

823151

Bluebell Option Property Exam

Greenwood M.D.

Owner: Kettle River Resources Ltd.

October 18, 1990

MINNOVA INC.
John Kapusta

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Summary

The Bluebell Option, of Kettle River Resources Ltd. was examined October 1-4, 1990. This property is situated in the Greenwood Camp and is a precious metal enriched skarn target. The approximate size of the Bluebell is 65 units. A total of 14 skarn occurrences, some past producers (the Oro Denora, Emma and B.C. Mines) have been identified to date on the property, all of which were discovered prior to 1922. The largest deposit discovered and mined to date in the Greenwood Camp is the Phoenix Mine, located 6.50 km south of the Bluebell, having produced 27 million tons of 0.85% Cu, 1.12 g/tonne Au and 7.12 g/tonne Ag. The Buckhorn deposit, located ? km south of here is known to contain at least 5 million tons of 0.1 opt Au.

All work to date on the Bluebell Option has concentrated on the Oro Denora deposit. Limited exploration has been carried out over the rest of the property. Extensive skarn development in long lenticular belts across the property has been identified, these contain numerous geochemical and geophysical anomalies which have never been drill tested.

There is also the strong possibility for the development of Manto-type targets on the property. In the Rathmullen Creek area massive sulphides (22% Zn, 0.21% Cu, 0.17 oz/ton Ag / 1.20 m) hosted in limestones were discovered. Very limited work has been carried out on this target to date, however soil geochemistry indicates a possible strike length of over 300 metres. There is a potential problem over claim ownership in the immediate area of the massive sulphide discovery. It would appear that Kettle River does not own the claims on which the discovery was made (Tokyo 1 & 2). Kettle River is presently looking into this.

The exploration potential of the Bluebell prospect should be considered excellent for both large tonnage precious metal enriched skarn deposits and manto-type deposits. A program based on a good systematic approach to exploration and drill testing of targets could be rewarded with a significant discovery.

Recommendations

The Bluebell option represents an intriguing exploration opportunity. There is definitely potential for the discovery of an economic-size orebody, either skarn or manto. A number of other properties in the immediate area could also be open to option, so any involvement with the Bluebell could lead to a significant ground position in the Greenwood Camp.

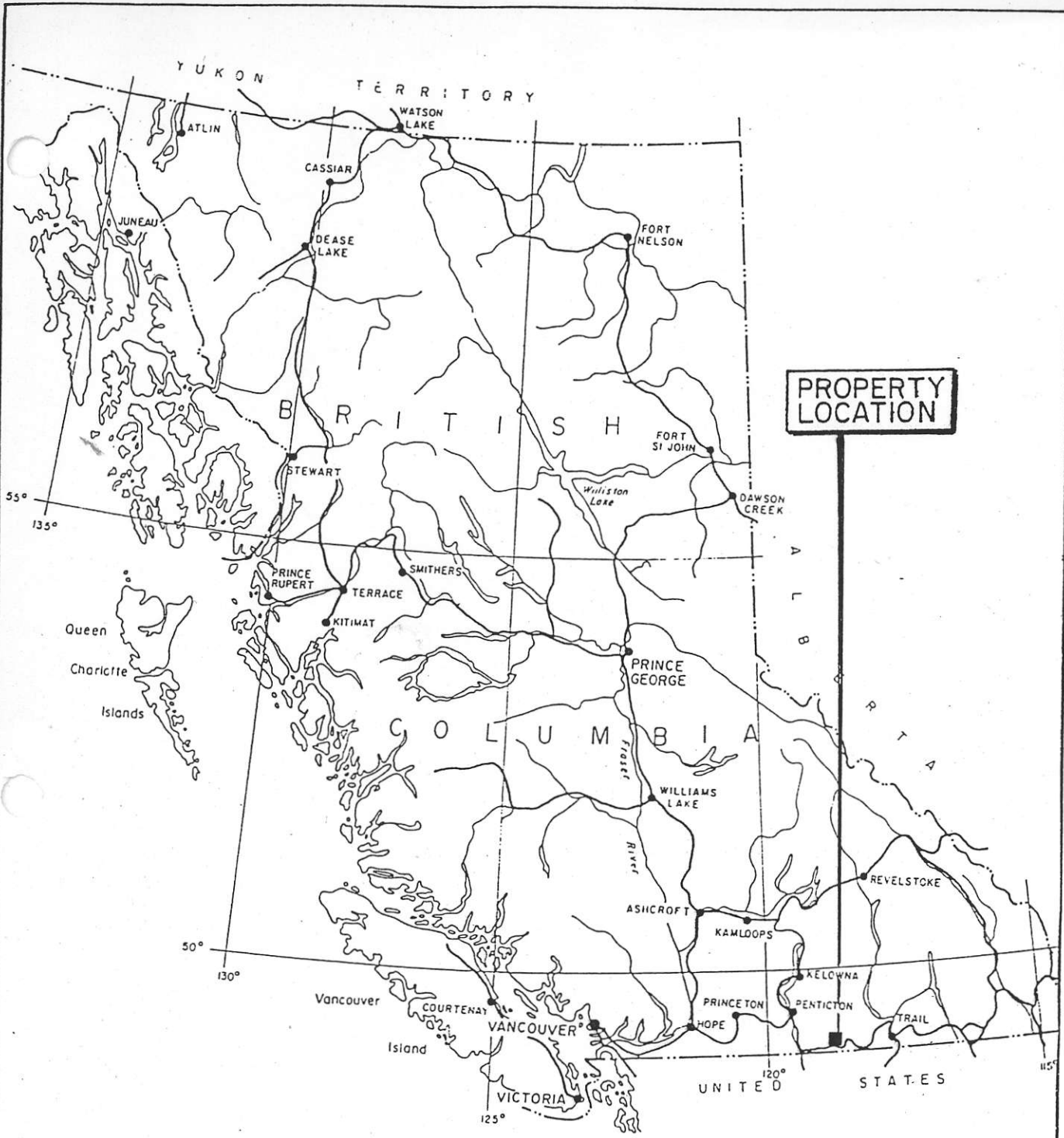
It would appear from George Stewart's fax of Oct 3 that it may be rather difficult to come to reasonable terms with him. If a reasonable deal can be accomplished this property would fit nicely into our Brenda Joint Venture. The property could be easily be at a drilling stage within the first year of operation.

Potential Liability

Following the Lara and Sicker experiences of burying rock and fencing of the portal site and old workings, the Bluebell could have a rather costly reclamation bill.

Location and Access

The property is located in the Greenwood Mining Division of southern British Columbia. The claims are about 11 km east-northeast of the town of Greenwood and about 15 km north of the Canada-US border ($49^{\circ} 08'$ and $118^{\circ} 32' W$). Provincial highway No. 3 passes through the property from north to south and a number of old mine roads, abandoned railway lines and logging roads provide easy access to most parts of the claims. In addition an abandoned, but intact, C.N.R. railway line passes very close to the property as does a major hydro line.

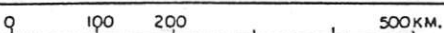


PROPERTY
LOCATION

SKYLARK RESOURCES LTD.

BLUEBELL OPTION
LOCATION MAP

N.T.S. 82E-2E GREENWOOD M.D., B.C.



SCALE AS SHOWN	DATE: FEB. 1988
DRAWN BY: P.B.	FIGURE NO. 1



05/02/90

Claim Status

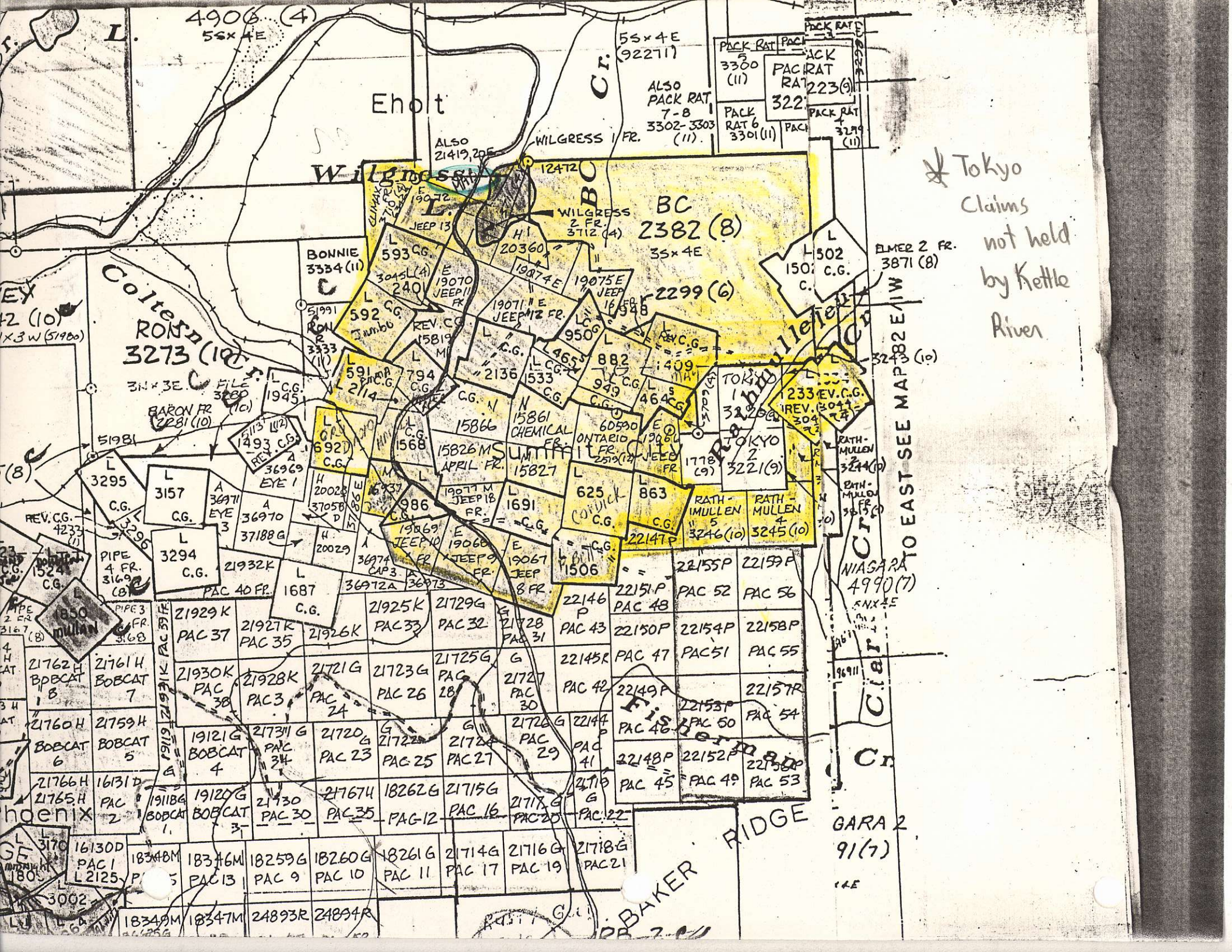
JUL 23 1990

Rec	CLAIM NAME	Record # R. NBR.	TYPE	units	Expiry Date NEW EXPIRY	GR. NAME	OWNER	LOCATION	How Aca.	ENTRY DATE
11	APRIL FR	15826M	L	1	09/17/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
17	B C	2382	L	12	08/13/98	BLUEBELL 84	KETTLE RIVER			04/14/88
12	B.C.	CG882	CG	1		BLUEBELL 84	SCOTT AE ESTAT			05/18/85
13	B.C. FR NO 2	464s	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	Tax KC72407	05/02/90 *
20	BLUE BELL	CG2136	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	G44294	05/02/90 *
35	BREYFOGLE FR	15819M	L	1	09/11/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
45	CHEMICAL FR	15861N	L	1	10/02/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
47	CLIMAX FR	3710	L	1	04/20/98	BLUEBELL 84	KETTLE RIVER			04/14/88
49	CORDICK	CG625	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	G196279	05/02/90 *
64	DAISY FR	2299	R	1	06/26/98	BLUEBELL 84	DOCKSTEADER WE	ker		04/14/88
65	DENORD FR	16937M	L	1	09/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
70	DUPLICATE	CG863	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	G191594	05/02/90 *
73	ELMER NO 2	3044	R	1	04/05/98	BLUEBELL 84	KETTLE RIVER			04/14/88
74	ELMER NO 2 FR	3871	L	1	08/30/98	BLUEBELL 84	KETTLE RIVER			04/14/88
75	EMMA	CG591	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	GK34356	05/02/90 *
76	ERWIN	CG1691	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	G196273	05/02/90 *
101	JEEP #1 FR	19066E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
104	JEEP #10 FR	19069E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
105	JEEP #11 FR	19070E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
106	JEEP #12 FR	19071E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
107	JEEP #13 FR	19072E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
108	JEEP #15	19074E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
109	JEEP #16 FR	19075E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
110	JEEP #18 FR	19077E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
102	JEEP #8 FR	19067E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
103	JEEP #9 FR	19068E	L	1	05/16/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
111	JOINER FR	15827M	L	1	09/17/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
113	JUMBO	CG592	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	K34357	05/02/90 *
114	JUMBO FR.	3045	R	1	04/05/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
122	LONDON NO 2 FR	465s	CG	1		BLUEBELL 84	DOCKSTEADER WE			05/24/85
124	MAB #2	21419	L	1	05/20/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
125	MAB #3	21420	L	1	05/20/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
127	MAB FR	20360	L	1	07/31/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
128	MARY B	CG1568	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	K34359	05/02/90 *
129	MATABELLE FR	CG2114	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER			05/18/85
130	MAY	CG1409	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	KC72408	05/02/90 *
135	MINNIE MOORE	CG593	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	191595	05/02/90 *
141	MOUNTAIN ROSE	CG794	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER			05/18/85
142	MOUNTAIN VIEW	CG1533	CG	1		BLUEBELL 84	SCOTT AE ESTAT			05/18/85
154	NORTON FR	CG986	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	191593	05/02/90 *
155	NOVELTY FR	CG949	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	52948	05/02/90 *
158	ONTARIO FR	2519	L	1	12/01/98	BLUEBELL 84	KETTLE RIVER			04/14/88
159	ORD DENORD	CG692	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	K34358	05/02/90 *
244	R. BELL	CG1506	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	51845	05/02/90 *
251	RATHMULLEN 1	3243	L	1	10/07/98	BLUEBELL 84	KETTLE RIVER			04/14/88
252	RATHMULLEN 2	3244	L	1	10/07/98	BLUEBELL 84	KETTLE RIVER			04/14/88
253	RATHMULLEN 4	3245	L	1	10/07/98	BLUEBELL 84	KETTLE RIVER			04/14/88
254	RATHMULLEN 5	3246	L	1	10/07/98	BLUEBELL 84	KETTLE RIVER			04/14/88
255	RATHMULLEN FR	3819	L	1	07/18/98	BLUEBELL 84	KETTLE RIVER			04/14/88
263	REMINGTON FR	15866N	L	1	10/09/98	BLUEBELL 84	KETTLE RIVER		P/HOUST	04/05/90
294	VASHTI	CG950	CG	1	Taxes	BLUEBELL 84	KETTLE RIVER	BLUEBELL	196276	05/02/90 *
297	WAKE FR	3709	L	1	04/20/98	BLUEBELL 84	KETTLE RIVER			04/14/88
303	WILGROSS 1 FR	3711	L	1	04/20/98	BLUEBELL 84	KETTLE RIVER			04/14/88
304	WILGROSS 2 FR	3712	L	1	04/20/98	BLUEBELL 84	KETTLE RIVER			04/14/88

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65
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GR Record count = 54



4906 (4)
55x4E

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Cr.

55x4E
(92271)

ALSO
PACK RAT
7-8
3302-3303
(11).

PACK RAT
3300
(11)
PACK RAT
223(9)
322
PACK RAT
3301(11)
PACK
3299
(11)

WILGRESS 1 FR.

WILGRESS CR.

12472

WILGRESS
2 FR.
3712 (4)

BC
2382 (8)
35x4E

L
1502
C.G.

ELMER 2 FR.
3871 (8)

* Tokyo
Claims
not held
by Kettle
River

Coltera
RONA
3273 (10)

BONNIE
3334 (11)

593CG
3045L(A)
240

19070
JEEP 11
FR.

19074E
19075E
JEEP
FR.

2299 (6)

BARON FR.
2281 (10)

FILE
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(10)

592 CG
Jumbo

REV. CG.
15819
M.

2136
L. CG.

1465
L. CG.

882
L. CG.

1409
L. CG.

233 EV. C.G.
REV. 3044
3047

324 (10)

1493 C.G.
REV. A
36929
EYE 1

1692
L. CG.

1568
L. CG.

15826 MS
APRIL FR.
15827

60590
ONTARIO
FR.
2512(12)

1778
JEEP
FR.
(9)

3221 (9)

RATH-MULLEN
3244 (10)

RATH-MULLEN
3245 (10)

3157
C.G.

36970
A
37188 G

19869
JEEP 10
FR.

19066
JEEP 9
FR.

1691
L. CG.

625
L. CG.

863
C.G.

22147 P

22155 P

22159 P

REV. C.G.
4233
(10)

PIPE
4 FR.
3169
(10)

3294
C.G.

21932 K

1687
C.G.

36972 A

36973

1506
C.G.

22146 P

22151 P

22159 P

PIPE
2 FR.
2167
(8)

PIPE 3
FR.
3168

21929 K

21927 K

21926 K

21925 K

21729 G

22146 P

22151 P

22159 P

21762 H
BOBCAT
8

21761 H
BOBCAT
7

21930 K

21928 K

21721 G

21723 G

21725 G

22146 P

22151 P

22159 P

21760 H
BOBCAT
6

21759 H
BOBCAT
5

19121 G

21731 G

21720 G

21722 G

21724 G

22146 P

22151 P

22159 P

21766 H

16131 D

19118 G

19120 G

21730

21767 H

18262 G

21715 G

22146 P

22151 P

22159 P

16130 D

18348 M

18346 M

18259 G

18260 G

18261 G

21714 G

21716 G

21718 G

22146 P

22151 P

22159 P

3002

18349 M

18347 M

24893 R

24894 R

21714 G

21716 G

21718 G

22146 P

22151 P

22159 P

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BAKER RIDGE

GARA 2
91(7)

TO EAST SEE MAP 82 E/W

NIAGARA
4990 (7)

Claim Status

The Bluebell Option is made up of approximately 65 units, (three reverted Crown grants, 20 Crown grants, 30 single unit claims or fractions, one 12 unit claim) owned by Kettle River Resources Ltd. The claims are all grouped under the name Bluebell 84, and are in good standing until 1998. Yearly taxes are paid on the Crown grants. Three Crown Grants are presently held by Scott AE Estate, and are being transferred to Kettle River Resources Ltd.

District Geology - Greenwood

The skarn deposits are associated with the late Paleozoic Knob Hill Group and the unconformably overlying Triassic Brooklyn Formation. The Knob Hill Group consists of massive chert, greenstone and amphibolite with minor pods and thin, widely scattered beds of limestone and argillite. The Brooklyn Formation is comprised of thick units of sharpstone conglomerate and limestone with thinner beds of siltstone, sandstone and calcareous chert pebble conglomerate. The sharpstone conglomerate contains angular fragments of chert and minor limestone, greenstone and jasper clasts set in a fine grained chert, calcite and chlorite rich matrix. This unit is massive near its base and commonly bedded near its top, containing numerous interbeds of sandstone, shale, siltstone and minor limestone, and can be up to 600 m thick. The conglomerate is overlain by the Brooklyn limestone that can be 350 m in thickness and locally contains minor siltstone. This is overlain in turn by another sharpstone conglomerate (the upper sharpstone), which grades in a northerly direction into siltstone. To the south (in the Phoenix Mine area) it joins the lower sharpstone suggesting that the two sharpstone units were deposited as coalescing fans. The upper sharpstone is overlain by the Stemwinder limestone, consisting of limestone and calcareous breccia that passes upwards into volcanic rocks. The sequence is

intruded by irregular dikes of microdiorite, that are most likely feeders to the volcanics overlying the Stemwinder limestone.

Regionally the Knob Hill Group trends east to southeast and dips moderately north, while the Brooklyn Formation strikes north to northeast and dips steeply east. These rocks have been broadly folded and have undergone low grade regional metamorphism. To the north they are truncated by granodiorite of the Wallace Creek batholith, which has irregular apophyses and satellite intrusions that have metamorphosed the country rock.

The Brooklyn Formation rocks are unconformably overlain by Tertiary volcanic sandstones and conglomerates of the Kettle River Formation and trachytic to andesitic flows of the Marron Formation, belonging to the Penticton Group. In places these unconformably overlies the pre-Tertiary intrusions and Paleozoic schists and gneisses.

A total of eight intrusive phases have been identified in the district. The major event is the Cretaceous Greenwood stock and Wallace Creek batholith. These are considered to be part of the Nelson Plutonic suite and genetically related to economic skarn development in the Greenwood Camp. Compositional norms for the Wallace Creek batholith indicate they are granodiorite to tonolitic in nature.

Earlier intrusive activity includes small diorite, microdiorite, quartz feldspar porphyry and gabbro bodies. These all show varying degrees of alteration, and are not associated with economic skarn mineralization. Tertiary intrusions include many dykes, sills, and irregular bodies of monzodiorite and other alkalic rocks. These intrusions are associated with several styles of mineralization throughout the district.

Property Geology

The oldest rocks in the region (Knob Hill Group) are not present on the property. Rocks of the Triassic Brooklyn Formation predominate within the property area and form a sedimentary, volcanic sequence over 2900 m thick. It is believed that the sedimentary rocks found on the property represent three successive sequences of clastic, through transition, to carbonate deposition. In all cases chert breccia and/or chert sandstone represent the lower clastic sequence, this grades up into argillaceous limestone and chert pebble conglomerate in the transition zone, then up into massive limestone (carbonate deposition). The top of the lower two sequences are marked by a limestone breccia unit. It is my feeling that there are three thrust fault repeated slices of the sequence with the limestone breccia marking the fault contact. Generally the Brooklyn Formation forms a relatively uniform series of north-northeast trending beds dipping moderately to steeply to the east. Top directions are also to the east.

Volcanic rocks (sandstone) where encountered are typically a dark green, fine grained rock with rounded clear and white quartz grains and ghostly light grey feldspar laths. Locally a volcanic breccia unit occurs that continues up to 40% angular greenstone and grey quartz feldspar porphyry fragments.

The volcanic sandstone in one area (south of the Bluebell Mines is interfingered with and gradational to well bedded chert sandstone and breccia. In the area west of the Maple Leaf mine volcanic sandstone encloses lenticular pods of massive white limestone, and to the north of the R. Bell Mine the sandstone is gradational to volcanic breccia.

Intrusive Rocks

The most abundant intrusive rocks on the property are dioritic in composition. There are three gradational phases of microdiorite and two breccia phases. The three gradational phases are a feldspar microdiorite, a feldspar hornblende microdiorite and a hornblende granodiorite. The microdiorite form large irregular shaped bodies and smaller dykes throughout the property, and is believed to be middle to late Triassic in age.

There are also dark green, medium to coarse grained, hornblende feldspar diorites with hornblende phenocrysts to 13 mm long. This occurs as two large dyke like bodies near the southern boundary of the property and is post-Triassic in age. The Lion Creek intrusion is a light grey, coarse grained, biotite granodiorite forming an irregular mass south and west of the Emma Mine. This is Cretaceous in age.

Coryell intrusions of mid-Eocene age are represented by, pink feldspar porphyry, pink feldspar biotite syenite and basalt. These are widely distributed over the property and occur as dykes and large irregular masses.

Property Mineralization

The predominate style of mineralization found on the bluebell property is precious metal enriched copper and iron skarn, both occurring in the transition and carbonate zones of the Brooklyn Formation. Mineralization is closely related to zones of skarn on or near volcanic breccia or microdiorite contacts. The sulphides usually occur as disseminations, blebs and stringers within skarn and locally as massive sulphide bodies on volcanic breccia/skarn contacts.

Skarn occurrences and/or deposits found to date are the Oro Denoro, Emma, Swallow, Jumbo, Minnie Moore, Mountain Rose,

Breyfogle, Bluebell Mine, Mountain View, B.C. Mine, Cordick, R. Bell Mine, Maple Leaf and the Rathmullen.

Precious metal enriched iron skarn mineralization is present at the Oro Denoro, Emma, Swallow mines. The primary mineralogy is massive magnetite bodies with subsidiary pyrite and hematite, with local chalcopyrite rich zones (I've not tried to use Cu:Au or Cu:Ag ratios to categorize these). Garnet, epidote and amphibole are the primary calc-silicate minerals present.

Precious metal enriched copper skarn (Cu:Ag, Cu:Au not used for classification, these do not appear to be associated with massive magnetite) mineralization is present at the B.C. Mine, R. Bell Mine, Rathmullen, Cordick, Mountain Rose and Breyfogle. The primary mineralogy associated with these occurrences is chalcopyrite, pyrite, specular and earthy hematite with minor magnetite and pyrrhotite. As in the iron-skarns garnet, epidote and amphibole are the primary calc-silicate minerals present. The Rathmullen showings also contain minor sphalerite.

Production figures for four of the mines are:

Oro Denoro (1903-17)	124,001 tonnes	@	1.36% Cu, 0.94 g/tonne Au, 7.69 g/tonne Ag
Emma (1901-27)	240,948 tonnes	@	0.98% Cu, 0.88 g/tonne Au, 10.10 g/tonne Ag
B.C. (1899-1903)	103,000 tons	@	4.36% Cu, 0.01 opt Au, 2.07 opt Ag
R. Bell	294 tons	@	7.8% Cu, 12 opt Ag

During the 1983 exploration program, a possible Manto style of mineralization was discovered in the Rathmullen Creak area. In five trenches irregular shaped bodies of massive sphalerite, pyrrhotite and pyrite were found to occur within what

appears to be unaltered (not a skarnified) limestone. This irregular zone of massive sulphide was traced over an area 105 metres long and is 3 to 4.5 metres wide. In one of the trenches a 2.4 m sample across the sulphides graded 9.80% Zn, 0.19% Cu, 0.16 opt Ag and trace gold. A 1.2 m sample from another trench ran 22% Zn, 0.21% Cu, 0.17 opt Ag and trace gold. In another trench a 1.8 m sample ran 12% Zn, 0.18% Cu, 0.15 opt Ag and trace gold.

In the southeast corner of the property are a number of showings of chalcopyrite, pyrite, pyrrhotite and magnetite that occur in a micro-diorite breccia that forms what appears to be a pipe-like body (breccia pipe?). Other small showings of chalcopyrite, pyrite and pyrrhotite occur in the generally massive diorite throughout the project.

What is believed to be an epithermal quartz breccia zone occurs west of the Jumbo Mine. In this area that limestone is brecciated and invaded by (epithermal?) chalcedonic vuggy quartz and mineralized with very fine grained disseminated pyrite. This quartz limestone breccia occurs in an oval shaped zone 90 m long and 45 m wide. It appears that only one sample of this was analyzed returning values of 20 ppb Au, 217 ppm An, 24 ppm Cu, 1.1 ppm Ag.

Jim Fyles has also indicated that the presence of zinc mineralization on the Cyclops claim in a limestone breccia unit. The outcrop was not observed in the field. George Stewart says that New Jersey Zinc drilled the area and outlined \approx 15,000 tons of material (I could not find any reports from New Jersey Zinc).

History of Exploration

The Summit Camp along with the Deadwood and Phoenix Camps were discovered in 1891, and worked up to 1922 when all activity in the area ceased. The main producers in the Summit Camp during this time were the Oro Denoro, Emma and B.C. Mines. The Summit Camp was virtually dormant from 1920-50. Between 1951 and 1953

Attwood Copper Mines Ltd. conducted regional exploration work through the Boundary District, consisting of geological, magnetometer and biogeochemical surveys.

In 1955 Noranda Mines Ltd. began systematic exploration of the Summit Camp. This work continued through 1956 and included detailed geological mapping, geophysical surveys (aerial and self potential) and 1800 metres of diamond drilling on the Oro Denoro.

Between 1963 and 1966 West Coast Resources Ltd. Optioned the Oro Denoro and carried out magnetometer and geological surveys as well as 3000 m of diamond drilling. In 1967 Furukawa Mining Co. Ltd. optioned the Oro Denoro and drilled 6000 metres in 42 vertical holes. In 1968 the property was returned to West Coast Resources Ltd. and about 120 m of drifting was done to bulk sample the areas of best mineralization. In 1969 Dolmage, Campbell and Associates prepared a feasibility study on the Oro Denoro, based on all previous work. This study indicated that a mineral inventory of approximately 1.5 million tons (of open pit material) grading 0.95% Cu, 0.02 opt Au and .30 opt Ag is present.

During 1969 and 1970 minor diamond drilling was performed on the Emma claim by West Coast Resources Ltd.

From 1974 to 1976 the Oro Denoro claims were optioned by Granby Mining Corporation. During this period an intensive program of geological mapping, magnetometer, electromagnetic and IP surveys trenching and limited percussion drilling was carried out. In 1975 Granby began a test operation to prove up open pit reserves, this advanced to a third bench and involved the removal of approximately 136,000 tonnes of bedrock. A small shipment of stockpiled material was made to Phoenix in 1976.

In 1979, New Frontier Petroleum optioned the Oro Denoro claims and carried out some surface exploration work and sampling of the old workings. In 1981, Kettle River Resources optioned the B.C. Mine and adjacent claims, dewatering the old workings to the 200 foot level. During 1982 Mag, EM, soil sampling and minor trenching were performed by Kettle River on the claims adjacent to

the B.C. Mine. Late in 1982, Kettle River and New Frontier merged their respective claim blocks to form the Bluebell Joint Venture, consisting of 55 contiguous mineral claims. During 1983 a surface exploration program consisting of detailed geological, geochemical and geophysical surveys with minor trenching and drilling (4 x-ray holes, drilled in Rathmullen Trench #9) were carried out.

In 1987, Skylark Resources Ltd. completed a soil geochemistry and magnetometer survey on the Emma, Jumbo and Mountain Rose claims. Later that same year, six diamond drill holes (872.68 m) were drilled.

Exploration Potential

The exploration potential of the Bluebell Prospect should be considered excellent. The possibility of large tonnage skarn deposits, similar to the Phoenix Mine (27 million tonnes, 0.85% Cu, 1.12 g/t Au, 7.12 g/t Ag) does exist. In addition to the skarn target there is also the possibility for Manto type deposits to be found.

A total of 14 skarn occurrences (some past producers) have been identified to date on the package, all of which outcropped and were discovered prior to 1922. Virtually the bulk of all exploration work (including diamond drilling) carried out on the property has been centred around the Oro Denoro deposit. Extensive skarn development in long lenticular belts running north-south across the property are host to these occurrences and have been found to contain numerous geochemical and/or geophysical anomalies that have never been drill tested. The strike extent of some of these skarn belts is yet to be defined, due to a lack of any exploration activity on sections of the property.

Noranda Mines Ltd. was the first company to begin a systematic approach to exploration on the property in 1955 and 1956. It would appear though that they got hung up on the Oro Denoro deposit where they expended the bulk of their drilling

(except for 1000' feet). Since then I would say that the only good exploration was carried out by Kettle River Resources who identified several target areas; unfortunately follow-up on these areas was never carried out.

I feel that a renewed program based on a good systematic approach to exploration and drill testing of targets could be rewarded with a significant discovery. There is no reason to believe that a large tonnage gold bearing skarn deposit could not be identified.

There is also the possibility of finding additional reserves at three of the old producing mines (Oro Denoro, B.C. and Emma). Drilling testing of the Oro Denoro has indicated that there is in the order of 1.5 million tonnes of open pittable material grading 0.95% Cu, 0.02 oz/ton Au and 0.3 oz/ton Ag. A total of at least of 12,000 metres of drilling has been conducted on the deposit (3000 m in 23 holes by Noranda (1955-56), 3000 m in 54 holes by West Coast Resources (1963-66) and 6000 m in 42 holes by Furukawa Mining Co. Ltd. (1967). In 1966 Britton Research Ltd. conducted metallurgical tests on ore samples. They determined that by conventional flotation methods that recoveries of 95% Cu, 87% Au and 60% Ag could be obtained and a concentrate grading 26.69% Cu, 0.40 oz/t Au and 3.40 oz/t could be obtained.

References regarding the B.C. Mine indicate the possibility of ore existing below a dyke structure down to which ore was mined (409 ' vertical from surface). I can locate no information that would confirm this, except that in 1965 and 1966, Granby was drill testing the area (two drill holes in 1965, unknown for 1966). One of these holes was drilled to a depth of 900 feet, no mention as to what it hit. Another deep hole drilled around 1910 supposedly intersected good ore but had multiple dykes intermixed.

In regards to the Emma, a shaft was sunk to 272 feet (possibly to 420 feet). By examining all of the old mine data it may be possible come up with an estimate of material left.

Another excellent exploration target other than the skarns is the possibility of a Manto-style deposit occurring in the Rathmullen Creek area. Massive sulphides were discovered there in 1983. From the trenched area copper and zinc soil anomalies extend southwesterly along the projected strike for over 120 metres; to the northeast zinc soil and coincident VLF anomalies extend 245 m. At present part of this ground (where the trenches are) is not held by Kettle River.

Appendix A

FROM: KETTLE RIVER RESOURCES LTD. BOX 130, GREENWOOD, B.C. V0H 1J0
ph: 445-6756 FAX: 445-6177

October 3, 1990

Minnova Inc.
Mr. Ian Perie
3RD. FLOOR - 311 Water St.
Vancouver, B.C.
V6B 1B8

Via Fax only: #681-3360

Dear Ian;

RE: Bluebell Prospect - A proposal to attain a 60% interest in the development of a mine at the Oro Denoro - B.C. Mine area located near Greenwood, B.C.

Kettle River Resources is prepared to offer participation in the development of this property for the following terms:

"Rental"

- \$30,000. Payment upon signing
- \$50,000. Payment on August 1, 1991
- \$50,000. Payment every six months until production decision is reached.

\$1.00 per foot payment for all drilling completed until a production decision is reached.

At the production decision Kettle River Resources can elect to participate 40% by contributing 40% of the funds or elect to retain a 4% of the value of gross sales of all products.


The claims must be returned in as many years good standing equal to that on the date of signing. Mineral and or property taxes to be reimbursed to us.

The monies advanced prior to production decision date are considered as rentals only.

A perimeter clause will be a part of the arrangement. Any claims or interest obtained within the perimeter of the Bluebell Joint Venture claim area will be considered a "rental" cost.

This offer of participation is being sent to several parties simultaneously.

Yours truly,
KETTLE RIVER RESOURCES LTD.


George O.M. Stewart
President

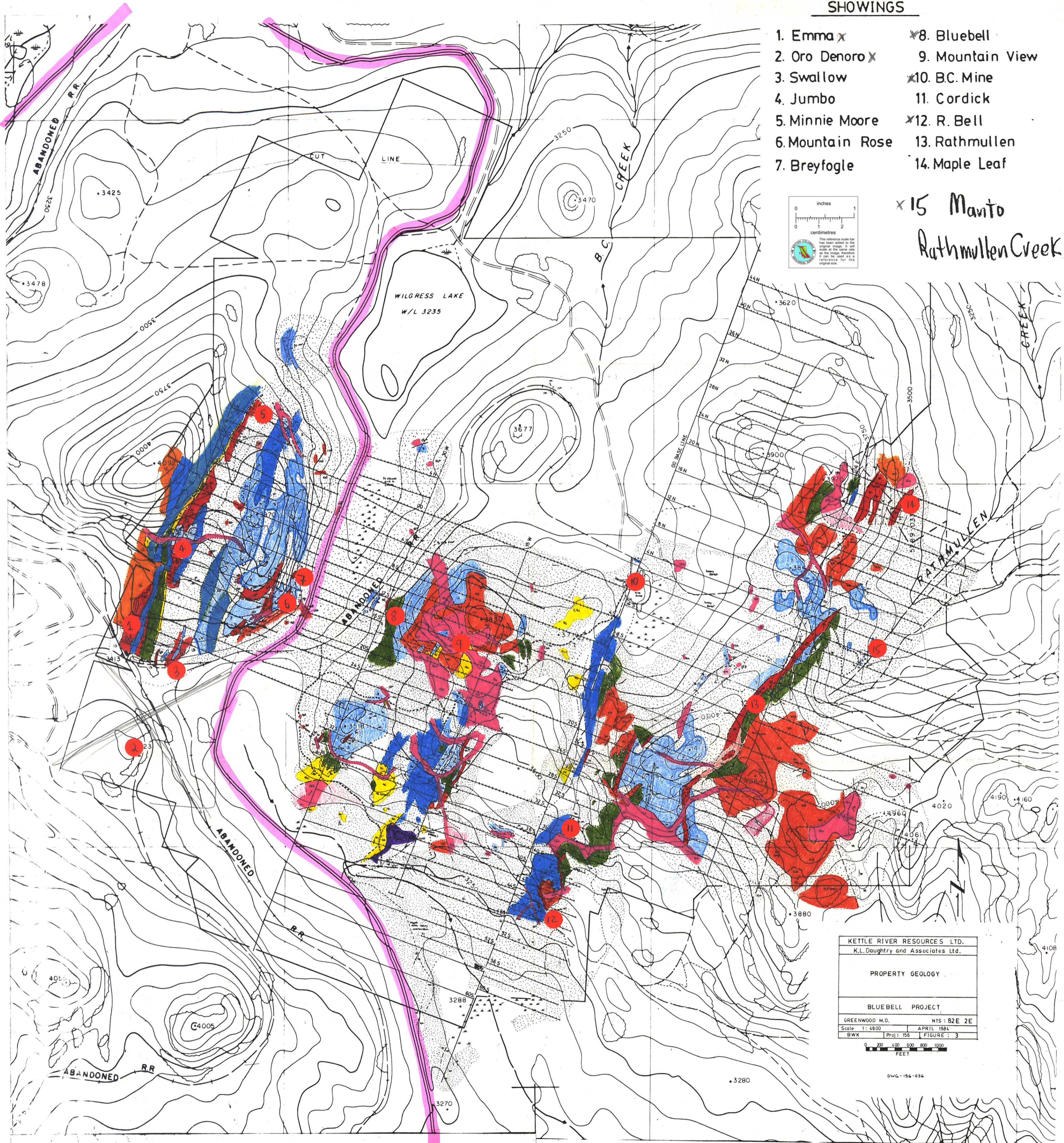
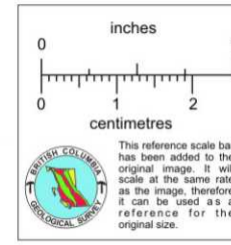
GOMS:aa
wp50 offer.b-b

FAXED
OCT - 3 1990

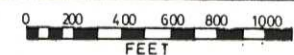
SHOWINGS

- 1. Emma ✕
- 2. Oro Denoro ✕
- 3. Swallow
- 4. Jumbo
- 5. Minnie Moore
- 6. Mountain Rose
- 7. Breyfogle
- 8. Bluebell ✕
- 9. Mountain View
- 10. BC. Mine ✕
- 11. Cordick
- 12. R. Bell ✕
- 13. Rathmullen
- 14. Maple Leaf

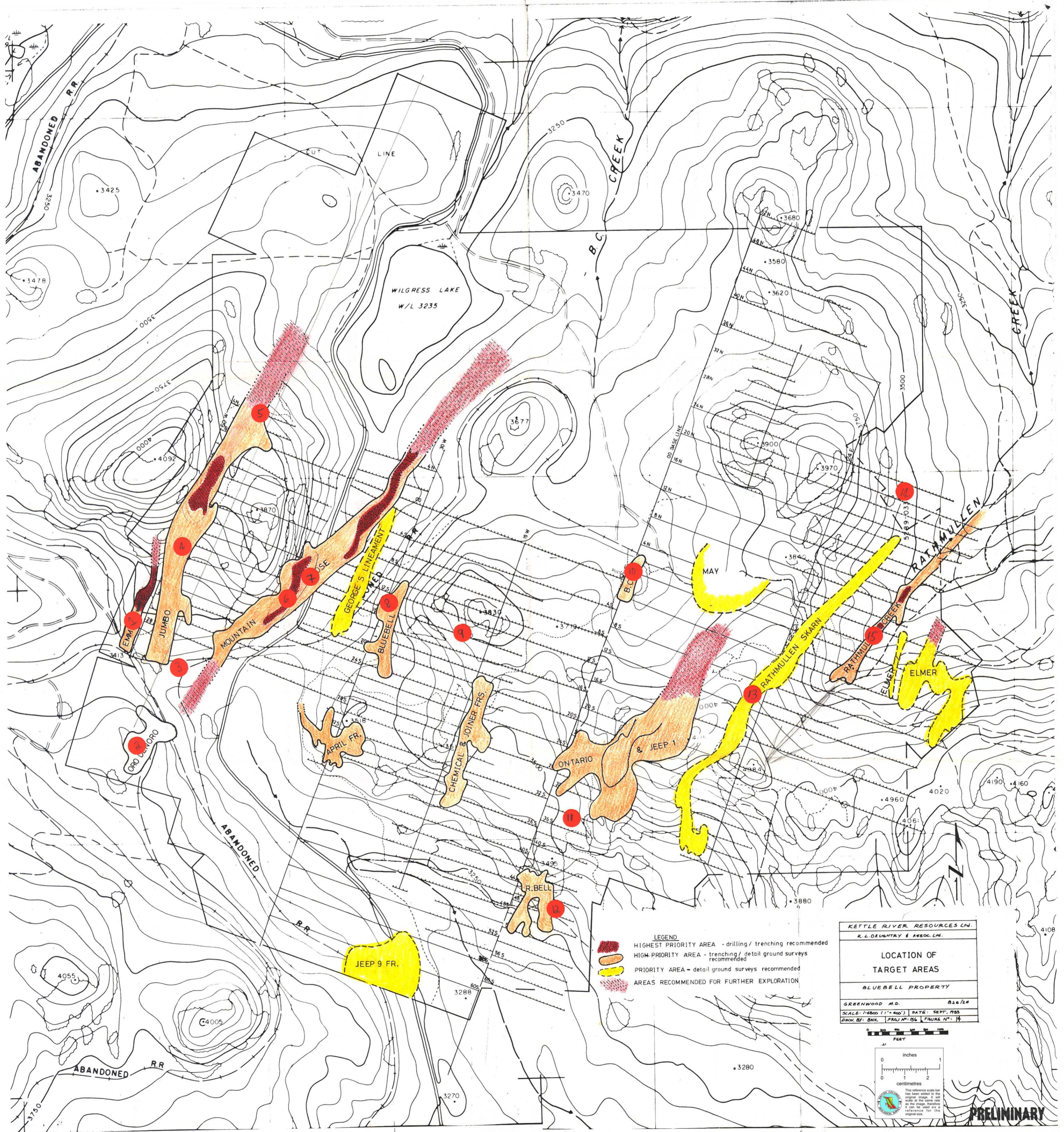
✕15. *Manito*
Rathmullen Creek



KETTLE RIVER RESOURCES LTD.	
K.L. Daughtry and Associates Ltd.	
PROPERTY GEOLOGY	
BLUEBELL PROJECT	
GREENWOOD M.D.	NTS: 82E 2E
Scale: 1:4800	APRIL 1984
BWK	Proj: 156 FIGURE: 3



DWG-156-036



- LEGEND**
- HIGHEST PRIORITY AREA - drilling/ trenching recommended
 - HIGH PRIORITY AREA - trenching/ detail ground surveys recommended
 - PRIORITY AREA - detail ground surveys recommended
 - AREAS RECOMMENDED FOR FURTHER EXPLORATION

KETTLE RIVER RESOURCES LTD.
 K.L. DAUGHTRY & ASSOC. LTD.

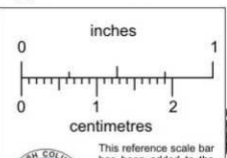
LOCATION OF TARGET AREAS

BLUEBELL PROPERTY

GREENWOOD M.D. 826/2E

SCALE: 1/4800 (1"=400') DATE: SEPT. 1983

DWN. BY: BNL PROJ. NO. 156 FIGURE NO. 14



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it is not intended as a reference for the original size.

PRELIMINARY