
Moosehead Lake (includes "L" & "K")	45	14040
Panthco - Mary Ann Option	51	2040
Lac-Gauthier - McVittie Option	<u>122</u>	<u>4880</u>
Sub Total:	267	22920

* Refer to figures for project location and access.

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Property and Project Area Description

a) **Diamond Lake Option**

The property consists of 49 claims totalling 1960 acres straddling the boundaries of "Gauthier and McVittie Townships south ends and the norther sections of Hearst and McElroy Townships, Larder Lake Mining Division, (Figures 2) and are numbered as follows:

L667832, L736729, L736730, L737731, L736732, L760496, L800064, L821928, L893730, L893731, L981875, L981993, L1111211, L1014694, L1045614, L1096947, L667833, L821910, L1151867, L1151868, L1151869, L892020, L892246, L917318, L919853, L1146425, L11515117, L919854, L919855, L919919, L982373, L919850, L919851, L919920, L9080319, L981385, L981386, L919921, L919922, L919923, L982757, L980387, L980395, L980396, L859823, L23463, L19280, L23462, L979566.

b) **Moosehead Property**

The property consists of 45 claims totalling 14040 acres in McVittie, Gauthier, Arnold, and Katrine Townships adjoining the Panthco Mary-Ann Option to the east, the Lac Gauthier option to the north, the Lac McVittie Option to the east and north, in the Larder Lake Mining Division, and are numbered as follows:

"K": L1186215(4), L1186214(16), L1186216(16), L1186217(15).
 "L": L1186260(12), L1186261(12), L1186259(1), L1180480(16), L1186222(2), L1186223(4), L1180460(16), L1180464(16), L1180513(8), L1186224(16), L1180479(16), L1186225(7), L1180477(16), L1180478(16), L1180457(16), L1180458(16), L1180508(9), L1180509(16), L1180510(3), L1180461(12), L1180462(2), L1180463(1), L1180459(16), L1180515(2), L1186227(12), L1186228(4), L1186229(4).

c) **Panthco Mary-Ann Option**

The property consists of 51 claims (patented and unpatented) with three licenses of occupation totalling 2040 acres straddling the boundary between Gauthier and McVittie Township, Larder Lake Mining Division, (Figure 2) and are numbered as follows:

Unpatented Claims: 599135, 599137, 599000-599003, 859153-859156, 859612-859615, 884525-884528, 884026-884028, 982246-982249

Patented Claims: JS-134, 7732, 7914, 8793-8796, 9430, 9611, 9698, 11787, 11788, 87, 19690, 34740, 22931, 12881-12883, 13142, 13497, 22930, 22932, 31366.

Licenses of Occupation: 10933 (re. claim 34740)
 10934 (re. claim 33696)
 10937 (re. claim 34739)

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d) **Lac Gauthier - McVittie Option**

The property consists of 122 claims totalling 4,880 acres in two groups; one group in the Northern section of Gauthier Township and one group in the Central Western portion of McVittie Township in the Larder Lake Mining Division (Figure 2) and are numbered as follows:

McVittie Group: 799522-799524, 801128-801135, 801144-801151, 801153, 801166-801175.

Gauthier Group: 1110596, 1127475-1137479, 1145455, 800255-800278, 821260-821274, 821285, 8211288, 821290, 821351-821358, 894120-894127, 918200-918202, 918204, 918207-918216, 918219-918227, 918231-918232, 918234-918235.

Location and Access

a) **Diamond Lake Option**

The claims commonly adjoin the Gauthier / McVittie / Hearst / McElroy Township four corner junction and extend to the north and south of this junction straddling the township boundaries. The claim group lies 3 km west of Larder Lake along Highway 66, and is accessible to the north from the Fork Lake access road, and to the south via an old logging road. The Misema River, flanked on the east by a south trending esker ridge is the dominant geographic feature.

The Northwestern portion of the property can be accessed from the little Larder-Lake Road from the Village of Dobie crossing the Ontario Hydro line two miles west of claim 1111211.

b) **Moosehead Property**

The claims are accessible as in the Diamond Lake Property claims via the Fork Lake road north to the Hydro line and 2 km east to the southwest corner of the claim group. Also via Hwy 672 to the Howard Lake Road to reach the north western end of the group ("K") or via the Larder Station Haulage Road to the North eastern end of the claim group, or via the Beaverhouse Mine Road and then north on the Beaverhouse Native Band winter road to Misema Lake.

c) **Panthco Mary-Ann Option**

The property is situated in the east-central part of Gauthier Township, and the west-central part of adjoining McVittie Township about 4 km west of Larder Lake, Ontario.

The property is easily reached by car. The gravel road to the Old Upper Beaver Mine provides convenient access to the western and northern portion of the property from Highway 66. The Fork Lake Road turn off from Highway 66 follows the east bank of the Misema River and provides access to the eastern portion of the property.

The hydro electric transmission line through the southern part of the property serves as a walking trail to the southern portions of the property. The property is sandwiched between the Lac Gauthier Option to the North and the Lac McVittie Option and the Diamond Lake Option to the South and the Moosehead Property to the east.

d) **Lac Gauthier-McVittie Option**

This property is divided into two groups of claims. The largest group of 92 claims lies at the North end of Gauthier Township adjoining the North end of the Panthco-Mary-Ann Option.

The Eastern claims in the Gauthier group are accessible via the Dobie Road which runs NW from Highway 66, approximately 20 km east of Kirkland Lake. The western claims in the Gauthier group are accessible via the Esker Park Road and an unmaintained logging road.

The second group of claims is the Lac-McVittie group situated on the North and East boundary of the Diamond Lake group and the west boundary of McVittie Township extending 8 claim widths to the east. They are bounded to the north by the Panthco-Mary-Ann Option, the Moosehead Property and the Hydro line. Access is similar to the Diamond Lake Option, also the hydro line provides access to the north boundary of the group.

Past Work by Sudbury Contact

The Diamond Lake Properties straddle part of the Larder Lake Break formerly known as the Beauregard and Olivet Properties, as well as a north/south structure which extends north from the Larder Lake Break to the North end of Gauthier Township passing to the west of the Upper Beaver Minesite presently being explored by Royal Oak Mines Ltd. The properties cover the Timiskaming sediments, the Kinojevis and Gauthier Volcanic Group and the Larder Lake Group hosting the Kirkland-Larder Lake Break.

In 1987, the company began gold and diamond exploration on the newly acquired Larder Townsite and Diamond Lake Properties directed by its own airborne survey which outlined unusual airborne anomalies. The occurrence of kimberlite float boulders in gravel pits on the Larder Townsite Property also led encouragement to undertake a major reverse circulation (RC) drilling program on these properties.

In 1989, a followup reverse circulation (R.C.) and diamond drilling program was initiated to investigate airborne magnetic gradients and basal till anomalies in the vicinity of a linear magnetic gradient contour-flanking the east side of the Misema River (KLIP basal Till Study - 1984).

RC - Drill Hole FL-89-2, located on Claim L12295 successfully penetrated thick esker deposits in excess of 57 metres before entering bedrock.

An "exotic" ultramafic chip sample was returned containing an assemblage of clasts containing phlogopite mica, garnets, and magnetic sludge.

Diamond drilling in 1989 confirmed the presence of a kimberlite dyke structure striking north/south over a presumed 1700 metre length varying in widths ranging from a few metres to 100 metres. In June 1990, a kimberlite pipe (Diamond Lake Pipe No. 1) was discovered on the northern portion of the dyke structure.

In the fall of 1989, a drill hole tested the magnetic gradient feature outlined in the 1987 Airborne Magnetic/VLF-EM Survey approximately 75 metres North of RC FL-89-2 on Claim L19280. Hole FL-89-4 successfully intersected a six metre section of serpentine ultramafic dyke possibly of "Kimberlitic origin". The serpentinized chloritic matrix contained phlogopite, olivine and lesser amounts of garnet, magnetite and ilmenite.

In June of 1990, a drill hole FL-90-5 was collared approximately 300 metres north of FL-89-4. This drill hole returned a cored interval consisting of a serpentinized ultramafic diatreme breccia to a depth of 169.77 metres which was later confirmed as a kimberlite returning favourable heavy mineral analyses.

Heavy mineral processing of samples taken from the 1989 RC program and the 1990 diamond drilling program yielded favourable results. These analyses indicated that the dyke/pipe contained kimberlitic indicator minerals.

Based on the results of the 1990 program two option agreements were signed in 1991 involving 173 claims (6920 acres); one agreement with Panthco Resources Inc.(July 1) and the other with Lac Minerals Ltd.(September 1).

During February of 1991 28 kilometres of total field magnetics and VLF-EM were completed by JVX Ltd. This survey was performed at 100 metre line spacing with an E-W orientation over the Diamond Lake Option outlining the kimberlite, and it outlined local structures as well (Webster, B.; 1991).

In January 1991, a fixed wing Magnetic VLF Survey was commissioned to fly a six kilometre by 12 kilometre grid area totalling 838 line kilometres of flying(C. Q. Barrie, 1991).

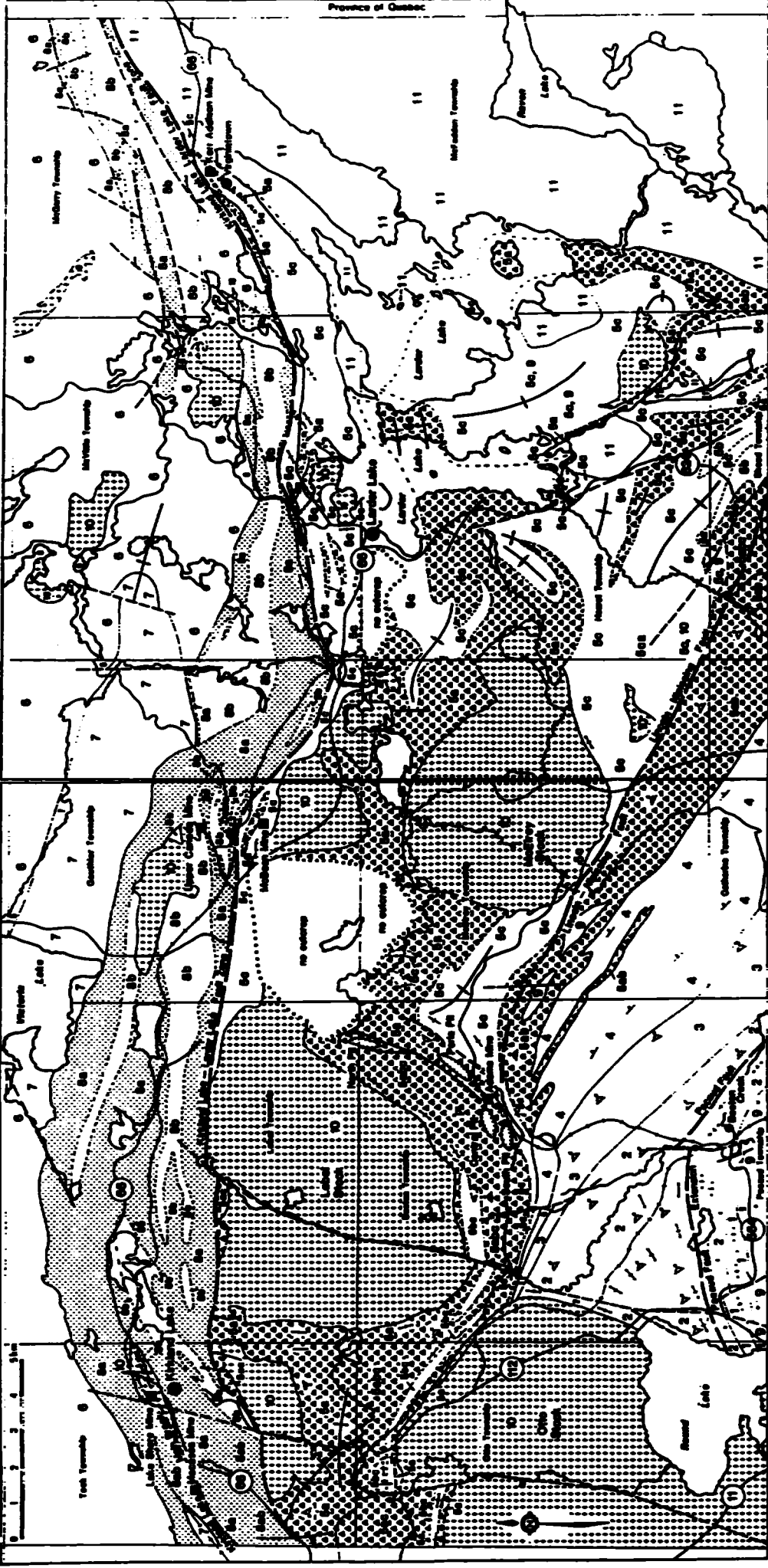
In November and December of 1991 JVX Ltd. was commissioned to extend the survey completed in February 1991 on the Diamond Lake Option to cover the Panthco Mary-Ann Option and the Lac-McVittie Option both to the North and to tighten line spacing to 50 metres over selected areas and 100 metre line spacing everywhere. A total of 36.2 line kilometres were cut with Magnetic and VLF Surveys over the entire grid and gravity over selected lines (Vickers, A. 1991).

In the summer of 1991 a program of geological mapping, past work study, geophysical anomaly ground checking, and compilation was undertaken on the property group (T. Hughes, 1991)

A total of 1681 metres of diamond drilling involving nine drill holes were completed on the Diamond Lake Project area in 1991 (Christie, D., 1992)

In 1991, a program consisting of ground geophysical surveys followed by 1681 metres of diamond drilling was completed. The target objective of kimberlitic rock was successfully intersected in four of the nine drill holes, with two holes intersecting kimberlite to a vertical depth exceeding 250 metres, now referred to as the "Diamond Lake Pipe No.1". Indicator mineral analysis and diamond fusion work has been conducted on 14 samples.

Fourteen microdiamonds have been recovered from 14 samples retrieved from three drill holes testing the Diamond Lake Pipe No. 1 to vertical depths ranging from 200 to 350 metres. Forty-three per cent of the microdiamonds are reported to be gem quality. In addition, several G10 garnets were identified by microprobe and SEM analysis.



- PROTEROZOIC**
- 11 Cobalt Group
 - ARCHEAN**
 - [1.5] Altona to Subashish Intrusive Rocks
 - 9 Tremblantite Intrusive Rocks (Grand Lake Batholith)
 - 8 Tremblant Group
- [1.6] Sedimentary Rocks**
- 5b Altona Volcanic Rocks
 - 7 Gauthier Volcanics
 - 6 Nipipic Group
 - 5 Larder Lake Group
- [1.7] Ultramafic and Mafic Volcanic Rocks**
- 5a Intermediate and Felsic Volcanic Rocks
 - 5c Sedimentary Rocks
 - 4 Sheard Group
 - 3 Catharine Group
- 2 Wabowena Group**
- 1 Pessumit Tuff
 - bedding, bedding (with tops)
 - lava flow tops
 - colchicoity
- Legend:**
- fault
 - major fault zone
 - + syncline
 - + anticline
 - ... geological boundaries
 - ... stratigraphic contacts
 - roads and highways
 - mine
 - towns

Figure 1. Stratigraphy of the Kirkland Lake area (1/17/84 (71))

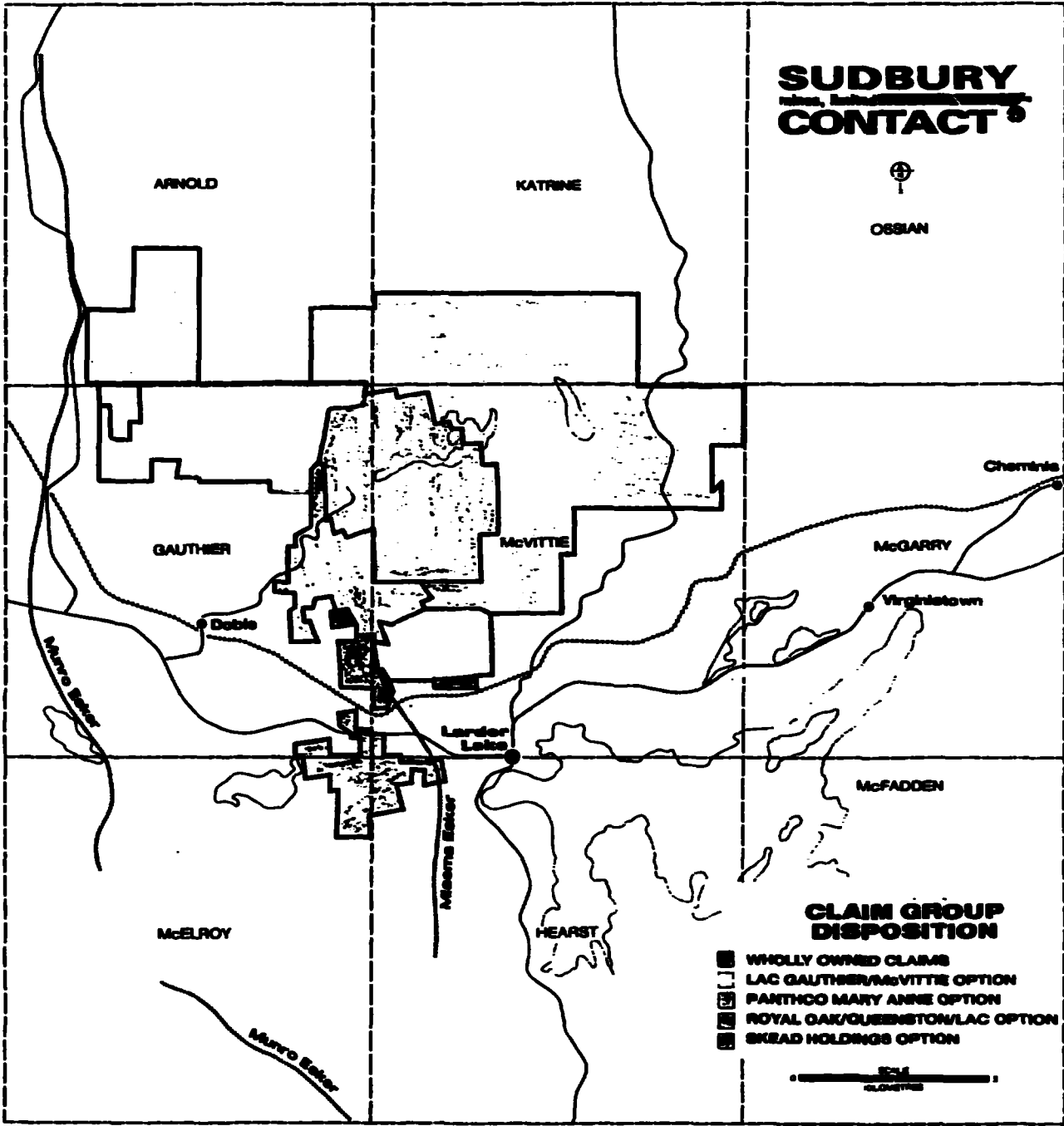
SUDBURY CONTACT MINES I.T.D.

KIRKLAND LAKE AREA GEOLOGY

FROM: I.S. JENSEN, 1985.

DATE: Feb/92 **FIGURE NO. 1**

DIAMOND LAKE PROJECT AREA



**PROJECT MANAGEMENT: W.A.HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA**

THE 1992 DIAMOND DRILLING

A diamond drilling program was undertaken on Sudbury Contact's Diamond Lake Project during the period June 1, 1992 to July 9, 1992 and from November 22 to December 6, 1992. The primary exploration target was kimberlite in the search for an economic diamond deposit, following the discovery of the Diamond Lake Pipe #1 which was made in 1990.

A total of 1725 metres (5658 feet) was completed in twelve holes, six holes on the Panthco JV/Option amounting to 730.1 metres and one hole on the Lac McVittie Option totalling 181.1 metres and five holes on the Diamond Lake (Skead) Option amounting to 813.65 metres.

The following summaries are referenced from the geophysical grid which sits on most of the property (Vickers, A.; August 1992), or according to claim posts.

All drill core is being stored in racks at the Sudbury Contact Core shack in Cobalt Ontario.

DIAMOND DRILL HOLE SUMMARIES**DDH FLP-92-17**

LOCATION: Panthco Mary-Ann Option
 Claim: L 34740
 L24+00N 1+30W
AZIMUTH: 0° **Dip:** -90°
Length: 59.4 metres

TARGET: Mag high with west flanking VLF

SUMMARY: A total of 40.2 metres of overburden was intersected before intersecting hematized silicified lapilli tuff to 44.45 metres, followed by an intermediate to mafic chloritic lapilli tuff to the end of the hole at 59.4 metres. Magnetic susceptibility readings between 11 and 26 x 10⁻³ SI Units throughout the hole, therefore explaining the mag high target.

DDH FLP-92-18

LOCATION: Panthco Mary-Ann Option
 Claim: L 34739
 L20+93N 1+80W
AZIMUTH: 90° **DIP:** -70°
LENGTH: 161 metres

TARGET: Mag low and VLF (Misema River Fault)

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SUMMARY: A total of 90.5 metres of overburden was intersected, followed by a chloritic epidotized mafic tuff to 101.4 metres, chloritic blocky laminated agglomeratic tuff to 108.13 metres, a siliceous intermediate lapilli tuff to 121.43 metres, a hematized chloritized fault altered lapilli tuff to 124.31 metres (leave mag low and magnetic susceptibility readings $>10 \times 10^{-3}$ for the rest of the hole, prior to this point the readings were 0 for the most part), the Misema River fault is intersected from 123.44-123.50 metres, a quartz feldspar chlorite hematized tuff is intersected to 150.78 metres, followed by a chlorite lapilli mafic tuff with debris flow textures to the end of the hole at 170.7 metres. The mag low and VLF anomaly have been completely explained.

DDH FLP-92-19

LOCATION: Panthco Mary-Ann Option
 Claim: L 31367
 L25+00N 0+15E
 AZIMUTH: 90° DIP: -75°
 LENGTH: 151.2 METRES

TARGET: Mag low at the intersection of two structures and corresponding VLF anomalies.

SUMMARY: A total of 40.8 metres of overburden was intersected followed by chlorite amphibole lapilli tuff to the end of the hole at 151.2 metres. The magnetic susceptibility readings were between $5-20 \times 10^{-3}$ between 40.8 metres and 91 metres after which the readings fell to between 0 and 1×10^{-3} , therefore explaining the mag low target as a change in magnetite content within one unit.

DDH FLP-92-21

LOCATION: Panthco Mary-Ann OPTION
 Claim: L 859153
 L34+75N 2+00W
 AZIMUTH: 270° DIP: -75°
 LENGTH: 144.8 METRES

TARGET: Mag high linear trend, gravity low, and the Misema River Fault.

SUMMARY: A total of 11.3 metres of overburden was intersected followed by rhyolitic lapilli-bomb tuff (agglomerate) to 56.65 metres, an intermediate lapilli-bomb tuff with epidote & carbonate and sericite alteration to 75.7 metres, a massive basaltic flow to 77 metres, a massive rhyolite to 78.52 metres with minor epidote alteration tr-1% chalcopryrite in CaCO_3 veins and amygdules, a mafic diabasic intrusive to 139.95 metres (magnetic susceptibility = $20-30 \times 10^{-3}$) with a fault zone intersected from 111.42-136.39 metres,

the hole ends in intermediate to felsic lapilli-bomb tuff(agglomeratic)at 144.8 metres.

DDH FLL-92-22

LOCATION: Diamond Lake Option
Claim: L 799524 & L 821928
L11+25.5 N 0+10 E
AZIMUTH: 270° DIP: -50°
LENGTH: 182.9 METRES
(15 M on the Lac Property(overburden) and 167.9 metres on the Skead Property)

TARGET: Mag low, VLF conductor, and a gravity low.

SUMMARY: A total of 40.2 metres of overburden was intersected before cutting trachytic-chloritic-lapilli tuff(carbonated) to 42.51 metres, with fault gouge from 42.25-42.45 metres, followed by mottled trachytic tuffaceous fragmental to 49.4 metres, fine-medium grained mafic diabasic intrusive to 86.9 metres, brecciated altered blocky mafic to intermediate tuff to 109.62 metres with a narrow diabase dykelet included and low magnetic susceptibility for the most part, a hematized chloritic mafic lapilli tuff to 112.5 metres(MS<.001 SI units), this is in turn followed by a very blocky mafic intrusive with MS=0.0067 SI units to 117.13 metres, a silicified fault breccia to 120.68 metres, and the hole ends at 182.9 metres in a brecciated lapilli intermediate to mafic tuff(hematized and trachytic), MS= 0 SI units at 182.5 metres.

DDH FL-92-23

LOCATION: Diamond Lake Option
Claim: L 821910
L0+54 S 263 E
AZIMUTH: 270° DIP: -60°
LENGTH: 161.6 METRES

TARGET: Mag high and to cut beneath overburden drill hole FL-89-2.

SUMMARY: A total of 55.2 metres of overburden was intersected followed by interbedded greywacke, arkose, and siltstone to 106.6 metres with increased chloritization at the lower contact, then a multi-phase kimberlite was intersected from 106.6 to 134.84 metres which included mostly "heterolithic volcanoclastic kimberlite breccia" with varying compositions intersected by later "hypabbysal kimberlite and hypabbysal kimberlite breccias". The kimberlite was followed by a sericitized chloritized siltstone/greywacke to 140.97 metres with increased chlorite alteration at its upper contact. A magnetic (MS=20x10⁻³ SI units) diabasic intrusion was intersected to the end of the hole at 161.6 metres.

DDH FLP-92-24

LOCATION: Panthco Mary-Ann Option
 Claim: L 884026
 L32+50N 9+50W
 AZIMUTH: 0° DIP: -90°
 LENGTH: 62.5 METRES

TARGET: Weak mag high, gravity low, and topographic depression.

SUMMARY: A total of 43.35 metres of overburden, followed by a oxidized weathered carbonated mafic fragmental lapilli tuff to 49,4 metres (very soft rusty beige colour), the hole ended in a carbonated lapilli-bomb fragmental mafic tuff (heterolithic) at 62.5 metres. This sufficiently explained the target.

DDH FLL 92-25

Location: Lac McVittie Option
 Claim: L801144
 BL 0+00 L6+05N
 Azimuth: 90° Dip: -72°
 Length: 181.1 metres

Target: Magnetic high linear and Resistivity Low.

Summary: A total of 27.59 metres of overburden was intersected followed by potassic altered greywacke to conglomerate with thin sections of arkosic sandstone and sheared greywacke/conglomerate to 100.8 metres. A narrow unit of silicified brecciated sediment with talcose sections was intersected to 102.32 metres. This was followed by a section of greywacke/conglomerate with sericitic alteration to the end of the hole at 181m. Some clasts in the greywacke/conglomerate are of fuchsite, Fe-Carbonate or talc-chlorite composition, indicating a Larder Lake Group source to these Temiskaming group rocks.

DDH FL-92-26

Location: Diamond Lake Option
 Claim L19280
 L0+93N 1+87.5E
 Azimuth: 330° Dip: -60°
 Length: 168.70 metres

Target: Magnetic High Linear.

Summary: A total of 66.08 metres of overburden was intersected followed by strongly brecciated greywacke to 107.53 metres. A chloritic clay fault gouge and chloritized carbonated altered

breccia zone (Misema River Fault) was intersected to 108.5 metres. A series of blocky brecciated greywacke were intersected to 134.04 metres with a contact aureole in the greywacke from 133.56-133.04 metres. A thin hypabbysal kimberlite breccia dyke was intersected to 134.39 followed by sericitized CaCO₃ chloritized greywacke to 143.82 metres which is strongly contorted. A hypabbysal olivine kimberlite dyke is intersected to 150.40 metres. This in turn is followed by a diabase mafic dyke (Matachewan) to 168.70 metres with both the kimberlite and the diabase explaining the magnetic high.

DDH FL-92-27-B

Location: Diamond Lake Option
 Claim: L. 82140
 L+00S 2+62E
 Azimuth: 270° Dip: -65°
 Length: 113.70

Target: Magnetic High and Resistivity Low.

Summary: A total of 70.25 metres of overburden was intersected followed by a very blocky siltstone (Misema Fault) to 86.12m which was in turn followed by a hypabbysal facies kimberlite breccia dyke to 86.50 meters followed by a hypabbysal olivine kimberlite to 86.80 followed by hypabbysal volcanoclastic kimberlite breccia to 87.84 metres. The kimberlite was followed by siltstone breccia to 88.17 and quartz, sericite altered siltstone/greywacke to 89.34 metres. A carbonatized crackle brecciated chill zone is present on the upper contact of an altered diabase dyke which goes to the end of the hole at 113.7 metres.

Diamond Lake Project Exploration Results

The drilling on the Panthco Property wasn't very fruitful as far as kimberlitic targets are concerned. Other potential kimberlite targets on the Panthco Property will be assessed in the near future.

The drilling on the Skead Property included only two holes but was much more fruitful than the Panthco drilling. A multi phase Heterolithic Volcanoclastic Kimberlite Breccia (Diamond Lake Pipe #2) with younger Hypabbysal Olivine Kimberlite and Kimberlite Breccia dykes intruding it, intersected in DDH FL-92-23 over a true width of 17 metres and a core length of 28.24 metres. Both FL-92-26 and FL-92-27A intersected narrow sections of a North South trending younger Hypabbysal Olivine Kimberlite Dyke which cuts both the Diamond Lake Pipe #2 (blow) and the Diamond Lake Pipe #1.

The Misema River Fault was found in close proximity to the east contact of the kimberlite (in the Greywacke) found in all three kimberlite intersections described above, and is found to be a very wide brittle fault with some ductile deformation. It is thought that the kimberlite dykes have intruded right along the fault. On the west contact of the kimberlite a diabase dyke was intersected displaying brittle deformation over the first 8 metres, which is likely an expression of the Misema River Fault. This brings the conclusion that the Misema River Fault is an old fault that the Diabase took advantage of and then was reactivated and exploited by the kimberlite at a much later date.

The 63 kg. sample taken from the Kimberlite found in FL-92-23, Diamond Lake Pipe #2 (blow), did not return any micro-diamonds, however the indicator mineral analysis is similar to the main pipe, and the sample was small, and therefore not a true representation of the possible diamond content.

Recommendations

Additional linecutting and geophysics is recommended on extensions of the original Diamond Lake grid; eastward towards Binney Lake on the Lac Option; westwards to Little Larder Lake on the Panthco Option, and southwards on the Skead Option.

A drilling program will be implemented to test new targets which have been defined by ground magnetics and gradient IP.

In addition, a large Reverse Circulation Overburden Drilling program is recommended to cover the entire Diamond Lake Project Area, testing some anomalies but with the main purpose to explore the glacial till for kimberlite indicator mineral trains.

- Hughes, T.;
1990: Summary Report on Diamond Lake - Fork Lake Project, Dec. 1989, W.A. Hubacheck Consultants.
- Hughes, T.N.J.;
1991 Geological Mapping Compilation and Airborne Geophysical Assessment Report on the Diamond Lake Project Area, prepared for Sudbury Contact Mines Ltd. by W.A. Hubacheck Consultants Ltd. Nov. 1991.
- Jackson, S.L., Kimmerly, C.T., Wilkinson, L.P., Xiangdong, J.;
1990: Project Unit 88-33. Southern Abitibi Greenstone Belt: Structural And Stratigraphic Studies in the Larder Lake Area, Summary of Field Work and other Activities, 1990, OGS MP 151.
- Jackson, S.L.;
1988: Project Number 88-33. The Abitibi Greenstone Belt Near Larder Lake: Structural and Stratigraphic Studies, OGS M.P. 141, Summary of Field Work and Other Activities, 1988, pp 206-211.
- Jensen, L.S.;
1985: Synoptic Mapping of the Kirkland Lake - Larder Lake Areas, District of Timiskaming; OGS MP 126.
- Jensen and Langford;
1985: Geology and Petrogenesis of the Archean Abitibi Belt in The Kirkland Lake Area; OGS MP 123.
- Kirkley, M.B., Gurney, J.J., Levinson, A.A.;
1992: Age, Origin and emplacement of diamonds: a review of scientific advances in the last decade, CIM volume 84, No. 956, January 1992.
- Lafleche, M. R.; Dupuy, C.;
1992: Tholeiitic volcanic rocks of the late Archean Blake River Group, Southern Abitibi greenstone belt: origin and geodynamic implications, Can. J. Earth Sci. 29, 1448-1458(1992).
- Mitchell, R.H.;
1991: Kimberlites and Lamproites: Primary Sources of Diamond, Geoscience Canada, Volume 18, Number 1, March 1991.
- Mitchell, Roger H.;
1990: Petrographic study of Sudbury Contact Diamond Drill Core, for W.A. Hubacheck Consultants Ltd., January 1990.

CERTIFICATE

I, David W. Christie, of the City of Toronto, in the Province of Ontario, Canada, do hereby certify that:

- (1) I am an Exploration Geologist, residing at 104 Douglas Avenue, Toronto, Ontario, M4M 1G6 employed by W.A. Hubacheck Consultants Ltd., 141 Adelaide St. West, Suite 603, Toronto, Ont.
- (2) I am a graduate of McMaster University and received my Bachelor of Science degree in Geology in 1986, and have been practising my profession as an Exploration Geologist continuously since graduation.
- (3) I am a Member of the Canadian Institute of Mining and Metallurgy - National, Kirkland Lake and Toronto Branch, the Prospectors and Developers Association of Canada, and the Association of Quebec Prospectors. Presently an Examinee Candidate to become a P.Geol with APEGGA and NAPEGG.
- (4) This report is based on personal examination of the properties since 1987 and supervision and implementation of work carried out on the properties on behalf of Sudbury Contact Mines Ltd. during the 1992 calendar year.
- (5) I have no personal interest, either directly or indirectly in the properties or securities of Sudbury Contact Mines Ltd.

Toronto, Ontario,
April 4, 1994.


DAVID W. CHRISTIE, B.Sc.

APPENDIX "A"
CERTIFIED STATEMENT OF EXPENDITURES

W. A. HURACHECK CONSULTANTS LTD.

APPENDIX "B"
DIAMOND LAKE DIAMOND DRILL LOGS

W. A. HUBACHEK CONSULTANTS LTD.

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
MINERALIZATION

DIAMOND DRILL LOG

Lawrence

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO ONTARIO CANADA

COMPANY Sudbury Contact Mines NTS 32 D/4
PROPERTY Panthco JV (193)
DISTRICT Larder Lake
COMMENCED June 4, 1992
TWP / LAT LONG Gauthier
CLAIM L34740
COMPLETED June 7, 1992
LOGGED BY D.W. Christie
CONTRACTOR Heath & Sherwood
DATE LOGGED June 9, 1992
DIP AZIMUTH 88° 0°
Hole No. FLP 92-17 PAGE 1 2
COLLAR AZIMUTH 0°
COLLAR DIP (-90°)
ELEVATION 59.4 metres
LENGTH 59.4 metres

OBJECTIVE Mag high with west flanking VLF
COORDINATES L24+00N 1+30W
DDH COMMENTS

INTERVAL FROM TO
M FI LITHOLOGY

DESCRIPTION GEOLOGY (colour, grain size, texture, mineral, alteration etc.)

DESCRIPTION GEOLOGY (colour, grain size, texture, mineral, alteration etc.)

0 40.2 Overburden
40.2 44.45 95 90 Hematized
Silicified
Tuff

Boulders, gravel, and sand - all casing was removed.
Brick Red (dk) colour, fn. grained matrix
1mm to 1cm (ave. 2mm) lapilli clasts of fn. grained chloritic
mafic volcanic (green-dk) well dispersed approximately
15% - clasts are angular to rounded, also feldspathic
clasts < 1cm < 5%
-43.5-44.0 is a blocky section of 2-3cm pieces of rock,
otherwise unit is very competent.
Qtz CaCO₃ veinlets (<0.5cm) distributed throughout with intense
hematization alteration halos, often associated with
them
Veins are at 0°-70° to CA, with a common angle being 30°
to CA

44.45 59.4 99 97 Int.-Mafic
chloritic
lapilli
tuff

No V.S., no foliation visible
Slightly magnetic to moderately magnetic
Med. grey colour, fn. grained with 5-10% 1m to 5mm lapilli
chloritic clasts, and the odd pebble sized clast of chlorite
(<2cm) (is 51.7m) - often elongated parallel to foliation.
Foliation is weak to strong and is marked by rose to white
coloured Qtz-CaCO₃ veinlets at 40° to 35° to CA
Approximately 5° Qtz - CaCO₃ veinlets (<2mm) with odd one
up to 1cm
Locally there is light-dark banding where light coloured
bands are rose with CaCO₃ enrichment
Veins often have pink halos
-49.01-49.3 is a Qtz CaCO₃ chlorite sericite vein - 70%
Qtz, with the other constituents interspersed within the
vein in clumps.
Local areas of intense white CaCO₃ veinlets (<2mm) at
60-75° to CA with 1cm spacing (is 54.60-56.9 metres
Also epidotized feldspar lapilli (<3mm) can be seen locally.

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

1-1008

COMPANY Sudbury Contact Mines NTS 31 D/4
PROPERTY Panthco Mary Ann - 193 DISTRICT Larder Lake
COMMENCED June 7, 1992 TWP/LAT LONG Gauthier Twp.
COMPLETED June 11, 1992 CLAIM L34739
OBJECTIVE Mag low/VLF CO-ORDINATES L20+93N
Misema River Fault 1+80W

CORE SIZE NQ
CONTRACTOR Heath & Sherwood
DATE LOGGED June 12, 1992
LOGGERS D.W. Christie
DDH COMMENTS

SURVEY DEPTH 30.5
DIP 64.30°
AZIMUTH 71.45°
Hole No. FLP 92-18 PAGE 1 4
COLLAR AZIMUTH 90°
COLLAR DIP -70°
ELEVATION 108.5
LENGTH 161 m

INTERVAL FROM TO
M FT LITHOLOGY

DESCRIPTION GEOLOGY (colour, grain size, texture, mineral etc)

SAMPLE No FROM TO LENGTH % SUL ASSAYS

INTERVAL	DESCRIPTION	SAMPLE No	FROM	TO	LENGTH	% SUL	ASSAYS
0 90.5	Overburden						
90.5 101.4	Chloritic Epidotized mafic Tuff						
101.4 108.13	Mostly sand, some hard clay, and some gravel/boulder beds casing removed. Grey green to dk. grey green Local areas of strong epidotization associated with Qtz. CaCO ₃ veins and veinlets (<2cm, ave. 5mm) at 20-70° to the core axis Fm. medium grained (<2mm) with a diabasic texture, however grains have a tuffaceous appearance, and rock is non magnetic (MS=0, except at 99.4 where MS=4.75 x10 ⁻³) Moderately soft to hard. Fracture surfaces are stained with hematite (brown red colour), hematite alteration is also present in the matrix locally. 96.72-98.11 very blocky section with fragments <5cm, ave. <2cm and some fault gouge. Finishing down hole. tr pyrite, disseminated <1mm - striations on fracture surfaces which are convoluted, although a more consistent fracture is at 70° to CA						
108.13 70	Chloritic fine tuff v. blocky laminated Agglomerate						
70 40	Brown grey green Fine grained (<1mm) Blocky from 101.4-107.62 m, gradual upper and lower contacts, fragments 2cm - 10cm, ave. 3cm Moderately soft Very soft cherty looking chloritic clasts which are well rounded and up to 5cm in diameter 3%. Foliated at 70° to CA Tr py. Epidote bands parallel to foliation and CaCO ₃ Qtz veins - white to rose coloured - also epidote halos on veins locally. Strongly fractured						

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

Hole No. FLP 92-18 PAGE 2 4
SURVEY DIP AZIMUTH
DEPTH 171.0 73°45'
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

NTS
DISTRICT
TWP / LAT LONG
CLAIM
CO-ORDINATES
CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
NDH-COMMENTS

INTERVAL FROM TO
M FI
LITHOLOGY

DESCRIPTION
GEOLOGY (colour, grain size texture, mineralite alteration etc.)

SAMPLE NO FROM TO LENGTH % SUL ASSAYS

INTERVAL FROM TO	LITHOLOGY	DESCRIPTION	SAMPLE NO	FROM	TO	LENGTH	% SUL	ASSAYS
108.13 - 121.43	95 Siliceous Intermediate Lapilli Tuff	Grey to grey green, fine grained matrix with feldspathic and dark coloured lapilli (<5mm) with often an elongation to a weak foliation (trachytic feature) -10% dark clasts - chlorite - pyroxene-Amphibole -5% feldspathic clasts -K-Spar, rock is fairly hard - siliceous content tr py Hematite alteration locally, especially associated with qtz - CaCO ₃ veins, which are present throughout as veins and as crackle veinlets, often parallel to foliation varying from 10 - 30° to CA Foliation at 70° to CA at 111.6, 60° to 120.4m poorly to moderately developed Veining often has bleached area associated with it. Magnetic intensity has increased to 7 x 10 ⁻³ SI units. 121.43-123.34 Brown to brown red green Hematized - carbonated chloritized Lapilli tuff Dark green lapillis (<5mm) aligned to foliation at 50° to CA. Rock is much softer than above. Crackle veinlets are more intense (5%) of white to rose qtz CaCO ₃ at a variety of angles -try py diss. fine Large qtz. CaCO ₃ vein brecciation for last 25cm (75% qtz - CaCO ₃) rose coloured 123.44-50 is fault gouge of a dark green chloritic matter with plenty of CaCO ₃ within it. 123.5-124.37 is a sericite-chlorite altered lapilli tuff with a lime green colour (slightly grey) with pt/gmatic qtz veins of a grey pink colour. Entire unit is non magnetic (0.58-0X 10 ⁻³ SI units)						
121.43 - 124.37	Hematized chloritized Fault Altered Lapilli Tuff							
	Fault *							

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

Hole No. FLP 92-18 PAGE 3 4
SURVEY DEPTH
DIP AZIMUTH
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO-ORDINATES
CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

INTERVAL
M FT
FROM TO
LITHOLOGY

DESCRIPTION
GEOLOGY (colour grain size texture, thin with alteration etc)

SAMPLE NO
FROM TO
LENGTH % SUL
ASSAYS

124.37150.7899 95 QTZ
Feldspar
Chlorite
Hematized
Tuff

Grey green to brick red (majority)
Sharp upper and lower contact
15-20% feldspar clasts (plag)
5-10% Qtz clasts
10-15% chlorite - amph - pyroxene clasts
Clasts are euhedral to anhedral with abraded edges, locally
chlorite/amph/PX clasts show alignment to foliation
Clasts < 2mm, matrix is fine grained to v. fine grained
Weakly developed foliation is at 65-70° to CA
2-5% Qtz CaCO₃ veins and veinlets (1mm-2cm) rose to white
grey often with alteration halos (bleaching) around larger
ones. Veins at 30-90° to CA, most often at 70° to CA.
Local hematite near end of unit
Tr py, magnetic 3-21x10⁻³ SI units especially strongest in
hematized areas.

150.78170.79 99 98 Chloritic
lapilli
mafic tuff
Agglomerate
(debris flow)

Green to rose green
Fine grained matrix with elongated chloritic lapilli 10-15%
Large clasts are of some composition matrix which makes it
look like a debris flow or slump deposit.
Clasts are angular to rounded and up to 5cm in size and
are < 5%
Moderate chlorite and sericite alteration, wispy nature
surrounding clasts
Often altered sericite/chlorite rims around clasts.
Fracture surfaces have hematite and CaCO₃ on them.
2% CaCO₃ Qtz veining at 10-70° to CA usually pink rose to
white - smaller veins are white larger ones rose
Moderate local epidote alteration
Very homogeneous rock.
Chlorite wispy veinlets or fracture fills (< 5mm)
Foliation at 40° to CA at 154 at 40° to CA at 160 and
50° to CA at 166.5m

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
GENERALIZATION
ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO ONTARIO, CANADA

SURVEY DEPTH DIP AZIMUTH Hole No. FLP 92-18 PAGE 4 4

COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

NTS
DISTRICT
TWP./LAT./LONG
CLAIM
CO. COORDINATES
CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

INTERVAL
M FT FROM TO
LITHOLOGY

ASSAYS

SAMPLE NO. SAMPLE FROM TO LENGTH % SUL

DESCRIPTION

GEOLOGY (colour, grain size, texture, mineral alteration etc.)

Clast content varies from 50%, clast supported, to 5%, matrix supported (mostly)
Upper contact is a qtz-CaCO₃-chlorite vein from 150.78-150.91 very sheared and messed up looking
E.O.H.

170.7

Magnetic Susceptibility Readings (X10⁻³ SI Units)

Metres	MS	Metres	MS
123.5	0	149.5	11.4
123.9	0	150.91	2.95
124.45	14.2	152.5	20.3
126.5	5.43	154.2	18.3
128.0	12.3	155.7	11.1
129.5	9.96	157.3	22.2
131.0	0.09	158.8	9.0
131.7	10.5	160.0	8.82
133.5	14.6	161.5	0.80
135	9.27	163.0	8.54
136.5	2.66	164.5	9.46
138	6.44	166.0	9.50
139.5	10.4	167.5	17.4
141	4.29	169.0	51.1
142	17.8	170.5	17.8
143.5	17.1		
145.1	13.2		
146.5	23.7		
148.0	21.2		

90.7	0
93.0	0
94.0	0
95.5	0
96.5	0
98.2	0
99.4	4.75
101	0.96
102	0
103.5	0
105.8	0
107	0
109	7.82
110.5	16.5
113	8.57
117.7	6.32
119	8.33
120.5	4.94
121.7	0.58

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
MINERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO CANADA

Hole No. FLP 92-19 PAGE 2 3
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

SURVEY DEPTH
DIP
AZIMUTH

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO-ORDINATES

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

INTERVAL
M FROM TO
M FROM TO

LITHOLOGY

DESCRIPTION
GEOLOGY (colour, grain, size, texture, minerals, alteration, etc.)

SAMPLE NO
SAMPLE FROM TO
LENGTH % SUL
ASSAYS

146.09-146.35 metres - area of qtz. CaCO₃ veins in a hematized brecciated area of lapilli mafic tuff ore vein is 3cm wide at 20° to CA with many fragments of country rock included in vein. -146-35-151.2 weakly brecciated with hematized qtz - CaCO₃ filled fractures with tr-1% cpy and tr-1% py.
-Qtz-CaCO₃ veins (1cm) at angles as follows (2Z) 60° at 41.5m, 5° to CA at 44.5, 25° to CA at 50.6, 10° at 59m, 35° to CA at 60m, 40° and 70° to CA at 68.7m, 15° and 70° to CA at 78m, 15°, 50° and 20° to CA at 93.3m, 70+20°, to CA at 112m -5, 70° and 30° at 132.9m, at 150m at 30° to CA.
-cherty vein at 66.23 1cm wide pink at 50° to CA with chlorite fractures perpendicular to it, chlorite veinlets at 96.3 at 25° to CA. Intense epidote veinlets at 124-124.6m at 5° to CA or parallel to CA (5mm apart)
-126.8-151.2 hematized brecciated lapilli chlorite amph mafic tuff with local epidote alteration and sericite alteration, rock still very hard and competent, nearly all qtz. CaCO₃ veins and fractures (many erratic angles), this area is almost more mottled in appearance from 146.35-151.2 metres most hematized fractures and qtz-CaCO₃ veins hematized have tr-1% cpy and tr-1% py.

151.2 E.O.H.

SCALE GRAPHIC LOG
LITHOLOGY STRUCTURE
MINERALIZATION ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

Hole No. FLP 92-21 PAGE 3 5

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO ORDINATES

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

SURVEY DEPTH
DIP
AZIMUTH
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

INTERVAL
M FT
FROM TO

LITHOLOGY

LITHOLOGY

DESCRIPTION
GEOLOGY (colour, grain size, texture, mineral, alteration etc.)

ASSAYS

SAMPLE NO FROM TO LENGTH % SUL

INTERVAL	LITHOLOGY	DESCRIPTION	SAMPLE NO	FROM	TO	LENGTH	% SUL
77.0 78.52 99 85	Massive Rhyolite	Light green fine grained Massive with minor CaCO ₃ epidote veinlets Fractures have rusty powder stains Very hard Epidote alteration throughout giving the green colour 1% chalcopyrite in CaCO ₃ veinlets and amygdules (<5mm pods) Upper contact at 25° to CA, lower contact at 25° to CA. with epidote/CaCO ₃ veins and bands on lower contacts Dark grey green Fine medium grained (<2mm) Can just be scratched by a knife, softer than 5.6 becomes magnetic up to 27.2 x 10 ⁻³ SI units -MS 1% pyrite, trace cpy. Intergranular texture with 20% K-Spar in fillings between mafic constituents chlorite and pyroxene - equigranular, homogeneous Epidote CaCO ₃ veinlets, at 60° to CA fairly regular throughout up to 2cm wide usually 1mm-3mm, sometimes have brecciated country clasts. Blocky in local areas due to micro fractures. Dark green, fn-medium grained Very similar to above, except this unit lacks magnetism, MS=0.-0.93 As well this unit has millimetric white leucovenes, 20% and the grain size is finer throughout. Epidote CaCO ₃ veinlets 3.10 at 60°-70° to CA <5mm, ave. 1mm.					
78.52 89.13 85 85	Mafic-Int Medium-fine grained Intrusive (Diabasic) Magnetic						
89.13 92.63	mafic med-fn. grained intrusive non-magnetic						
92.63 139.95	Mafic-Int. Medium-fine grained intrusive						

SCALE GRAPHIC LOG

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.

TORONTO ONTARIO CANADA

Hole No. FLP 92-21 PAGE 4 5

LITHOLOGY
STRUCTURE
MINERALIZATION
ALTERATION

COMPANY _____
PROPERTY _____
COMMENCED _____
COMPLETED _____
OBJECTIVE _____

NTS _____
DISTRICT _____
TWP /LAT LONG _____
CLAIM _____
CO ORDINATES _____

CORE SIZE _____
CONTRACTOR _____
DATE LOGGED _____
LOGGED BY _____
DDH COMMENTS _____

SURVEY DEPTH _____
DIP _____
AZIMUTH _____
COLLAR AZIMUTH _____
COLLAR DIP _____
ELEVATION _____
LENGTH _____

INTERVAL
M FT
FROM TO

REG

LITHOTYPE

DESCRIPTION
GEOLOGY (colour, grain size, texture, mineralith alteration etc)

SAMPLE NO FROM TO LENGTH % SUL ASSAYS

Epidote CaCO₃ fractures veinlets throughout at a angle of 60-70° to CA about 2% from 1mm-5cm some white - giving a weak foliation CaCO₃ veins at 0-20° to CA around 95m.
111.42-115.75m very blocky and on fractured altered (chl-CaCO₃) area, with sections of crumbly rock, many CaCO₃ veins (<1cm), in this area.
133.36-136.39 as above but no CaCO₃ Qtz. veins. The last 2cm of the unit became much finer grained with sharp contact at 40° to CA.

139.95 144.8 99 95 Intermediate Dk. green to light green to brown orange, to felsic -mottled alteration of epidote and hematite staining Agglomeratic Round to angular fragments of rhyolite, rhyolitic tuff with Qtz eyes, tonalite and mafic volcanic up to 10cm Minor sericite alteration around some clasts.
Qtz - CaCO₃ veins at 60-70° to CA , also epidote veinlets Fairly sillicic (hard)
Lapilli 5-10% locally, made up of chlorite - Amph and Qtz, and feldspar.
Hematite stains on fractures.
V. Weak foliation at 30-40° to CA
Non magnetic MS=0
Tr py

144.8

E.O.H.

SCALE GRAPHIC LOG
LITHOLOGY STRUCTURE
ALTERATION MINERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.
TORONTO ONTARIO CANADA

Hole No. FLP 92-21 PAGE 5
SURVEY DEPTH DIP AZIMUTH COLLAR AZIMUTH
ELEVATION LENGTH COLLAR DIP

COMPANY NITS CORE SIZE
PROPERTY DISTRICT CONTRACTOR
COMMENCED TWP /LAT LONG DATE LOGGED
COMPLETED CLAIM LOGGED BY
OBJECTIVE CO-ORDINATES DDH COMMENTS

INTERVAL FROM TO
M Ft
LITHOLOGY

DESCRIPTION
GEOLOGY (colour, grain size, texture, minerals alteration etc)

ASSAYS

MAGNETIC SUSCEPTIBILITY MEASUREMENTS X10⁻³ SI Units

MS	Metersage	MS	Metersage	MS	Metersage
125	79.9	0	99.4	MS	25.4
17.1	76	0	101	0	22.9
20.1	77.5	0	102.4	0	8.66
232	78.9	2.20	104	239	132.5
262	80.0	19.2	105.5	20.1	133.36
293	81.5	21.5	107	28.5	135
323	83	20.9	108.5	6.04	135.9
35.4	84.5	27.2	109	28.2	137.5
38.4	86	25.7	111.42	22.1	139
41.5	87.0	24.4	114.90	19.6	139.8
44.5	88.5	23.1	115.90	23.6	140
47.6	89.5	27.1	117.2	21.8	141.5
50.6	89.6	0	118.5	19.7	143
53.7	90.2	0.93	119	23.5	144.5
56	91.7	0	120.7	0	0
58	93.0	0	122.0	24.5	0
59.7	94.0	23.5	123.8	22.1	0
62.8	95.0	0 (CaCO ₃ veinlets)	125	22.1	0
65.8	96.5	23.9	126.8	22.8	0
68.9	98.0	27.2	128	0	0

SAMPLE No FROM TO LENGTH % SUL

SAMPLE No	FROM	TO	LENGTH	% SUL	MS
129.5					0
131					11.7
132.5					20.8
133.36					25.3
135					15.7
135.9					22.6
137.5					262
139					0
139.8					19.6
140					0
141.5					0
143					0
144.5					0

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
ALTERATION
MINERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.
TORONTO, ONTARIO CANADA

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

NTS
DISTRICT
TWP / LAT LONG
CLAIM
CO ORDINATES

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

Hole No. FLL 92-22 PAGE 2 7
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

INTERVAL
M FT
FROM TO

LITHOLOGY

RECORDED

DESCRIPTION
GEOLOGY (colour, grain size, texture, mineralite alteration etc.)

SAMPLE NO

FROM TO
LENGTH % SUL

ASSAYS

-65.7-66.35m blocky section, mm-cm fragments
67.37-67.47m serpentine - Asbestos vein with fibres up to 2cm long and very fibrous
77.89-79.2m blocky section, mm-cm fragments
80.9-81.5m v. strongly hematized section displaying a rusty appearance.
81.5-86.44 - strong intergranular - diabasic texture. MS 30x10-3SI units on average.
Minor CaCO₃ and CaCO₃ qtz veinlets on fractures at angles from 0-90° to C.A.
Fractures (maybe jointing) at 50° to C.A. at 50.7m, 40° to C.A. at 53.7m, 55° to C.A. at 55m, 20° to C.A. at 58m, 40° to C.A. at 62.5m, 50° to C.A. at 70m, 50° to C.A. at 76m, 60° to C.A. at 81.3m, 50° to C.A. at 83.5m, Lower contact at 35° to C.A. with some brecciation of country rock on contact.
86.44 109.62 90 70 Brecciated Red (brown), grey green - mottled appearance altered blocky mafic-Int. Tuff
86.44-90.44m, V. strongly brecciated by CaCO₃ veins at many angles to the C.A.
Chlorite lappilli sized clasts seen throughout (1mm-5mm) angular and usually lenticular.
Also feldspathic clasts (1mm-5mm) euhedral to subhedral usually epidotized.
Entire unit has varying degrees of epidotization and hematization, and CaCO₃ veining from strong to weak. Blocky throughout, with some v. blocky sections
94.5-96.34m - diabase dykelet med. grained - fine grained as above with fine grained chilled lower margin and large euhedral pyrite grains (1x) up to 2cm
95.3-95.72m completely lost section (no core returned)
Higher MS = 57.3 x 10 SI units locally
end sub unit Very blocky dyke.

86.44 109.62 90 70 Brecciated Red (brown), grey green - mottled appearance altered blocky mafic-Int. Tuff

Diabase dykelet

SCALE
GRAPHIC
LOG

LITHOLOGY
STRUCTURE
GENERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

Hole No. FLL 92-22 PAGE 3 7

SURVEY DEPTH DIP AZIMUTH COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
NDH COMMENTS

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO-ORDINATES

INTERVAL FROM TO
M FT

LITHO TYPE

ASSAYS

SAMPLE No FROM TO LENGTH % SUL

DESCRIPTION

GEOLOGY (colour, grain size texture, mineralis alteration etc.)

109.62	111.50	90	70	Hematized chloritic mafic Tuff	Majority of tuff has MS=0-4 x 10-3 SI Units. 106.6-102.7 qtz. CaCO ₃ , hematite chlorite brecciated vein. 102.1-109.62 is more strongly epidotized tuff with all feldspar epidotized and fractures epidotized with foliation at 60° to C.A. Moderately developed due to epidotization. Red brown green colour - mottled fine grained (<1mm) with 5% lapilli present of feldspar and amphibole. Weakly altered to chlorite Weakly carbonatized (CaCO ₃) along foliation in thin veinlets. Foliation is at 60° to C.A., well developed with lapilli elongated along foliation 3:1 MS = 0-1x10 ⁻³ SI Units Very similar to earlier intrusive, although most fragments of core 4-2cm in size, so hard to determine true nature of rock Chlorite infilling between feldspathic grains Strong hematite alteration for most of unit MS=6.77 x 10 ⁻³ SI Units. Minor CaCO ₃ veins on fractures Stronger chlorite alteration down hole. Gray white to green Fine grained white matrix 117.13-117.72, 117.94-118.63m Breccia in a white matrix, not hard, no carbonate, 30-40% clasts and fragments are angular to rounded and are altered tuffaceous rocks from above units and below, also qtz and chlorite up to 3cm in size, ave. 5mm. Locally chloritic fairly competent. 117.72-117.94, 119.67-119.76 Hematized fractured Tuff 118.63-119.07 Quartz and qtz-CaCO ₃ Brecciated cherty altered rock with a pink orange colour and chlorite stringers running through the sub unit. 119.07-119.67 - chloritised, graphitic brecciated fault
112.50	117.13	50	30	Very blocky mafic Intrusive (diabase)	
117.13	120.68	80	60	Silicified fault Breccia	

SCALE GRAPHIC 1:100
LITHOLOGY
STRUCTURE
ALTERATION
GENERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO, ONTARIO CANADA

FL 92-22 PAGE 4 7

SURVEY DEPTH DIP AZIMUTH Hole No. COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

NTS CORE SIZE
DISTRICT CONTRACTOR
TWP /LAT LONG DATE LOGGED
CLAIM LOGGED BY
CO-ORDINATES DDH COMMENTS

INTERVAL FROM TO
M P1
LITHOLOGY

DESCRIPTION

GEOLOGY (colour, grain size texture, minerals, alteration, etc.)

Surrounding fragments, fragments up to 5cm ave. lcm minor CaCO₃ with chlorite, locally clast supported. 119.76-119.86
Qtz - CaCO₃ finer breccia all fragments are less than 1cm and the zone is clast supported.
119.86-120.68
Carbonated brecciated chloritized mafic volcanics
Remnant foliation at 30° to C.A. very blocky rock, with 15% CaCO₃ veins infrastructures
Green to pink, fine grained with 5-20% 1-3cm chlorite lapilli (ave. 10%) and 5% feldspathic lapilli up to 15% locally
Often epidotized, also lapilli sized rock fragments (5-6cm) rounded (<1%) are rare
Hematization is sporadic, from weak to strong specular hematite qtz CaCO₃ veinlets are seen throughout often with rusty halos, about 2% spec. hematite.
About 3% qtz CaCO₃ veins and veinlets
One large qtz-chlorite CaCO₃ vein at 150.66-150.77 at 20° to C.A.
Chlorite is also associated with hematite veinlets + Qtz CaCO₃ veinlets
124.5-125.97 chloritized blocky section of lapilli mafic tuff
127.13-127.8 chloritized (black + green) section of tuff with sheared zone.
127.43-143.53 very soft chlorite (black + green) and calcite.
141.7-147.63 section with spotty (1-5mm) epidotization over printing hematization
147.63-149.86 brecciated sheared epidotized hematized lapilli mafic-int. tuff with epidote sericite altering along breccia fractures
151.06-161.01 More chloritic section, softer than other

120.68 182.9 99 Brecciated
Lapilli
Int-Mafic
Tuff,
Hematized
and
Trachytic

ASSAYS

SAMPLE NO. FROM TO LENGTH % SUL

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
MINERALIZATION
ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

Survey No. **FL1 92-22** **Page** 6 7

Company _____ **NTS** _____ **Core Size** _____
Property _____ **District** _____ **Contractor** _____
Commenced _____ **TWP /LAT LONG** _____ **Date Logged** _____
Completed _____ **Claim** _____ **Logged By** _____
Objective _____ **Co-ordinates** _____ **DDH Comments** _____

INTERVAL M FT RC ?
 FROM TO LITHOTYPE

DESCRIPTION
 GEOLOGY (colour, grain size, texture, mineralis, alteration, etc.)

SAMPLE NO. FROM TO LENGTH % SUL ASSAYS

MAGNETIC SUSCEPTIBILITY

INTERVAL	MS	METERAGE	MS	METERAGE	MS	METERAGE
41.0	9.33	67.55	27.6	96.2	36.8	
42.60	10.5	69	39.9	97.5	0.25	
44.0	4.84	7.05	32.5	99.1	1.14	
45.5	1.55	72	37.9	100.5	0	
45.8	24.4	73.2	30.4	102.1	0	
47.25	0.52	74.9	32.3	103.0	0	
48.75	0.94	76.3	37.5	105.5	0	
50.0	45.7	77.2	32.8	107	0	
51.5	44.4	79.4	22.7	108.4	0	
53	41.8	81.2	31.0	109.6	3.85	
54.5	43.0	82.5	39.6	110.5	23.7	
55.5	39.0	83.8	27.1	111.5	0	
57.0	31.8	86.7	0	112.7	0	
58.2	32.3	87.9	0	113.2	5.06	
59.4	32.3	89.5	1.44	117.8	2.42	
61	22.6	90.5	0.22	119.0	0.67	
62.3	32.2	92.0	0	120.4	0	
63	5.81	93.0	0.34	121.7	0.3	
65.5	30.1	94.2	0	123	0	
66.4	31.1	95.2	71.4	124.2	0	

LITHOLOGY
STRUCTURE
SERIALIZATION
SCALE GRAPHIC LOG

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.
TORONTO ONTARIO CANADA

COMPANY Sudbury Contact Mines 32 D 4
 PROPERTY Diamond Lake (185) DISTRICT Larder Lake
 COMMENCED June 28, 1992 TWP/LAT/LONG McVittie
 COMPLETED July 3, 1992 CLAIM L 821910
 OBJECTIVE Mag High and CO-ORDINATES L 0+54S 2+63 E

CORE SIZE NQ
 CONTRACTOR Heath & Sherwood
 DATE LOGGED July 5, 1992
 LOGGED BY D.W. Christie
 DDH COMMENTS

SURVEY DEPTH DIP AZIMUTH HOLE NO. FL 92-23 PAGE 1 13
 30.5m 54°15' 270°
 68m 57° 282°
 99m 54°30' -60° 295
 120.4m 57° 285° 161.6m

INTERVAL	LITHOLOGY	DESCRIPTION	GEOLGY (colour, grain size, texture, minerals, alteration, etc.)	DESCRIPTION	ASSAYS
FROM	TO				

0 55.5 Overburden Casing left in and capped Sand, gravel and boulders

55.5 106.6 85 80 Interbedded Grey to yellow grey
 Greywacke Very fine grained to medium grained (<2mm)
 and Arkose Seems to grade through siltstones, greywacke to arkose sand-
 siltstone.
 Sericite alteration is fairly strong, chlorite alteration is strong in some beds.
 Interbedding is on a metre scale throughout the unit with the arkose sandstones being the most competent and the siltstones the least.
 Cleavage is well developed in siltstones and greywacke and poorly developed in the more massive arkose.
 Cleavage is seen at 60° to C.A. at 59.4m, 40° to C.A. at 62m, 50° to C.A. at 65m, 30° to C.A. at 73m, 60° to C.A. at 74m, 50° to C.A. at 84.5m, 60° to C.A. at 94.2m, 60° to C.A. at 98m, 50° to C.A. at 106.4m, the rock is fissile along cleavage planes.
 Sericite alteration is most intense when cleavage is well developed and near qtz - CaCO₃ veinlets. Bedding is usually convoluted, pygmatically folded and often marked by qtz. veinlets and sericite alteration and chlorite alteration. Bedding is often parallel to sub parallel to C.A. with cleavage creating small fault offsets of bedding.
 Bedding is millimetric to centimetrically banded, dark, and light with qtz - CaCO₃ bands, chlorite bands and sericite bands.

78.17-78.60m - blocky section consisting of white bull qtz. with chlorite-sericite, minor CaCO₃ and no V.S.
 Other minor qtz and qtz - CaCO₃ veins are present often pygmatically folded.
 -MS- 1 x 10-3 SI units.

SCALE GRAPHIC 100
 LITHOLOGY
 STRUCTURE
 ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO, ONTARIO CANADA

Hole No. FL 92-23 PAGE 2 13

SURVEY DEPTH 164 57° 279°
 DIP AZIMUTH
 COLLAR AZIMUTH

COMPANY
 PROPERTY
 COMMENCED
 COMPLETED
 OBJECTIVE

N/S
 DISTRICT
 TWP /LAT LONG
 CLAIM
 CO-ORDINATES

CORE SIZE
 CONTRACTOR
 DATE LOGGED
 LOGGED BY
 DDH COMMENTS

INTERVAL FROM TO
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LITHOLOGY

DESCRIPTION
 GEOLOGY (colour, grain, size, texture, mineral alteration, etc.)

ASSAYS

SAMPLE NO FROM TO LENGTH % SUL

88.41-88.56m - qtz carb vein with chlorite-sericite wisps.
 88.56-88.83m - fault gouge and blocky section
 Increased chlorite - sericite alteration on lower contact
 as well as CaCO₃ from 105.78-106.60m and more intense cleavage
 present here, chlorite is black green.
 96.32-96.39m - brecciated zone with black green chlorite
 matrix and sub angular fragments.
 -Tr py.

106.65 109.23 95 85 Heterolithic Dk. grey brown colour
 (Autolithic) Matrix supported with 40% clasts and local areas that are clast

Volcanoclastic supported.
 Kimberlite
 Breccia
 Matrix is fine grained
 matrix is made up of calcite, phlogopite, muscovite and
 olivine altered to serpentine
 There are pelletal lapilli with kernels of country rock
 clasts, serpentized olivine, ilmenite, and garnet bearing
 mantle xenoliths, with all up to 5cm in diameter,
 usually less than 2cm, with kimberlite rimmed around
 these kernels giving the final lapilli a round to
 oval shape, even when the kernel is tabular, micaceous
 flow banding is often visible in the rims, 20% pelletal
 lapilli
 1-2% vugs, <1cm, ave. 5mm with green fibrous serpentine
 material within them.
 Non pelletal olivine (serpentized), ilmenite, garnet
 bearing xenoliths (red, purple, and orange garnets),
 phlogopite books (<1cm) and country rock clasts (often
 with zoned selenite alteration (w. -mod)
 Autoliths of hypabyssal kimberlite material, usually
 angular to sub rounded.
 Country rock clasts are grey to white, subrounded
 to angular (10%) as both lapilli and clasts (mostly
 pelletal lapilli)

FL23-1106.60 134.84 28.24

SCALE GRAPHIC LOG LITHOLOGY STRUCTURE GENERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.
TORONTO, ONTARIO CANADA

FL 92-23 PAGE 4 13

Hole No. COLLAR AZIMUTH
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

SURVEY DEPTH
DIP
AZIMUTH

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO ORDINATES

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

INTERVAL
M FROM TO
LITHOLOGY

DESCRIPTION
GEOLOGY (colour, grain size texture, mineral alteration etc)

SAMPLE NO
FROM TO
LENGTH % SUL

ASSAYS

INTERVAL	PROPERTY	OBJECTIVE	DESCRIPTION	ASSAYS
117.19 118.19 99 99	Hypabyssal Kimberlite Breccia		Later intrusion into surrounding rocks Very similar to 109.23-109.59 No xenocrysts, but some small (<2cm) clasts of country rock <1%.	
118.19 123.5 95 95	Heterolithic Volcaniclastic Kimberlite Breccia		Fairly magnetic MS is in 20' x 10 ⁻³ SI Units Very similar to 106.60-109.23, however much more highly carbonated, higher percentage mica (phlogopite + muscovite (silvery) and clay alteration giving the rock a dull recessive brown appearance Also much softer Several milky white CaCO ₃ veinlets Grey green brown (autolithic) Very similar to 106.6-109.23	
123.5 134.84 95 70	Heterolithic (autolithic) Volcaniclastic Kimberlite Breccia		Many xenocrysts are altered to a baby blue (sometimes garnet bearing -red-purple) colour of talcy material, also serpentized vugs Ilmenite, garnet + chrome diopside bearing xenoliths Orange coloured xenoliths (garnet) - Massive crystalline Increase in olivine content towards lower contact with grains up to 1cm rounded. Books of phlogopite up to 2cm, Ave. 5mm Knife edge lower contact Gradual upper contact, vugs decrease down hole 227.5-227.75 clay like alteration (Chl.-Kaolinite) with strong phlogopite-gouge like material with only pellets lapilli, xenoliths and country rock preserved Also at 227.97-228.0 same as above 229.80- is a clay filled fault (5mm) wide with chlorite and phlogopite+muscovite present at 15° to C.A. 230.71-231.44 blocky ground with thin 5mm clay-muscovite (silvery) shear planes and fracture fills, with striations on fracture surfaces.	

SCALE GRAPHIC 1:00
LITHOLOGY
STRUCTURE
MINERALIZATION ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

Hole No. FL 92-23 PAGE 6 13
SURVEY DEPTH DIP AZIMUTH
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO ORDINATES
CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

INTERVAL FROM TO
M FT
LITHO TYPE

SAMPLE NO FROM TO LENGTH % SUL ASSAYS

DESCRIPTION
GEOLOGY (colour, grain size, texture, mineral alteration etc.)

veinlets and on fractures surfaces
Progressive increase in magnetism
141.45-145.10 grey green colour fine grained, MS=0.5-2.0x10⁻³
SI units Very blocky, RQP=10, minor CaCO₃ veinlets
145.10-151.18m grey green to red green, fine to med.
grained, blocky RQP=20, chloritized
Equigranular intergranular textures CI=40-60
Tr cpy, tr py
151.18-161.6 Very competent med. grained diabase, intergranular lath
Network - locally coarse (5mm-7mm) CI=50-60, of hornblende -
plagioclase (2mm-3mm), very magnetic (29x10⁻³ SI Units)
RQP=80%, Rec=99%
Tr cpy, tr py
CaCO₃ veinlets in fractures and hematite on fractures
at 50° to C.A. at 151.4m, 40° to C.A. at 153m, 20° (opposite) and
30° to C.A. at 151m at 30° and 0° to C.A. at 157.5m.
Blocky at end of unit, about 2m of blocky ground

161.6 E.O.H.

SCALE GRAPHIC LOG

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO ONTARIO CANADA

Hole No. FLP 92-24 PAGE 2 2

SURVEY DEPTH DIP AZIMUTH COLLAR AZIMUTH COLLAR DIP ELEVATION LENGTH

CORE SIZE CONTRACTOR DATE LOGGED LOGGERS DDH COMMENTS

NTS DISTRICT TWP LAT LONG CLAIM CO ORDINATES

COMPANY PROPERTY COMMENCED COMPLETED OBJECTIVE

INTERVAL FROM TO M FT

LITHO TYPE

Q R C ?

DESCRIPTION GEOLOGY (include grain size texture mineralogy alteration, etc.)

ASSAYS

SAMPLE

FROM TO LENGTH % SUL

Magnetic Susceptibility

(X Co³ SI units)

Metric	MS
445	0.29
455	0.29
49.4	0.27
50.8	0.23
54	0.24
55	0.24
56.3	0.19

MS
0.26
0.23
0.28
0.19

Meterage
57.5
59
62
62.5

SCALE
(GRAPHIC)
(LOG)

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.

TORONTO ONTARIO CANADA

SURVEY DEPTH 152.4 74° 15'

DIP AZIMUTH 74° 15'

Hole No. F11-92-25 PAGE 2 6

COLLAR AZIMUTH

COLLAR DIP

ELEVATION

LENGTH

NTS
DISTRICT
TWP / LAT LONG
CLAIM
CO-ORDINATES

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDM COMMENTS

INTERVAL
M FROM TO
FI
LITHO TYPE

DESCRIPTION
GEOLOGY (textural grain size texture mineral alteration etc.)

SAMPLE FROM TO LENGTH % SUL
(No)

ASSAYS

alteration.
Sericitic is light green and wispy and parallel foliation.
Qtz is in veins 5mm wide and is grey and parallel foliation.
51.65-51.85 Chloritic breccia zone, fragments from 1mm-5cm fragments show presence of distorted qtz-feldspar veins, matrix (25%) is dk. green chlorite, fragments are otherwise the same as surrounding rock.
55.42-56.16 V. blocky broken up section with fragments 5mm-5cm.
61.10-61.36, 61.56-61.98, 62.25, 63.15, 63.58-64.13m.
68.37-69.56, 71.0-71.49
Potentially altered, sericite altered, qtz altered lithic greywacke
Locally alteration has totally erased cleat outlines but some are still faintly visible, very similar to 49.23-50.7
65.04-65.56 Blocky section 1cm-5cm fragments
71.49-72.19 Strongly altered section with sericite chlorite alteration Qtz-feldspar veins up to 2cm wide fairly soft and hematite alteration with hematite in qtz veins rusting.
85.0m a 1cm long 3mm wide fuchsinite clast, v. angular bright green Larder Lake group.
Grey dark/light striping.
Fn. grained with 5-10% clasts 3cm, ave. 5mm, rounded poorly sorted.
Qtz. feldspar veins (1cm) foliation which is very strong with sericite/chlorite alteration prevalent.
Epidote associated with veins.
96.84-97m is a large qtz feldspar vein with sericite and chlorite alteration on the walls.
Clasts also show strong alteration by sericite and chlorite (yellow and dk. green) respectively Moderately soft.

50 10

90 20

95.18 100.83 99 95 Sheared
Altered
Greywacke/
Conglomerate

SCALE GRAPHIC LOG

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.
TORONTO, ONTARIO CANADA

COMPANY: W.A. HUBACHECK CONSULTANTS LTD.
PROPERTY: TORONTO, ONTARIO CANADA
COMMENCED: 6
COMPLETED: 3
OBJECTIVE: HOLE NO. F11-92-25PAGE

MINERALIZATION: COLLAR AZIMUTH
STRUCTURE: COLLAR DIP
LITHOLOGY: ELEVATION
LENGTH: LENGTH

NTS: HOLE SIZE
DISTRICT: CONTRACTOR
TWP./LAT/LONG: DATE LOGGED
CLAIM: LOGGED BY
CO-ORDINATES: DRILL COMMENTS

INTERVAL	LITHOLOGY	DESCRIPTION	ASSAYS
M FROM	TO		
100.83102.3280	80 Silicified Brecciated Sediment with Tailcose Sections.	No V.S. non magnetic Foliation well developed at 35° to CA at 99m Darker grey Fm. grained Strongly silicified Qtz feldspar veining grey to white throughout - with sericite/ taic foliation planes - rock derived from u/m rocks giving taic alteration. Foliation is at 50° to CA, but often disturbed, and is marked by sericite/chlorite/taic alteration. Veining shows brecciation and locally vuggy 30cm section of dk. grey qtz. and later crosscutting veinlets of white qtz. 101.24-101.55 Tr cpy Pink grey to dk. green Colour changes with changing alteration, ie strong potassium alteration to strong chlorite sericite alteration. Chlorite and sericite line cleavage (shown) and foliation planes. V. Strong cleavage at 20° to CA and strong gneissic foliation at 40° to CA opposite directions to CA Clasts are 2mm-1cm mostly feldspathic, but some mafic volcanic, well rounded to lenticular. Qtz feldspar veinlets and veins up to 10cm wide usually 5mm wide and paralleling foliation or cleavage at 102.32-104.01 - mostly potassium/sericite alteration, then few 104.01-105.58 is more chloritic alteration and sericite alteration. Grey colour, fm. grained matrix with clasts 1cm, average 3mm, well sorted with thin coarse beds ie 108.08-108.30 with a fining down hole appearance - overall 30% clasts sericite/chlorite along foliation planes with foliation/ bedding at 20° to CA with clasts sometimes elongated	7151 100.83 102.32 1.49 tr cpy
102.32105.58	95 Sheared Altered Greywacke/Sandstone		
105.58	108.7695	90 Greywacke	

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
MINERALIZATION
ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO, ONTARIO, CANADA

Hole No. FLL-92-25 PAGE 4 6

COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

SURVEY DEPTH **DIP** **AZIMUTH**

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO-ORDINATES

COMPANY
PROBILITY
COMPLETED
OBJECTIVE

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

INTERVAL
M FT
FROM TO

LITHO TYPE

DESCRIPTION
GEOLOGY (colour, grain size, texture, mineralogy, alteration, etc.)

SAMPLE FROM **TO** **LENGTH** **IN** **SUL**
M

ASSAYS

108.76149.82	99	95	Sericitic altered pebbly graywacke (Conglomerate)	108.54-108.76 bleached altered section with 3cm clasts of u/m - mafic rock rounded to subrounded. Medium to dark grey Fh. to med. grained matrix with clasts from 1mm-5cm usually round, locally clast supported mostly matrix supported. Clasts are feldspathic (granitic, gabbroic) or are dark coloured mafic volcanics, u/m volcanics, poorly sorted. Sericite alteration is wispy along foliation planes and fractures, around large clasts and associated with qtz-feldspar veins and minor qtz CaCO ₃ - feldspar veins are generally <5mm but odd ones to 3cm wide at 15-70° to CA - white in colour and vuggy. The most angular clasts are green carbonate clasts and fuchsite clasts which are bright green coming from the Larder Lake group to the south - only tr-1% Generally 20-30% clasts with 10% large ones (1cm and larger) and 20% small (1mm-1cm) Foliation (bedding) weak at 20° to CA at 118m and 133m at 20° to CA at 141.50m alignment of angular stretched clasts (6:1) most clasts <2cm and 20° to CA at 149.60m. 145.52-145.60, 145.67-145.73, 148.6-148.86 are qtz-feldspar CaCO ₃ chlorite sericite, banded veins at 60°, 60° and 20° to CA respectively. Gradual lower contact; some bedding unit contacts are very sharp within the unit (ie at 142.63m at 35° to CA) Pink orange colour med-fine grained matrix 50% grains of feldspathic appearance <3mm 5-10% lithic lasts of mafic and felsic composition including green carbonate or fuchsite. Some fracturing brecciation parallel to C.A infill alteration and at 153.84-153.92 in this brecciation is a 3cm by 2cm section of fuchsite alteration.
149.82156.4799	90	90	Bleached Arkosic graywacke	

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
ALTERATION
MINERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.
TORONTO ONTARIO, CANADA

Hole No. FLL-92-25 PAGE 5 6
SURVEY DEPTH DIP AZIMUTH COLLAR AZIMUTH
COLLAR DIP ELEVATION LENGTH

NIS CORE SIZE
DISTRICT CONTRACTOR
TWP / LAT LONG DATE LOGGED
CLAIM LOGGED BY
CO ORDINATES DDH COMMENTS

INTERVAL FROM TO
M FT
LITHOLOGY

DESCRIPTION GEOLOGY (colour, grain size, texture, mineralogy, alteration, etc.)

SAMPLE NO. SAMPLE FROM TO LENGTH % SUL ASSAYS

156.47181.1 99 95 Altered
Pebble
Greywacke
Conglomerate

Strong light green sericite alteration seen throughout
Gradual lower contact, but at same time fairly sharp -
no foliation or bedding.
Clasts up to 5cm in size, many are almost entirely altered.
Dark grey to yellow (minor altered sections)
Very similar to 108.76-149.82
66-70% clasts from 2mm-10cm, poorly sorted, with only 20-30%
many subangular elongated clasts parallel to the weak foliation
larger clasts tend to be feldspathic with odd u/m-mafic
clasts, large, from Larder group rocks.
Sericite alteration along foliation and fractures and
associated with clasts.
159.21-159.77, 161.90-162.35, 171.41-172.26 bleached sections
of fewer clasts and firmer matrix with potassic? hematite
alteration giving the rock a yellow-flesh pink orange
colour
Very similar to 149.82-156.47
In 171.41-172.26 there is small (<2mm) grey qtz shards
as well as fuchsite shards, possibly a more distal facies,
these sections seem to have local sections of strong
sericite alteration.
Foliation is weak to moderate 15° to CA at 161m, at 30°
to CA at 169m, at 20° to CA at 173m 30° to CA at 177m
Much more Fe Carbonate visible in the clasts and some clasts
are up to 20cm in diameter with speckled Fe-CaCO₃

181m EOH

SCALE
GRAPHIC
LOG

LITHOLOGY
STRUCTURE
ALTERATION
MINERALIZATION

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO ONTARIO CANADA



COMPANY: SUDBURY CONTACT MINES NTS 32 D/4
 PROPERTY: Fork Lake (#185) DISTRICT: Larder Lake
 COMMENCED: Nov. 17/92 TWP: 14 AT LONG McVittie Twp.
 COMPLETED: Nov. 21/92 CLAIM: L 19280
 OBJECTIVE: Mag High linear CO-ORDINATES: 193N 1+87.5E

CONTRACTOR: Heath & Sherwood
 DATE LOGGED: Dec. 9/92
 LOCKED BY: D.W. Christie
 DDH COMMENTS: 193N 1+87.5E

SURVEY DEPTH: 65.55 60.5
 DIP: 61 335
 AZIMUTH: 60.5
 COLLAR AZIMUTH: 330
 COLLAR DIP: -60°
 ELEVATION: 295
 LENGTH: 168.70

Hole No. FL-92-26 PAGE 1 9

INTERVAL FROM TO M FT
 0 66.08
 66.08 107.53

LITHO TYPE
 Overburden
 Brecciated Greywacke

DESCRIPTION
 GEOLOGY (colour grain size texture mineralite alteration etc)

SAMPLE NO FROM TO LENGTH IN. GUL ASSAYS

Casing removed
 Med. green grey in colour
 Fine grained (41mm)
 -10-20% qtz calcite veining and breccia infilling veins,
 veins are 1mm to 5cm wide usually brecciating the wall
 rocks around them, veins are oriented at all angles
 to CA in a crackle breccia type vein network.
 Rock is moderately soft (<4.5) due to chlorite content

68.2-71.33, 72.66-82.19, 84.47-86.31, 86.9-87.4, 89.33-89.9,
 93.84-94.11,
 Blocky greywacke in cm-mm fragments angular and broken
 up especially the earliest sections due to chlorite fracture
 slip planes and qtz CaCO₃ veining.
 83.10-83.60, 92.70-92.96, 95.41-96.10, 101.43-102.28,
 106.57-107.53
 Quartz CaCO₃ greywacke breccia zones
 Angular to subrounded mm to cm fragments of greywacke set
 in 40%-60% qtz-CaCO₃ white to grey white matrix except
 for 92.70-92.96 which is a qtz-pink calcite vein at 40°
 to CA
 Tr pyrite seen in qtz. CaCO₃ veins
 No foliation, tr py
 Homogeneous
 Chlorite on fracture slip planes
 Gradual lower content
 Dk. Green grey
 107.73-107.95, 108.10-108.50
 Chloritized brecciated carbonated (CaCO₃ and dolomite)
 greywacke as fault gouge wall alteration, strongly mottled
 by wispy chlorite and CaCO₃ -Qtz-dolomite veinlets (<2m) and
 brecciation not real soft

107.53 108.5 90 Chloritic-clay fault gouge and chloritized

SCALE
(GRAPHIC)

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO ONTARIO, CANADA

LOGGING
STRUCTURE
ALTERATION

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

NITS
DISTRICT
TWP./LAT./LONG.
CLAIM
CO-ORDINATES

SURVEY
DEPTH
169.21
DIP
60°
AZIMUTH
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

Hole No. FL-92-26

PAGE 2 9

INTERVAL
M FROM TO
LITHO TYPE

DESCRIPTION

GEOL. LOG (LOCAL) WITH TESTS & TRENDS (SEE APPENDIX D)

ASSAYS

SAMPLE No. FROM TO LENGTH % SUL

108.5	112.51	80 70	Greywacke	Carbonated (CaCO ₃ / dolomite) altered Breccia Zone	107.95-108.10, chlorite fault gouge, very soft with many fragments of mostly greywacke (<1cm) but some pyrite (<2mm) and qtz (<5mm) Reacts locally and mildly to HCL, therefore not much CaCO ₃ present. Very Soft (like clay)			
112.51	134.04	40 30	Altered Greywacke (Fault Zone)	Dk. green grey Fine grained granular Chlorite smears on fracture and foliation planes Moderately soft (4.5), fairly blocky throughout. V. Similar to 66.08-106.57 CaCO ₃ veinlets white to pink white 5% associated with brecciation Regular fracture pattern seen at 111.23 at 35° to CA at 1cm intervals with chlorite smears on fractures planes, no VS.				
90	70			Dk. green grey to yellow - fine to v. fine grained Large sections of severely broken core Sections of sericitized chloritized foliated greywacks, other sections of qtz. veined sericitized foliated greywacke, and other sections of silicified, sericitized greywacke, and other sections of chloritized carbonated greywacke (minor sericite) 112.51-112.68 foliated - weakly sericitized greywacke with foliation at 40° to CA 112.68-113.84 sericitized mildly brecciated (CaCO ₃ veinlets) greywacke with foliation at 60° to CA and very blocky. 113.84-114.70 sericite calcite qtz greywacke breccia 114.70-125.83 - v. blocky core, mm to cm to dm fragments showing sericite at foliation, crumulated foliation showing fold structures.				

W.A. HUBBARD
 GRAPHIC
 LOG

DIAMOND DRILL LOG

W.A. HUBBARD CONSULTANTS LTD.
 TORONTO, ONTARIO CANADA

Hole No. FL-92-26 PAGE 3 9
 COLLAR AZIMUTH
 COLLAR DIP
 ELEVATION
 LENGTH

SURVEY DEPTH
 DIP
 AZIMUTH

CORE SIZE
 CONTRACTOR
 DATE LOGGED
 LOGGED BY
 DDH COMMENTS

NTS
 DISTRICT
 TWP / LAT LONG
 CLAIM
 CO-ORDINATES

COMPANY
 PROVINCE
 COMPLETED
 OBJECTIVE

INTERVAL
 M
 FT
 FROM TO

LITHO TYPE

60 40

DESCRIPTOR (colour grain size texture mineralogy alteration etc)

ASSAYS

INTERVAL	LITHO TYPE	DESCRIPTOR (colour grain size texture mineralogy alteration etc)	SAMPLE No	FROM	TO	LENGTH	% SUL
134.04 134.39	Hypabyssal						
99 80	Kimberlite						
	Breccia Dyke	125.83-133.56 sericite (Ankerite) Calcite Qtz altered and brecciated greywacke, very blocky (cm-mm) from 127.09-128.53 with some ground core, a great deal of CaCO ₃ , qtz breccia especially 132.46-133.56 (20% qtz-calcite veins) 133.56-133.04 contact aureole with underlying kimberlite dyke having CaCO ₃ , (white) 5% veinlets and fracture fillings as well as chloritic alteration giving rock a dk. black green colour. Dk. green black, med. to fine grained Contacts are at 20° to the CA and are sharp but jagged with the upper contact showing a kimberlite breccia over 2cm with less olivine (20%) and more clasts (60%) There is 50% subhedral to round olivine grains (1mm-5mm, Ave. 2mm) dominating the texture, they give a dk. brown to black colouring but show serpentine alteration rims and are recessive when seen with the microscope, fairly equigranular -20% CaCO ₃ calcite amygdules 2-5mm, Ave. 2mm) round The matrix is a serpentine/calcite makeup. There is 3-10% clasts of a dark coloured (peridotite) rock type. The rock is v. magnetic, swing magnet reacts and highly carbonated. Green gray to green yellow to black V. Fine grained Sericite/chlorite/Qtz CaCO ₃ banding showing severe convolutions due to drag folds associated with the Misema Fault and the underlying kimberlite intrusive Augen texture due to strong brecciation with sericitic pressure shadows. Foliation when not too badly convoluted falls between 45°-80° to the CA. Tr-17 porphyroblasts in the qtz banding veins which are grey					
134.39143.8265 50	Seriticized qtz CaCO ₃ chloritized Greywacke						

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO ONTARIO CANADA

LITHOLOGY
STRUCTURE
MINERALIZATION
ALTERATION

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

DISTRICT
TWP /LAT /LONG
CLAIM
CO ORDINATES

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH COMMENTS

SURVEY
DEPTH
DIP
AZIMUTH
Hole No.
FL-92-26
PAGE 4 9
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

INTERVAL
M FT
FROM TO

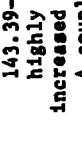
LITHO TYPE

DESCRIPTION
GEOLOGY (colour, grain size, texture, mineral, alteration, etc.)

SAMPLE
NO
FROM
TO
LENGTH
IN
SUL

ASSAYS

30% sericite alteration 10% chlorite alteration, and 25% Qtz CaCO₃ alteration, also potassic Qtz veins (pink orange) crosscut foliation 50° to CA, as do CaCO₃ qtz veins at 30-90° to CA.
134.61-137.42, 138.95-139.14, 139.36-140.10, 141.19-141.28, 141.58-141.90, 142.30-142.13
Very blocky poor recovery, (influence most likely from the Misema Fault), fragments are mm-4cm in size but average 2cm.
143.39-143.82 - contact aureole with underlying kimberlite, highly altered and chilled, a dk. black colour, with increased magnetism (up to 3.21 x 10⁻³ SI units)
A couple kimberlite injection cavities
Highly fractured, at first silicified but towards contact it is chloritized, remnant altered (sericitized) greywacke textures are still visible
CaCO₃ veinlets cross entire sub unit.
Sharp lower contact but at 20° to CA as smaller kimberlite above was many chlorite filled micro fractures in a crackle breccia type pattern.



Kimberlite

143.82 150.40 99 90 Hypabyssal
Kimberlite
Dyke

Dk. green black, v. fn. grained matrix which is a med. (yellow green colour) grey colour and is v. fn. grained and crystalline made up of serpentine, CaCO₃, phlogopite although the rock is not that soft.
Olivines are set in this matrix and are mostly round, some are perfect octahedrals while others are angular, they are altered to a dk. brown or black from light green unaltered variety. There is a total of 30-50% (Ave. 40%) ranging in size from 1mm to 1cm average of 3-4mm, evenly distributed. A total of 10% 1-2mm & the other 30-40% 2mm-1cm.
Dk. brown to black olivines seem to occur most frequently around serpentine veins and melanite veins and CaCO₃ veins (all veins are < 5mm) and the veins likely cause the dark

BORE
GRAIND
LOG

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.

TORONTO, ONTARIO, CANADA

Company _____
Property _____
Commenced _____
Completed _____
Objective _____

NTS _____
District _____
TWP / LAT. LONG. _____
CLAIM _____
CO-ORDINATES _____

Core Size _____
Contractor _____
Date Logged _____
Logged By _____
DDH Comments _____

Survey Depth _____
DIP _____
AZMUTH _____
Core No. _____
Collar AZMUTH _____
Collar DIP _____
Elevation _____
Length _____

Interval _____
M **R** **Q** **Z** **S** **U** **V** **W** **X** **Y** **Other**

Interval	M	R	Q	Z	S	U	V	W	X	Y	Other	Lithotype	Description	Sample		Assays	
														From	To		
143.0750-40.99.70													Geology: (colour, grain size, texture, minerals, alteration etc.)				
												Grain Size (mm)	Kimberlite Classification: Hypabyssal Diatreme Zone				
												1.000 cavity	Competition and Shape				
												Vesicles	Pelletal Angular				
												40% Olivine					
												5% Olivine					
												5% Olivine 20% sp. 20% CaCO ₃				5% ph.	
												Matrix	garnet hercynite illmenite garnet				phlogopite ch diopside peridotite Ilmenite glass apatite
												serpentine perovskite olivine	wacke gabbro peridotite				

Thin Section Samples
 144.51 144.68
 150.15 150.26 (some ph. shearing)

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
MINERALIZATION

DIAMOND DRILL LOG

COMPANY Sudbury Contact Minerals 32 D/4 CORE SIZE NQ
 PROPERTY Diamond Lake (#185) DISTRICT Larder Lake CONTRACTOR Heath & Sherwood
 COMMENCED Nov. 22/92 TWP/LAT/LONG McVittie DATE LOGGED Nov. 28/92
 COMPLETED Nov. 27/92 CLAIM # ~~185~~ LOGGED BY D.W. Christie
 OBJECTIVE Mag High-Resistivity CO-ORDINATES L 1400S 2462E DDH COMMENTS

Copy Data
W.A. HUBACHEK CONSULTANTS LTD.
 TORONTO, ONTARIO, CANADA

Hole No. FL-92-27-PAGE 1 8
 COLLAR AZIMUTH 270°
 COLLAR DIP -65°
 SURVEY DEPTH 70.12 55°20'
 93 55°20'
 113.7 56° 279
 ELEVATION 285
 LENGTH 113.70

INTERVAL
 M FI U S B
 FROM TO LITHOLOGY

0 70.25 Overburden
 70.25 86.12 60 40 Siltstone
 to Greywacke (sandstone)

DESCRIPTION
 GEOLOGY (colour, grain size, texture, mineral alteration, etc.)

Sand and Boulders (casing removed)
 FL-92-27A was abandoned after breaking rods on tricone bit
 wheels in hole. (moving back 1 metre)
 -Grey-dark, v. fine to fine grained (<1mm)
 -Sections have been altered by sericite and have a slight
 yellow beige colouration, and usually are the finer grained
 sections.
 -Homogeneous, with a weak foliation seen locally at 40°
 to C.A. at 73m, but convoluted, possibly bedding with
 soft sediment deformation as it also appears only in the
 v. fine siltstone.
 -Qtz veins, pygmatically folded up to 3cm wide usually
 with CaCO₃ (ie 76.56-77.0), only 1%
 -Crackle brecciation fractures filled by Qtz-CaCO₃ veinlets
 5% at many angles.
 -Non magnetic, tr-ix pyrite finely disse. often seen in
 areas of finer seds and sericite alteration
 -Chlorite/sericite alteration on fracture planes. Very
 blocky throughout, with sections of centimetric to millimetric
 rock fragments.
 -Dk. green brown with white CaCO₃ throughout
 -Upper contact v. sharp. at 38° to CA, marked by CaCO₃ veinlets
 lower contact at 35° to CA and also sharp marked by a
 1.8cm wide olivine rich band.
 -15% clasts of country rock, some tamiskaming sediments and
 volcanic, most are dk. grey to black in colour. Usually
 v. angular but locally sub rounded, up to 3cm, but
 average 1cm.
 -20-25% olivine, rounded, often as pelletal lapilli with
 kimberlite halos, (<1cm, Ave. 3mm) - locally, altered
 to serpentine.
 -Ilmenite, phlogopite and garnet xenoliths without rims up
 to 2cm in length. 2% Ilmenite, 5-10% phlogopite (sometimes

SAMPLE NO. SAMPLE FROM TO LENGTH % BUL ASSAYS

SAMPLE NO.	FROM	TO	LENGTH	% BUL	ASSAYS
86.12	86.50	100.10	Hypabyssal		
			Facies		
			Kimberlite		
			Breccia		

SCALE GRAPHIC LOG
LITHOLOGY
STRUCTURE
MINERALIZATION
ALTERATION

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.
TORONTO ONTARIO, CANADA

Hole No. FL-92-27-B PAGE 3 8
SURVEY DEPTH
DIP AZIMUTH
COLLAR AZIMUTH
COLLAR DIP
ELEVATION
LENGTH

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

NTS
DISTRICT
TWP / LAT LONG
CLAIM
CO-ORDINATES

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
DDH-COMMENTS

INTERVAL
M FT
FROM TO

LITHOLOGY
RECORDED

DESCRIPTION
GEOLOGY (colour, grain size, texture, mineral, alteration etc.)

SAMPLE FROM TO LENGTH % SUL
NO

INTERVAL	LITHOLOGY	DESCRIPTION	SAMPLE FROM TO LENGTH % SUL
87.84 88.17 90 10	Siltstone Breccia with-Fine Grained Kimberlite material infilling Breccia Fracture	-Magnetic quality varies from 2-15x10 ⁻³ SI units -Grey to Green Grey -1mm-5cm clasts of siltstone with green chloritic kimberlitic material infilling fracture (30%) -Greywacke/siltstone fragments are extremely altered via sericite, chlorite, and CaCO ₃ . -Moderately magnetic (1.5 x 10 ⁻³ SI units) -Some clasts are rounded, (possibly suggesting rotation in what may be the Misema Fault Zone) -Rock falls apart v. easily. -V. Fine grained, dk. grey - white -Most of matrix is white + grey qtz. with sericite alteration on fractures at 0°, 30°, and 90° to the CA, blocky section from 88.82-89.34 (mm-cm fragments)	
87.17 89.34 90 50	Qtz Sericite Altered Siltstone/ Greywacke		
89.34 89.85 90 90	Carbonatized- Crackle Brecciated Chill Zone of Underlying Diabase	-V. Fine grained, light to med. grey -CaCO ₃ filled crackle fractures at all angles to the C.A. -Sharp contacts, upper contact at 60° to CA -Non magnetic, magnetic lower contact v. sharp but not that visible. -Coarsening to lower contact, diabase texture becoming visible. -No V.S.	
89.85 113.7 80 60	Altered Diabase Dyke	-Dk. grey to green, fn. to med. grained -Cl-40-60 -Mafic constituents include hornblende, chlorite alteration of the hornblende -Feldspar and minor qtz makes up the felsic constituents. -Alteration of feldspar has given sericite locally. -Also epidote is present as a minor constituent. -Minor qtz-CaCO ₃ veinlets at angles from 0-90° to CA. -Interggranular diabase texture.	



SCALE
GRAPHIC
LOG

DIAMOND DRILL LOG

W.A. HUBACHECK CONSULTANTS LTD.

TORONTO, ONTARIO, CANADA

Hole No. FL-92-27-B PAGE 4 8

SURVEY DEPTH

DIP

AZIMUTH

COLLAR AZIMUTH

COLLAR DIP

ELEVATION

LENGTH

COMPANY
PROPERTY
COMMENCED
COMPLETED
OBJECTIVE

NTS
DISTRICT
TWP /LAT LONG
CLAIM
CO-ORDINATES

CORE SIZE
CONTRACTOR
DATE LOGGED
LOGGED BY
RDH COMMENTS

INTERVAL
M FT
FROM TO

RECORDED

LITHOTYPE

SAMPLE
FROM TO

LENGTH % SUL

ASSAYS

DESCRIPTION
GEOLOGY (colour grain size texture mineralite alteration etc)

- Hematite staining and alteration on fractures is pervasive also seen associated with CaCO₃, Qtz veins
- Grain Size varies as does rock colour and colour index.
- Very magnetic (25x10⁻³) tr-ix py finally diss.
- Consistent fracture (joint) pattern at 50-60° to the CA., another weaker one at 30° to CA
- Stringer CaCO₃, content down hole in veinlets.

113.7 EOH

DIAMOND DRILL LOG

W.A. HUBACHEK CONSULTANTS LTD.

TORONTO, ONTARIO, CANADA

Hole No. FL-92-27-B PAGE 6 8

SURVEY DATA
 DISTRICT
 TWP./LAT./LONG.
 CLAIM
 CO-ORDINATES

COMPANY
 PROPERTY
 COMMENCED
 COMPLETED
 COLLECTIVE

NTS
 DISTRICT
 TWP./LAT./LONG.
 CLAIM
 CO-ORDINATES

CORE SIZE
 CONTRACTOR
 DATE LOGGED
 LOGGED BY
 DRILL COMMENTS

COLLAR AZIMUTH
 COLLAR DCP
 ELEVATION
 LENGTH

SCALE GRAPHIC LOG
 LITHOLOGY
 STRUCTURE
 MINERALIZATION
 ALTERATION

INTERVAL M FROM 86.50	LITHOLOGY R TO 86.80	DESCRIPTION GEOLOGY (colour, grain size, texture, minerals, alteration etc.)	SAMPLE			ASSAYS
			FROM	TO	% SUL	
		Kimberlite Classification: Hypabyssal Diatreme Zone				
	Grain Size (mm)	Tuffaceous Breccia: Composition and Shape				
	1.000	1.000 cavity: Pelletal				
	0.800	Yeast-like Amygdale spherical elongate				
	0.600	Angular				
	0.400	could be Auglich with Kimberlite material (secondary)				
	0.200	on it like a pelletal				
	0.000	ISSN. IN FL-92-23				
	Matrix	50% ol 2% sp 15% ca				12% CR (wt) 15% ph
	serpentine	garnet hornblende				
	perovskite	illmenite				
	olivine	garnet				
		selenite				
		calcite				
		wacke				
		gabbro				
		peridotite				
		illmenite				
		glass				
		apatite				

COMPANY _____ NTS _____ CORE SIZE _____
 PROPERTY _____ DISTRICT _____ CONTRACTOR _____
 COMMENCED _____ TWP./LAT./LONG. _____ DATE LOGGED _____
 COMPLETED _____ CLAIM _____ LOGGED BY _____
 OBSERVATIVE _____ CO-ORDINATES _____ DCH COMMENTS _____

SURVEY DEPTH _____ DIP _____ AZMUTH _____
 COLLAR AZMUTH _____
 COLLAR DIP _____
 ELEVATION _____
 LENGTH _____

INTERVAL M FROM	LITHOLOGY	LITHOLOGY	DESCRIPTION	SAMPLE		ASSAYS	
				FROM	TO	LENGTH	% SUL
86.80	87.84	Grain Size (mm)	Kimberlite Classification: Hypabyssal Diatreme Zone Tuffaceous Breccia: Composition and Shape 1.000 cavity Pelletal Angular Vesicles, Amorphous spherical elements occasional necessary 5% CR (wa) 1% qtz. 1% Kim				
		Matrix	10% CR (wa) 1% 5% CR (wa) 20% CR (wa) 5% qtz. 2% Kim				
		Matrix	50% ol 10% Ca				5% ph 1% 2% ll
		Matrix	garnet hercynite wacke illmenite garnet KIMBERLITE				phlogopite ch diopside peridotite ilmenite glass apatite
		serpentine	selenite calcite				
		perovskite					
		olivine					

LITHOLOGY
 STRUCTURE
 ALTERATION
 GRAPHIC LOG



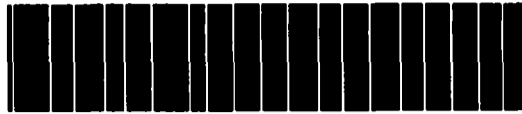
Q FRU

Report of Work Conducted After Recording Claim
Mining Act

DECLARATION NUMBER
9480-00156

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7284.

- Instructions:**
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.



32D04NW0041 W9480-00156 GAUTHIER

900

Recorded Holder(s) Sudbury Contact Mines Ltd.		Client No. 198617
Address 401 Bay St., Suite 2302, P.O. Box 102, Toronto, Ont.		Telephone No. (416)947-1212
Mining Division Larder Lake	Township/Area Gauthier and McVittie	W or G Plan No.
Date Work Performed From: June 1992	To: December 1992	

Work Performed (Check One Work Group Only)

Work Group	Type
<input type="checkbox"/> Geotechnical Survey	
<input checked="" type="checkbox"/> Physical Work, including Drilling	Diamond Drilling
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	

Ontario Geological Survey
MINES DIVISION
JUN 27 1992
RECEIVED

Total Assessment Work Claimed on the Attached Statement of Costs \$ 15,507.38 150738

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
David W. Christie	141 Adelaide Street W., Suite 603 Toronto, Ontario
W.A. Hubachek Consultants Ltd.	M5A 3L5
Heath & Sherwood Drilling	54 Duncan Avenue, Kirkland Lake, Ontario

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date April 4/94	Recorded Holder or Agent (Signature) <i>[Signature]</i>
--	---------------------------	--

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying David W. Christie, 141 Adelaide St. W., Suite 603, Toronto, Ontario M5A 3L5		
Telephone No. (416)364-2895	Date April 4/94	Certified By (Signature) <i>[Signature]</i>

For Office Use Only

Total Value Cr. Recorded RESERVE #51414 \$ 99324	Date Recorded APRIL 6/94	Mining Recorder <i>[Signature]</i>	Received Stamp RECEIVED LARDER LAKE MINING DIVISION APR 6 1994
	Deemed Approval Date JULY 5/94	Date Approved JUNE 20/94	
	Date Notice for Amendments Sent		



Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des mines

**Statement of Costs
for Assessment Credit**

**État des coûts aux fins
du crédit d'évaluation**

Mining Act/Loi sur les mines

Transaction No./N° de transaction

DOCUMENT No.

W 9480 • 00156

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7284.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7284.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain	32250	32250
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type Diamond Drilling	99,695.62	
	Drafting	4000.00	
			103,695.62
Supplies Used Fournitures utilisées	Type Supplies	1,225.15	
			1,225.15
Equipment Rental Location de matériel	Type Equipment Rental	1,199.51	
			1,199.51
Total Direct Costs Total des coûts directs			138370.28

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type Truck Rental	4318.67	
			4318.67
Food and Lodging Nourriture et hébergement		8049.52	8049.52
Mobilization and Demobilization Mobilisation et démobilisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			12368.19
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'exécédant pas 20 % des coûts directs)			12368.19
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			150738.47

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Project Geologist I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature 	Date April 4/94
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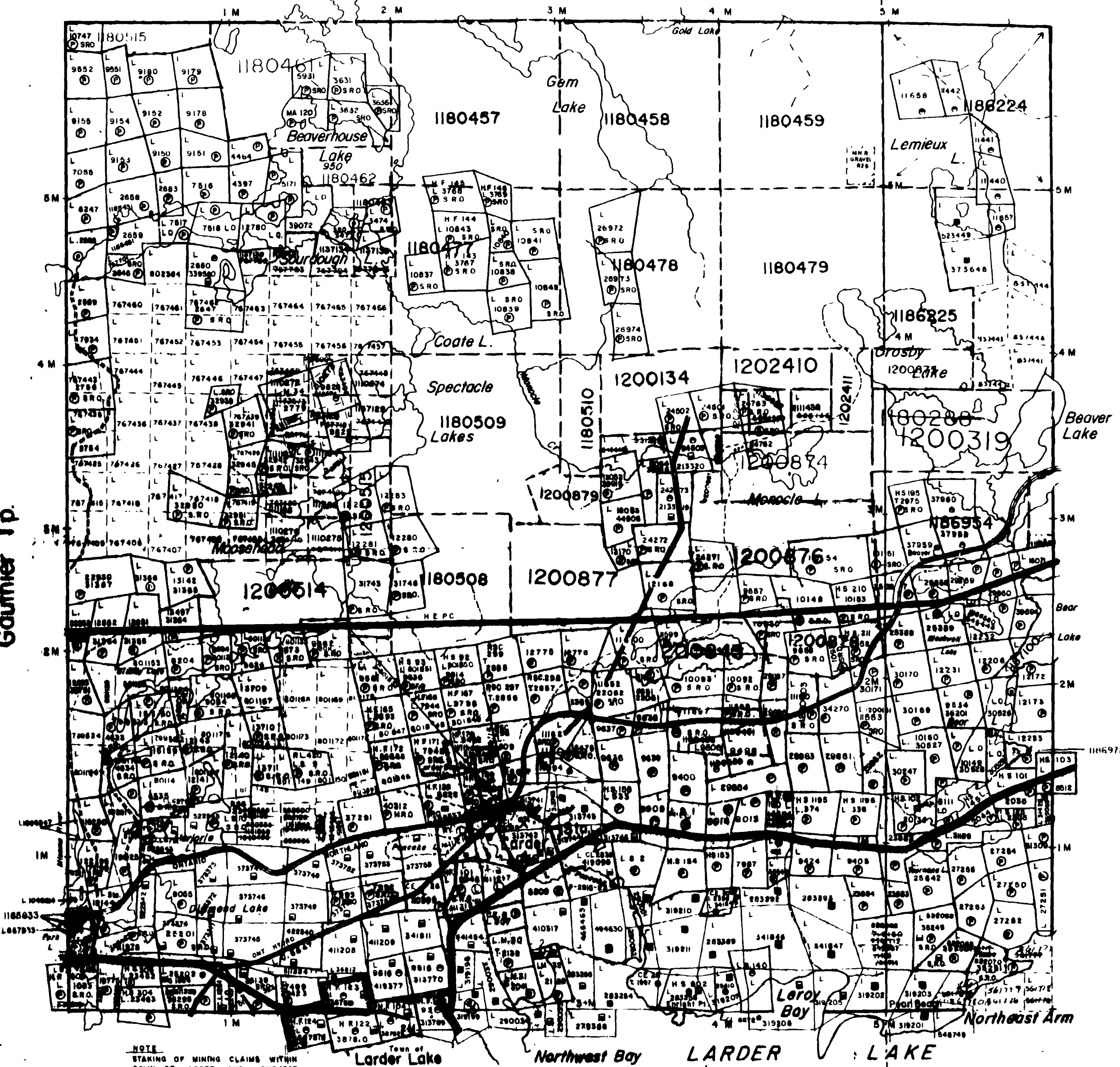
9-3163

MCCALLIE TP

9-3163

Katrine Tp.

MUNICIPALITY OF LARDER LAKE IMPROVEMENT DISTRICT OF MC GARRY



Gauthier Tp.

McGarry Tp.

NOTE
 STAKING OF MINING CLAIMS WITHIN
 TOWN OF LARDER LAKE - SUBJECT
 TO SEC. 37(1) OF MINING ACT (R.S.O. 1970)

MUNICIPALITY OF LARDER LAKE IMPROVEMENT DISTRICT OF MC GARRY

Hearst Tp.

LEGEND

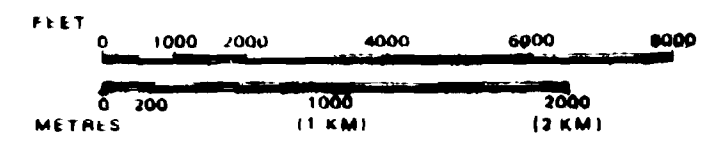
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
 - TOWNSHIPS, BASE LINES, ETC.
 - LOTS, MINING CLAIMS PARCELS, ETC.
- UNSURVEYED LINES
 - LOT LINES
 - PARCEL BOUNDARY
 - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS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

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 8 1913, VESTED IN ORIGINAL PATENTEES BY THE PUBLIC LANDS ACT R.S.O. 1970 CHAP. 380 SEC. 67 SUBSEC. 1

SCALE 1 INCH = 40 CHAINS



Sec 36/80 H.W. 8/34 oil/ston m/15R
 0-2/80 0/100 H.W. 6/2/84
 Sec 36/80 H.W. 12/75
 0-2/80R OPEN H.W. 2/10/84 m/15R
 Sec 36/80 H.W. 9/100 0/100/100 m/15
 Sec 36/80 0-1/80 0/100/100 m/15
 0-2/80 0-3/80 Sec 36/80 m/15
 TOWNSHIP 0-2/80 OPEN 0-2/80

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

McVITTIE

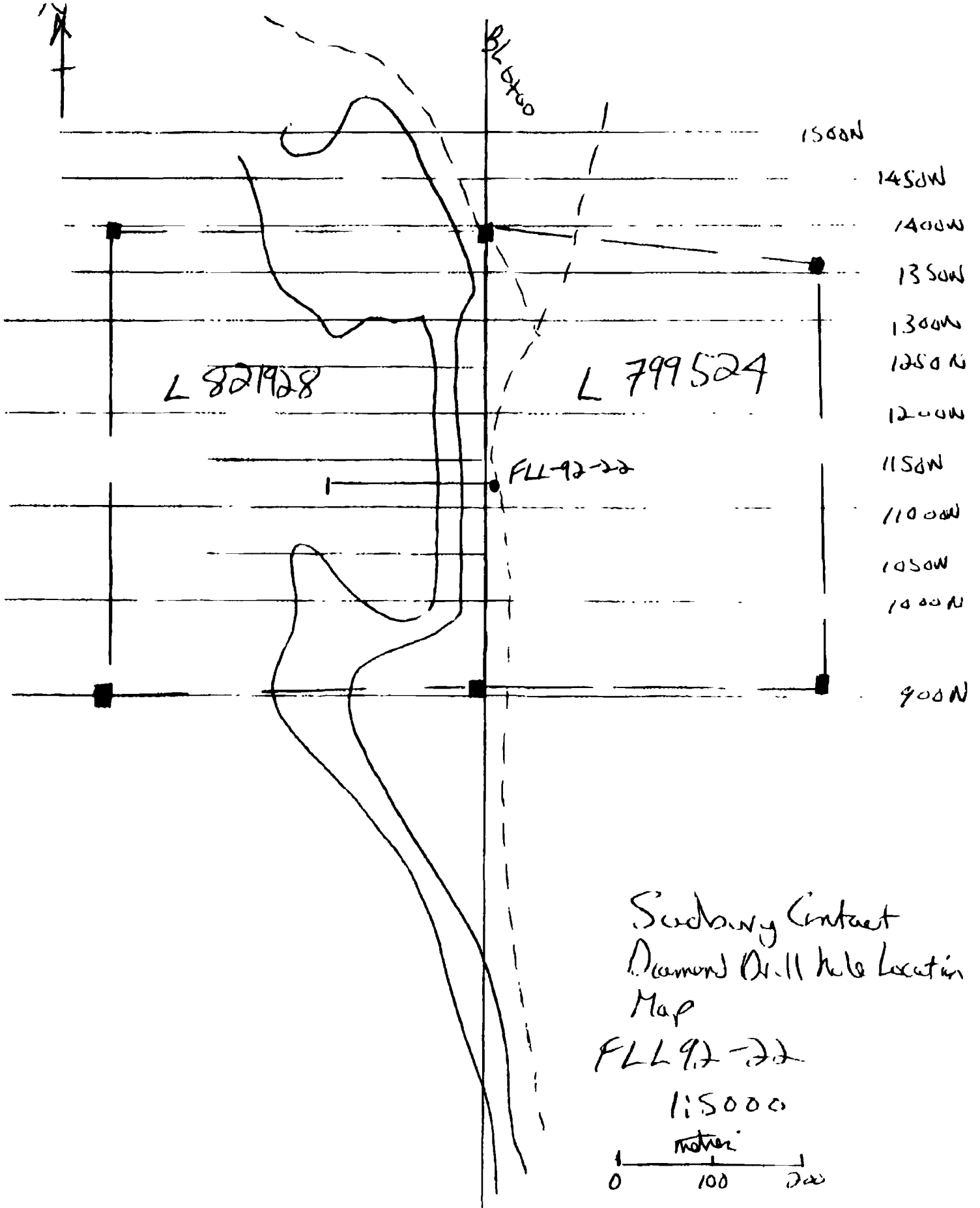
M.N.R. ADMINISTRATIVE DISTRICT
 KIRKLAND LAKE
 MINING DIVISION
 LARDER LAKE
 LAND TITLES / REGISTRY DIVISION
 TIMISKAMING



Date: SEPTEMBER 1984 Number: G-3163

COPY OF THIS MAP ARCHIVED OCT. 31, 1994
 ARCHIVED APR. 18, 1994

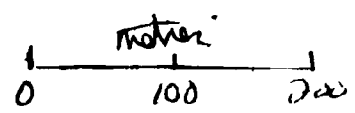


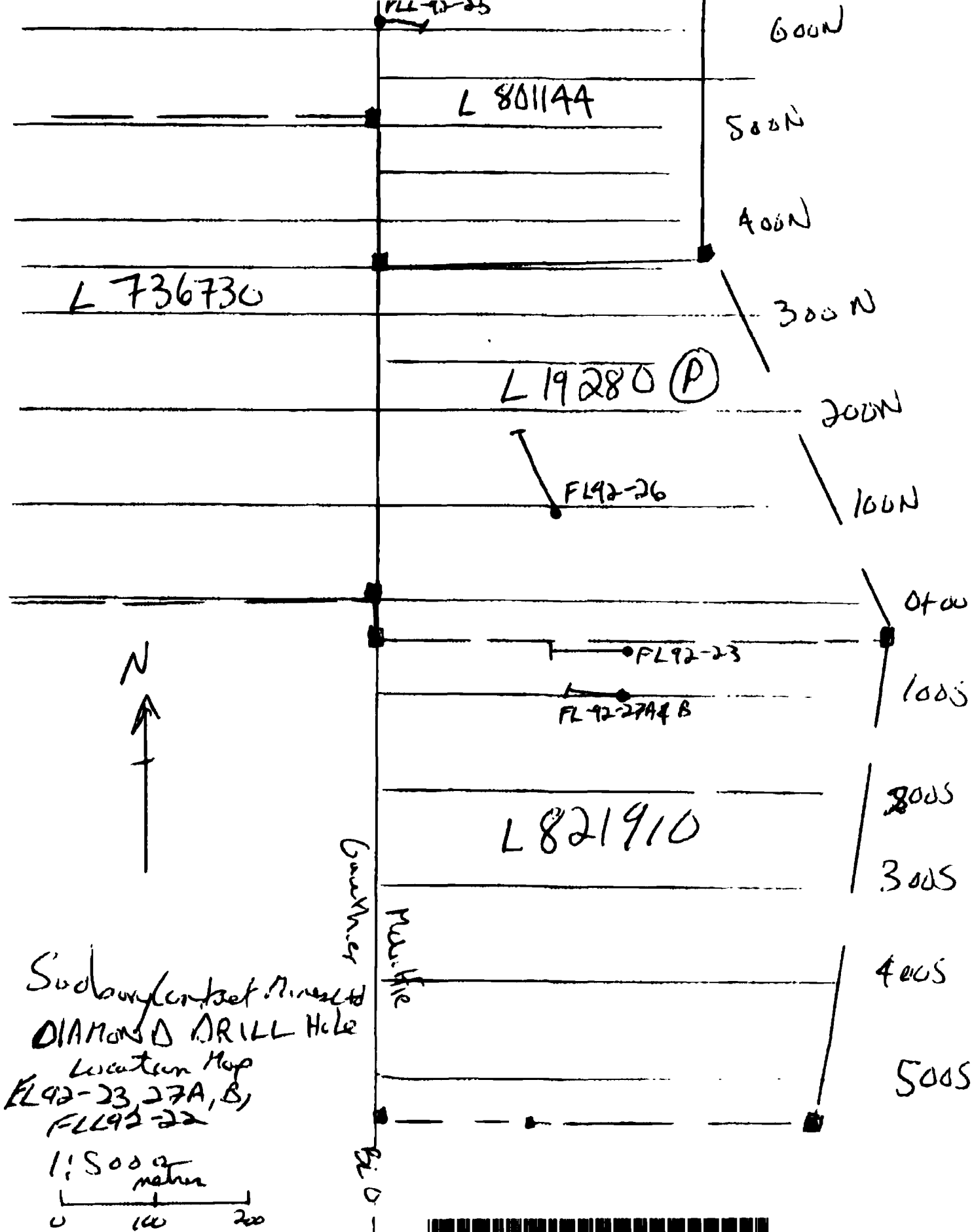


Sudbury Contact
 Diamond Drill hole Location
 Map

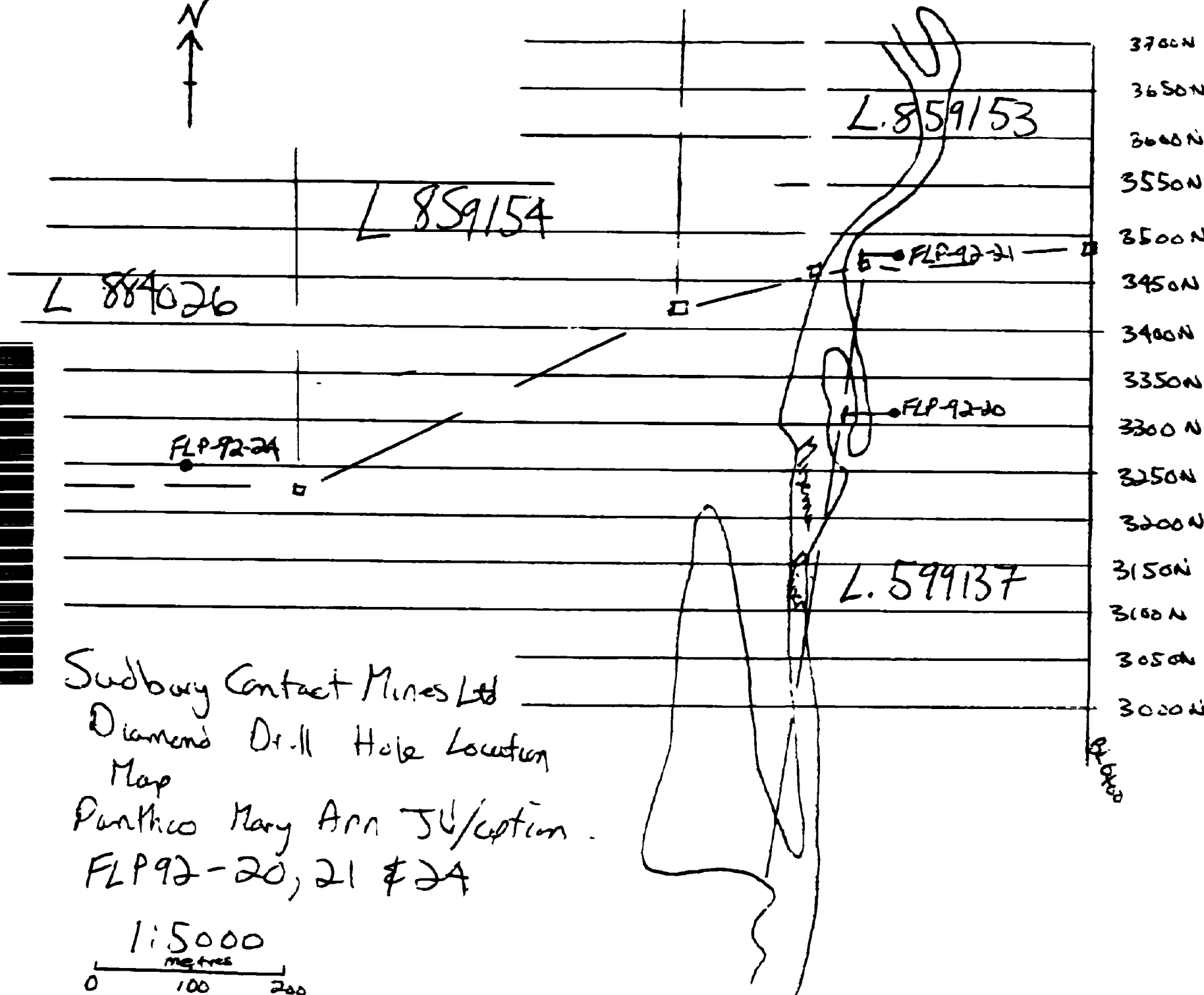
FLL 92-22

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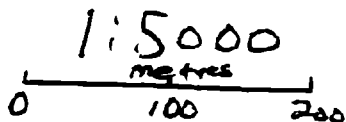
32D04NW0041 W8480-00168 GAUTHIER



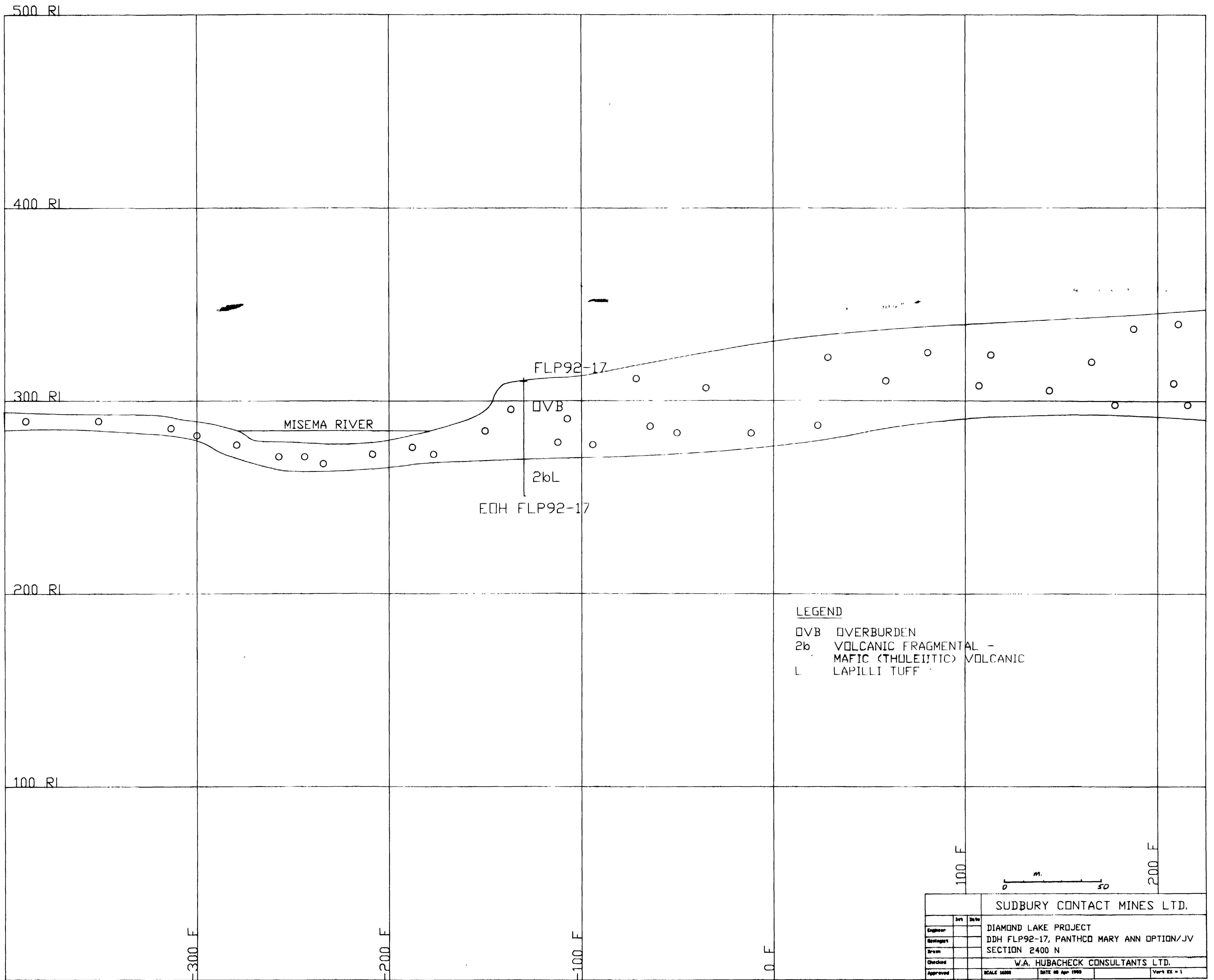
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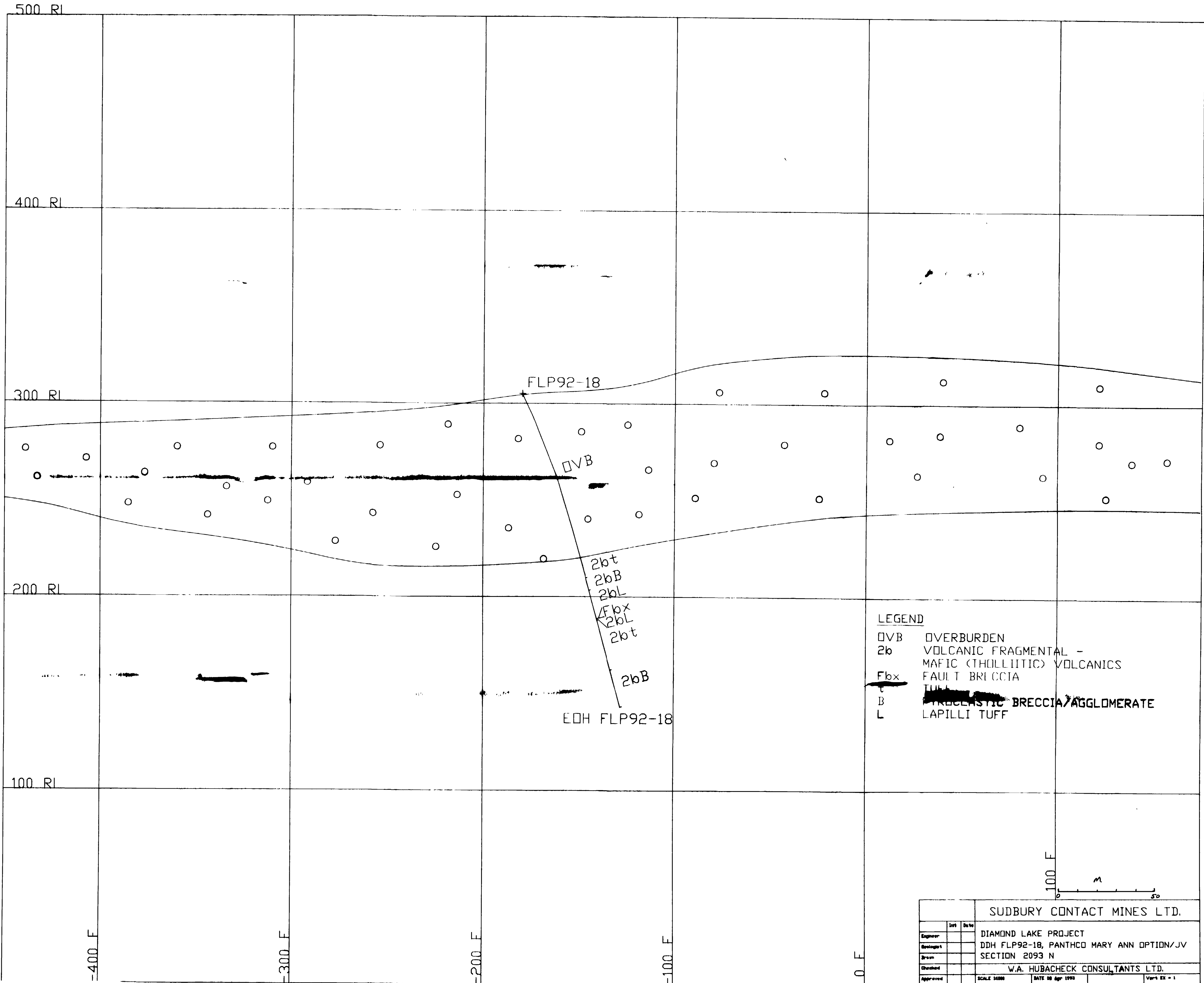
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Sudbury Contact Mines Ltd
Diamond Drill Hole Location
Map
Parthco Mary Ann SU/option
FLP 92-20, 21 & 24



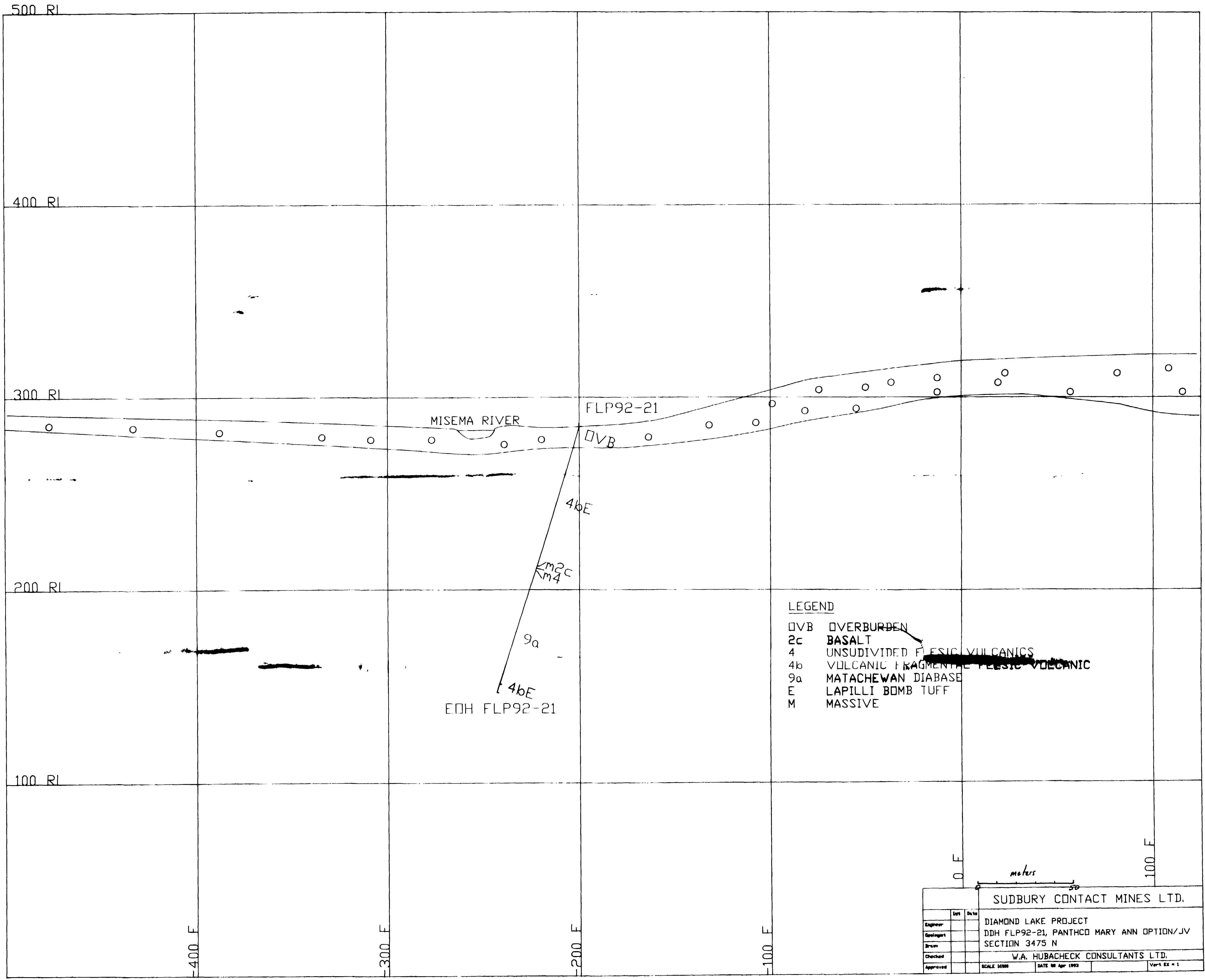
3000N





SUDBURY CONTACT MINES LTD.		
Engineer	Int	Date
Designer		
Drawn		
Checked		
Approved		
DIAMOND LAKE PROJECT		
DDH FLP92-18, PANTHO MARY ANN OPTION/JV		
SECTION 2093 N		
W.A. HUBACHECK CONSULTANTS LTD.		
SCALE 1:5000	DATE 08 Apr 1993	Ver: Ex - 1





LEGEND

- OVB OVERBURDEN
- 2c BASALT
- 4 UNSUDIVIDED FELSIC VOLCANICS
- 4b VOLCANIC FRAGMENTAL FELSIC VOLCANIC
- 9a MATACHEWAN DIABASE
- E LAPILLI BOMB TUFF
- M MASSIVE

		0 F		100 F	
		meters			
SUDBURY CONTACT MINES LTD.					
Engineer	Iss	Date	DIAMOND LAKE PROJECT		
Geologist			DDH FLP92-21, PANTCO MARY ANN OPTION/JV		
Drawn			SECTION 3475 N		
Checked			W.A. HUBACHEK CONSULTANTS LTD.		
Approved			SCALE 1:1000	DATE 08 Apr 1992	Vert. EX = 1



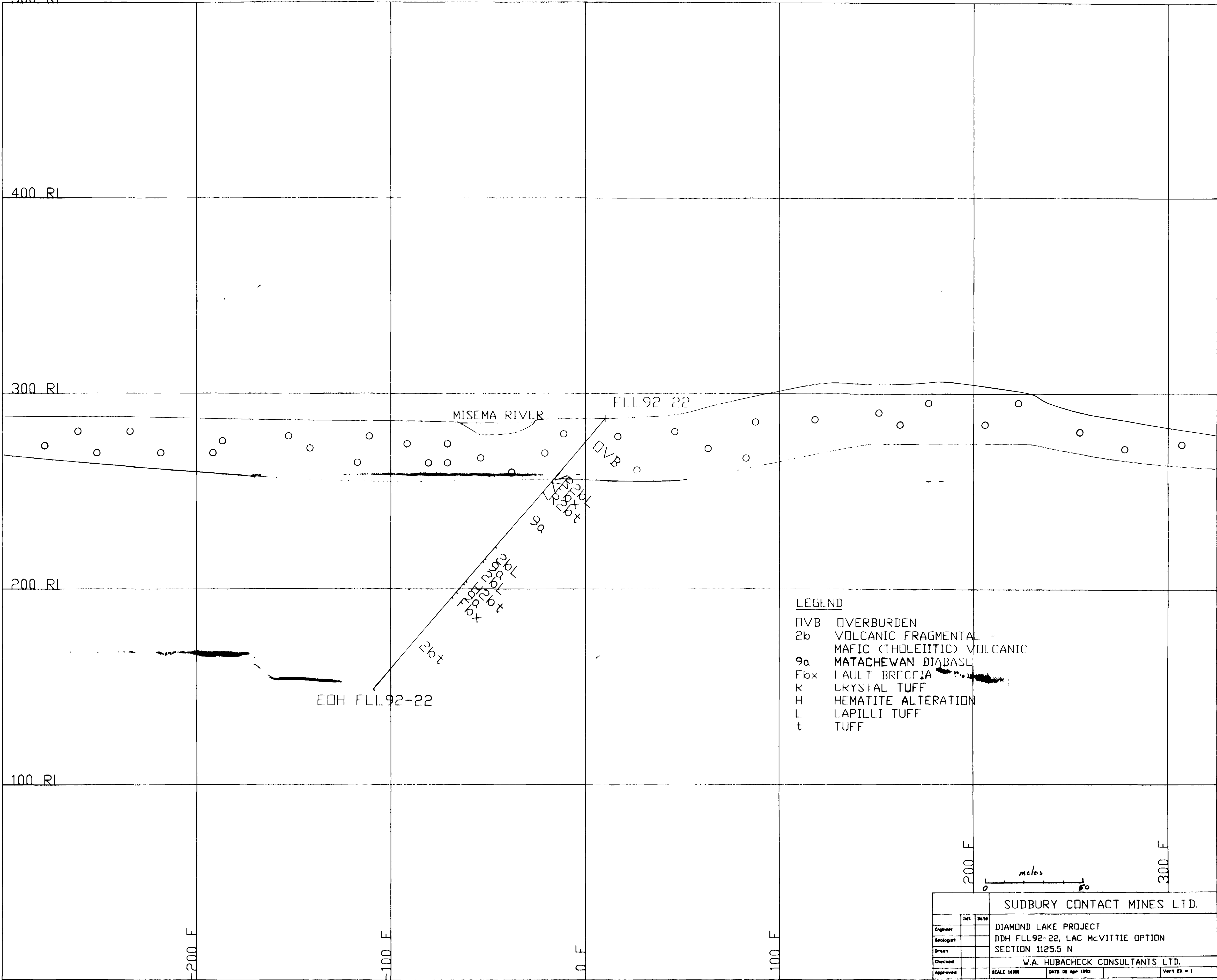
500 RI

400 RI

300 RI

200 RI

100 RI



LEGEND

▯ VB OVERBURDEN
 2b VOLCANIC FRAGMENTAL -
 MAFIC (THOLEIITIC) VOLCANIC
 9a MATACHEWAN DIABASITE
 Fbx FAULT BRECCIA
 K CRYSTAL TUFF
 H HEMATITE ALTERATION
 L LAPILLI TUFF
 t TUFF

		SUDBURY CONTACT MINES LTD.	
Engineer	Int	Date	DIAMOND LAKE PROJECT
Geologist			DDH FLL92-22, LAC McVITTIE OPTION
Drawn			SECTION 1125.5 N
Checked			W.A. HUBACHEK CONSULTANTS LTD.
Approved			SCALE 1:1000 DATE 08 Apr 1993 Ver 1 Ex = 1



