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ASSESSMENT REPORT ON METALLIC MINERAL PERMITS No. 9393040031 and 9393040032 CADOTTE LAKE AREA, ALBERTA

Prepared for
Ultrasonic Industrial Sciences Ltd.

APEX Geoscience Ltd.

OCTOBER, 1997

L. Chin
M.B. Dufresne

ASSESSMENT REPORT ON METALLIC MINERAL PERMITS No. 9393040031 and 9393040032 CADOTTE LAKE AREA, ALBERTA

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ASSESSMENT REPORT ON METALLIC MINERAL PERMITS No. 9393040031 and 9393040032 CADOTTE LAKE AREA, ALBERTA

SUMMARY

The field program on mineral permits 9393040031 and 9393040032, which are owned by Ultrasonic Industrial Sciences Ltd. (UIS), was conducted between August 7 and August 11, 1997. A total of six till samples and six soil samples were collected from three prospective areas overlying or in a down-ice direction from distinct magnetic anomalies within the permits. The six till samples were sent to the Saskatchewan Research Council for heavy mineral processing and diamond indicator mineral picking. This was followed by electron microprobe analysis of the picked mineral grains at the University of Saskatchewan. The six soil samples were submitted to Bondar Clegg & Company Ltd. in North Vancouver, British Columbia for analysis for gold.

Analytical highlights from these samples include:

1. Diamond indicator mineral picking of the 6 till samples yielded three anomalous samples with: (a) 9 definite and 2 possible pyropic garnets, (b) 1 definite and 3 possible chrome diopsides, (c) 2 possible eclogitic garnets, and (d) more than 61 opaque oxide grains (possible chromite or Ilmenite). More specifically:

2. Sample 7LCT001 yielded: (a) a G9 chrome rich pyrope, (b) a picroilmenite, and (c) two chromites;

3. Sample 7LCT002 yielded: (a) five G9 pyrope garnets and one high Cr_2O_3, low CaO G10 pyrope, (b) two chrome diopsides, and (c) one interesting low FeO, high MgO eclogitic G3 garnet; and

4. Sample 7LCT004 yielded (a) three G9 pyropes, (b) one chrome diopside and (c) three chromites.

Based upon the positive results received from samples 7LCT001, 7LCT002 and 7LCT004, including some grains which are potentially derived from the 'diamond inclusion field', there is potential for the presence of a diamondiferous kimberlite or related intrusions within the UIS permits.

A three phase follow-up exploration program is recommended at the UIS permits to evaluate the potential for the presence of diamondiferous kimberlites or related intrusions. Phase 1 should consist of a compilation of data from petroleum exploration and hydrogeological drilling, including well logs and any available downhole geophysical data available for the area, in order to determine drift thickness. Thick drift has been noted in the region, and if present on the UIS permits, could pose a major impediment to future diamond

and other mineral exploration activities. Phase 2 should consist of either purchasing existing airborne magnetic data or conducting a detailed airborne magnetic geophysical survey of the area encompassing the UIS permits. If Phases 1 and 2 produce positive results, a Phase 3 exploration program consisting of one or more of gridding, ground geophysical surveying, further sampling and drilling to test selected targets may be required.

INTRODUCTION

Ultrasonic Industrial Sciences Ltd. (UIS) owns the rights to mineral permits 9393040031 (in two spatially separate blocks) and 9393040032 (one block) (hereafter referred to collectively as the 'UIS permits') in northwestern Alberta (Figure 1). In August of 1997, APEX Geoscience Ltd. (APEX) was commissioned by Mr. Ben Christensen on behalf of UIS to conduct a short summer field program on the UIS permits for assessment purposes. The field program was conducted between August 7 and August 11, 1997, and a total of six till samples and six soil samples were collected from within or very near the UIS permits.

Property Location

The two spatially separate mineral claim blocks which comprise the UIS permits are south of Cadotte Lake and approximately 55 km due east of the town of Peace River in northwestern Alberta (Figure 1). Peace River is located 390 km northwest of Edmonton and can be reached via Provincial Highways 2 and 43. Peace River is also accessible by air or rail, with daily air passenger service to Edmonton and service by Canadian National Railways.

The UIS permits are geographically centered at about latitude 56°10' N and longitude 116°25' W, and are within 1:50,000 National Topographic System (NTS) map areas 84C/1 and 84C/8. The size and legal township-range legal description for mineral permits 9393040031 and 9393040032 are summarized in Table I.

Property Description and Access

Geographically, the Peace River area is composed of deeply incised valleys surrounded by flat prairie and muskeg. The average elevation in the area is approximately 600 m above sea level (asl) with a minimum elevation of 460 m and a maximum elevation of 975 m asl. At and near the UIS permits, there is extensive bog or swamp and forest cover.

The paved roads closest to the UIS permits include Secondary Highway 688 to Cadotte Lake, as well as an industry road that travels east from the community of Harmon Valley which is approximately 30 km southeast of Peace River. Seismic cutlines exist at and between the two UIS permits, but the high rainfall which was received in this area during the

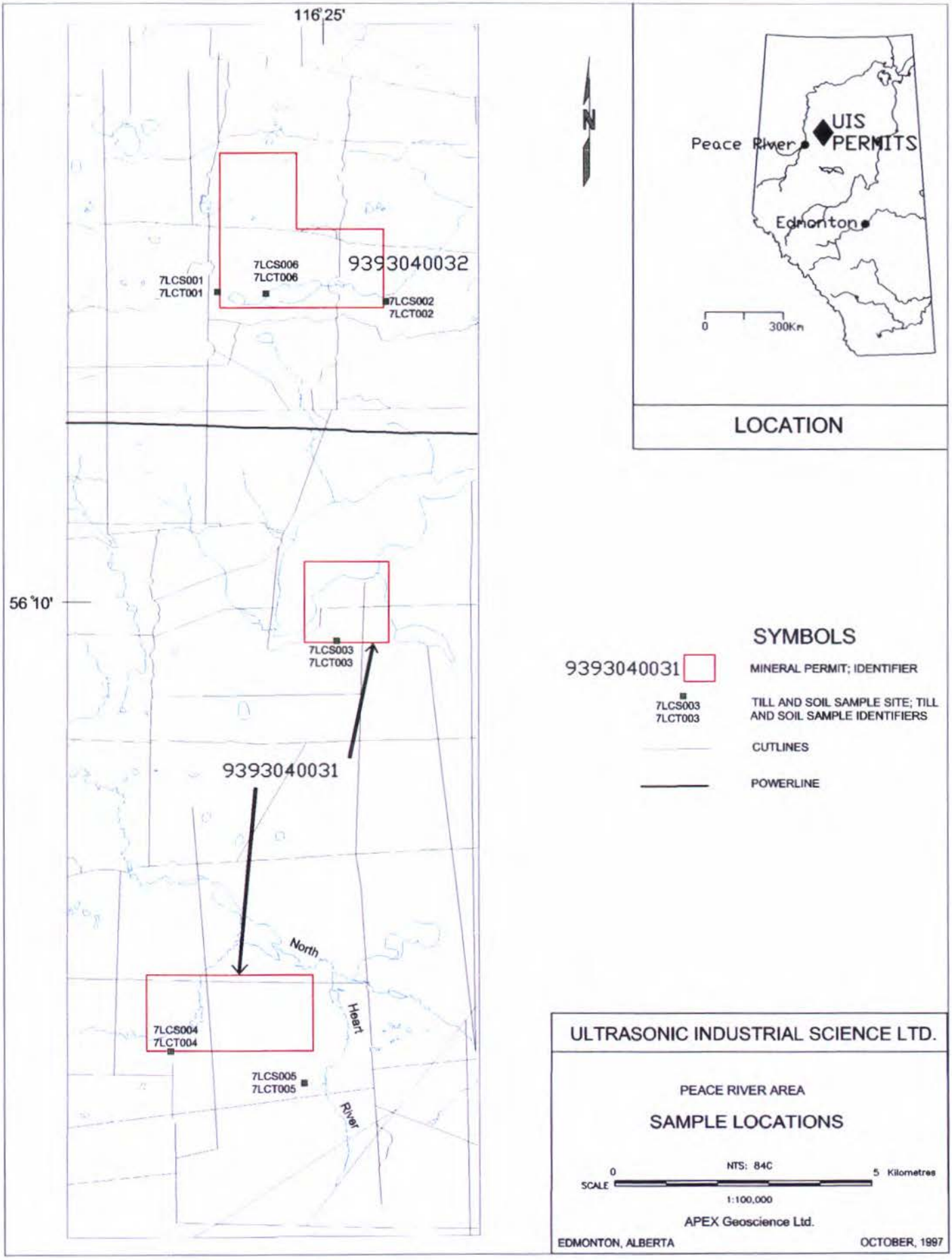
116°25'
56°10'
N
7LCS006
7LCT006
9393040032
7LCS001
7LCT001
7LCS002
7LCT002
7LCS003
7LCT003
9393040031
North
Heart
River
7LCS004
7LCT004
7LCS005
7LCT005
Peace River
UIS
PERMITS
Edmonton
0
300Km
LOCATION
SYMBOLS
9393040031
MINERAL PERMIT; IDENTIFIER
7LCS003
7LCT003
TILL AND SOIL SAMPLE SITE; TILL AND SOIL SAMPLE IDENTIFIERS
CUTLINES
POWERLINE
ULTRASONIC INDUSTRIAL SCIENCE LTD.
PEACE RIVER AREA
SAMPLE LOCATIONS
NTS: 84C
SCALE
0
5 Kilometres
1:100,000
APEX Geoscience Ltd.
EDMONTON, ALBERTA
OCTOBER, 1997

FIGURE 1

TABLE I

PROPERTY DESCRIPTION AND LOCATION
PEACE RIVER AREA, NORTHWEST ALBERTA

Permit #	9393040031	9393040032
Map Area (1:50,000 scale)	84C/8	84C/1
Status	Metallic Mineral Permit	Metallic Mineral Permit
Areal Extent	320 ha or 790.7 acres	384 ha or 948.9 acres
Location (Meridian-Rng-Twp)	5-16-83	5-16-84
Sections	3S, 4S, 35S	22N, 23NW, 27S

spring and summer months, resulted in the cutlines being impassable during August, 1997. Therefore, during the 1997 exploration, truck or all-terrain-vehicle access to the property along forestry or oil industry roads and cutlines was either not possible or was difficult due to extensive bog and other swampy terrain. As a result of this difficult access, a Bell 206B helicopter was contracted on a casual per hourly basis from Highland Helicopters Ltd. based in Peace River in order to access the UIS permits.

PERMIT TABULATION

Metallic mineral permits 9393040031 and 9393040032 were originally held in trust for UIS by Mr. Ben Christensen and Mr. George Moss, but are now held 100% by UIS.

PREVIOUS EXPLORATION

Previous exploration in this area was conducted by Paul A. Hawkins & Associates Ltd. (Hawkins, 1993), who prepared and submitted assessment report #045-R1 in October of 1993. This report was a general overview of the geology and diamond potential in the northwestern Alberta region, and included a property evaluation of the UIS permits in an addendum, along with a recommendation for further exploration. Other companies which are reported to have an interest in the Peace River area for diamond exploration and other minerals include: Ashton Mining of Canada Inc., Encore Resources Ltd., Grizzly Gold, New Claymore Resources Ltd., Montello Resources Ltd., Pure Gold Resources Corp., Ridgeway Petroleum Corp., and Troymin Resources Ltd.

Diamond indicator mineral sampling has been conducted in the region by numerous companies as well as by the Alberta Geological Survey (AGS). Important discoveries in he area have been made by: (a) Ashton Mining of Canada Inc., who to date have announced the discovery of 17 kimberlites about 80 km northeast of the UIS permits, (b) other companies such as Montello Resource Ltd and New Claymore Resource Ltd., who have identified numerous magnetic anomalies in the region, and (c) the AGS who have collected till samples in the region with: pyropic garnets, eclogitic garnets and chromites which have compositions favorable for potentially diamondiferous kimberlites (Dufresne *et al.*, 1995 and 1996).

REGIONAL GEOLOGY

The UIS permits lie near the western edge of the Western Canadian Sedimentary basin along the Peace River Arch and are underlain by mid-Cretaceous shale and sandstone of the Fort St. John Group. The basement underlying the Peace River Arch is comprised of the Buffalo Head and the Chinchaga terranes, both of which were accreted approximately 2.0 billion years ago (Ross et. al., 1991). Due to their relatively stable history since accretion, the Buffalo Head and Chinchaga terranes are currently the focus of extensive diamond exploration in northwestern Alberta. The basement in the area of the UIS permits is composed solely of the Buffalo Head terrane. Overlying these basement rocks is a thick sequence of Phanerozoic strata. A table of the regional stratigraphy is in Table II.

In northwestern Alberta, the Peace River Arch is a region where the younger Phanerozoic rocks which overlie the Precambrian basement, have undergone periodic vertical, and possibly compressive, deformation from the Cambrian into Tertiary time (Cant, 1988; O'Connell et al., 1990). This pattern of long-lived subsidence and uplift caused a structural control on the deposition patterns of the Phanerozoic strata in northwestem Alberta, and also resulted in a rectilinear pattern of faults that may have provided potential pathways for later deep-seated intrusive kimberlitic magmas. During the late Cretaceous and early Tertiary, compressive deformation occurred as a result of the orogenic event that eventually led to the formation of the Rocky Mountains. Within the Peace River Arch region there are many prospective aeromagnetic anomalies that exist in close proximity to well documented faults, at least three of which underlie the UIS permits. Some of these aeromagnetic anomalies may indicate the presence of kimberlitic or related intrusions in the subsurface.

TABLE II

REGIONAL STRATIGRAPHY FOR THE PEACE RIVER AREA

AGE	ROCK UNIT	SYMBOL	DATE (Ma)	MEMBER	DESCRIPTION
Pleistocene		Qsg		Overburden	-Glacial till composed of unconsolidated sands and gravel
Tertiary			6.5		
Cretaceous	MONTANA Group Wapati Formation	Kwl			-Grey brown clay and sandstone, ironstone nodules, nonmarine, coal beds
	SMOKY Group Paskwaskau Formation	Ks Kpw 1Ws		First white speck zone	-Grey shale with Ironstone nodules
	COLORADO Group Bad Heart Formation Kaskapau Formation	Kbh Kk			-Brown sandstone, medium to fine grained marine sediments -Dark grey to black shale with minor sandstone
	FT. ST. JOHN Group Dunvegan Formation	Kd			-Grey, fine grained, feldspathic sandstone and shale, deltaic to marine
	Shaftesbury Formation	Ksh Kshu Kshl	100	Upper Member Base of fish scale zone Lower Member	-Dark grey fish scale bearing shale -Ironstone nodules and ironstone beds Silty and sandy shales
	Peace River Formation	Kp Kpc Kph Kpn		Paddy Member Cadotte Member Harmon Member Notikewia Member	-Massive sandstone -Fluvial deposits -Quartzose sandstone, shale and conglomerate -Dark grey silty shale -Fine grained glauconitic sandstone

1997 EXPLORATION

Sampling and Prospecting

A two man crew from APEX, consisting of Mr. Lonnie Chin (field geologist) and Mr. Robin Happy (geological assistant), mobilized to Peace River, Alberta on August 7, 1997 with a two-wheel drive truck and a four wheel all-terrain vehicle (Appendix 1). On August 8, 1997 the APEX crew was advised by Alberta Environmental Protection (Land and Forest Services) that the prospective project area was inaccessible by vehicle or foot due to extensive swamp and bog that were water-filled because of heavy rainfall in the prior months. As a result, APEX personnel proceeded to conduct helicopter supported sampling of the UIS permits.

Between August 8 and August 9, 1997, a total of six till samples (sample identifiers 7LCT001 to 7LCT006) and six soil samples (sample identifiers 7LCS001 to 7LCS006) were collected from within or very near the three UIS permits (Figure 1). The intent of the sampling was to collect the till and soil samples in a direction 'down-ice' from, but proximal to the properties in order to evaluate the bedrock geology within the properties. In addition to the sampling, the geography and geology of the three permits were also examined from the air, but due to the wet ground conditions, very little of the area was traversed by foot. In total, 2.1 hours of helicopter time were required for sampling and crew deployment.

In short, limited aerial prospecting and very little ground prospecting was conducted during the duration of the 1997 program due to limited time and budget constraints, and because of the extensive forest cover and bog.

Analytical Methodology

The six till samples were collected by shovel at an average depth of 1 m below ground surface. The six soil samples are within 1m of the associated till sample and were collected by hand at an average depth of 10 to 15 cm.

The 6 till samples were initially sent to the Saskatchewan Research Council, Saskatoon, Saskatchewan for diamond indicator mineral separation. The till samples were washed and screened, then separated into various fractions based upon their size, magnetic properties and specific gravity. Once each sample had been separated into various fractions, a 'Middle Fraction' with a specific gravity greater than 3.0 and less than 4.1, and a 'Heavy Fraction' with a specific gravity greater than 4.1, were retained for diamond indicator mineral picking. Probable diamond indicator minerals were then manually picked from these selected fractions using a binocular microscope and forceps. That is, the 'Middle Fraction' is picked for possible pyropic garnets and chrome diopsides, and the 'Heavy Fraction' is picked for possible chromites and picroilmenites. Once the prospective grains were picked from both the Middle and the Heavy Fractions, they were stored in labelled vials and returned to APEX for review and tabulation.

The possible diamond indicator mineral grains were then sent to the University of Saskatchewan, Department of Geological Sciences, Saskatoon, Saskatchewan for analysis

by Electron Microprobe (EM). There, all silicates and possible silicates underwent a complete analysis of the chemical composition of each grain, along with any oxides which passed an initial screening to identify those grains with greater than 5 weight per cent (wt%) Cr_2O_3 and MgO. This data was then returned to APEX, where it is processed using the computer programs: MIN-ID, GARCLASS and Microsoft Excel. The intent is to classify grains with geochemical fields that are similar to known kimberlititc intrusions or their extrusive equivalents, and especially to identify those grains which may have formed within the 'diamond inclusion field'.

The 6 soil samples which were collected by APEX, were sent to Bondar Clegg & Company Ltd. (Bondar Clegg), North Vancouver, British Columbia for assay for gold. This process consists of determining the gold content by fire assay using the standard one-assay ton method with an Atomic Absorption finish.

EXPLORATION RESULTS

Diamond Indicator Mineral Picking Results

Diamond indicator picking by the SRC from the 6 till samples yielded three highly anomalous samples which contain a total of: (a) 9 definite and 2 possible pyropic garnets, (b) 1 definite and 3 possible chrome diopsides, (c) 2 possible eclogitic garnets, and (d) more than 61 opaque oxide grains (possible chromites or ilmenites).

Electron Microprobe Results

All 17 silicate grains identified by the SRC as definite or possible pyropic garnets, eclogitic garnets, or chrome diopsides were submitted for full EM analysis at the University of Saskatchewan. All 61 possible chromites or picroilmenites were screened for greater than 5 wt% Cr_2O_3 and greater than 5 wt% MgO. A total of 9 grains passed the screen and were subsequently submitted for full EM analysis.

Of the 17 silicate grains submitted for EM analysis: all 11 definite or possible pyrope garnets were confirmed as either G9 or G10 pyropes, (b) the 3 definite or possible chrome diopsides were confirmed as chrome diopsides, while a single possible chrome diopside was lost during mounting or polishing and (c) the two possible eclogitic garnets yielded a crustal almandine garnet and an eclogitic garnet with chemistry similar to those derived from diamond inclusions (Appendices II and III). The pyropic garnets were recovered from samples 7LCT001, 7LCT002, 7LCT004 and 7LCT006. The chrome diopsides were recovered from samples 7LCT002 and 7LCT004. Sample 7LCT002 yielded the single definite eclogitic garnet. Of the 9 oxide grains submitted for EM analysis, 8 grains were identified as chromites in till samples 7LCT001, 7LCT003 and 7LCT004 (Appendices II and III). The remaining grain was identified as a picroilmenite from sample 7LCT001.

The EM results for various indicator minerals are summarized in Appendix II and

compiled into a series of x-y scatter plots in Appendix III. In the scatter plots, the UIS till sample data are compared to published geochemical results from northern Alberta and elsewhere in the world which are indicative of diamondiferous kimberlitic or related intrusions.

The EM analysis returned encouraging results from at least three of the six till samples (Figure 2). The highlights from the diamond indicator EM analysis include:

1. Sample 7LCT001 yielded: (a) a G9 chrome pyrope, (b) a picroilmenite, and (c) two chromites;

2. Sample 7LCT002 yielded: (a) five G9 pyrope garnets and one high Cr_20_3 low CaO G10 pyrope, (b) two chrome diopsides, and (c) one low FeO, high MgO eclogitic (G3) garnet; and

3. Sample 7LCT004 yielded (a) three G9 pyrope garnets, (b) a chrome diopside, and (c) three chromites.

Samples 7LCT001, 7LCT002 and 7LCT004 compare favourably to some of the best till sample sites in the entire Peace River Trend defined by Dufresne et al. (1996). These three till sites have yielded multiple diamond indicator minerals of high quality chemistry that warrant follow-up exploration. Based upon the number and variety of indicator minerals, it is quite possible that the indicator minerals are locally derived. Their relationship to the existing magnetic anomalies on the two permits which are postulated from the existing GSC aeromagnetic maps (Geological Survey of Canada, 1989), should be further investigated.

Soil Sampling Results

The six soil samples submitted to Bondar Clegg for gold analysis, contain a maximum of 7 ppb gold (Appendix IV). These results are not anomalous.

CONCLUSIONS

Till samples 7LCT001 and 7LCT002, which exist immediately proximal to UIS permit 9393040032, and sample 7LCT004 which is near the south margin of the southernmost UIS permit 9393040031, yielded diamond indicator mineral results that compare well with some of the best sites discovered to date in Northern Alberta (Figure 2). Grains of high quality chemistry, including G9 and G10 pyrope garnets, an eclogitic garnet, chrome diopsides, chromites and a picroilmenite, were recovered from these three samples. Several of these grains plot within the diamond inclusion field and could be derived from diamondiferous kimberlites or related intrusions. If surficial drift thickness is thin, there is good potential for the presence of a diamondiferous kimberlites or related intrusions within or immediately north of the UIS permits. However, if the drift is thick underlying the UIS permits, the indicator minerals in the till

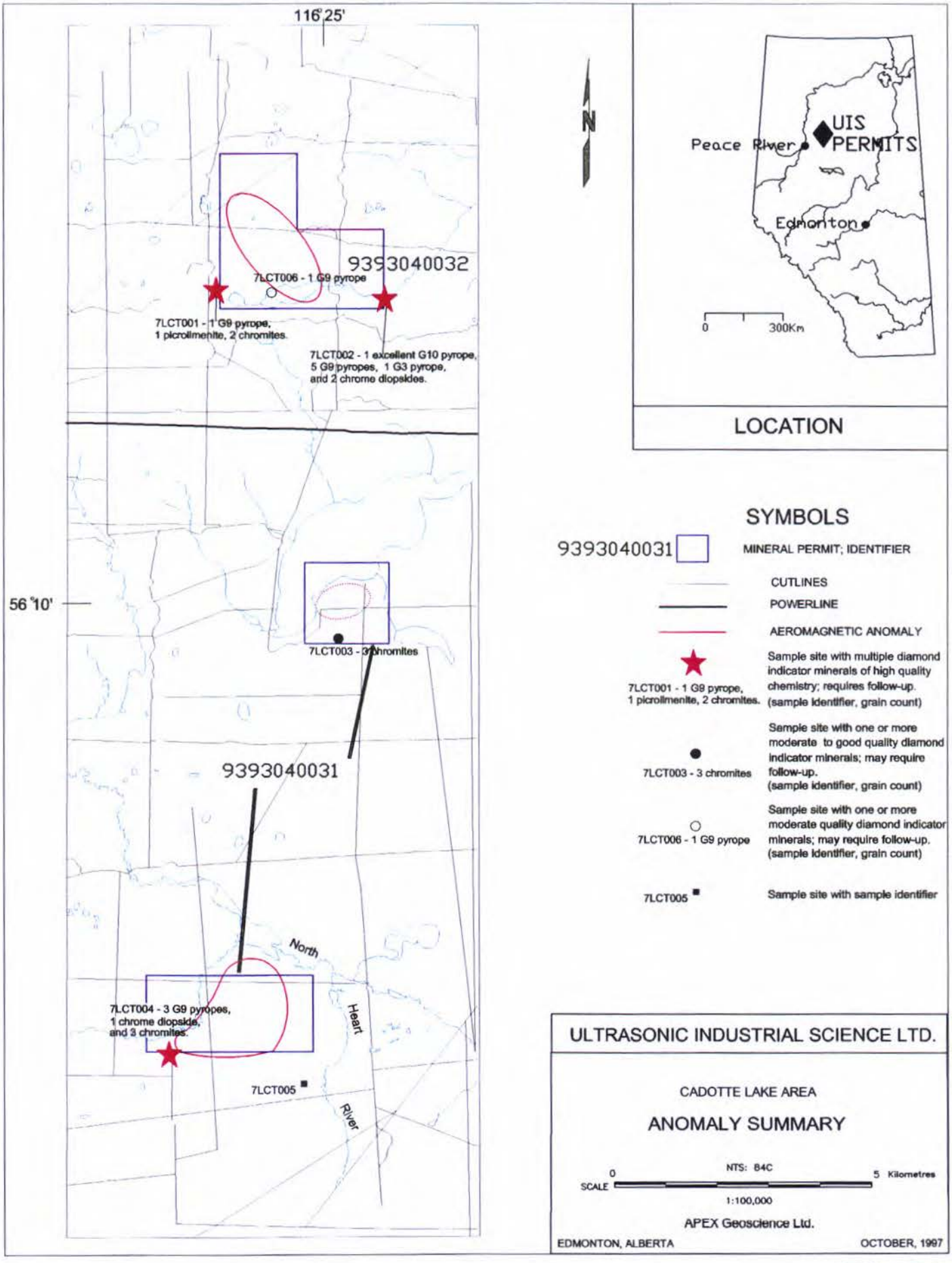
116°25'
56°10'
9393040032
7LCT006 - 1 G9 pyrope
7LCT001 - 1 G9 pyrope,
1 picroilmenite, 2 chromites.
7LCT002 - 1 excellent G10 pyrope,
5 G9 pyropes, 1 G3 pyrope,
and 2 chrome diopsides.
7LCT003 - 3 chromites
9393040031
North
Heart
River
7LCT004 - 3 G9 pyropes,
1 chrome diopside,
and 3 chromites.
7LCT005
N
Peace River
UIS
PERMITS
Edmonton
0
300Km
LOCATION
SYMBOLS
9393040031
MINERAL PERMIT; IDENTIFIER
CUTLINES
POWERLINE
AEROMAGNETIC ANOMALY
7LCT001 - 1 G9 pyrope,
1 picroilmenite, 2 chromites.
Sample site with multiple diamond indicator minerals of high quality chemistry; requires follow-up.
(sample identifier, grain count)
7LCT003 - 3 chromites
Sample site with one or more moderate to good quality diamond indicator minerals; may require follow-up.
(sample identifier, grain count)
7LCT006 - 1 G9 pyrope
Sample site with one or more moderate quality diamond indicator minerals; may require follow-up.
(sample identifier, grain count)
7LCT005
Sample site with sample identifier
ULTRASONIC INDUSTRIAL SCIENCE LTD.
CADOTTE LAKE AREA
ANOMALY SUMMARY
NTS: 84C
SCALE
0
5 Kilometres
1:100,000
APEX Geoscience Ltd.
EDMONTON, ALBERTA
OCTOBER, 1997

FIGURE 2

could be derived from as far northeast as the kimberlite pipes discovered by Ashton Mining of Canada Inc. (Ashton Mining of Canada, 1996) northwest of Red Earth along the east flank of the Buffalo Head Hills.

The UIS permits warrant follow-up exploration because of: (a) the positive EM analytical results received from samples 7LCT001, 7LCT002 and 7LCT004, (b) the presence of aeromagnetic anomalies within and near the UIS permits, and (c) the positive results being reported by Ashton Mining of Canada Inc. and other groups exploring for diamondiferous kimberlites and related intrusions in nearby areas of northwestern Alberta.

RECOMMENDATIONS

A three phase follow-up exploration program is recommended at the UIS permits to evaluate the potential for the presence of diamondiferous kimberlites or related intrusions. Specifically:

1. Phase 1 should consist of a compilation of data from petroleum exploration and hydrogeological drilling, including well logs and any available downhole geophysical data available for the area, in order to determine drift thickness. Thick drift has been found in places in the region and, if present within the UIS permits, could pose a major impediment to future diamond and mineral exploration activities.

2. Phase 2 should consist of either purchasing existing airborne magnetic data or conducting a detailed airborne magnetic geophysical survey of the area encompassing the UIS permits. In addition, an interpretation of LandSat satellite imagery and aerial photographs should be conducted. This office work will aid in the identification of geological structures and features which may be indicative of diatremes. The Phase 2 work could be conducted in conjunction with or could be performed subsequent to Phase 1.

3. If Phases 1 and 2 produce positive results, a Phase 3 exploration program consisting of one or more of gridding, ground geophysical surveying, further sampling and drilling to test selected targets, will be required.

The proposed Phase 1 compilation will require a geologist for approximately two weeks of time in order to compile all the available geophysical and log data for petroleum exploration and hydrogeological wells which have been drilled in the area. The estimated cost for the Phase 1 program is about $5,000. The estimated cost to perform Phase 2 will depend on whether existing magnetic data can be purchased, or if an airborne geophysical survey must be conducted. It is anticipated that the existing airborne magnetic data could be purchased for about $5,000 or less. It is estimated that conducting a fixed wing airborne magnetic geophysical survey will cost a minimum of $15,000 or more depending upon the time of year and the availability of nearby aircraft . A more detailed cost estimate for the Phase 2 work should be prepared once the decision is made to purchase existing aeromagnetic data or conduct an airborne geophysical survey.

A detailed program for the Phase 3 follow-up exploration, and a budget thereto, should await the completion of the recommended Phase 1 and 2 exploration programs.

APEX Geoscience Ltd.

L. Chin, B.Sc

M. B. Dufresne, M.Sc., P.Geol.

Edmonton, Alberta
October 15, 1997

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CERTIFICATION

I, L.W.. CHIN OF [redacted], EDMONTON, ALBERTA, CERTIFY AND DECLARE THAT I AM A GRADUATE OF THE UNIVERSITY OF ALBERTA WITH A B.SC. SPECIALIZATION DEGREE IN GEOLOGY (1997). I AM REGISTERED AS A GEOLOGIST IN TRAINING WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA.

MY EXPERIENCE INCLUDES SERVICE AS AN EXPLORATION GEOLOGIST WITH BHP MINERALS, VANCOUVER, BRITISH COLUMBA IN 1995 AND COMINCO EXPLORATION, TORONTO, ONTARIO, IN 1996. FROM MAY 1997 TO PRESENT I HAVE CONDUCTED AND DIRECTED PROPERTY EXAMINATIONS AND EXPLORATION PROGRAMS ON BEHALF OF COMPANIES AS A GEOLOGIST IN THE EMPLOY APEX GEOSCIENCE LTD.

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THIS REPORT ENTITLED "ASSESSMENT REPORT ON METALLIC MINERAL PERMITS No. 9393040031 AND 9393040032, CADOTTE LAKE AREA, ALBERTA" IS BASED UPON FIELD EXAMINATIONS AND UPON THE STUDY OF PUBLISHED AND UNPUBLISHED DATA.

I HEREBY GRANT ULTRASONIC INDUSTRIAL SCIENCES LTD. OF EDMONTON, ALBERTA, PERMISSION TO USE THIS REPORT IN A PROSPECTUS OR STATEMENT OF MATERIAL FACTS FOR THE PURPOSE OF PRIVATE OR PUBLIC FINANCING.

[redacted]

L. Chin, B.SC., GEOL. I.T.

OCTOBER, 1997
EDMONTON, ALBERTA

CERTIFICATION

I, M.B. DUFRESNE OF [redacted] EDMONTON, ALBERTA, CERTIFY AND DECLARE THAT I AM A GRADUATE OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON WITH A B.SC. DEGREE IN GEOLOGY (1983) AND A GRADUATE OF THE UNIVERSITY OF ALBERTA WITH A M.SC. DEGREE IN GEOLOGY (1987). I AM REGISTERED AS A PROFESSIONAL GEOLOGIST WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA.

MY EXPERIENCE INCLUDES SERVICE AS AN EXPLORATION GEOLOGIST WITH THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT, YUKON, FROM 1983 TO 1985. FROM 1986 TO 1993, I HAVE CONDUCTED AND DIRECTED PROPERTY EXAMINATIONS AND EXPLORATION PROGRAMS ON BEHALF OF COMPANIES AS A GEOLOGIST IN THE EMPLOY OF R.A. OLSON CONSULTING LTD. AND ITS PREDECESSOR COMPANY, TRIGG, WOOLLETT, OLSON CONSULTING LTD., EDMONTON, ALBERTA. SINCE JANUARY 1994, I HAVE CONDUCTED AND DIRECTED PROPERTY EXAMINATIONS, PROPERTY EVALUATIONS AND EXPLORATION PROGRAMS ON BEHALF OF COMPANIES AS A PRINCIPAL IN APEX GEOSCIENCE LTD.

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M.B. DUFRESNE, M.SC., P. GEOL.

OCTOBER, 1997
EDMONTON, ALBERTA

APPENDIX I
FIELD PERSONNEL - 1997

APPENDIX I
FIELD PERSONNEL - 1997

Name and Address	Position	Field Time	Man-Days
Lonnie Chin 10452 - 27 Ave Edmonton, AB T6J 4J5	Geologist	August 7 to August 11, 1997	4
Robin Happy 3918 - 25 Ave Edmonton, AB T6L 4C7	Geological Assistant	August 7 to August 11, 1997	4
		TOTAL MAN-DAYS	**8**

APPENDIX II

UIS INDICATOR MINERALS FROM 1997 SAMPLING PROGRAM
Cadotte Lake Permits

UIS Indicator Minerals From 1997 Sampling Program

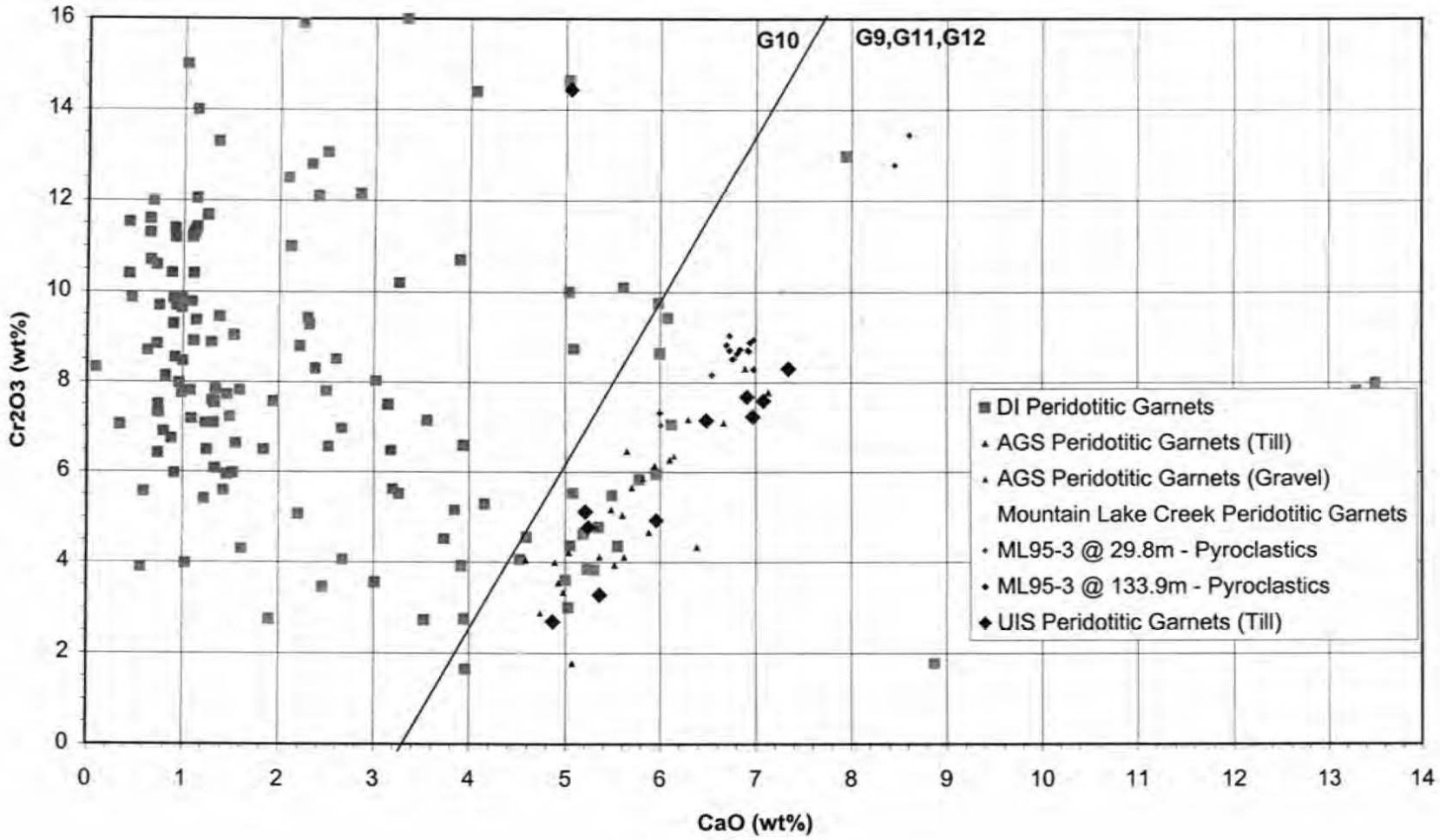
Cadotte Lake Permits

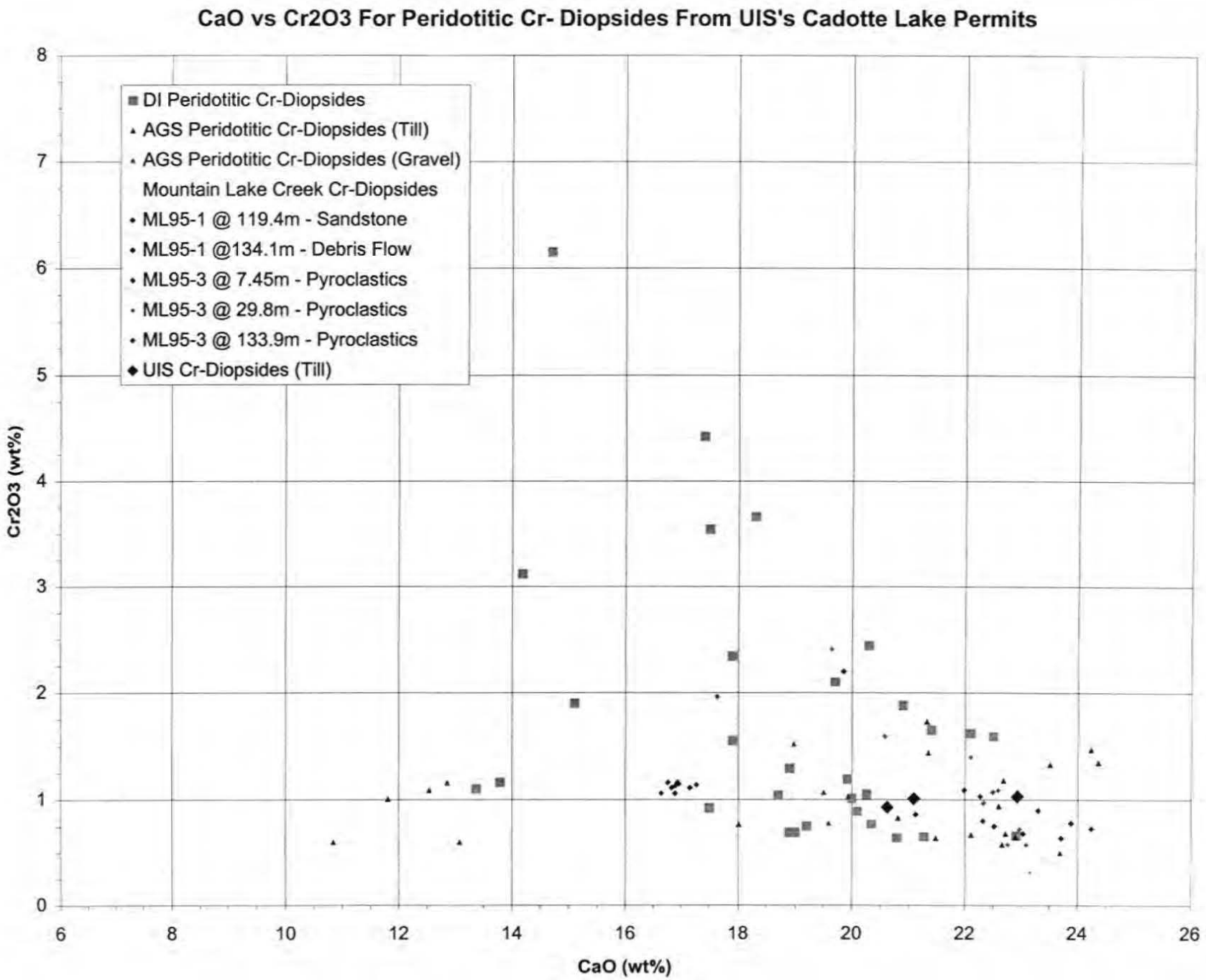
Sample#	Pt#	Mineral (MinId.asc)	SiO2	TiO2	Al2O3	Cr2O3	FeO	MgO	MnO	CaO	Na2O	K2O	Total
			wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%
7LCT-001	1	G_10_LOW_CALCIUM_CHROME_PYROPE	41.39	0.09	17.99	7.68	7.59	17.48	0.45	6.91	0.00	0.00	99.59
7LCT-001	8	PICRO_ILMENITE	0.00	53.18	0.47	0.99	29.86	15.39	0.19	0.01	0.00	0.00	100.19
7LCT-001	9	PICRO_CHROMITE	0.03	5.16	0.66	40.61	40.96	9.18	0.45	0.00	0.00	0.00	97.43
7LTC-001	7	SUB_PICRO_CHROMITE	0.00	0.05	25.21	39.02	19.43	14.94	0.27	0.01	0.00	0.00	99.22
7LCT-002	6	CPX_02_UNKNOWN	52.22	0.34	6.70	0.93	2.59	14.46	0.05	20.63	1.31	0.00	99.24
7LCT-002	9	CPX_05_CHROME_DIOPSIDE	52.00	0.03	1.72	1.03	2.82	15.39	0.12	22.93	0.82	0.00	96.87
7LCT-002	8	G_03_CALCIC_PYROPE_ALMANDINE	40.75	0.06	23.10	0.04	17.22	10.72	0.35	7.63	0.03	0.00	99.89
7LCT-002	7	G_05_MAGNESIAN_ALMANDINE	38.78	0.13	22.32	0.00	25.20	5.99	0.51	6.88	0.05	0.00	99.86
7LCT-002	10	G_09_CHROME_PYROPE	42.29	0.16	21.86	2.69	8.79	18.76	0.45	4.87	0.02	0.00	99.89
7LCT-002	4	G_09_CHROME_PYROPE	42.49	0.01	20.80	4.93	6.82	18.70	0.59	5.96	0.00	0.00	100.31
7LCT-002	11	G_09_CHROME_PYROPE	42.45	0.03	21.64	3.28	7.50	19.06	0.55	5.36	0.02	0.00	99.89
7LCT-002	2	G_10_LOW_CALCIUM_CHROME_PYROPE	41.56	0.13	18.19	7.24	7.89	17.32	0.50	6.97	0.00	0.00	99.81
7LCT-002	3	G_10_LOW_CALCIUM_CHROME_PYROPE	41.38	0.15	17.36	7.59	8.19	16.98	0.51	7.08	0.01	0.00	99.25
7LCT-002	5	G_10_LOW_CALCIUM_CHROME_PYROPE	40.44	0.08	13.61	14.44	6.99	19.00	0.48	5.05	0.05	0.00	100.13
7LCT-003	10	PICRO_CHROMITE	0.00	0.56	8.81	45.65	32.00	9.47	0.38	0.00	0.00	0.00	97.07
7LCT-003	11	PICRO_CHROMITE	0.00	0.11	8.83	55.93	22.12	10.52	0.33	0.00	0.00	0.00	98.05
7LCT-003	12	SUB_PICRO_CHROMITE	0.00	0.04	30.23	33.32	19.13	15.73	0.20	0.00	0.00	0.00	98.98
7LCT-004	15	CPX_05_CHROME_DIOPSIDE	52.45	0.35	5.50	1.01	2.09	14.82	0.06	21.10	1.38	0.00	98.76
7LCT-004	14	G_09_CHROME_PYROPE	42.29	0.27	20.08	4.77	6.80	19.78	0.30	5.24	0.06	0.00	99.59
7LCT-004	12	G_09_CHROME_PYROPE	42.51	0.39	19.13	5.12	6.68	19.71	0.35	5.21	0.05	0.00	99.15
7LCT-004	13	G_10_LOW_CALCIUM_CHROME_PYROPE	41.23	0.04	16.99	8.30	8.18	16.85	0.47	7.34	0.02	0.00	99.43
7LCT-004	13	PICRO_CHROMITE	0.05	0.59	11.67	49.34	23.49	13.12	0.28	0.01	0.00	0.00	98.72
7LCT-004	14	PICRO_CHROMITE	0.04	0.28	7.61	53.92	24.54	11.82	0.32	0.00	0.00	0.00	98.69
7LCT-004	15	PICRO_CHROMITE	0.00	0.19	11.50	54.35	18.83	13.85	0.27	0.00	0.00	0.00	99.08
7LCT-006	16	G_10_LOW_CALCIUM_CHROME_PYROPE	41.59	0.05	17.41	7.15	6.79	18.34	0.31	6.49	0.02	0.00	98.16

APPENDIX III

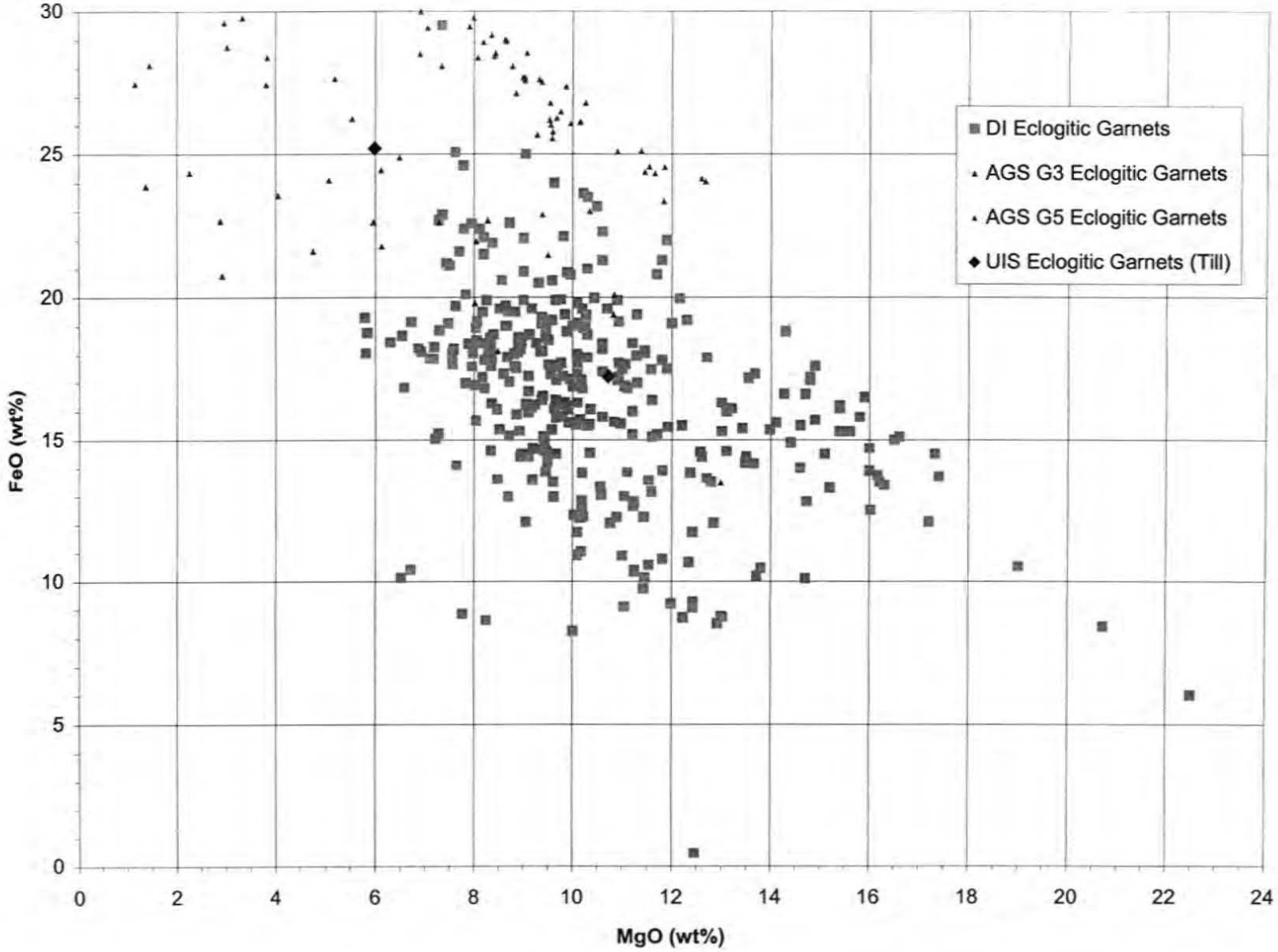
X - Y SCATTER PLOTS OF SELECTED DIAMOND INDICATOR MINERAL RESULTS

CaO vs Cr2O3 For Peridotitic Garnets From UIS's Cadotte Lake Permits

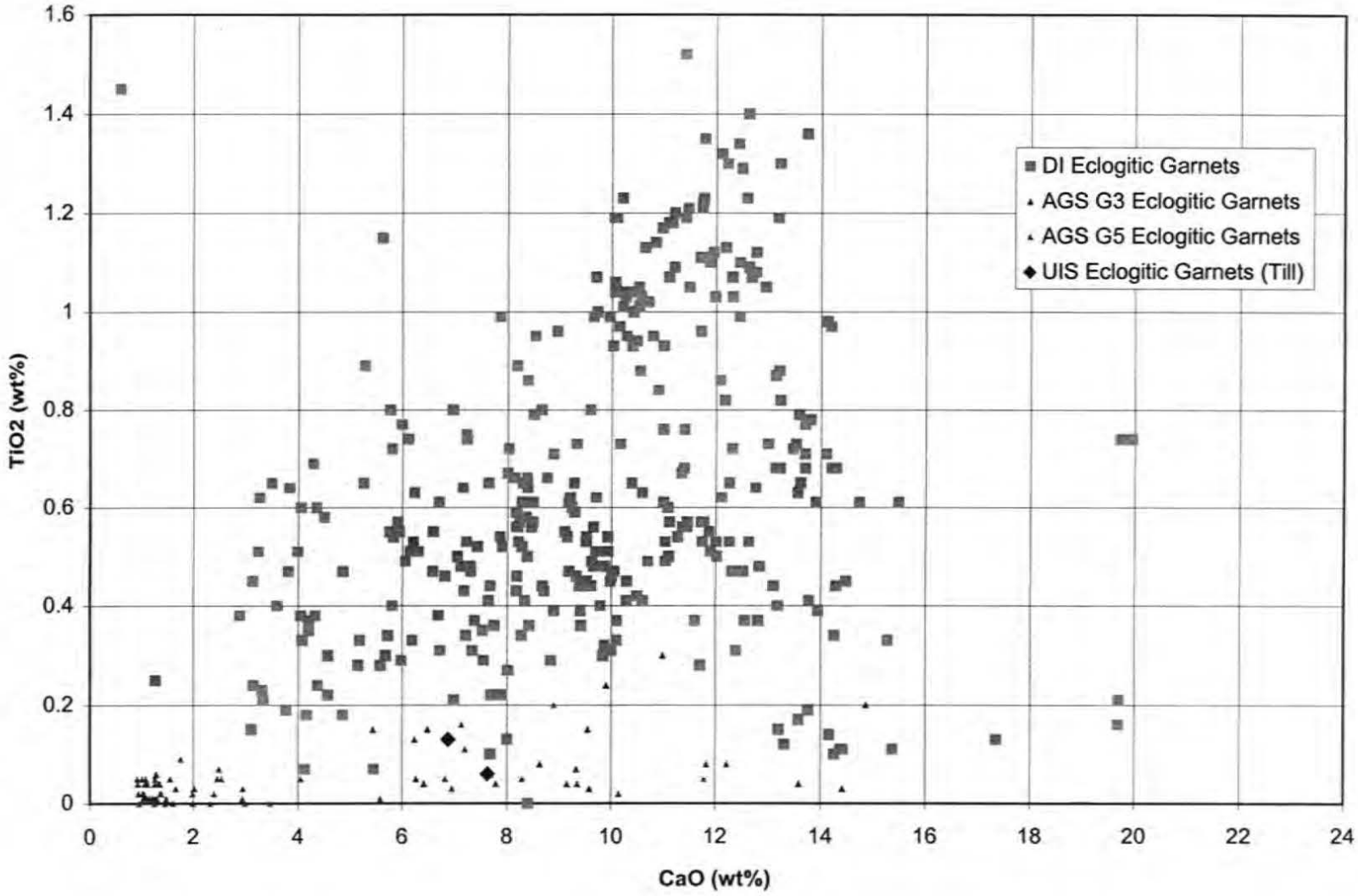



CaO vs Cr2O3 For Peridotitic Cr- Diopsides From UIS's Cadotte Lake Permits
DI Peridotitic Cr-Diopsides
AGS Peridotitic Cr-Diopsides (Till)
AGS Peridotitic Cr-Diopsides (Gravel)
Mountain Lake Creek Cr-Diopsides
ML95-1 @ 119.4m - Sandstone
ML95-1 @134.1m - Debris Flow
ML95-3 @ 7.45m - Pyroclastics
ML95-3 @ 29.8m - Pyroclastics
ML95-3 @ 133.9m - Pyroclastics
UIS Cr-Diopsides (Till)
Cr2O3 (wt%)
0
1
2
3
4
5
6
7
8
CaO (wt%)
6
8
10
12
14
16
18
20
22
24
26

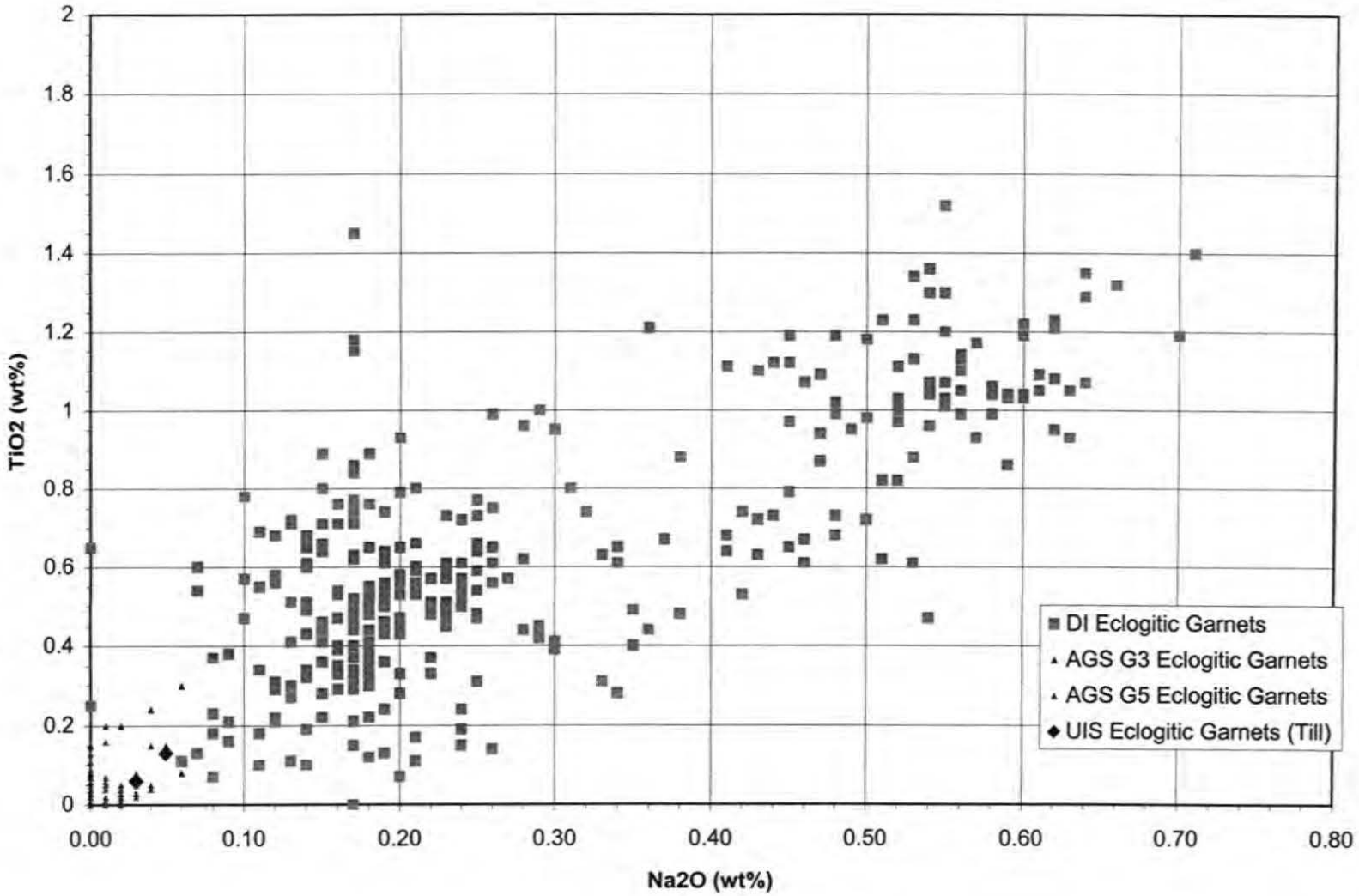
MgO vs FeO For Eclogitic Garnets From UIS's Cadotte Lake Permits



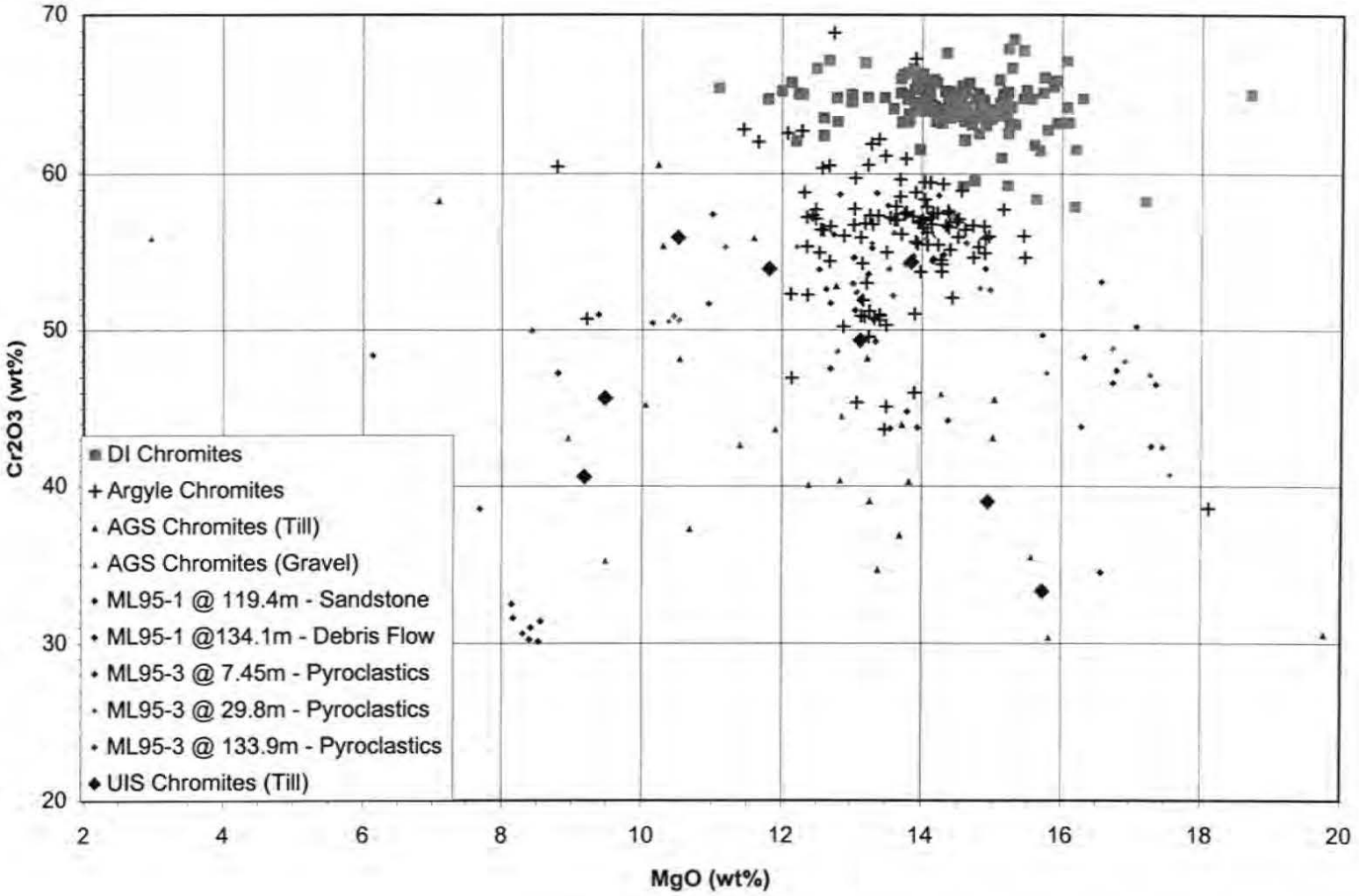
CaO vs TiO2 For Eclogitic Garnets From UIS's Cadotte Lake Permits

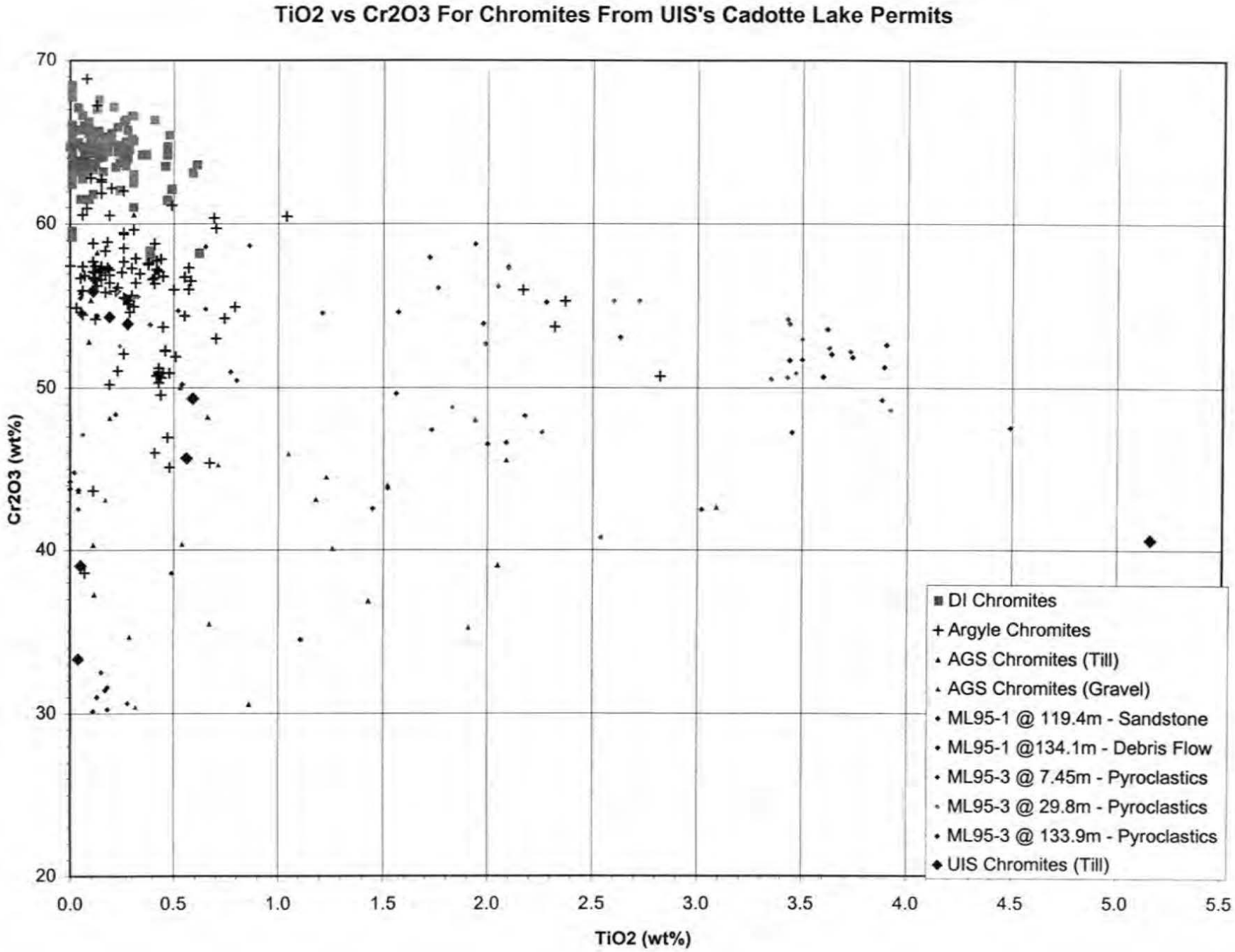


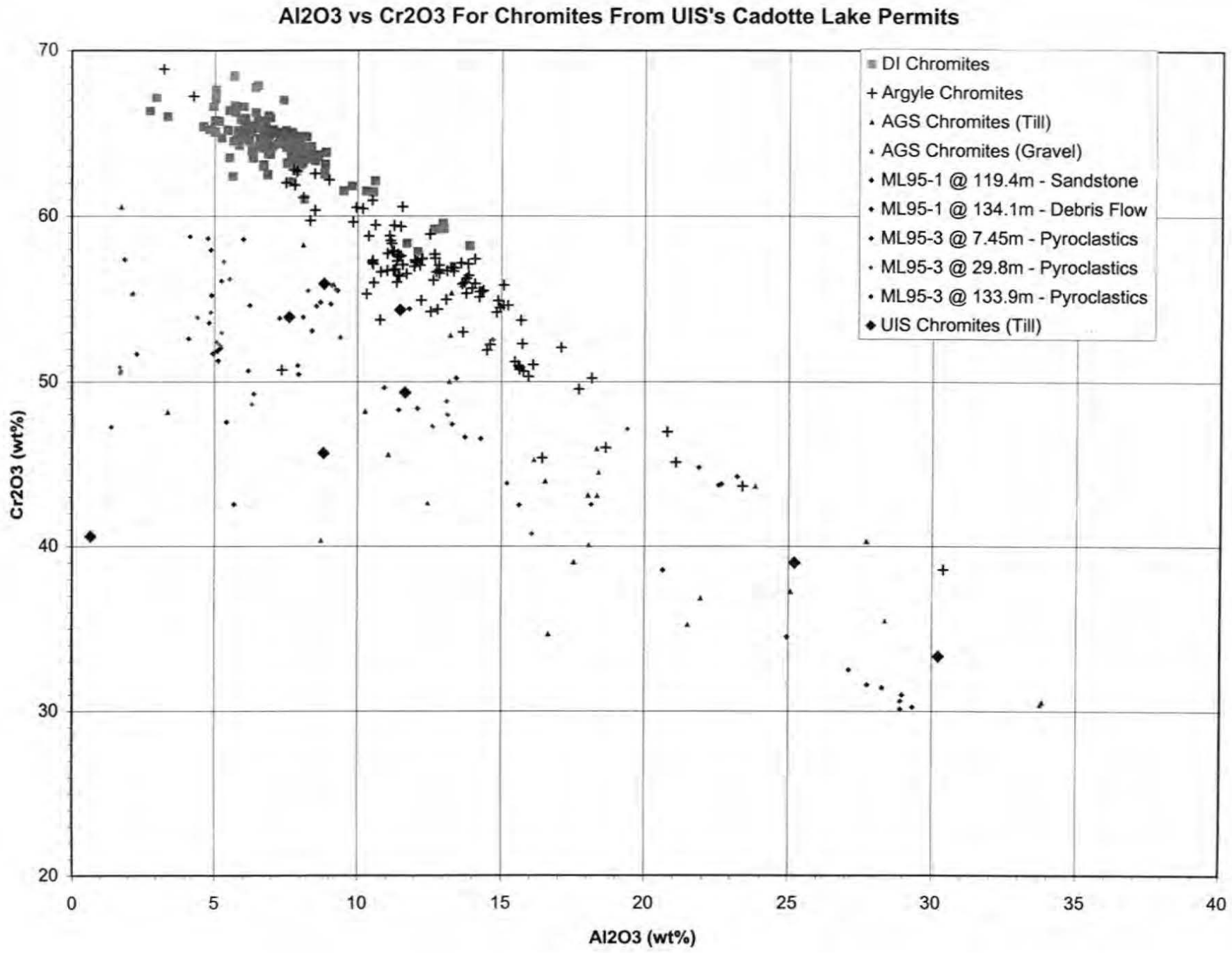
Na2O vs TiO2 For Eclogitic Garnets From UIS's Cadotte Lake Permits

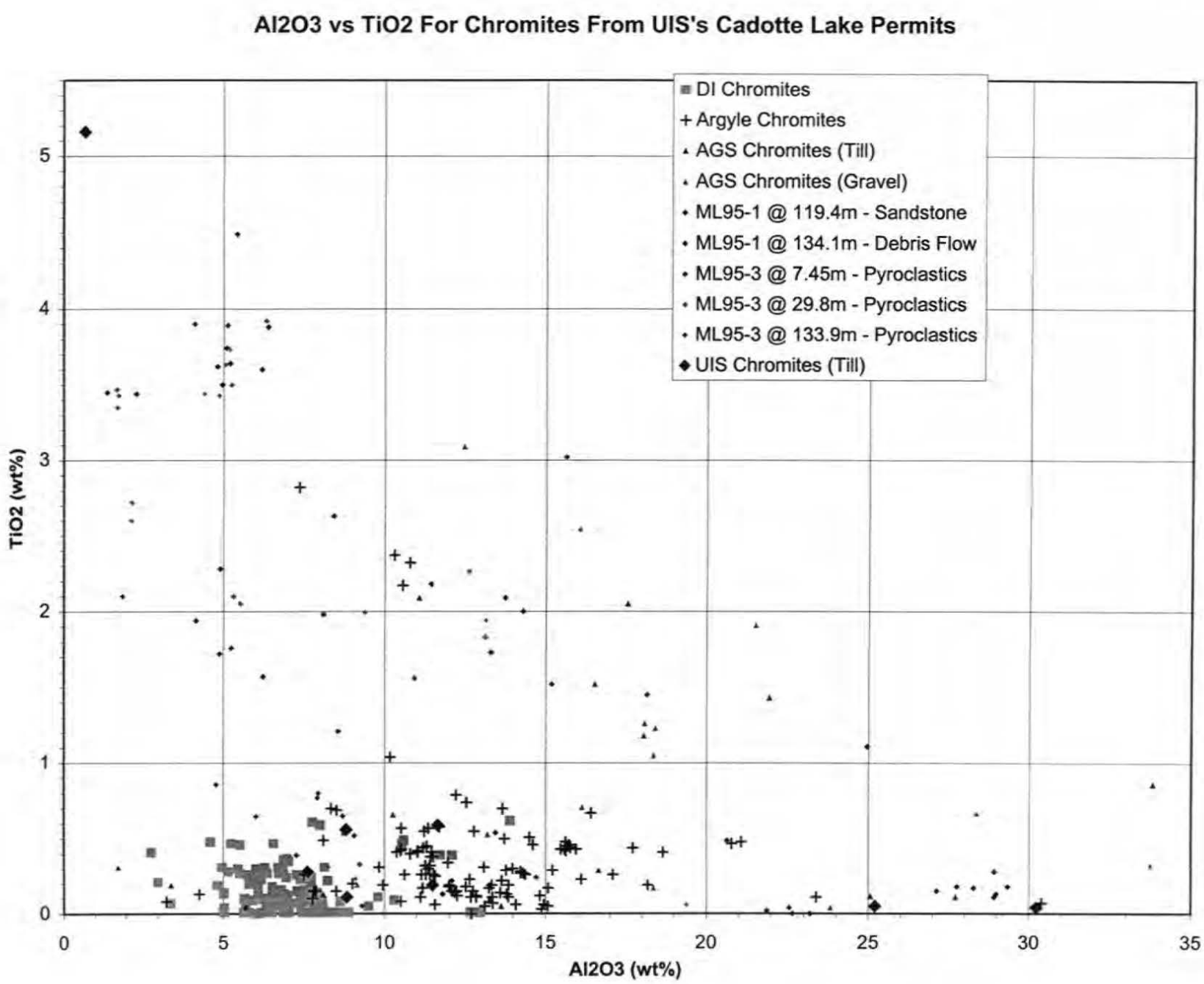


MgO vs Cr2O3 For Chromites From UIS's Cadotte Lake Permits

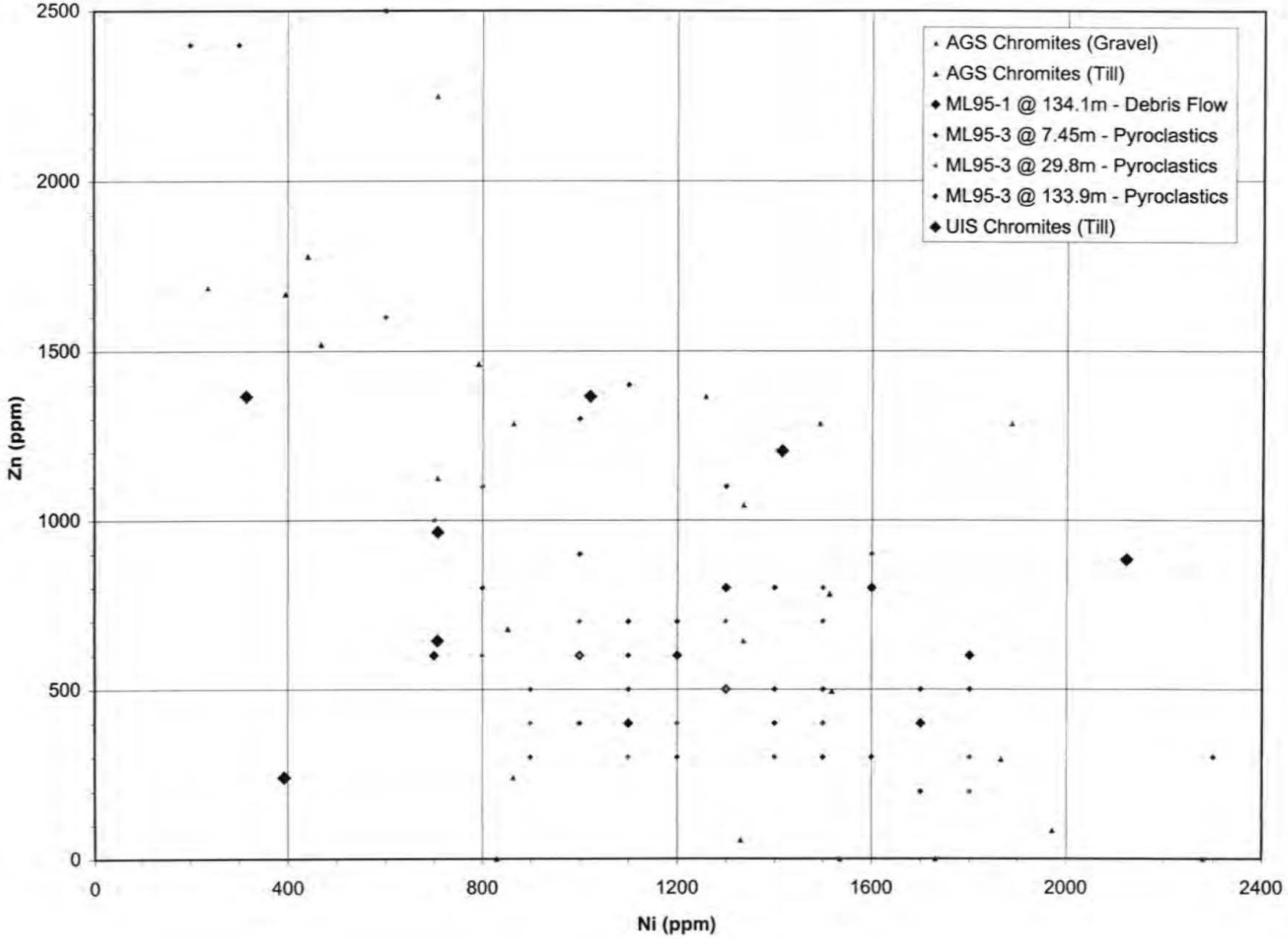


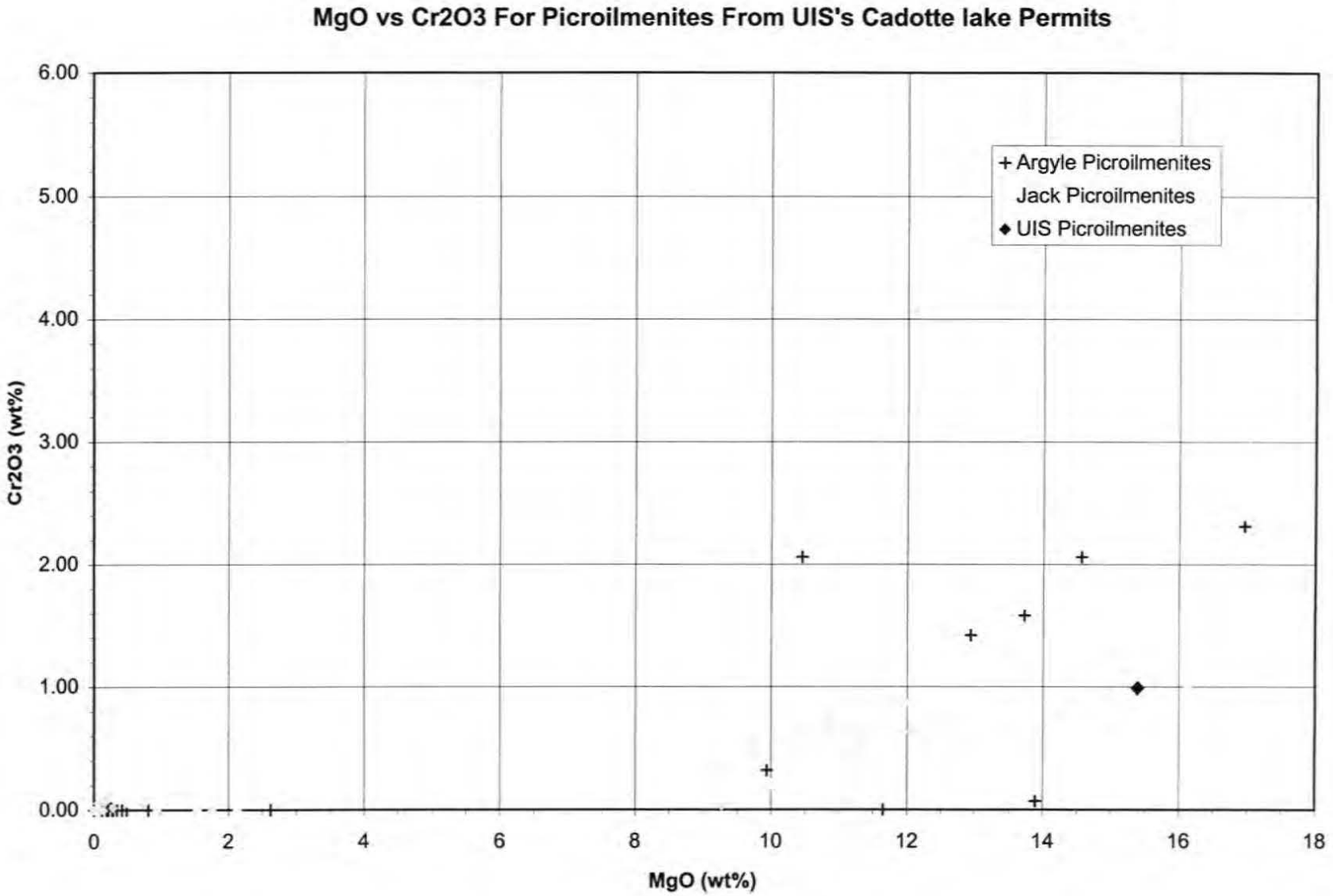

TiO2 vs Cr2O3 For Chromites From UIS's Cadotte Lake Permits
Cr2O3 (wt%)
70
60
50
40
30
20
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
TiO2 (wt%)
DI Chromites
Argyle Chromites
AGS Chromites (Till)
AGS Chromites (Gravel)
ML95-1 @ 119.4m - Sandstone
ML95-1 @134.1m - Debris Flow
ML95-3 @ 7.45m - Pyroclastics
ML95-3 @ 29.8m - Pyroclastics
ML95-3 @ 133.9m - Pyroclastics
UIS Chromites (Till)


Al2O3 vs Cr2O3 For Chromites From UIS's Cadotte Lake Permits
DI Chromites
Argyle Chromites
AGS Chromites (Till)
AGS Chromites (Gravel)
ML95-1 @ 119.4m - Sandstone
ML95-1 @ 134.1m - Debris Flow
ML95-3 @ 7.45m - Pyroclastics
ML95-3 @ 29.8m - Pyroclastics
ML95-3 @ 133.9m - Pyroclastics
UIS Chromites (Till)
Cr2O3 (wt%)
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
Al2O3 (wt%)

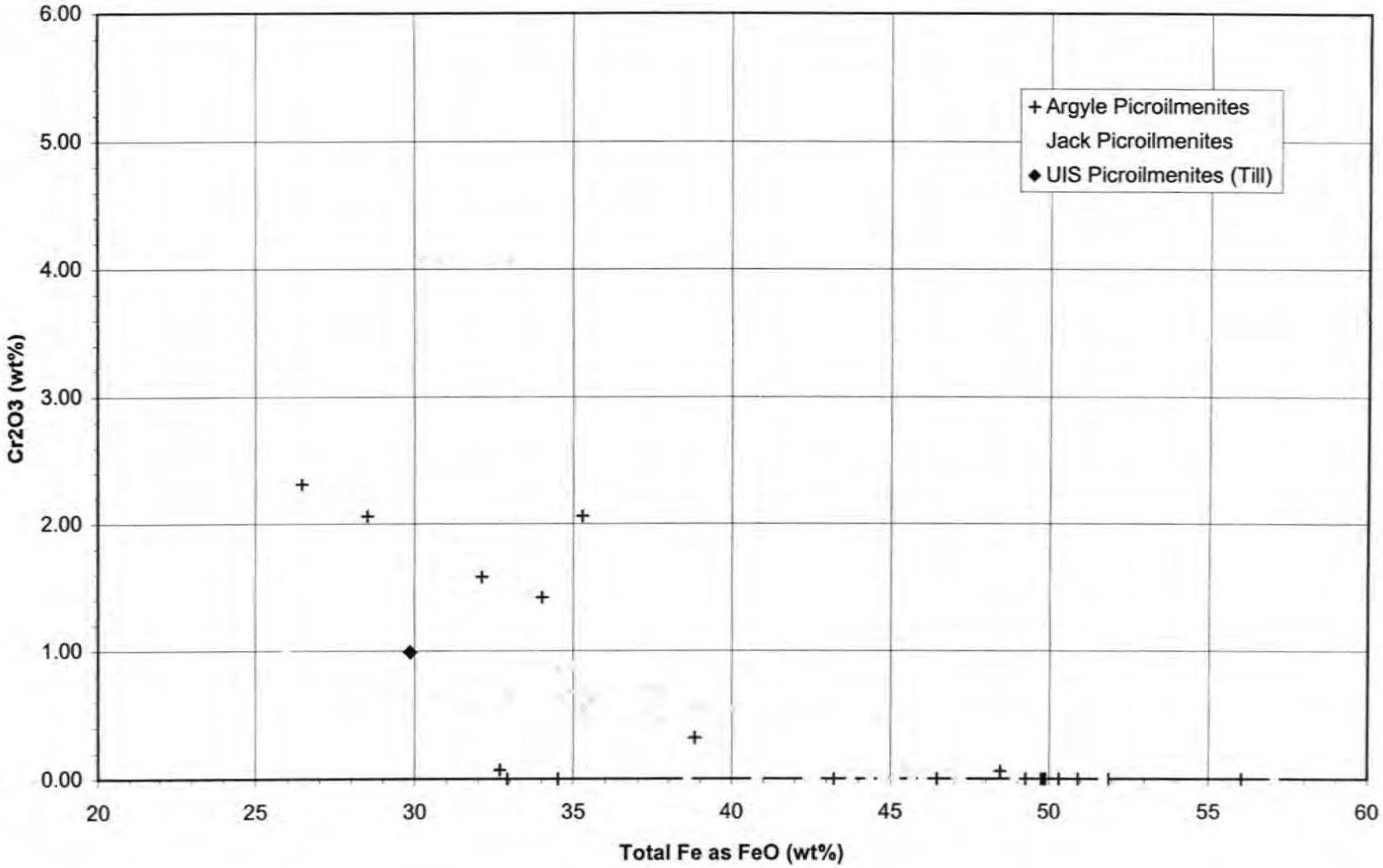

Al2O3 vs TiO2 For Chromites From UIS's Cadotte Lake Permits
DI Chromites
Argyle Chromites
AGS Chromites (Till)
AGS Chromites (Gravel)
ML95-1 @ 119.4m - Sandstone
ML95-1 @ 134.1m - Debris Flow
ML95-3 @ 7.45m - Pyroclastics
ML95-3 @ 29.8m - Pyroclastics
ML95-3 @ 133.9m - Pyroclastics
UIS Chromites (Till)
TiO2 (wt%)
0
1
2
3
4
5
Al2O3 (wt%)
0
5
10
15
20
25
30
35

Ni vs Zn For Chromites From UIS's Cadotte Lake Permits

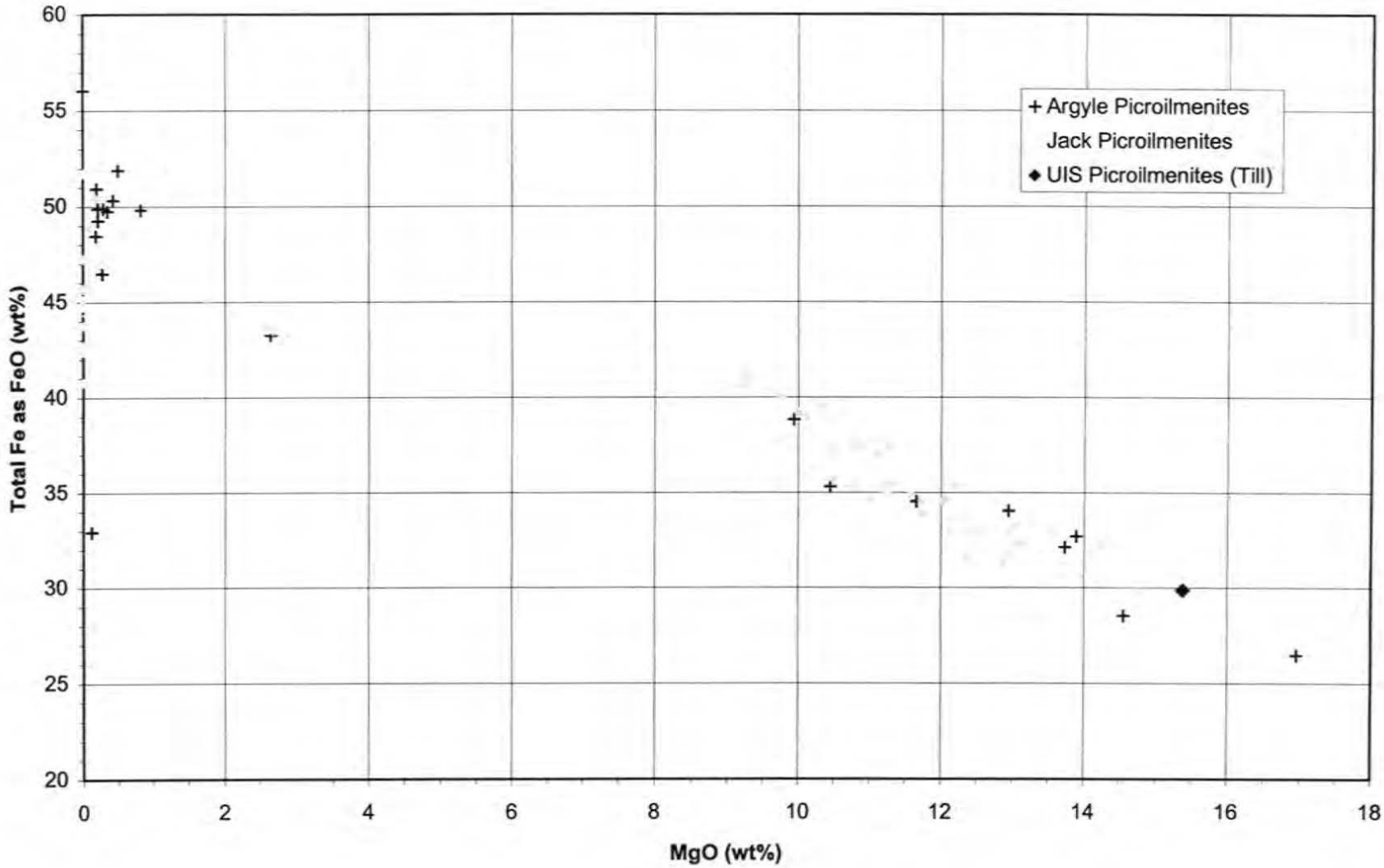



MgO vs Cr2O3 For Picroilmenites From UIS's Cadotte lake Permits
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Cr2O3 (wt%)
0
2
4
6
8
10
12
14
16
18
MgO (wt%)
+ Argyle Picroilmenites
Jack Picroilmenites
◆ UIS Picroilmenites

FeO vs Cr2O3 For Picroilmenites From UIS's Cadotte Lake Permits



MgO vs Total Fe as FeO For Picroilmenites UIS's Cadotte Lake Permits



APPENDIX IV

GEOCHEMICAL LAB REPORTS

Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

REPORT: V97-02114.0 (COMPLETE) REFERENCE:

CLIENT: APEX GEOSCIENCE LTD. SUBMITTED BY: UNKNOWN
PROJECT: 97212 DATE RECEIVED: 19-AUG-97 DATE PRINTED: 9-OCT-97

DATE APPROVED	ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
970901	1	Au30 Gold	12	0.005 GMT	Fire Assay of 30g	30g Fire Assay - AA
970901	2	Au Wt1 Test Weight	12	0.01 GM	FIRE ASSAY	FIRE ASSAY-AA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOIL	12	1 -80	12	DRY, SIEVE -80	12

REPORT COPIES TO: MR. JOHN WILLIAMSON
MR. JOHN WILLIAMSON

INVOICE TO: MR. JOHN WILLIAMSON

Bondar-Clegg & Company Ltd.
130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, Canada
Tel: (604) 985-0681, Fax: (604) 985-1071

Intertek Testing Services
Bondar Clegg

Geochemical Lab Report

CLIENT: APEX GEOSCIENCE LTD. PROJECT: 97212

REPORT: V97-02114.0 (COMPLETE) DATE RECEIVED: 19-AUG-97 DATE PRINTED: 9-OCT-97

SAMPLE NUMBER	ELEMENT UNITS	Au30 GMT	Au Wt1 GM
S1 7LCS001A		<0.005	30.14
S1 7LCS001B		<0.005	30.01
S1 7LCS002A		0.007	20.15
S1 7LCS002B		0.006	10.48
S1 7LCS003A		0.006	10.16
S1 7LCS003B		<0.005	20.36
S1 7LCS004A		<0.005	20.09
S1 7LCS004B		<0.005	30.15
S1 7LCS005A		<0.005	20.15
S1 7LCS005B		<0.005	5.25
S1 7LCS006A		<0.005	30.32
S1 7LCS006B		<0.005	30.35

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CLIENT: APEX GEOSCIENCE LTD. PROJECT: 97212
REPORT: V97-02114.0 (COMPLETE) DATE RECEIVED: 19-AUG-97 DATE PRINTED: 9-OCT-97 PAGE 2 OF 3

STANDARD NAME	ELEMENT UNITS	Au30 GMT	Au Wt1 GM
ANALYTICAL BLANK		<0.005	-
Number of Analyses		1	-
Mean Value		0.0025	-
Standard Deviation		-	-
Accepted Value		0.005	<0.01
Gannet Standard		0.404	30.10
Number of Analyses		1	1
Mean Value		0.4037	30.100
Standard Deviation		-	-
Accepted Value		0.394	-

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REPORT: V97-02114.0 (COMPLETE) DATE RECEIVED: 19-AUG-97 DATE PRINTED: 9-OCT-97 PAGE 3 OF 3

SAMPLE NUMBER	ELEMENT UNITS	Au30 GMT	Au Wt1 GM
7LCS006B		<0.005	30.35
Duplicate		<0.005	5.18

Bondar-Clegg & Company Ltd.
130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, Canada
Tel: (604) 985-0681, Fax: (604) 985-1071

Budget for a Sampling Program at UIS's Mineral Properties in the Peace River Area, Northern Alberta

BUDGET ITEM	ESTIMATED COST
Salaries and Wages Includes about: (a) 5 crew field days for 1 experienced party leader and 1 geological assistant to travel to and from, geologically examine and reconnaissance prospect and sample the three mineral properties; (b) about 1 day for Mr. M.B. Dufresne to oversee the mineral property examinations; plus (c) a provision for some office days for APEX geological staff for pre-field data assembly and post-field preparation of a brief letter-report. Also includes a provision for post-field data assembly and a provision for the needed support staff, such as secretarial for reporting and clerical for accounting.	$5,700
Administrative and General (Includes communications, insurance, office supplies and consumables, maps and publications, report reproduction, etc.)	$200
Field Costs (Includes accommodation, travel, camp and field equipment and supplies, sample freight; includes diamond indicator analyses of about 6 till samples at about $175 per sample and follow-up microprobe analyses at $5 per mineral/grain)	$2,100
Rentals, Repairs and Operating - Equipment (Includes rental of one four-wheel drive vehicle, fuel, insurance, etc., and rental of at least one all terrain vehicle, as well as any maintenance and repair)	$1,400
Miscellaneous Expenses (a) Miscellaneous Operator Expenses (Includes rentals and usage of APEX computers and/or software, in-house colour plots, xeroxing, faxes, gps, etc.)	$300
(b) Operator's Overhead Charge (includes provision for portion of APEX's general overhead for office and their professional staff, and a provision for profit)	$100
Estimated Total Project Costs, Excluding GST This advises that the Budget is a "best efforts" basis; that is, if we can do the budget for less than estimated with respect to budgeted third party expenditures or the time it takes us, we will pass such cost savings on to you.	Sutotal $ 9,800 GST $ 700 **TOTAL $10,500**

The Consultants agree that their charges for the agreed to program of work will not overrun the budget by more than 15 per cent without the prior written approval of the Company.