

MAR 20010014: EDSON

Received date: Sep 07, 2001

Public release date: Sep 09, 2002

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NTS 83F/9, 83F/10, 83G/12

EXPLORATION – 1999-2001

EDSON PROPERTY, ALBERTA
(PERMIT NUMBERS

9399050001 to 9399050014 inclusive)

Shear Minerals Ltd.

September, 2001

P. D. Strand

EXPLORATION 1999-2001

EDSON PROPERTY, ALBERTA (PERMIT NUMBERS 9399050001 to 9399050014 inclusive)

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EXPLORATION 1999-2001

EDSON PROPERTY, ALBERTA (PERMIT NUMBERS 9399050001 to 9399050014 inclusive)

SUMMARY

Shear Minerals Ltd.'s (Shear) Edson mineral property (claim numbers 9399050001 to 9399050014 inclusive) is located 260 km west of Edmonton, approximately 20 km east of the town of Hinton, Alberta. Shear Minerals Ltd. acquired the property in October 1999 from Sharata Resources Ltd., Capamal Holdings Ltd., and C.E.C. Holdings Ltd.

The EDSON Property lies near the western edge of the Western Canadian Sedimentary Basin ("WCSB") and east of the easternmost margins of the Rocky Mountain Foothills belt that lies between the Rocky Mountain Front Ranges of the Cordillera and the WCSB. The underlying Precambrian basement rocks are comprised of two distinct magnetic terranes: the Chinchaga and the Wabamum. The boundary between these two terranes is a splay of the Snowbird Tectonic Zone, a major cratonic lineament. In north central Alberta, a total of 46 kimberlites have been found to date within the Buffalo Head Terrane along the Peace River Arch.

Past exploration, on behalf of Maymac Petroleum Corporation by APEX Geoscience Ltd. of Edmonton in 1993, recovered anomalous kimberlite indicator mineral results from sampling. Conclusions from this report (Freeman, M., 1994) stated that due to the presence of chromite grains with diamond inclusion chemistry and a lesser number of anomalous garnet, pyroxene and ilmenite grains, the potential exists for diamondiferous kimberlite and lamproite diatremes to be present within or near the Edson Block.

Based on the recommendations from the 1993 program and from work on other claim blocks in the region, Shear Minerals Ltd. commissioned Spectra Exploration Geoscience Ltd. to acquire high resolution airborne geophysical magnetic survey data over the EDSON Property and Shear's permit holdings in the region. Based on the geophysical data, a total of four high to medium anomalies have been selected for ground follow-up. One day was spent in 2001 ground checking one target (Anomaly #E1) and sampling a bentonite occurrence on the EDSON Property. This report summarizes the interpretation of the geophysical data.

A two-staged program is recommended at this time. Stage 1: Ground checking of selected high to medium priority geophysical anomalies and sampling in the vicinity of

these targets. All low priority targets should be reviewed for culture on the flight tapes. Stage 2: Ground geophysical surveying of targets advanced and prioritized from Stage 1; Stage 3: Based on the results obtained from Stages 1 and 2, an appropriate drilling program will be recommended. Therefore, the estimated cost to complete Stages 1 and 2 is about \$75,000 not including provisions for GST. The cost to complete Stage 3 equals that of Stage 2 and a decision may be made on the merits of the geophysical targets, to move to Stage 3.

INTRODUCTION

Location, Physiography and Climate

The EDSON property (claim numbers 9399050001 to 9399050014 inclusive) of Shear Minerals Ltd. ("Shear") is in west-central Alberta, approximately 260 km west of the province capital, Edmonton, surrounding the town of Edson (Figure 1). The property is geographically centered at about latitude 53°35'N, longitude 116°36'W, and is encompassed by 1:50,000 National Topographic System map areas 83F/9, 83F/10 and 83G/12.

The EDSON property lies within the western limit of the Interior Plains, about 30km northeast of the Rocky Mountain Foothills of the Canadian Cordillera. The southeastern half of the EDSON property comprises part of the Edson Lowland, a low relief area characterized by numerous fern bogs and meandering streams, with elevations ranging from 800 to 975m above sea level (asl). The ground rises in the north and west towards the Edson Benchland, a gently rolling area with better drainage than the Edson Lowland. In the northern and northwestern portions of the EDSON property lies the Mayberne Tableland, a well drained, east-northeast trending plateau of moderate to high relief. Elevations on the plateau are generally greater than 1,150m with a maximum elevation of about 1,340 m asl (4,400 feet) at the OBED Mountain summit located 10 km due west of the EDSON property. The EDSON property is drained by the northeast-flowing McLeod River. Streams along the tableland drain towards to northeast flowing Athabasca River.

Summers in west-central Alberta are moderate, with temperatures ranging up to 25°C in July, whereas winters are typically cold, with temperatures at times reaching -40°C. Snow can fall as early as September, but usually comes in late October or November, with abundant snow cover that can last into late April or early May.

Access and Infrastructure

Access to and within the EDSON property is provided by a well-maintained network of: (a) primary, paved all-weather roads; (b) secondary gravel roads; and (c) numerous seismic cut lines. The Yellowhead Highway (Highway 16 West) runs east-west through the middle of the property (Figure 2). Four-wheel all-terrain-vehicles were used along the cut seismic lines to provide access to more remote parts of the property.

Accommodation, gas and food are available from the town of Edson centrally located within the property or from Hinton about 20 km west of the property.

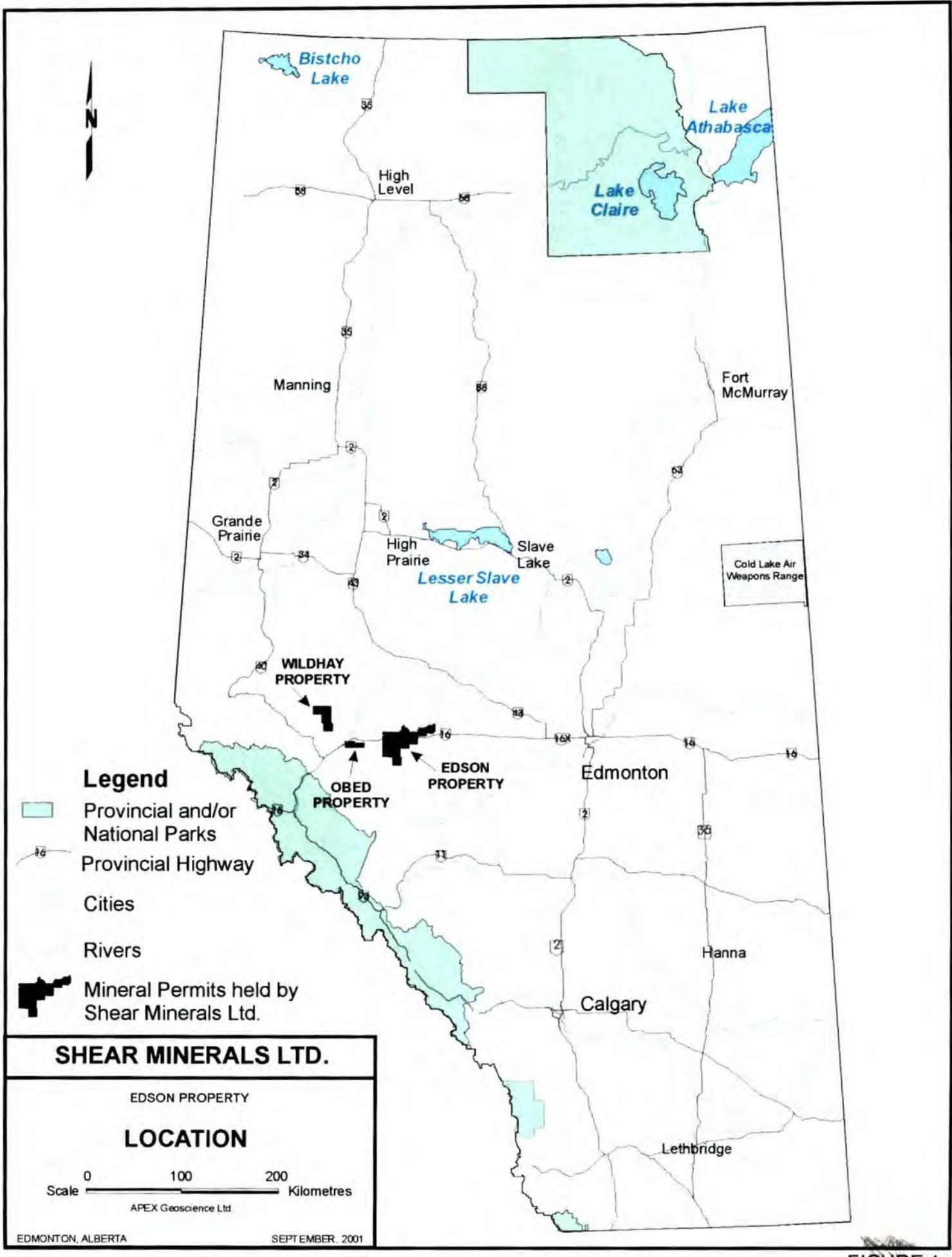


FIGURE 1

Previous Regional Exploration

In the Hinton and OBED Mountain region, industrial minerals, such as sand, gravel, clay, marl, limestone, gypsum and sulphur have been locally exploited by local municipalities, individuals and companies.

Placer gold has been panned from many of the major rivers in Alberta over the past 100 years, including selected portions of the Peace, Smoky, Little Smoky, Athabasca and North Saskatchewan rivers. Some of the tributary rivers, such as the McLeod River in the vicinity of the EDSON property, are known to contain placer gold. In most cases, the sources of the gold is unknown, but is generally believed to be upstream from localities nearer to the Rocky Mountains or derived from earlier paleoplacers in pre-glacial gravels.

In 1956, an independent prospector, Mr. Einar Opdahl, reported to have found the first diamond (weighing 0.83 carats) in Alberta in fluvial gravels near Evansburg, Alberta, about 60 km east of Edson, Alberta (Edmonton Journal, 1992a). Subsequently, several areas in northern and southern Alberta with anomalous diamond indicator minerals, including, in a few places, microdiamonds, have been reported by companies (summarized in Dufresne *et al.*, 1996). The Mountain Lake kimberlite near Peace River, Alberta, was discovered in the early 1990's by Monopros Ltd. In the Buffalo Head Hills region in north-central Alberta, 36 kimberlites have been discovered by the Ashton joint venture (Ashton Mining of Canada Ltd., Pure Gold Resources Ltd. and Alberta Energy Company Ltd.). On the Legend Property, northwest of Fort McMurray a total of nine kimberlites have been discovered by Montello-Redwood-Kennecott. the Legend Property is currently owned by New Blue Ribbon Resources Ltd. Numerous other exploration companies, such as New Blue Ribbon Resources, Buffalo Diamonds Ltd., Marum Resources Ltd., Indocan, and New Claymore Resources Ltd., are currently exploring other geologically diverse areas of Alberta.

Closer to Shear's EDSON property, at least 23 diamond were discovered in 1995 in stream sediment collected from a tributary to the Wildhay River, about 65 km northerly of Hinton (Dufresne *et al.*, 1996; Balzer and Olson, 1977). Eight targets were drill-tested by Kennecott in a joint venture with New Claymore Resources/Troymin-Montello. Results from this drilling are reported to have been negative. In October 1999, Shear acquired three townships that cover the diamondiferous sample locations in the Wildhay River area.

Shear has been active in the region to the west of the Edson property in what is referred to as the OBED and Wilday properties. The OBED property was acquired at the same time as the EDSON property. In June 1997 a three man crew from APEX Geoscience Ltd. spent three days sampling, prospecting and conducting reconnaissance geological mapping on the OBED property. Drill cuttings from 232 percussion holes drilled by Amoco Canada Petroleum Company Ltd., in 145 drilling areas were geologically logged by the APEX crew and classified into major lithologies. During the 1998 exploration program conducted by APEX Geoscience Ltd., a total of 35 heavy mineral stream sediment samples, 38 stream silt samples, 11 heavy mineral till

samples and 5 rock grab samples were collected from within the OBED property. Results include stream silt samples containing up to: 132 parts per billion (ppb) gold, 1.0 parts per million (ppm) cadmium, 3,123 ppm manganese, 13 ppm copper, 2.0 ppm silver and 563 ppm strontium. Rock grab samples from the OBED property contain up to 1.0 gram silver per tonne, 398 ppm lead, 603 ppm zinc, 6.3 ppm cadmium and 154 ppm chromium. The heavy mineral stream sediment and the heavy mineral till samples were processed for their diamond indicator minerals and were superpanned in order to identify the number of placer gold grains in each sample. Electron microprobe analysis of selected diamond indicator mineral grains identified one or more anomalous chromite grains and silicate grains with a definitely anomalous diamond indicator chemistry. These silicate grains include: (a) eclogitic garnet grains, (b) chrome-rich pyropic garnet grains, (c) one chrome-rich diopside, and (d) several grains of high titanium and high chromium grossular garnets. In summary, the diamond indicator results show that several grains from the OBED property samples have anomalous diamond indicator mineral chemistry indicative of possible deep-seated mantle origin, and also indicate the possibility that kimberlite or lamproite diatremes may exist in subcrop. Thus, there is a reasonable possibility that an intrusive kimberlitic or lamproitic body with diamondiferous mantle xenoliths may exist within or in close proximity to Shear's OBED property. Full details of the 1997 exploration program are presented in Industrial and Metallic Mineral Permit Assessment Report by Chin and Olson entitled "Exploration – 1997: OBED Property, Alberta", 1998. This report can be viewed at the offices of the Alberta Geological Survey – Publications and Sales in Edmonton, Alberta.

Previous Property Exploration

Little to no exploration for diamonds/kimberlites was undertaken until 1991 in and around the Edson-Hinton regions. In that year, Mr. Robin Day of Valley Gold Ltd. performed orientation heavy mineral stream sampling within the Interior Plains and Foothills of central Alberta. As a result, diamond indicator minerals were discovered at several locations. In early 1993, Maymac Petroleum Corporation optioned the property.

In 1993, Maymac Petroleum Corporation conducted fieldwork consisting of 30 stream samples that were later processed at the Saskatchewan Research Council ("SRC") for kimberlite indicator minerals. The original field sampling was conducted by Apex Geoscience Ltd. under the supervision of Dr. R.A. Olson. SRC picked 134 possible pyrope garnets, 9 possible chrome diopsides and 540 oxide minerals. RAO Consulting Ltd. selected an additional 152 possible pyrope garnets and 38 chrome diopsides. A total of 873 grains were submitted for scanning electron microprobe analysis at the University of Saskatchewan. A summary map showing all of the anomalous sites is displayed in Figure 2.

Mineral Claim Status

Shear Minerals Ltd. currently holds 14 mineral claims (939905001 to 9399050014, inclusive) in the Edson region totalling 119,577 acres. The location, size and current expiry dates of these fourteen mineral claims are summarized in Table I and shown on Figure 2.

REGIONAL AND PROPERTY GEOLOGY

The EDSON property is near the western edge of the Western Canadian Sedimentary Basin (WCSB), a little east of the easternmost margins of the Rocky Mountain Foothills belt that lies between the Rocky Mountain Front Ranges of the Cordillera and the WCSB (Figure 3). Other regional structures in the vicinity include: (a) the northwesterly trending axis of the Western Alberta Arch (WAA) which passes near Hinton, (b) the northwesterly trending axis of the Alberta Syncline which exists to the east, and (c) and the northeasterly trending extension of the Snowbird Tectonic Zone which lies to the north of Hinton.

The stratigraphy of the Mesozoic and Cenozoic strata in the Hinton-Edson region is summarized in Table II. The existing government geological mapping for the Edson-Hinton region indicates that the EDSON property is underlain by sedimentary rocks of early Tertiary (Paleocene) Paskapoo Formation (Price *et al.*, 1973). However, the following text summarizes the geology from the Precambrian Basement to the Tertiary.

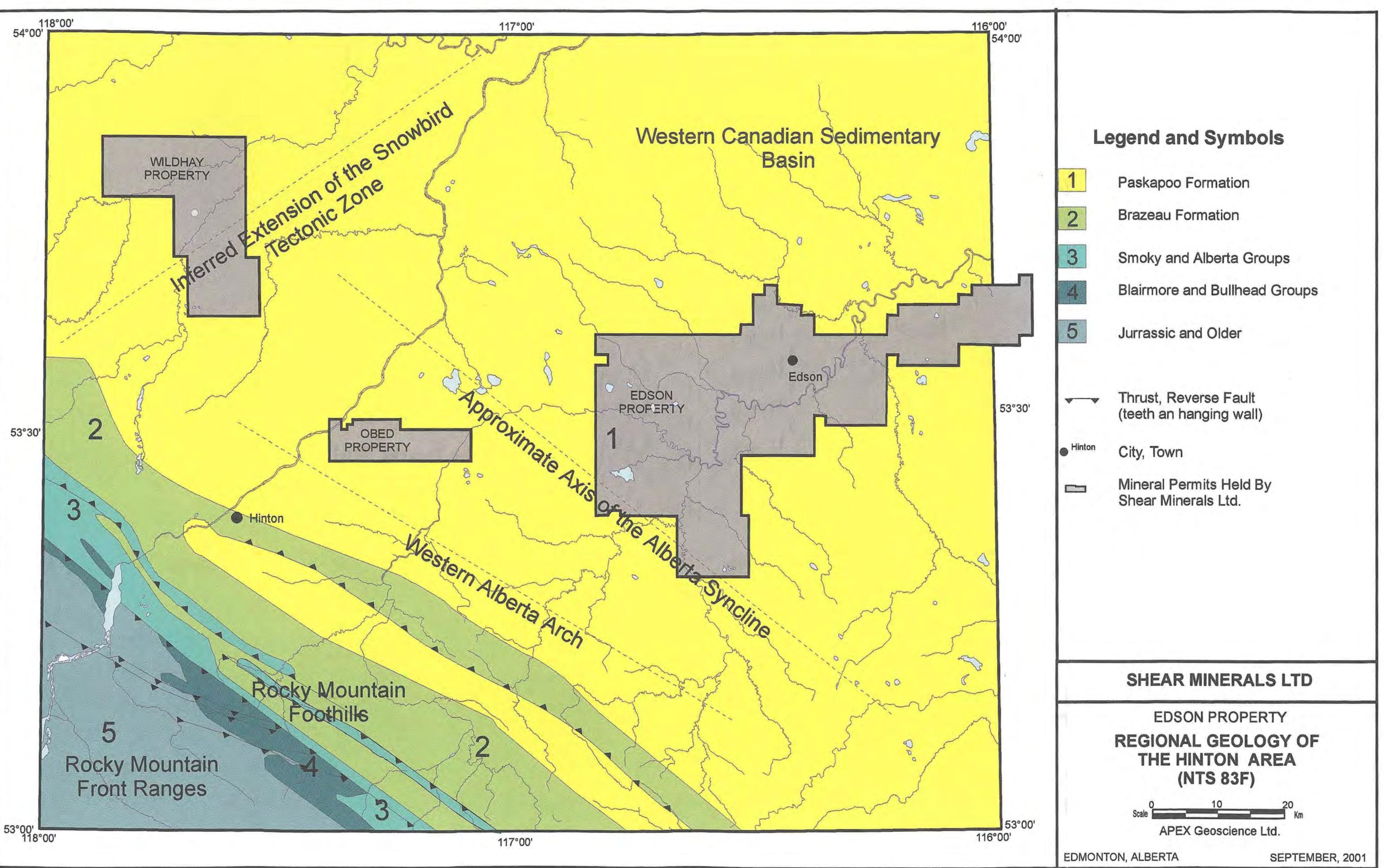
Precambrian Basement

The Precambrian Basement exists at an approximate depth of about 5 km beneath the current topographic surface in the Hinton-Edson region (NTS 83F) and is comprised of two distinct magnetic terranes: the Chinchaga Terrane of lower magnetic relief to the north, and the more magnetically diverse Wabamum Terrane to the south (Figure 4). The age of these two terranes is inferred by Ross *et al.* (1991, 1994) to be mainly Proterozoic (2.4 to 2.0 Ga), but some others (e.g., Burwash *et al.*, 1994), have suggested there is a significant Archean component. The boundary between these two terranes is a splay of the Snowbird Tectonic Zone, a major cratonic lineament that further to the north divides the Rae and Hearne Subprovinces of the Churchill Province of the Precambrian Shield.

The Chinchaga Terrane underlies the northern third of the map area, and is interpreted to be subducted oceanic lithosphere that was accreted to the North American continent between 2.19 and 2.09 billion years before present (Ross *et al.*, 1991). The Wabamun Terrane is interpreted to be a magmatic belt about 2.32 billion years old which has largely escaped deformation (Villeneuve *et al.*, 1993).

TABLE 1
EDSON PROPERTY: METALLIC AND INDUSTRIAL MINERAL PERMIT LISTING

Property	Claim Name	Claim Tag Number	Date Recorded	Anniversary Date	Hectares
EDSON PROPERTY, AB	9399050001	5-14-053; 31-35 and 5-14-054; 1-29,36	07-May-99	7-May-01	8,960
EDSON PROPERTY, AB	9399050002	5-15-053; 20-36 and 5-15-054; 1-17	07-May-99	7-May-01	8,704
EDSON PROPERTY, AB	9399050003	5-16-052; 20-36 and 5-16-053; 1-18	07-May-99	7-May-01	8,960
EDSON PROPERTY, AB	9399050004	5-16-053/19;20;21S,NW;22-26;27SE,NW;28-36	07-May-99	7-May-01	8,768
EDSON PROPERTY, AB	9399050005	5-17-052/1-32;33P;34S,NW,NEP;35,36	07-May-99	7-May-01	9,051
EDSON PROPERTY, AB	9399050006	5-17-053/1-6;7SP,NEP;8S,NP;10-13,14S,NE;15SE;19N	07-May-99	7-May-01	6,662
EDSON PROPERTY, AB	9399050007	5-17-054/1-6;8-12;14-17;20;21;28;29SE	07-May-99	7-May-01	4,672
EDSON PROPERTY, AB	9399050008	5-18-050;1-36	07-May-99	7-May-01	9,216
EDSON PROPERTY, AB	9399050009	5-18-051;1-36	07-May-99	7-May-01	9,216
EDSON PROPERTY, AB	9399050010	5-18-052;1-36	07-May-99	7-May-01	9,216
EDSON PROPERTY, AB	9399050011	5-18-053;1-20;22-36	07-May-99	7-May-01	8,960
EDSON PROPERTY, AB	9399050012	5-19-051/1-5;6S,NW;7-31;32S,NW;33-36	07-May-99	7-May-01	9,088
EDSON PROPERTY, AB	9399050013	5-19-052/1-4;5N,L1E,L4,L5,L8;6-36	07-May-99	7-May-01	9,144
EDSON PROPERTY, AB	9399050014	5-19-053/1-18;20-36	07-May-99	7-May-01	8,960
				TOTAL	119,577



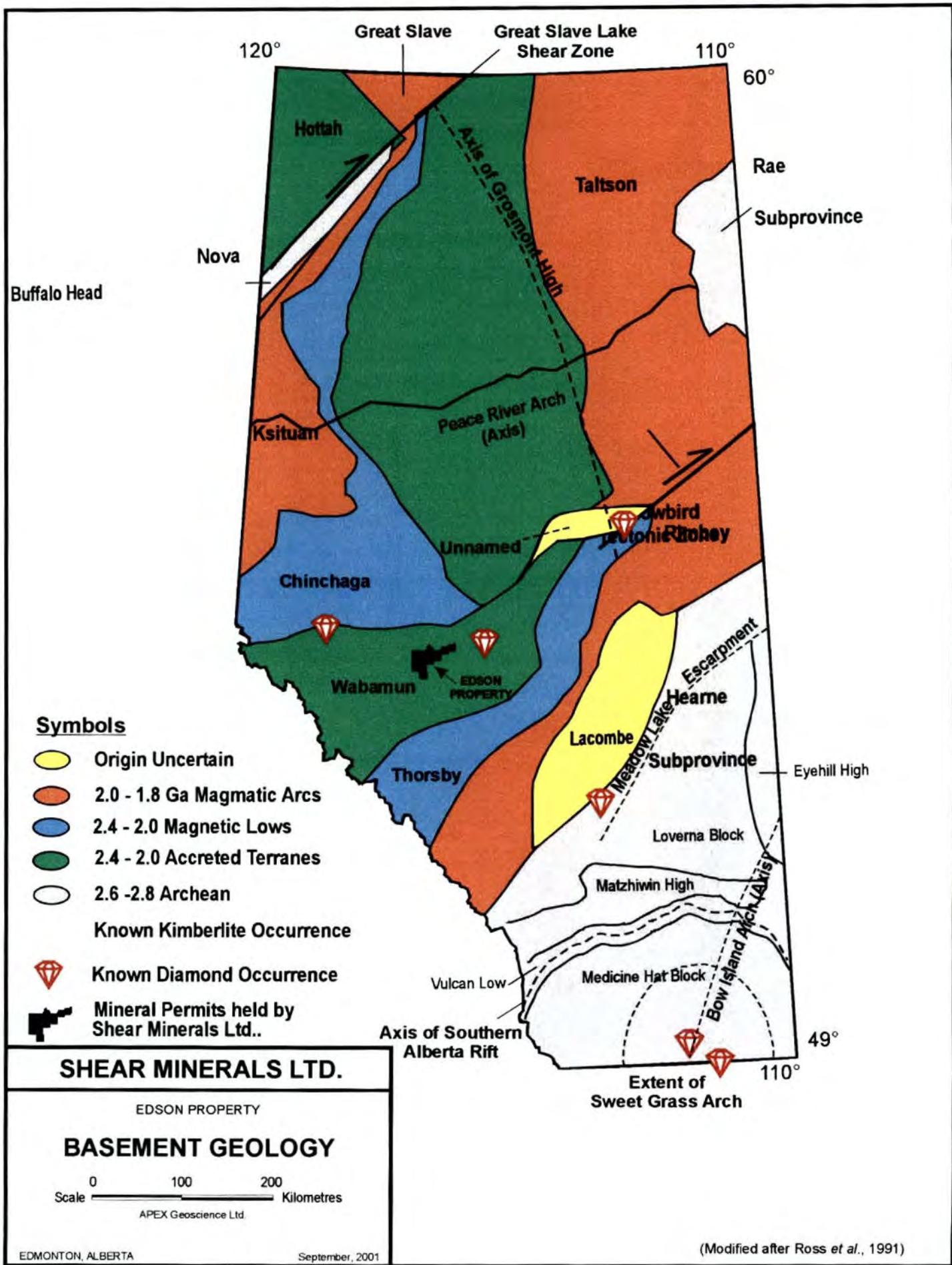


FIGURE 4

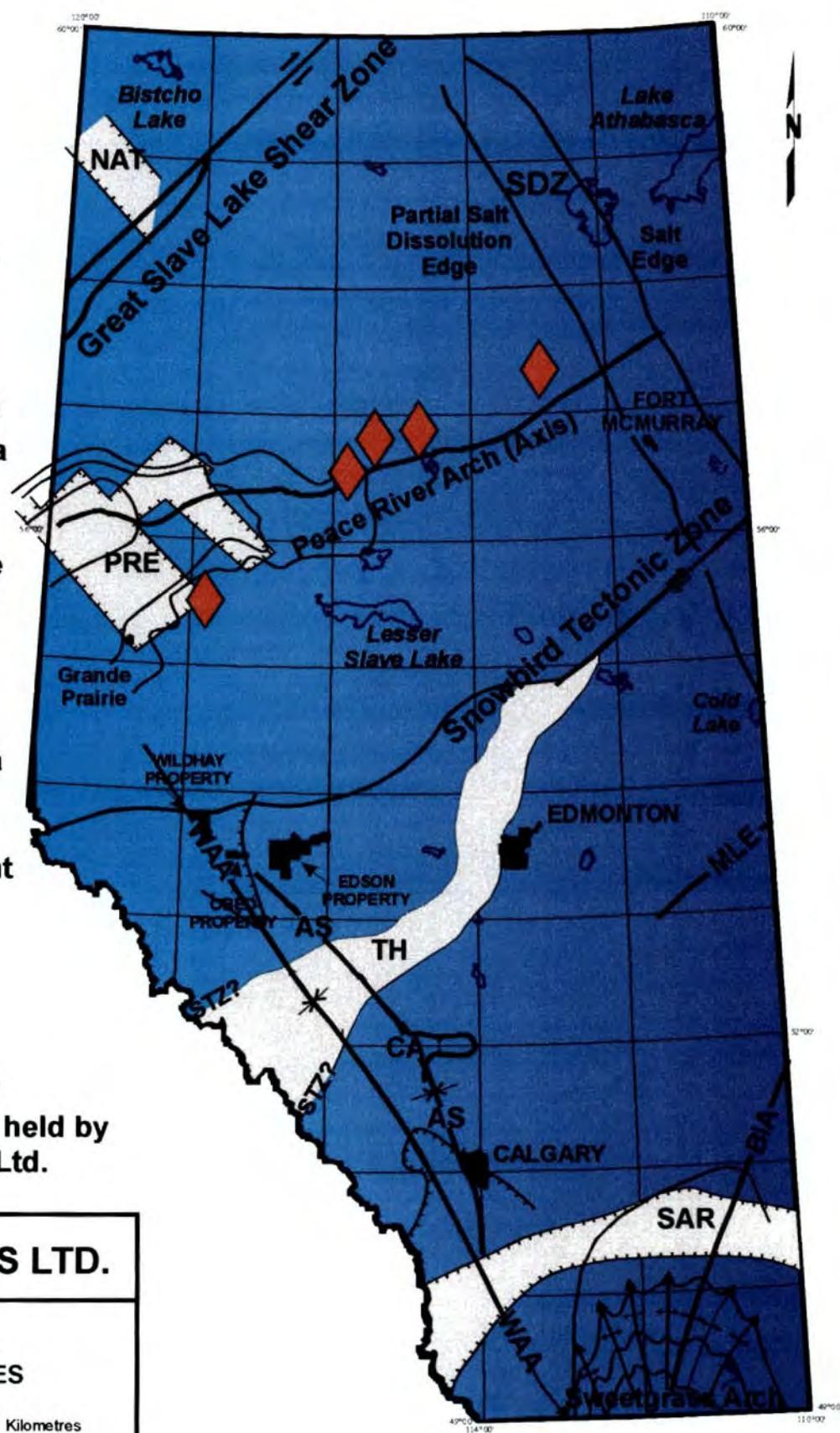
TABLE II
STRATIGRAPHY OF THE HINTON-EDSON AREA*

Period	Age	Group	Formation	Member	Thickness
Quaternary	Recent				
Tertiary	2 to 74.5 Ma	Saunders	Paskapoo		1,500 m
			Upper Coalspur		600 m
			Lower Coalspur (Entrance Conglomerate at base)		(12 m)
			Brazeau		1,200 m
Cretaceous	74.5 to 87 Ma	Alberta	Wapiabi	Nomad	600 m
				Chungo	
				Hanson	
				Thistle	
				Dowling	
				Marshybank	
				Muskiki	
	87 to 89 Ma		Cardium		80 m
	89 to 96 Ma		Blackstone		500 m
	96 to 106 Ma	Luscar	Gates	Mountain Park	400 m
				Grande Cache	
				Torrens	
			Moosebar		75 m
			Gladstone		125 m
			Cadomin		10 m
			Nikanassin		
Jurassic			Fernie		

*Table adapted from Chin and Olsen (1998)

Legend

- ◆ Kimberlite
- TH Thorsby Low
- WAA Western Alberta Arch
- MLE Meadow Lake Escarpment
- BIA Bow Island Arch
- SAR Southern Alberta Rift
- CA Caroline Arch
- AS Alberta Syncline
- SDZ Salt Dissolution Zone
- PRE Peace River Embayment
- NAT Northern Alberta Trough
-  Fault; right lateral movement
-  Anticline
-  Syncline
-  Fold Axis
-  Magnetic Low and/or Rift Zone
-  Mineral Permits held by Shear Minerals Ltd.



SHEAR MINERALS LTD.

Edson Property
STRUCTURE AND
TECTONIC FEATURES
Scale 0 50 100 150 200 Kilometres
APEX Geoscience Ltd.

Paleozoic to Cenozoic Strata

The Precambrian Basement in the Hinton region is overlain by a sequence of carbonate and clastic rocks, up to 5,000 m thick, that range in age from Middle Cambrian to Tertiary (Wright, 1984). However, the bedrock within and immediately adjacent to the EDSON property is reported to be underlain predominantly by Paleocene Paskapoo Formation (Figure 3), which consists of weakly consolidated sandstone, siltstone and minor shale and conglomerate. The EDSON Property lies near the axis of the Alberta Syncline (AS on Figure 5) and rocks exposed in outcrop have dips near horizontal. To the southwest within the Foothills, various Mesozoic strata exist.

Surficial Geology

Extensive surficial deposits of late Tertiary, Quaternary and Recent age cover most of the EDSON property. Rock outcrops are present in less than five percent of the area. The surficial deposits include till, glaciofluvial, glaciolacustrine and aeolian sediments, alluvium, colluvium and organics (Roed, 1970, 1975). The oldest deposits are preglacial (late Tertiary) and are restricted primarily to old paleochannels and valleys, such as the channel underlying the present day Athabasca River. The oldest surficial deposits in the region comprise unconsolidated gravels up to tens of metres thick, with up to boulder-sized clasts. Lithologically, the gravels contain well-rounded clasts of Cordilleran origin, such as metaquartzite, carbonate and chert (Roed, 1975).

Pleistocene till is much more widespread than preglacial gravels within the EDSON property. Till thickness are up to 30m or more within buried valleys, but in general average 6m over the Edson Lowland and less than 1.5m over the Mayberne Tableland. Seven separate tills have been identified in the Hinton to Edson region, five of which exist within the EDSON property. These five tills are the Marlboro and Obed tills of Cordilleran source, the Edson and Mayberne tills of Continental source, and a Mixed till that is believed to be result of Continental glaciation over previously deposited Cordilleran till. The Marlboro, Edson, Mayberne and Mixed tills are believed to be approximately temporally contemporaneous, while the Obed till is younger and overlies the Marlboro till. The presence of multiple tills with either a Cordilleran or Laurentide origin indicate significant fluctuation in the position of the ice margins of the two ice sheets during the Quaternary. Ice movement at the EDSON Property is from the northeast to the southwest (Figure 6) but further to the west at the OBED Property, ice movement changes abruptly to southwest to northeast. The corridor between these two ice directions reflects a terrain where the Laurentide and Cordilleran ice sheets mixed.

WORK CONDUCTED IN 1999-2000

Airborne Geophysical Survey

In late 1999 the high resolution fixed-wing airborne geophysical magnetic data

Legend

- [Yellow Box] Athabasca Valley Erratics Train
- [Dark Blue Box] Foothills Erratic Train and Mixed Cordilleran and Laurentide Till
- [Blue Box] Mixed Cordilleran and Laurentide Till
- [Star] Low Grade Metamorphic Erratics
- [Orange Box] Major Topographic Features
- [Arrow] Ice Flow Direction
- [Red Box] Mineral Permit held by Shear Minerals Ltd.

SHEAR MINERALS LTD.

Edson Property

Regional Ice Direction

Scale 0 50 100 150 200 Kilometres

APEX Geoscience Ltd.

EDMONTON, ALBERTA

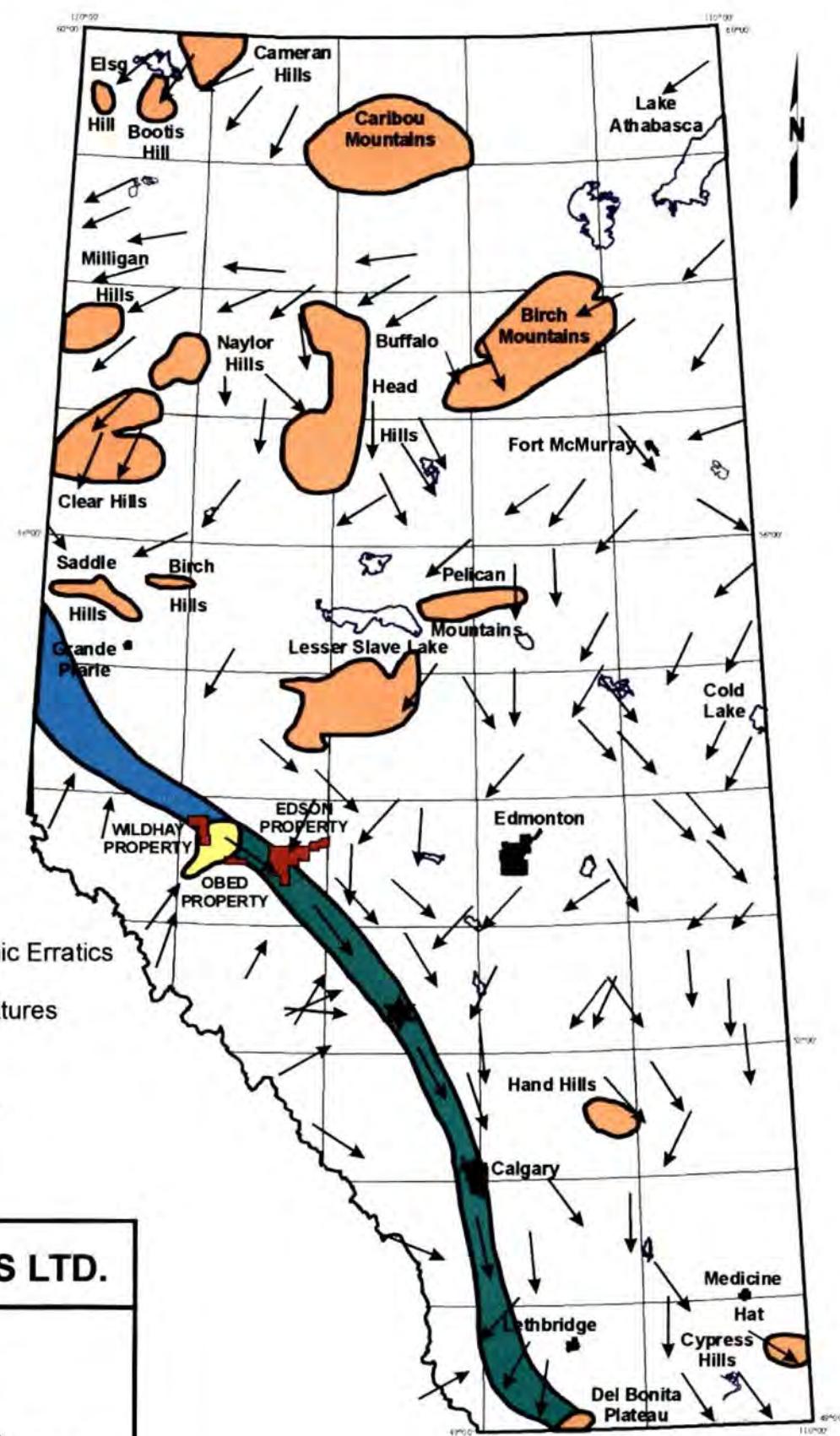


Figure 6

(600 m line spacing) was acquired on the EDSON permits on behalf of Shear Minerals Ltd. The survey was flown by Spectra Aviation Services and processed by Spectra Exploration Geoscience Corp. The digital data was received by Apex Geoscience Ltd. and a number of filtered magnetic maps were processed from the data (Figures 6 through 10). Interpretation of these maps was completed by Apex Geoscience Ltd.

Preliminary Geophysical Results

The geophysical signature on the total field magnetics (Figure 7) in the north-central portion of the EDSON Property is controlled by a magnetic high displayed on both the Vertical and Horizontal Gradient maps (Figures 8 and 9). This structure likely reflects deeper-seated basement rocks. A secondary feature is a series of continuous to semi-continuous magnetic high lineaments that trend northwest-southeast. These structures most likely represent stratigraphy and parallel the regional fold and thrust direction of the Rocky Mountain Fold & Thrust Belt. The majority of the discontinuous worm-like magnetic highs, as seen on the Shallow Band Pass of Total Field map (Figure 9) occurring predominantly on the west and south-west permits, is likely due to gravel and sand deposits from the ancient McLeod River Valley. These features are easily distinguished in Figure 10.

The geophysical data has been reviewed for kimberlite targets. In total, 17 shallow-source anomalies were identified that could be indicative of near surface pipes. These are shown on Figure 10 and listed in Appendix I. A total of four were classified as medium or high priority and require follow-up for kimberlites or related intrusions. A total of 13 anomalies were classified as low priority. These lower priority targets are small and the flight line tapes need to be reviewed for possible culture. Although, the geophysical data has been de-cultured, however based on experience, a secondary check is warranted before any further work is undertaken. The initial inspection of the data indicates that there are no apparent targets that are not culture related with the quality of the magnetic targets that have yielded kimberlites in the Buffalo Head Hills region of north-central Alberta. However, more prospective magnetic anomalies include anomalies E1, E2, E3, and E4 and warrant further exploration.

Ground Work

The EDSON property was visited for one day of fieldwork by a three person crew. Prior records reported one bentonite occurrence located along the McLeod River at the Railway crossing. The occurrence was located at the base of the southern shore at water level. The bentonite weathered white, while the fresh surface was slightly pale olive green. Two samples were taken for indicator mineral analysis and bentonite properties analysis for industrial purposes. Results from the latter have not been received. One possible chromite was recovered from the bentonite (Appendix II). Neither of these grains have been microprobed.

The large anomaly #E4 (covers three flight lines) was partially ground checked. Located at the southern and northern edges of the anomaly were capped gas wells. The wells may have possibly caused the geophysical response, although due to the large size of the anomaly (5km) this is unlikely unless there is buried infrastructure. If there was for example, a pipeline, the signature expected would be more linear and continuous. This target remains ranked high and justifies ground follow-up such as ground geophysical surveying.

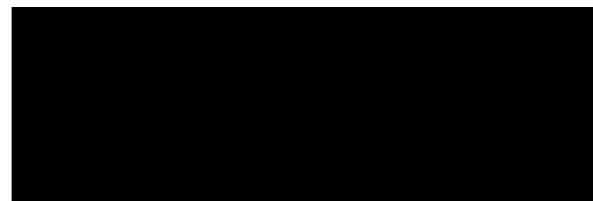
EXPLORATION EXPENDITURES

A total of \$40,000 (approximate see Appendix III) spent on exploration since 1999 within the EDSON Property. This covers the cost of geophysical contractors, consultants, samples and expenses. A breakdown of expenses is listed in Appendix III.

CONCLUSIONS AND RECOMMENDATIONS

Further work is recommended on the EDSON Property based on the initial 1993 ground sampling results and the recent geophysical data.

The existing four high to medium priority targets should be ground checked for any cultural causes. The possibility of obtaining existing seismic data for several of the higher priority targets should be investigated. Once this detail has been collected the high priority targets should be gridded and ground geophysics conducted or tested by a water-well drill rig. The cost of either ground geophysics or water-well testing amounts is estimated to be approximately equal in expenditures and the decision on this step should be based on the ranking of the geophysical targets. The 13 low priority targets should be reviewed on the flight line tapes to determine if their ranking may be upgraded and warrant ground checking. Costs to drill-test three targets using a water well rig is approximately \$40,000 excluding GST.



Shear Minerals Ltd.

Pamela Strand, M. Sc., P. Geol.

Edmonton, Alberta September 6, 2001

REFERENCES

- Alberta Stock Exchange (1997). Alberta diamond prospect acquired; RIO Nevada Mine Corp. press release dated Mar. 10, 1997.
- Balzer, S. and Olson, R.A. (1997). Summary Report, Mineral Compilation, EDSON Property, Alberta, (Claim Numbers 9395120001 and 9395120002); unpublished report prepared for Sharata Resources Ltd. by APEX Geoscience Ltd.
- Bryant, T. and Cantin, B. (1993). Project Pembina Field Report; assessment report prepared for Western Diamex Ltd.
- Burwash, R.A., McGregor, C.R. and Wilson, J. (1994) Precambrian Basement Beneath the Western Canada Sedimentary Basin; in G. Mossop and I. Shetsen (1994), eds., Geological Atlas of the Western Canada Sedimentary Basin, published jointly by the Canadian Society of Petroleum Geologists and the Alberta Research Council, pp. 49-56.
- Canadian Corporate News (1997). Ashton Finds Diamonds in Alberta Kimberlites; Ashton Mining of Canada Inc. News Release, April 25, 1997.
- Drever, G. and Matthews, R. (1995). Alberta diamond project, Hinton Area, Central Alberta, 1992-94 Exploration Activities; assessment report prepared for Cameco Corp.
- Dufresne, M. B., Eccles, D. R., McKinstry, B., Schmitt, D. R., Fenton, M.M., Pawlowicz, J.G. and Edwards, W.A.D. (1996). The diamond potential of Alberta; Alberta Geological Survey, Alberta Energy, Bulletin No. 63.
- Dunne, K.P.E., and Grant, B. (1993). Mid-Continent Diamonds; Geological Association of Canada, Mineral Deposits Division, GAC-MAC Symposium Volume, Edmonton, Alberta, May 17 - 18, 1993.
- Edmonton Journal (1997a). Sparkles in winter drilling; newspaper clipping dated Mar. 5, 1997.
- Fipke, C.E., Gurney, J.J. and Moore, R. (1995). Diamond Exploration Techniques Emphasising Indicator Mineral Geochemistry and Canadian Examples; Geological Survey of Canada, Bulletin 423.
- Fox, P.E. (1991). Assessment report on metallic mineral exploration permits 6889090002 and 68890900036, High divide Ridge area, Alberta; assessment report prepared for Placer Dome Inc. by Fox Geological Consultants Ltd.

- Freeman, M.E. (1994). Exploration 1993, Edson Mineral Claim Block, Alberta; confidential report prepared for Maymac Petroleum Corporation by R.A. Olson Consulting Ltd.
- Geological Survey of Canada (1996). Aeromagnetic Total Field, Edson, Alberta; Geological Survey of Canada, Open file 3235, scale 1:250,000.
- Gilmour, W.R. (1995). Report on the Hinton Property, Alberta; assessment report prepared for Montello Resources Ltd. by Discovery Consultants.
- LeCheminant, A.N., Richardson, D.G., DiLabio, R.N.W., and Richardson, K.A. (1996). Searching for Diamonds in Canada; Geological Survey of Canada, Open File 3228.
- Morton, R.D., Stewart, J.P., Bale, W.C. and Day, R.C. (1993). A review of diamond occurrences and potentials in Alberta, Canada; *In* Mid-Continent Diamonds, Edited by K.P.E. Dunne and B. Grant, GAC-MAC Symposium, Edmonton, Alberta, May 17 -18, 1993, p. 101-104.
- Northern Miner (1997). Ashton and Pure Gold drill for diamonds in Alberta; newspaper clipping dated Jan. 27, 1997.
- Price, R.A., Stott, D.F., Campbell, R.B., Mountjoy, E.W. and Ollerenshaw, N.C. (1979). Geology of Athabasca River, Alberta - British Columbia, Geological Survey of Canada, Map 1339A, Sheet 83, 1:1,000,000 scale.
- Roed, M.A. (1975). Cordilleran and Laurentide multiple glaciation, West-central Alberta, Canada; Canadian Journal of Earth Sciences, v.12, pp. 1493-1515.
- Roed, M.A., Mountjoy, E.W. and Rutter, N.W. (1967). The Athabasca valley erratics train, Alberta and Pleistocene ice movements across the Continental Divide; Canadian Journal of Earth Sciences, v.4, pp. 625-632.
- Ross, G.M., Broome, J. and Miles, J. (1994) Potential Fields and Basement Structure - Western Canada Sedimentary Basin; *in* G. Mossop and I. Shetsen (1994), eds., Geological Atlas of the Western Canada Sedimentary Basin, published jointly by the Canadian Society of Petroleum Geologists and the Alberta Research Council, pp. 41-47.
- Ross, G.M., Parrish, R.R., Villeneuve, M.E. and Bowring, S.A. (1991). Geophysics and geochronology of the crystalline basement of the Alberta Basin, Western Canada; Canadian Journal of Earth Sciences, v.28, pp. 512-522.

Sraega, D.I., 1994. Legend Block, Metallic and Industrial Mineral Permits 9393030557 to 9393030564 and 9393030675 to 9393030680; assessment report prepared for Monopros Ltd.

Thorliefson, L.H. and Garrett, R.G. (1997) Kimberlite indicator mineral and geochemical reconnaissance of southern Alberta; *in* R.W. Macqueen, Exploring for Minerals in Alberta: Geological Survey of Canada Geoscience Contributions, Canada - Alberta Agreement on Mineral Development (1992 - 1995); Geological Survey of Canada, Bulletin 500, pp. 209-234.

Villeneuve, M.E., Ross, G.M., Theriault, R.J., Miles, W., Parrish, R.R. and Broome, J. (1993). Tectonic subdivision and U-Pb geochronology of the crystalline basement of the Alberta Basin, Western Canada; Geological Survey of Canada, Bulletin 447.

APPENDIX I
GEOPHYSICAL ANOMALIES

APPENDIX I

Shear Minerals Ltd. Geophysical Anomalies, Edson property, Alberta

Anomaly Number	Rank	Easting	Northing
E1	High	536957	5943081
E2	High	543855	5952128
E3	High	552957	5938796
E4	High	558598	5941313
E5	Medium	528308	5932596
E6	Medium	532796	5949047
E7	Medium	534300	5946926
E8	Medium	535955	5948608
E9	Medium	543954	5925725
E10	Medium	547465	5925006
E11	Medium	547805	5928465
E12	Medium	548005	5951371
E13	Medium	557495	5948858
E14	Medium	560022	5935476
E15	Medium	562858	5936556
E16	Medium	564450	5935878
E17	Medium	570149	5941020

APPENDIX II
SAMPLE ANALYSES

Copy for Pam

Saskatchewan Research Council Geoanalytical Services
125-15 Innovation Blvd., Saskatoon, SK., S7N 2X8
Phone: 306-933-5426 Fax: 306-933-5656

M378 BESSERER APEX JULY 5 2001 (3) [INDICATORS]

- 1 SAMPLE WEIGHT IN KG AP01.06
- 2 MID FRACTION -1.00+0.18MM DRY WEIGHT IN GRAMS
- 3 FRANTZ LOWER @ 0.34 AMPS IN GRAMS
- 4 FRANTZ LOWER @ 0.19 AMPS IN GRAMS
- 5 VISIBLE PYROPIC GARNET GRAIN COUNT
- 6 Cr-DIOPSID GRAIN COUNT
- 7 PICROILMENITE GRAIN COUNT
- 8 CHROMITE GRAIN COUNT
- 9 % PERMROLL MAG PROCESSED

	SWT	MWT	LW1	LW2	PG	CD	PICRO	CHROM	%
OIDB P100	20.6	224.1	33.97	4.89	0	0	0	0	100
OIDB T001	20.1	3518	5.81	17.16	0	0	0	0	100
OIDBT100R					0	0	0	0	

99238

EDSON/
OBED

1 poss.ble
8 poss.bles

OIDBP100 Bentonite on McLeod R
524514 / 5924124

OIDBT001 473 648 E / 5925862 N

still on target gp A-1

Indicator Mineral Grain Description

Group AP01:06

Lower 1 Fraction

REP- Repicked Sample

B-Blank

DEF-Definite

POS-Possible

No.	Sample Name	Pyrope Gt.		Cr. Diop.		Eclog.		Olivine	Picked	Others
		DEF	POS	DEF	POS	POS	POS	POS	%	picked by
1	OIDBP100	0	0	0	0	0	0	0	100	0
Comments:										
2	OIDBT001	0	0	0	0	0	0	0	100	0
Comments:										
3										
Comments:										
4										
Comments:										
5										
Comments:										
6										
Comments:										
7										
Comments:										
8										
Comments:										
9										
Comments:										
10										
Comments:										
11										
Comments:										
12										
Comments:										
Repick: OIDBT100		0	0	0	0	0	0	100	0	
Comments:										
BR										

Indicator Mineral Grain Description**Group: AP01:06****Lower 2 Fraction**

REP- Repicked Sample

B-Blank

DEF-Definite

POS-Possible

No.	Sample Name	Picrolite		Chromite		% Picked	Others picked by
		DEF	POS	DEF	POS		
1	OIDBP100	0	0	0	1	100	0
	Comments:	BFM					
2	OIBDT001	0	0	0	8	100	0
	Comments:	BR					
3							
	Comments:						
4							
	Comments:						
5							
	Comments:						
6							
	Comments:						
7							
	Comments:						
8							
	Comments:						
9							
	Comments:						
10							
	Comments:						
11							
	Comments:						
12							
	Comments:						
	Repick: OIBDT100	0	0	0	0	100	0
	Comments:	BFM					

APPENDIX III
EXPLORATION EXPENDITURES

APPENDIX III

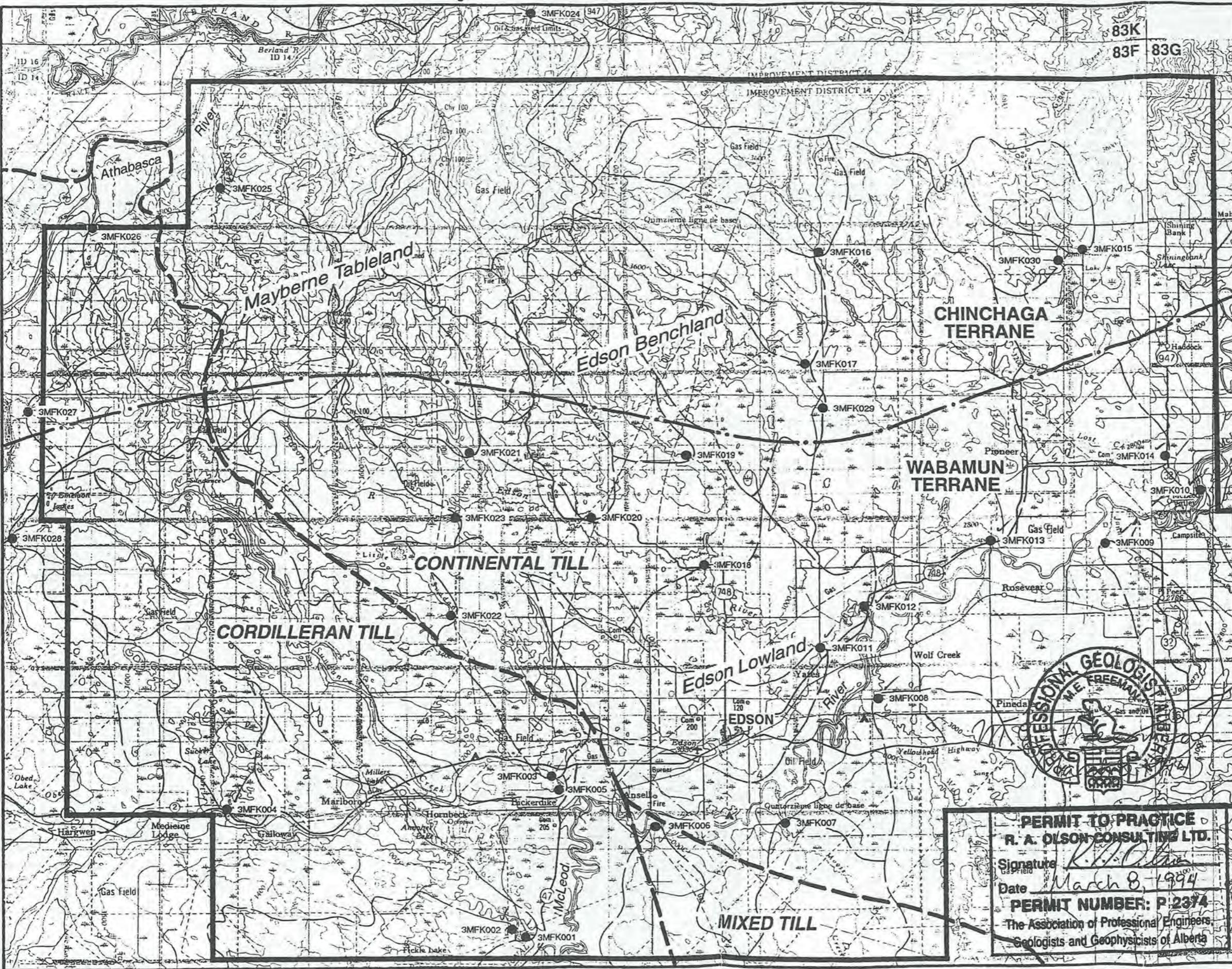
EXPLORATION EXPENDITURES

ITEM	ACTUAL COST
Salaries	
Salaries for APEX Geologists	\$7,500.00 ✓
Salary for Prospector and assistant	\$1,500.00
ACAD time for figures	\$1,850.00 ✓
Supervision	\$4,000.00 ✓
Sub-Total	\$14,850.00
Field Related Costs	
Geophysical Contractors	\$15,250.00
Maymac Data Purchase	\$8,500.00
Food	\$125.00 ✓
Fuel/Mileage	\$335.99 ✓
Field Supplies	\$225.00 ✓
Sample Analyses	\$482.10
Sub-Total	\$24,918.09
Non-Field Expenses	
Communication/Shipping	\$75.09
Misc. Reporting charges	\$319.00
Map purchases	\$75.00
Sub-Total	\$469.09
Total Project Costs	\$40,237.18

APPENDIX IV
MAYMAC PETROLEUM CORPORATION
SAMPLE LOCATIONS, DATA, RESULTS

Maymac Petroleum 1993 Samples

Sample	Easting	Northing
3MFK001	524397	5924048
3MFK002	523619	5924647
3MFK003	526150	5934805
3MFK004	504540	5932538
3MFK005	526724	5933704
3MFK006	533039	5931398
3MFK007	542088	5931674
3MFK008	547525	5940133
3MFK009	562738	5950304
3MFK010	569200	5953900
3MFK011	544103	5943258
3MFK012	546958	5945744
3MFK013	555434	5950320
3MFK014	566800	5956100
3MFK015	561235	5969753
3MFK016	543818	5969354
3MFK017	543295	5963686
3MFK018	536169	5948752
3MFK019	534972	5955935
3MFK020	528917	5951732
3MFK021	520671	5956050
3MFK022	519491	5945343
3MFK023	519657	5951680
3MFK024	524800	5985400
3MFK025	503899	5973622
3MFK026	495352	5971241
3MFK027	491158	5958787
3MFK028	490011	5950383
3MFK029	544187	5959143
3MFK030	559680	5969054

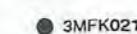


LEGEND

Boundary of Maymac Petroleum Corporation's Edson Mineral Claim Block

Heavy mineral stream sample site, identifier

Boundary of drainage basin that is upstream from heavy mineral stream sample site.



MIXED TILL

Boundary between major till sources; source of till (after Roed, 1975).

WABAMUN TERRANE

Boundary between inferred Proterozoic crustal basement terranes; name of terrane (after Day, 1992)

Edson Lowland

Name of physiographic region within Edson Block area (after Roed, 1975)

MAYMAC PETROLEUM CORPORATION

EDSON MINERAL CLAIM BLOCK

GEOLOGY, SAMPLE LOCATIONS

NTS 83F,G,K

0 5 10 15

kilometres

1:250,000

R.A. OLSON CONSULTING LTD.

EDMONTON, ALBERTA

FEBRUARY, 1994

PERMIT TO PRACTICE
R. A. OLSON CONSULTING LTD.

Signature _____

Date March 8, 1994

PERMIT NUMBER: P.2374

The Association of Professional Engineers
Geologists and Geophysicists of Alberta

FIGURE 2

TABLE I.A

DESCRIPTIONS OF HEAVY MINERAL STREAM SAMPLES FROM EDSON MINERAL CLAIM BLOCK

Sample Number	Drainage Basin	Weight (kg)	Colour (Munsell Chart)	Sediment Sample Compositions*				Sample Site Descriptions *
				Crse	Sand	Fines	Org	
3MFK001	McLeod River	4.1	brown	2	1	1	0	Quartzite is moderate constituent, limestone clasts present. Outcrops visible in area.
3MFK002	Fickle Lake	3.1	olive brown	1	2	1	0	Outcrops visible in area. TKp** sandstone clasts are major constituent.
3MFK003	Little Sundance Cr.	3.4	olive brown	0	1	3	0	Quartzite clasts are major constituent.
3MFK004	Sucker Lake	2.5	yellowish brown	2	1	1	0	TKp sandstone clasts are major constituent.
3MFK005	Sundance Creek	2.3	dull yellowish brown	1	1	2	0	TKp sandstone clasts are moderate constituent.
3MFK006	McLeod River	3.1	dull yellowish brown	2	1	1	0	TKp sandstone clasts are moderate constituent. Outcrops visible in area.
3MFK007	Moose Creek	2.3	yellowish brown	1	2	1	0	TKp sandstone clasts are major constituent. Outcrops visible in area.
3MFK008	Wolf Creek	2.7	dull yellowish brown	2	1	1	0	TKp sandstone clasts are major constituent.
3MFK009	January Creek	3.1	yellowish brown	1	2	1	0	TKp sandstone clasts are moderate constituent.
3MFK010	McLeod River	2.3	brown	2	1	1	0	Quartzite is moderate constituent, and limestone clasts also present.
3MFK011	Edson River	2.4	dull yellowish brown	0	1	3	0	Quartzite clasts are moderate constituent.
3MFK012	Edson River	1.6	dull yellowish brown	2	1	1	0	Quartzite clasts are moderate constituent.
3MFK013	Trout Creek	2.4	dull yellowish brown	1	2	1	0	Quartzite clasts and TKp sandstone clasts are moderate constituents.
3MFK014	Lost Creek	1.8	yellowish brown	0	1	2	1	Granitic rock fragments are moderate constituent.
3MFK015	Shiningbank Lake	2.5	dull yellowish brown	0	1	3	0	TKp sandstone clasts are major constituent.
3MFK016	Trout Creek	3.3	dull yellowish brown	0	1	3	0	TKp sandstone clasts are moderate constituent.
3MFK017	Trout Creek	2.7	dark olive brown	0	1	3	0	TKp sandstone clasts are moderate constituent.
3MFK018	Edson River	3.4	olive brown	1	2	1	0	TKp sandstone clasts are major constituent.
3MFK019	Edson River	3.2	yellowish brown	1	1	2	0	TKp sandstone clasts are major constituent.
3MFK020	Edson River	3.4	dull yellowish brown	0	1	3	0	TKp sandstone clasts are moderate constituent.
3MFK021	Edson River	2.8	yellowish brown	0	2	2	0	TKp sandstone clasts are major constituent. Coal fragments are also present.
3MFK022	Little Sundance Cr.	2.6	dull yellowish brown	0	2	2	0	TKp sandstone clasts are major constituent.
3MFK023	Edson River	3.8	dull yellowish brown	1	2	1	0	TKp sandstone clasts are major constituent.
3MFK024	Pine Creek	2.3	reddish brown	2	1	1	0	Granitic rock fragments and quartzite clasts are moderate constituents. Thick till cover in area.
3MFK025	Nosehill Creek	3.9	reddish brown	2	1	1	0	Granitic rock fragments and quartzite clasts are moderate constituents. Thick till cover in area.
3MFK026	Lynx Creek	3.2	dull yellowish brown	2	1	1	0	Quartzite clasts are moderate constituent. Thick till cover in area.
3MFK027	Athabasca River	2.4	dull yellowish brown	2	1	1	0	Quartzite clasts and TKp sandstone clasts are moderate constituents. Thick till cover in area.
3MFK028	Emerson Creek	3.6	dull yellowish brown	2	1	1	0	Quartzite clasts are moderate constituent. Thick till cover in area.
3MFK029	Trout Creek	2.5	dark olive brown	0	1	3	0	TKp sandstone clasts are moderate constituent.
3MFK030	Shiningbank Lake	3.5	dull yellowish brown	0	1	3	0	TKp sandstone clasts are moderate constituent.

* Codes for sediment composition and sample site description:

0 = absent from sample; 1 = minor constituent (less than 33%); 2 = moderate constituent (33% to 66%); 3 = major constituent (greater than 66%)

** TKp = Paleocene (Early Tertiary) Paskapoo Formation

TABLE I.B
HAND PICKED GRAINS FOR MICROPROBE ANALYSIS

SAMPLE NUMBER	NUMBER OF HAND PICKED GRAINS*				
	SILICATE MINERALS				OXIDE MINERALS
	SRC picked "Garnet" from Mids fraction (S.G. 3.0-4.1)	RAOCL picked "Garnet" from Mids and +850 um fractions	SRC picked "Diopside" from Mids fraction (S.G. 3.0-4.1)	RAOCL picked "Diopside" from Mids and +850 um fractions	SRC picked "Chromite and Picroilmenite" from Lowers fraction (Nonmagnetic, S.G. >4.1)
	Vial label A	Vial label B	Vial label C	Vial label D	Vial label E
3MFK001	7	8	0	3	26
3MFK002	5	4	1	0	21
3MFK003	9	5	0	3	19
3MFK004	4	2	0	1	14
3MFK005	5	5	1	2	12
3MFK006	3	3	1	1	14
3MFK007	1	2	0	3	9
3MFK008	3	4	1	4	28
3MFK009	4	4	0	1	24
3MFK010	3	5	0	1	25
3MFK011	4	6	0	0	22
3MFK012	5	5	1	1	18
3MFK013	7	6	0	1	23
3MFK014	6	3	0	0	24
3MFK015	4	5	0	0	22
3MFK016	3	2	0	0	6
3MFK017	5	6	0	2	25
3MFK018	5	7	0	1	17
3MFK019	5	7	1	2	24
3MFK020	3	6	0	3	12
3MFK021	4	2	0	1	13
3MFK022	6	7	0	1	18
3MFK023	4	5	1	0	23
3MFK024	6	6	0	1	21
3MFK025	4	4	1	1	26
3MFK026	6	6	0	1	11
3MFK027	6	6	0	0	23
3MFK028	3	8	1	1	20
3MFK029	2	3	0	3	0
3MFK030	2	10	0	0	0
	134	152	9	38	540
TOTALS		333	Total Silicate Grains		Total Oxide Grains

* Total = 873 silicate and oxide grains picked from Edson Block samples by SRC and RAOCL personnel.

TABLE II.A

UNIVERSITY OF SASKATCHEWAN MICROPROBE ANALYSES AND MIN-ID.ASC CLASSIFICATIONS - OXIDE MINERAL GRAINS																	
Sample# *	Grain # **	TiO2	Cr2O3	FeO	MgO	CaO	SiO2	Al2O3	Na2O	MnO	NiO	ZnO	Total	Grp***	2nd	Flow	Mineral Name
1E	1	0.25	38.90	22.94	8.48	0.00	0.02	24.76	0.00	0.65	0.1297	1.4600	97.59	2	0	0	SUB_PICRO_CHROMITE
1E	2	0.67	45.99	26.13	13.96	0.00	0.05	9.88	0.00	0.31	0.1050	0.0340	97.13	3	0	0	PICRO_CHROMITE
1E	3	0.24	40.41	19.72	11.85	0.00	0.02	25.36	0.00	0.31	0.0768	0.2735	98.26	3	0	0	PICRO_CHROMITE
1E	4	0.40	45.85	22.01	9.84	0.00	0.00	19.85	0.00	0.41	0.0722	0.1879	98.62	3	0	0	PICRO_CHROMITE
1E	5	0.43	43.54	18.37	13.52	0.00	0.02	21.97	0.00	0.32	0.0930	0.1080	98.37	3	0	0	PICRO_CHROMITE
1E	6	0.22	39.48	15.74	14.55	0.00	0.00	28.07	0.00	0.22	0.1287	0.1139	98.52	2	0	0	SUB_PICRO_CHROMITE
1E	7	0.37	47.32	15.06	16.47	0.00	0.09	18.99	0.00	0.21	0.1871	0.0335	98.73	3	0	0	PICRO_CHROMITE
1E	8	0.44	34.58	19.48	13.57	0.00	0.00	29.47	0.00	0.19	0.1823	0.1898	98.10	0	0	0	UNKNOWN
1E	9	1.78	34.86	22.96	15.04	0.00	0.07	22.64	0.00	0.25	0.2079	0.0590	97.87	0	0	0	UNKNOWN
1E	10	0.26	47.86	19.69	11.44	0.00	0.02	18.21	0.00	0.30	0.0723	0.2442	98.10	3	0	0	PICRO_CHROMITE
1E	11	0.30	47.88	13.91	15.39	0.00	0.00	19.98	0.00	0.24	0.0752	0.1089	97.88	3	0	0	PICRO_CHROMITE
1E	12	0.72	51.73	20.44	13.81	0.00	0.07	10.48	0.00	0.31	0.1155	0.0542	97.73	3	0	0	PICRO_CHROMITE
1E	13	2.45	38.62	22.65	15.45	0.00	0.06	18.73	0.00	0.24	0.1863	0.0000	98.39	2	0	0	SUB_PICRO_CHROMITE
1E	14	0.25	37.38	14.78	15.61	0.00	0.00	29.80	0.00	0.23	0.1174	0.1351	98.30	2	0	0	SUB_PICRO_CHROMITE
2E	15	0.30	47.53	23.16	10.00	0.00	0.01	15.88	0.00	0.39	0.0692	0.2671	97.61	3	0	0	PICRO_CHROMITE
2E	16	0.28	35.45	16.26	16.00	0.00	0.00	29.86	0.00	0.20	0.1733	0.1367	98.36	2	0	0	SUB_PICRO_CHROMITE
2E	17	0.40	42.87	17.70	13.37	0.00	0.01	23.01	0.00	0.27	0.0880	0.0690	97.79	3	0	0	PICRO_CHROMITE
2E	18	0.31	52.78	24.26	8.86	0.00	0.02	11.25	0.00	0.40	0.0465	0.3103	98.24	3	0	0	PICRO_CHROMITE
2E	19	0.39	51.32	24.55	9.23	0.00	0.02	11.20	0.00	0.42	0.0787	0.2468	97.46	3	0	0	PICRO_CHROMITE
2E	20	1.42	45.96	19.19	15.10	0.00	0.07	15.88	0.00	0.23	0.2013	0.0674	98.12	3	0	0	PICRO_CHROMITE
2E	21	0.33	51.74	18.75	10.64	0.00	0.03	16.34	0.00	0.25	0.0374	0.1169	98.23	3	0	0	PICRO_CHROMITE
3E	22	0.24	43.63	19.12	12.93	0.00	0.01	21.98	0.00	0.27	0.0984	0.1471	98.43	3	0	0	PICRO_CHROMITE
3E	23	0.32	50.10	22.33	8.08	0.00	0.03	14.70	0.00	0.43	0.0250	1.3700	97.39	3	0	0	PICRO_CHROMITE
3E	24	0.45	25.38	19.29	14.91	0.00	0.00	38.13	0.00	0.21	0.1750	0.1643	98.71	0	0	0	UNKNOWN
3E	25	0.40	48.40	27.93	8.51	0.00	0.02	10.62	0.00	0.40	0.0694	0.2046	96.55	3	0	0	PICRO_CHROMITE
3E	26	0.55	0.14	0.00	9.21	0.00	0.01	23.15	0.00	0.64	0.0883	0.1703	33.96	0	0	0	UNKNOWN
3E	27	0.79	51.73	18.84	14.30	0.00	0.04	11.94	0.00	0.28	0.0000	0.0045	97.92	3	0	0	PICRO_CHROMITE
3E	28	0.36	56.50	19.53	12.24	0.00	0.04	8.58	0.00	0.34	0.0451	0.0688	97.70	3	0	0	PICRO_CHROMITE
3E	29	0.40	58.50	14.11	15.50	0.00	0.13	7.86	0.00	0.18	0.1796	0.0006	96.86	0	0	0	UNKNOWN
3E	30	52.07	0.57	31.79	12.67	0.00	0.04	0.58	0.00	0.25	0.0823	0.0214	98.07	3	0	0	PICRO_ILMENITE
3E	31	0.65	0.16	0.00	7.24	0.00	0.01	13.86	0.00	0.71	0.1066	0.1912	22.93	0	0	0	UNKNOWN
5E	32	0.28	0.15	0.00	8.84	0.00	0.01	19.17	0.00	0.59	0.0144	0.0160	29.07	0	0	0	UNKNOWN
5E	33	0.30	40.98	19.02	13.00	0.00	0.01	24.44	0.00	0.34	0.0000	0.0000	98.09	3	0	0	PICRO_CHROMITE
5E	34	0.27	50.45	16.21	12.55	0.00	0.03	17.94	0.00	0.37	0.0544	0.1858	98.06	3	0	0	PICRO_CHROMITE
5E	35	0.24	44.26	20.57	11.45	0.00	0.00	21.33	0.00	0.33	0.0390	0.2277	98.45	3	0	0	PICRO_CHROMITE
6E	36	1.38	41.64	20.83	14.58	0.00	0.09	19.19	0.00	0.21	0.2243	0.0718	98.22	3	0	0	PICRO_CHROMITE
6E	37	0.70	41.46	30.00	13.52	0.00	0.08	10.64	0.00	0.43	0.1886	0.0625	97.08	3	0	0	PICRO_CHROMITE

TABLE II.A (CONTINUED)

UNIVERSITY OF SASKATCHEWAN MICROPROBE ANALYSES AND MIN-ID.ASC CLASSIFICATIONS - OXIDE MINERAL GRAINS

Sample# *	Grain # **	TiO ₂	Cr ₂ O ₃	FeO	MgO	CaO	SiO ₂	Al ₂ O ₃	Na ₂ O	MnO	NiO	ZnO	Total	Gir***	2nd	Flow	Mineral Name
6E	38	0.68	56.37	8.90	21.66	0.00	0.05	7.61	0.00	0.44	0.0672	0.0768	95.85	0	0	0	UNKNOWN
7E	39	0.58	47.85	23.90	15.08	0.00	0.08	8.45	0.00	0.27	0.1707	0.0495	96.43	3	0	0	PICRO_CHROMITE
10E	40	0.28	48.17	13.08	14.10	0.00	0.00	21.91	0.00	0.27	0.0465	0.1494	98.01	0	0	0	UNKNOWN
10E	41	0.24	44.46	17.01	13.10	0.00	0.02	21.73	0.00	0.22	0.1015	0.0922	96.97	3	0	0	PICRO_CHROMITE
10E	42	1.84	39.91	26.05	11.09	0.00	0.12	18.53	0.00	0.23	0.2044	0.0913	98.07	2	0	0	SUB_PICRO_CHROMITE
10E	43	0.33	43.97	19.92	12.49	0.00	0.10	21.48	0.00	0.32	0.0722	0.1485	98.83	3	0	0	PICRO_CHROMITE
10E	44	0.26	47.99	21.08	10.78	0.00	0.02	16.85	0.00	0.38	0.0706	0.1568	97.59	3	0	0	PICRO_CHROMITE
10E	45	0.42	44.51	19.49	12.95	0.00	0.02	20.56	0.00	0.30	0.0773	0.0575	98.38	3	0	0	PICRO_CHROMITE
8E	46	0.41	53.57	25.88	9.24	0.00	0.03	7.06	0.00	0.51	0.0676	0.1772	96.94	3	0	0	PICRO_CHROMITE
8E	47	0.40	54.66	18.05	13.89	0.00	0.14	10.53	0.00	0.32	0.1310	0.0488	98.17	3	0	0	PICRO_CHROMITE
8E	48	0.45	53.81	26.90	5.48	0.00	0.03	6.75	0.00	0.49	0.1085	0.1849	94.20	0	0	0	UNKNOWN
11E	49	0.48	42.96	19.51	12.47	0.00	0.02	21.21	0.00	0.32	0.1102	0.1318	97.21	3	0	0	PICRO_CHROMITE
11E	50	1.92	47.19	22.61	13.11	0.00	0.05	12.34	0.00	0.27	0.0039	0.0089	97.50	3	0	0	PICRO_CHROMITE
11E	51	0.83	44.08	23.13	14.38	0.00	0.04	14.40	0.00	0.26	0.1153	0.0351	97.27	3	0	0	PICRO_CHROMITE
11E	52	52.53	0.58	36.83	6.45	0.00	0.04	0.21	0.00	0.53	0.0032	0.0120	97.19	3	0	0	PICRO_ILMENITE
12E	53	0.49	46.79	16.47	15.26	0.00	0.13	17.73	0.00	0.21	0.2234	0.0388	97.34	3	0	0	PICRO_CHROMITE
12E	54	0.51	44.58	18.35	12.96	0.00	0.02	21.40	0.00	0.30	0.0911	0.1154	98.33	3	0	0	PICRO_CHROMITE
13E	55	0.54	47.60	20.55	12.67	0.00	0.01	16.26	0.00	0.30	0.1597	0.0818	98.17	3	0	0	PICRO_CHROMITE
13E	56	0.32	40.68	15.24	14.32	0.00	0.03	26.53	0.00	0.20	0.1178	0.1434	97.58	3	0	0	PICRO_CHROMITE
13E	57	0.25	45.08	18.35	12.76	0.00	0.08	20.96	0.00	0.24	0.0891	0.1456	97.95	3	0	0	PICRO_CHROMITE
13E	58	0.38	49.67	16.06	13.07	0.00	0.02	17.71	0.00	0.27	0.0777	0.0701	97.33	3	0	0	PICRO_CHROMITE
15E	59	0.22	41.56	17.09	13.42	0.00	0.01	24.66	0.00	0.27	0.1012	0.1801	97.51	3	0	0	PICRO_CHROMITE
17E	60	0.97	35.54	24.85	9.29	0.00	0.01	25.96	0.00	0.36	0.0866	0.2975	97.36	2	0	0	SUB_PICRO_CHROMITE
17E	61	1.10	36.30	25.06	9.18	0.00	0.03	25.85	0.00	0.36	0.0000	0.0108	97.89	2	0	0	SUB_PICRO_CHROMITE
17E	62	0.03	48.57	19.16	10.11	0.00	0.03	15.75	0.00	0.30	0.0370	0.1934	94.18	0	0	0	UNKNOWN
17E	63	51.76	0.12	39.77	4.69	0.00	0.02	0.21	0.00	0.48	0.0108	0.0446	97.11	2	0	0	SUB_PICRO_ILMENITE
17E	64	0.91	49.47	25.73	10.65	0.00	0.05	10.78	0.00	0.49	0.0605	0.1063	98.25	3	0	0	PICRO_CHROMITE
17E	65	0.71	46.92	27.74	13.39	0.00	0.04	7.25	0.00	0.35	0.0007	0.0090	96.41	3	0	0	PICRO_CHROMITE
19E	66	0.35	49.91	17.40	11.87	0.00	0.03	18.57	0.00	0.33	0.0325	0.1272	98.62	3	0	0	PICRO_CHROMITE
19E	67	0.35	48.71	17.83	11.98	0.00	0.03	18.38	0.00	0.29	0.0589	0.1902	97.82	3	0	0	PICRO_CHROMITE
21E	68	0.35	49.01	18.53	12.95	0.00	0.02	16.20	0.00	0.27	0.1164	0.0918	97.54	3	0	0	PICRO_CHROMITE
21E	69	0.46	51.21	20.65	11.61	0.00	0.04	13.46	0.00	0.30	0.0650	0.1046	97.90	3	0	0	PICRO_CHROMITE
21E	70	0.89	40.11	29.04	14.29	0.00	0.08	11.07	0.00	0.26	0.1939	0.0143	95.95	3	0	0	PICRO_CHROMITE
22E	71	0.24	50.27	19.60	11.05	0.00	0.04	15.85	0.00	0.29	0.0518	0.1648	97.56	3	0	0	PICRO_CHROMITE
22E	72	46.41	0.11	44.64	4.79	0.00	0.03	0.38	0.00	0.34	0.0000	0.0290	96.73	2	0	0	SUB_PICRO_ILMENITE
23E	73	0.22	40.90	17.07	13.17	0.00	0.02	25.63	0.00	0.23	0.0772	0.1533	97.47	3	0	0	PICRO_CHROMITE
23E	74	1.85	33.57	26.28	13.11	0.00	0.07	22.53	0.00	0.20	0.2347	0.0783	97.92	0	0	0	UNKNOWN

TABLE II.A (CONTINUED)

UNIVERSITY OF SASKATCHEWAN MICROPROBE ANALYSES AND MIN-ID.ASC CLASSIFICATIONS - OXIDE MINERAL GRAINS

Sample# *	Grain # **	TiO2	Cr2O3	FeO	MgO	CaO	SiO2	Al2O3	Na2O	MnO	NiO	ZnO	Total	Grp***	2nd	Flow	Mineral Name
23E	75	1.50	42.34	21.39	13.93	0.00	0.09	17.03	0.00	0.21	0.2028	0.0515	96.74	3	0	0	PICRO_CHROMITE
23E	76	0.28	47.96	21.11	10.57	0.00	0.03	17.37	0.00	0.34	0.0373	0.2030	97.90	3	0	0	PICRO_CHROMITE
23E	77	0.35	45.19	19.71	12.43	0.00	0.03	19.25	0.00	0.33	0.0955	0.1446	97.53	3	0	0	PICRO_CHROMITE
23E	78	1.69	40.67	27.26	10.72	0.00	0.01	16.30	0.00	0.33	0.1142	0.1561	97.25	3	0	0	PICRO_CHROMITE
23E	79	0.25	54.67	24.02	7.74	0.00	0.04	9.65	0.00	0.40	0.0253	0.2974	97.09	2	0	0	SUB_PICRO_CHROMITE
23E	80	0.33	51.67	15.98	12.81	0.00	0.02	17.28	0.00	0.29	0.0575	0.1171	98.55	3	0	0	PICRO_CHROMITE
24E	81	0.41	44.59	15.17	14.34	0.00	0.01	21.78	0.00	0.25	0.1119	0.0502	96.71	3	0	0	PICRO_CHROMITE
24E	82	0.79	44.12	23.50	14.36	0.00	0.06	13.74	0.00	0.25	0.1107	0.0496	96.98	3	0	0	PICRO_CHROMITE
24E	83	0.27	47.19	19.85	12.00	0.00	0.03	17.28	0.00	0.26	0.0962	0.1554	97.13	3	0	0	PICRO_CHROMITE
25E	84	1.31	31.86	33.87	15.12	0.00	0.13	13.74	0.00	0.23	0.2246	0.0232	96.51	0	0	0	UNKNOWN
25E	85	0.27	41.39	21.68	10.70	0.00	0.17	22.94	0.00	0.32	0.0728	0.3667	97.91	3	0	0	PICRO_CHROMITE
27E	86	0.37	46.25	32.34	7.42	0.00	0.03	10.23	0.00	0.38	0.0000	0.0138	97.03	2	0	0	SUB_PICRO_CHROMITE
28E	87	0.32	37.73	17.42	13.91	0.00	0.01	27.67	0.00	0.26	0.1043	0.1833	97.61	2	0	0	SUB_PICRO_CHROMITE
28E	88	0.23	40.15	17.78	13.24	0.00	0.01	25.14	0.00	0.25	0.1144	0.1690	97.08	3	0	0	PICRO_CHROMITE
28E	89	0.49	42.62	18.78	12.92	0.00	0.03	22.54	0.00	0.26	0.0977	0.0970	97.83	3	0	0	PICRO_CHROMITE
28E	90	0.45	42.84	20.37	11.51	0.00	0.02	21.55	0.00	0.28	0.0798	0.1903	97.29	3	0	0	PICRO_CHROMITE
28E	91	0.26	50.02	20.14	10.46	0.00	0.02	16.07	0.00	0.28	0.0557	0.1367	97.44	3	0	0	PICRO_CHROMITE
28E	92	1.17	41.56	18.39	14.88	0.00	0.07	20.72	0.00	0.21	0.0069	0.0000	97.01	3	0	0	PICRO_CHROMITE
28E	93	0.37	62.17	16.94	11.69	0.00	0.04	7.06	0.00	0.38	0.0463	0.1513	98.85	0	0	0	UNKNOWN

* Note that the prefix "3MFK00" has been omitted from each sample identifier in this table.

Code for Sample Numbers: E = oxide minerals hand picked by Saskatchewan Research Council personnel

** Note that the oxide grains were analyzed consecutively starting from 1, regardless of sample number.

*** The column headings Grp, 2nd and Flow refer to the different stages of classification within the MIN-ID.ASC program.

The numbers in the Grp, 2nd and Flow columns correspond to the oxide class a grain is assigned to at each stage (e.g. 3 = picro chromite).

TABLE II.B (CONTINUED)

UNIVERSITY OF SASKATCHEWAN MICROPROBE ANALYSES AND MIN-ID.ASC CLASSIFICATIONS - PICKED "GARNET" MINERAL GRAINS

Sample# *	Grain# **	%TiO ₂	%Cr ₂ O ₃	%FeO	%MgO	%CaO	%SiO ₂	%Al ₂ O ₃	%Na ₂ O	%MnO	TOTAL	Grp***	2nd	Flow	Mineral Name	Comments****
24B	66	0.07	0.00	0.09	0.03	0.07	37.52	0.00	0.01	0.08	37.87	0	0	0	ZIRCON	
24B	67	0.48	0.00	13.57	2.12	0.00	27.92	53.11	0.00	0.00	97.20	0	0	0	STAURITE	
24B	68	0.57	0.00	13.75	2.04	0.00	26.89	53.21	0.00	0.01	96.47	0	0	0	STAURITE	
24B	69	0.48	0.00	13.73	2.04	0.00	28.13	53.23	0.00	0.00	97.61	0	0	0	STAURITE	
25B	70	0.48	0.00	13.83	2.06	0.00	28.28	52.96	0.00	0.13	97.74	0	0	0	STAURITE	
25B	71	0.50	0.00	12.83	2.19	0.00	27.90	53.00	0.00	0.08	96.50	0	0	0	STAURITE	
25B	72	0.57	0.01	14.32	1.94	0.01	27.11	52.00	0.00	0.23	96.19	0	0	0	STAURITE	
26B	73	0.00	0.00	33.54	3.40	4.80	37.48	20.78	0.00	0.81	100.81	5	0	5	ALMANDINE	
26B	74	0.43	0.00	13.07	2.22	0.00	28.24	53.57	0.00	0.00	97.53	0	0	0	STAURITE	
26B	75	0.57	0.00	13.41	1.86	0.00	27.68	53.17	0.00	0.08	96.77	0	0	0	STAURITE	
26B	76	0.58	0.00	13.08	1.99	0.00	27.94	52.68	0.01	0.09	96.37	0	0	0	STAURITE	
26B	77	0.55	0.00	12.96	1.97	0.00	27.75	53.38	0.01	0.03	96.65	0	0	0	STAURITE	
26B	78	0.57	0.00	13.30	2.02	0.00	27.79	53.28	0.00	0.04	97.00	0	0	0	STAURITE	
27B	79	0.32	0.13	0.24	0.02	1.05	1.63	0.00	0.03	0.21	3.63	0	0	0	UNKNOWN	
27B	80	0.43	0.00	14.19	2.11	0.00	27.88	52.00	0.00	0.12	96.73	0	0	0	STAURITE	
27B	81	0.05	0.03	0.08	0.03	0.10	37.91	0.00	0.01	0.06	38.27	0	0	0	ZIRCON	
27B	82	0.38	0.00	13.43	2.40	0.00	28.73	53.28	0.00	0.00	98.22	0	0	0	STAURITE	
27B	83	0.62	0.00	13.17	2.04	0.00	27.49	53.02	0.00	0.05	96.39	0	0	0	STAURITE	
27B	84	0.00	0.00	0.18	0.00	0.00	98.97	0.28	0.04	0.00	99.47	0	0	0	QUARTZ	
28B	85	0.50	0.00	13.05	1.94	0.00	28.69	54.19	0.00	0.00	98.37	0	0	0	STAURITE	
28B	86	0.08	0.03	0.10	0.03	0.07	37.16	0.00	0.00	0.04	37.51	0	0	0	ZIRCON	
28B	87	0.07	0.06	0.08	0.05	0.10	37.65	0.00	0.03	0.03	38.07	0	0	0	ZIRCON	
28B	88	0.08	0.00	0.09	0.03	0.07	37.42	0.00	0.00	0.04	37.73	0	0	0	ZIRCON	
28B	89	0.50	0.00	13.55	2.37	0.00	28.05	52.53	0.00	0.00	97.00	0	0	0	STAURITE	
28B	90	0.45	0.00	0.00	2.30	0.00	28.15	51.75	0.00	0.00	82.65	0	0	0	STAURITE	
28B	91	0.57	0.00	0.00	1.64	0.00	28.22	53.04	0.00	0.00	83.47	0	0	0	STAURITE	
28B	92	0.38	0.00	13.62	2.32	0.00	28.07	52.40	0.00	0.00	96.79	0	0	0	STAURITE	
29B	93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	UNKNOWN	
29B	94	0.43	0.00	13.30	1.92	0.01	27.70	53.40	0.00	0.00	96.76	0	0	0	STAURITE	
29B	95	0.48	0.00	12.99	1.92	0.00	28.11	53.91	0.00	0.05	97.46	0	0	0	STAURITE	
30B	96	0.00	0.00	34.20	3.17	1.67	36.65	20.90	0.00	3.19	99.78	5	0	5	ALMANDINE	
30B	97	0.60	0.00	13.48	2.44	0.00	27.47	53.21	0.00	0.00	97.20	0	0	0	STAURITE	
30B	98	0.00	0.00	36.69	1.56	4.25	36.63	20.50	0.00	0.57	100.20	5	0	5	ALMANDINE	
30B	99	0.00	0.00	26.78	9.45	2.46	37.80	22.33	0.00	0.63	99.45	5	3	5	G.05_MAGNESIAN ALMANDINE > ONE S.D.	
30B	100	0.53	0.00	13.32	2.22	0.00	27.62	52.58	0.00	0.00	96.27	0	0	0	STAURITE	
30B	101	0.57	0.00	12.84	2.09	0.00	28.00	53.21	0.00	0.04	96.75	0	0	0	STAURITE	
30B	102	0.45	0.00	13.17	2.12	0.00	28.39	53.83	0.00	0.06	98.02	0	0	0	STAURITE	
30B	103	0.50	0.00	13.10	2.07	0.00	27.41	53.57	0.00	0.03	96.68	0	0	0	STAURITE	
30B	104	0.50	0.00	13.71	2.06	0.00	28.24	53.30	0.00	0.00	97.81	0	0	0	STAURITE	

* Note that the prefix "3MFK00" has been omitted from each sample identifier in this table.

Codes for Sample Numbers: A = "garnets" hand picked by Saskatchewan Research Council personnel; B = "garnets" hand picked by RAOCN personnel

** Note that the "garnet" grains were analyzed in three lots, consisting of 83, 93 and 104 grains. Grains analyzed within each lot are numbered consecutively starting from 1, regardless of sample number.

*** The column headings Grp, 2nd and Flow refer to the different stages of classification within the MIN-ID.ASC program.

The numbers in the Grp, 2nd and Flow columns correspond to the garnet class a grain is assigned to at each stage (e.g. 5 = G5 garnet).

**** The comment "ERR? N.CLASS" indicates that a grain has been assigned to different classes in the Grp and Flow stages of the program.

TABLE III

CLASSIFICATION AND MAJOR ELEMENT COMPOSITION OF EDSON BLOCK CHROMITE MINERAL GRAINS

Sample# *	Grain #	TiO2	Cr2O3	FeO	MgO	CaO	SiO2	Al2O3	Na2O	MnO	NiO	ZnO	Total	ppm Ni	ppm Zn	Mineral Name
1E	1	0.25	38.90	22.94	8.48	0.00	0.02	24.76	0.00	0.65	0.1297	1.4600	97.59	1019	11700	SUB_PICRO_CHROMITE
1E	2	0.67	45.99	26.13	13.96	0.00	0.05	9.88	0.00	0.31	0.1050	0.0340	97.13	825	273	PICRO_CHROMITE
1E	3	0.24	40.41	19.72	11.85	0.00	0.02	25.36	0.00	0.31	0.0768	0.2735	98.26	604	2197	PICRO_CHROMITE
1E	4	0.40	45.85	22.01	9.84	0.00	0.00	19.85	0.00	0.41	0.0722	0.1879	98.62	568	1509	PICRO_CHROMITE
1E	5	0.43	43.54	18.37	13.52	0.00	0.02	21.97	0.00	0.32	0.0930	0.1080	98.37	731	867	PICRO_CHROMITE
1E	6	0.22	39.48	15.74	14.55	0.00	0.00	28.07	0.00	0.22	0.1287	0.1139	98.52	1011	915	SUB_PICRO_CHROMITE
1E	7	0.37	47.32	15.06	16.47	0.00	0.09	18.99	0.00	0.21	0.1871	0.0335	98.73	1470	269	PICRO_CHROMITE
1E	8	0.44	34.58	19.48	13.57	0.00	0.00	29.47	0.00	0.19	0.1823	0.1898	98.10	1432	1525	UNKNOWN
1E	9	1.78	34.86	22.96	15.04	0.00	0.07	22.64	0.00	0.25	0.2079	0.0590	97.87	1634	474	UNKNOWN
1E	10	0.26	47.86	19.69	11.44	0.00	0.02	18.21	0.00	0.30	0.0723	0.2442	98.10	568	1962	PICRO_CHROMITE
1E	11	0.30	47.88	13.91	15.39	0.00	0.00	19.98	0.00	0.24	0.0752	0.1089	97.88	591	875	PICRO_CHROMITE
1E	12	0.72	51.73	20.44	13.81	0.00	0.07	10.48	0.00	0.31	0.1155	0.0542	97.73	907	435	PICRO_CHROMITE
1E	13	2.45	38.62	22.65	15.45	0.00	0.06	18.73	0.00	0.24	0.1863	0.0000	98.39	1464	0	SUB_PICRO_CHROMITE
1E	14	0.25	37.38	14.78	15.61	0.00	0.00	29.80	0.00	0.23	0.1174	0.1351	98.30	923	1086	SUB_PICRO_CHROMITE
2E	15	0.30	47.53	23.16	10.00	0.00	0.01	15.88	0.00	0.39	0.0692	0.2671	97.61	544	2146	PICRO_CHROMITE
2E	16	0.28	35.45	16.26	16.00	0.00	0.00	29.86	0.00	0.20	0.1733	0.1367	98.36	1362	1098	SUB_PICRO_CHROMITE
2E	17	0.40	42.87	17.70	13.37	0.00	0.01	23.01	0.00	0.27	0.0880	0.0690	97.79	691	555	PICRO_CHROMITE
2E	18	0.31	52.78	24.26	8.86	0.00	0.02	11.25	0.00	0.40	0.0465	0.3103	98.24	365	2493	PICRO_CHROMITE
2E	19	0.39	51.32	24.55	9.23	0.00	0.02	11.20	0.00	0.42	0.0787	0.2468	97.46	618	1982	PICRO_CHROMITE
2E	20	1.42	45.96	19.19	15.10	0.00	0.07	15.88	0.00	0.23	0.2013	0.0674	98.12	1582	542	PICRO_CHROMITE
2E	21	0.33	51.74	18.75	10.64	0.00	0.03	16.34	0.00	0.25	0.0374	0.1169	98.23	294	939	PICRO_CHROMITE
3E	22	0.24	43.63	19.12	12.93	0.00	0.01	21.98	0.00	0.27	0.0984	0.1471	98.43	773	1182	PICRO_CHROMITE
3E	23	0.32	50.10	22.33	8.08	0.00	0.03	14.70	0.00	0.43	0.0250	1.3700	97.39	196	11000	PICRO_CHROMITE
3E	24	0.45	25.38	19.29	14.91	0.00	0.00	38.13	0.00	0.21	0.1750	0.1643	98.71	1375	1320	UNKNOWN
3E	25	0.40	48.40	27.93	8.51	0.00	0.02	10.62	0.00	0.40	0.0694	0.2046	96.55	545	1643	PICRO_CHROMITE
3E	27	0.79	51.73	18.84	14.30	0.00	0.04	11.94	0.00	0.28	0.0000	0.0045	97.92	0	36	PICRO_CHROMITE
3E	28	0.36	56.50	19.53	12.24	0.00	0.04	8.58	0.00	0.34	0.0451	0.0688	97.70	354	552	PICRO_CHROMITE
3E	29	0.40	58.50	14.11	15.50	0.00	0.13	7.86	0.00	0.18	0.1796	0.0006	96.86	1412	5	UNKNOWN
5E	33	0.30	40.98	19.02	13.00	0.00	0.01	24.44	0.00	0.34	0.0000	0.0000	98.09	0	0	PICRO_CHROMITE
5E	34	0.27	50.45	16.21	12.55	0.00	0.03	17.94	0.00	0.37	0.0544	0.1858	98.06	427	1492	PICRO_CHROMITE
5E	35	0.24	44.26	20.57	11.45	0.00	0.00	21.33	0.00	0.33	0.0390	0.2277	98.45	306	1829	PICRO_CHROMITE
6E	36	1.38	41.64	20.83	14.58	0.00	0.09	19.19	0.00	0.21	0.2243	0.0718	98.22	1763	577	PICRO_CHROMITE
6E	37	0.70	41.46	30.00	13.52	0.00	0.08	10.64	0.00	0.43	0.1886	0.0625	97.08	1482	502	PICRO_CHROMITE
6E	38	0.68	56.37	8.90	21.66	0.00	0.05	7.61	0.00	0.44	0.0672	0.0768	95.85	528	617	UNKNOWN
7E	39	0.58	47.85	23.90	15.08	0.00	0.08	8.45	0.00	0.27	0.1707	0.0495	96.43	1341	397	PICRO_CHROMITE

TABLE III (CONTINUED)

CLASSIFICATION AND MAJOR ELEMENT COMPOSITION OF EDSON BLOCK CHROMITE MINERAL GRAINS																
Sample# *	Grain #	TiO2	Cr2O3	FeO	MgO	CaO	SiO2	Al2O3	Na2O	MnO	NiO	ZnO	Total	ppm Ni	ppm Zn	Mineral Name
10E	40	0.28	48.17	13.08	14.10	0.00	0.00	21.91	0.00	0.27	0.0465	0.1494	98.01	365	1200	UNKNOWN
10E	41	0.24	44.46	17.01	13.10	0.00	0.02	21.73	0.00	0.22	0.1015	0.0922	96.97	797	741	PICRO_CHROMITE
10E	42	1.84	39.91	26.05	11.09	0.00	0.12	18.53	0.00	0.23	0.2044	0.0913	98.07	1606	733	SUB_PICRO_CHROMITE
10E	43	0.33	43.97	19.92	12.49	0.00	0.10	21.48	0.00	0.32	0.0722	0.1485	98.83	567	1193	PICRO_CHROMITE
10E	44	0.26	47.99	21.08	10.78	0.00	0.02	16.85	0.00	0.38	0.0706	0.1568	97.59	555	1260	PICRO_CHROMITE
10E	45	0.42	44.51	19.49	12.95	0.00	0.02	20.56	0.00	0.30	0.0773	0.0575	98.38	608	462	PICRO_CHROMITE
8E	46	0.41	53.57	25.88	9.24	0.00	0.03	7.06	0.00	0.51	0.0676	0.1772	96.94	531	1424	PICRO_CHROMITE
8E	47	0.40	54.66	18.05	13.89	0.00	0.14	10.53	0.00	0.32	0.1310	0.0488	98.17	1029	392	PICRO_CHROMITE
8E	48	0.45	53.81	26.90	5.48	0.00	0.03	6.75	0.00	0.49	0.1085	0.1849	94.20	853	1500	UNKNOWN
11E	49	0.48	42.96	19.51	12.47	0.00	0.02	21.21	0.00	0.32	0.1102	0.1318	97.21	866	1059	PICRO_CHROMITE
11E	50	1.92	47.19	22.61	13.11	0.00	0.05	12.34	0.00	0.27	0.0039	0.0089	97.50	31	71	PICRO_CHROMITE
11E	51	0.83	44.08	23.13	14.38	0.00	0.04	14.40	0.00	0.26	0.1153	0.0351	97.27	906	282	PICRO_CHROMITE
12E	53	0.49	46.79	16.47	15.26	0.00	0.13	17.73	0.00	0.21	0.2234	0.0388	97.34	1755	312	PICRO_CHROMITE
12E	54	0.51	44.58	18.35	12.96	0.00	0.02	21.40	0.00	0.30	0.0911	0.1154	98.33	716	927	PICRO_CHROMITE
13E	55	0.54	47.60	20.55	12.67	0.00	0.01	16.26	0.00	0.30	0.1597	0.0818	98.17	1255	657	PICRO_CHROMITE
13E	56	0.32	40.68	15.24	14.32	0.00	0.03	26.53	0.00	0.20	0.1178	0.1434	97.58	926	1152	PICRO_CHROMITE
13E	57	0.25	45.08	18.35	12.76	0.00	0.08	20.96	0.00	0.24	0.0891	0.1456	97.95	700	1170	PICRO_CHROMITE
13E	58	0.38	49.67	16.06	13.07	0.00	0.02	17.71	0.00	0.27	0.0777	0.0701	97.33	611	563	PICRO_CHROMITE
15E	59	0.22	41.56	17.09	13.42	0.00	0.01	24.66	0.00	0.27	0.1012	0.1801	97.51	795	1447	PICRO_CHROMITE
17E	60	0.97	35.54	24.85	9.29	0.00	0.01	25.96	0.00	0.36	0.0866	0.2975	97.36	681	2390	SUB_PICRO_CHROMITE
17E	61	1.10	36.30	25.06	9.18	0.00	0.03	25.85	0.00	0.36	0.0000	0.0108	97.89	0	87	SUB_PICRO_CHROMITE
17E	62	0.03	48.57	19.16	10.11	0.00	0.03	15.75	0.00	0.30	0.0370	0.1934	94.18	291	1554	UNKNOWN
17E	64	0.91	49.47	25.73	10.65	0.00	0.05	10.78	0.00	0.49	0.0605	0.1063	98.25	475	854	PICRO_CHROMITE
17E	65	0.71	46.92	27.74	13.39	0.00	0.04	7.25	0.00	0.35	0.0007	0.0090	96.41	5	72	PICRO_CHROMITE
19E	66	0.35	49.91	17.40	11.87	0.00	0.03	18.57	0.00	0.33	0.0325	0.1272	98.62	255	1022	PICRO_CHROMITE
19E	67	0.35	48.71	17.83	11.98	0.00	0.03	18.38	0.00	0.29	0.0589	0.1902	97.82	463	1528	PICRO_CHROMITE
21E	68	0.35	49.01	18.53	12.95	0.00	0.02	16.20	0.00	0.27	0.1164	0.0918	97.54	915	737	PICRO_CHROMITE
21E	69	0.46	51.21	20.65	11.61	0.00	0.04	13.46	0.00	0.30	0.0650	0.1046	97.90	511	840	PICRO_CHROMITE
21E	70	0.89	40.11	29.04	14.29	0.00	0.08	11.07	0.00	0.26	0.1939	0.0143	95.95	1524	115	PICRO_CHROMITE
22E	71	0.24	50.27	19.60	11.05	0.00	0.04	15.85	0.00	0.29	0.0518	0.1648	97.56	407	1324	PICRO_CHROMITE
23E	73	0.22	40.90	17.07	13.17	0.00	0.02	25.63	0.00	0.23	0.0772	0.1533	97.47	607	1231	PICRO_CHROMITE
23E	74	1.85	33.57	26.28	13.11	0.00	0.07	22.53	0.00	0.20	0.2347	0.0783	97.92	1845	629	UNKNOWN
23E	75	1.50	42.34	21.39	13.93	0.00	0.09	17.03	0.00	0.21	0.2028	0.0515	96.74	1594	414	PICRO_CHROMITE
23E	76	0.28	47.96	21.11	10.57	0.00	0.03	17.37	0.00	0.34	0.0373	0.2030	97.90	293	1631	PICRO_CHROMITE
23E	77	0.35	45.19	19.71	12.43	0.00	0.03	19.25	0.00	0.33	0.0955	0.1446	97.53	750	1162	PICRO_CHROMITE

TABLE III (CONTINUED)

CLASSIFICATION AND MAJOR ELEMENT COMPOSITION OF EDSON BLOCK CHROMITE MINERAL GRAINS

Sample# *	Grain #	TiO2	Cr2O3	FeO	MgO	CaO	SiO2	Al2O3	Na2O	MnO	NiO	ZnO	Total	ppm Ni	ppm Zn	Mineral Name
23E	78	1.69	40.67	27.26	10.72	0.00	0.01	16.30	0.00	0.33	0.1142	0.1581	97.25	898	1254	PICRO_CHROMITE
23E	79	0.25	54.67	24.02	7.74	0.00	0.04	9.65	0.00	0.40	0.0253	0.2974	97.09	199	2390	SUB_PICRO_CHROMITE
23E	80	0.33	51.67	15.98	12.81	0.00	0.02	17.28	0.00	0.29	0.0575	0.1171	98.55	452	940	PICRO_CHROMITE
24E	81	0.41	44.59	15.17	14.34	0.00	0.01	21.78	0.00	0.25	0.1119	0.0502	96.71	879	403	PICRO_CHROMITE
24E	82	0.79	44.12	23.50	14.36	0.00	0.06	13.74	0.00	0.25	0.1107	0.0496	96.98	870	398	PICRO_CHROMITE
24E	83	0.27	47.19	19.85	12.00	0.00	0.03	17.28	0.00	0.26	0.0962	0.1554	97.13	756	1249	PICRO_CHROMITE
25E	84	1.31	31.86	33.87	15.12	0.00	0.13	13.74	0.00	0.23	0.2246	0.0232	96.51	1765	187	UNKNOWN
25E	85	0.27	41.39	21.68	10.70	0.00	0.17	22.94	0.00	0.32	0.0728	0.3667	97.91	572	2946	PICRO_CHROMITE
27E	86	0.37	46.25	32.34	7.42	0.00	0.03	10.23	0.00	0.38	0.0000	0.0138	97.03	0	111	SUB_PICRO_CHROMITE
28E	87	0.32	37.73	17.42	13.91	0.00	0.01	27.67	0.00	0.26	0.1043	0.1833	97.61	820	1473	SUB_PICRO_CHROMITE
28E	88	0.23	40.15	17.78	13.24	0.00	0.01	25.14	0.00	0.25	0.1144	0.1690	97.08	899	1358	PICRO_CHROMITE
28E	89	0.49	42.62	18.78	12.92	0.00	0.03	22.54	0.00	0.26	0.0977	0.0970	97.83	768	780	PICRO_CHROMITE
28E	90	0.45	42.84	20.37	11.51	0.00	0.02	21.55	0.00	0.28	0.0798	0.1903	97.29	627	1529	PICRO_CHROMITE
28E	91	0.26	50.02	20.14	10.46	0.00	0.02	16.07	0.00	0.28	0.0557	0.1367	97.44	437	1098	PICRO_CHROMITE
28E	92	1.17	41.56	18.39	14.88	0.00	0.07	20.72	0.00	0.21	0.0069	0.0000	97.01	54	0	PICRO_CHROMITE
28E	93	0.37	62.17	16.94	11.69	0.00	0.04	7.06	0.00	0.38	0.0463	0.1513	98.85	364	1215	UNKNOWN

* Note that the prefix "3MFK00" has been omitted from each sample identifier in this table.

Code for Sample Numbers: E = oxide minerals hand picked by Saskatchewan Research Council personnel

TABLE IV.A
CLASSIFICATION OF EDSON BLOCK GARNET MINERAL GRAINS

Sample Number*	Grain Number	GARCLASS.BAS		MINCLASS.BAS		MIN-ID.ASC		Comments
		Class	Name	Class	Name	Classification and Name		
1A	1	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
1A	2	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	UNKNOWN		
2A	8	G-6 Al	Pyrope-grossular-almandine	G-8 Al	Ferro-magnesian grossular	GROSSULAR		ERR? N CLASS.
2A	9	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	UNKNOWN		
2A	10	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	UNKNOWN		
2A	12	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	GROSSULAR		
3A	14	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE		
3A	15	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	UNKNOWN		
3A	18	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
3A	19	G-3	Calcic pyrope-almandine	G-3	Calcic pyrope-almandine	G_03_CALCIC_PYROPE_ALMANDINE >ONE_S.D.		
4A	24	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE		
5A	26	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	GROSSULAR		
5A	27	G-5 Al	Magnesian almandine	G-6 Al	Pyrope-grossular-almandine	UNKNOWN		
6A	32	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	UNKNOWN		
8A	34	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
8A	35	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
8A	37	failed screen: Fe		failed screen: Fe		ALMANDINE		
9A	39	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
9A	40	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
9A	41	G-3	Calcic pyrope-almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		ERR? N CLASS.
10A	42	G-3	Calcic pyrope-almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		ERR? N CLASS.
10A	43	G-3	Calcic pyrope-almandine	G-3	Calcic pyrope-almandine	G_03_CALCIC_PYROPE_ALMANDINE >ONE_S.D.		
13A	57	failed screen: Fe		failed screen: Fe		ALMANDINE		
13A	60	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
14A	62	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
14A	63	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
14A	64	G-3	Calcic pyrope-almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
14A	65	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
14A	66	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE		
15A	69	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
16A	72	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE		
18A	79	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE		
18A	80	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.		
19A	1	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE		
19A	2	G-6 Al	Pyrope-grossular-almandine	G-8 Al	Ferro-magnesian grossular	GROSSULAR		ERR? N CLASS.
19A	3	G-3	Calcic pyrope-almandine	G-6	Pyrope-grossular-almandine	G_06_PYROPE_GROSSULAR_ALMANDINE >ONE_S.D.		ERR? N CLASS.
20A	8	G-3	Calcic pyrope-almandine	G-3	Calcic pyrope-almandine	SPESSARTINE		
21A	9	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	GROSSULAR		ERR? N CLASS.

TABLE IV.A (CONTINUED)

CLASSIFICATION OF EDSON BLOCK GARNET MINERAL GRAINS

Sample Number*	Grain Number	GARCLASS.BAS		MINCLASS.BAS		MIN-ID.ASC	
		Class	Name	Class	Name	Classification and Name	Comments
21A	11	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
23A	19	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
23A	20	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
23A	21	G-3	Calcic pyrope-almandine	G-3	Calcic pyrope-almandine	G_03_CALCIC_PYROPE_ALMANDINE >ONE_S.D.	
25A	22	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
25A	23	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
25A	25	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
24A	27	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
24A	28	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
26A	33	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
27A	42	G-3	Calcic pyrope-almandine	G-3	Calcic pyrope-almandine	G_03_CALCIC_PYROPE_ALMANDINE >ONE_S.D.	
29A	46	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
1B	54	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
1B	55	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
1B	56	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
1B	57	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
1B	58	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
4B	63	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
4B	64	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
3B	66	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
5B	74	G-3	Calcic pyrope-almandine	G-3	Calcic pyrope-almandine	G_03_CALCIC_PYROPE_ALMANDINE	
6B	77	G-4	Titanian calcic magnesian almandine	G-3	Calcic pyrope-almandine	G_03_CALCIC_PYROPE_ALMANDINE >ONE_S.D.	ERR? N CLASS.
9B	85	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
12B	8	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
14B	18	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
14B	19	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
24B	65	failed screen: Fe		failed screen: Fe		ALMANDINE	
26B	73	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
30B	96	G-5	Magnesian almandine	G-5	Magnesian almandine	ALMANDINE	
30B	98	failed screen: Fe		failed screen: Fe		ALMANDINE	
30B	99	G-5	Magnesian almandine	G-5	Magnesian almandine	G_05_MAGNESIAN_ALMANDINE >ONE_S.D.	
1D	1	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.
1D	2	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.
1D	3	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.
2C	4	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.
3D	5	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.
3D	6	G-4	Titanian calcic magnesian almandine	G-2	High-titanium pyrope	G_02_HIGH_TITANIUM_PYROPE >ONE_S.D.	ERR? N CLASS.
3D	7	G-8	Ferro-magnesian grossular	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	
5D	9	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.

TABLE IV.A (CONTINUED)

CLASSIFICATION OF EDSON BLOCK GARNET MINERAL GRAINS

Sample Number*	Grain Number	GARCLASS.BAS		MINCLASS.BAS		MIN-ID.ASC		Comments
		Class	Name	Class	Name	Classification and Name		
5D	10	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
6C	12	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
7D	15	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
8D	19	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
8D	21	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
12C	24	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
12D	25	failed screen: total		failed screen: total		G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
13D	26	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
17D	27	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
17D	28	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
18D	29	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
20D	32	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
20D	33	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
20D	34	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
21D	35	failed screen: total		failed screen: total		G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
22D	36	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
23C	37	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
24D	38	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
25D	40	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
26D	41	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
28D	42	failed screen: total		failed screen: total		G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
28D	43	G-6	Pyrope-grossular-almandine	G-8	Ferro-magnesian grossular	G_08_FERRO_MAGNESIAN_GROSSULAR >ONE_S.D.	ERR? N CLASS.	
29D	46	G-6	Pyrope-grossular-almandine	G-6	Pyrope-grossular-almandine	G_06_PYROPE_GROSSULAR_ALMANDINE >ONE_S.D.		

* Note that the prefix "3MFK00" has been omitted from each sample identifier in this table.

Codes for Sample Numbers: A = "garnets" hand picked by Saskatchewan Research Council personnel; B = "garnets" hand picked by RAOCL personnel
 C = "diopsides" hand picked by Saskatchewan Research Council personnel; D = "diopsides" hand picked by RAOCL personnel

** The comment "ERR? N.CLASS" indicates that a grain has been assigned to different classes in different classification programs.

TABLE IV.B

MAJOR ELEMENT COMPOSITION OF EDSON BLOCK GARNET MINERAL GRAINS

REPORTED IN WEIGHT PER CENT OXIDES

Sample Number*	Grain Number	Raw Oxide Data (Weight %)									
		%TiO ₂	%Cr ₂ O ₃	%FeO	%MgO	%CaO	%SiO ₂	%Al ₂ O ₃	%Na ₂ O	%MnO	TOTAL
1A	1	0.05	0.01	26.44	0.75	12.80	38.70	20.90	0.00	1.16	100.81
1A	2	0.00	0.00	5.76	0.07	35.05	40.07	18.80	0.00	0.40	100.15
2A	8	0.23	0.00	11.87	0.08	34.11	36.43	12.94	0.00	0.76	96.42
2A	9	0.22	0.00	6.72	0.10	34.31	39.04	18.88	0.00	0.28	99.55
2A	10	0.12	0.00	9.12	0.17	34.00	39.49	15.44	0.00	0.59	98.93
2A	12	0.00	0.00	6.41	0.03	31.64	38.74	18.86	0.00	3.55	99.23
3A	14	0.00	0.00	33.15	1.82	5.96	38.51	20.60	0.00	0.46	100.50
3A	15	0.00	0.00	8.16	0.05	34.60	39.15	17.01	0.00	0.30	99.27
3A	18	0.03	0.00	30.37	1.09	8.28	37.65	20.71	0.00	2.10	100.23
3A	19	0.10	0.00	19.57	1.86	8.49	37.08	19.58	0.00	12.41	99.09
4A	24	0.00	0.00	33.68	1.24	7.01	37.52	20.41	0.00	0.31	100.17
5A	26	0.15	0.00	9.11	0.07	33.80	38.83	16.36	0.00	0.54	98.86
5A	27	0.00	0.00	26.80	0.03	32.59	35.68	0.93	0.00	0.43	96.46
6A	32	0.00	0.00	5.57	0.08	34.81	39.83	19.46	0.00	0.61	100.36
8A	34	0.00	0.00	25.06	11.28	0.62	40.56	21.73	0.00	1.32	100.57
8A	35	0.00	0.03	25.91	5.87	6.90	39.06	21.05	0.00	0.92	99.74
8A	37	0.00	0.00	38.16	2.74	0.90	37.78	21.07	0.00	0.84	101.49
9A	39	0.00	0.00	24.38	4.73	9.72	39.47	20.88	0.00	1.19	100.37
9A	40	0.00	0.00	25.46	4.54	8.83	37.99	21.43	0.00	1.28	99.53
9A	41	0.03	0.00	23.63	4.84	10.06	39.11	21.05	0.00	0.62	99.34
10A	42	0.00	0.00	23.22	6.57	8.70	39.64	21.45	0.00	0.65	100.23
10A	43	0.00	0.00	20.17	10.98	6.11	40.84	21.75	0.00	0.49	100.34
13A	57	0.00	0.00	35.56	1.29	4.98	37.55	20.33	0.00	1.64	101.35
13A	60	0.05	0.00	25.24	6.20	7.81	38.91	21.58	0.00	0.66	100.45
14A	62	0.00	0.00	30.46	2.62	7.79	37.74	20.37	0.00	0.77	99.75
14A	63	0.00	0.00	30.39	5.99	3.47	38.64	20.99	0.00	0.68	100.16
14A	64	0.00	0.00	23.84	8.22	6.04	39.94	21.69	0.00	0.85	100.58
14A	65	0.00	0.00	30.16	2.75	7.74	38.06	21.03	0.00	0.56	100.30
14A	66	0.00	0.00	33.63	2.30	4.97	37.82	20.35	0.00	1.21	100.28
15A	69	0.00	0.00	27.80	5.06	6.93	38.55	21.22	0.00	0.74	100.30
16A	72	0.00	0.00	30.57	2.35	7.86	38.49	20.94	0.00	0.43	100.64
18A	79	0.02	0.00	34.09	0.51	6.72	36.45	20.03	0.01	0.43	98.26
18A	80	0.00	0.00	29.25	2.95	7.88	37.29	20.78	0.00	0.57	98.72
19A	1	0.00	0.00	31.87	2.65	7.11	38.54	20.34	0.00	0.60	101.11
19A	2	0.80	0.00	11.11	0.11	33.83	37.79	12.93	0.00	1.53	98.15
19A	3	0.00	0.00	12.44	1.11	9.62	38.35	20.44	0.00	18.38	100.34

TABLE IV.B (CONTINUED)

MAJOR ELEMENT COMPOSITION OF EDSON BLOCK GARNET MINERAL GRAINS

REPORTED IN WEIGHT PER CENT OXIDES

Sample Number*	Grain Number	Raw Oxide Data (Weight %)									
		%TiO ₂	%Cr ₂ O ₃	%FeO	%MgO	%CaO	%SiO ₂	%Al ₂ O ₃	%Na ₂ O	%MnO	TOTAL
20A	8	0.08	0.00	18.88	0.98	1.14	36.40	19.27	0.02	21.74	98.73
21A	9	0.00	0.00	10.98	0.07	33.95	37.97	15.13	0.00	0.94	99.03
21A	11	0.00	0.00	34.22	1.81	4.30	37.93	20.36	0.00	2.12	100.74
23A	19	0.00	0.00	31.93	2.41	7.08	37.93	20.12	0.00	0.71	100.18
23A	20	0.00	0.00	30.96	1.86	8.09	38.62	20.36	0.00	0.94	100.83
23A	21	0.00	0.00	20.58	2.20	7.58	38.52	20.22	0.00	11.73	100.82
25A	22	0.00	0.00	30.99	2.66	7.40	38.70	20.53	0.00	0.75	101.03
25A	23	0.00	0.00	24.60	6.38	8.12	40.11	21.65	0.00	0.40	101.26
25A	25	0.00	0.00	30.19	1.57	8.34	36.68	19.98	0.00	2.96	99.70
24A	27	0.00	0.00	31.19	2.18	7.67	38.50	20.53	0.00	0.92	100.98
24A	28	0.00	0.00	33.54	1.43	4.33	37.19	19.99	0.00	0.76	100.67
26A	33	0.02	0.00	26.73	2.91	10.79	38.06	20.01	0.00	0.58	99.10
27A	42	0.08	0.00	22.12	4.67	12.12	39.34	21.14	0.00	0.52	99.99
29A	46	0.00	0.00	30.28	6.41	2.56	38.68	21.24	0.00	0.63	99.80
1B	54	0.00	0.00	34.68	1.59	4.31	38.17	21.16	0.00	1.37	101.30
1B	55	0.00	0.00	30.21	1.51	7.01	37.82	20.65	0.00	3.20	100.41
1B	56	0.00	0.00	31.46	1.38	7.85	38.53	20.98	0.00	1.19	101.40
1B	57	0.00	0.00	34.11	3.03	3.70	38.01	20.72	0.00	0.24	99.80
1B	58	0.04	0.00	27.32	0.91	8.18	37.21	20.58	0.00	5.62	99.85
4B	63	0.00	0.00	30.78	2.74	5.06	38.40	20.24	0.00	2.24	99.45
4B	64	0.00	0.00	32.28	2.78	4.96	38.16	20.67	0.00	2.23	101.08
3B	66	0.00	0.00	30.97	2.70	7.07	38.48	20.59	0.00	0.68	100.48
5B	74	0.24	0.00	16.91	10.79	8.83	40.45	21.37	0.00	0.77	99.35
6B	77	0.47	0.00	23.99	2.76	10.55	38.83	19.77	0.00	3.80	100.16
9B	85	0.00	0.00	30.34	2.36	7.24	38.05	20.28	0.00	1.38	99.65
12B	8	0.00	0.00	33.72	4.18	3.57	37.89	20.84	0.00	0.23	100.43
14B	18	0.00	0.00	33.99	5.24	1.33	37.29	21.35	0.00	0.48	99.68
14B	19	0.00	0.00	34.43	5.01	2.17	37.82	21.54	0.00	0.72	101.69
24B	65	0.00	0.00	38.03	1.66	3.83	37.08	20.48	0.00	0.27	101.35
26B	73	0.00	0.00	33.54	3.40	4.80	37.48	20.78	0.00	0.81	100.81
30B	96	0.00	0.00	34.20	3.17	1.67	36.65	20.90	0.00	3.19	99.78
30B	98	0.00	0.00	36.69	1.56	4.25	36.63	20.50	0.00	0.57	100.20
30B	99	0.00	0.00	26.78	9.45	2.46	37.80	22.33	0.00	0.63	99.45
1D	1	0.07	0.00	12.17	0.02	23.23	37.31	22.92	0.00	0.18	95.90
1D	2	0.00	0.00	12.52	0.05	23.17	37.18	22.92	0.00	0.50	96.34
1D	3	0.02	0.00	12.48	0.02	23.45	37.03	22.81	0.00	0.12	95.93

TABLE IV.B (CONTINUED)
MAJOR ELEMENT COMPOSITION OF EDSON BLOCK GARNET MINERAL GRAINS
REPORTED IN WEIGHT PER CENT OXIDES

Sample Number*	Grain Number	Raw Oxide Data (Weight %)									
		%TiO ₂	%Cr ₂ O ₃	%FeO	%MgO	%CaO	%SiO ₂	%Al ₂ O ₃	%Na ₂ O	%MnO	TOTAL
2C	4	0.00	0.00	11.72	0.02	22.44	39.39	21.52	0.00	0.08	95.17
3D	5	0.00	0.00	14.13	0.02	23.39	37.35	21.05	0.00	0.05	95.99
3D	6	3.19	0.00	12.70	0.00	23.60	36.37	20.07	0.00	0.18	96.11
3D	7	0.00	0.01	9.38	0.07	23.39	37.76	25.05	0.00	0.15	95.81
5D	9	0.00	0.00	12.71	0.02	23.59	37.10	22.67	0.00	0.06	96.15
5D	10	0.00	0.00	12.48	0.30	23.00	37.37	22.47	0.00	0.08	95.70
6C	12	0.00	0.00	11.51	0.03	23.41	37.31	23.60	0.00	0.31	96.17
7D	15	0.00	0.00	13.05	0.00	23.95	36.75	22.35	0.00	0.06	96.16
8D	19	0.00	0.00	14.23	0.02	23.00	37.20	21.14	0.00	0.08	95.67
8D	21	0.00	0.00	12.97	0.02	22.81	37.05	21.86	0.00	0.76	95.47
12C	24	0.03	0.00	13.70	0.03	23.18	36.82	21.79	0.00	0.30	95.85
12D	25	0.00	0.00	12.27	0.05	23.06	36.50	22.73	0.00	0.35	94.96
13D	26	0.02	0.00	12.57	0.02	23.56	37.27	22.83	0.00	0.18	96.45
17D	27	0.00	0.00	14.07	0.00	23.56	36.90	20.94	0.00	0.03	95.50
17D	28	0.00	0.00	12.17	0.03	23.30	37.46	22.79	0.00	0.31	96.06
18D	29	0.00	0.00	13.51	0.03	23.17	37.20	21.90	0.00	0.18	95.99
20D	32	0.02	0.00	11.33	0.03	23.34	37.37	23.41	0.00	0.37	95.87
20D	33	0.03	0.00	12.38	0.05	23.31	37.29	23.00	0.00	0.27	96.33
20D	34	0.05	0.00	11.96	0.08	23.76	37.37	22.62	0.00	0.00	95.84
21D	35	0.00	0.00	15.46	0.02	22.36	36.75	19.95	0.00	0.00	94.54
22D	36	0.00	0.00	11.82	0.05	23.53	37.33	22.86	0.00	0.25	95.84
23C	37	0.00	0.00	11.96	0.05	23.23	37.31	23.00	0.00	0.30	95.85
24D	38	0.00	0.00	12.52	0.02	23.42	36.37	22.47	0.00	0.32	95.12
25D	40	0.00	0.00	14.32	0.03	23.28	37.42	21.41	0.00	0.13	96.59
26D	41	0.02	0.00	12.57	0.03	23.27	36.95	21.94	0.00	0.27	95.05
28D	42	0.00	0.00	13.21	0.02	22.81	37.35	21.29	0.00	0.23	94.91
28D	43	0.00	0.00	11.24	0.02	23.32	37.87	23.94	0.00	0.27	96.66
29D	46	0.00	0.00	16.22	0.03	23.07	36.78	19.48	0.00	0.25	95.83

* Note that the prefix "3MFK00" has been omitted from each sample identifier in this table.

Codes for Sample Numbers: A = "garnets" hand picked by Saskatchewan Research Council personnel; B = "garnets" hand picked by RAOCU personnel
 C = "diopsides" hand picked by Saskatchewan Research Council personnel; D = "diopsides" hand picked by RAOCU personnel

TABLE V.A				
CLASSIFICATION OF EDSON BLOCK PYROXENE MINERAL GRAINS				
Sample Number*	Grain Number	MINCLASS.BAS		MIN-ID.ASC
		Class	Name	Mineral Name
6D	14	C-5	Chrome-diopside	CPX_05_UNKNOWN
8C	17	C-2	Diopside	CPX_02_UNKNOWN
8D	18	C-4	Low-Cr-diopside	CPX_04_UNKNOWN
8D	20	C-4	Low-Cr-diopside	CPX_04_UNKNOWN
9D	22	C-2	Diopside	CPX_02_UNKNOWN
10D	23	C-2	Diopside	CPX_02_UNKNOWN
19D	31	failed screen: Ca		CPX_02_UNKNOWN

TABLE V.B											
MAJOR ELEMENT COMPOSITION OF EDSON BLOCK PYROXENE MINERAL GRAINS											
REPORTED IN WEIGHT PER CENT OXIDES											
Sample Number*	Grain Number	Raw Oxide Data (Weight %)									
		%TiO ₂	%Cr ₂ O ₃	%FeO	%MgO	%CaO	%SiO ₂	%Al ₂ O ₃	%Na ₂ O	%MnO	TOTAL
6D	14	0.00	0.39	2.66	17.48	24.21	53.23	0.94	0.18	0.03	99.12
8C	17	0.00	0.00	6.24	14.72	22.79	53.08	1.21	0.54	0.15	98.73
8D	18	0.13	0.09	6.69	15.04	22.40	51.75	2.12	0.43	0.17	98.82
8D	20	0.00	0.00	8.43	13.63	22.72	52.39	1.02	0.84	0.45	99.48
9D	22	0.00	0.00	5.84	14.48	24.32	53.33	1.15	0.65	0.12	99.89
10D	23	0.08	0.00	5.67	15.04	24.49	51.73	1.44	0.42	0.03	98.90
19D	31	0.00	0.00	5.03	14.18	25.14	50.72	3.04	0.11	0.57	98.79

* Note that the prefix "3MFK00" has been omitted from each sample identifier in these tables.

Codes for Sample Numbers: C = "diopsides" hand picked by Saskatchewan Research Council personnel

D = "diopsides" hand picked by RAOCU personnel

TABLE VI

CLASSIFICATION AND MAJOR ELEMENT COMPOSITION OF EDSON BLOCK ILMENITE MINERAL GRAINS

Sample # *	Grain #	TiO ₂	Cr ₂ O ₃	FeO	MgO	CaO	SiO ₂	Al ₂ O ₃	Na ₂ O	MnO	NiO	ZnO	Total	Mineral Name
3E	30	52.07	0.57	31.79	12.67	0.00	0.04	0.58	0.00	0.25	0.0823	0.0214	98.07	PICRO_ILMENITE
11E	52	52.53	0.58	36.83	6.45	0.00	0.04	0.21	0.00	0.53	0.0032	0.0120	97.19	PICRO_ILMENITE
17E	63	51.76	0.12	39.77	4.69	0.00	0.02	0.21	0.00	0.48	0.0108	0.0446	97.11	SUB_PICRO_ILMENITE
22E	72	46.41	0.11	44.64	4.79	0.00	0.03	0.38	0.00	0.34	0.0000	0.0290	96.73	SUB_PICRO_ILMENITE

* Note that the prefix "3MFK00" has been omitted from each sample identifier in this table.

Code for Sample Numbers: E = oxide minerals hand picked by Saskatchewan Research Council personnel

TABLE VII
DIATREME SOURCE POTENTIAL OF EDSON BLOCK CHROMITE MINERAL GRAINS

Sample Number*	Grain Number	Ni vs. Zn			Ni vs. Cr			Ni vs. Mg			Ni vs. Ti			Ti vs. Al			Lamproite Matches	P-type Matches	DIF Matches	
		P1/P2**	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF				
1E 1	1							L			P1	P4	DIF		L	Near DIF	4	0	0	
1E 2	2		L	DIF	P1	L		P1	L	DIF	P1	P4	DIF		L		5	3	4	
1E 3	3							P1	L		P1	P4			L		4	2	0	
1E 4	4		L					P1	P4		P1	P4			L		5	1	0	
1E 5	5		L					P1	L		P1	P4			L		5	2	0	
1E 6	6		L					P1	L		P1	P4			L		5	0	0	
1E 7	7		P3					P3							L		4	1	0	
1E 8	8				P1	L		P1	P3		P1	L			L		4	3	0	
1E 9	9		L	Near DIF	P1	L		P1	L	DIF	P1	P4	DIF		P4		4	0	0	
1E 10	10		L	DIF	P1	P1		P1	L	DIF	P1	P4	DIF		P3		4	4	0	
1E 11	11		P3		P1	L		P1	L	DIF	P1	P1	DIF		L	Near DIF	5	3	3	
1E 12	12				P1	L		P1	L	DIF	P1	L	DIF		L		5	4	4	
1E 13	13							P1	L		P1	P4			L		3	0	0	
1E 14	14		L					P1	L		P1	P4			L		5	1	0	
2E 15	15		P1	L	DIF	P1	L		P1	L	DIF	P1	P4	DIF		P3		4	3	0
2E 16	16		P3			P3	L		P1	P4		P1	P4	DIF		L		5	1	0
2E 17	17				P1	L		P1	L		P1	P4			P1		5	3	3	
2E 18	18				P1	L		P1	L		P1	P4			L		3	1	0	
2E 19	19							P1	L		P1	P4			L		4	3	0	
2E 20	20		L					P1	L		P1	L			L		4	0	0	
2E 21	21							P1	L		P1	P3			P3		2	1	0	
3E 22	22		L			P1	L		P1	P4		P1	P4			L		5	2	0
3E 23	23							P1	L		P1	P4			P3		1	1	0	
3E 24	24		L			P1	L		P1	L		P1	P4			L		4	0	0
3E 25	25		L					P1	L		P1	P4			P1		5	3	0	
3E 27	27							P1	L		P1	L			P3		1	1	0	
3E 28	28		L					P1	L		P1	L			P1		4	1	1	
3E 29	29							P1	L		P1	L	DIF	DIF	L		3	1	1	
5E 33	33		L				L		P1	P4		P4			L		1	0	0	
5E 34	34						L		P1	P4					P3/P4		5	3	0	
5E 35	35						L					P3			P3		3	1	0	
6E 36	36		P1	L	Near DIF		L	Near DIF		L	P3		P1	L	Near DIF	P1	3	0	0	
6E 37	37						L		L	P3		P1	P3		L		5	2	0	
6E 38	38		P1	L	Near DIF		L	Near DIF		L	L	P1	L	Near DIF	P1	L	DIF	5	3	4
7E 39	39		P3	Near DIF					L	Near DIF		P3	DIF	P1	L	DIF	4	3	4	
10E 40	40		L				L		P1	P4	DIF	P1	P4	DIF		L		5	0	0
10E 41	41		P1	L	Near DIF		L		P1	P4	DIF	P1	P4	DIF		P3		5	4	3
10E 42	42								P1	P4		P1	P4			L		2	0	0
10E 43	43		L				P1		P1	P4		P1	P4		L		5	2	0	
10E 44	44		L				P1		L	P4		P1	P4		P3		5	3	0	
10E 45	45		P1	P3	DIF		P1		P1	P4	DIF	P1	P4	DIF	L		5	3	3	
8E 46	46		L				L			L	DIF	P1	L	DIF	P1	L	DIF	5	2	0
8E 47	47		P3	Near DIF			P1	L		L	DIF	P1	P4		P1	L	DIF	4	2	4
8E 48	48		L				P1	L		L	DIF	P1	P4		P1	L	DIF	4	3	0
11E 49	49						L		P1	L		P1	P4			L		5	2	0
11E 50	50						P1		P1	L		P1	P4		L		1	0	0	
11E 51	51		L	DIF	P1/P2	L		P1	L	DIF	P1	L	DIF		P3		5	3	3	
12E 53	53						L		P1	P4		P1	P4		P3		4	1	0	
12E 54	54		L				L		P1	P4		P1	P4		L		5	2	0	

TABLE VII (CONTINUED)
DIATREME SOURCE POTENTIAL OF EDSON BLOCK CHROMITE MINERAL GRAINS

Sample Number*	Grain Number	Ni vs. Zn			Ni vs. Cr			Ni vs. Mg			Ni vs. Ti			Ti vs. Al			Lamproite Matches	P-type Matches	DIF Matches	
		P1/P2	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF	P1/P2	L/P3/P4	DIF				
13E	55		L	Near DIF	P2	L		P3		L			P3			5	3	1		
13E	56		L		P1	L		L		P1	L		L			5	1	0		
13E	57		L		P1	L		P4		P1	P4		P3			5	3	0		
13E	58	P1	P3	DIF	P1	L		P1	P4	DIF	P1	P4	DIF	P3			5	5	3	
15E	59		L			L		P1	P4		P1	P4		L			5	2	0	
17E	60					P4			L		P1	L					3	2	0	
17E	61					P1	L		L			L					0	0	0	
17E	62		L											P3			3	1	0	
17E	64		L										P1	L		4	1	0		
17E	65													L			1	1	0	
19E	66													P3			1	1	0	
19E	67		L		P1	L		P1	L		P4			P3			5	4	0	
21E	68	P1	L	Near DIF	P1	L		P1	L	DIF	P1	L	DIF	P3			5	5	3	
21E	69				P1	L		P1	L	Near DIF	P1	L	Near DIF	P3/P4			5	4	3	
21E	70										P3			L			4	1	0	
22E	71		L			L			L		P4			P3			5	2	0	
23E	73		L			L		P1	P4		P1	P4		L			5	2	0	
23E	74													0			0	0	0	
23E	75		P3							P3				4			2	0	0	
23E	76		L			L		P1	P4	DIF	P1	P4	DIF	P3			3	1	0	
23E	77		L			L		P1	L		P1	P4	L	L			5	2	2	
23E	78		L			L								L			5	0	0	
23E	79													L			1	1	0	
23E	80		L		P1	L		P1	P4	Near DIF	P4		Near DIF	P1			5	4	2	
24E	81		P3		P1	L	DIF	P1	L		L		P1	P4			5	3	0	
24E	82		P3		P1	L		P1	L		L		P1	L	DIF		5	4	3	
24E	83	P1	L							P4	DIF	P1	P4	DIF	P3			5	4	2
25E	84					L			L		P1	P4		L			4	0	0	
25E	85					L			L		P1	P4		L			4	1	0	
27E	86													P1	L		1	1	0	
28E	87		L			Near DIF		L		P1	L		P1	P4			5	2	0	
28E	88							L		P1	L		P1	P4			5	2	0	
28E	89	P1	L					L		P1	P4	DIF	P1	P4	DIF		5	3	3	
28E	90		L					L		P1	L		P1	P4			5	2	0	
28E	91		L					L		P1	L		P1	P4			5	2	0	
28E	92													P3			1	0	0	
28E	93		L											P1	L	DIF	4	1	3	

* Code for Sample Numbers: E = oxide minerals hand picked by Saskatchewan Research Council personnel

Note that the prefix "3MFK00" has been omitted from each sample identifier in this table.

** Codes for indicator potential of grains:

P1 = grain chemistry falls within or immediately adjacent to P1 (kimberlite xenocryst) field on indicated chart

P2 = grain chemistry falls within or immediately adjacent to P2 (kimberlite phenocryst) field on indicated chart

P3 = grain chemistry falls within or immediately adjacent to P3 (lamproite phenocryst) field on indicated chart

P4 = grain chemistry falls within or immediately adjacent to P4 (lamproite xenocryst) field on indicated chart

DIF = grain chemistry falls within or very near to South African and Russian diamond inclusion fields on indicated chart

L = grain chemistry falls within or immediately adjacent to lamproite field on indicated chart

CHART 3-1

CHROMITE DATA: MAYMAC EDSON BLOCK SAMPLES

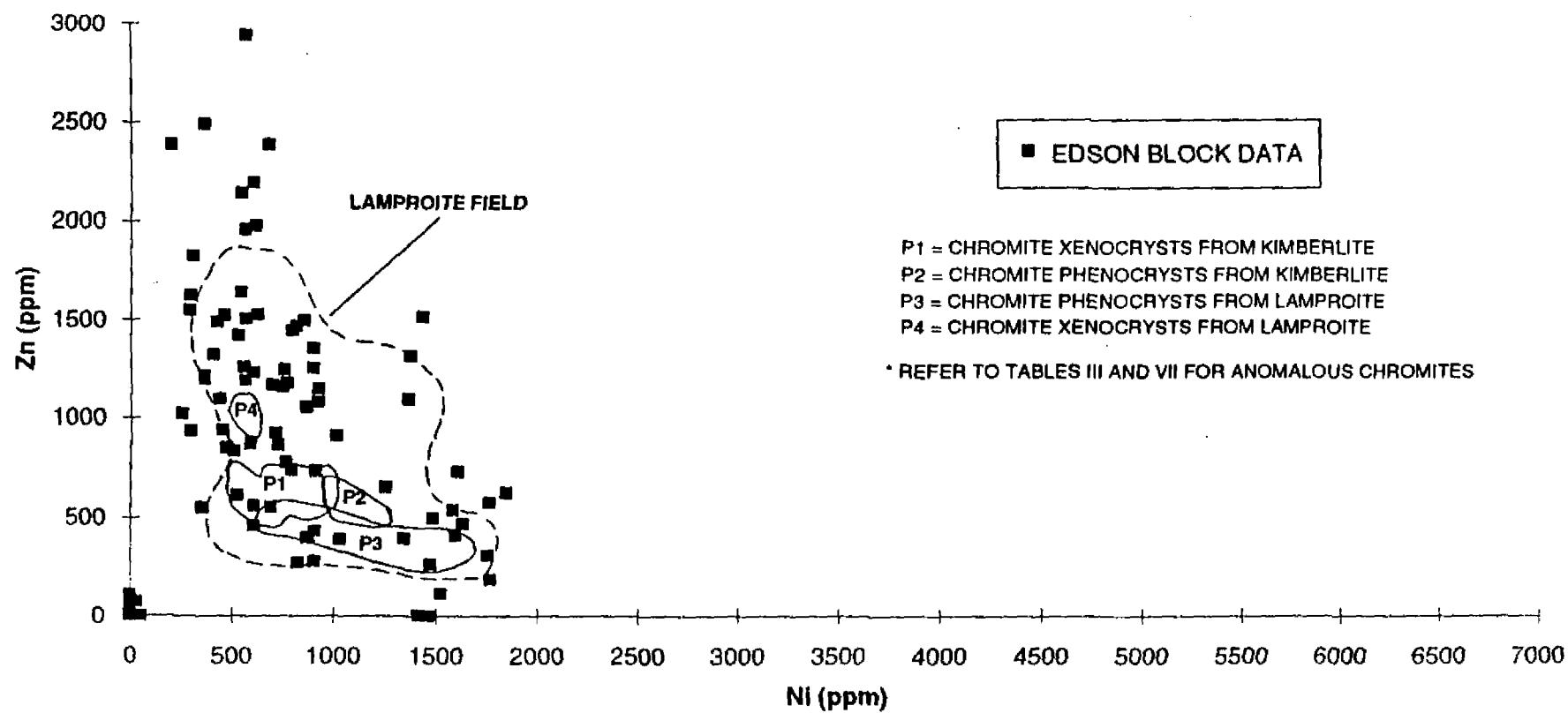


CHART 3-2

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

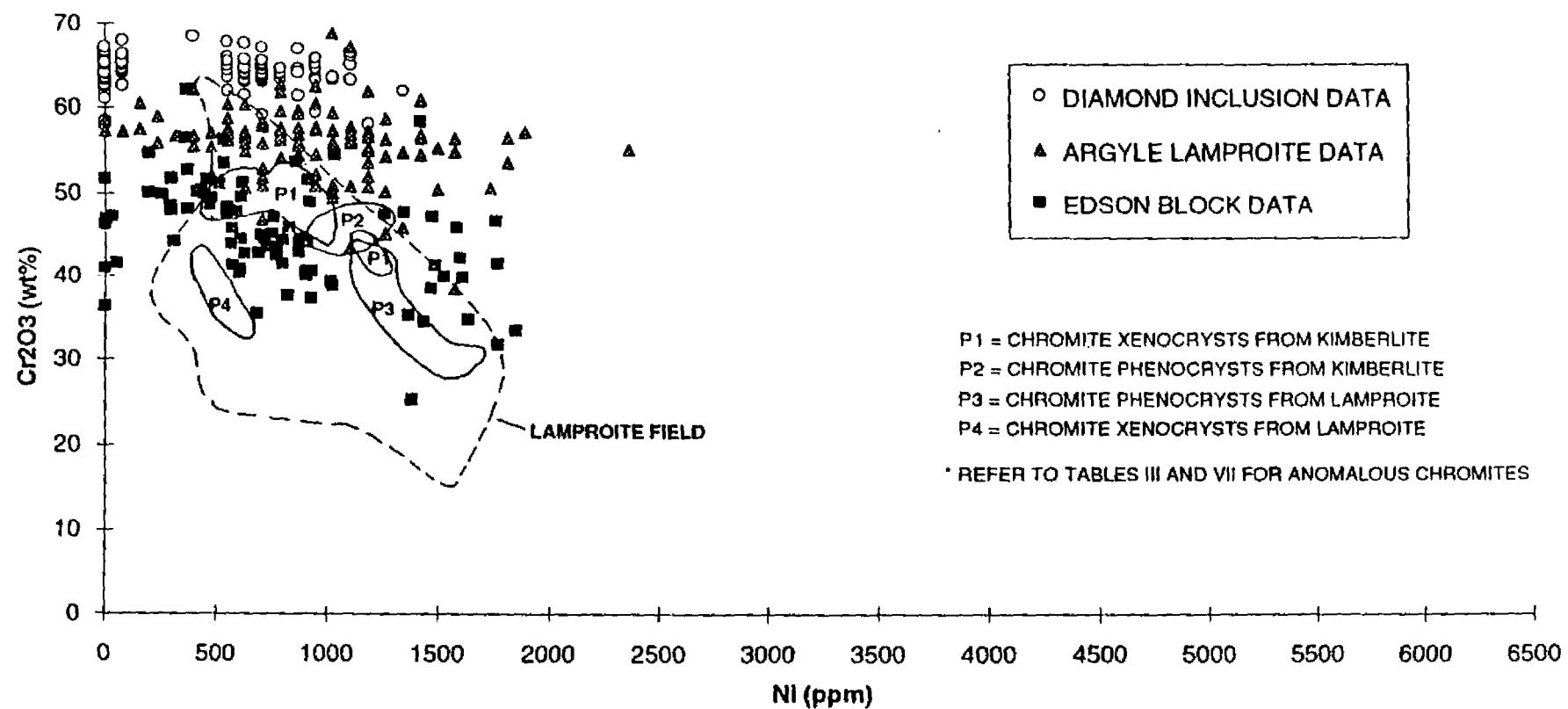


CHART 3-3

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

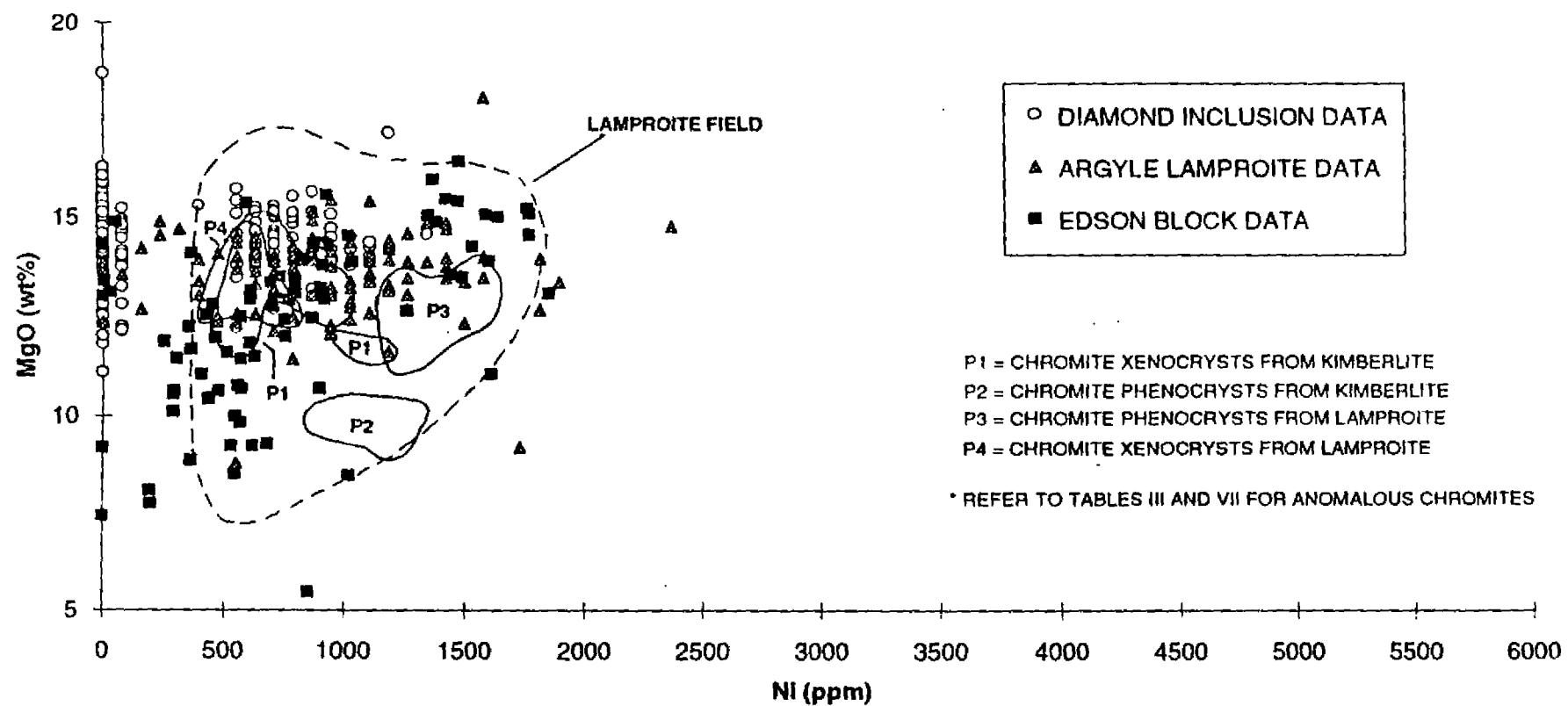


CHART 3-4

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

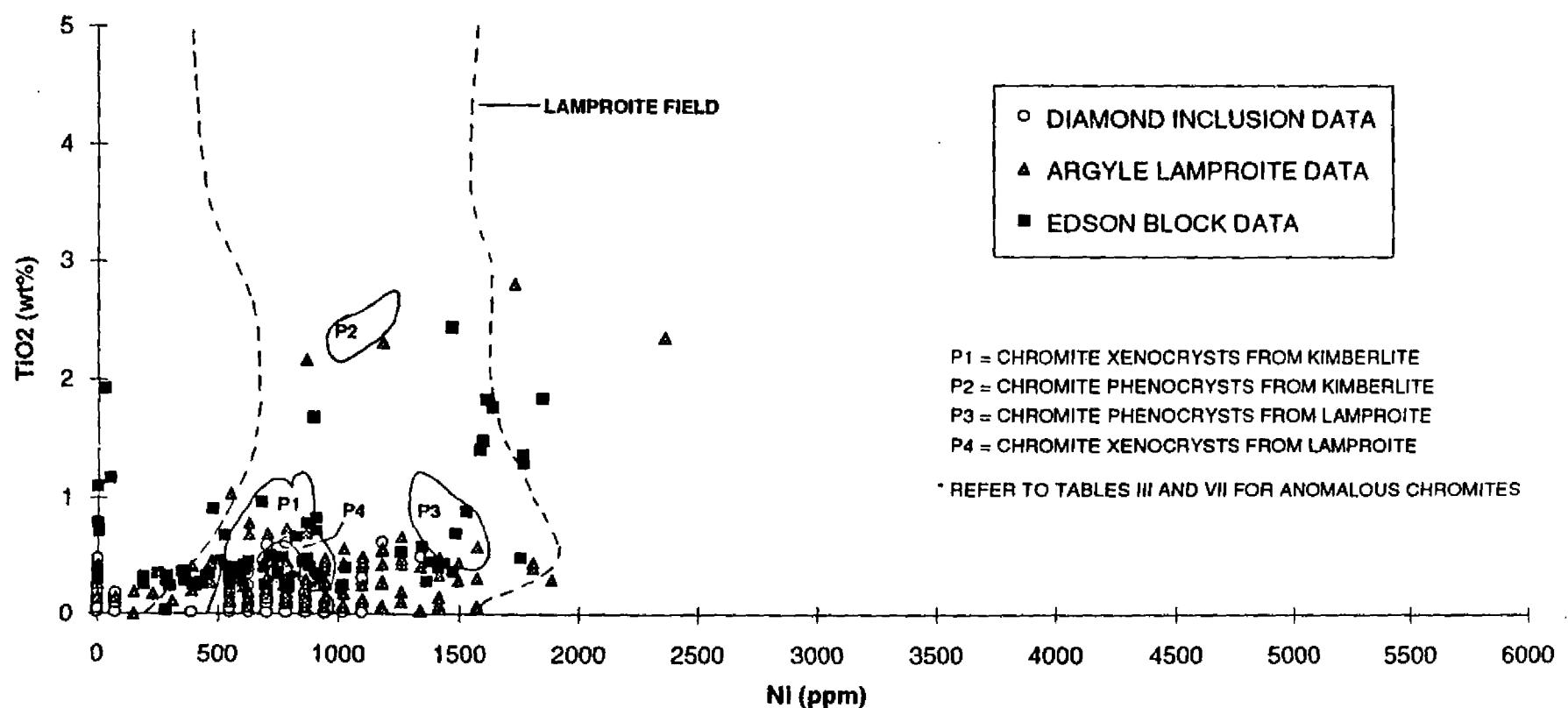


CHART 3-5

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

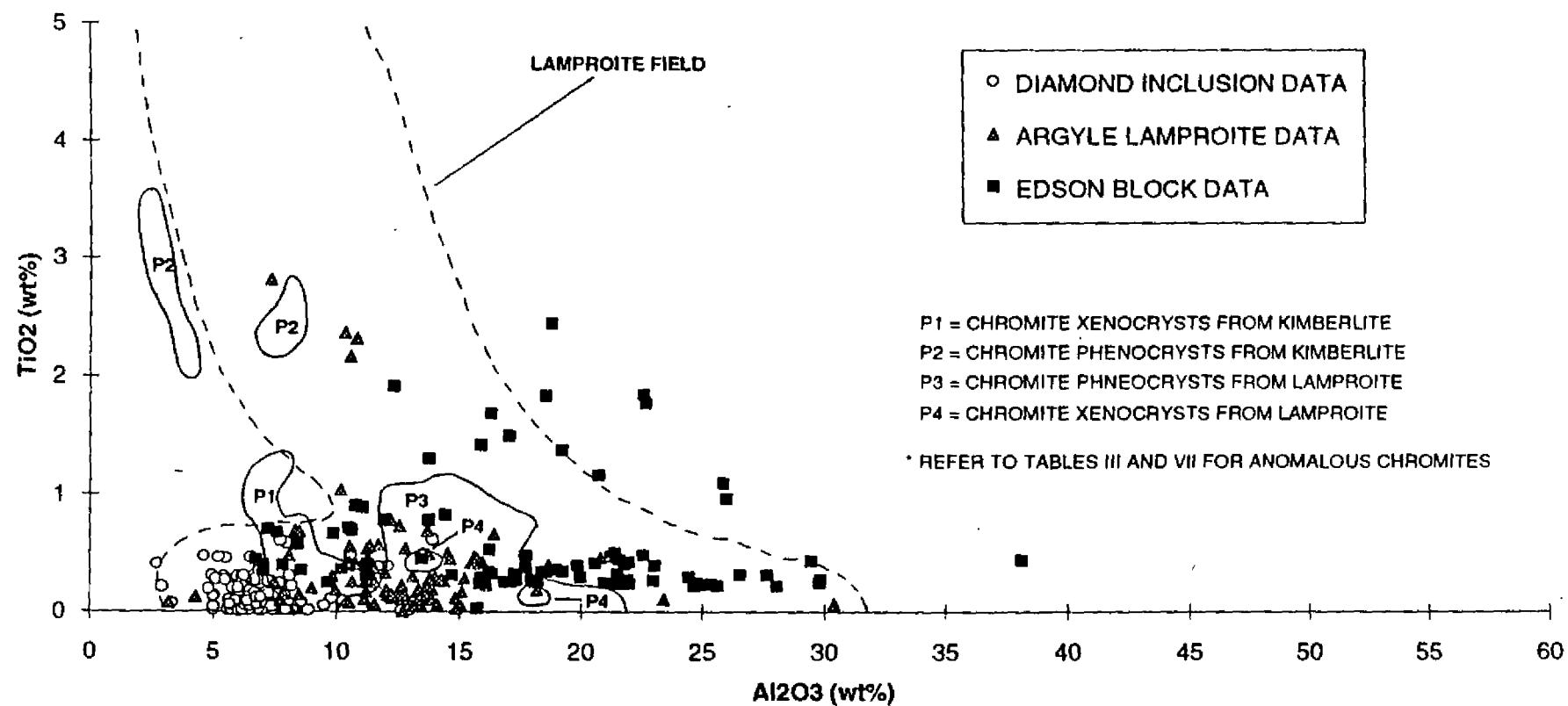


CHART 3-6
CHROMITE DATA: MAYMAC EDSON BLOCK SAMPLES

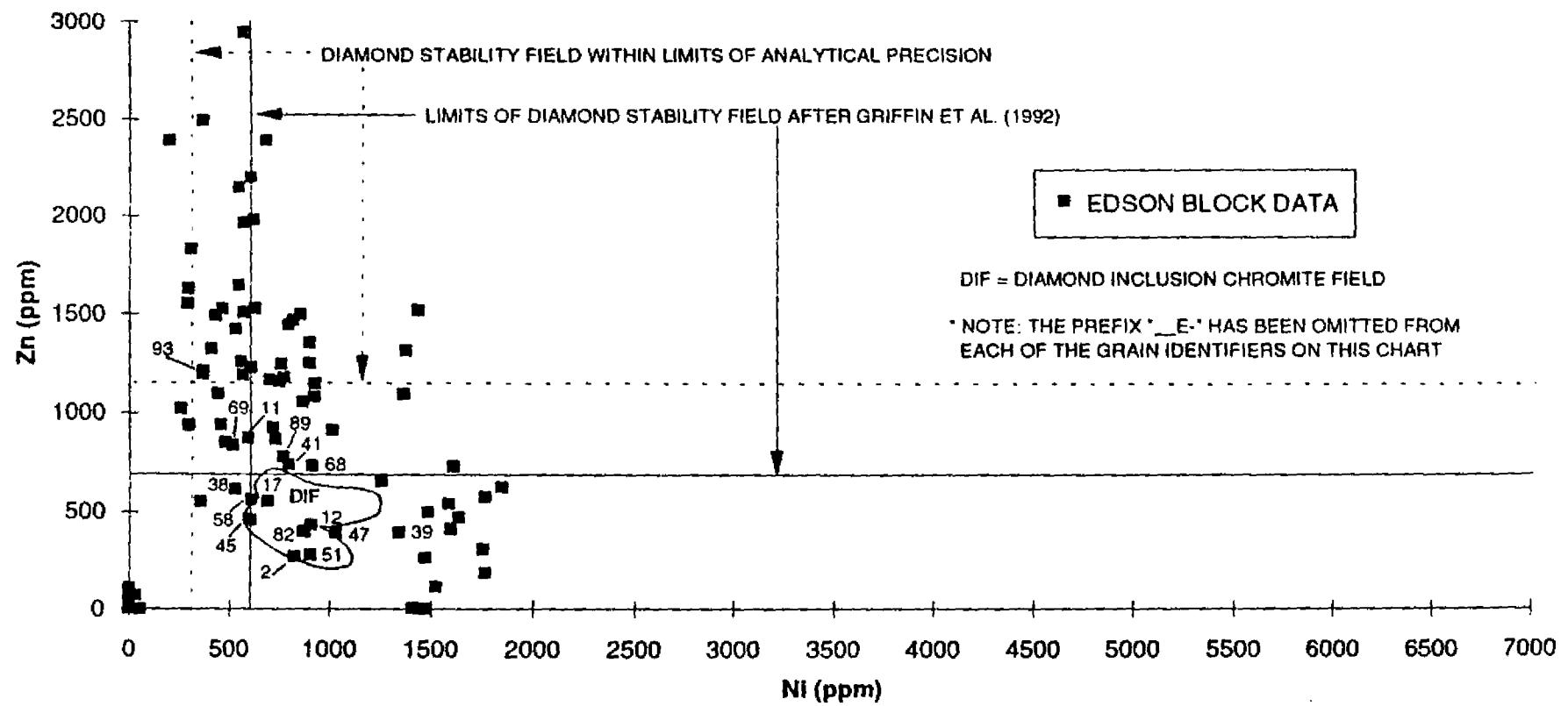


CHART 3-7

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

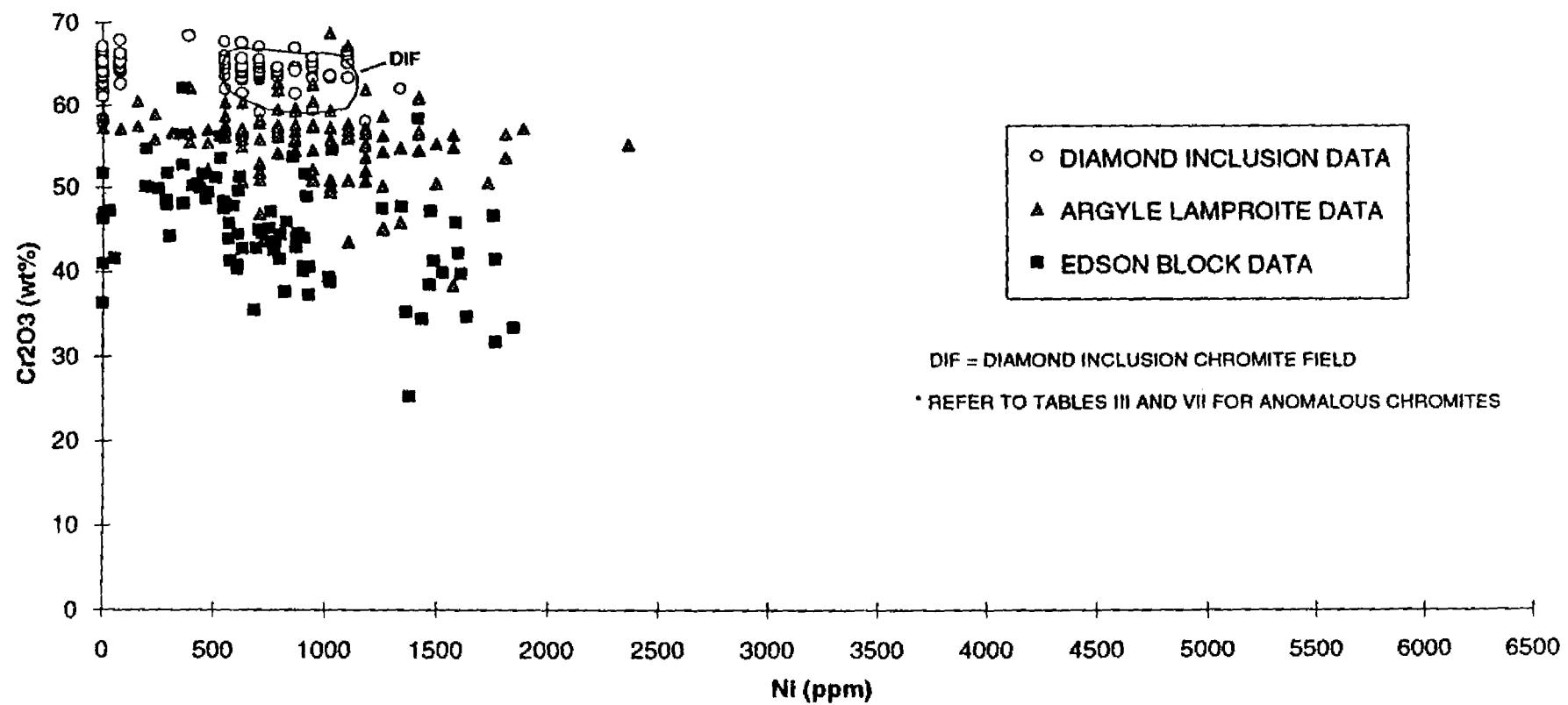


CHART 3-8

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

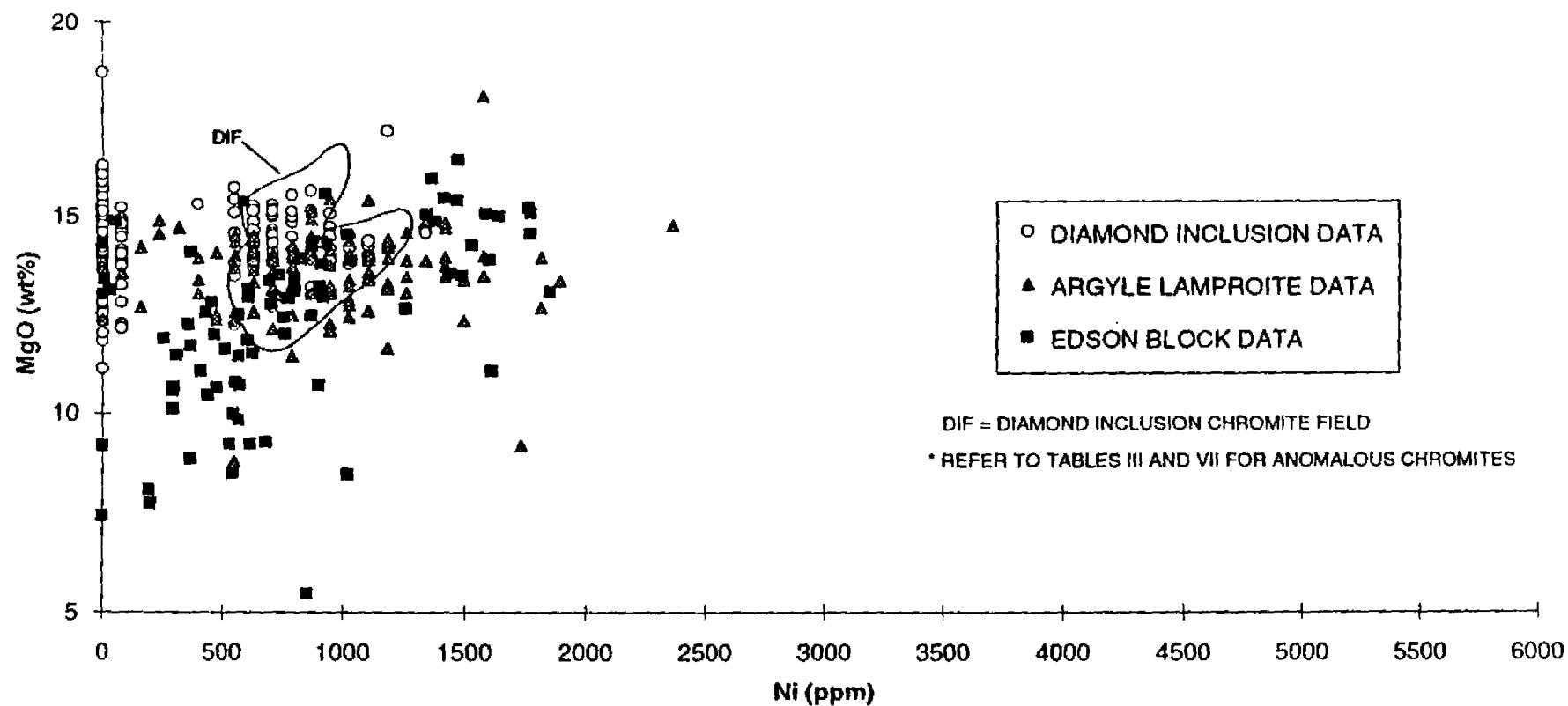


CHART 3-9

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

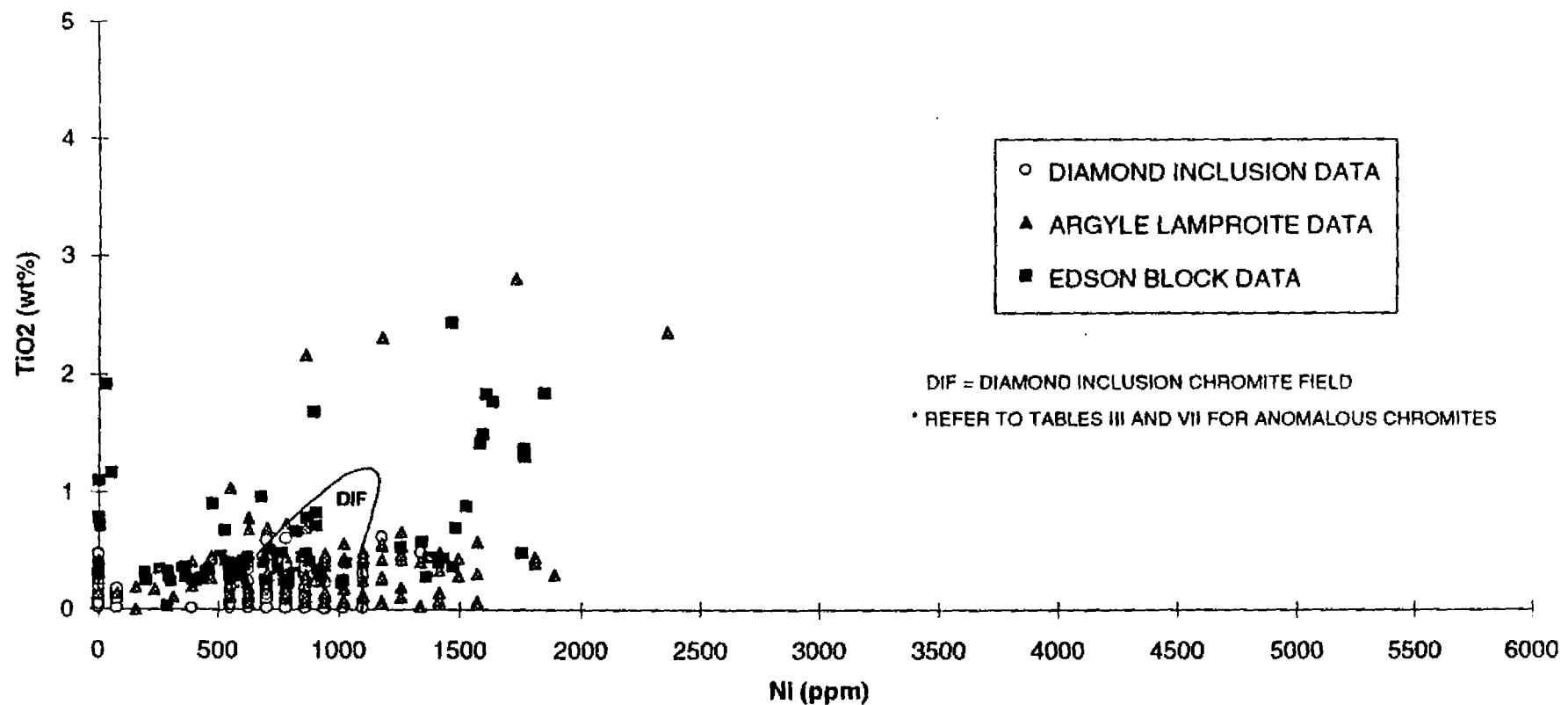


CHART 3-10

CHROMITE DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

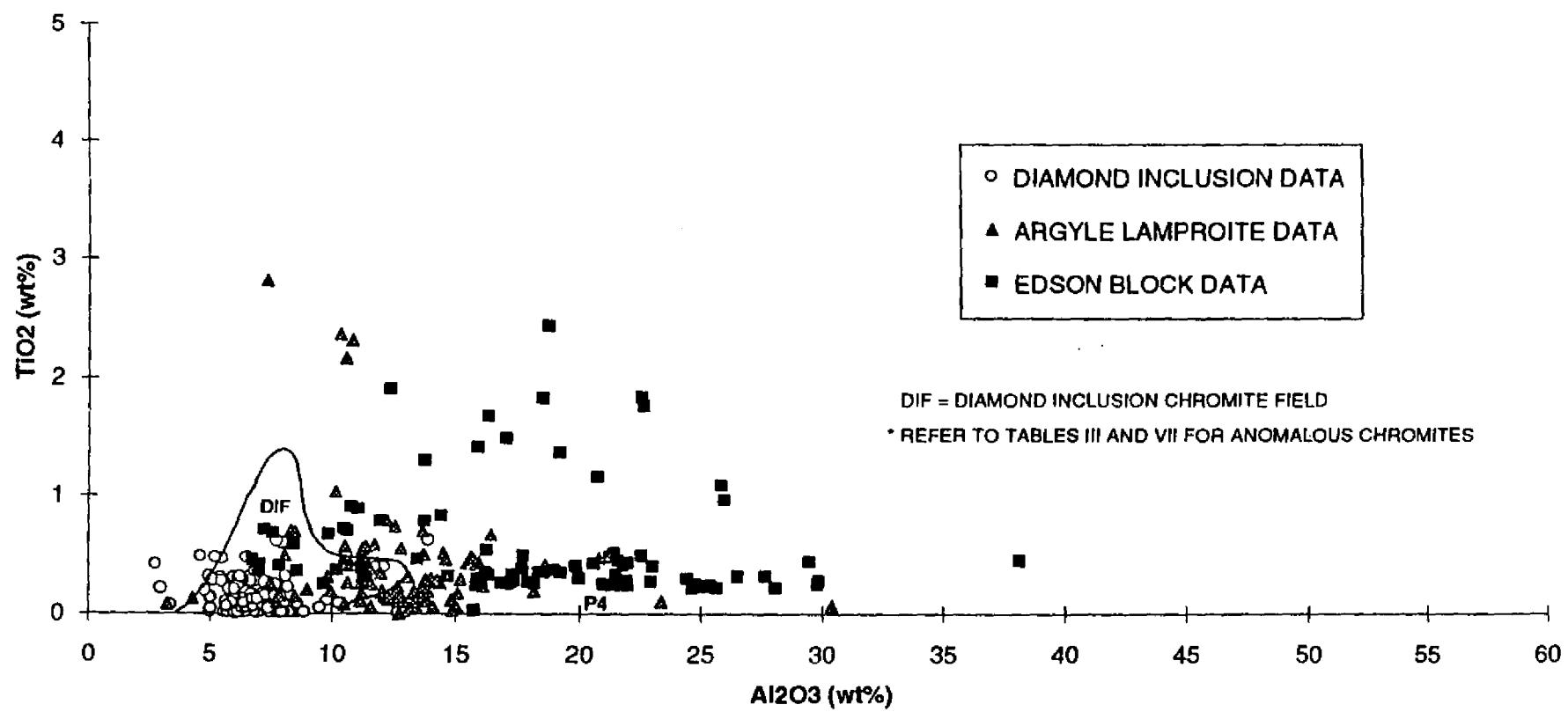


CHART 4-1

PERIDOTITIC GARNET DATA: EDSON BLOCK VS. ARGYLE AND DIAMOND INCLUSIONS

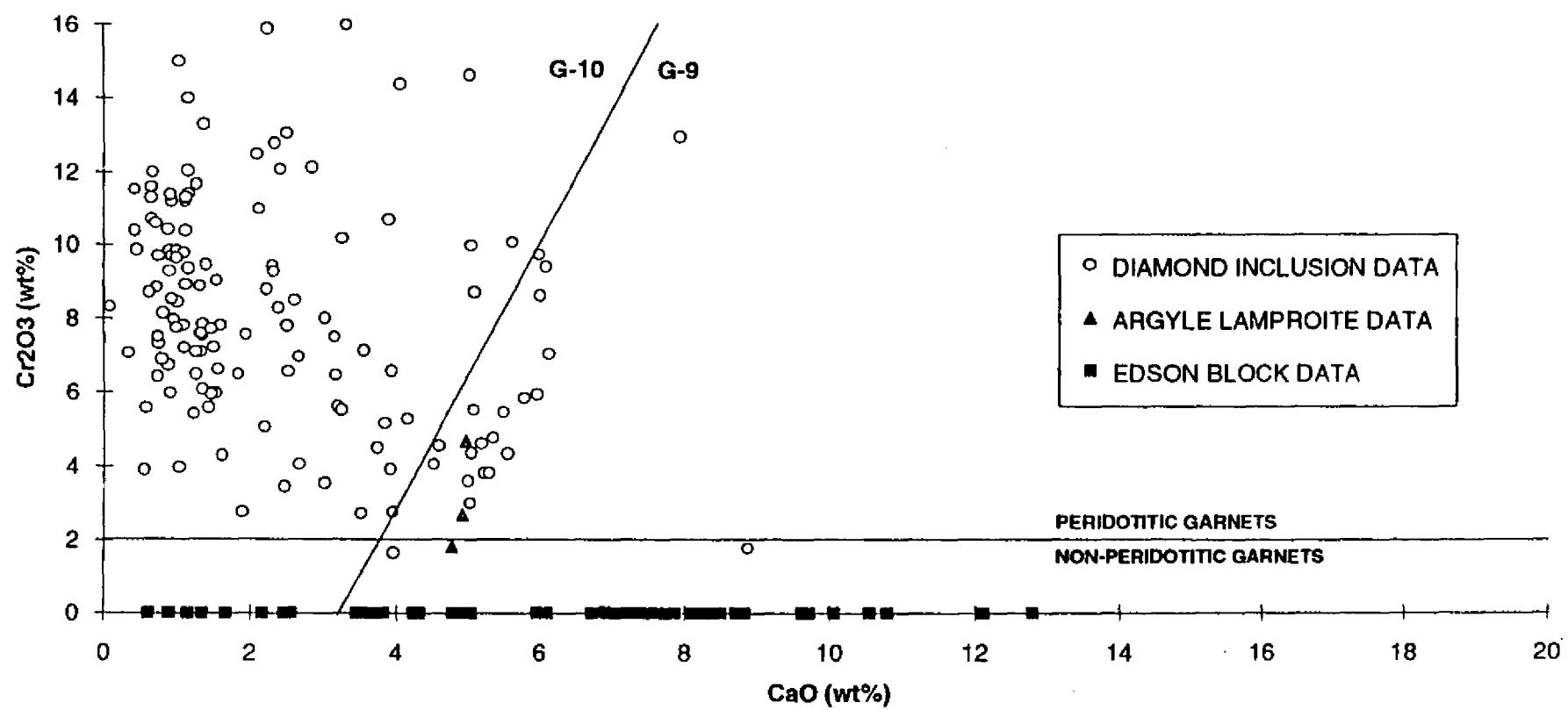


CHART 4-2

ECLOGITIC GARNET DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS

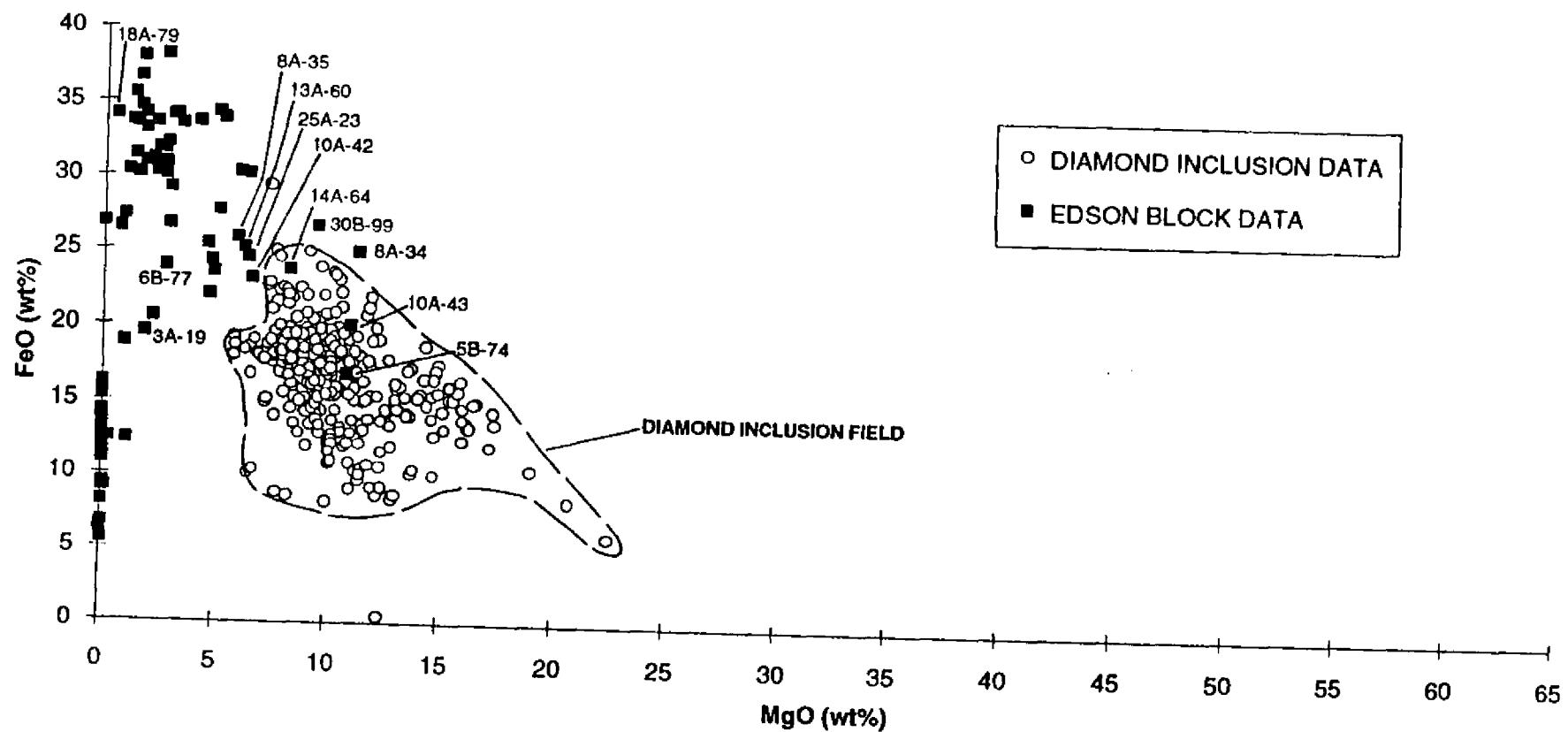


CHART 4-3

ECLOGITIC GARNET DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS

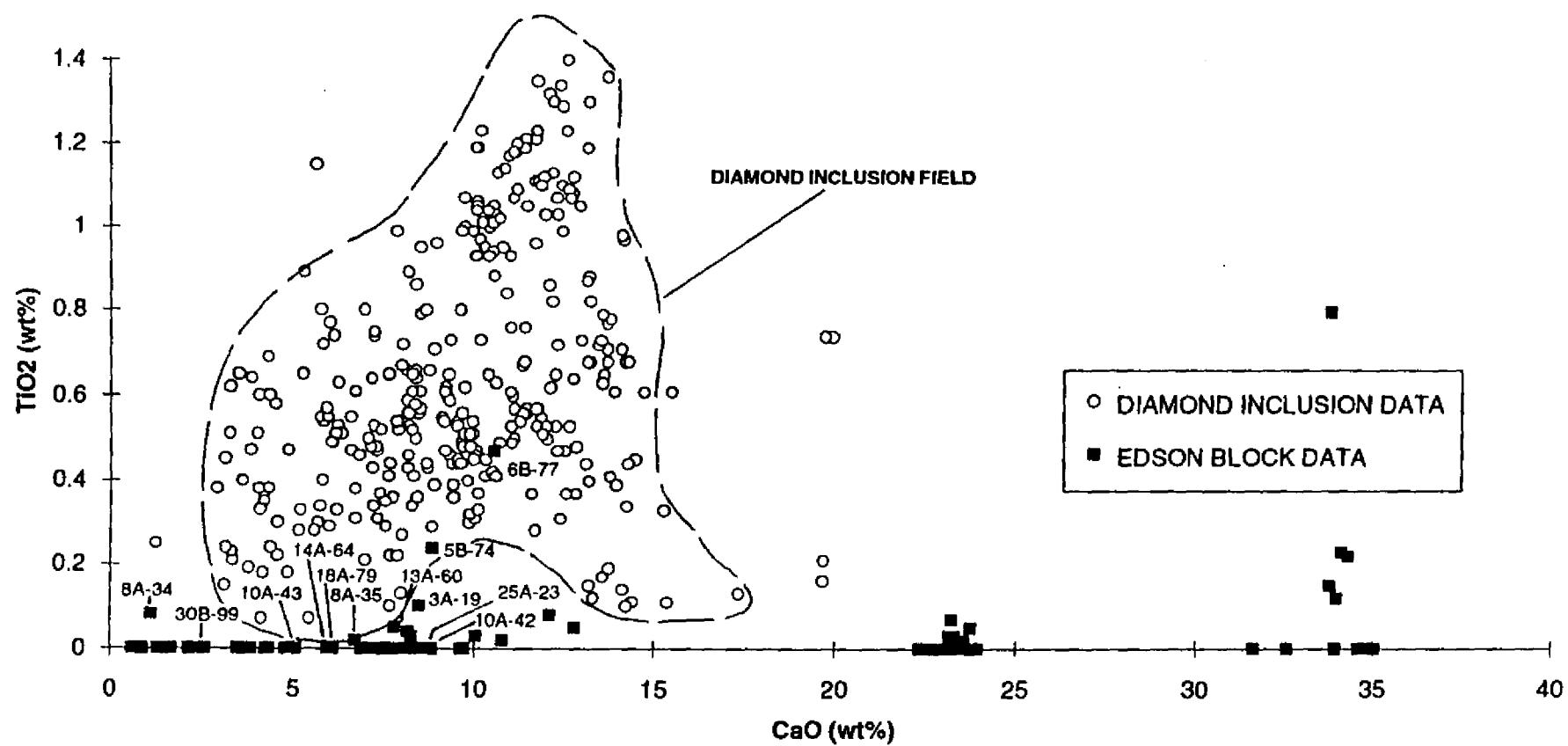


CHART 4-4

ECLOGITIC GARNET DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS

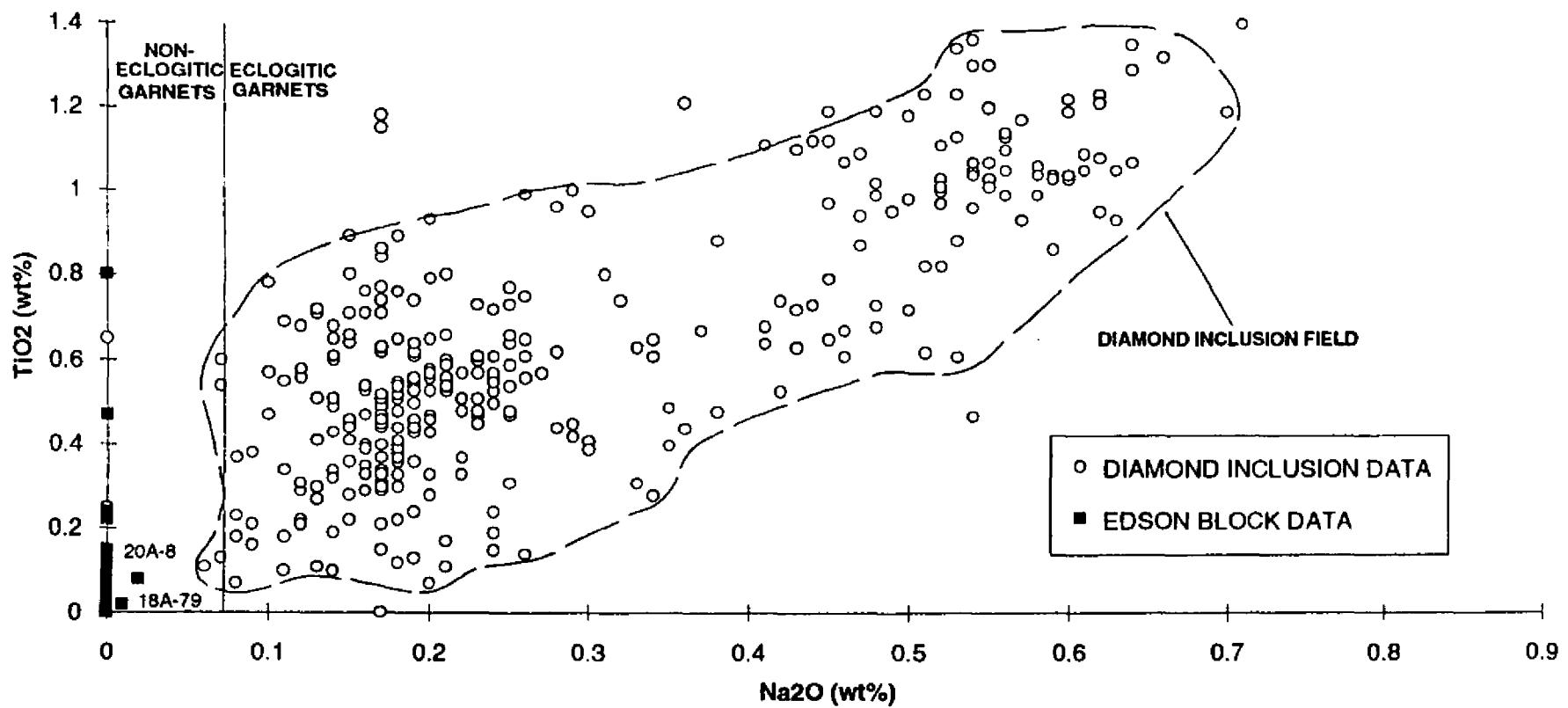


CHART 5-1

PERIDOTITIC PYROXENE DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS

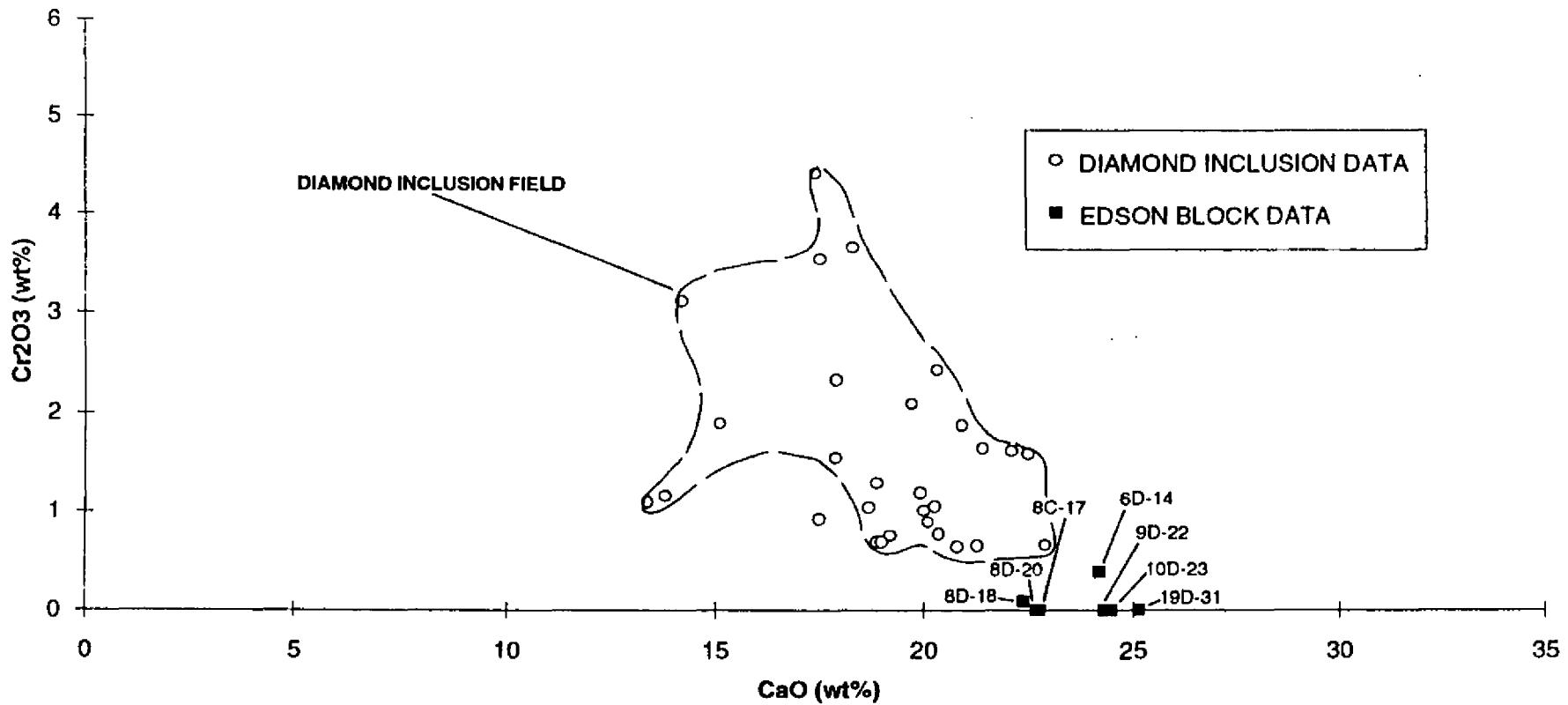
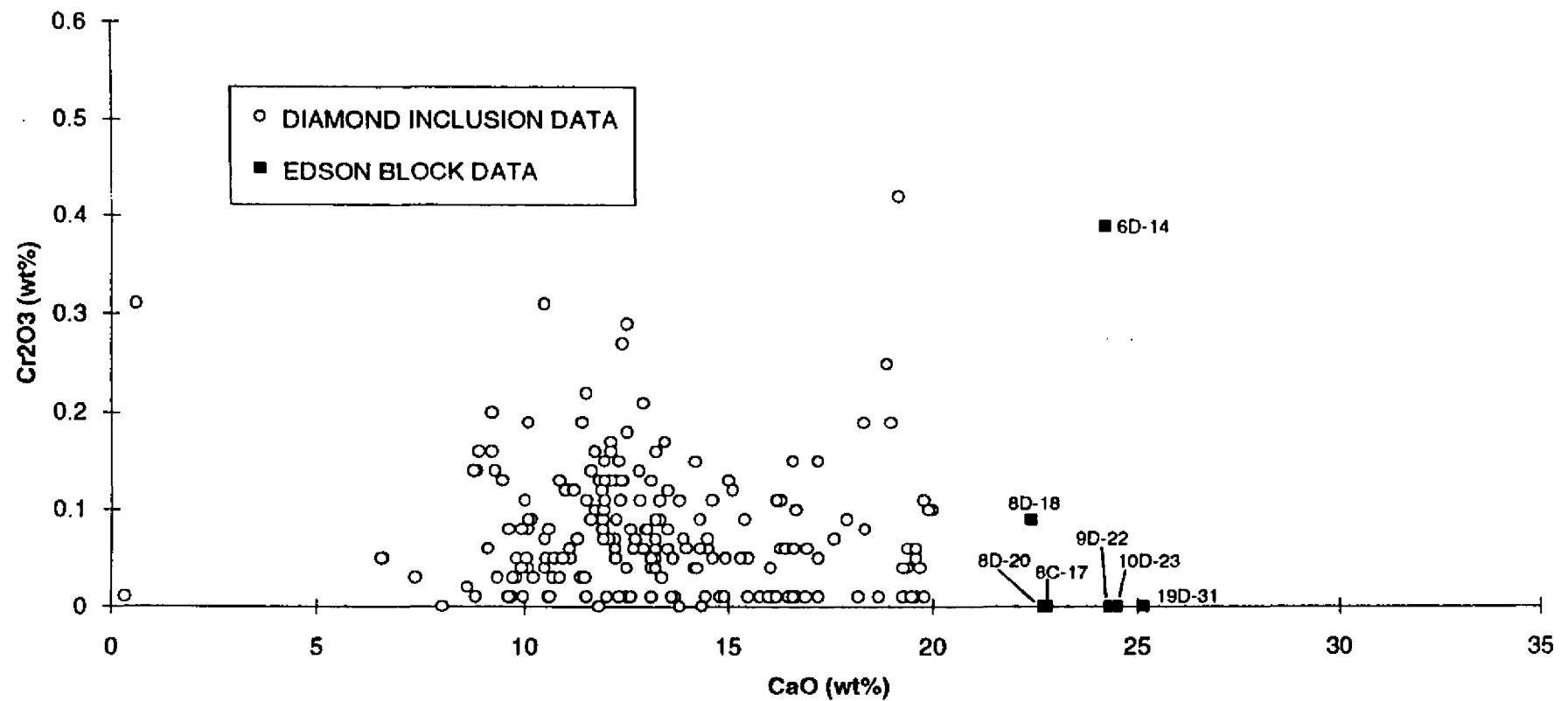


CHART 5-2

ECLOGITIC PYROXENE DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS



* FIPKE (1990) DOES NOT DEFINE A DIAMOND INCLUSION FIELD FOR THIS CHART

CHART 5-3

ECLOGITIC PYROXENE DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS

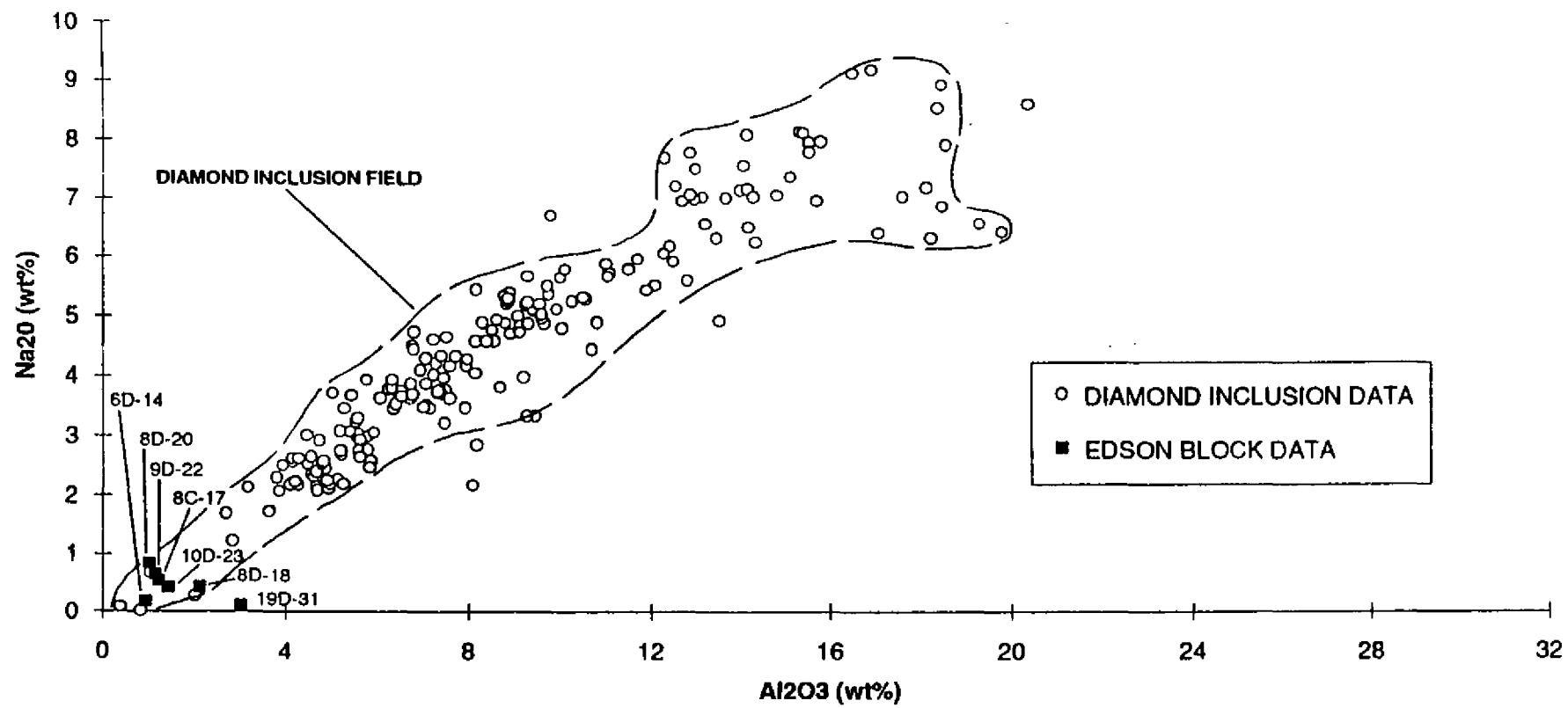


CHART 6-1

ILMENITE DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS

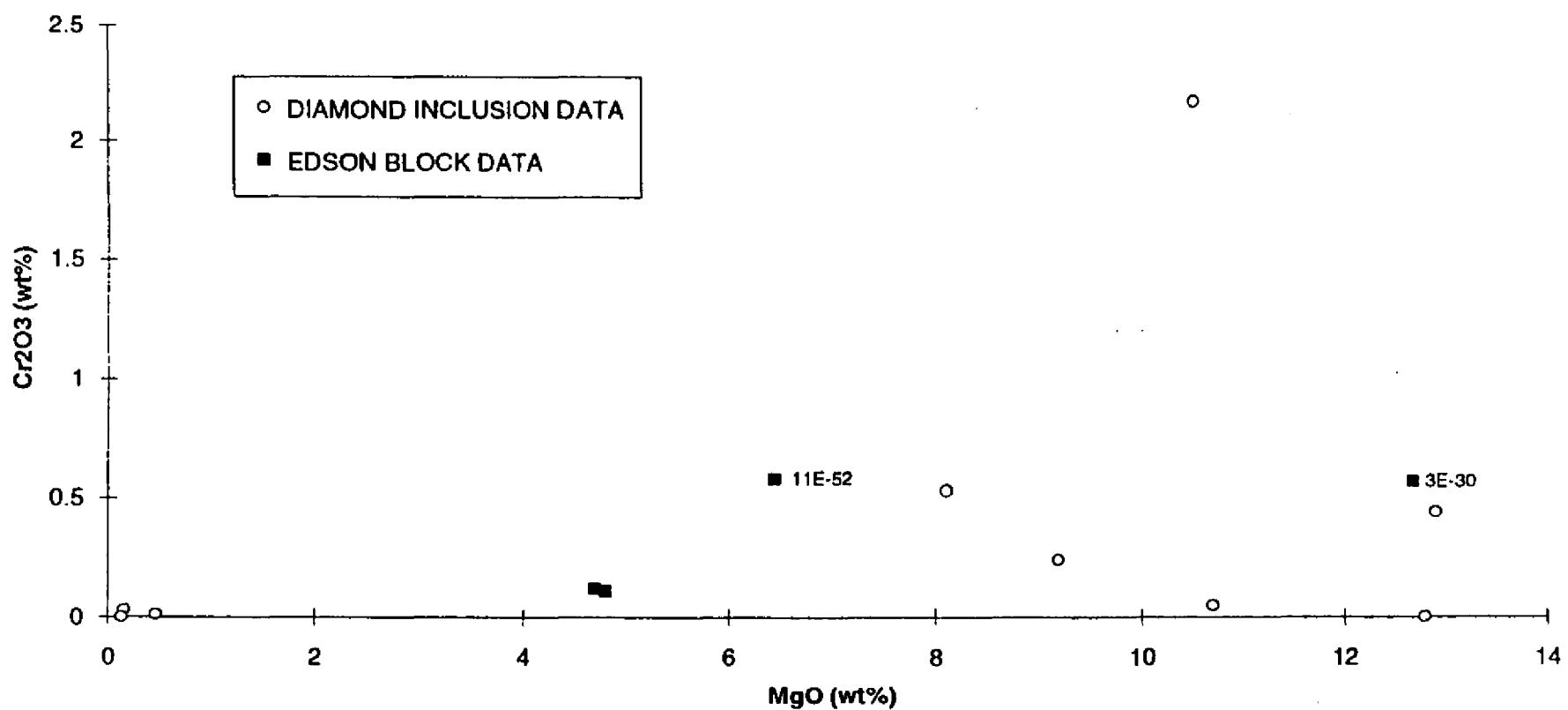


CHART 6-2

ILMENITE DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS

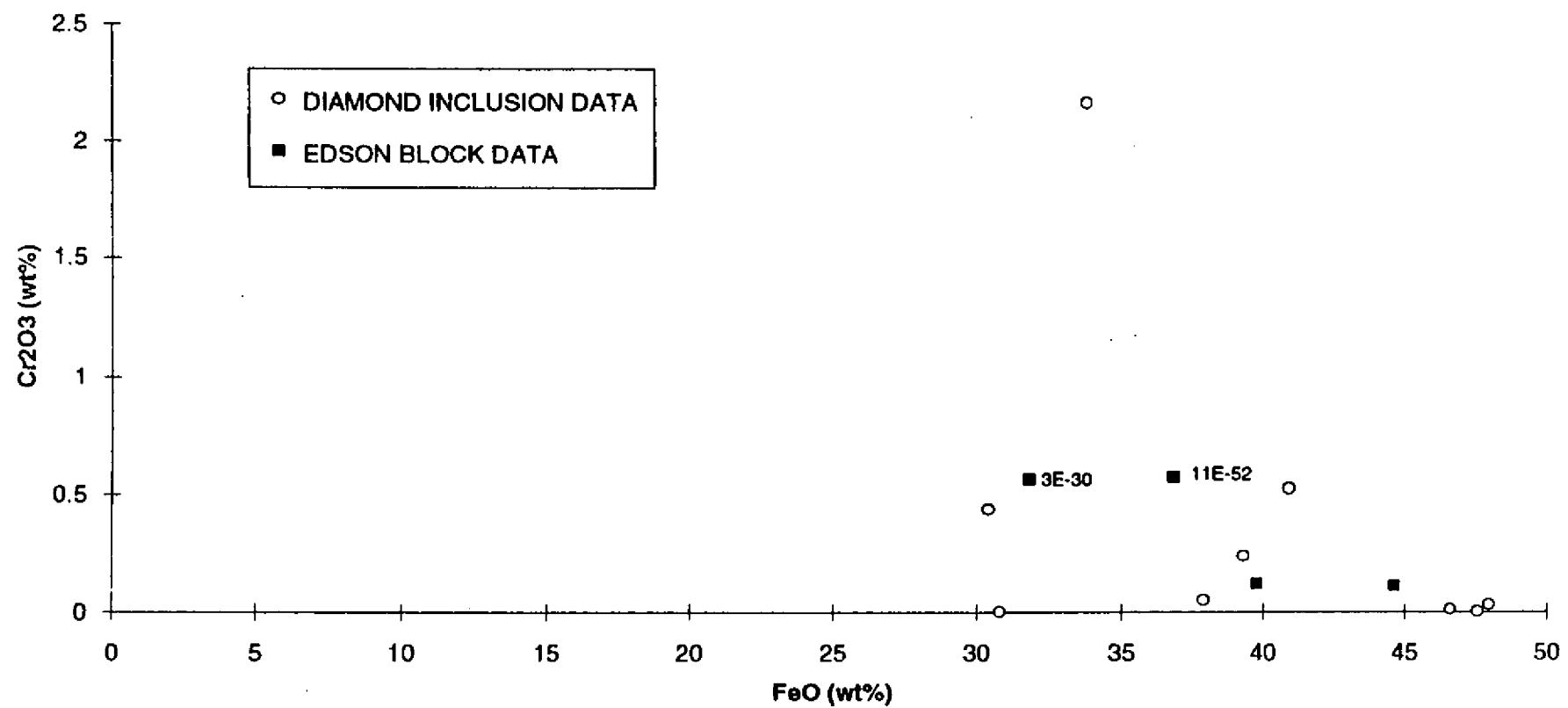
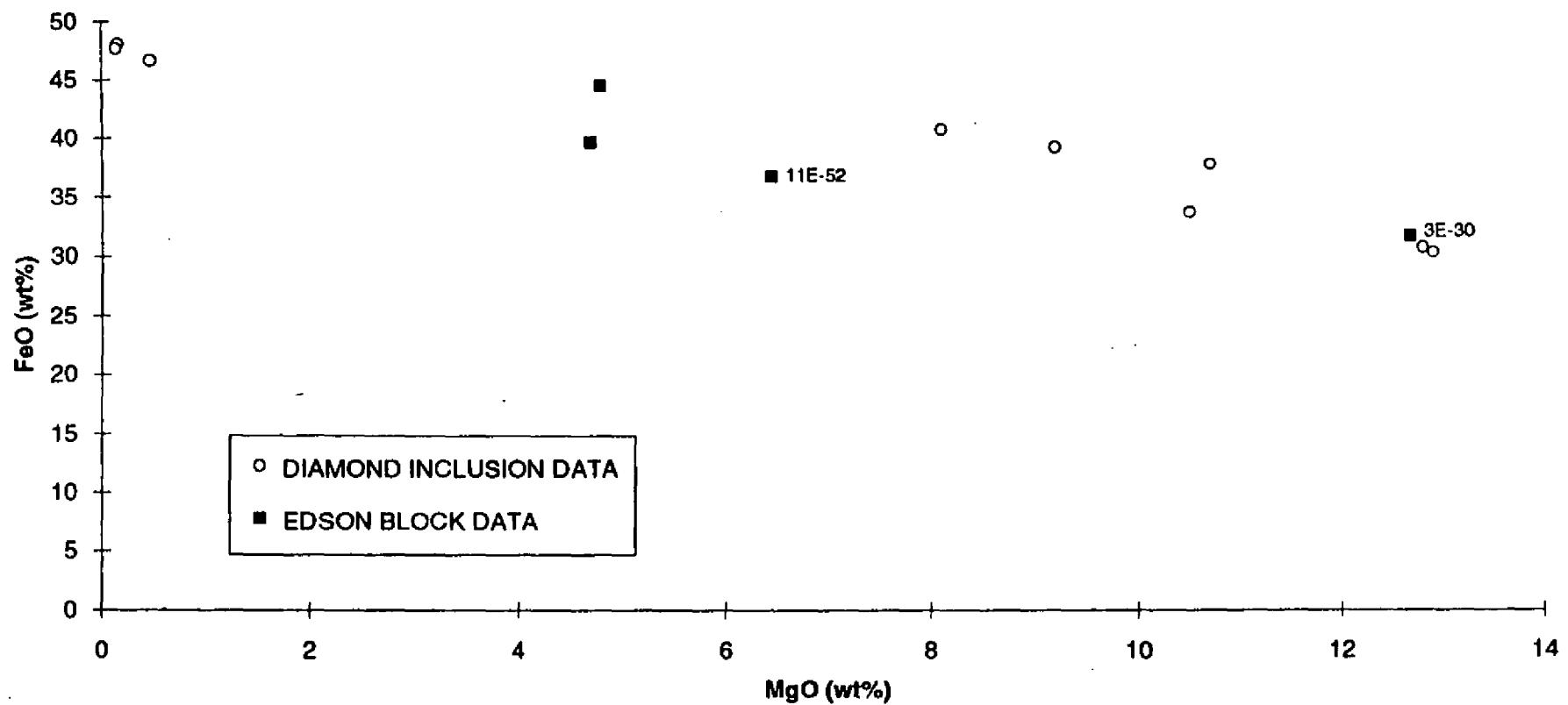


CHART 6-3

ILMENITE DATA: EDSON BLOCK VS. DIAMOND INCLUSIONS



CERTIFICATION

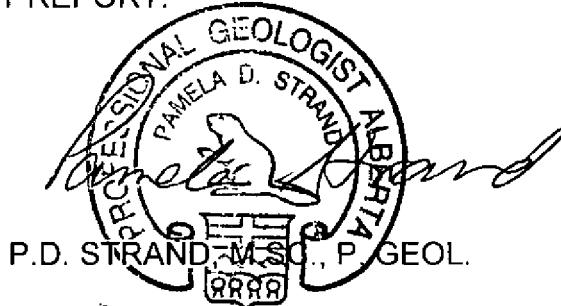
I, P. D. STRAND OF ██████████, EDMONTON, ALBERTA, CERTIFY AND DECLARE THAT I AM A GRADUATE OF THE UNIVERSITY OF TORONTO WITH A B.SC. DEGREE IN GEOLOGY (1988) AND A GRADUATE OF THE UNIVERSITY OF WESTERN ONTARIO WITH A M.SC. DEGREE IN GEOLOGY (1993). I AM REGISTERED AS A PROFESSIONAL GEOLOGIST WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA.

MY EXPERIENCE INCLUDES SERVICE AS A RESEARCH ASSISTANT AND GEOLOGIST WITH NUMEROUS EXPLORATION COMPANIES IN CANADA FROM 1986 TO PRESENT; AS A DISTRICT GEOLOGIST WITH THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT, NWT GEOLOGY DIVISION FROM 1994 TO 1997; AND AS VICE PRESIDENT OF PINNACLE RESOURCES (1996) LTD. FROM 1997 TO 1998. I AM CURRENTLY SERVING AS THE PRESIDENT OF SHEAR MINERALS LTD. SINCE 1997.

I CURRENTLY HAVE AN INTEREST IN SHEAR MINERALS LTD. IN THE FORM OF SECURITIES.

THIS REPORT ENTITLED "EXPLORATION 1999-2001 EDSON PROPERTY, ALBERTA (PERMIT NUMBERS 9399050001 TO 9399050014 inclusive)" IS BASED UPON THE STUDY OF PUBLISHED AND UNPUBLISHED DATA AND A FIELD EXAMINATION OF THE PROPERTY.

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SEPTEMBER, 2001
EDMONTON, ALBERTA

