MAR 20000021: BEAVER RIVER

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ASSESSMENT REPORT

BEAVER RIVER PROJECT

419027 Alberta Ltd.
Metallic and Industrial Minerals Permit No. 093 9398080108

Submitted by: 419027 Alberta Ltd.

November 15, 2000

SUMMARY OF THE DIAMOND POTENTIAL OF ICE RIVER MINING INC.'S PERMIT AREA

APEX Geoscience Ltd. (APEX), was retained in the summer of 1999 as consultants by Ice River Mining Inc. (Ice River) to aid Ice River in the exploration for diamonds on the Company's Alberta properties. Although diamond exploration at the property is still in the early stages, the potential for discovery of diamondiferous kimberlites on Ice River's property is considered high based upon the regional geological setting in conjunction with the positive results of limited exploration that has been conducted to date.

The results of diamond indicator mineral sampling on and in the vicinity of Ice River's permit are encouraging based on the abundant diamond indicator minerals recovered from a limited number of samples collected to date. The major drainage within the area and its tributaries have yielded several diamond indicator minerals at different sites including pyrope garnets, chrome diopsides, picroilmenites and chromites, indicating the probable existence of a mantle derived intrusive such as a kimberlite in the area. The size and morphology of the diamond indicator grains, including pyrope garnets with orange peel texture and partially preserved kelphytic rims up to 1.2 mm in diameter indicates that the grains have not likely traveled further than 10 km from their original source. The chemistry of the diamond indicator minerals, including the recovery of two Gurney G10 pyrope garnets, indicates high potential for the existence of diamondiferous kimberlites in the region. This occurrence is only the fourth known occurrence of G10 pyrope garnets in Alberta and is a significant early stage discovery in a grassroots diamond exploration program. Additionally, the chemistry of the picroilmenites is indicative of a low oxygen fugacity magmatic environment that is important in the preservation of any diamonds carried by the host kimberlite.

In conclusion, the potential for discovery of diamondiferous kimberlites within or in close proximity of Ice River's permits is considered high based upon (a) the number, diversity, morphology and chemistry of diamond indicator minerals that have been recovered to date, (b) the favourable basement and tectonic setting, and (c) the presence of areas of thin drift.

Rainbow Research Associates

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Mike

I have completed the initial evaluation and examination of the four process samples designated oversize, high grade, Concentrate 1-2, and Concentrate 3-4; the latter two represent jig concentrates collected from ports 1-2 and 3-4. The samples were subjected to size classification and the products were submitted for magnetic separations. The products were examined in whole, or depending upon the weight in part, under the binocular microscope. The weight distribution data are attached.

In summary, three of the products, namely the Concentrate 1-2 -10+20 mesh paramagnetics, Concentrate 1-2 -20+60 mesh paramagnetics, and Concentrate 3-4 -20+60 mesh paramagnetics each contain significant proportions of liberated angular almandine garnet ranging from 50-85 wt%. All of the above have potential for industrial mineral applications after further upgrading.

The majority of the products were dominated by rock fragments; many types were identified and will be noted in the report.

No evidence of further precious or semi-precious components was indicated in the products; a few grains of semi-opaque to opaque corundum and possibly topaz were tentatively identified.

I also examined each of the products with a view to diamonds and indicator minerals. Several grains were selected comprising 'ilmenites' and a number of almandine-pyropes ranging from pink-purple to red; these grains were taken primarily from the coarse fractions; the presence of 'pyrope' in the finer fractions was not evident in those portions examined. A number of other minor phases such as kyanite, rutile, and staurolite, and few particles of almandine-pyrope bearing rocks (some similarities to eclogite though may be metamorphic origin) were picked for interest. No diamonds were identified.

Suggestions:

-optimize garnet concentrates and prepare for specification tests (larger samples are required for tests such as sand blasting, etc.)

-process only the nonmagnetics by caustic dissolution for diamonds (optional as the products are too large for diamond picking the entire lot; the total weight for analysis is approximately 7.8kg, a single sample charge for a process lab. The costs would be not less than $500-600 for the processing and an additional $100 for the microscopic analysis. Utilizing heavy liquid would be less destructive for the accessory minerals but may leave a large concentrate sink product and would be similar cost for this weight of sample. Let me know.)

I'll be available all next week while preparing your formal report.

Please contact me at your convenience.

Best of the season to you, your family and colleagues.

Sincerely,

Greg Davison
MANAGING DIRECTOR, RRA

Attachment Converted: "n:\mail\Eudora Attachments\99-005a.xls"

RRA Project #99-005 Apex Geoscience

		Weight (grams)				
Product		Ferromagnetics	Paramagnetics	Weak Paramagnetics	Nonmagnetics	Total
O/S		6.8				6.8
High Grade		145	713	482	138	1478
Conc 1,2						
	+6mesh	189				189
	+10mesh	224	809	925	989	2947
	+20mesh	373	[illegible]	1056	863	7079
	+60mesh	519	[illegible]	105	1387	6110
	-60mesh	112				112
						16437
Conc 3,4						
	+6mesh	0.1				0.1
	+10mesh	31	270	NA	645	946
	+20mesh	169	1170	424	4192	5955
	+60mesh	286	[illegible]	82	1380	3566
	-60mesh	153				153
						10620.1

*Cells highlighted in red indicate potential garnet products, further optimization tests are required to achieve upgrade in garnet content

*Cells highlighted in yellow indicate potential caustic dissolution samples to allow complete picking of the residues for diamonds

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REPORT

PROJECT: MATNEY PIT, CHERRY GROVE, ALBERTA

419027 Alberta Ltd.,
Ice River Mining Inc.
Beaver River Aggregate (Jerry L'Heureux)

This joint venture was accomplished by an agreement, whereby Ice River Mining Inc., under a 60-day option, were to do testing under supervision of Doug. Boisvert, Jim McMullen and Edna Lawrence.

Many tests were run and some of the results are attached here as items of enhancement of diamond indicators.

The plant was supplied to Ice River Mining Inc. by McMullen Agencies and financed by Jerry L'Heureux. Ice River was to do all the tests with all expenses being paid to Ice River by an agreement between Ice River Mining Inc. and Brilliant Mining Corp. That agreement expired (Ice River and Brilliant) as did the agreement between Ice River MiningInc. and 419027 Alberta Ltd.

Extensive prospecting has been carried out on the entire township and samples were run. There are extensive magnetics which can be removed by magnetic separation, such as a Dings Magnetic Separator, in our possession. The non-magnetics are placed on a "picking belt" for sorting.

Garnet concentrations are very heavy and by extraction may be sorted and sold.

The magnetics - magnetite, platinium, palladium, etc., can be sold as black sand for recovery.

Bulk samples are run every operating day of the plant. The concentrates are stored at a building of Beaver River Aggregate, Cherry Grove, Alberta.

Diamond indicators are becoming heavier as we go deeper.

REPORT BY JAMES MCMULLEN, FIELD PROSPECTOR

[redacted]

James McMullen

August 29, 2000

QUALIFATIONS OF JAMES MCMULLEN - PROSPECTOR

Edmonton 1950 - Drilled oil in Leduc field

Cassiar, B.C - I was considered a Professional Prospector along with my associate, Bill Storie. Bill and myself staked McDame Creek silver-lead find in 1953 and later the Silver Queen mine In 1954 along with Storie, Rattlesnake Bill Puridge,myself and Went Tellington, we developed Telmac Mines, silver-lead find at Cassiar, B.C.We shipped silver-lead until 1956 to the Helena, Montana AS&R smelter in the amount of $ 185,000.00.

1957 to 1958 - Slocan City, B.C.- Ottawa Silver Mine - mined rubey silver and shipped to Trail smelter in B.C

1958 to 1960 - Ross River, Yukon - McMullen, Doug Storing, Dave Miller staked the Lappy River silver-lead later adjoining the Keno Hill- Ross River silver-lead push.

1961 - Fort Smith Uranium claims - McMullen, Tellington Gordon Smith. The deposit being N.E of Fort Smith.

1962 Uranium City - Dismantled (liquidated) the following mines: Lorado Mines, Rix Athabasca, Lake Cinch Mine, Cayzor Mines,& Gunner Mines. Staked claims on Lost Lake- Copper showing.

1966 - Prospected the Nicholson Mine - nickel deposit and Box Mine- gold showings.

1967 - Uranium City, Sask. - took sick from exposure to uranium in tailings pipe removed from Gunner Mines, from 1967 to 1973.

1975 - Prospected Hunker Creek, Y.T. staked gold claims.

1976 - Dawson City, Y.T. - gold - Prospected Bonanza Creek and found good bench claims. Staked claims but did not mine them until 1980-82 with Edna Lawrence. 1979 -80 had a working agreement withthe Ghermezians for 6 months. Worked with Engineers Day, Stuart and Bill Bale on Germaine Creek claims results were gold and cassiderite plus a graphite vein.

1985 - Cassiar, B.C. - Silver Queen mine.- Bill Storie wanted me to re-open the mine but I told him I was too old. He asked for two years until his death in 1989. The mine will re-open in 1999 with Dennis Nikols.

1989 - I prospected for diamonds in the Yellowknife area.

1993 - Applied for Alberta Mineral leases with Edna Lawrence. In 1994 we discovered pyrope garnet markers and possible kimberlite pipe. The Government of Alberta Special Places took the best part of the lease for park, we are still testing the balance of that piece that was left.

1997 - May Lake Discovery of eroded kimberlite. Hand held magnetometer survey also done there.

1999 - South Cold Lake discovery - (pipes present)

James McMullen,
Free Miner B.C.
[redacted]

1982 - Edna Lawrence has been prospecting since 1982 until the present time. I have learned a great deal from Mr. McMullenand Wayne and Terry Kozak.

[redacted]

Edna Lawrence
Prospector

Matney Pit – Cherry Grove, Alberta

Location: **Sec. 12 Twp 61 Rg 1 W4**

The Matney Pit was drilled and reported in the Esso Resources Canada Ltd. Aggregate Survey Cold Lake Final Report Prospect No. 16C completed by R.M. Hardy and Associates Ltd., January 1979 (Appendix 1). The Matney Pit is the largest gravel pit in the area; the nearest operating pit is in the Elk Point area approximately 90 kms southwest of Cold Lake.

The owner/operator, Mr. Jerry L'Heureux, reports that approximately 325,000 yards of material have been processed and removed since the pit began operation. The 1979 report prepared by R. M. Hardy and Associates utilized a backhoe to a 4m depth from surface. Their report results indicate 767,000 yards of recoverable material at the site. In 1999 two additional test pits were dug on the base of the existing pit (approximately 4m below surface) both pits, one dug by Lafarge Canada Inc. (Construction Materials Group/Northern Alberta) and the other by Ice River Mining Inc. went an additional 4m down from the previous recorded depth. The first 3m appear to be similar to the aggregate materials within the first 4m, the lower 1m showed indications of preglacial material that likely represent a channel deposit underlying the glacial derived aggregate currently being mined. Further testing is required to determine the base of the pit.

Two main users of the aggregate have been Lafarge Canada Inc. and Everall. Their main exploitation of the aggregate material has been crushed material for road use. In the fall of 1999 Ice River Mining Inc. added a wash plant and has the ability to cut several additional aggregate fractions. Discussions with Lafarge Canada Inc. indicate they will purchase additional fractions that can be manufactured (Appendix 2).

Although further investigation is required to estimate the total aggregate reserve based upon the 1979 report and the 1999 test pits, indications show the possibility of extending resource estimates to approximately 1,500,000 yards of recoverable aggregate including the remaining 442,000 yards identified by R.M. Hardy and Associates.

December 20,1999

[redacted]

Doug Boisvert, Project Manager

International Atomic Weights

Element	Symbol	Atomic number	Atomic weight
Actinium	Ac	89	(227)
Aluminum	Al	13	26.9815
Americium	Am	95	(243)
Antimony	Sb	51	121.75
Argon	Ar	18	39.948
Arsenic	As	33	74.9216
Astatine	At	85	(210)
Barium	Ba	56	137.34
Berkelium	Bk	97	(247)
Beryllium	Be	4	9.0122
Bismuth	Bi	83	208.980
Boron	B	5	10.811
Bromine	Br	35	79.909
Cadmium	Cd	48	112.40
Calcium	Ca	20	40.08
Californium	Cf	98	(249)
Carbon	C	6	12.01115
Cerium	Ce	58	140.12
Cesium	Cs	55	132.905
Chlorine	Cl	17	35.453
Chromium	Cr	24	51.996
Cobalt	Co	27	58.9332
Copper	Cu	29	63.54
Curium	Cm	96	(245)
Dysprosium	Dy	66	162.50
Einsteinium	Es	99	(254)
Erbium	Er	68	167.26
Europium	Eu	63	151.96
Fermium	Fm	100	(252)
Fluorine	F	9	18.9984
Francium	Fr	87	(223)
Gadolinium	Gd	64	157.25
Gallium	Ga	31	69.72
Germanium	Ge	32	72.59
Gold	Au	79	196.967
Hafnium	Hf	72	178.49
Helium	He	2	4.0026
Holmium	Ho	67	164.930
Hydrogen	H	1	1.00797
Indium	In	49	114.82
Iodine	I	53	126.9044
Iridium	Ir	77	192.2
Iron	Fe	26	55.847
Krypton	Kr	36	83.80
Lanthanum	La	57	138.91
Lawrencium	Lw	103	(257)
Lead	Pb	82	207.19
Lithium	Li	3	6.939
Lutetium	Lu	71	174.97
Magnesium	Mg	12	24.312
Manganese	Mn	25	54.9380
Mendelevium	Mv	101	(256)
Mercury	Hg	80	200.59
Molybdenum	Mo	42	95.94
Neodymium	Nd	60	144.24
Neon	Ne	10	20.183
Neptunium	Np	93	(237)
Nickel	Ni	28	58.71
Niobium	Nb	41	92.906
Nitrogen	N	7	14.0067
Nobelium	No	102	(254)
Osmium	Os	76	190.2
Oxygen	O	8	15.9994
Palladium	Pd	46	106.4
Phosphorus	P	15	30.9738
Platinum	Pt	78	195.09
Plutonium	Pu	94	(244)
Polonium	Po	84	(210)
Potassium	K	19	39.102
Praseodymium	Pr	59	140.907
Promethium	Pm	61	(145)
Protactinium	Pa	91	(231)
Radium	Ra	88	(226)
Radon	Rn	86	(222)
Rhenium	Re	75	186.2
Rhodium	Rh	45	102.905
Rubidium	Rb	37	85.47
Ruthenium	Ru	44	101.07
Samarium	Sm	62	150.35
Scandium	Sc	21	44.956
Selenium	Se	34	78.96
Silicon	Si	14	28.086
Silver	Ag	47	107.870
Sodium	Na	11	22.9898
Strontium	Sr	38	87.62
Sulfur	S	16	32.064
Tantalum	Ta	73	180.948
Technetium	Tc	43	(99)
Tellurium	Te	52	127.60
Terbium	Tb	65	158.924
Thallium	Tl	81	204.37
Thorium	Th	90	232.038
Thulium	Tm	69	168.934
Tin	Sn	50	118.69
Titanium	Ti	22	47.90
Tungsten	W	74	183.85
Uranium	U	92	238.03
Vanadium	V	23	50.942
Xenon	Xe	54	131.30
Ytterbium	Yb	70	173.04
Yttrium	Y	39	88.905
Zinc	Zn	30	65.37
Zirconium	Zr	40	91.22

Numbers in parentheses indicate mass number of most stable known isotope.

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526 COPELAND APEX JANUARY 14/00 (6) [HM INDICATORS]
1 SAMPLE WEIGHT IN KG AP99.34
2 MID FRACTION -1.00+0.18MM DRY WEIGHT IN GRAMS
3 FRANTZ LOWERS @ 0.34 AMPS IN GRAMS
4 FRANTZ UPPERS @ 0.19 AMPS IN GRAMS
5 PYROPIC GARNET GRAIN COUNT
6 Cr-DIOPSIDE GRAIN COUNT
7 PICROILMENITE GRAIN COUNT
8 CHROMITE GRAIN COUNT
9

	SWT	MWT	LW1	UP1	PG	CD	PICRO	CHROM
9DCH 400	13.20	1053	37.93	113.04	0	0	0	0
9DCH 401	15.35	5133	47.18	77.76	1	0	0	0
9DCH 402	13.65	2153	64.27	216.61	8	1	0	0
9DCH 403	18.90	3829	34.00	279.61	7	0	0	0
9DCH 404	15.00	3082	56.92	79.02	2	0	0	0
9DCH 403 REP					0	0	0	0

Indicator Mineral Grain Description **Group: AP99:34**

Lower 1 Fraction

REP- Repicked Sample B-Blank DEF-Definite POS-Possible

No.	Sample Name	Pyrope Gt.		Cr. Diop.		Eclog.	Olivine	Picked	Others
		DEF	POS	DEF	POS	POS	POS	%	
1	9DCH-400	0	1	0	0	2	0	100	0
	Comments:								
2	9DCH-401	1	2	0	0	0	0	100	1
	Comments: POSSIBLE PYROPES VERY RED/WINE, 1 POSS. UVAROVITE								
3	9DCH-402	8	0	1	2	8	1	100	2
	Comments: 2 POSSIBLE CHROME DIOPSIDE/UVAROVITE								
4	9DCH-403	7	6	0	1	3	0	100	2
	Comments: 2 POSSIBLE CHROME DIOPSIDE/UVAROVITE								
5	9DCH-404	2	0	0	0	0	0	100	0
	Comments:								
6									
	Comments:								
7									
	Comments:								
8									
	Comments:								
9									
	Comments:								
10									
	Comments:								
11									
	Comments:								
12									
	Comments:								
	REP 9DCH-403	0	0	0	0	0	0	100	0
	Comments:								

Indicator Mineral Grain Description **Group: AP99:34**

Lower 2 Fraction

REP- Repicked Sample B-Blank DEF-Definite POS-Possible

No.	Sample Name	Picroilmenite		Chromite		% Picked	Others
		DEF	POS	DEF	POS		
1	9DCH-400	0	1	0	2	7	2
	Comments: 2 OTHER CHROMITE/MAGNETITE						
2	9DCH-401	0	0	0	2	14	3
	Comments: 3 OTHER POSSIBLE CHROMITE/MAGNETITE						
3	9DCH-402	0	5	0	0	4	3
	Comments: 3 OTHER POSSIBLE CHROMITE/MAGNETITE						
4	9DCH-403	0	12	0	2	6	1
	Comments: 1 OTHER POSSILBE CHROMITE/MAGNETITE						
5	9DCH-404	0	11	0	1	7	1
	Comments: 1 OTHER POSSIBLE CHROMITE/MAGNETITE						
6							
	Comments:						
7							
	Comments:						
8							
	Comments:						
9							
	Comments:						
10							
	Comments:						
11							
	Comments:						
12							
	Comments:						
	REP 9DCH-403	0	0	0	0	6	0
	Comments:						

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4826 COPELAND APEX JANUARY 14/00 (5) [AU GRAIN COUNT]
1
2
3 VISIBLE GOLD GRAIN COUNT
4
5
6
7
8
9

	AU
9DCH 400	2
9DCH 401	1
9DCH 402	2
9DCH 403	5
9DCH 404	11

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10.39= ESTIMATED WEIGHT OF Au IN MICROGRAMS

M826 COPELAND APEX JANUARY 14/00 (5) [AU GRAIN COUNT] (2) 9DCH 400
1 GOLD GRAIN WIDTH IN MICRONS
2 GOLD GRAIN LENGTH IN MICRONS
3 GOLD GRAIN DESCRIPTION
4 GOLD GRAIN WIDTH IN MICRONS
5 GOLD GRAIN LENGTH IN MICRONS
6 GOLD GRAIN DESCRIPTION
7 GOLD GRAIN WIDTH IN MICRONS
8 GOLD GRAIN LENGTH IN MICRONS
9 GOLD GRAIN DESCRIPTION

W	L	D
100	120	A
160	200	A

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149.85= ESTIMATED WEIGHT OF Au IN MICROGRAMS

M826 COPELAND APEX JANUARY 14/00 (5) [AU GRAIN COUNT](1)9DCH 401
1 GOLD GRAIN WIDTH IN MICRONS
2 GOLD GRAIN LENGTH IN MICRONS
3 GOLD GRAIN DESCRIPTION
4 GOLD GRAIN WIDTH IN MICRONS
5 GOLD GRAIN LENGTH IN MICRONS
6 GOLD GRAIN DESCRIPTION
7 GOLD GRAIN WIDTH IN MICRONS
8 GOLD GRAIN LENGTH IN MICRONS
9 GOLD GRAIN DESCRIPTION

W	L	D
300	700	A

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91.58= ESTIMATED WEIGHT OF Au IN MICROGRAMS

626 COPELAND APEX JANUARY 14/00 (5) [AU GRAIN COUNT](2)9DCH 402
1 GOLD GRAIN WIDTH IN MICRONS
2 GOLD GRAIN LENGTH IN MICRONS
3 GOLD GRAIN DESCRIPTION
4 GOLD GRAIN WIDTH IN MICRONS
5 GOLD GRAIN LENGTH IN MICRONS
6 GOLD GRAIN DESCRIPTION
7 GOLD GRAIN WIDTH IN MICRONS
8 GOLD GRAIN LENGTH IN MICRONS
9 GOLD GRAIN DESCRIPTION

W	L	D
200	300	A
360	400	A

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46.55= ESTIMATED WEIGHT OF Au IN MICROGRAMS

6 COPELAND APEX JANUARY 14/00 (5) [AU GRAIN COUNT](5)9DCH 403
1 GOLD GRAIN WIDTH IN MICRONS
2 GOLD GRAIN LENGTH IN MICRONS
3 GOLD GRAIN DESCRIPTION
4 GOLD GRAIN WIDTH IN MICRONS
5 GOLD GRAIN LENGTH IN MICRONS
6 GOLD GRAIN DESCRIPTION
7 GOLD GRAIN WIDTH IN MICRONS
8 GOLD GRAIN LENGTH IN MICRONS
9 GOLD GRAIN DESCRIPTION

W	L	D
80	100	A
120	220	A
120	240	A
200	240	A
200	240	A

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208.23= ESTIMATED WEIGHT OF Au IN MICROGRAMS

M826 COPELAND APEX JANUARY 14/00 (5) [AU GRAIN COUNT](11)9DCH 404
1 GOLD GRAIN WIDTH IN MICRONS
2 GOLD GRAIN LENGTH IN MICRONS
3 GOLD GRAIN DESCRIPTION
4 GOLD GRAIN WIDTH IN MICRONS
5 GOLD GRAIN LENGTH IN MICRONS
6 GOLD GRAIN DESCRIPTION
7 GOLD GRAIN WIDTH IN MICRONS
8 GOLD GRAIN LENGTH IN MICRONS
9 GOLD GRAIN DESCRIPTION

W	L	D
40	40	A
80	120	A
100	120	A
120	160	A
140	140	R
160	200	A
160	340	A
200	200	A
220	340	A
300	400	A
360	400	A

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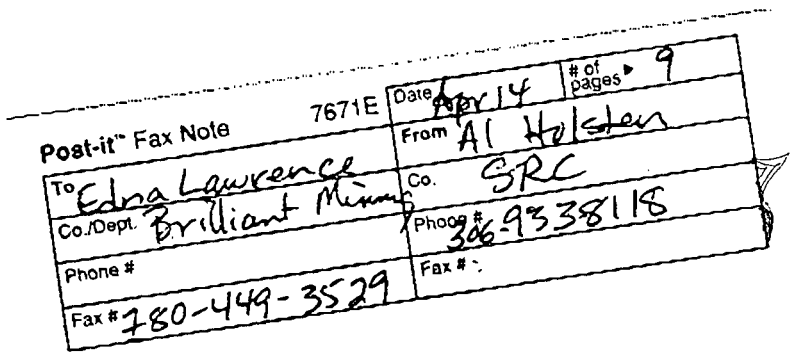
M144 MCMULLEN BRILLIANT APRIL 14/99 (4) PG 435 [.125 G HF DIG]

1	Al2O3	wt %	HF/HNO3/HCLO4	ICP	OT99.25
2	Fe2O3	wt %	HF/HNO3/HCLO4	ICP	
3	CaO	wt %	HF/HNO3/HCLO4	ICP	
4	MgO	wt %	HF/HNO3/HCLO4	ICP	
5	K2O	wt %	HF/HNO3/HCLO4	ICP	
6	Na2O	wt %	HF/HNO3/HCLO4	ICP	
7	Pb	ppm	HF/HNO3/HCLO4	ICP	
8	Li	ppm	HF/HNO3/HCLO4	ICP	
9	U	ppm	HF/HNO3/HCLO4	ICP	

	Al2O3 (Aluminum)	Fe2O3 (Iron)	CaO (Calcium oxide)	MgO (Magnesium oxide)	K2O (Potassium oxide)	Na2O (Sodium oxide)	Pb (Palladium)	Li (Lithium)	U (Uranium)
CG509	11.2	3.37	2.69	1.19	2.31	2.72	11	17	2
SCL 2 FINE	6.32	3.04	1.83	0.929	1.13	1.33	8	9	2
SCL 3 FINE	6.24	11.3	1.69	1.31	0.699	0.96	31	7	2
SCL 3 COARSE	9.36	6.25	8.65	6.43	0.786	1.59	6	22	2



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M144 MCMULLEN BRILLIANT APRIL 14/99 (4) PG 435 [.125 G HF DIG]

1	Mo	ppm	HF/HNO3/HCLO4	ICP	OT99.25
2	P2O5	wt %	HF/HNO3/HCLO4	ICP	
3	Cd	ppm	HF/HNO3/HCLO4	ICP	
4	MnO	wt %	HF/HNO3/HCLO4	ICP	
5	Cr	ppm	HF/HNO3/HCLO4	ICP	
6	V	ppm	HF/HNO3/HCLO4	ICP	
7	Be	ppm	HF/HNO3/HCLO4	ICP	
8	TiO2	wt %	HF/HNO3/HCLO4	ICP	
9	Zr	ppm	HF/HNO3/HCLO4	ICP	

CADMIUM MAGNESIUM OXIDE CHROMIUM VANADIUM BERYLLIUM THALLIUM ZIRCONIUM

	Mo (moly)	P2O5 (PHOSPHORUS)	Cd	MnO	Cr	V	Be	TiO2	Zr
CG509	4	0.210	0.2	0.050	208	55	1.4	0.442	210
SCL 2 FINE	3	0.066	0.3	0.064	153	34	0.6	0.169	50
SCL 3 FINE	3	0.156	0.2	0.184	355	112	0.5	0.824	159
SCL 3 COARSE	1	0.063	0.3	0.173	284	119	0.7	0.406	59

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M144 MCMULLEN BRILLIANT APRIL 14/99 (4) PG 435 [.125 G HF DIG]

1	Y	ppm	HF/HNO3/HCLO4	ICP	OT99.25
2	La	ppm	HF/HNO3/HCLO4	ICP	
3	Th	ppm	HF/HNO3/HCLO4	ICP	
4	Sr	ppm	HF/HNO3/HCLO4	ICP	
5	Ba	ppm	HF/HNO3/HCLO4	ICP	
6	W	ppm	HF/HNO3/HCLO4	ICP	
7	Sn	ppm	HF/HNO3/HCLO4	ICP	
8	Sc	ppm	HF/HNO3/HCLO4	ICP	
9	Nb	ppm	HF/HNO3/HCLO4	ICP	

	Y (YTTRIUM)	La (LANTHANUM)	Th (THORIUM)	Sr (STRONTIUM)	Ba (BARIUM)	W (TUNGSTEN)	Sn (TIN)	Sc (SCANDIUM)	Nb (NIOBIUM)
CGS09	13	35	8	339	875	7	5	5	5
SCL 2 FINE	12	11	4	168	422	4	1	6	2
SCL 3 FINE	43	79	43	122	275	3	1	21	13
SCL 3 COARSE	12	9	2	157	215	5	1	19	3

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M144 MCMULLEN BRILLIANT APRIL 14/99 (4) PG 435 [.125 G HF DIG]

1	Ga	ppm	HF/HNO3/HCLO4	ICP	OT99.25
2	Ta	ppm	HF/HNO3/HCLO4	ICP	
3	Pr	ppm	HF/HNO3/HCLO4	ICP	
4	Nd	ppm	HF/HNO3/HCLO4	ICP	
5	Sm	ppm	HF/HNO3/HCLO4	ICP	
6	Eu	ppm	HF/HNO3/HCLO4	ICP	
7	Gd	ppm	HF/HNO3/HCLO4	ICP	
8	Tb	ppm	HF/HNO3/HCLO4	ICP	
9	Dy	ppm	HF/HNO3/HCLO4	ICP	

	Ga (Gallium)	Ta (Tantalum)	Pr (Praseodymium)	Nd (Neodymium)	Sm (Samarium)	Eu (Europium)	Gd (Gadolinium)	Tb (Terbium)	Dy (Dysprosium)
CG509	12	1	8	35	4.2	1.2	4.4	0.3	2.8
SCL 2 FINE	6	1	4	13	2.3	0.9	2.4	0.3	2.5
SCL 3 FINE	7	1	25	84	10.3	0.7	10.1	1.7	9.0
SCL 3 COARSE	10	1	2	10	1.8	0.6	3.2	0.3	2.6

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M144 MCMULLEN BRILLIANT APRIL 14/99 (4) PG 435 [.125 G HF DIG]

1	Ho	ppm	HF/HNO3/HCLO4	ICP
2	Er	ppm	HF/HNO3/HCLO4	ICP
3	Hf	ppm	HF/HNO3/HCLO4	ICP
4	Yb	ppm	HF/HNO3/HCLO4	ICP
5	Lu	ppm	HF/HNO3/HCLO4	ICP
6	Ce	ppm	HF/HNO3/HCLO4	ICP
7	Tm	ppm	HF/HNO3/HCLO4	ICP
8	Cu	ppm	HF/HNO3/HCLO4	ICP
9	Zn	ppm	HF/HNO3/HCLO4	ICP

OT99.25

	Ho (Holmium)	Er (Erbium)	Hf (Hafnium)	Yb (Ytterbium)	Lu (Lutetium)	Ce (Cerium)	Tm (Thulium)	Cu (Copper)	Zn (Zinc)
CG509	0.7	1.6	6.6	1.5	0.2	78	0.2	2	30
SCL 2 FINE	1.4	1.7	1.7	1.5	0.2	30	0.2	8	30
SCL 3 FINE	1.4	5.8	4.5	5.1	0.6	173	0.2	8	55
SCL 3 COARSE	1.0	1.2	1.8	1.1	0.1	16	0.2	19	72

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M144 MCMULLEN BRILLIANT APRIL 14/99 (4) PG 435 [.125 G HF DIG]

1	Co	ppm	HF/HNO3/HCLO4	ICP	OT99.25
2	Ni	ppm	HF/HNO3/HCLO4	ICP	
3	Ag	ppm	HF/HNO3/HCLO4	ICP	
4	Au	ppb	FIRE ASSAY	ICP	
5	Pt	ppb	FIRE ASSAY	ICP	
6	Pd	ppb	FIRE ASSAY	ICP	
7					
8					
9					

	Co (Cobalt)	Ni (Nickel)	Ag (Silver)	Au (Gold)	Pt (Platinum)	Pd (Palladium)
CG509	11	16	0.2			
SCL 2 FINE	19	11	0.2	5	4	1
SCL 3 FINE	29	14	0.2	6	1	1
SCL 3 COARSE	27	54	0.4	1	4	1

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M147 MCMULLEN BRILLIANT APRIL 14/99 (3) [HM INDICATORS]
1 SAMPLE WEIGHT IN GRAMS OT99.25
2 MID FRACTION -1.00+0.18MM DRY WEIGHT IN GRAMS
3 FRANTZ LOWERS @ 0.34 AMPS IN GRAMS
4 FRANTZ UPPERS @ 0.19 AMPS IN GRAMS
5 PYROPIC GARNET GRAIN COUNT
6 Cr-DIOPSIDE GRAIN COUNT
7 PICROILMENITE GRAIN COUNT
8 CHROMITE GRAIN COUNT
9

PYROPIC GARNET CHROMIUM DIOPSIDE

	SWT	MWT	LW1	UP1	PG	CD	PICRO	CHROM
SCL 2 FINE	914.8	798.7	15.56	22.10	1	0	0	0
SCL 3 FINE	198.1	166.0	4.63	16.34	0	0	0	0
SCL 3 COARSE	290.5	6.4	2.84	0.25	0	0	0	0

INDICATOR MINERAL GRAIN DESCRIPTION

GEOLOGIST/COMPANY:_____ GROUP #: OT99-25

LOWERS 2 FRACTION

DATE_____

SAMPLE #	TIME	PICROILMENITE		CHROMITE		% PICKED	OTHERS
		DEF	POSS	DEF	POSS		
1 SCL-2		0	9	0	1	25	0
COMMENTS:							
2 SCL-3		0	12	0	0	30	0
COMMENTS:							
3 SCL-3 Coarse		0	0	0	0	100	0
COMMENTS:							
4							
COMMENTS:							
5							
COMMENTS:							
6							
COMMENTS:							
7							
COMMENTS:							
8							
COMMENTS:							
9							
COMMENTS:							
10							
COMMENTS:							
11							
COMMENTS:							
12							
COMMENTS:							

C:\...\GETFLOWERS2.WPD

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M769 MULLEN SEPTEMBER 13 2000 (4) PG1107 [.125GM HF DIG]

1	Al2O3	wt %	HF/HNO3/HCLO4	ICP	OT00.178
2	Fe2O3	wt %	HF/HNO3/HCLO4	ICP	
3	CaO	wt %	HF/HNO3/HCLO4	ICP	
4	MgO	wt %	HF/HNO3/HCLO4	ICP	
5	K2O	wt %	HF/HNO3/HCLO4	ICP	
6	Na2O	wt %	HF/HNO3/HCLO4	ICP	
7	Pb	ppm	HF/HNO3/HCLO4	ICP	
8	Li	ppm	HF/HNO3/HCLO4	ICP	
9	U	ppm	HF/HNO3/HCLO4	ICP	

	Al2O3	Fe2O3	CaO	MgO	K2O	Na2O	Pb	Li	U
CG509	10.9	3.29	2.68	1.23	2.51	2.68	9	18	4
A ROUND	13.8	8.36	12.4	12.1	0.914	0.97	4	21	<2
B REC	13.0	12.7	10.7	7.01	0.674	1.99	4	18	<2
A ROUND REP	13.6	8.20	12.5	12.0	0.874	0.98	4	20	<2

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M769 MULLEN SEPTEMBER 13 2000 (4) PG1107 [.125GM HF DIG]

1	Mo	ppm	HF/HNO3/HCLO4	ICP	OT00.178
2	P2O5	wt %	HF/HNO3/HCLO4	ICP	
3	Cd	ppm	HF/HNO3/HCLO4	ICP	
4	MnO	wt %	HF/HNO3/HCLO4	ICP	
5	Cr	ppm	HF/HNO3/HCLO4	ICP	
6	V	ppm	HF/HNO3/HCLO4	ICP	
7	Be	ppm	HF/HNO3/HCLO4	ICP	
8	TiO2	wt %	HF/HNO3/HCLO4	ICP	
9	Zr	ppm	HF/HNO3/HCLO4	ICP	

	Mo	P2O5	Cd	MnO	Cr	V	Be	TiO2	Zr
CG509	3	0.234	<0.2	0.050	197	54	1.4	0.442	210
A ROUND	1	0.078	<0.2	0.143	306	151	<0.2	0.379	16
B REC	2	0.122	0.4	0.203	119	309	0.4	1.14	12
A ROUND REP	2	0.072	<0.2	0.139	306	142	<0.2	0.347	15

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M769 MULLEN SEPTEMBER 13 2000 (4) PG1107 [.125GM HF DIG]

1	Y	ppm	HF/HNO3/HCLO4	ICP	OT00.178
2	La	ppm	HF/HNO3/HCLO4	ICP	
3	Th	ppm	HF/HNO3/HCLO4	ICP	
4	Sr	ppm	HF/HNO3/HCLO4	ICP	
5	Ba	ppm	HF/HNO3/HCLO4	ICP	
6	W	ppm	HF/HNO3/HCLO4	ICP	
7	Sn	ppm	HF/HNO3/HCLO4	ICP	
8	Sc	ppm	HF/HNO3/HCLO4	ICP	
9	Nb	ppm	HF/HNO3/HCLO4	ICP	

	Y	La	Th	Sr	Ba	W	Sn	Sc	Nb
CG509	13	40	9	339	869	4	3	5	5
A ROUND	6	7	10	376	159	4	<1	49	<1
B REC	17	6	10	181	94	<1	<1	49	<1
A ROUND REP	5	6	10	392	158	3	<1	47	<1

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M769 MULLEN SEPTEMBER 13 2000 (4) PG1107 [.125GM HF DIG]
OT00.178

1	Ga	ppm	HF/HNO3/HCLO4 ICP
2	Ta	ppm	HF/HNO3/HCLO4 ICP
3	Pr	ppm	HF/HNO3/HCLO4 ICP
4	Nd	ppm	HF/HNO3/HCLO4 ICP
5	Sm	ppm	HF/HNO3/HCLO4 ICP
6	Eu	ppm	HF/HNO3/HCLO4 ICP
7	Gd	ppm	HF/HNO3/HCLO4 ICP
8	Tb	ppm	HF/HNO3/HCLO4 ICP
9	Dy	ppm	HF/HNO3/HCLO4 ICP

	Ga	Ta	Pr	Nd	Sm	Eu	Gd	Tb	Dy
CG509	12	<1	8	31	4.1	1.0	3.8	0.3	3.2
A ROUND	10	10	<1	5	<0.5	0.3	2.1	<0.3	1.8
B REC	15	<1	<1	6	<0.5	0.7	3.7	<0.3	3.8
A ROUND REP	10	3	1	6	<0.5	0.3	1.7	<0.3	1.6

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M769 MULLEN SEPTEMBER 13 2000 (4) PG1107 [.125GM HF DIG]

1	Ho	ppm	HF/HNO3/HCLO4	ICP
2	Er	ppm	HF/HNO3/HCLO4	ICP
3	Hf	ppm	HF/HNO3/HCLO4	ICP
4	Yb	ppm	HF/HNO3/HCLO4	ICP
5	Lu	ppm	HF/HNO3/HCLO4	ICP
6	Ce	ppm	HF/HNO3/HCLO4	ICP
7	Tm	ppm	HF/HNO3/HCLO4	ICP
8	Cu	ppm	HF/HNO3/HCLO4	ICP
9	Zn	ppm	HF/HNO3/HCLO4	ICP

OT00.178

	Ho	Er	Hf	Yb	Lu	Ce	Tm	Cu	Zn
CG509	0.8	1.3	4.8	1.5	0.2	75	<0.2	2	27
A ROUND	1.2	0.6	1.2	0.3	0.1	17	0.2	230	59
B REC	1.7	2.2	2.2	1.3	0.3	15	<0.2	92	102
A ROUND REP	1.3	0.7	1.7	0.3	0.1	15	0.2	260	59

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M769 MULLEN SEPTEMBER 13 2000 (4) PG1107 [.125GM HF DIG]

1	Co	ppm	HF/HNO3/HCLO4	ICP	OT00.178
2	Ni	ppm	HF/HNO3/HCLO4	ICP	
3	Ag	ppm	HF/HNO3/HCLO4	ICP	
4	Au	ppb	FIRE ASSAY	ICP	
5	Pt	ppb	FIRE ASSAY	ICP	
6	Pd	ppb	FIRE ASSAY	ICP	
7					
8					
9					

	Co	Ni	Ag	Au	Pt	Pd
CG509	8	17	<0.2			
A ROUND	51	148	<0.2	11.	1.	1.
B REC	47	64	<0.2	5.	6.	9.
A ROUND REP	52	150	<0.2	14.	1.	1.

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M770 MCMULLEN SEPTEMBER 12 2000 (4) PG 1108 [.500 G AR DIG]

1	Cu	ppm	HNO3/HCL ICP	OT00.178
2	Ni	ppm	HNO3/HCL ICP	
3	Pb	ppm	HNO3/HCL ICP	
4	Zn	ppm	HNO3/HCL ICP	
5	Co	ppm	HNO3/HCL ICP	
6	Mo	ppm	HNO3/HCL ICP	
7	Ag	ppm	HNO3/HCL ICP	
8	Ge	ppm	HNO3/HCL ICP	
9	As	ppm	HNO3/HCL ICP	

	Cu	Ni	Pb	Zn	Co	Mo	Ag	Ge	As
LS3	53.5	52.2	20.9	217	41.2	16.7	0.2	0.2	10.9
A ROUND	224	46.9	5.90	8.0	12.8	0.1	0.1	0.2	0.2
B REC	91.3	22.6	4.02	20.7	13.8	0.1	0.1	0.2	0.2
A ROUND REP	254	54.0	5.51	7.7	14.1	0.1	0.1	0.8	0.2

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M770 MCMULLEN SEPTEMBER 12 2000 (4) PG 1108 [.500 G AR DIG]

1	Sb	ppm	HNO3/HCL ICP	OT00.178
2	Bi	ppm	HNO3/HCL ICP	
3	Se	ppm	HNO3/HCL ICP	
4	Te	ppm	HNO3/HCL ICP	
5	Hg	ppm	HNO3/HCL ICP	
6	U	ppm	HNO3/HCL ICP	
7	V	ppm	HNO3/HCL ICP	
8				
9				

	Sb	Bi	Se	Te	Hg	U	V
LS3	0.2	0.2	0.5	0.2	0.03	42.0	103
A ROUND	0.2	0.2	0.6	0.8	0.03	0.7	14.6
B REC	0.2	0.2	0.5	0.2	0.03	1.5	49.7
A ROUND REP	0.2	0.2	0.6	0.2	0.18	0.5	15.3

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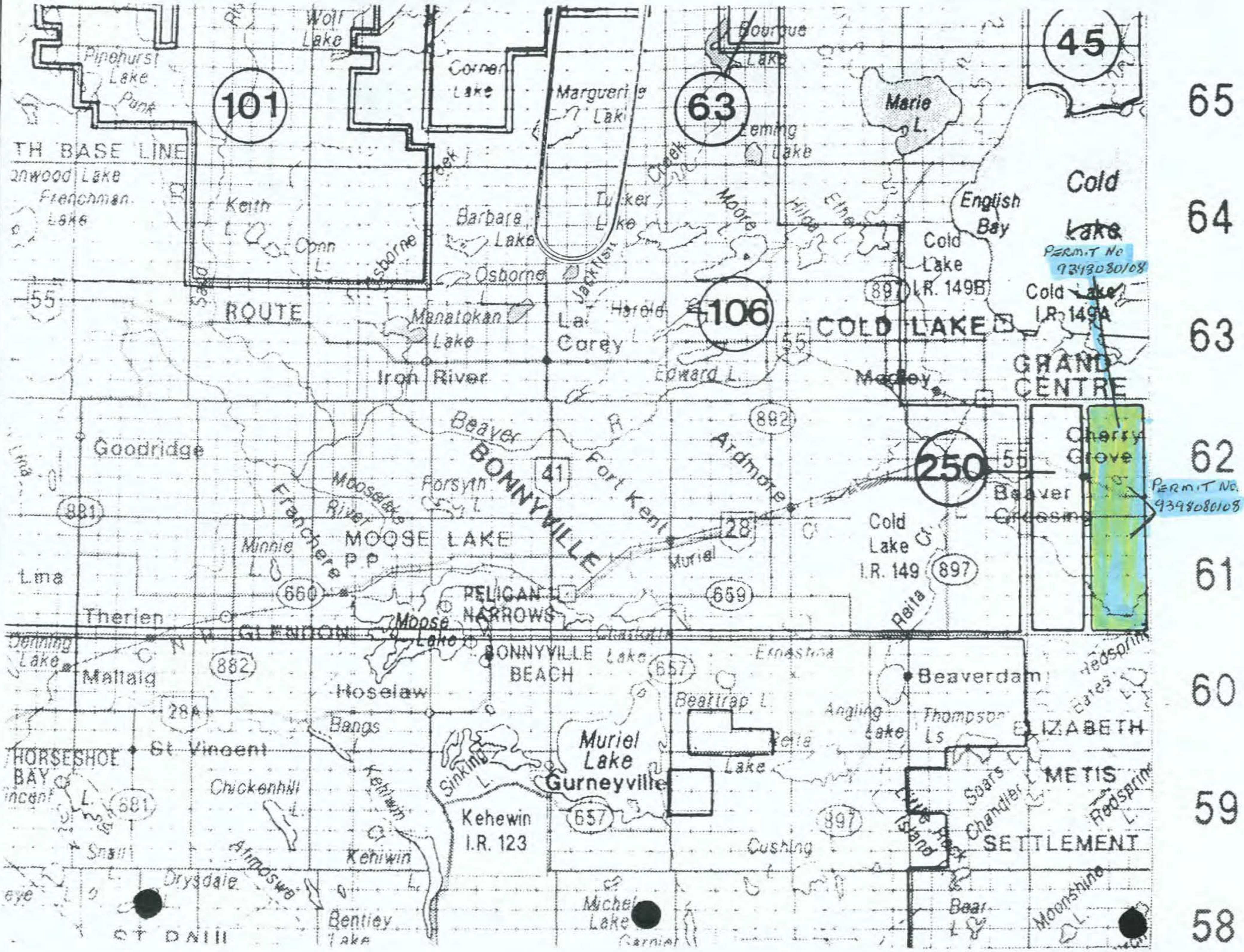
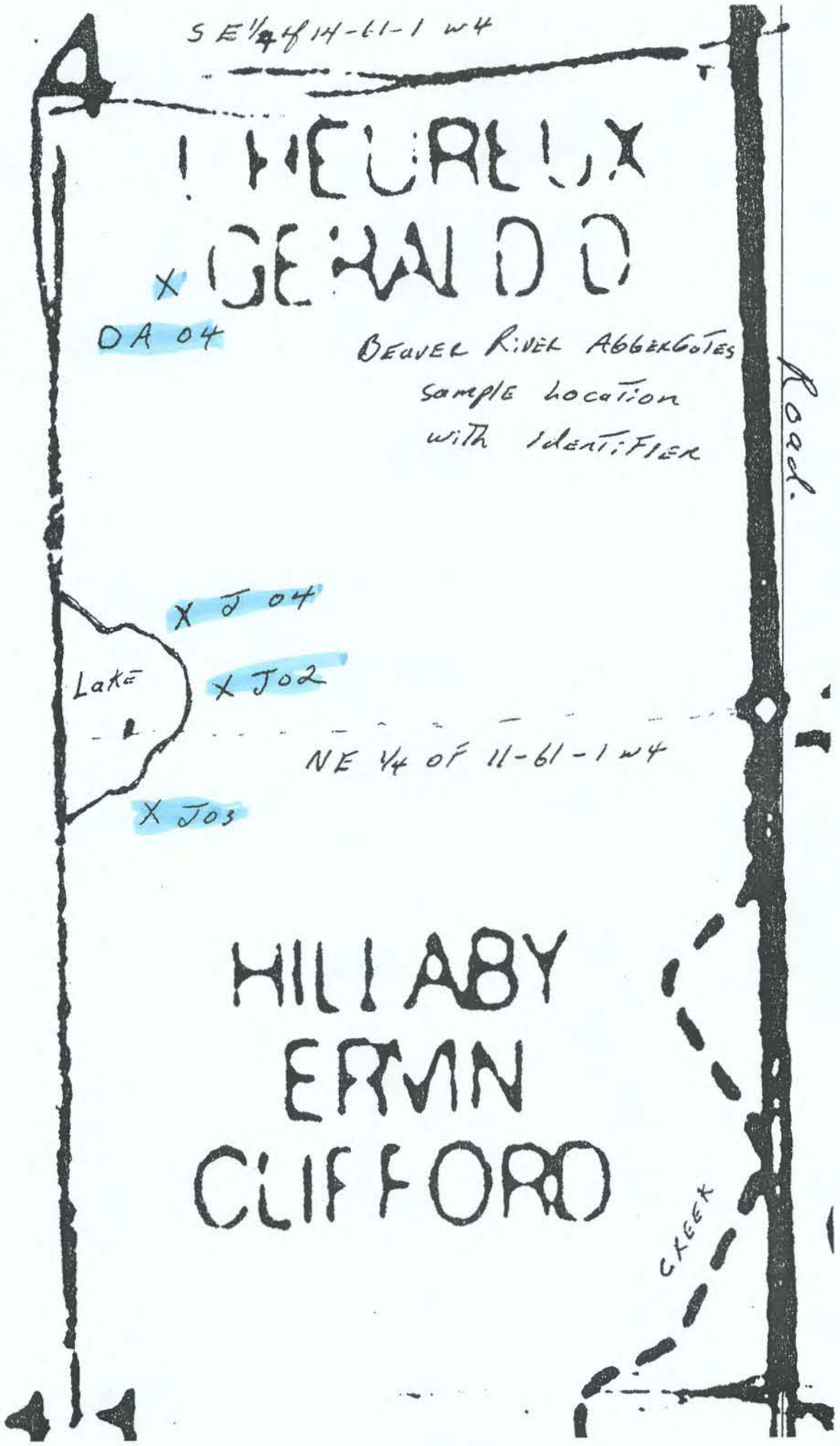
M103 DOUG BOISVERT BEAVER RIVER APRIL 10 2000 (4) (WEIGHTS\ASSAY)

1 INITIAL SAMPLE WEIGHT IN GRAMS OT00.38
2 +1.0 MM DRY WEIGHT IN GRAMS
3 -1.0 MM DRY WEIGHT IN GRAMS
4 FERRO MAGNETICS WEIGHT IN GRAMS
5 NON MAGNETICS WEIGHT IN GRAMS
6 Pt ppb FERRO MAGNETICS FIRE ASSAY ICP
7 Pt ppb NON MAGNETICS FIRE ASSAY ICP
8 Pd ppb FERRO MAGNETICS FIRE ASSAY ICP
9 Pd ppb NON MAGNETICS FIRE ASSAY ICP

	SWT	+1MM	-1MM	FERRO	NON	Pt	Pt	Pd	Pd
TABLE	585.2	10.6	574.6	481.1	93.5	6.	10.	18.	10.
WHEEL	2059.3	10.3	2049.0	1159.2	888.3	18.	21.	1.	5.

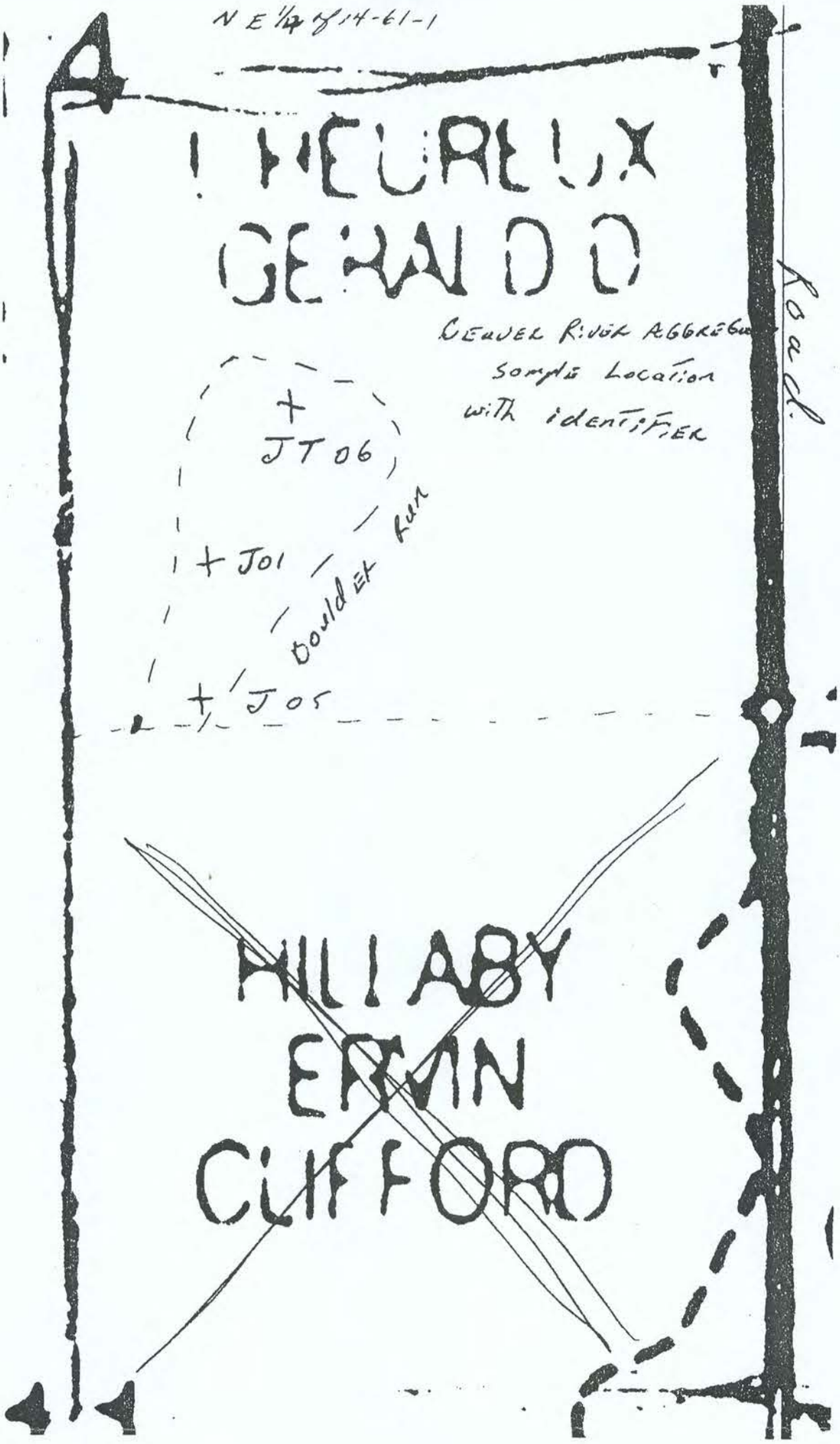


45
65
64
63
62
61
60
59
58
101
63
106
250
Wolf Lake
Pinehurst Lake
Pank
Corner Lake
Marguerite Lake
Bourque Lake
Marie L.
Leming Lake
TH BASE LINE
Frenchman Lake
Keith L.
Conn L.
Osborne
Barbara Lake
Tucker Lake
Moore L.
English Bay
Cold Lake
Cold Lake I.R. 149B
Cold Lake I.R. 149A
PERMIT No
55
ROUTE
Manatokan Lake
La Corey
Harold
COLD LAKE
GRAND CENTRE
Iron River
Edward L.
Medley
Beaver R
892
Ardmore
Goodridge
BONNYVILLE
41
Fort Kent
Cherry Grove
Beaver Crossing
PERMIT No. 9398080108
Mooselake River
Forsyth L.
881
Francheres
MOOSE LAKE P.P.
28
Cold Lake I.R. 149
897
Minnie L.
Muriel
Lima
660
PELICAN NARROWS
659
Reita
Therien
Moose Lake
GLENDON
BONNYVILLE BEACH
Charlotte Lake
Mallaig
882
657
Beaverdam
Hoselaw
Beartrap L.
Angling Lake
Thompson Ls
ELIZABETH
28A
Bangs
Muriel Lake
Reita Lake
HORSESHOE BAY
St. Vincent
Sinking L.
Gurneyville
METIS
SETTLEMENT
681
Chickenhill L.
Kehiwin Cr.
Kehewin I.R. 123
Chandler L.
Soars L.
Redspring L.
Cushing
Kehiwin
Drysdale
Atimoswe
Michel Lake
Bentley Lake
Bear L.
Moonshine L.



LEGEND

0A04	N54° 16.372 W 110° 02.255 sample no good
J02	N54° 16.321 W 110° 02.126 M144 analysis
J03	N54° 16.108 W 110° 02.116 M147 analysis
J04	N54° 16.317 W 110° 02.179 M769 analysis



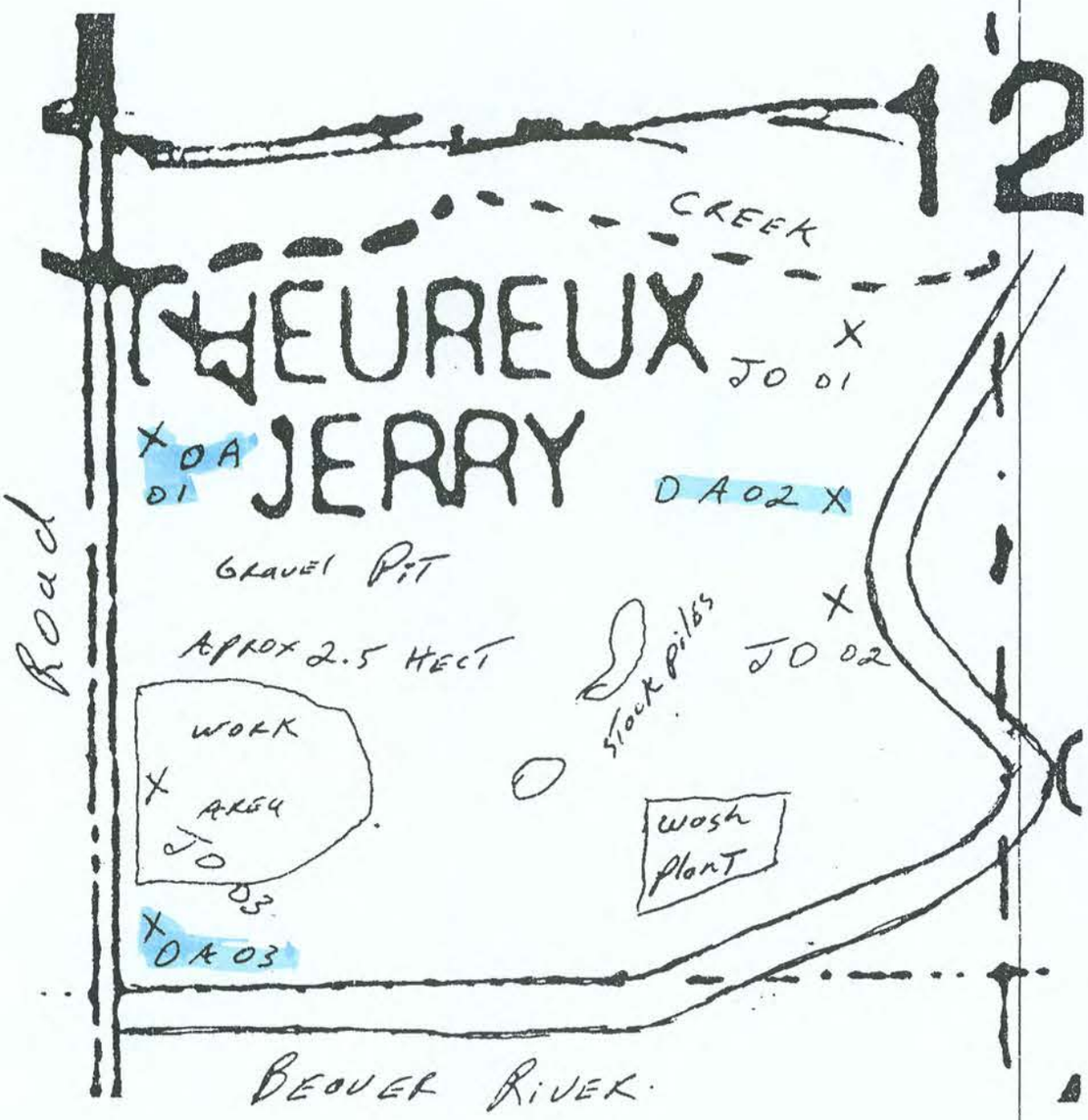
LEGEND

J01	N54° 16.597	W 110° 02.624	overburden
J05	N54° 16.404	W 110° 02.409	overburden
JT06	N54° 16.716	W 110° 02.383	Overburden

SW¼ of 12-61-1

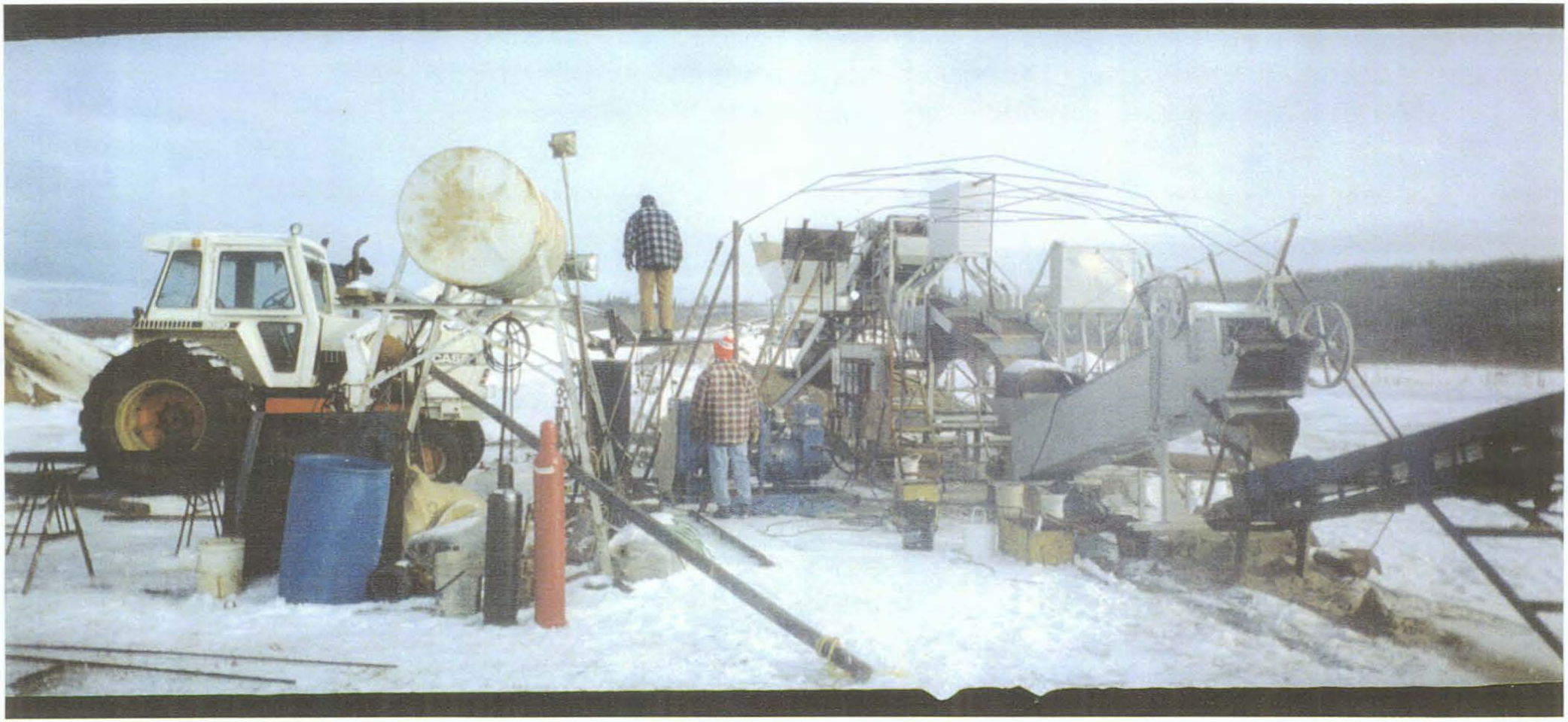
N

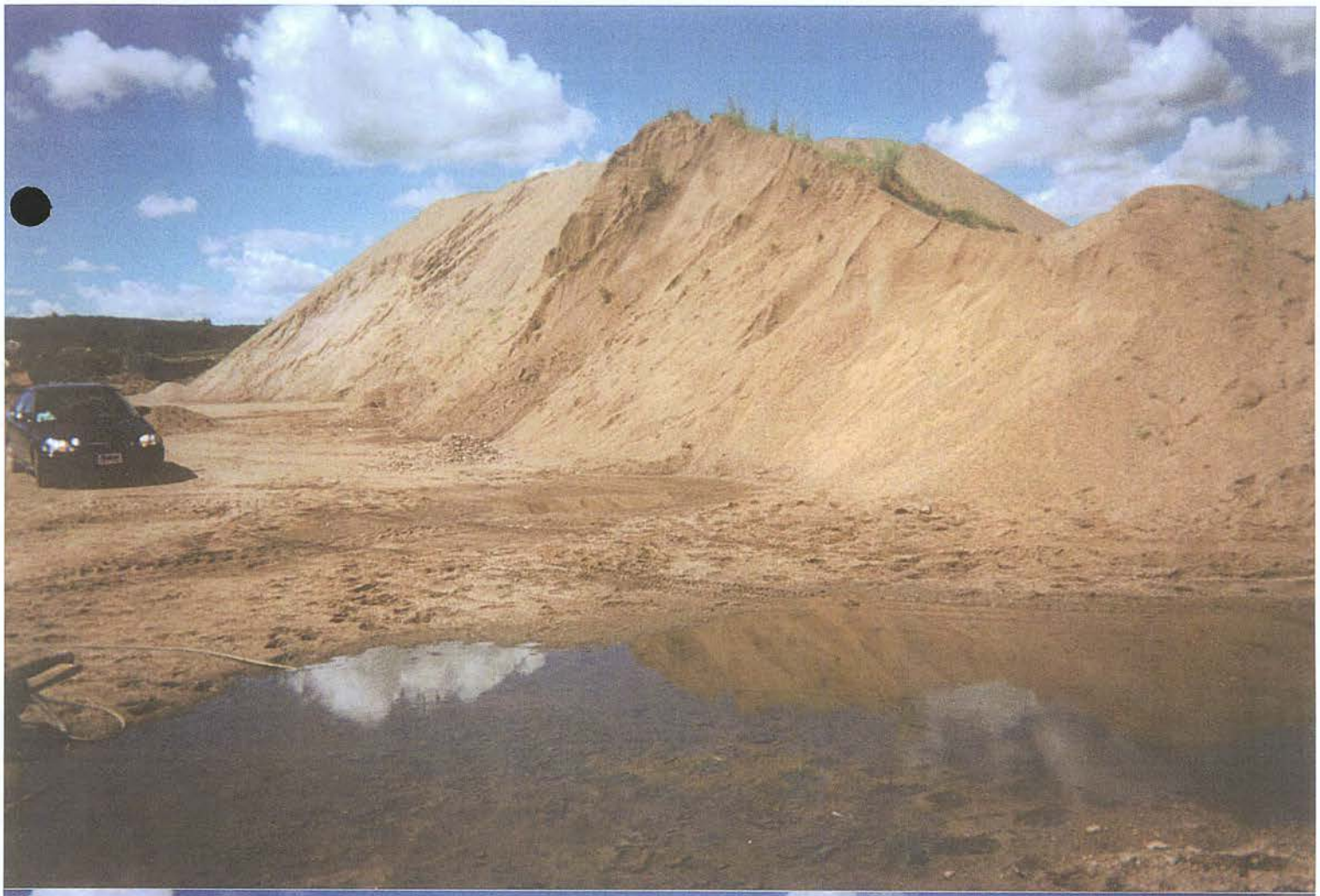
BEAVER RIVER AGGREGATE: Sample location with identifier



LEGEND

0A02	N54° 15.536 W 110° 01.598 M183 analysis
0A03	N54° 15.143 W 110° 01.848 M826 analysis
0A01	N54° 15.593 W 110° 01.473 holding sample





Ground Water Settling Pond
Behind Air Plant