N.T.S. 42G

RESULTS OF HEAVY MINERAL PROSPECTING FOR KIMBERLITE INDICATOR MINERALS SOUTH CROW CREEK PROPERTY SHEARER TOWNSHIP KAPUSKASING REGION, ONTARIO GEMCAL PROSPECTING SYNDICATE

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RESULTS OF HEAVY MINERAL PROSPECTING FOR KIMBERLITE INDICATOR MINERALS SOUTH CROW CREEK PROPERTY, SHEARER TOWNSHIP KAPUSKASING REGION, ONTARIO

This report summarizes the results of heavy mineral sampling for kimberlite indicator minerals on the South Crow Creek Property located in Shearer Township, 60 kilometres west of Kapuskasing, Ontario. The property is owned by Gemcal Prospecting Syndicate. The property has been visited by Gemcal geologists several times since staking, the last visit was made by Ed Walker from Petrologic Inc as part of an independent property review. Results of Petrologic Inc.'s examination are included with this report.

The program was initiated after the Ontario Geological Survey (O.G.S.) released results in 1998, of a heavy mineral prospecting program for kimberlite indicator minerals, base metals and gold in a large area over the Kapuskasing Structural Zone southwest of Kapuskasing. The O.G.S. program discovered kimberlite indicator minerals widely dispersed throughout the region. The glacial dispersion trains of the kimberlite minerals are orientated northwest-southeast and coincides with the last glaciation known as the Cochrane Readvance. The South Crow Creek Property is 'up-ice from the region covered by the O.G.S. surveys.

Gemcal's South Crow Property consists of 4 contiguous unpatented mining claims covering 924 hectares. The property is mostly covered by glacial till and outwash material. Limited outcrop exposures indicate the property is underlain by northwest striking metasedimentary schists and volcanic flows. A northeast trending fault cuts through the property. The fault is parallel and possibly associated with the western extent of the Kapuskasing Structural Zone.

The Gemcal's heavy mineral surveys have resulted in the discovery of kimberlite minerals in stream sediment samples collected in South Crow Creek where the creek drains South Crow Lake. The kimberlite indicator minerals: pyrope garnet (G9 & G10), chromite, picroilmenite and chrome diopside. Electron microprobe analyses of the kimberlite minerals are similar to those found in diamond-bearing kimberlite and indicate a strong potential for diamonds to exist in the source of the grains. Additional minerals identified by the survey include: eclogite Mg-almandine garnet, low Na-Cr and low Na clinopyroxene, perovskite and Ti-Ca-Zr oxide minerals, rutile and zircon. The presence of these minerals could be associated with kimberlite or carbonatite and present the potential for rare earth and phosphate deposits.

INDEX

RESULTS OF HEAVY MINERAL PROSPECTING FOR KIMBERLITE INDICATOR MINERALS SOUTH CROW CREEK PROPERTY, SHEARER TOWNSHIP KAPUSKASING REGION, ONTARIO

I. INTRODUCTION

LOCATION AND ACCESS

The South Crow Property is located in the central area of Shearer Township, 60 kilometres west of Kapuskasing, Ontario (Figures 1 & 2). The property is seasonally accessible by two-wheel drive vehicle. The property can be reached by following the Fergus Road from Highway 11, 3 km west of the town of Opasatika. The Fergus Road crosses the property 23 km from south of the highway.

The property is situated on the N.T.S. sheet: 42G; Kapuskasing.

MINING CLAIM LOGISTICS AND PROPERTY OWNERSHIP

The Kap Property consists of four contiguous unpatented mining claims located in Shearer Township (Figure 3). Table 1 summarizes claim logistics. The claims are owned by Gemcal Prospecting Syndicate and currently held in trust by George Silverman of 75 Acton Road, in North York, Ontario.

DATES AND PERSONAL

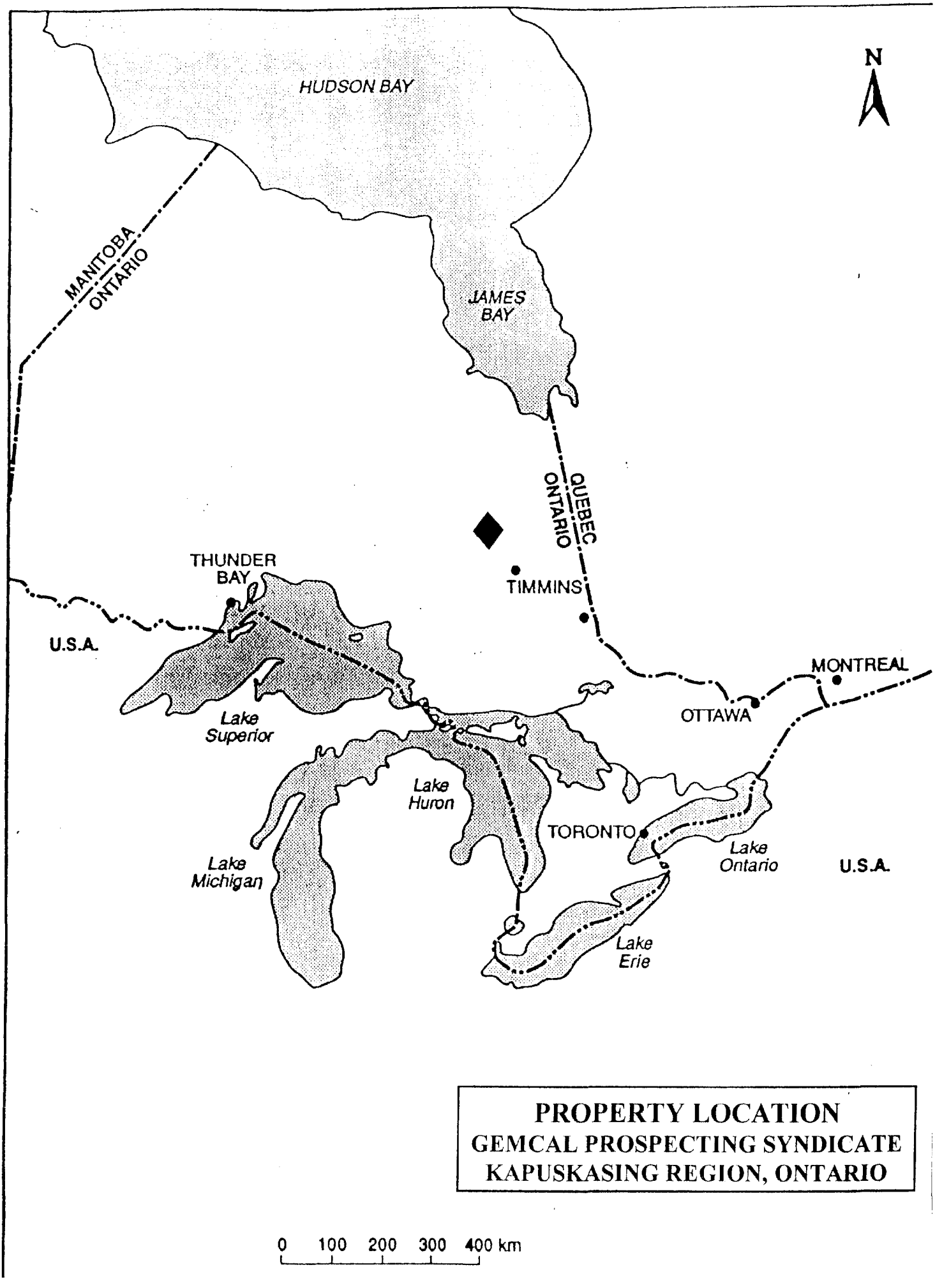
Field work for the survey was completed at various times between October 16, 1998 to June 18, 2000. Heavy mineral sampling surveys were conducted on the property between October 16 to October 18, 1998 and July 12 to July 13, 1999. These programs were supervised by: Robert J. Dillman of Mount Brydges, Ontario and assisted by: Chris Wagg of Denbigh, Ontario, Jim Chard of Marmora, Ontario and Graeme Scott of Toronto, Ontario. On June 18, 2000, Ed Walker of Petrologic Inc from Lakefield, Ontario made a property examination. He was assisted by Jim Chard.

TOPOGRAPHY AND LAND-USE

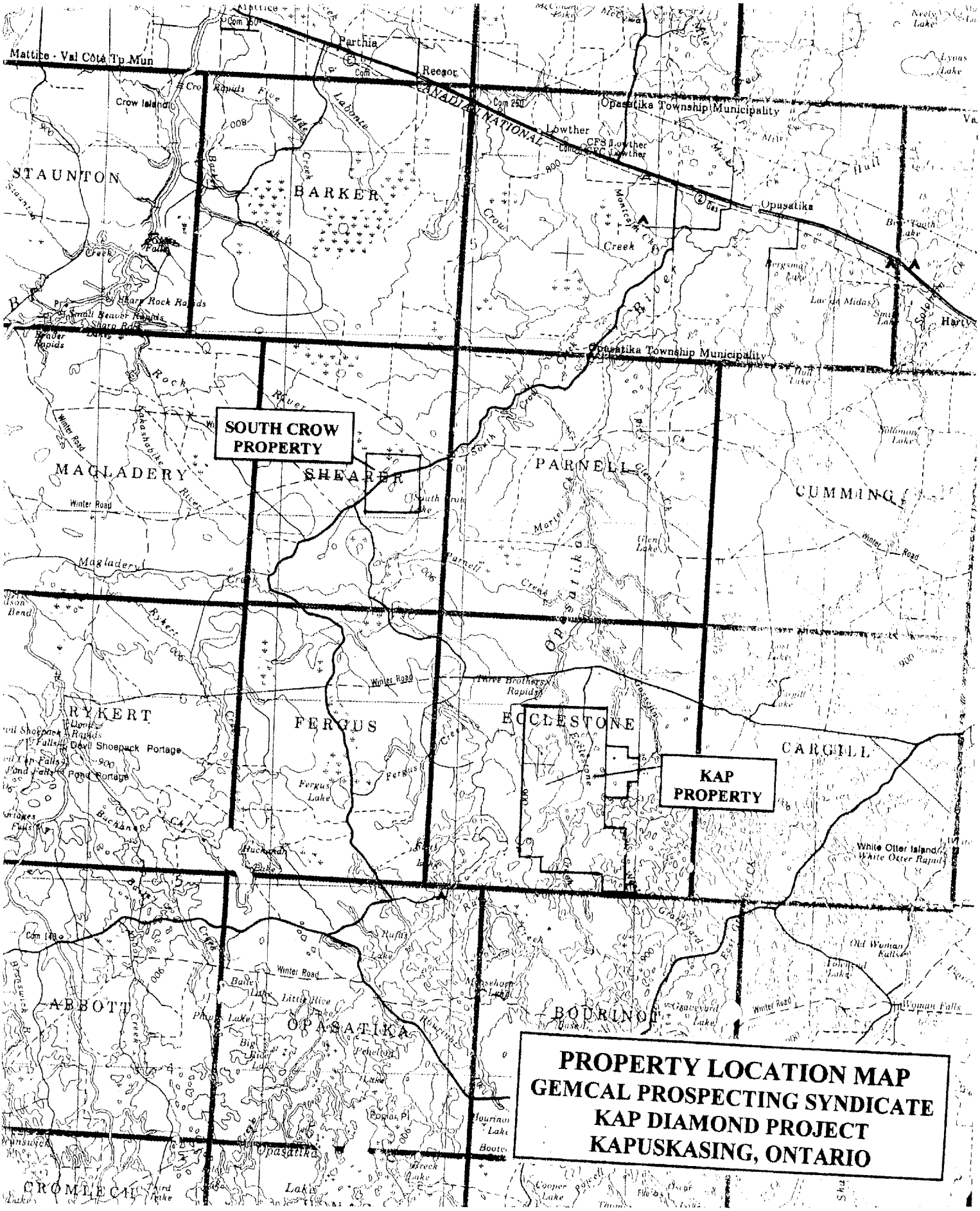
The South Crow Creek Property is defined by broad, flat terrain with little to no relief. The dominate topographic features on the property are several small lakes, the largest being South Crow Lake. The lake forms the head-waters for South Crow Creek which flows northeast and eventually drains into the Opasatika River.

Most areas of the property have been extensively logged. Thick, immature bush has regrown in the logged areas. Forested areas contain spruce, jack-pine, birch and poplar.

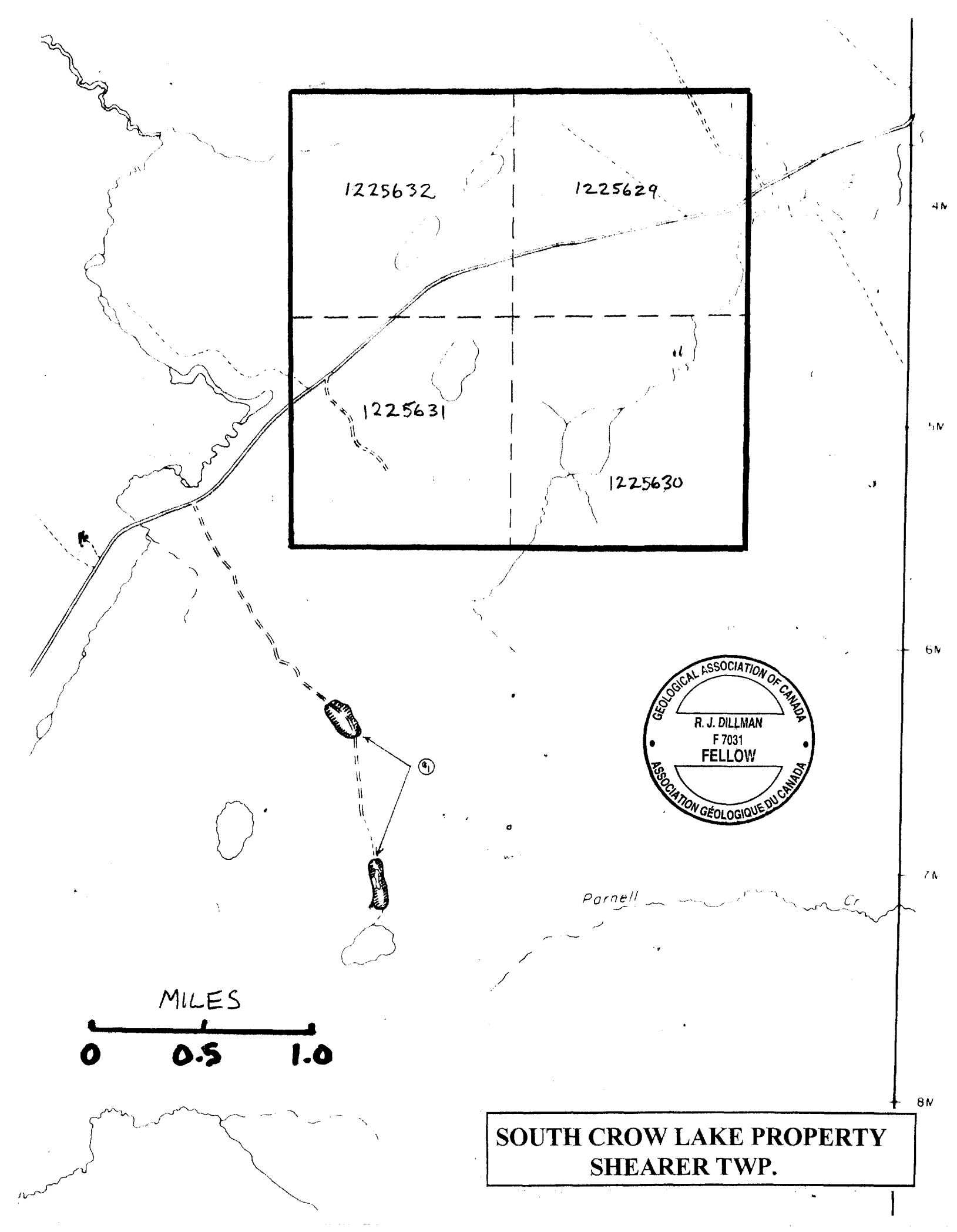
Sand and gravel has been extracted from a small pit on the west side of the property.



PROPERTY LOCATION
GEMCAL PROSPECTING SYNDICATE
KAPUSKASING REGION, ONTARIO



PROPERTY LOCATION MAP
GEMCAL PROSPECTING SYNDICATE
KAP DIAMOND PROJECT
KAPUSKASING, ONTARIO



SOUTH CROW LAKE PROPERTY
SHEARER TWP.

Schedule 1.
CLAIM LOGISTICS
SOUTH CROW PROPERTY, SHEARER TWP., ONTARIO
GEMCAL PROSPECTING SYNDICATE

CLAIM No.	*No. OF UNITS*	*HECTARES*	*DATE OF RECORDING*
1225629	16	256	October 14, 1998
1225630	16	256	October 14, 1998
1225631	16	256	October 14, 1998
1225632	16	256	October 14, 1998
	64	1024 Ha	

II. REGIONAL GEOLOGY

BEDROCK GEOLOGY

The South Crow Creek Property is situated within a region underlain by four Archean bedrock domains (Figure 4). The domains include:

1.) a metavolcanic suite consisting of amphibolite, schists and amphibole-pyroxene- plagioclase gneiss;
2.) a metasedimentary suite consisting of greywacke, arkose, and iron formation;
3.) a migmatite-metasedimentary-metavolcanic complex consisting of supra crustal, metavolcanic and minor metasedimentary rocks, and mafic and granite gneiss;
4.) felsic intrusive suite consisting of massive granite, foliated granite and granite pegmatite.

Outcrops have not been found on the property. Ontario Department of Mines preliminary geology map: P. 397 indicates outcrops are exposed on the Fergus Road in the central area of the property. The outcrops consist of northwest trending, steeply dipping metasedimentary schists of greywacke and amphibolitized metavolcanic flows. The sequence has been intruded by diabase dykes. Iron formation occurs north of the property.

The property is crossed by the northeast trending fault. The fault zone may be related to the Kapuskasing Structural Zone (KSZ). Regional aeromagnetic data suggests the fault is offset by younger northwest trending structures.

Throughout the Archean and into the late Proterozoic, the region was intruded by swarms of diabase dykes. The dominant trend of the dykes are northwest and many orientations coincide with the major fault orientations.

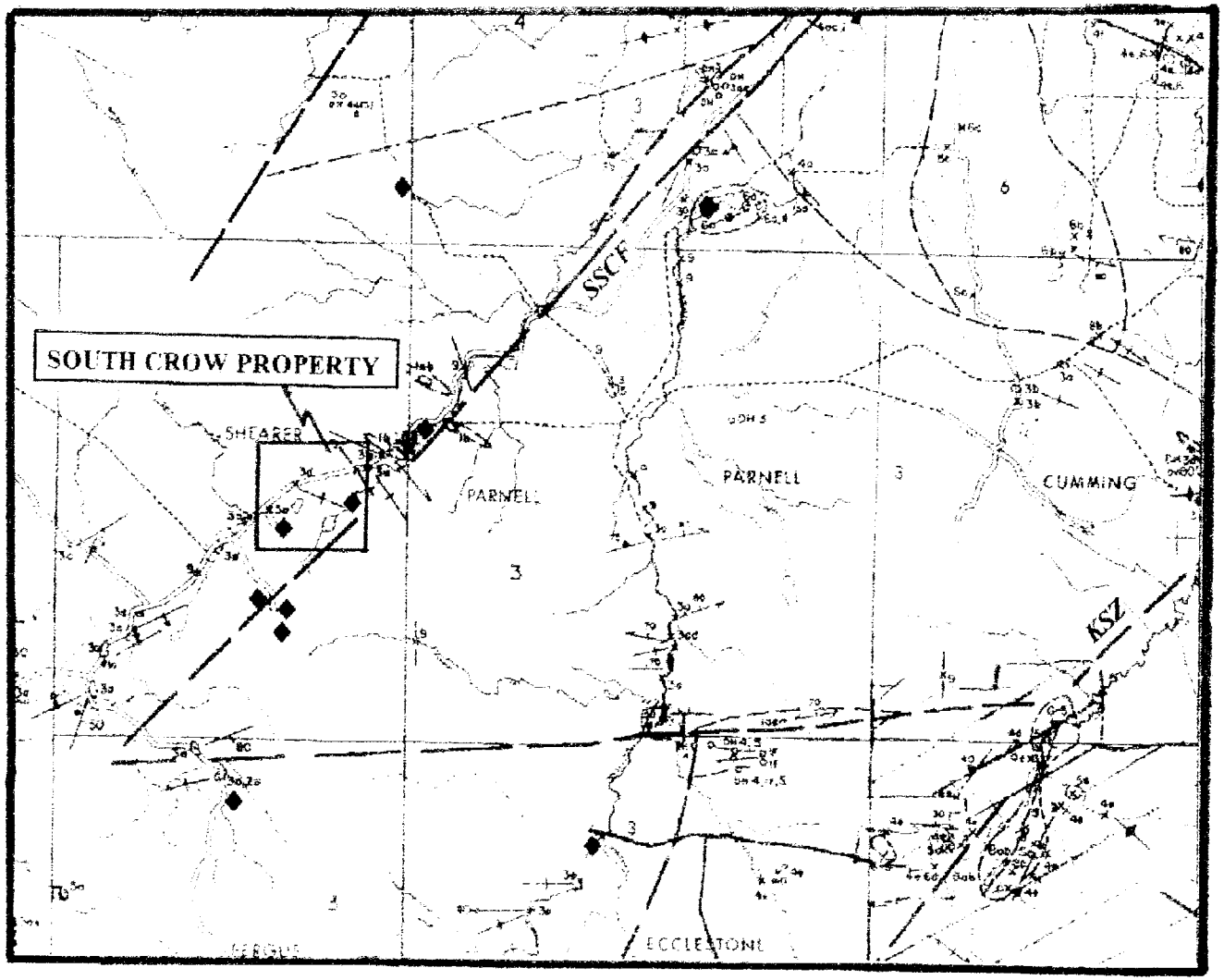
QUATERNARY GEOLOGY

Surficial deposits of glacial till cover most areas of the property. Till was deposited during several pulses of the Wisconsinan glaciation (Figure 5). Striae found in the region suggest three ice advances have occurred, the youngest advance was orientated 120^0 and two older sets orientated 160^0 and 220^0 (Boissoneau, 1968).

The different striae correspond to pulses of an ice sheet moving in a general north to south direction. The youngest striae, 120^0, reflects an ice pulse moving northwest to southeast and deposited the Cochrane till. The Cochrane ice pulse overrode and reworked the Monteith flow-till. The Monteith till was deposited during the initial Wisconsinan ice advance which generally moved northeast to southwest.

Glacial deposits on the property are comprised of clayish boulder till. The material consists of approximately 95 to 100% fine-clay matrix material and particles ranging from grit to boulder-sized rocks. Rock fragments are rare and generally consist of: limestone, granite, gneiss, diabase, garnet-rich gneiss, metasedimentary schists and fine-grained metavolcanic fragments.

A line of sand and gravel deposits trending south-southwest crosses the west-central region of the property. The deposits represent glacial outwash and formed during a period of glacial melting.



REGIONAL GEOLOGY
SOUTH CROW PROPERTY

LEGEND

9	DIABASE
8	CARBONATE
6	GRANITE
5	GABBRO
4	GNEISS
3	METASEDIMENTARY ROCKS
2	FELSIC ROCKS
1	MAFIC METAVOLCANIC ROCKS

— — Fault

◆ Kimberlite Indicator Mineral

KSZ Kapuskasing Structural Zone

SSCF South Crow Creek Fault

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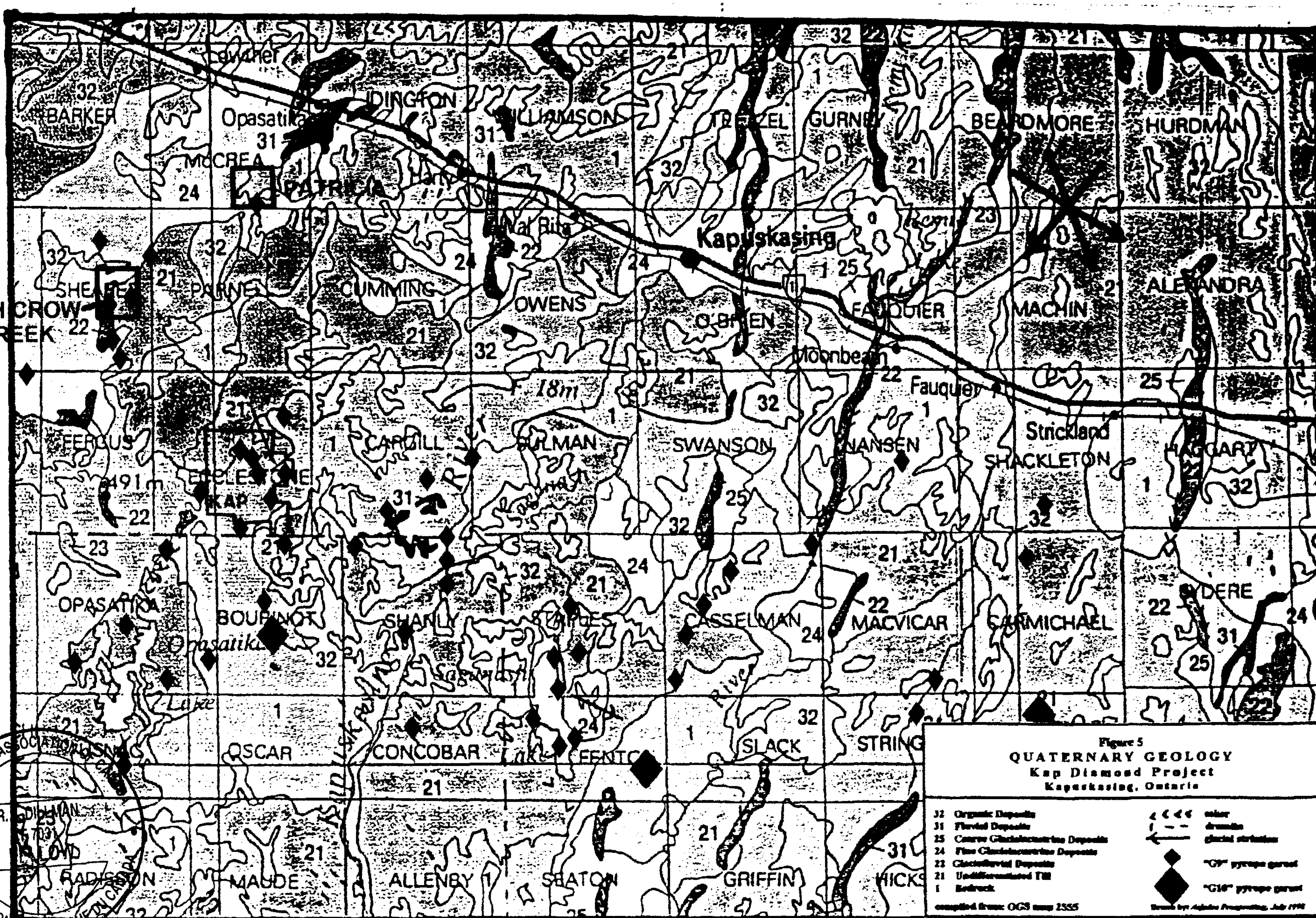


Figure 5
QUATERNARY GEOLOGY
Kap Diamond Project
Kapuskasing, Ontario

Much of the property is overlain by swamp and flat, boggy terrain. Recent deposits developing in these environments include peat and silt deposits. Local sand and gravel deposits are continuously form along active streams on the property.

PREVIOUS WORK

Diamond exploration has not been documented in this region until 1997 with the release of results of a heavy mineral survey preformed by the Ontario Geological Survey over a section of the Kapuskasing Structural Zone, south of Kapuskasing, Ontario. Sporadic diamond exploration occurred through the mid-60's at Coral Rapids, north of Kapuskasing and more recently, in the Wawa region where diamonds have now been discovered in actinolite lamprophyric rock.

Within the area, exploration for base metals and gold has been conducted through the 60's and 70's. On the property, no records have been found to indicate any extensive mineral exploration.

Within the region, Agrium Resources is mining apatite from the Cargill Carbonatite located in Cargill Township. The operation produces phosphate for use as fertilizer.

III. SURVEY METHODS, RESULTS AND INTERPRETATION

METHODS

Seven heavy mineral samples have been collected from the property during various sampling programs. The samples consist of: three glacial outwash samples and four stream sediment samples (collected in South Crow Creek). U.T.M. coordinates of each sample site and results are summarized in Table 3.

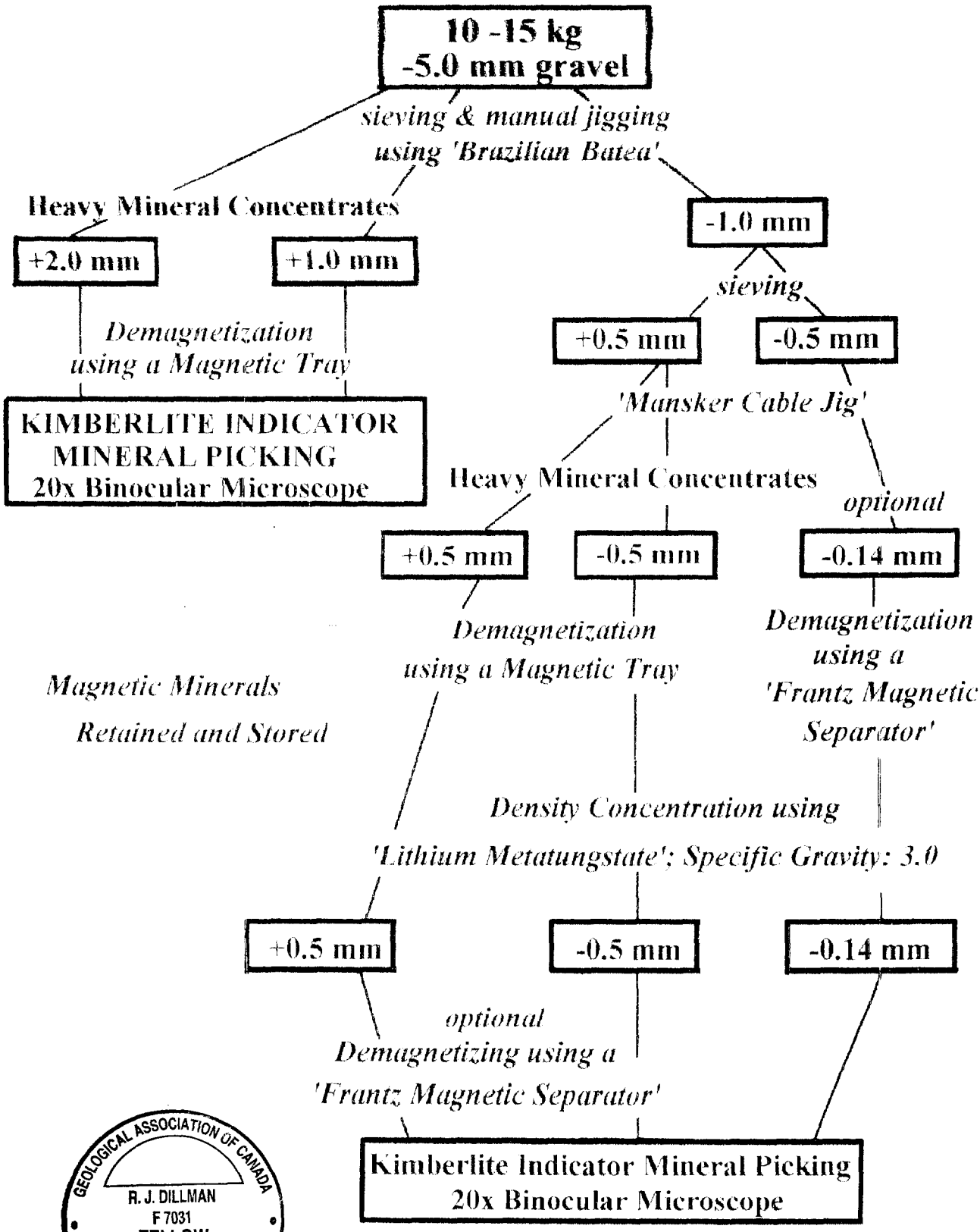
Three samples were collected by Petrologic Inc. as part of an independent property examination. Only one sample was processed for heavy minerals and examined for kimberlite. The results of Petrologic Inc's property examination are included with this report.

Most samples were processed by Robert Dillman of Arjadee Prospecting located in Mount Brydges, Ontario. The techniques used to produce a heavy mineral concentrate from each sample are presented in Table 2. A microscope examination of each heavy mineral concentrate was preformed by R. Dillman.

The sample collected by Petrologic Inc. was processed and picked at Kennecott Canada Exploration Inc.'s heavy mineral processing laboratory located in Thunder Bay, Ontario.

Samples collected in the field consisted of 7-15 kg of gravel material sieved in the field through a 5 mm screen. Each sample was screened and separated into the fractions of +2.0 mm, +1.0 mm and -1.0 mm size. Heavy minerals from the two largest fractions were gathered in the field using bowl-shaped screens. In the lab, each -1.0 mm fraction was divided into two fractions using a No. 20 screen (0.5 mm). The heaviest minerals were concentrated from each residual using a mechanical

TABLE 2.
STEPS FOR PRODUCING HEAVY MINERAL CONCENTRATES



cable-jig. Magnetic minerals in each concentrate were removed on a magnetic tray and individually stored. The remaining material was concentrated to a specific gravity of 3.0 gm/cc. using lithium metatungstate. Final concentrates (+3.0 sp. gr.) were searched for kimberlite indicator minerals under 20x magnification using a binocular microscope.

A description of Kennecott's technique to derive a heavy mineral concentrate is included with Petrologic Inc.'s report.

Suspected kimberlite mineral grains were analyzed by an electron microprobe by Robert Barnett of R.L. Barnett Geological Services located in Lambeth, Ontario. Results of each grain analyses are appended to this report.

RESULTS

Kimberlite indicator minerals were found in all samples collected in the South Crow Creek (Figure 6). Grain chemistry plots derived from electron microprobe analyses are presented in Table 4. The primary kimberlite indicator minerals include: pyrope garnet, chromite, picroilmenite, chrome diopside.

PYROPE GARNET

Six pyrope garnets of probable kimberlitic origin were identified in the heavy mineral concentrates collected in the South Crow Creek. The pyrope garnets were found in stream samples collected in South Crow Creek downstream from South Crow Lake. Four of the garnets are of G9 composition and one is considered to be a G10 pyrope (Figure 6). The garnets are lilac in color. Three grains are between 0.5 to 1.0 mm in size.

CHROMITE

Nine grains of chromite were found in samples from the property. The chemistries coincide with the general kimberlitic trend. Most chromite occurs in samples taken in South Crow Creek downstream from South Crow Lake. The majority of the chromite grains in the stream samples are large (>0.5 mm) and pellet-shaped. Two chromite grains were found in a sample from the gravel pit.

PICROILMENITE

Six grains of picroilmenite were identified in the samples collected in South Crow Creek downstream from South Crow Lake. Microprobe analyses indicate sufficient MgO and Cr_2O_3 to plot within the field commonly associated with diamond.

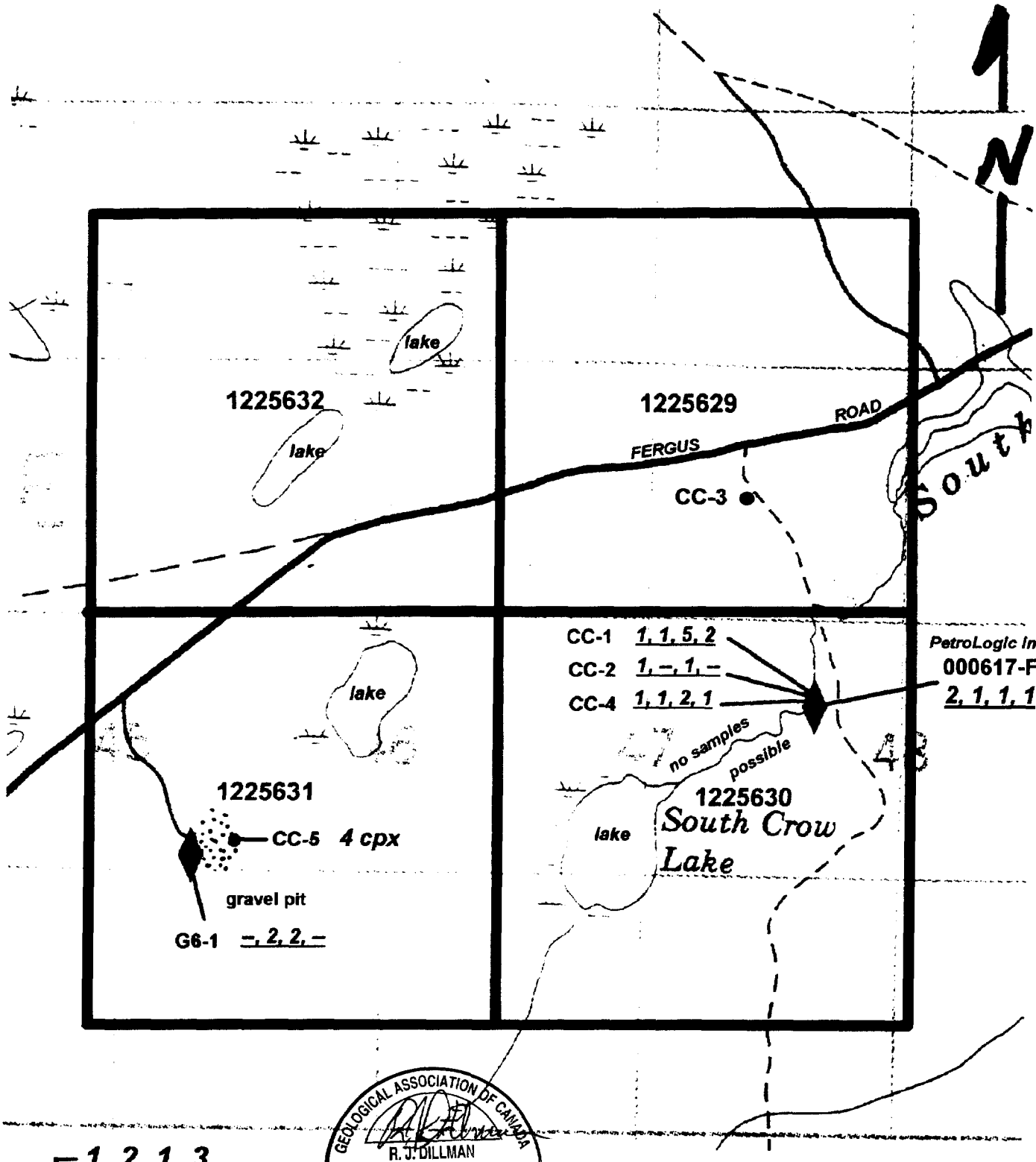
CHROME CLINOPYROXENE

Green clinopyroxene grains were observed in reasonable quantities in all the heavy mineral concentrates from the property. Microphone analyses of a limited number grains found compositions range between augite and diopside with varying amounts of chrome. Diopside compositions tend to

SUMMARY OF KIMBERLITE MINERALS IN HEAVY MINERAL CONCENTRATES
SOUTH CROW CREEK PROPERTY
SHEARER TOWNSHIP, ONTARIO
GEMCAL PROSPECTING SYNDICATE

SAMPLE NUMBER	U.T.M. COORDINATES	CLAIM NUMBER	SAMPLE TYPE	TOTAL KIM'S	PYROPE	CHROME DIOPSIDE	CHROMITE	Mg ILMENITE	OTHER MINERALS
G6-1	345375 m. E. 5471075 m. N.	1225631	glacial fluvial	4	–	2	2	–	good number of pellet or garnet.
CC-1	347630 m. E. 5471670 m. N.	1225630	stream	9	1	1	5	2	good number of pellet or garnet. 1 perovskite
CC-2	347630 m. E. 5471670 m. N.	1225630	stream	2	1	–	1	–	–
CC-3	347370 m. E 5472510 m. N.	1225629	till?	–	–	–	–	–	several grains of pyrite.
CC-4	347630 m. E. 5471670 m. N.	1225630	stream	5	1	1	2	1	1 perovskite
CC-5	345405 m. E. 5471085 m. N.	1225631	glacial fluvial	??	–	4??	2?	2?	possible Cr-cpx. Gravel pit.
000617-F	347630 m. E. 5471670 m. N.	1225630	stream	5	2	1	1	1	resample of known KIM site, PetroLogic Inc.'s property examination

?? Not analyzed by electron microprobe
– – Not observed in heavy mineral concentrate



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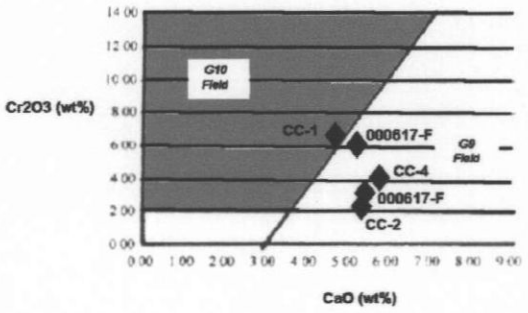
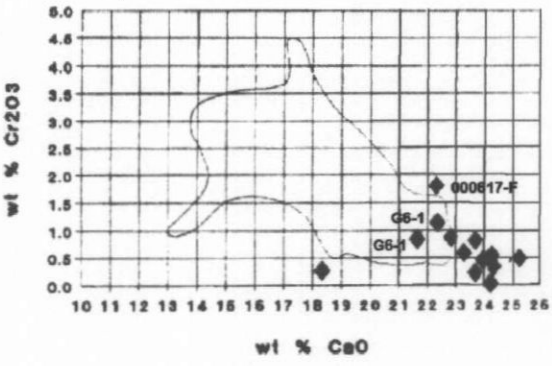
KIMBERLITE MINERAL LOCATIONS
SOUTH CROW CREEK PROPERTY
SHEARER TWP., ONTARIO
GEMCAL PROSPECTING SYNDICATE
SCALE 1:20,000

"G10" AND "G9" Cr-PYROPE PLOT

(after Dawson and Stephens, 1975)

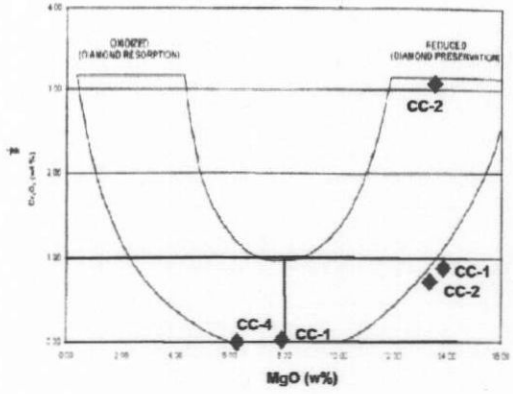


CHROME DIOPSIDE



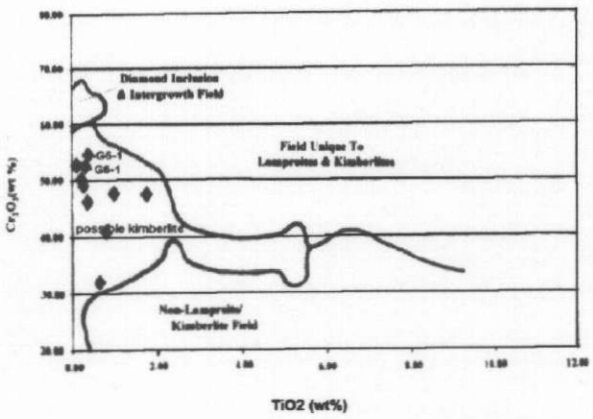
◇ RLB

PICROILMENITE



(after Gurney and Moore 1991)

CHROMITE



(after Fipke, 1995)

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KIMBERLITE MINERAL PLOTS
SOUTH CROW CREEK PROPERTY
SHEARER TOWNSHIP, ONTARIO
GEMCAL PROSPECTING SYNDICATE

coincide with higher chrome concentrations but only several grains show this trend. The low sodium content of all but one clinopyroxene grain suggests a regional source. A chrome diopside was found with a single chromite grain in the gravel pit situated in the southwest corner of the property. The diopside has low sodium which conflicts with a kimberlitic source although the depleted calcium (CaO) composition is similar to diopside found as inclusions in diamond.

ECLOGITE GARNET

Pellet shaped orange garnets occur in good numbers in most of the heavy mineral concentrates. Microphone analysis preformed on a limited number of the garnet grains indicate sufficient CaO to suggest a possible eclogite affinity. The garnets are Mg-almandines and coincide with a G5 composition (Dawson and Stephens, 1975).

ADDITIONAL MINERALS

Samples from the South Crow Creek contain traces of rutile, perovskite, Ca-Ti-Zr oxides, zircon, sphene and apatite. The grains could be associated with kimberlite, carbonatite, lamprophyre or from regional sources. Zircons occur as abundant orange glassy fragments, crystalline grains and as rare purple pellet-shaped grains. Sphene occurs as large brown euhedral bladed crystals. Rutile also occurs as large euhedral grains and round pellets. The preserved crystal shapes of some of the mineral suggest there are sources very close to the sample sites.

INTERPRETATION

The kimberlite minerals found on the property are situated within and possibly at the pinnacle of a chromite-picroilmenite-clinopyroxene anomaly crudely defined by regional heavy mineral sampling. The detection of pyrope in heavy mineral concentrates collected in the South Crow Creek suggests the anomaly strengthens in this area and should be considered as a focal point for further investigation. It is possible a source for the minerals is situated under South Crow Lake. Attempts to sample the creek between the lake has been prevented by flooding of the creek by beavers.

IV. CONCLUSIONS AND RECOMMENDATIONS

Kimberlite indicator minerals have been discovered on the South Crow Property as a result of a heavy mineral survey conducted throughout the region. The kimberlite minerals are confined to the South Crow Creek and suggest a source is situated under South Crow Lake. Electron microprobe analyses of the kimberlite grains are similar to minerals from diamond-bearing kimberlite.

The results of heavy mineral sampling on the property are very encouraging and warranted further exploration. A low-altitude (45 metre) aeromagnetic survey over the property and surrounding area is recommended. The goal of the survey is to locate possible sources of the kimberlite minerals. Targets defined by the aeromagnetic survey should be located and defined by a ground magnetometer survey and tested for kimberlite by a diamond drill program.

An estimated cost for such a program follows as:

Aeromagnetic Survey	$20,000
Ground Magnetometer Survey 30 km	15,000
Diamond Drill Program 600 m	50,000
Supervision	20,000
Total	$105,000

Respectfully submitted,

Robert J. Dillman B.Sc
Project Geologist

September 1, 2000

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REFERENCES

Berger, B.R. 1986. Geology of the Hearst-Kapuskasing area, District of Cochrane: Ontario Geological Survey, Open File Report 5599, 88p.

Boissoneau, A.N. 1968. Glacial history of northeastern Ontario. I. The Cochrane-Hearst area; Canadian Journal of Earth Sciences, v.5, p.97-109.

Dawson, J.B. and Stephens, W.E., 1975. Statistical classification of garnets from kimberlite and associated xenoliths. Journal of Geology, vol. 83, p. 589-607.

Fipke, C.E. 1994. Significance of chromite, ilmenite, G5 Mg-almandine garnet, zircon and tourmaline in heavy mineral detection of diamond bearing lamproite; *in* Diamonds: Characterization, Genesis and Exploration, Proceedings of the Fifth International Kimberlite Conference, Araxa, Minas Gervais, Brazil, P.366.

Gurney, J.J. 1984. A correlation between garnets and diamonds in kimberlite; *in* Kimberlite Occurrence and Origin: A Basis for Conceptual Models in Exploration, University of Western Australia, Perth, Western Australia, publication no.8, p.143-166.

Morris, T.F., Crabtree, D.C. and Averil, S.A. 1998. Kimberlite, base metal and gold exploration targets based upon heavy mineral data derived from surface materials, Kapuskasing, Northeastern Ontario; Ontario Geological Survey, Open File Report 5967, 41p.

Ontario Department of Mines 1963. Magladery Creek; Ontario Department of Mines, aeromagnetic series map 2238 G, scale 1:63,360.

Ontario Department of Mines 1967. Kapuskasing Sheet; Ontario Department of Mines, preliminary geological map P.398, scale 1 inch to 2 miles.

Ontario Department of Mines 1967. Hearst Sheet; Ontario Department of Mines, preliminary geological map P.397, scale 1 inch to 2 miles.

Ontario Geological Survey 1991. Bedrock geology of Ontario, east-central sheet; Ontario Geological Survey, Map 2543, scale 1:1,000,000.

Ontario Geological Survey 1991. Quaternary geology of Ontario, east-central sheet; Ontario Geological Survey, Map 2555, scale 1:1,000,000.

Stephenson, D.M., Morris, T.F. and Crabtree, D.C. 1999. Kimberlite, base metal and gold exploration targets based upon heavy mineral data derived from surface materials, Opasatika Lake area, northern Ontario; Ontario Geological Survey, Open File Report 5982, 66p.

CERTIFICATE

I, **ROBERT JAMES DILLMAN**, do hereby certify as follows:

[1.] I am a **Mining Exploration Geologist** and that I reside and carry on business at **8901 Reily Drive,** in the town of **Mount Brydges, Ontario.**

[2.] I am a **Graduate** of the **University of Western Ontario,** and hold a **Bachelor of Science Degree** and majored in **Geology.**

[3.] I have been practicing my profession as a **Geologist** since **1992.**

[4.] I am a **Licenced Prospector** in **Ontario** and have been actively engaged as a **Professional Prospector** since **1978.**

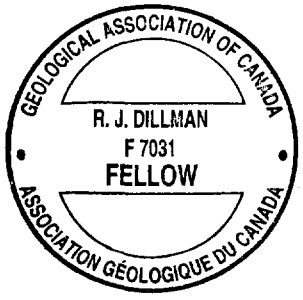
[5.] My report, dated September 1, 2000, titled: "**RESULTS OF HEAVY MINERAL PROSPECTING FOR KIMBERLITE INDICATOR MINERALS, SOUTH CROW CREEK PROPERTY, SHEARER TOWNSHIP, KAPUSKASING REGION, ONTARIO"** is based on information collected by myself between **October 16, 1998** and **September 1, 2000**. Any other information gathered from other sources has been cited in this report.

[6.] The information given in this report is as **accurate** as to the best of my knowledge and I have **not stated false information** for personal gain.

[7.] I authorize Gemcal Prospecting Syndicate to use this report or any part of, at their discretion.

[8.] I have no ownership or financial interest in the property.

[9.] I am a member of the **Geological Association of Canada.**



ROBERT JAMES DILLMAN, B.Sc.
GEOLOGIST

Dated at Mount Brydges, Ontario
This 1 th day of September, 2000

CLINOPYROXENE, R. DILLMAN --KAP SAMPLES. November 2 1998. R.L.B.

	17		18	
SIO2	54.47		53.39	
TIO2	.00		.03	
A203	1.14		1.12	
C203	.87		.48	
FEO	3.76		5.34	
MGO	17.14		14.98	
MNO	.04		.07	
CAO	21.79		24.02	
K2O	.01		.02	
NA2O	.99		.48	
SUM	100.15		99.93	
SI	1.981	*	1.972	*
AL	.019	2.000	.028	2.000
AL	.029	*	.021	*
TI	.000	*	.001	*
CR	.025	*	.014	*
FE	.114	*	.165	*
MG	.929	*	.825	*
MN	.001	*	.002	*
CA	.849	*	.951	*
NA	.070	*	.034	*
K	.000	2.018	.001	2.013
O	6.000	*	6.000	*
F/M		.124		.203
F/FM		.110		.169

→ 17 KAP G6-1 GRAIN 9 (JULY 22) SOUTH CROW CREEK
18 KAP G6-1 GRAIN 10 (JULY 22) " " "

CLINOPYROXENE, R. DILLMAN - KAP SAMPLES, November 2 1998, R.L.B.

	9	10	11	12	13	14	15	16
SIO2	54.22	54.51	54.74	53.39	53.51	53.55	54.22	53.44
TIO2	.28	.31	.29	.02	.05	.01	.16	.05
A203	.50	1.04	.69	1.18	1.22	.99	.76	.78
C203	.71	1.52	1.05	.32	.25	.46	1.15	.50
FEO	3.29	6.64	2.94	5.17	7.63	3.61	3.41	4.70
MGO	17.39	16.07	17.35	15.29	18.26	16.41	17.75	14.99
MNO	.00	.01	.02	.17	.19	.12	.00	.05
CAO	23.59	17.83	22.85	24.30	18.23	24.04	22.35	25.10
K2O	.01	.01	.02	.00	.02	.00	.00	.01
NA2O	.42	1.91	.43	.60	.50	.49	.57	.54
SUM	100.41	99.85	100.38	100.44	99.86	99.68	100.37	100.16

SI	1.972	*	1.999	*	1.983	*	1.963	*	1.966	*	1.968	*	1.969	*	1.971	*
AL	.021	1.994	.001	2.000	.017	2.000	.037	2.000	.034	2.000	.032	2.000	.031	2.000	.029	2.000
AL	.000	*	.044	*	.012	*	.015	*	.018	*	.011	*	.002	*	.005	*
TI	.008	*	.009	*	.008	*	.001	*	.001	*	.000	*	.004	*	.001	*
CR	.020	*	.044	*	.030	*	.009	*	.007	*	.013	*	.033	*	.015	*
FE	.100	*	.204	*	.089	*	.159	*	.234	*	.111	*	.104	*	.145	*
MG	.943	*	.878	*	.937	*	.838	*	1.000	*	.899	*	.961	*	.824	*
MN	.000	*	.000	*	.001	*	.005	*	.006	*	.004	*	.000	*	.002	*
CA	.919	*	.701	*	.887	*	.957	*	.717	*	.947	*	.870	*	.992	*
NA	.030	*	.136	*	.030	*	.043	*	.036	*	.035	*	.040	*	.039	*
K	.000	2.020	.000	2.016	.001	1.995	.000	2.027	.001	2.021	.000	2.021	.000	2.014	.000	2.023
O	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*
F/M	.106		.232		.096		.196		.240		.128		.108		.178	
F/FM	.096		.188		.087		.164		.194		.113		.097		.151	

9 KAP G2-18 GRAIN 5 (JULY 22)
→ 10 KAP G2-18 GRAIN 5 (OCT 3)
11 KAP G2-18 GRAIN 6 (OCT 3)
12 KAP G6-1 GRAIN 1 (SEPT 27) SOUTH CROW CREEK
13 KAP G6-1 GRAIN 3 (SEPT 27) " " "
14 KAP G6-1 GRAIN 4 (SEPT 27) " " "
→ 15 KAP G6-1 GRAIN 6 (JULY 22) " " "
16 KAP G6-1 GRAIN 8 (JULY 22) " " "

CLINOPYROXENE, R. DILLMAN, KAP, MARCH 31 2000, R.L.B.

	1	2	3	4	5	6	7	8
SIO2	54.66	53.95	52.96	53.70	53.86	53.41	53.78	53.77
TIO2	.25	.03	.22	.05	.06	.03	.10	.05
A2O3	2.41	1.06	3.67	1.07	.68	1.00	1.25	1.05
C2O3	2.53	.21	.92	.12	.37	.23	.68	.07
FEO	2.78	5.57	4.12	7.18	5.49	7.07	4.65	7.00
MGO	15.36	14.49	14.98	14.60	14.77	14.37	15.62	14.07
MNO	.11	.12	.11	.22	.16	.29	.12	.13
CAO	19.35	23.00	22.84	22.50	24.25	22.62	23.14	23.62
K2O	.02	.02	.03	.02	.03	.00	.02	.02
NA2O	2.85	1.49	.54	.68	.62	.65	.72	.75
SUM	100.32	99.94	100.39	100.14	100.29	99.67	100.08	100.53

SI	1.978	*	1.992	*	1.929	*	1.986	*	1.985	*	1.986	*	1.974	*	1.985	*
AL	.022	2.000	.008	2.000	.071	2.000	.014	2.000	.015	2.000	.014	2.000	.026	2.000	.015	2.000
AL	.081	*	.038	*	.087	*	.033	*	.015	*	.030	*	.028	*	.031	*
TI	.007	*	.001	*	.006	*	.001	*	.002	*	.001	*	.003	*	.001	*
CR	.072	*	.006	*	.026	*	.004	*	.011	*	.007	*	.020	*	.002	*
FE	.084	*	.172	*	.126	*	.222	*	.169	*	.220	*	.143	*	.216	*
MG	.829	*	.797	*	.813	*	.805	*	.811	*	.796	*	.854	*	.774	*
MN	.003	*	.004	*	.003	*	.007	*	.005	*	.009	*	.004	*	.004	*
CA	.750	*	.910	*	.891	*	.892	*	.958	*	.901	*	.910	*	.934	*
NA	.200	*	.107	*	.038	*	.049	*	.044	*	.047	*	.051	*	.054	*
K	.001	2.028	.001	2.035	.001	1.992	.001	2.012	.001	2.016	.000	2.011	.001	2.013	.001	2.017
O	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*
F/M	.106		.220		.158		.284		.215		.288		.171		.284	
F/FM	.096		.181		.137		.221		.177		.223		.146		.221	

1 SAMPLE BP-7 GRAIN 192
2 SAMPLE CC-4 GRAIN 31 SOUTH CROW CREEK
3 SAMPLE CC-4 GRAIN 32 " " "
4 SAMPLE CC-4 GRAIN 33 " " "
5 SAMPLE CC-4 GRAIN 34 " " "
6 SAMPLE CC-4 GRAIN 35 " " "
7 SAMPLE CC-4 GRAIN 36 " " "
8 SAMPLE CC-4 GRAIN 37 " " "

PYROPE, R. DILLMAN, KAP SAMPLES, December 21 1998. R.L.B.

	1	2	3	4
SIO2	41.68	41.34	41.48	41.56
TIO2	.07	.03	.20	.01
A2O3	22.19	21.16	20.70	21.95
C2O3	2.25	4.57	4.77	3.02
FEO	9.33	7.56	7.89	8.42
MGO	18.53	19.45	19.81	18.75
MNO	.52	.39	.42	.51
CAO	5.57	5.64	4.96	5.47
SUM	100.14	100.14	100.23	99.69

SI	5.983	*	5.932	*	5.950	*	5.980	*
AL	.017	6.000	.068	6.000	.050	6.000	.020	6.000
AL	3.736	*	3.510	*	3.449	*	3.701	*
TI	.008	*	.003	*	.022	*	.001	*
CR	.255	*	.518	*	.541	*	.344	*
FE	1.120	*	.907	*	.946	*	1.013	*
MN	.063	*	.047	*	.051	*	.062	*
MG	3.964	*	4.160	*	4.235	*	4.021	*
CA	.857	10.003	.867	10.014	.762	10.007	.843	9.985
O	24.000	*	24.000	*	24.000	*	24.000	*
	F/M	.298		.229		.236		.267
	F/FM	.230		.187		.191		.211

1 SAMPLE CC2 GRAIN 4 SOUTH CROW CREEK
2 SAMPLE GC4 GRAIN 14
3 SAMPLE M1 GRAIN 1
4 SAMPLE M1 GRAIN 2

PYROPE, R. DILLMAN - KAP SAMPLES, November 2 1998. R.L.B.

	1	2	3	4
SIO2	41.74	37.89	37.61	42.14
TIO2	.05	.07	.05	.23
A2O3	19.40	22.20	22.07	22.31
C2O3	6.57	.03	.01	2.68
FEO	6.96	31.86	33.02	7.11
MGO	20.01	4.70	4.31	20.35
MNO	.38	2.01	2.02	.41
CAO	4.83	1.02	.93	4.79
SUM	99.94	99.78	100.02	100.02

SI	6.006	*	5.998	*	5.975	*	5.984	*
AL	.000	6.006	.002	6.000	.025	6.000	.016	6.000
AL	3.289	*	4.139	*	4.106	*	3.717	*
TI	.005	*	.008	*	.006	*	.025	*
CR	.747	*	.004	*	.001	*	.301	*
FE	.838	*	4.218	*	4.387	*	.844	*
MN	.046	*	.269	*	.272	*	.049	*
MG	4.292	*	1.109	*	1.021	*	4.307	*
CA	.745	9.962	.173	9.920	.158	9.951	.729	9.972
O	24.000	*	24.000	*	24.000	*	24.000	*
	F/M	.206		4.046		4.565		.207
	F/FM	.171		.802		.820		.172

→ 1 KAP CC-1 GRAIN 1 (SEPT 27) SOUTH CROW CREEK
2 KAP G6-2 GRAIN 2 (JULY 22)
3 KAP G6-7 GRAIN 20 (SEPT 27)
→ 4 KAP OR-1 GRAIN 4 (SEPT 27)

PYROPE, R. DILLMAN, KAP, MARCH 31 2000, R.L.B.

	1	2	3	4
SIO2	40.81	41.69	41.73	41.17
TIO2	.22	.11	.08	.10
A2O3	19.28	22.50	22.97	21.40
C2O3	6.90	3.05	2.95	4.00
FEO	8.00	8.14	7.37	7.98
MGO	18.59	20.02	20.17	19.05
MNO	.45	.34	.24	.51
CAO	5.91	4.65	4.91	5.93
SUM	100.16	100.50	100.42	100.14

SI	5.924	*	5.925	*	5.913	*	5.919	*
AL	.076	6.000	.075	6.000	.087	6.000	.081	6.000
AL	3.222	*	3.693	*	3.748	*	3.545	*
TI	.024	*	.012	*	.009	*	.011	*
CR	.792	*	.343	*	.330	*	.455	*
FE	.971	*	.968	*	.873	*	.959	*
MN	.055	*	.041	*	.029	*	.062	*
MG	4.022	*	4.241	*	4.260	*	4.082	*
CA	.919	10.005	.708	10.006	.745	9.994	.913	10.028
O	24.000	*	24.000	*	24.000	*	24.000	*
	F/M	.255		.238		.212		.250
	F/FM	.203		.192		.175		.200

1 SAMPLE BP-7 GRAIN 165
2 SAMPLE BP-7 GRAIN 171
3 SAMPLE BP-7 GRAIN 175
4 SAMPLE CC-4 GRAIN 29 # SOUTH CROW CREEK

CHROMITE, R. DILLMAN - KAP SAMPLES, November 2 1998, R.L.B.

	9	10	11	12	13	14	15	16
SIO2	.10	.14	.00	.06	.02	.00	.00	.05
TIO2	.37	.55	.10	1.94	.77	.58	.24	.37
A203	9.28	41.43	30.33	22.17	14.73	17.35	16.06	12.08
C203	54.84	24.31	34.74	41.15	52.60	53.74	54.64	54.69
FEO	28.00	13.09	20.42	19.09	28.34	5.42	14.01	20.87
MNO	.37	.10	.30	.18	.03	.76	.23	.26
MGO	5.96	20.27	13.82	15.40	.29	22.41	15.27	11.85
ZNO	.42	.00	.08	.00	.14	.00	.00	.00
NIO	.17	.32	.21	.15	.11	.18	.16	.15
SUM	99.51	100.21	100.00	100.14	97.03	100.44	100.61	100.32

SI	.028	*	.031	*	.000	*	.015	*	.006	*	.000	*	.000	*	.013	*
TI	.077	*	.091	*	.018	*	.358	*	.163	*	.104	*	.045	*	.073	*
AL	3.036	*	10.797	*	8.590	*	6.419	*	4.873	*	4.882	*	4.718	*	3.723	*
CR	12.037	*	4.251	*	6.601	*	7.994	*	11.676	*	10.146	*	10.769	*	11.310	*
FE	6.501	*	2.421	*	4.104	*	3.923	*	6.654	*	1.082	*	2.921	*	4.565	*
MN	.087	*	.019	*	.061	*	.037	*	.007	*	.154	*	.049	*	.058	*
MG	2.466	*	6.682	*	4.951	*	5.640	*	.121	*	7.976	*	5.674	*	4.620	*
ZN	.086	*	.000	*	.014	*	.000	*	.029	*	.000	*	.000	*	.000	*
NI	.038	24.356	.057	24.348	.041	24.381	.030	24.416	.025	23.554	.035	24.378	.032	24.208	.032	24.394
O	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*
	F/M	2.671		.365		.841		.702		54.889		.155		.523		1.001
	F/FM	.728		.267		.457		.413		.982		.134		.344		.500

9 KAP G6-1 GRAIN 16 (JULY 22) SOUTH CROW CREEK
10 KAP G6-2 GRAIN 9 (JULY 22)
11 KAP G6-3 GRAIN 7 (SEPT 27)
12 KAP G6-5 GRAIN 9 (JULY 22)
13 KAP G6-7 GRAIN 12 (SEPT 27)
14 KAP G6-7 GRAIN 14 (SEPT 27)
15 KAP G6-17 GRAIN 2 (OCT 3)
16 KAP OR-1 GRAIN 15 (OCT 3) PATRICIA

CHROMITE, R. DILLMAN - KAP SAMPLES, November 2 1998, R.L.B.

	1	2	3	4	5	6	7	8
SIO2	.42	.04	.04	.02	.09	.03	.05	.07
TIO2	.21	.29	1.60	.95	.89	2.77	.15	.35
A2O3	14.97	10.85	12.02	13.79	24.59	14.03	21.04	14.11
C2O3	50.33	46.60	47.87	48.69	41.73	48.01	46.25	53.33
FEO	20.80	34.77	27.34	28.88	14.52	24.32	17.25	17.73
MNO	.25	.38	.30	.40	.24	.22	.14	.32
MGO	12.46	6.45	9.90	6.98	17.03	10.25	14.08	13.78
ZNO	.08	.06	.05	.09	.00	.10	.05	.00
NIO	.18	.19	.17	.13	.33	.25	.18	.18
SUM	99.70	99.63	99.29	99.93	99.42	99.98	99.19	99.87

SI	.109 *	.011 *	.011 *	.005 *	.022 *	.008 *	.012 *	.018 *
TI	.041 *	.061 *	.325 *	.193 *	.162 *	.546 *	.028 *	.068 *
AL	4.563 *	3.583 *	3.823 *	4.382 *	6.999 *	4.335 *	6.194 *	4.269 *
CR	10.294 *	10.326 *	10.215 *	10.381 *	7.969 *	9.952 *	9.135 *	10.824 *
FE	4.500 *	8.149 *	6.171 *	6.513 *	2.933 *	5.332 *	3.604 *	3.807 *
MN	.055 *	.090 *	.069 *	.091 *	.049 *	.049 *	.030 *	.070 *
MG	4.804 *	2.694 *	3.983 *	2.806 *	6.131 *	4.006 *	5.243 *	5.273 *
ZN	.015 *	.012 *	.010 *	.018 *	.000 *	.019 *	.009 *	.000 *
NI	.037 24.418	.043 24.970	.037 24.643	.028 24.417	.064 24.328	.053 24.299	.036 24.291	.037 24.365
O	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *
	F/M .948	3.058	1.567	2.354	.486	1.343	.693	.735
	F/FM .487	.754	.610	.702	.327	.573	.409	.424

1 KAP CC-1 GRAIN 1 (OCT 3) SOUTH CROW CREEK
2 KAP CC-1 GRAIN 8 (SEPT 27) " " "
3 KAP CC-1 GRAIN 23 (SEPT 27) " " "
4 KAP CC-1 GRAIN 26 (SEPT 27) " " "
5 KAP CC-1 GRAIN 39 (SEPT 27) " " "
6 KAP G2-14 GRAIN 10 (JULY 22)
7 KAP G2-18 GRAIN 15 (JULY 22)
8 KAP G6-1 GRAIN 5 (SEPT 27) SOUTH CROW CREEK

CHROMITE, R. DILLMAN, KAP SAMPLES, December 21 1998, R.L.B.

	1	2	3	4	5	6	7	8
SIO2	.00	.04	.00	.01	.07	.01	.10	.04
TIO2	.18	1.14	.13	.20	1.19	.17	1.28	.44
A2O3	16.75	13.42	22.46	20.71	32.78	14.88	21.11	13.05
C2O3	53.39	48.29	44.65	46.75	30.42	54.62	42.89	51.20
FEO	13.51	25.60	17.10	17.11	17.36	15.16	18.49	24.26
MNO	.31	.27	.34	.27	.17	.20	.20	.38
MGO	15.68	11.40	15.17	14.64	17.86	15.11	15.83	10.42
ZNO	.00	.07	.04	.00	.00	.00	.00	.07
NIO	.36	.13	.12	.17	.21	.08	.24	.13
SUM	100.18	100.36	100.01	99.86	100.06	100.23	100.14	99.99

SI	.000 *	.011 *	.000 *	.002 *	.016 *	.003 *	.025 *	.011 *
TI	.034 *	.226 *	.024 *	.037 *	.208 *	.032 *	.237 *	.088 *
AL	4.918 *	4.162 *	6.505 *	6.059 *	8.995 *	4.425 *	6.135 *	4.072 *
CR	10.517 *	10.049 *	8.677 *	9.177 *	5.600 *	10.898 *	8.364 *	10.720 *
FE	2.815 *	5.635 *	3.515 *	3.553 *	3.381 *	3.200 *	3.814 *	5.373 *
MN	.065 *	.060 *	.071 *	.057 *	.034 *	.043 *	.042 *	.085 *
MG	5.823 *	4.472 *	5.558 *	5.418 *	6.199 *	5.684 *	5.820 *	4.113 *
ZN	.000 *	.014 *	.007 *	.000 *	.000 *	.000 *	.000 *	.014 *
NI	.072 24.245	.028 24.655	.024 24.381	.034 24.338	.039 24.472	.016 24.300	.048 24.484	.028 24.503
O	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *
F/M	.495	1.273	.645	.666	.551	.570	.663	1.327
F/FM	.331	.560	.392	.400	.355	.363	.399	.570

1 SAMPLE CC2 GRAIN 11 SOUTH CROW CREEK
2 SAMPLE GC3 GRAIN 1
3 SAMPLE GC3 GRAIN 5
4 SAMPLE GC3 GRAIN 6
5 SAMPLE GC3 GRAIN 7
6 SAMPLE GC3 GRAIN 10
7 SAMPLE GC6 GRAIN 8
8 SAMPLE G2-22 GRAIN 2

CHROMITE, R. DILLMAN, KAP, March 31 2000, R.L.B.

	25	26	27	28	29
SIO2	.00	.03	.00	.00	.10
TIO2	.13	1.67	.00	.23	.84
A2O3	15.21	27.84	23.18	19.68	32.94
C2O3	52.42	35.12	37.32	49.17	33.02
FEO	18.69	18.82	32.18	16.86	15.48
MNO	.37	.15	.86	.37	.21
MGO	12.85	15.68	6.45	13.48	17.55
ZNO	.00	.00	.05	.00	.00
NIO	.03	.22	.24	.23	.25
SUM	99.70	99.53	100.28	100.02	100.39

		*		*		*		*		*
SI	.000	*	.007	*	.000	*	.000	*	.023	*
TI	.025	*	.302	*	.000	*	.043	*	.146	*
AL	4.611	*	7.901	*	7.122	*	5.791	*	8.978	*
CR	10.663	*	6.687	*	7.693	*	9.707	*	6.038	*
FE	4.021	*	3.791	*	7.017	*	3.521	*	2.994	*
MN	.081	*	.031	*	.190	*	.078	*	.041	*
MG	4.928	*	5.629	*	2.507	*	5.017	*	6.050	*
ZN	.000	*	.000	*	.010	*	.000	*	.000	*
NI	.006	24.335	.043	24.391	.050	24.588	.046	24.204	.047	24.317
O	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*
	F/M	.832		.679		2.875		.717		.502
	F/FM	.454		.404		.742		.418		.334

25 SAMPLE BP-7 GRAIN 144
26 SAMPLE BP-7 GRAIN 159
27 SAMPLE BP-7 GRAIN 202
28 SAMPLE CC-4 GRAIN 4 SOUTH CROW CREEK
29 SAMPLE CC-4 GRAIN 24 SOUTH CROW CREEK

ILMENITE, R. DILLMAN - KAP SAMPLES, November 2 1998, R.L.B.

	1	2	3	4
SIO2	.00	.04	.00	.04
TIO2	49.28	56.33	50.10	53.75
A2O3	.48	.36	.37	.30
C2O3	.07	.89	.20	2.93
FEO	41.28	28.34	39.64	29.62
MNO	.41	.26	.38	.27
MGO	7.95	13.95	9.08	12.59
ZNO	.00	.07	.00	.00
NIO	.19	.15	.12	.17
SUM	99.66	100.39	99.89	99.67

SI	.000	*	.010	*	.000	*	.010	*
TI	9.727	*	10.318	*	9.774	*	10.040	*
AL	.148	*	.103	*	.113	*	.088	*
CR	.015	*	.171	*	.041	*	.575	*
FE	9.061	*	5.773	*	8.600	*	6.153	*
MN	.091	*	.054	*	.084	*	.057	*
MG	3.110	*	5.064	*	3.511	*	4.661	*
ZN	.000	*	.013	*	.000	*	.000	*
NI	.040	22.192	.029	21.535	.025	22.149	.034	21.618
O	32.000	*	32.000	*	32.000	*	32.000	*
	F/M	2.943		1.150		2.473		1.332
	F/FM	.746		.535		.712		.571

1 KAP CC-1 GRAIN 2 (OCT 3) SOUTH CROW CREEK
2 KAP CC-1 GRAIN 10 (SEPT 27) " " "
3 KAP OR-1 GRAIN 2 (OCT 3) PATRICIA
4 KAP OR-1 GRAIN 3 (SEPT 27) "

ILMENITE, R. DILLMAN, KAP, March 31 2000, R.L.B.

	1	2	3	4
SIO2	.01	.00	.02	.01
TIO2	53.47	53.30	53.54	49.47
A2O3	.23	.20	.37	.36
C2O3	2.30	2.70	.21	.00
FEO	30.57	29.76	33.40	42.34
MNO	.34	.33	.28	.82
MGO	11.79	12.30	10.99	6.29
ZNO	.00	.00	.00	.00
NIO	.14	.06	.04	.05
N2O5	.10	.06	.27	.07
SUM	98.95	98.71	99.12	99.41

SI	.003	*	.000	*	.005	*	.003	*
TI	10.114	*	10.073	*	10.197	*	9.866	*
AL	.068	*	.059	*	.110	*	.113	*
CR	.457	*	.536	*	.042	*	.000	*
FE	6.430	*	6.254	*	7.074	*	9.391	*
MN	.072	*	.070	*	.060	*	.184	*
MG	4.420	*	4.607	*	4.148	*	2.486	*
ZN	.000	*	.000	*	.000	*	.000	*
NI	.028	*	.012	*	.008	*	.011	*
NB	.011	21.604	.007	21.619	.031	21.676	.008	22.062
O	32.000	*	32.000	*	32.000	*	32.000	*
	F/M	1.471		1.373		1.720		3.851
	F/FM	.595		.579		.632		.794

1 SAMPLE BP-7 GRAIN 3
2 SAMPLE BP-7 GRAIN 38
3 SAMPLE BP-7 GRAIN 111
4 SAMPLE CC-4 GRAIN 13 SOUTH CROW CREEK

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Ph. 1-519-652-1498
Fax 1-519-652-1475

April 3, 2000

Dear Robert,

The identity of "non-indicator" minerals, in the KAP samples BP-7 and CC-4, received February 25, 2000, for which analyses were not provided, is:

CC-4	grains	3,10,11,15,16,21	- melanite
SOUTH CROW CREEK	grains	1,7,19	- tourmaline
	grains	2,8,20	- amphibole
	grains	9,12,14	- magnetite
	grains	22,30	- spessartine-almandine ss
	grain	6	- rhodocrosite
	grain	16	- perovskite
	grain	23	- lost
	grain	25	- grossular-andradite ss
	grain	40	- Fe-orthopyroxene

Sincerely,

R. L Barnett

Independent Review of Kap, South Crow Creek and Patricia Properties; Kapuskasing Area

prepared for

Gemcal Prospecting Syndicate

and

Diadem Resources Ltd.

by

Edward C. Walker, Ph.D.
PetroLogic Inc.

Summary

PetroLogic Inc. was requested by Robert Dillman, Arjadee Prospecting, on behalf of Gemcal Prospecting Syndicate and Diadem Resources Inc., to perform an Independent Review of the technical work reported for the Kap, South Crow Creek and Patricia Properties 40 km southwest of Kapuskasing, Ontario. The objectives of the Independent Review were to confirm, duplicate and verify the processes involved in the acquisition of previously reported data and to assess the accuracy of its interpretation. During the Independent Review, Arjadee Prospecting, Gemcal Prospecting Syndicate and Diadem Resources Inc. representatives were cooperative; all relevant information and adequate access to each of the properties was provided. The author was not restricted in any way to complete the Independent Review as deemed suitable. The results of the Independent Review are summarized below and are included in the accompanying report.

Each of the three properties is characterized by relatively flat overburden with limited outcrop exposure. Samples from the Kap Property – E Grid and the South Crow Creek Property are derived from broad, gently sloping drainage pathways that are occupied by narrow creeks. The bottoms of these narrow creeks contain concentrations of silt, sand and gravels along with a high proportion of clay. The sands and gravels are considered to be derived from locally "washed" and poorly sorted, glacial till. The Patricia Property sample is from a fluvial sediment trap occurring within well sorted sediments of the Opasatika River.

All samples were screened at the collection site on 5 mm screens and partially deslimed. The –5 mm portion was emptied into a plastic bag, sealed, labeled and securely stored by PetroLogic. Triplicates were taken at each site to ensure the anonymity of the sample selected for verification and to ensure that a reference sample remains in storage for each site.

Upon return from the field, a mutually convenient site was selected an d prepared to process a randomly selected sample of the three collected from each of the properties. The same flowchart as the previously reported results was used for processing heavy mineral concentrates from each of the three selected sites. The coarse fractions were observed and selected by Arjadee Prospecting and the finer fraction was submitted along with a securely sealed duplicate sample (selected randomly) to a laboratory with specific methods accredited under ISO Guide 25 for kimberlite indicator mineral extraction, observation and selection. The selected indicator minerals from each of the four concentrates were submitted for mineral chemical analysis. The results were compared to previously reported grains from the same sample sites and the duplicate sample submitted to the accredited laboratory, Kennecott Canada Exploration Inc., Mineral Processing Laboratory. Selected grains with the appropriate mineral chemistry were compared to accepted kimberlite indicator mineral compositions as reported and generally accepted in the literature.

Within the scope of the present study, sample collection, processing and selection of kimberlite indicator minerals is considered excellent and effective for each of the properties examined. This is clearly demonstrated by the duplication of the results using the same processing flowchart and verification of the results from a sample processed using a different, but comparable, flowchart at an accredited laboratory. In addition, previous work on the properties can be readily confirmed and supportive documents are available. Within the scope of the present examination, it appears that the selected grains are indicative of kimberlite indicator minerals.

While planning for future work to identify the bedrock source of the kimberlite indicator minerals, it is important that the following are considered before committing to a specific course of action:

a) Reported indicator minerals were recovered from surface samples of "washed till" or fluvial sediments transported in approximately the opposite direction to glacial transport,
b) Bedrock is potentially covered by up to three till sheets from similar, but different directions,
c) A relatively high proportion of non-local material (sedimentary clasts) is present in the samples,
d) Background kimberlite indicator mineral proportions have not been established (background vs anomalous and anomalous vs highly anomalous have not be quantified),
e) Even though the indicator mineral compositions overlap with kimberlite compositions, many of the compositions are not restricted to kimberlites specifically and
f) Rocks other than kimberlite (for example, Cargill Carbonatite) with a relatively "deep" seated origin are present near the three properties examined.

The integrity of the data has been confirmed, duplicated and verified independently within the scope of the current examination. The results suggest that a component of the overburden within the properties examined has likely been derived from a bedrock source hosting kimberlite and/or other types of mantle derived mafic rock types. It is considered reasonable to investigate the possibility that the local magnetic anomalies could be the bedrock source of kimberlite indicator minerals. When assessing the bedrock source of kimberlite indicator minerals on the properties examined, the points listed above must be considered.

Sincerely,
PetroLogic Inc.

Edward C. Walker
President

Table of Contents

List of Tables

List of Figures

List of Illustrations

Introduction

As requested by Robert Dillman, Arjadee Prospecting, on behalf of Gemcal Prospecting Syndicate and Diadem Resources Ltd., an Independent Review of the diamond exploration activity for the Kap, South Crow Creek and Patricia Properties, 40 km southwest of the Kapuskasing, Ontario was completed.

The Independent Review was designed with the intent to fairly and accurately duplicate previously reported results on the Kap, South Crow Creek and Patricia Properties and to demonstrate the quality and integrity of the data reported. It was also the intent of the Independent Review to adequately determine whether the reported data has been interpreted based on "best industry practices" for diamond exploration. The primary objectives of the Independent Review are to confirm, duplicate and verify the previously reported kimberlite indicator mineral results and to assess the accuracy of the reported interpretation.

Each of the three sites were visited between June 16 and 19th and a single site was selected from each property that had been previously sampled and reported to have kimberlite indicator minerals for the current Independent Review. The three properties were accessed readily by logging roads. Samples were taken in triplicate and the author was accompanied by a client representative at each of the sites to ensure the appropriate sample site was located and the field sampling techniques and protocols were similar to those previously reported. All sample handling and processing undertaken by the client was supervised by the author.

During the entire Independent Review, Gemcal Prospecting Syndicate and Diadem Resources Ltd. representatives were fully cooperative and provided all relevant information and adequate access to each of the properties. The author was not restricted in any way to complete the Independent Review as deemed suitable.

Methodology

The Independent Review was designed to complete the following objectives:

- Confirm the results by reviewing previous work and supporting documentation and to visit each property,
- Duplicate the results by collecting samples from each of property and extracting, observing and selecting indicator minerals from the samples as indicated by the flowchart in previous reports,
- Verify the data by submitting a "secure" sample to a laboratory with methods accredited under ISO Guide 25 specifically for kimberlite indicator mineral extraction, observation and selection.
- Assess the accuracy and interpretation of the results by comparing the data from previous reports and the present study with "best industry practices" for diamond exploration.

The selected sample sites from each property were those with relatively high previously reported kimberlite indicator mineral counts. A single site was selected and the sample collected from each property under the direct supervision of the author. The samples were sealed and securely stored by the author upon collection. To ensure a "controlled" environment for sample processing, the samples were processed at a neutral location by Robert Dillman, who was unaware of the sample location sites. The selected samples were processed according to the previously processed samples to ensure consistency. The heavy mineral concentrates were dried, sealed and submitted to a laboratory with methods accredited under ISO Guide 25 specifically for indicator mineral extraction, observation and selection. In addition, a secure sample was selected randomly and confidentially from the remaining collected samples and submitted to the same laboratory for heavy mineral extraction as well as observation and selection. The selected kimberlite indicator mineral grains were then confirmed using quantitative mineral chemical analysis. The results were compiled and compared to previously reported results of known kimberlite indicator minerals and "best industry practices".

Data integrity was ensured by observing sample collection and processing performed by the client and securely sealing and storing all samples. Anonymity of samples was achieved by labeling each sample with a generic identifier, keeping sample location confidential and taking the samples in triplicate. Additional samples were also a benefit for ensuring adequate reference samples were maintained for storage.

Note: Even though there are laboratories accredited under ISO Guide 25 for extraction, observation and selection of kimberlite indicator minerals, the competency of the laboratories is not test due to the absence of national standards, proficiency testing and round robin testing specifically for these methods.

Field Observations and Sample Collection

The Kapuskasing area is characterized by relatively flat lying overburden of variable thickness and limited outcrop exposure. Bedrock consists of Achaean high-grade metamorphic granites and supracrustal rocks and younger Proterozoic Diabase dykes. The Cargill Carbonatite Complex is closely located to the properties, occurring approximately 7 km north of the Kap Property. Glaciation in the area is characterized by three discrete advances as illustrated by glacial striae oriented at approximately 120. (youngest), 160. and 220. and distinctive till sheets associated with each advance (youngest - Cochrane, and the older two - Matheson and Monteith) (Boissonneau 1968). The typical surficial till in the area of the three properties contains abundant mud and silt with a minor proportion of pebbles, cobbles and boulders.

Sampling in the area by the Gemcal Syndicate has been focused toward creeks and rivers that vary from what can be described as "washed till" to recent fluvial deposits. All the samples are representative of till that has been sorted and redeposited by post-glacial drainage in a northward direction opposite to glacial transport. The shallower poorly developed creeks are likely to represent washing of a single till sheet with limited distance of transport whereas the deeper more developed creeks and rivers are likely sampling more than one till, if present, and have transported the sand, pebbles and heavy minerals a significant distance.

The Kap Property – E Grid is typical of the area (Illustration 1). The sample location occurs within a gently sloping drainage pathway within a creek in the middle of the pathway approximately 10 meters downstream of a beaver dam and pond (Illustration 2). The till appears to have been incised during post-glacial drainage by no more than a few meters. Previous sampling was easily located, clearly labeled by flagging and evident by a pile of +5 mm oversize (Illustration 3). The sample is considered to represent "washed till" (immature fluvial sediments) that have concentrated sand, pebbles, cobbles and heavy minerals along the bottom of the creek. The coarse material and the heavy minerals are typically not more than a few centimeters thick along the bottom of the creek. Using a shovel, the bottom of the stream was scrapped of the coarse material and then screened on 5 mm (Illustration 4). Enough material was collected until a sample greater than 10 kg of –5 mm was obtained (Illustration 5). The oversize (+5 mm) was observed to contain a significant proportion (50 to 75%) of sedimentary rocks (Illustration 6).

In addition to sampling E Grid, D Grid was visited while on the Kap Property to compare sample sites. The D Grid is similar, however, the post-glacial drainage pathway is wider and deeper than E Grid and could possibly have sampled more than one till sheet if present in the area (Illustration 7). The samples collected in the area are considered to represent a higher proportion of "washed till" than the sample site on E Grid.

The South Crow Creek Property is also typical of the area and similar to E Grid. The sample location occurs 3 meters downstream of a beaver dam and occurs within a narrow creek situated within the middle of a broad, gently sloping post-glacial drainage pathway (Illustration 8). The sample location was easily located and previous sampling was evident by the presence of a pile of +5 mm oversize along the side of the creek (Illustration 9). Using a shovel, the bottom of the stream was scrapped of the coarse material and then screened on 5 mm. Enough material was collected until a sample greater than 10 kg of –5 mm was obtained. The –5 mm sample had a much higher proportion of mud and silt than the sample from the E Grid, however, the oversize (+5 mm) was observed to be similar, containing a significant proportion (approximately 50%) of sedimentary rocks ((Illustration 10).

Sampling at the Patricia Property was slightly different than the sample sites on the Kap and South Crow Creek Property (Illustration 11). At this location, a shovel was used to take a >10 kg sample of –5 mm fluvial sediments concentrated on the downstream side of boulders adjacent to a <1 meter waterfall, 30 meters downstream of an approximately 3 meter waterfall (Illustration 12). Mud and silt prevalent in the other samples was absent in the Patricia Property sample and the +5 mm oversize had a greater proportion (50 to 75%) of locally derived granitic bedrock pebbles and cobbles (Illustration 13). Because of high water levels, the sample was taken 20 m to the west of the original sample and the 5 mm oversize was not observed during the visit.

The following table summarizes the sample site and the type of material sampled from each property with the corresponding sample identifier.

Table 1. Sample Sites and Type of Material Sampled

Property	Location	Description	Sample Type	Sample
Kap	E Grid	Beaver Creek	"Washed Till"	000617-A 000617-B 000617-C
South Crow Creek	South Crow Creek	Beaver Creek	"Washed Till"	000617-D 000617-E 000617-F
Patricia	Opasatika River	River	Fluvial Sediments	000617-G 000617-H 000617-I

Each of the samples collected were "sealed" and kept secure by the author upon removal and return from the field and stored at PetroLogic's office in Lakefield, Ontario.

Heavy Mineral Processing

Upon return from Kapuskasing, a convenient time and adequate location was scheduled with Ajadee Prospecting to process the duplicate samples. The equipment was setup for processing and inspected (Illustration 14). Once the equipment was inspected to be clean, one of the three samples collected for processing were selected, the seal broken and provided for processing. The location of each sample was kept confidential. Each sample was processed according to the Ajadee flowchart identical to the previously collected samples (Appendix III). All sample handling and processing was supervised by the author.

The essence of the Arjadee flowchart is to produce a rougher concentrate of heavy minerals using a set of screens specifically designed for jigging. The heavy minerals concentrate in the center of the screen and the "bulls eye" is scoped away including enough of the surrounding material to ensure as much of the heavy minerals as possible have been included (Illustration 15 to 17). The samples are dried and the ferromagnetic and strongly paramagnetic minerals are then separated from the concentrate and stored in an appropriately labeled vial. A heavy mineral separation using lithium metatungstate with an S.G. of 3.0 is performed on the samples. The lights and heavies are then dried, placed into appropriately labeled vials and securely stored. The heavies were subsequently submitted for kimberlite indicator mineral observation and selection at the Kennecott Laboratory.

A single sample was then confidentially selected and submitted with the concentrates to Kennecott Laboratory for heavy mineral processing, extraction, observation and selection to verify the results.

It is important to note that the Kennecott flowchart differs from Ajadee flowchart primarily by the absence of a preconcentration of heavy minerals from the sample and the size fractions submitted for kimberlite indicator mineral observation and selection. The Kennecott flowchart follows a series of steps that include desliming, screening, magnetic separation and heavy liquid separation at 2.9. Table 2 lists the selected sample numbers and the flowchart used to process the sample.

Table 2. Samples Selected for Processing

Sample Label	Property	Location	Sample Type	Flowchart
000617-A	Kap	E Grid	"Washed Till"	Arjadee/ Kennecott
000617-C	Kap	E Grid	"Washed Till"	Kennecott
000617-F	South Crow Creek	South Crow Creek	"Washed Till"	Arjadee/ Kennecott
000617-H	Patricia	Opasatika River	River Gravel	Arjadee/ Kennecott

Indicator Mineral Observation and Selection

Upon completion of heavy mineral processing, each of the concentrates were observed for kimberlite indicator minerals. The +0.5 mm fractions were observed by Robert Dillman, Arjadee Prospecting to ensure the samples appear representative of previous samples and the grains were put in a separate appropriately labeled vials for selection. The vials of selected +0.5 mm and each of the –0.5 mm concentrates were submitted for indicator mineral observation and selection at the Kennecott Laboratory, accredited under ISO Guide 25 for methods specifically for kimberlite indicator mineral observation and selection (Appendix IV). The observation results for each of the concentrates are summarized in the Table 3.

The grains selected by the Kennecott laboratory were submitted directly to R.L. Barnett Geological Consulting Inc. for mineral chemical analysis. According to "best industry practices", each of the selected grains must be confirmed by mineral chemistry.

Table 3. Indicator Mineral Observation Results

Sample #	Property	Pyrope	Cr-Diopside	Chromite	Ilmenite
000617-A	Kap Prop. - E Grid	0	1	14	70
000617-C	Kap Prop. - E Grid	0	0	52	63
000617-F	South Crow Creek	2	1	8	12
000617-H	Patricia Property	0	0	31	15

Table 4. Indicator Mineral Selection Results

Sample #	Property	Pyrope	Cr-Diopside	Chromite	Ilmenite
000617-A	Kap Prop. - E Grid	0	1	14	67
000617-C	Kap Prop. - E Grid	0	0	26	43
000617-F	South Crow Creek	2	1	5	7
000617-H	Patricia Property	0	0	23	14

Mineral Chemistry Results and Comparison

Each of the selected grains were mounted in epoxy on glass slides and polished. The polished grain mounts were then carbon coated and analyzed using standard operating procedures by R.L. Barnett Geological Consulting Inc. with a JEOL Superprobe 733 electron microprobe equipped with five spectrometers, energy dispersive spectrum (EDS), back scatter detector and TRACOR NORTHERN automation system. The grains were first examined using EDS and the grains with patterns indicative of kimberlite indicator minerals were analyzed with wavelength spectrometers to obtain quantitative mineral chemical analysis.

The total number of selected grains reported are those grains that are confirmed by mineral chemical analysis. Indicator minerals from the previous work, current independent review and the verification sample processed by the Kennecott Laboratory are summarized in Table 4.

Table 4 demonstrates that the number of kimberlite indicator minerals reported in the previous work is similar to the number recovered during the Independent Review. The only significant difference in the data is the greater number of ilmenite grains recovered from the verification sample processed, observed and selected by the Kennecott Laboratory.

Partial chemical analyses of the analyzed grains are presented in Figures 1 through 5 and the mineral chemical data presented by R.L. Barnett Geological Consulting Inc. are presented in Appendix V. The Figures for each of the minerals are commonly applied discriminating plots used to represent compositional similarities with minerals from kimberlites. These plots have been used and discussed in previous reports. The chemistry of the grains from the Independent Review, for both the Arjadee and Kennecott Laboratory flowchart, are compositionally similar to previously reported kimberlite indicator minerals. The selected grains are compositionally similar to kimberlite indicator minerals.

Table 5. Indicator Mineral Results and Comparison for each Property

A. Kap Property

Purpose	Sample #	Pyrope	Cr-Diopside	Chromite	Ilmenite	Flowchart
Previously Reported	GC-9	0	1	6	5	Arjadee
Review Sample	000617-A	0	1	8	6	Arjadee/ Kennecott*
Verification Sample	000617-C	0	0	4	13	Kennecott

B. South Crow Creek Property

Sample #	Sample #	Pyrope	Cr-Diopside	Chromite	Ilmenite	Flowchart
Previously Reported	CC-1	1	0	5	2	Arjadee
Previously Reported	CC-2	1	0	1	2	Arjadee
Previously Reported	CC-4	1	1	2	1	Arjadee
Review Sample	000617-F	2	1	1	1	Arjadee/ Kennecott*

C. Patricia Property

Sample #	Sample #	Pyrope	Cr-Diopside	Chromite	Ilmenite	Flowchart
Previously Reported	OR-1	1	0	4	2	Arjadee
Review Sample	000617-H	0	0	4	5	Arjadee/ Kennecott*

*Samples were processed using Arjadee flowchart and the heavy mineral concentrates were observed and selected by the Kennecott Laboratory.

Figure 1. Pyrope

	CaO	Cr2O3
Kap Property - E Grid		
None Reported		
South Crow Creek Property		
○ CC-1	4.83	6.57
◍ CC-2	5.57	2.25
● CC-4	5.93	4.00
● 000617-F	5.59	3.26
000617-F	5.40	6.06
Patricia Property		
△ OR-1	4.79	2.68

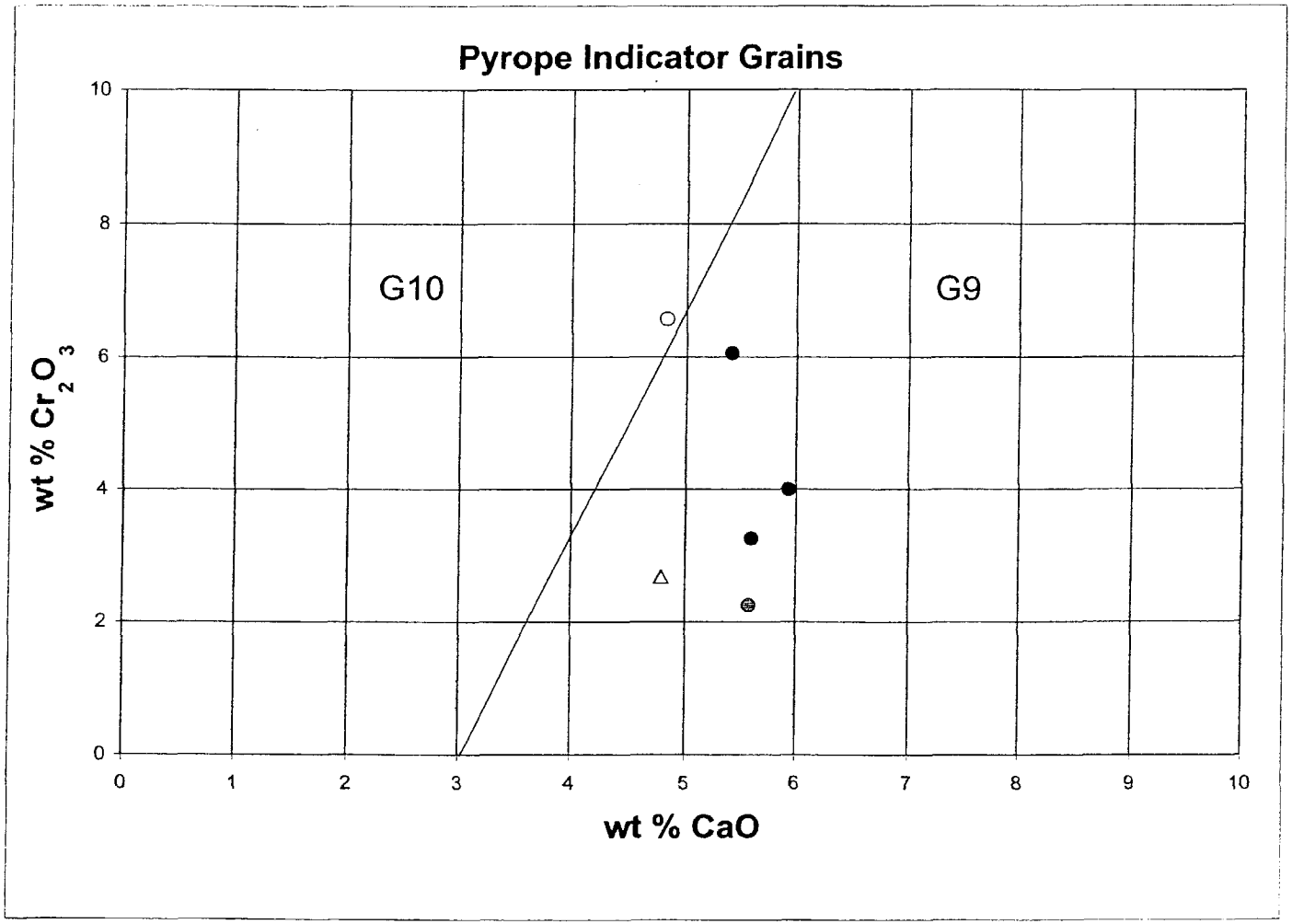


Figure 2. Cr-Diopside

	CaO	Cr2O3	Na2O
Kap Property - E Grid			
□ GC-9	19.08	1.00	0.47
■ 000617-A	21.85	1.04	2.13
South Crow Creek Property			
● CC-4	22.84	0.92	0.54
● 000617-F	22.89	1.72	1.43
Patricia Property			
None Reported			

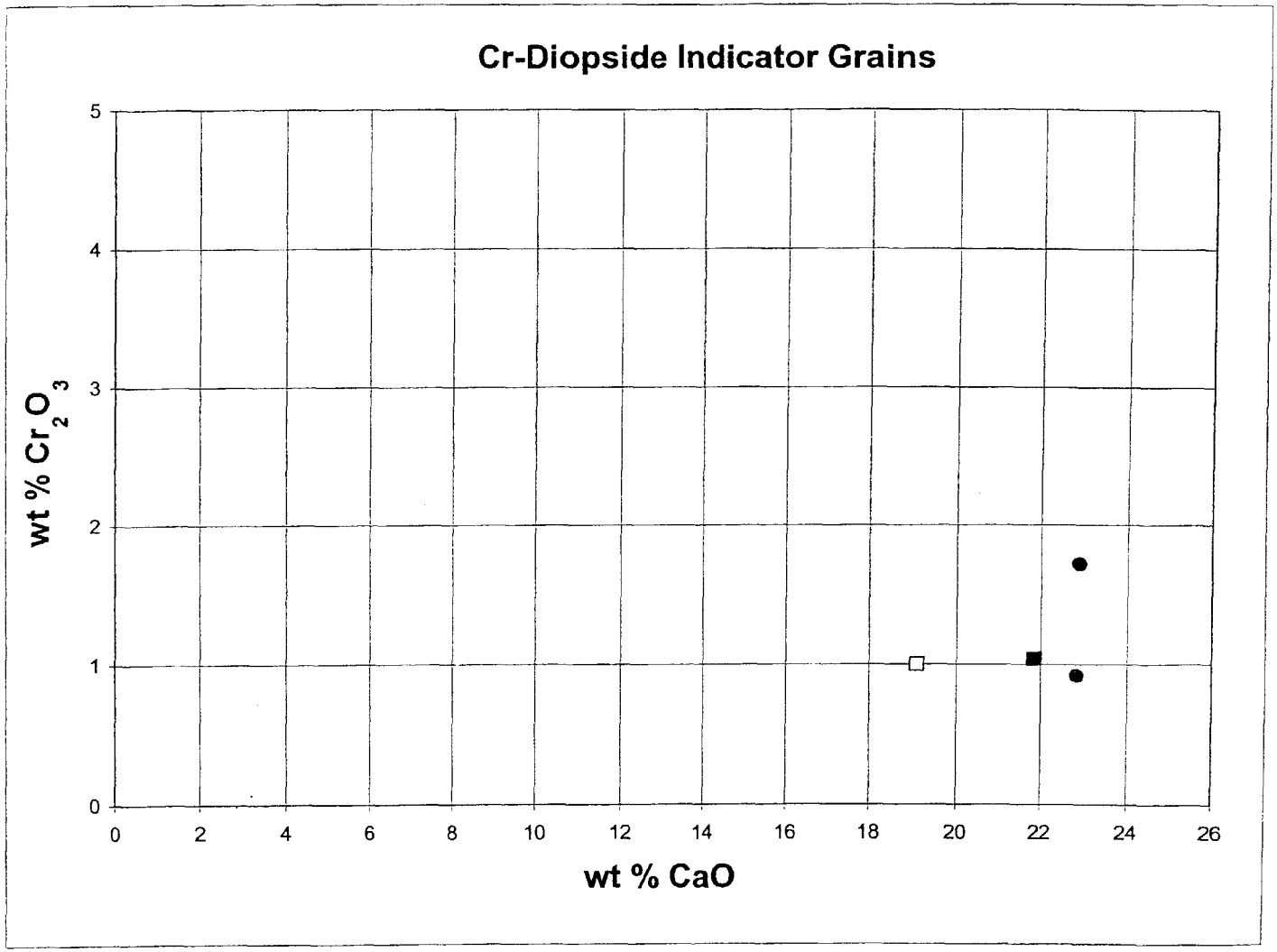


Figure 3. Cr-Diopside

	CaO	Cr2O3	Na2O
Kap Property - E Grid			
GC-9	19.08	1.00	0.47
000617-A	21.85	1.04	2.13
South Crow Creek Property			
CC-4	22.84	0.92	0.54
000617-F	22.89	1.72	1.43
Patricia Property			
None Reported			

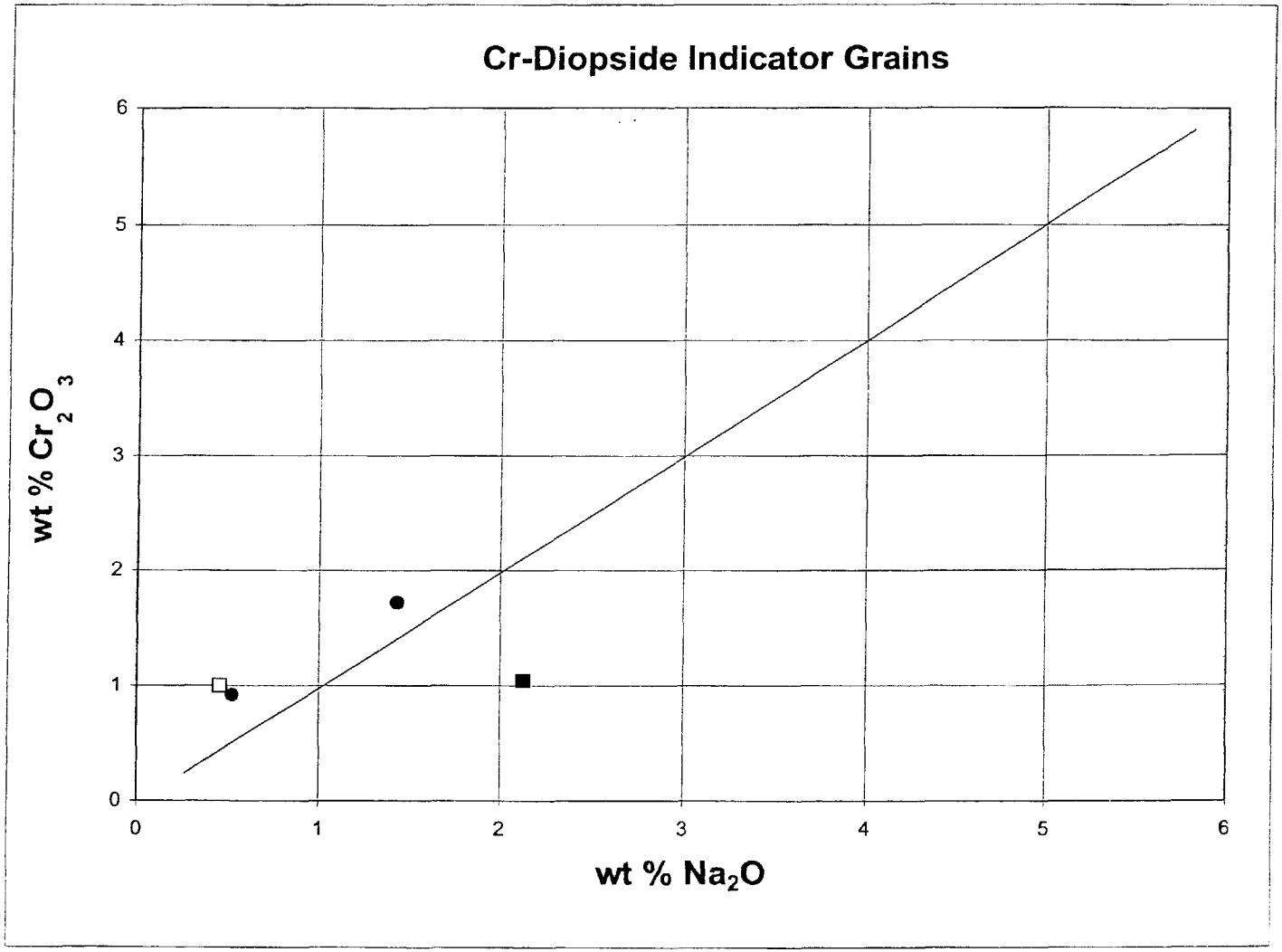


Figure 4. Chromite

		MgO	Cr2O3
Kap Property - E Grid			
□	GC-9	11.35	53.80
	GC-9	11.20	52.85
	GC-9	15.02	54.85
	GC-9	14.49	52.83
	GC-9	13.59	53.92
	GC-9	8.85	52.79
■	000617-A	13.87	55.81
	000617-A	14.51	51.34
	000617-A	11.90	35.54
	000617-A	13.66	52.76
	000617-A	11.95	51.87
	000617-A	14.47	52.04
	000617-A	11.21	52.05
	000617-A	14.40	51.23
✳	000617-C	17.20	25.93
	000617-C	14.29	53.69
	000617-C	10.81	56.75
	000617-C	15.14	53.55
South Crow Creek Property			
○	CC-1	12.46	50.33
	CC-1	6.45	46.60
	CC-1	9.90	47.87
	CC-1	6.98	48.69
	CC-1	17.03	41.73
◍	CC-2	15.68	53.39
●	CC-4	12.85	52.42
	CC-4	15.68	35.12
●	000617-F	13.27	52.27
Patricia Property			
△	OR-1	11.85	54.69
	OR-1	5.18	49.56
	OR-1	7.31	53.57
	OR-1	18.59	36.15
▲	00067-H	14.12	48.92
	00067-H	14.42	51.54
	00067-H	13.86	51.34
	00067-H	17.56	23.90

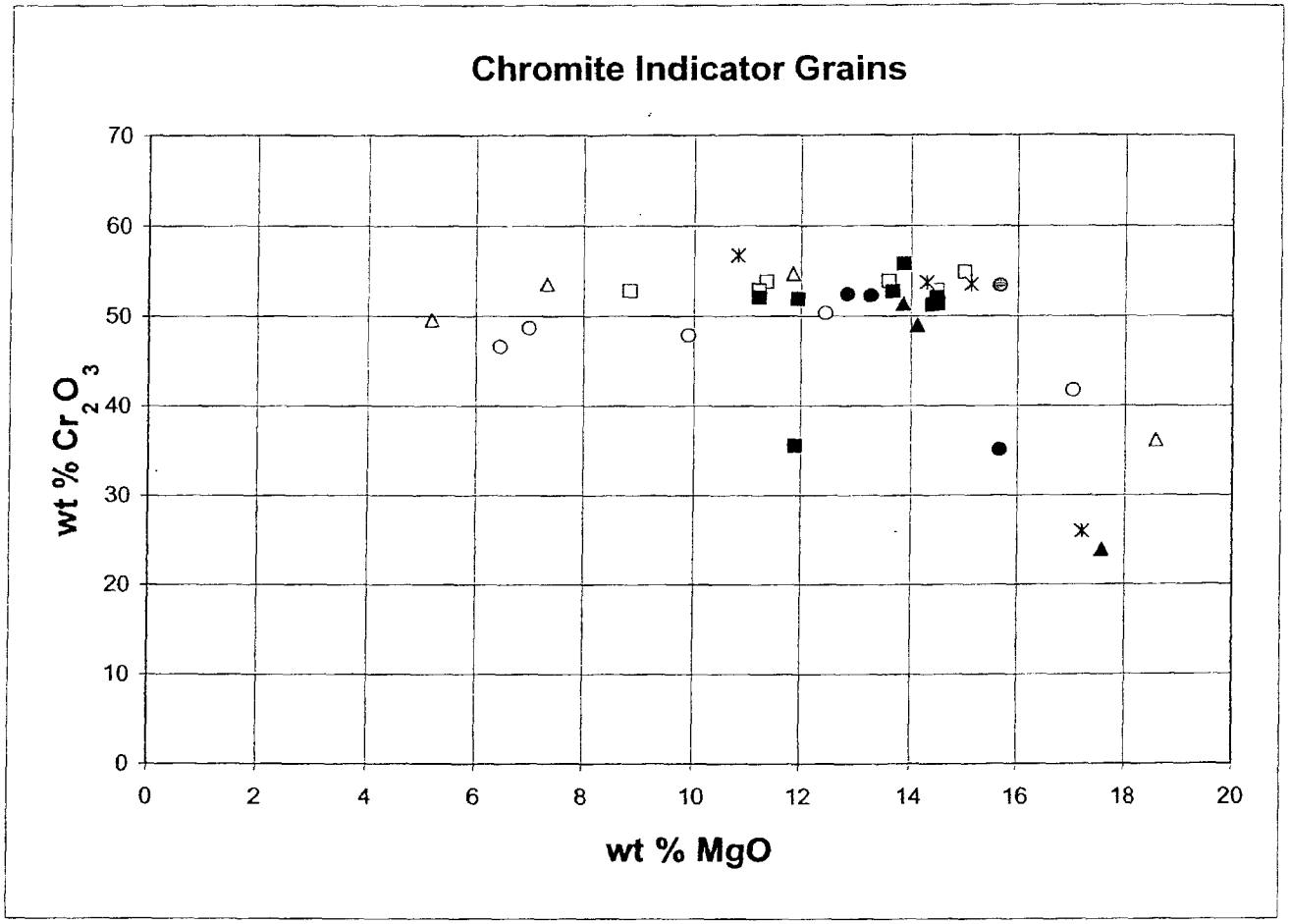
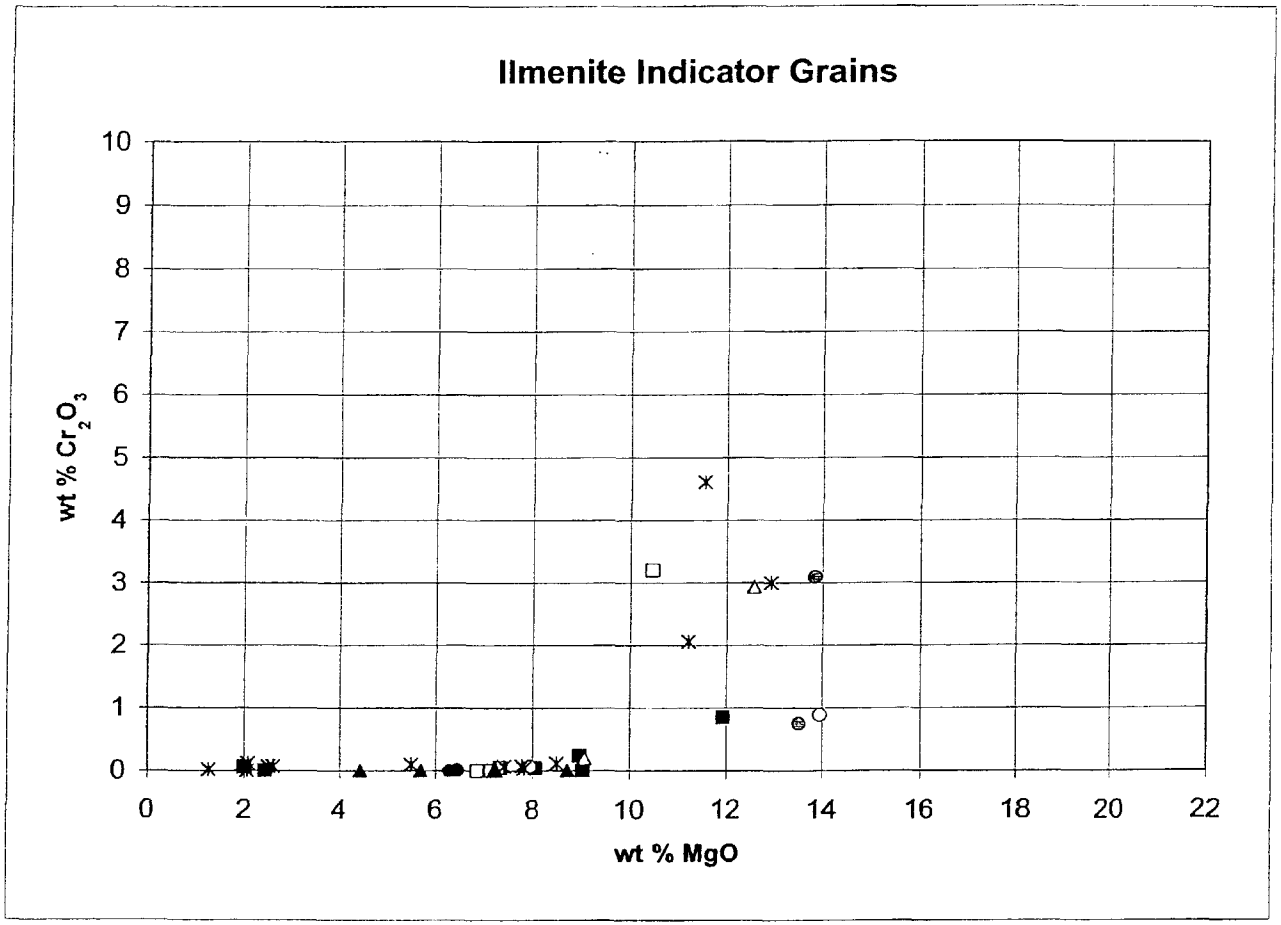


Figure 5. Ilmenite

		MgO	Cr2O3
Kap Property - E Grid			
□	GC-9	6.87	0.00
	GC-9	7.16	0.00
	GC-9	7.15	0.00
	GC-9	7.33	0.05
	GC-9	10.45	3.20
■	000617-A	2.43	0.00
	000617-A	9.05	0.00
	000617-A	11.94	0.85
	000617-A	2.00	0.06
	000617-A	8.06	0.05
	000617-A	8.99	0.24
✳	000617-C	11.52	4.61
	000617-C	1.28	0.02
	000617-C	2.08	0.12
	000617-C	11.19	2.06
	000617-C	12.93	3.00
	000617-C	7.82	0.04
	000617-C	8.51	0.12
	000617-C	5.48	0.10
	000617-C	7.41	0.07
	000617-C	2.60	0.07
	000617-C	2.06	0.00
	000617-C	7.78	0.08
	000617-C	2.50	0.07
South Crow Creek Property			
○	CC-1	7.95	0.07
	CC-1	13.95	0.89
◉	CC-2	13.84	3.09
	CC-2	13.52	0.75
●	CC-4	6.29	0.00
●	000617-F	6.45	0.01
Patricia Property			
△	OR-1	9.08	0.20
	OR-1	12.59	2.93
▲	000617-H	4.42	0.00
	000617-H	7.22	0.02
	000617-H	5.68	0.00
	000617-H	7.24	0.00
	000617-H	8.73	0.00



References

Boissonneau, A.N., 1968. Glacial history of northeastern Ontario. The Cochrane-Hearst area. Canadian Journal of Earth Sciences, vol. 6, p. 97-109.

Dawson, J.B. and Stephens, W.E., 1975. Statistical classification of garnets from kimberlite and associated xenoliths. Journal of Geology, vol. 83, p. 589-607.

Dillman, R.J., June 4, 2000. Report on additional heavy mineral sampling on the Kap Property Ecclestone Township, Kapuskasing, Ontario Gemcal Prospecting Syndicate.

Dillman, R.J., March 1, 2000. Results of heavy mineral prospecting for kimberlite indicator minerals South Crow Property, Shearer Township Kapuskasing Region, Ontario.

Dillman, R.J., Summary of exploration of the Patricia Property McCrea Township, Kapuskasing Region, Ontario Gemcal Prospecting Syndicate.

Fipke, C.E., Gurney, J.J. and Moore, R.O., 1995. Diamond Exploration techniques emphasizing indicator mineral geochemistry and Canadian examples. Geological Survey of Canada Bulletin 423. 86p.

Gurney, J.J., 1984. A correlation between garnets and diamonds in kimberlites, in Kimberlites, Occurrence and Origin: A Basis for Conceptual Models, J.E. Glover and P.G. Harris, eds. Geol. Dept. Univ. Western Australia Pub. 8, p. 143-166.

Gurney, J.J. and Moore, R.O., 1991. Kimberlite garnet, chromite and ilmenite compositions, applications to exploration. In P. Sheahan and A. Chater (editors), Diamonds: exploration, sampling and evaluation. Prospectors and Developers Association of Canada, Toronto, pp. 109-146.

Mitchell, R.H., 1986. Kimberlites: Mineralogy, Geochemistry, and Petrology. Plenum Press, New York. pp. 442.

Mitchell, R.H., 1995. Kimberlites, Orangites, and Related Rocks. Plenum Press, New York. pp. 410.

Statement of Qualifications

I, Edward Charles Walker, do hereby certify as follows:

1) I am a Geologist and Mineralogist and that I reside and carry on business at 115 Ermatinger Street, in the village of Lakefield, Ontario.

2) I am a Graduate of Brock University and the University of Western Ontario and hold a First Class Honours Bachelor of Science degree and a Doctor of Philosophy degree in Geological Sciences.

3) I have been practicing my profession as a Geologist and Mineralogist since 1986.

4) I am a trained ISO 9000 auditor and have designed and implemented accredited methods under ISO Guide 25 for kimberlite mineral extraction, observation and selection.

5) My field, mineral chemical and laboratory experience directly relates to the technical and interpretive procedures reviewed in this report.

6) My report, dated August 15, 2000, titled: "Independent Review of Kap, South Crow Creek and Patricia Properties; Kapuskasing Area" is based on information collected by myself between June 16, 2000 and August 15, 2000. Any other information gathered from other sources has been cited in this report.

7) The information given in this report is as accurate as to the best of my knowledge and I have not stated false information for personal gain.

8) I have no ownership in the properties examined nor do I have any ownership of the companies involved in the Independent Review.

Edward Charles Walker, Ph.D.
Geologist and Mineralogist

Dated at Lakefield, Ontario
This 15th day of August, 2000

Appendix

I Photographs of Sample Sites and Collection

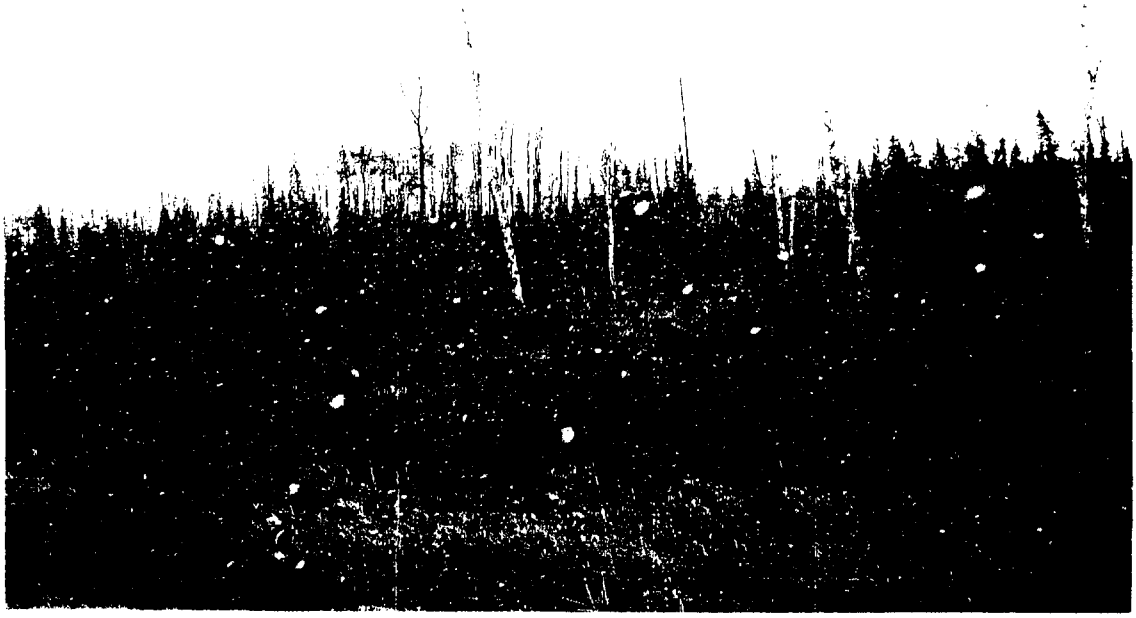


Illustration 1: Photographs representing the typical terrain along a logging road accessing the Kap Property Area.

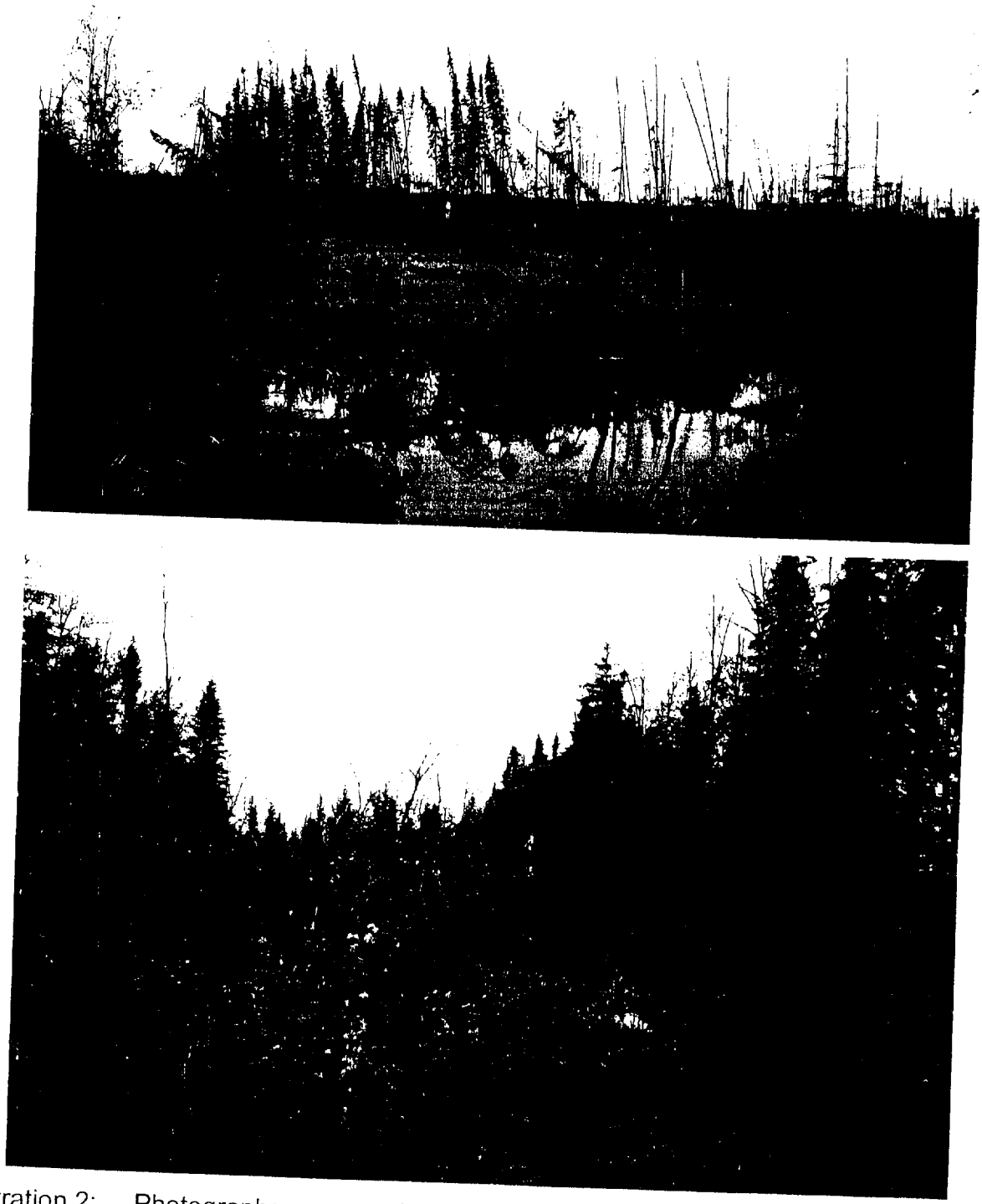


Illustration 2: Photographs representing the Kap Property – E Grid area. The upper photograph is looking upstream and the lower photograph is looking downstream from the Beaver Dam.

Illustration 3: Photograph of the Kap Property – E Grid sample site.

Illustration 4: Photograph illustrating sample collection with a shovel along the bottom of the creek at the Kap Property – E Grid sample site.

Illustration 5: Photograph demonstrating setup for 5 mm screening of the sample at the Kap Property – E Grid sample site. Oversize from previous samples is evident in the foreground of the photograph.

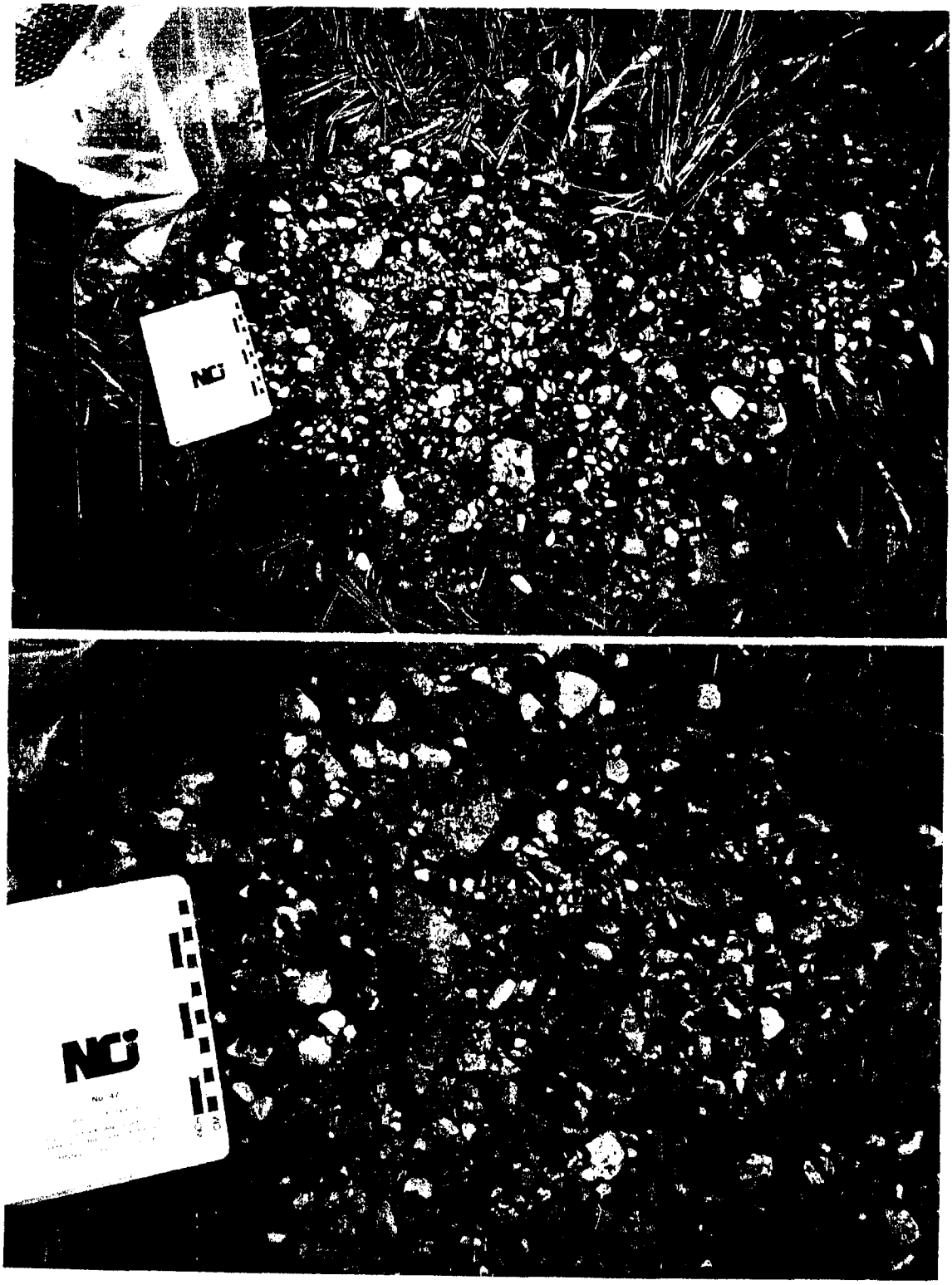


Illustration 6: Two photographs of +0.5 mm oversize from the Kap Property – E Grid sample site (the lower photograph is a close-up of the upper photograph). Majority of the dark and buff pebbles are sedimentary rocks.

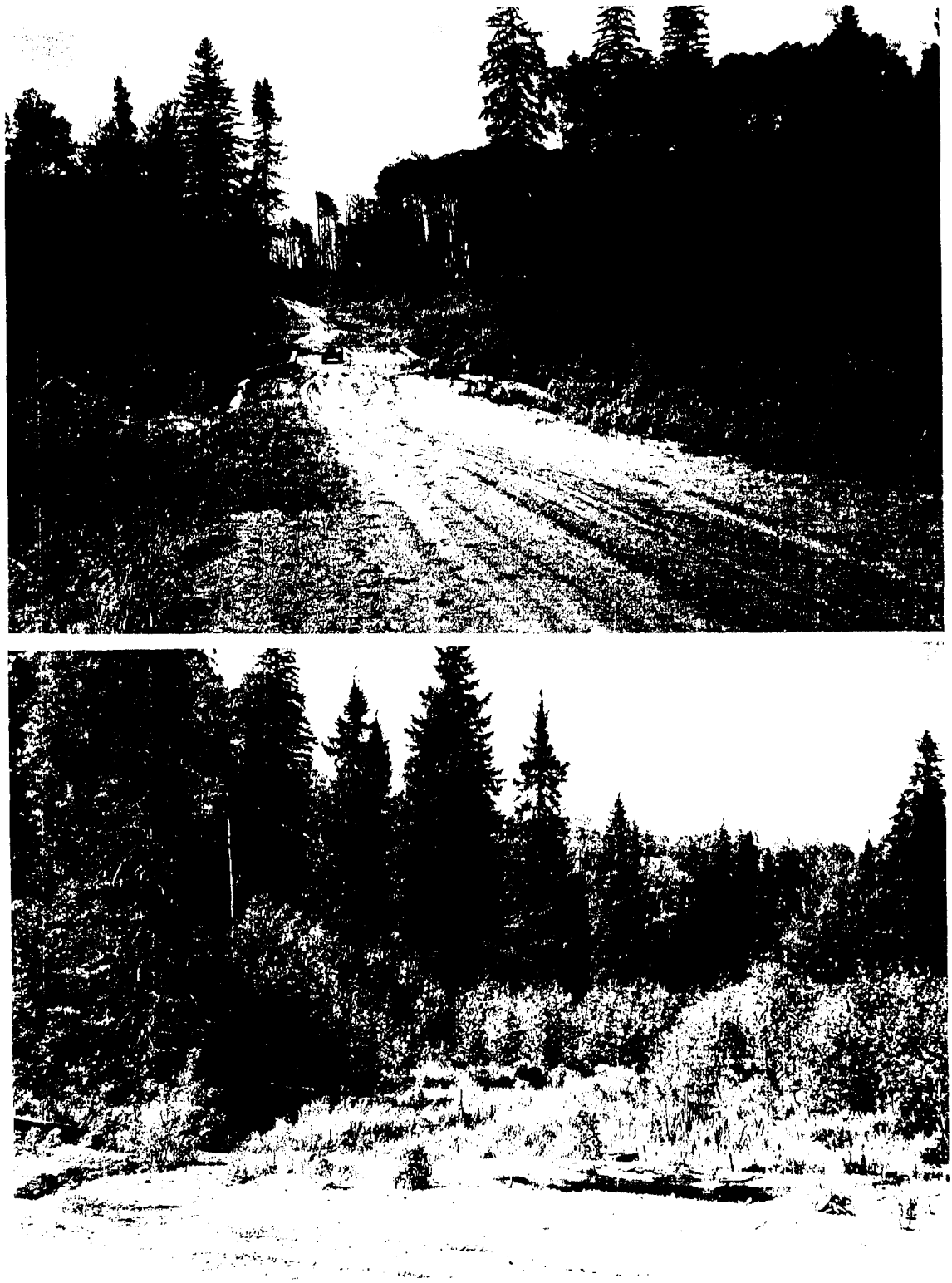


Illustration 7: Two photographs taken to illustrate the topography near the Kap Property–D Grid sample site. The upper photograph is a view across the creek and the lower photograph is a downstream view.

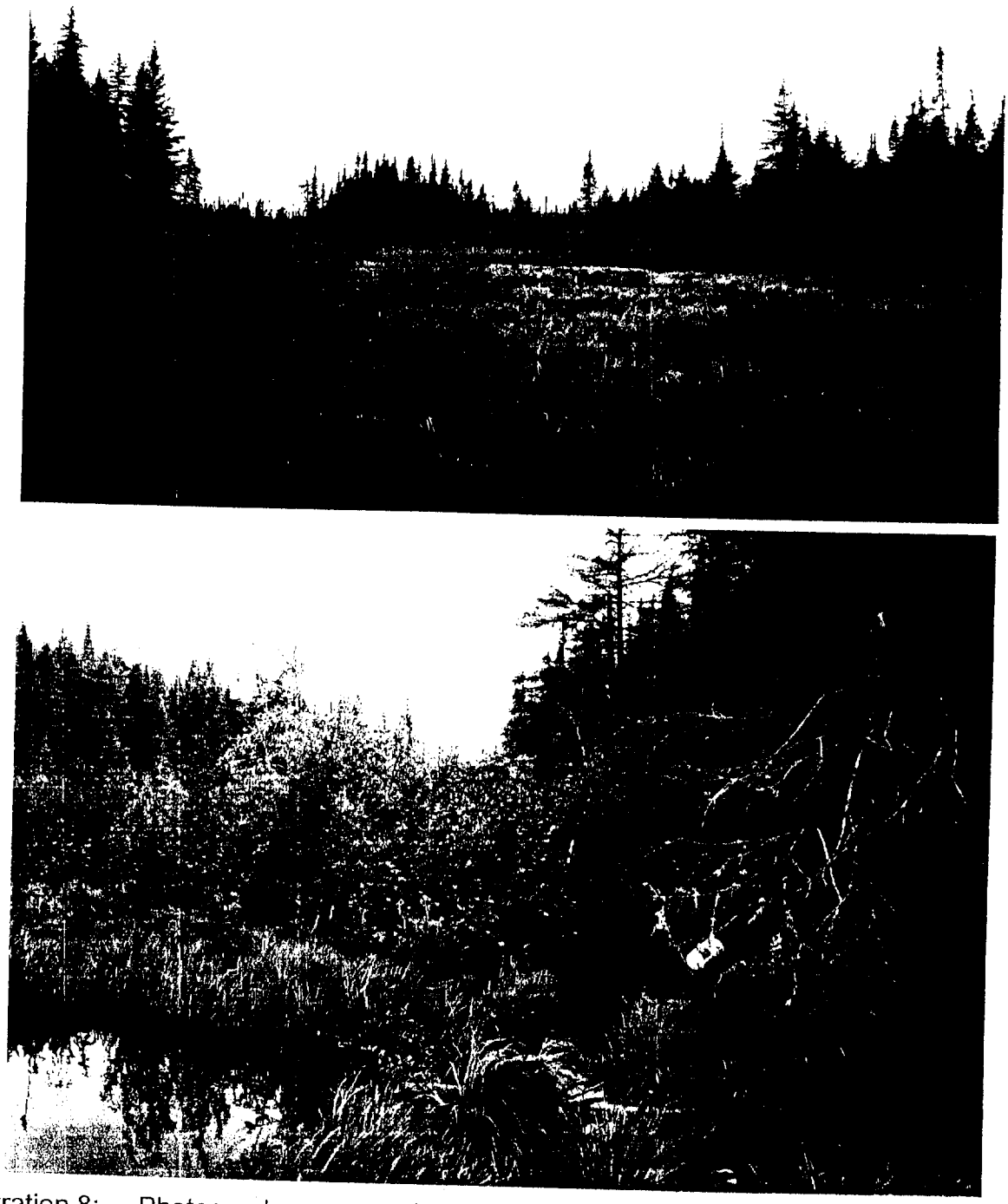


Illustration 8: Photographs representing the South Crow Creek Property sample site. The upper photograph is looking upstream and the lower photograph is looking downstream from the Beaver Dam in the foreground and the sample site just beyond the Beaver Dam on the right.

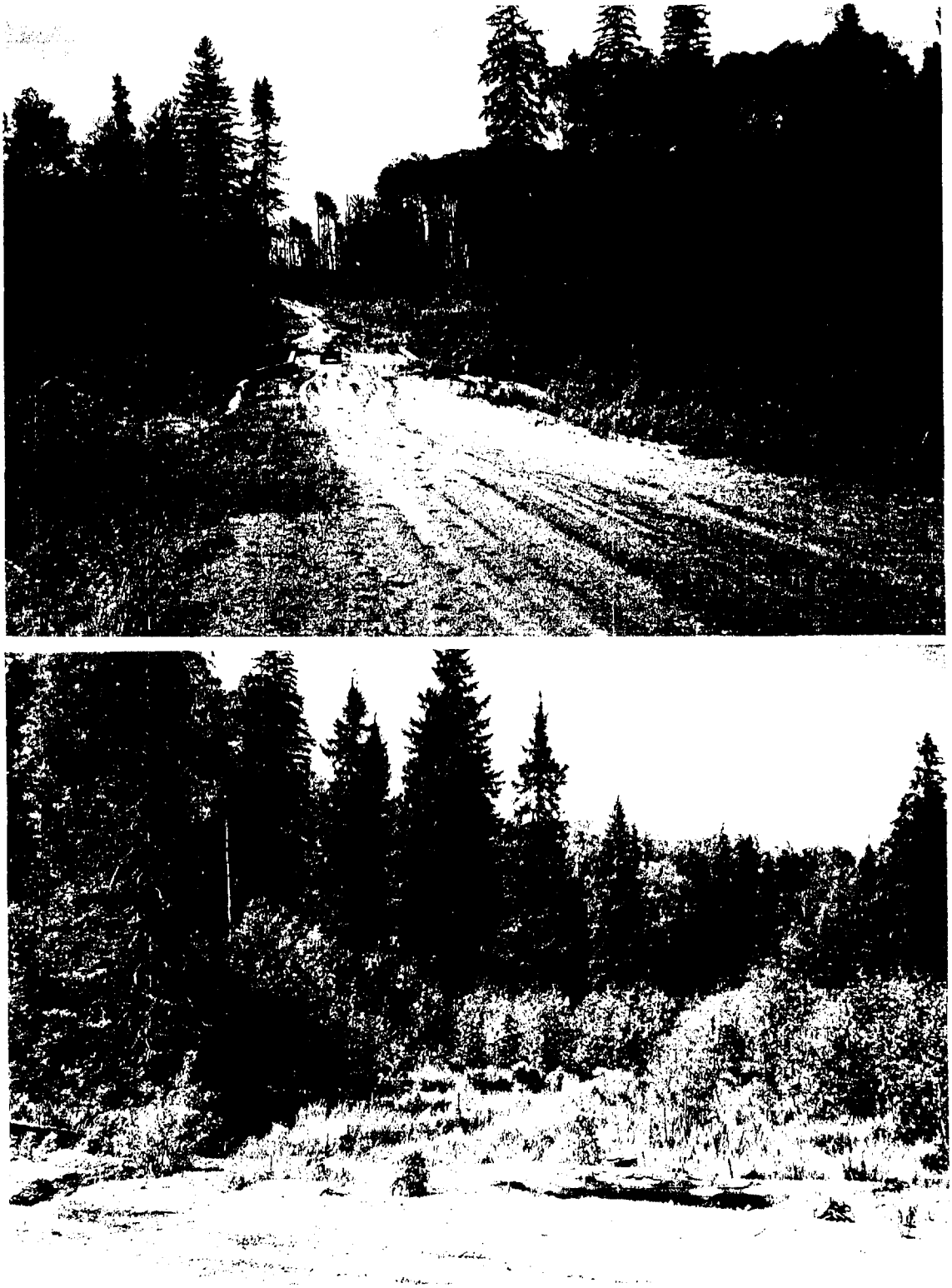


Illustration 7: Two photographs taken to illustrate the topography near the Kap Property–D Grid sample site. The upper photograph is a view across the creek and the lower photograph is a downstream view.

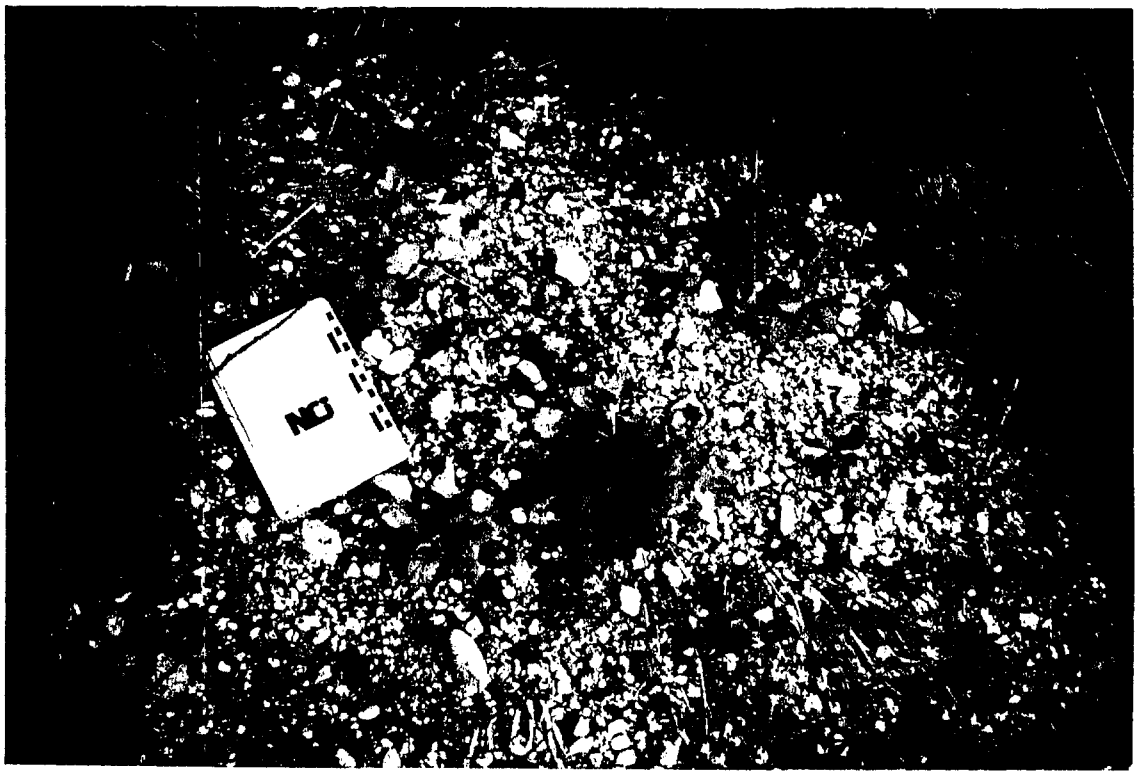


Illustration 9: Photograph illustrating the presence of + 0.5 mm oversize from previous samples as indicated by the vegetation.

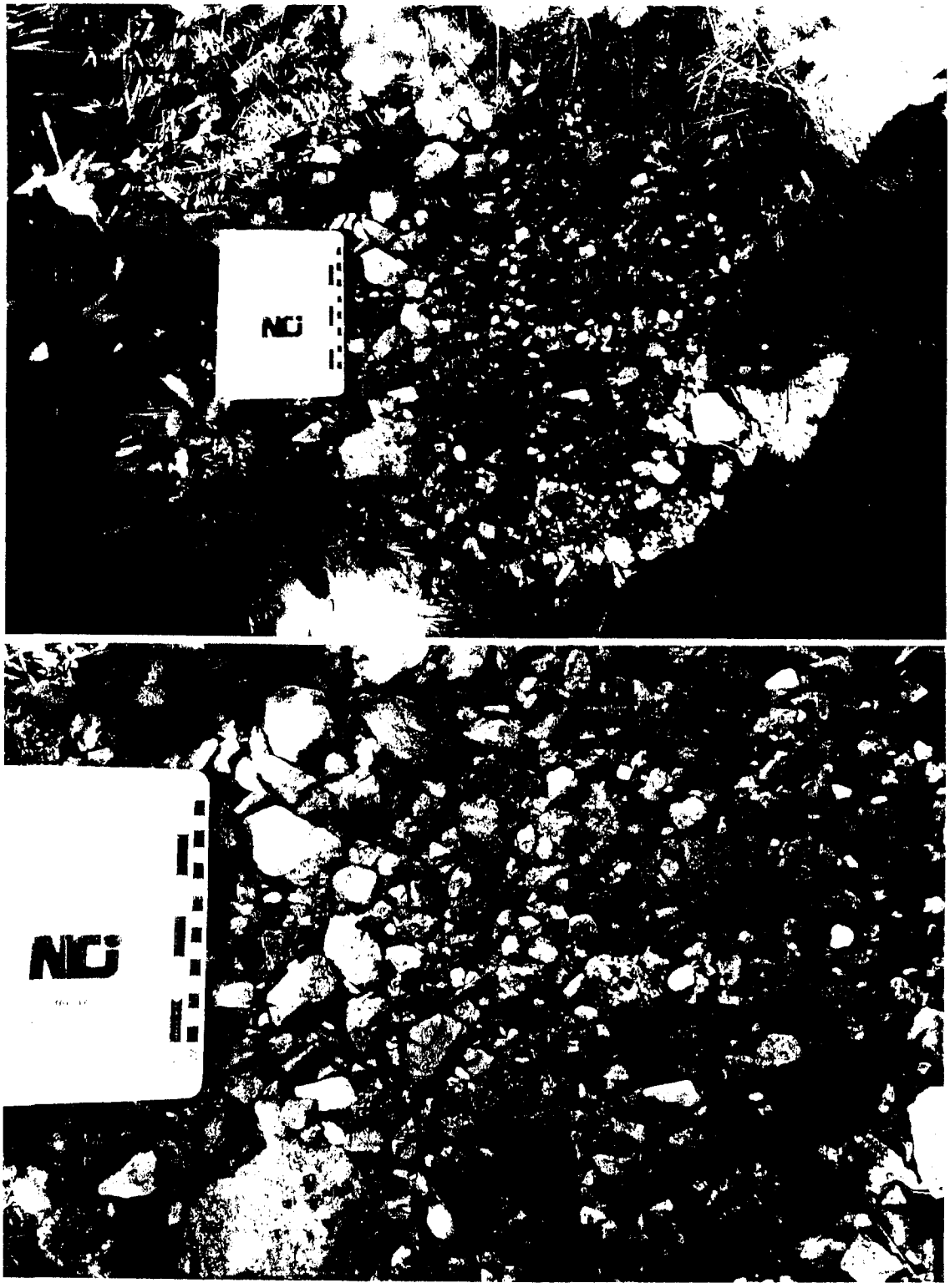


Illustration 10: Two photographs of +0.5 mm oversize from the South Crow Creek sample site (the lower photograph is a close-up of the upper photograph). Majority of the dark, buff and red pebbles are sedimentary rocks.

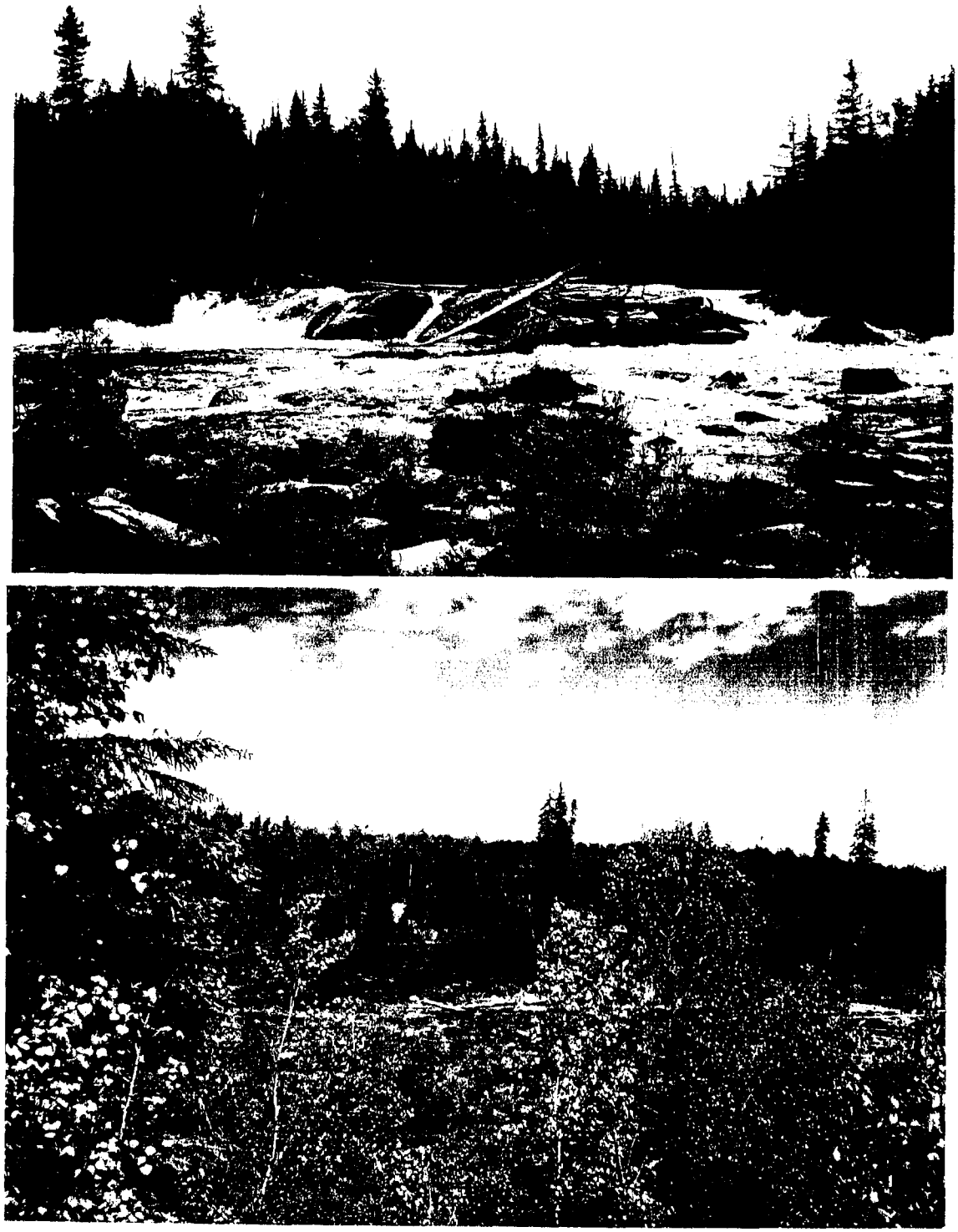


Illustration 11: Photographs representing the Patricia Property sample site within the Opasatika River. The upper photograph is looking upstream and the lower photograph is looking downstream.

Illustration 12: Photograph of the sample site selected on the Opasatika River. The specific site is located behind the shrub present near the center of the photograph on the downstream side of a small (<1 meter) waterfall.

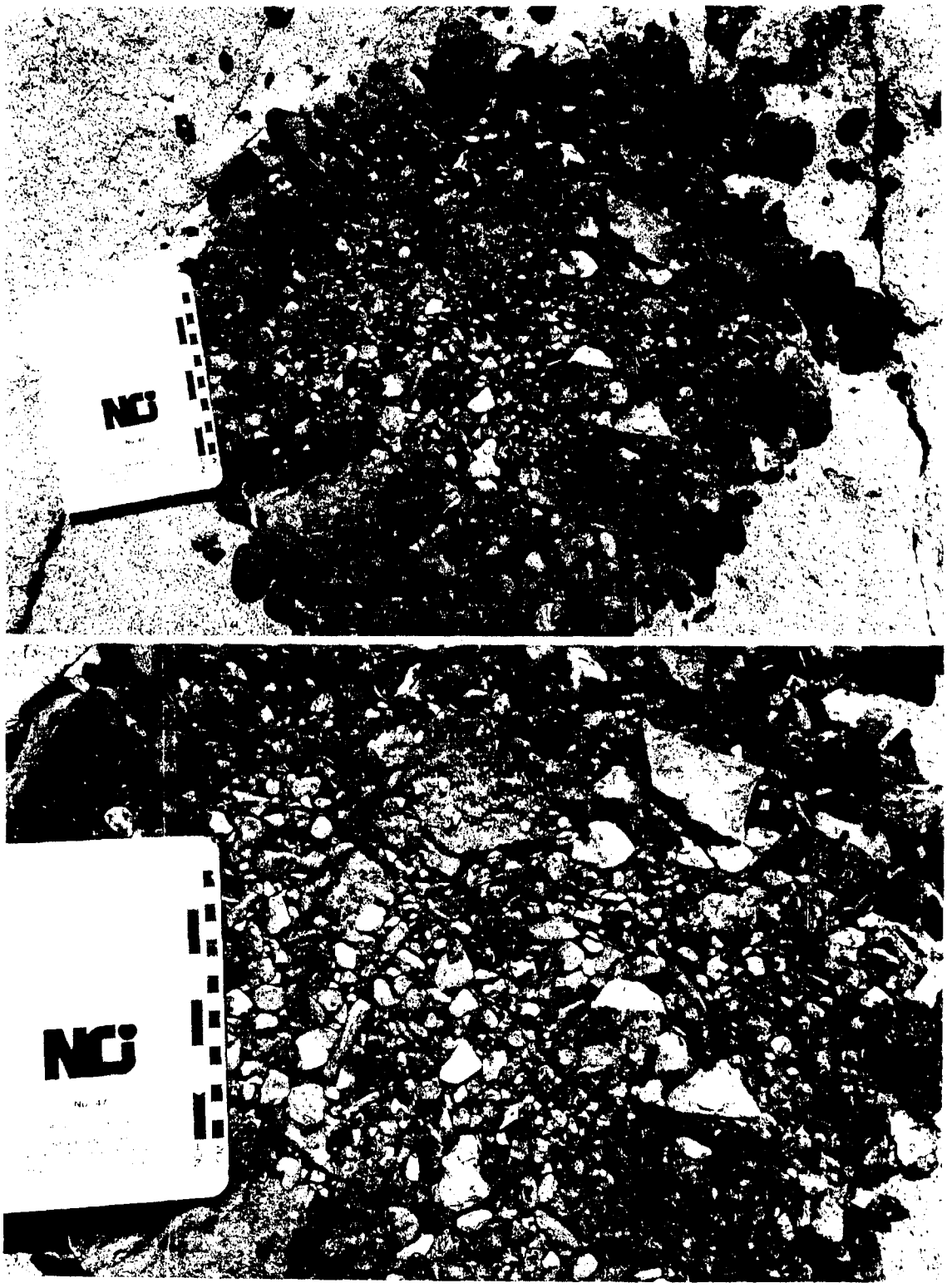


Illustration 13: Two photographs of +0.5 mm oversize from the Patricia Property sample site (the lower photograph is a close-up of the upper photograph). The sample consists of both sedimentary and Achaean rocks.

II Photographs of Sample Processing

KENNECOTT CANADA EXPLORATION INC.

Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660

Standards Council of Canada Accredited Laboratory Scope of Accreditation 335

Conseil canadien des normes Laboratoire accrédité Portée d'accréditation 335 TM

CERTIFICATE OF ANALYSIS
Method 2: Heavy Mineral Processing

Date Received: **27-Jun-00**
Waybill: **1478 766 9531**
Courier #:

Company: Petrologic Inc.
P.O. Box 41
115 Ermatinger Street
Lakefield, Ont K0L 2H0

Work Order #: 00HM034
Project: **Petrologic Submittal**
Client Billing #:
Lab Billing Code: **113100-RE490**
Fraction: **-0.500 +0.250mm**

Attention: Edward Walker
Telephone: (705) 652-8686
Facsimile: (705) 652-6969

	SAMPLE NO.	DATE PROC-START	DATE PROC-COMP.	INITIAL WT (gm)	WT INITIAL SCREEN (gm)	WT PROCESSED (gm)	FINAL WT (gm)
1	000617-C	04-Jul-00	07-Jul-00	14000	2900	2900	61.7

Mike Liedke
Processing Team Leader

Simon Griffiths
Laboratory Manager

Katya Masun
QA/QC Specialist

The quality of heavy mineral extraction from samples of disaggregated material (Method 2) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Heavy mineral recovery is calculated for one sample in every batch. One batch consists of up to twenty-five samples, depending on individual sample weights. Therefore, at least 4% of samples are quality control samples.

Continual QA/QC monitoring involves comparison of heavy mineral recovery from each batch to statistically acceptable internal performance standards. Processing at the laboratory extracts, on average, 91.83% (±2.31% at the 95% confidence limit) of all contained heavy minerals (calculated from recovery of pyrope grains >0.25<0.50mm in size).

This report refers to samples processed as-received.

KENNECOTT CANADA EXPLORATION INC.
Mineral Processing Laboratory
1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660

Standards Council of Canada
Accredited Laboratory
Scope of Accreditation 335
Conseil canadien des normes
Laboratoire accrédité
Portée d'accréditation 335 TM

CERTIFICATE OF ANALYSIS
Method 4: Heavy Mineral Observation

Date Received: **27-Jun-00**
Waybill: **1478 766 9531**
Courier #:

Work Order: 00HM034, 00HM035, 00HM036
Project: **Petrologic Submittal**
Client Billing #:
Lab Billing Code: **113100-RE490**
Fraction: **-0.500 +0.250mm**

Company: Petrologic Inc.
P.O. Box 41
115 Ermatinger Street
Lakefield, Ont K0L 2H0

Attention: Edward Walker
Telephone: (705) 652-8686
Facsimile: (705) 652-6969

	Sample No	PYR	ECL	CPX	OMP	ILM	CHR	OPX	OLI	REMARKS	OBSERVER	DATE OBS
1	000617-A*	0	0	1	0	70	14	0	0		CB	12-Jul-00
2	000617-C**	0	0	0	0	63	52	0	0		CHJV	12-Jul-00
3	000617-F*	2	0	0	0	12	8	0	0		JV	12-Jul-00
4	000617-H*	0	0	0	0	15	31	0	0		CH	12-Jul-00

*** GRAINS REPORTED ARE THE COMBINED GRAIN COUNT OF WORK ORDERS 00HM035 AND 00HM036 (PREVIOUSLY REPORTED).**
**** GRAINS REPORTED ARE THE GRAIN COUNTS OF WORK ORDER 00HM034 (PREVIOUSLY REPORTED).**

Chris Berner
Observation Team Leader

Simon Griffiths
Laboratory Manager

Katya Masun
QA/QC Specialist

The quality of kimberlite indicator mineral observation from heavy mineral concentrates (Method 4) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Kimberlite indicator recovery is calculated for two samples in every batch. One batch consists of up to twenty-five samples, depending on individual sample weights. Therefore, at least 8% of samples are quality control samples.

Continual QA/QC monitoring involves comparison of kimberlite indicator mineral recovery from each batch to statistically acceptable internal performance standards. Observation at the laboratory extracts, on average, 81.50% (±3.49% at the 95% confidence limit) of all contained kimberlite indicator minerals (calculated from recovery of pyrope grains >0.25<0.50mm in size).

This report refers to samples processed as-received.

M...eral . .ocessing Laboratory
1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660

Standards Council of Canada
Accredited Laboratory
Scope of Accreditation 335
Conseil canadien des normes
Laboratoire accrédité
Portée d'accréditation 335 TM

CERTIFICATE OF ANALYSIS
Method 4: Heavy Mineral Selection

Date Received: **27-Jun-00**
Waybill: **1478 766 9531**
Courier #:

Work Order #: 00HM034, 00HM035, 00HM036
Project: **Petrologic Submittal**
Client Billing #:
Lab Billing Code: **113100-RE490**
Fraction: **-0.500 +0.250mm**

Company: Petrologic Inc.
P.O. Box 41
115 Ermatinger Street
Lakefield, Ont K0L 2H0

Attention: Edward Walker
Telephone: (705) 652-8686
Facsimile: (705) 652-6969

	ClientSampleR	PYR	ECL	CPX	OMP	ILM	CHR	OPX	OLI	Remarks	Observer	ObsDate
1	000617-A*	0	0	1	0	67	14	0	0	POSS CHR, ILM	CB	12-Jul-00
2	000617-C**	0	0	0	0	43	26	0	0	POSS CHR, ILM	CB	12-Jul-00
3	000617-F*	2	0	0	0	7	5	0	0	POSS CHR, ILM	CB	12-Jul-00
4	000617-H*	0	0	0	0	14	23	0	0	POSS CHR, ILM	CB	12-Jul-00

GRAINS MUST BE CONFIRMED WITH MINERAL CHEMICAL ANALYSIS.

*** GRAINS REPORTED ARE THE COMBINED GRAIN COUNT OF WORK ORDERS 00HM035 AND 00HM036 (PREVIOUSLY REPORTED).**

**** GRAINS REPORTED ARE THE GRAIN COUNTS OF WORK ORDER 00HM034 (PREVIOUSLY REPORTED).**

Chris Berner
Observation Team Leader

Simon Griffiths
Laboratory Manager

Katya Masun
QA/QC Specialist

The quality of kimberlite indicator mineral observation from heavy mineral concentrates (Method 4) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Kimberlite indicator recovery is calculated for two samples in every batch. One batch consists of up to twenty-five samples, depending on individual sample weights. Therefore, at least 8% of samples are quality control samples.

Continual QA/QC monitoring involves comparison of kimberlite indicator mineral recovery from each batch to statistically acceptable internal performance standards. Observation at the laboratory extracts, on average, 81.50% (±3.49% at the 95% confidence limit) of all contained kimberlite indicator minerals (calculated from recovery of pyrope grains >0.25<0.50mm in size).

This report refers to samples processed as-received.

V Mineral Chemistry - R.L. Barnett Geological Consulting Inc.

)r. Edward C. Walker,
etroLogic Inc.,
.O. Box 41, 115 Ermatinger St.,
Lakefield, Ontario,
'0L 2H0

?h. 1-705-652-8686
Fax 1-705-652-6969

July 14, 2000,

R. L. Barnett Geological Consulting Inc.,
684 Longwoods Road,
R 32, London, Ontario
N6P 1P2

h. 1-519-652-1498
Fax 1-519-652-1475

Jear Chris,

For your records, the identity of the "non-indicator" minerals .n the batch of grains from sample 00HM036, sent with KCEI letter of July 12, 2000, is:

Grains A- 2,3,4,6,7
F- 1,2,4
H- 3,5,6,7,8,9,12,14,15
- Ti-grossular-andradite ss - melanite

Grains A- 12,
F- 5,11 - Mn-ilmenite

Grains A- 13,14,15
F- 6,7,8,10,12
H- 18,19,22,24 - simple ilmenite

Grains A- 5 - tourmaline
A- 11 - Mn-ilmenite + sphene
H- 2 - perovskite
H- 9 - amphibole
H- 10 - Ti-melanite
H- 13 - sphene
H- 25 - Ti-magnetite
H- 26 - pyrite-> Fe-oxide
H- 27 - rutile

Sincerely,

R. L. Barnett

ILMENITE, KAPUSKASING, July 14, 2000, R.L.B.

	9	10	11	12	13	14
SIO2	.02	.02	.00	.02	.02	.02
TIO2	44.67	46.15	47.67	48.98	49.97	50.39
A2O3	.03	.68	.24	.35	.38	.00
C2O3	.00	.01	.00	.00	.00	.01
FEO	51.50	44.41	43.93	41.40	39.68	42.81
MNO	1.67	.32	.78	.52	.38	5.76
MGO	.08	6.45	5.68	7.24	8.73	.10
ZNO	.06	.05	.00	.01	.00	.11
NIO	.12	.01	.07	.02	.08	.11
N2O5	.04	.09	.22	.05	.00	.00
SUM	98.19	98.19	98.59	98.59	99.24	99.31

SI	.006	*	.005	*	.000	*	.005	*	.005	*	.005	*
TI	9.592	*	9.425	*	9.698	*	9.801	*	9.820	*	10.378	*
AL	.010	*	.218	*	.077	*	.110	*	.117	*	.000	*
CR	.000	*	.002	*	.000	*	.000	*	.000	*	.002	*
FE	12.298	*	10.086	*	9.938	*	9.213	*	8.672	*	9.805	*
MN	.404	*	.074	*	.179	*	.117	*	.084	*	1.336	*
MG	.034	*	2.611	*	2.290	*	2.871	*	3.400	*	.041	*
ZN	.013	*	.010	*	.000	*	.002	*	.000	*	.022	*
NI	.028	*	.002	*	.015	*	.004	*	.017	*	.024	*
NB	.005	22.389	.011	22.443	.027	22.224	.006	22.130	.000	22.116	.000	21.615
O	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*
F/M	373.055		3.891		4.417		3.249		2.575		272.928	
F/FM	.997		.796		.815		.765		.720		.996	

9 SAMPLE 00HM036 GRAIN A-10 -0.5mm MN-ILM
10 SAMPLE 00HM036 GRAIN F-9 -0.5mm
11 SAMPLE 00HM036 GRAIN H-1 -0.5mm
12 SAMPLE 00HM036 GRAIN H-20 -0.5mm
13 SAMPLE 00HM036 GRAIN H-23 -0.5mm
14 SAMPLE 00HM036 GRAIN H-28 -0.5mm MN-ILM

CHROMITE, KAPUSKASING, July 14, 2000, R.L.B.

	9	10	11	12	13
SIO2	.06	.00	.00	.02	.01
TIO2	.13	.16	.20	.22	.99
A2O3	17.27	20.21	18.81	18.77	39.88
C2O3	52.27	48.92	51.54	51.34	23.90
FEO	16.27	16.54	14.32	15.50	17.54
MNO	.46	.35	.23	.29	.09
MGO	13.27	14.12	14.42	13.86	17.56
ZNO	.05	.00	.00	.00	.00
NIO	.10	.13	.18	.15	.20
SUM	99.88	100.43	99.70	100.15	100.17

SI	.015	*	.000	*	.000	*	.005	*	.002	*
TI	.025	*	.030	*	.037	*	.041	*	.168	*
AL	5.138	*	5.895	*	5.520	*	5.511	*	10.631	*
CR	10.434	*	9.574	*	10.148	*	10.113	*	4.275	*
FE	3.436	*	3.424	*	2.982	*	3.230	*	3.318	*
MN	.098	*	.073	*	.049	*	.061	*	.017	*
MG	4.994	*	5.210	*	5.353	*	5.147	*	5.921	*
ZN	.009	*	.000	*	.000	*	.000	*	.000	*
NI	.020	24.170	.026	24.232	.036	24.125	.030	24.138	.036	24.370
O	32.000	*	32.000	*	32.000	*	32.000	*	32.000	*
	F/M	.708		.671		.566		.639		.563
	F/FM	.414		.402		.362		.390		.360

9 SAMPLE 00HM036 GRAIN F-3 -0.5mm
10 SAMPLE 00HM036 GRAIN H-4 -0.5mm
11 SAMPLE 00HM036 GRAIN H-11 -0.5mm
12 SAMPLE 00HM036 GRAIN H-16 -0.5mm
13 SAMPLE 00HM036 GRAIN H-17 -0.5mm

PYROPE, KAPUSKASING, July 14, 2000, R.L.B.

	1	2
SIO2	41.49	41.38
TIO2	.06	.34
A2O3	21.78	19.30
C2O3	3.26	6.06
FEO	8.55	7.40
MGO	19.16	20.03
MNO	.62	.39
CAO	5.59	5.40
SUM	100.51	100.30

SI	5.939	*	5.956	*
AL	.061	6.000	.044	6.000
AL	3.612	*	3.229	*
TI	.006	*	.037	*
CR	.369	*	.690	*
FE	1.023	*	.891	*
MN	.075	*	.048	*
MG	4.088	*	4.297	*
CA	.857	10.031	.833	10.024
O	24.000	*	24.000	*
	F/M	.269		.218
	F/FM	.212		.179

1 SAMPLE 00HM035 GRAIN F-1 -0.5mm
2 SAMPLE 00HM035 GRAIN F-2 -0.5mm

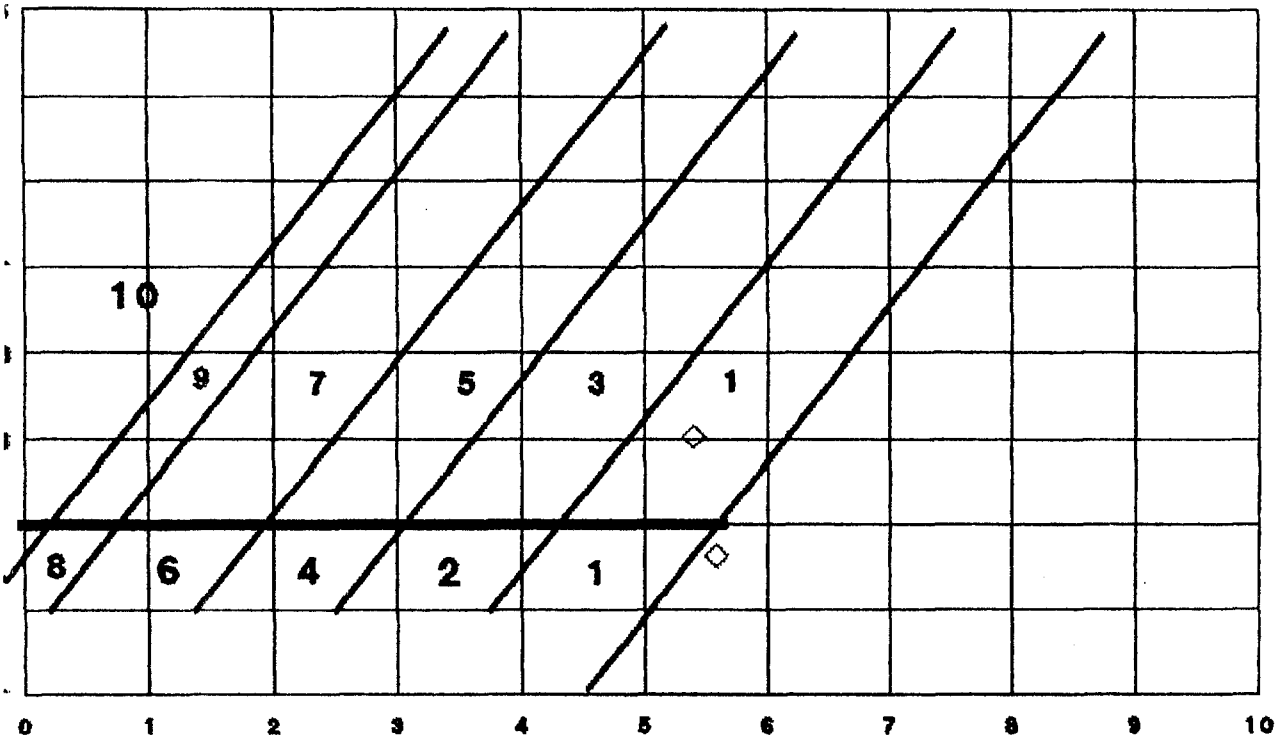
CLINOPYROXENE, KAPUSKASING, July 14, 2000, R.L.B.

	1		2		3	
SIO2	53.72		51.97		54.29	
TIO2	.01		.20		.15	
A2O3	1.85		2.18		.96	
C2O3	1.04		.07		1.72	
FEO	5.47		11.10		2.02	
MGO	13.99		10.64		16.85	
MNO	.20		.31		.00	
CAO	21.85		20.83		22.89	
K2O	.00		.00		.01	
NA2O	2.13		2.47		1.43	
SUM	100.26		99.77		100.32	
SI	1.977	*	1.970	*	1.971	*
AL	.023	2.000	.030	2.000	.029	2.000
AL	.057	*	.067	*	.012	*
TI	.000	*	.006	*	.004	*
CR	.030	*	.002	*	.049	*
FE	.168	*	.352	*	.061	*
MG	.767	*	.601	*	.912	*
MN	.006	*	.010	*	.000	*
CA	.862	*	.846	*	.890	*
NA	.152	*	.182	*	.101	*
K	.000	2.043	.000	2.065	.000	2.030
O	6.000	*	6.000	*	6.000	*
F/M	.228		.602		.067	
F/FM	.185		.376		.063	

1 SAMPLE 00HM035 GRAIN A-67 -0.5mm CENTRAL
2 SAMPLE 00HM035 GRAIN A-67 -0.5mm OUTER ZONE
3 SAMPLE 00HM036 GRAIN F-13 -0.5mm

GARNET – R. DILLMAN

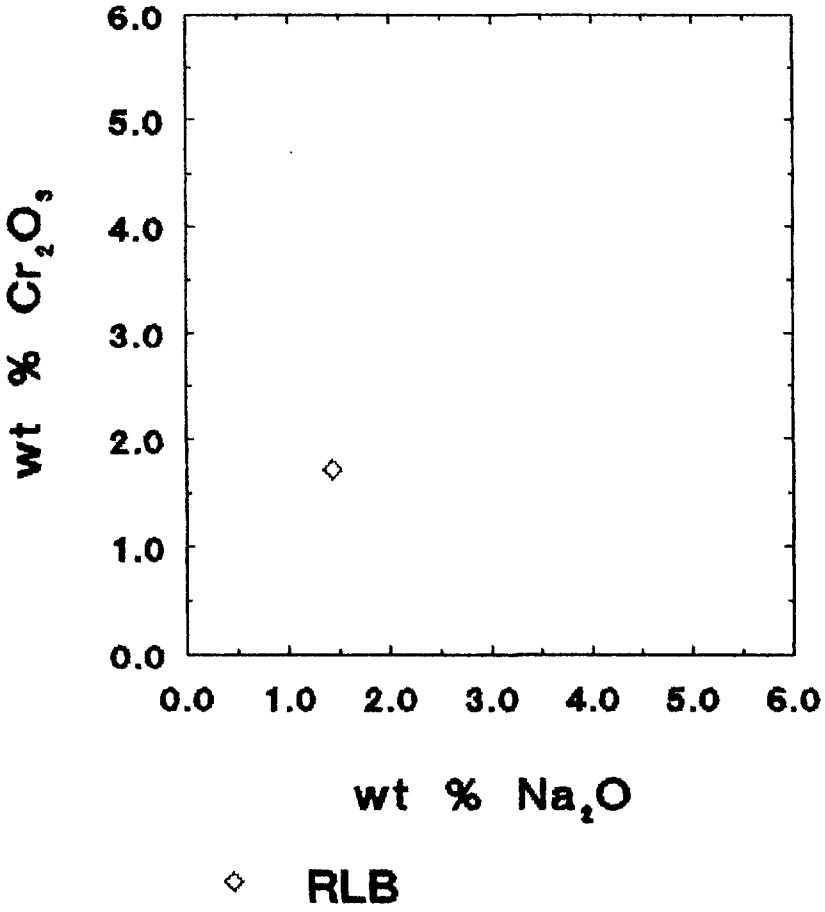
KAP – F (July 12, 2000)

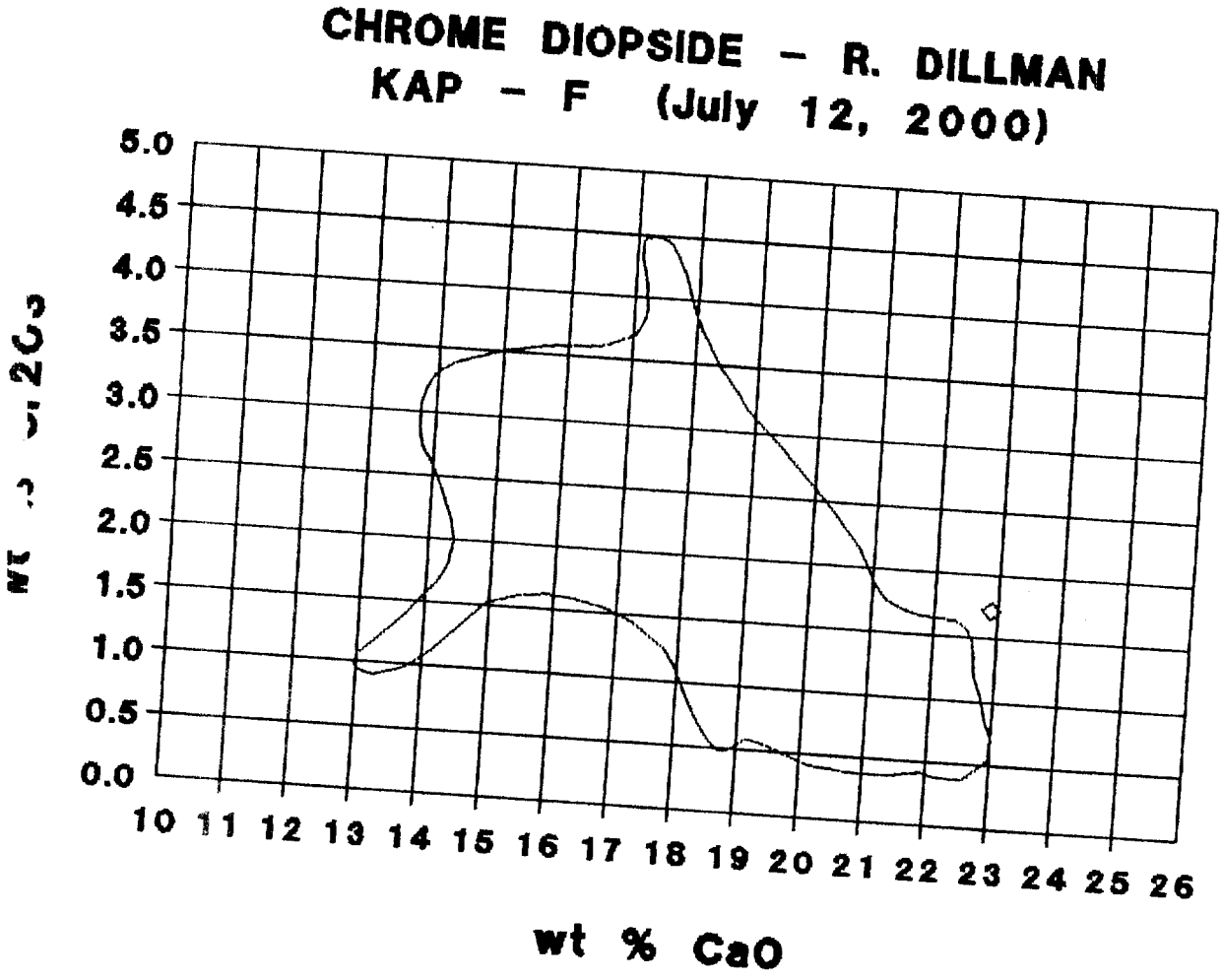


wt % CaO

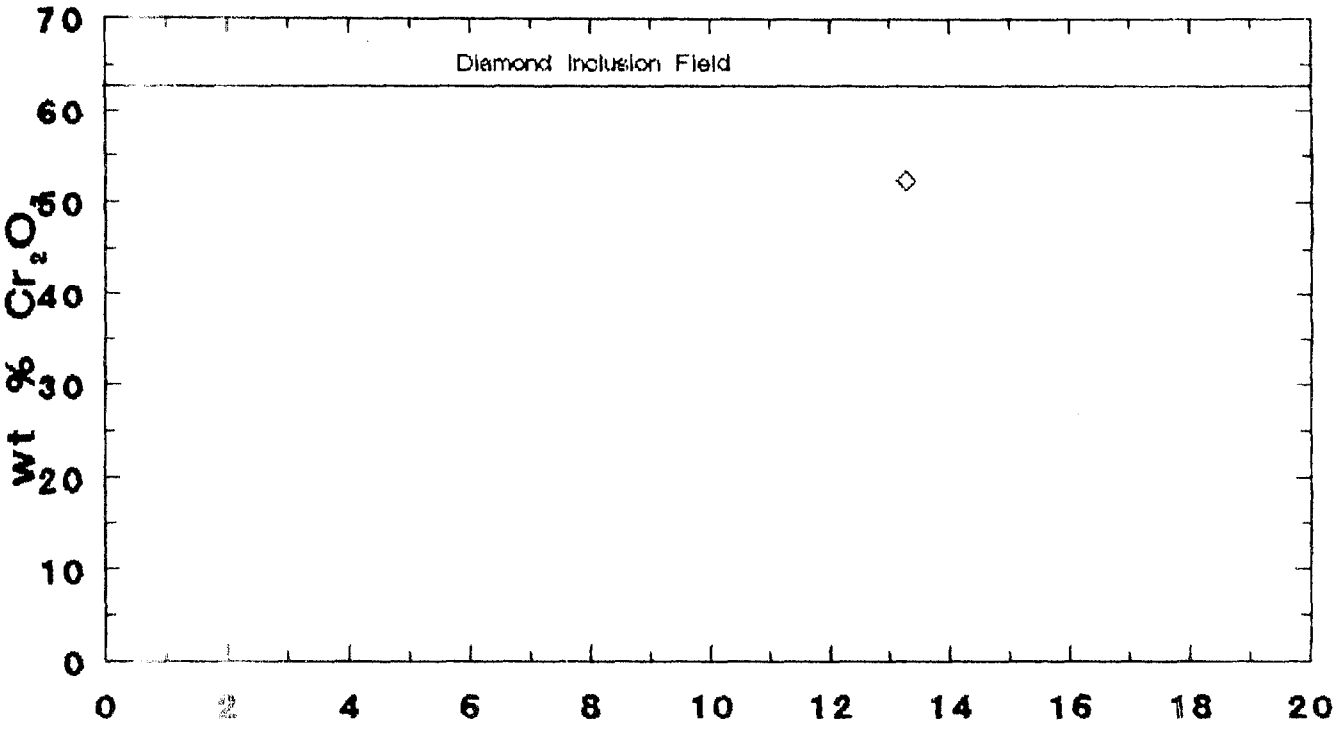
◇ RLB

CLINOPYROXENE – R. DILLMAN
KAP – F (July 12, 2000)

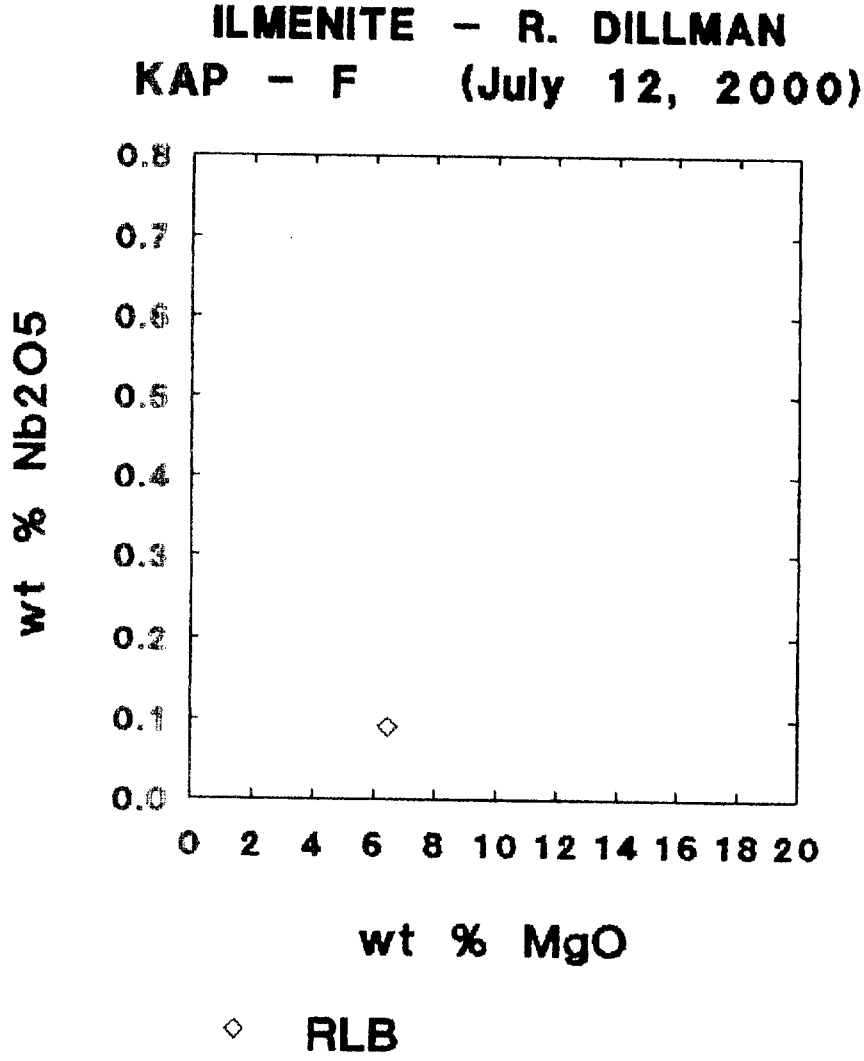



CHROME DIOPSIDE – R. DILLMAN
KAP – F (July 12, 2000)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
wt % CaO
◇ RLB

CHROMITE - R. DILLMAN
KAP - F (July 12, 2000)



○ RLB


ILMENITE – R. DILLMAN
KAP – F (July 12, 2000)
wt % Nb2O5
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0 2 4 6 8 10 12 14 16 18 20
wt % MgO
◇ RLB

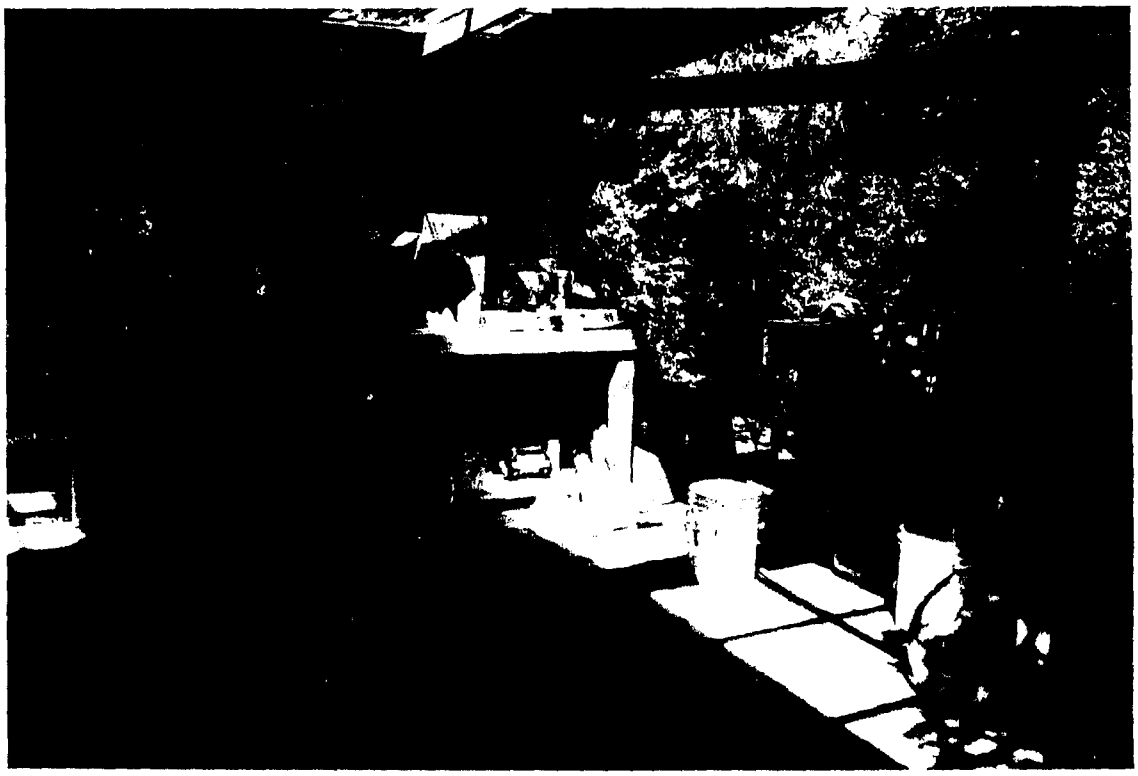


Illustration 14: Photograph of the heavy mineral processing site. Robert Dillman is present jigging a <1.0 mm sample just within the poorly exposed area of the photograph.

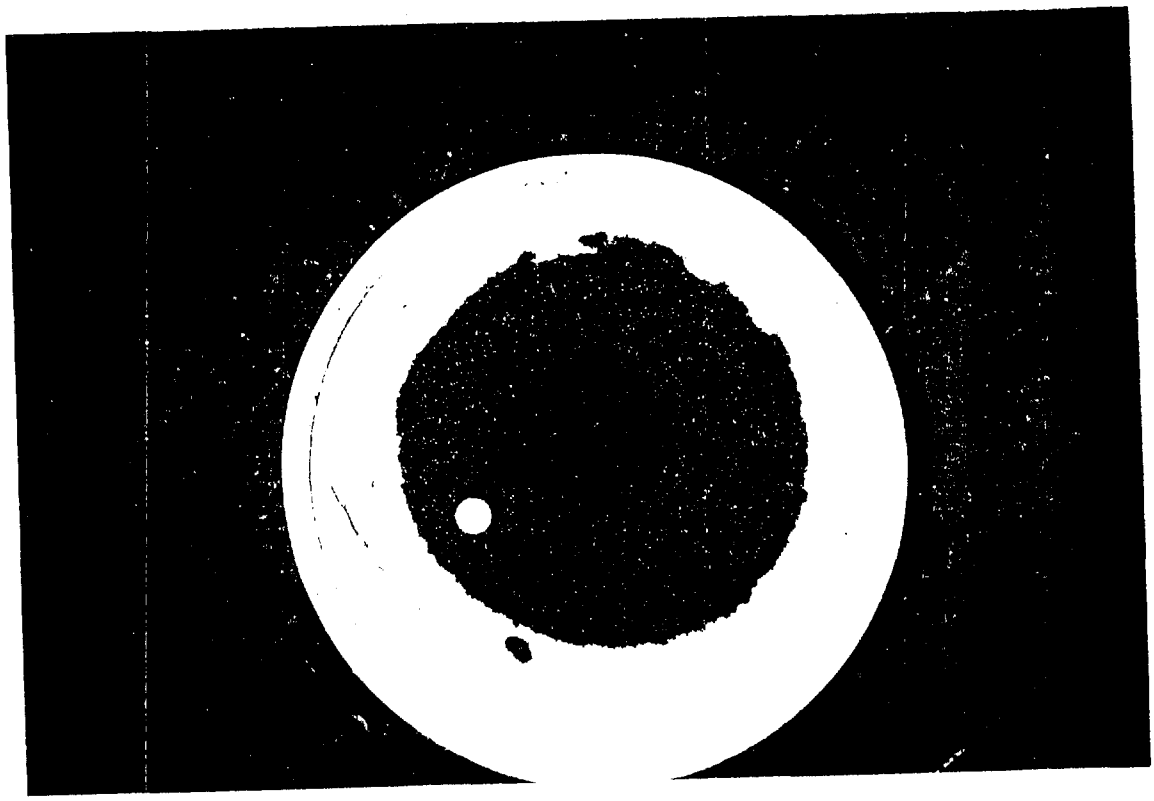


Illustration 15: Photograph of the jigged heavy mineral "bulls eye" of garnets (red) and oxides (black) from the Kap Property – E Grid sample.

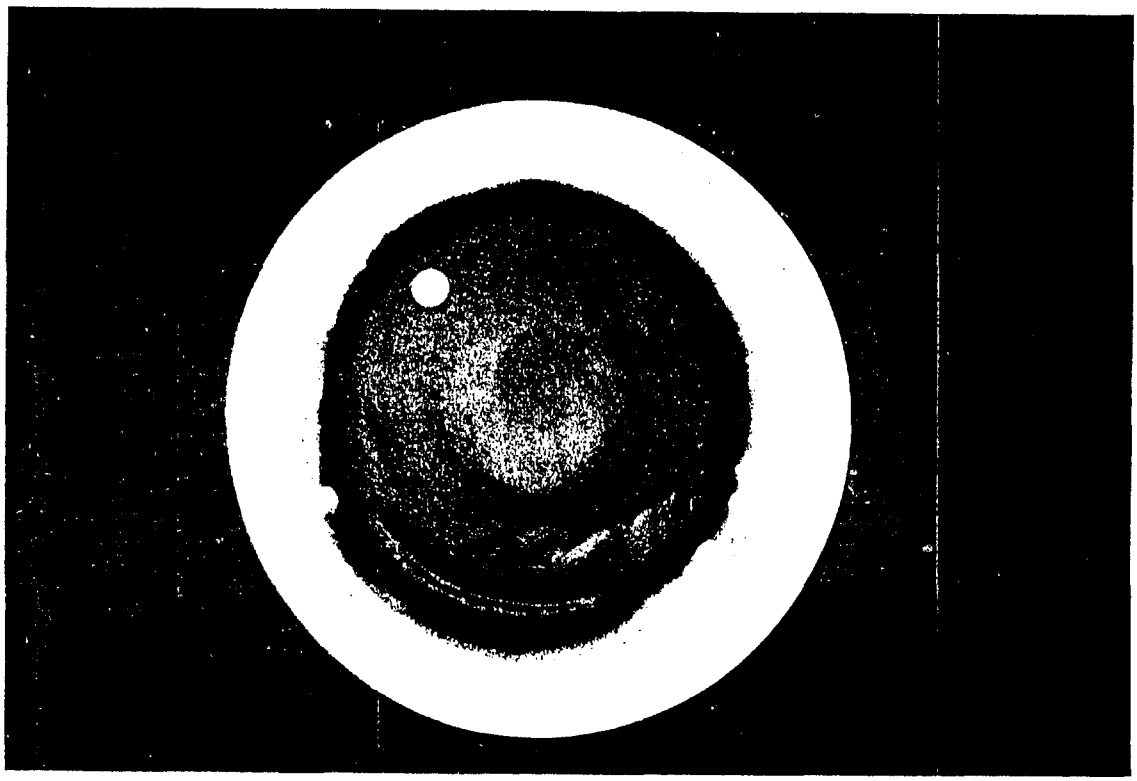


Illustration 16: Photograph of the jigged heavy mineral "bulls eye" of garnets (red) and oxides (black) from the South Crow Creek Property.

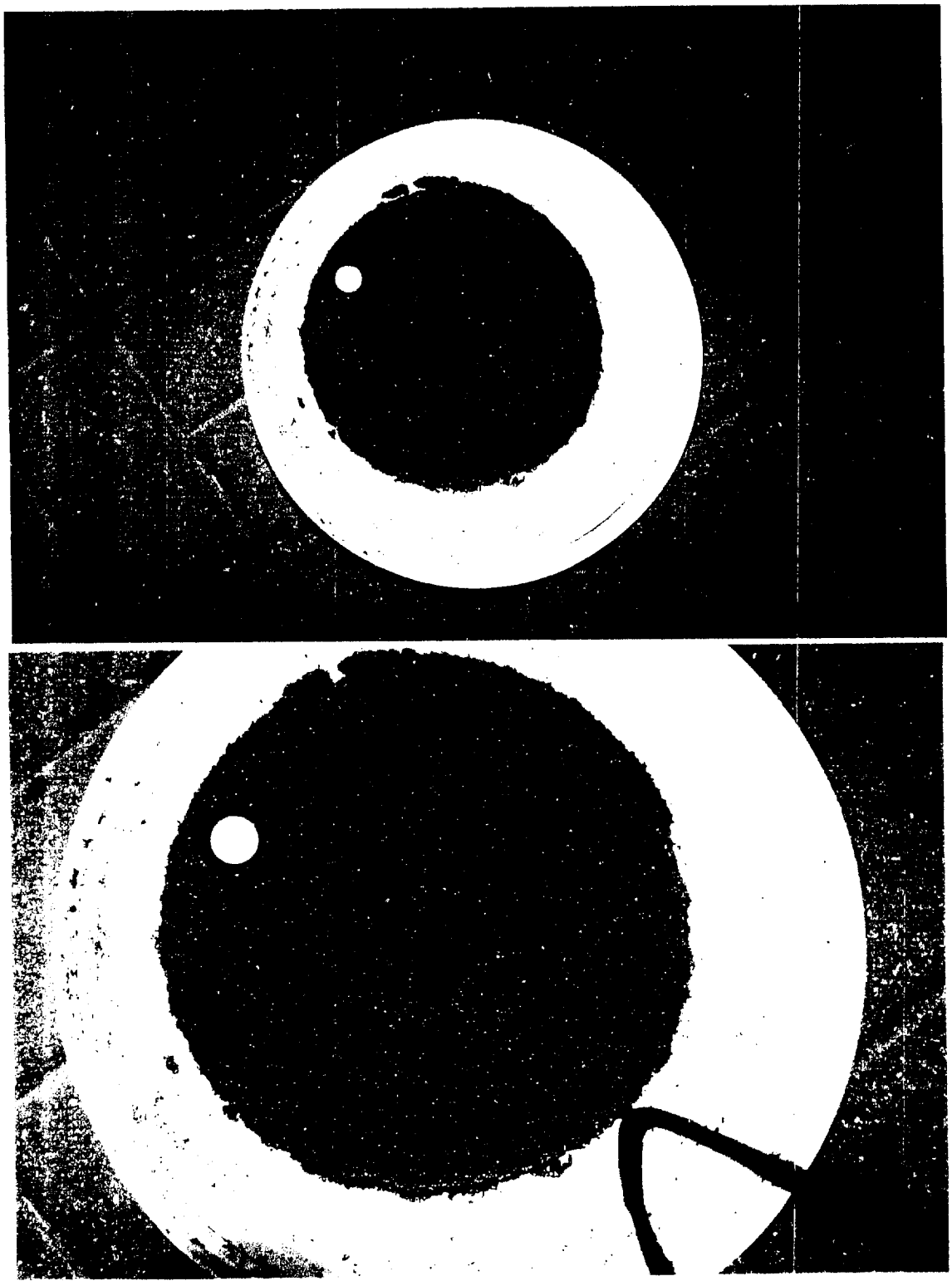
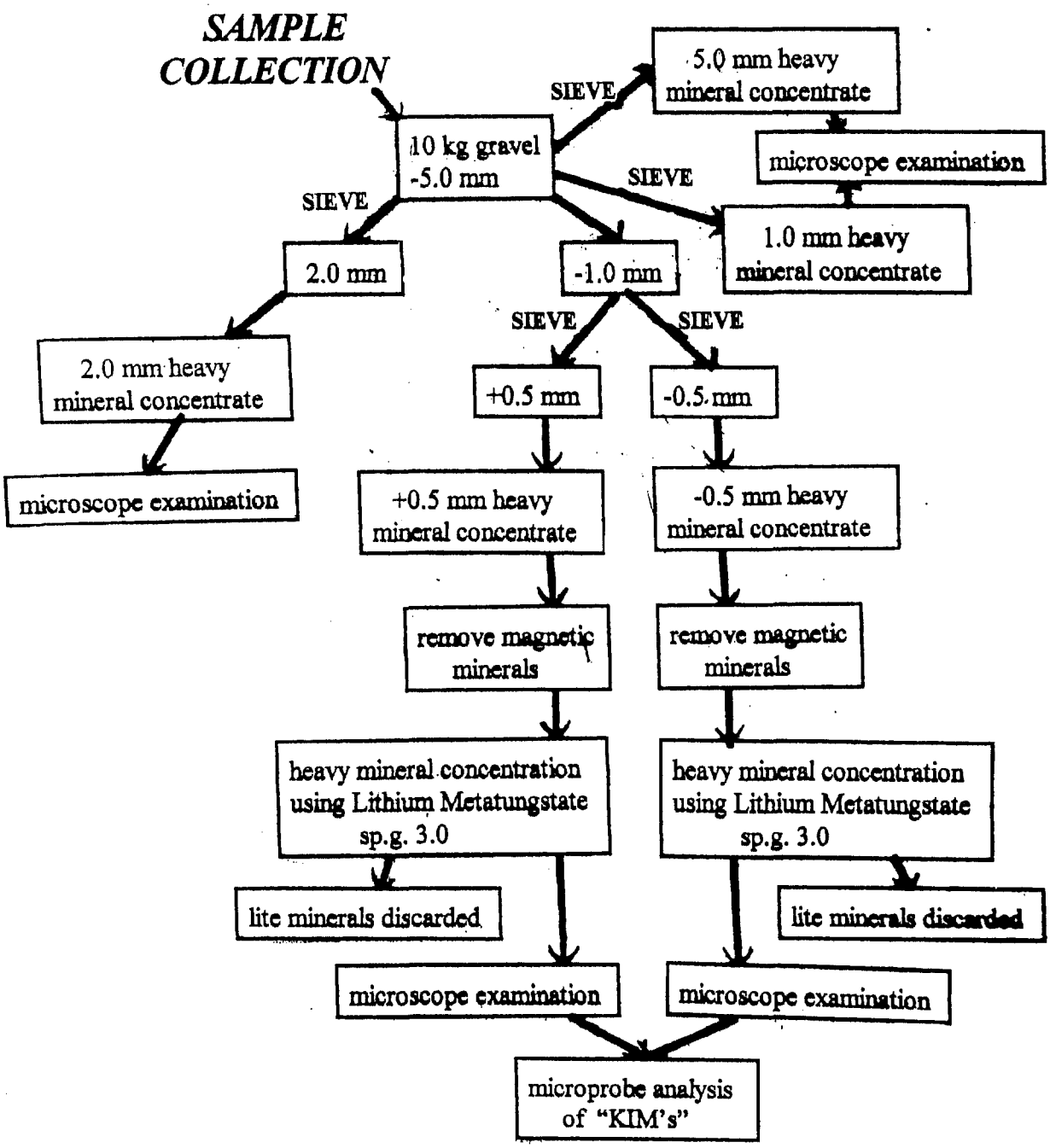


Illustration 17: Two photographs of the jigged heavy mineral "bulls eye" of garnets (red) and oxides (black) from the Patricia Property. The lower photograph is a close-up of the upper photograph.

2

III Arjadee Flowchart

— TABLE 1. —
PROCESS TO ACHIEVE HEAVY MINERAL CONCENTRATE AND KIMBERLITE INDICATOR MINERAL IDENTIFICATION



KENNECOTT CANADA EXPLORATION INC.

2 of

INDICATOR MINERAL ANALYSIS
TEST REPORT
00HM034, 00HM035, 00HM036

Petrologic Submittal

Prepared for:
Petrologic Inc.
P.O. Box 41
115 Ermatinger Street
Lakefield, Ont K0L 2H0

Simon Griffiths
Laboratory Manager
August 14, 2000

Standards Council of Canada
Accredited Laboratory
Scope of Accreditation 335
Conseil canadien des normes
Laboratoire accrédité
Portée d'accréditation 335
TM

Mineral Processing Laboratory
1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4
Telephone (807) 473-5558 Facsimile (807) 473-5660

KENNECOTT CANADA EXPLORATION INC.

Mineral Processing Laboratory

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Standards Council of Canada Accredited Laboratory Scope of Accreditation 335
Conseil canadien des normes Laboratoire accrédité Portée d'accréditation 335 TM

METHOD DESCRIPTION

Four samples were submitted for indicator mineral processing and recovery. The as-received samples were processed according to registered methods and standard operating procedures. The results are summarized in the Certificates of Analysis. Standard operating procedures are listed below, sample abnormalities and possible damage caused during shipping are noted on the Certificate.

OPERATING PROCEDURES	
1	Sample Preparation and De-Sliming
2	Wet Screening using the Kason Separator with a 0.979mm Screen
3	Dry Sieving using the Ro-Tap with .5mm and .25mm Screens
4	Magnetic Separation
5	Heavy Mineral Separation with Sodium Polytungstate at 2.89sg.
6	Indicator Mineral Identification and Observation
7	Indicator Mineral Description, Selection and Mounting (If required)
8	Indicator Mineral Reporting and Certificate of Analysis

(*) Denotes deviations from standard operating procedures.

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Transaction Number (office use)
W0060.00404
Assessment Files Research Imaging

42G06NE2001 2.20632 SHEARER

900

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assesment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.20632

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

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

Name GEORGE SILVERMAN	Client Number 194482
Address 75 ACTON AVE.	Telephone Number (416)633-7982
TORONTO, ONTARIO M3H 4H2	Fax Number (416)633-5534
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☑ Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☐ Physical: drilling stripping, trenching and associated assays ☐ Rehabilitation

Work Type HEAVY MINERAL SURVEY	Office Use Commodity Total $ Value of Work Claimed 10,150
Dates Work Performed From: Day 16 Month 10 Year 98 To: Day 18 Month 6 Year 2000	NTS Reference
Global Positioning System Data (if available) Township/Area SHEARER TWP. M or G-Plan Number M-1108	Mining Division Resident Geologist District

Please remember to:
- obtain a work permit from the Ministry of Natural Resources if required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

RECEIVED
OCT 13 2000
GEOSCIENCE ASSESSMENT OFFICE

Deemed January 11, 2001

3. **Person or companies who prepared the technical report** (Attach a list if necessary)

Name ROBERT J. DILLMAN	Telephone Number (519) 264-9278
Address 8901 KELLY DR., MT. BRYDGES, ONT.	Fax Number (519) 264-9278
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

2

4. **Certification by Recorded Holder or Agent**

I, GEORGE SILVERMAN (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent * George Silverman		Date SEPT 8/00
Agent's Address 75 ACTON AVE TORONTO, ONTARIO	Telephone Number (416) 633-7982	Fax Number (416) 633-5534

0241 (06/97)

Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	**Number of Claim Units.** For other mining land, list hectares.	**Value of work performed** on this claim or other mining land.	**Value of work applied** to this claim.	**Value of work assigned** to other mining claims.	**Bank.** Value of work to be distributed at a future date
eg	TB 7827	16 ha	$26,825	N/A	$24,000	~~$2~~ 825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8,892	$ 4,000	0	$4,892
1	1225629	16	1450	0	1450	0
2	1225630	16	5800	6400	0	3750
3	1225631	16	2900	0	2900	0
4	1225632	16	0	0	0	0
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
	Column Totals	64	10,150	6,400	4,350	3,750

I, GEORGE SILVERMAN, do hereby certify that the above work credits are eligible under
(Print Full Name)
subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim

where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
George Silverson	SEPT 8/00

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

2 of

☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.

☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or

☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or

☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first,
followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (06/97)

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)

WORK CONT.

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2 of 2

Work Type	Units of work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
CONSULTANT	1 DAY	$500/DAY	500
CONSULTANT	4 DAYS	$267/DAY	1068
HELPERS	6 DAYS	$225/DAY	1350
Associated Costs (e.g. supplies, mobilization and demobilization).			
ATV		$25/DAY	125
ELECTRON MICROPROBE COSTS		$100/HOUR	980
SAMPLE PROCESSING		$360/SAMPLE	2160
KIMBERLITE INDICATOR MINERAL PICKING		$50/HOUR +34%	1290
REPORT			1068
Transportation Costs			
TRUCK	3,340 km	$0.35/km	1169
Food and Lodging Costs			
FOOD & LODGING			440
		Total Value of Assessment Work	$10,150

RECEIVED
OCT 1 3
GEOSCIENCE ASSESSMENT OFFICE

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

Work older than 5 years is not eligible for credit.

A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

2 of

Certification verifying costs:

I, GEORGE SILVERMAN, do hereby certify, that the amounts shown are as accurate as may reasonably
(please print full name)
be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

Declaration of Work form as RECORDED HOLDER I am authorized to make this certification.
(recorded holder, agent, or state company position with signing authority)

Signature	Date
George Silverman	SEPT. 8/00

0212 (06/97)

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9845
Fax: (877) 670-1555

November 30, 2000

GEORGE CHARLES SILVERMAN
75 ACTON AVENUE
DOWNSVIEW, Ontario
M3H-4H2

Dear Sir or Madam:

Submission Number: 2.20632

		Status
Subject: Transaction Number(s):	W0060.00404	Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact JIM MCAULEY by e-mail at james.mcauley@ndm.gov.on.ca or by telephone at (705) 670-5880.

Yours sincerely,

Lucille Jerome

ORIGINAL SIGNED BY
Lucille Jerome
Acting Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 15458
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.20632

Date Correspondence Sent: November 30, 2000 **Assessor:** JIM MCAULEY

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W0060.00404	1225629	SHEARER	Approval	November 28, 2000

Section:
17 Assays ASSAY

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

Correspondence to:

Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

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

GEORGE CHARLES SILVERMAN
DOWNSVIEW, Ontario

Correspondence ID: 15458

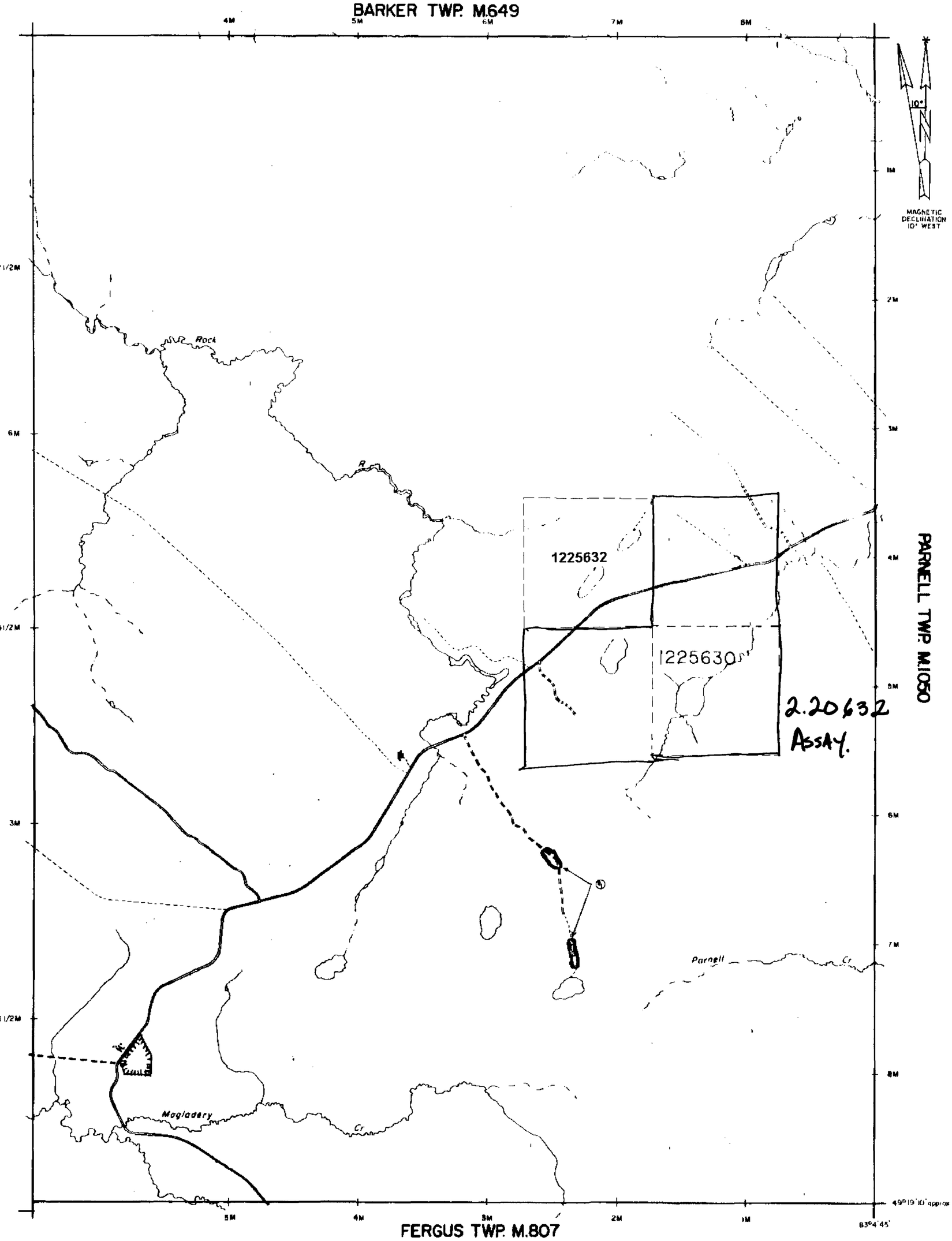
BARKER TWP. M.649

MAGLADERY TWP. M.846

PARNELL TWP. M.1050

FERGUS TWP. M.807

SHEARER TWP. M.648



THE TOWNSHIP OF

SHEARER

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C.S.
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	

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

NOTES

400' surface rights reservation around the shores of all lakes and rivers

GRAVEL

(P) GRAVEL PILE: 77336

Leachate Attn. zone

Rec. Feb 11/80

PLAN NO.- M.1108

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH