

Diamond Drilling



41104NW0006 0011B1 HALLAM

010

Township of HALLAM

Report NO 13

Work performed by: Consolidated Belle^{KEND} Mines

Claim NO	Hole NO	Footage	Date	Note	
S 147967	1	250.0'	Dec/67		
	2	245.0'	Jan/68		
	3	250.0'	Jan/68		
	6	335.0'	Jan/68		
	7	325.0'	Jan/68		
	S 147968	4	333.0'	Dec/67	
		5	250.0'	Jan/68	

TOTAL 7 DH 1988 FT

Notes:

PROPERTY CONSOLIDATED BELLEKENO MINES LIMITED HOLE NO. 1

SHEET NUMBER _____ SECTION FROM _____ TO _____ STARTED _____
 LATITUDE 1+75S, DATUM Post 4, claim S.147967 COMPLETED _____
 DEPARTURE 0+00E BEARING 180° Az. ULTIMATE DEPTH 250
 ELEVATION _____ DIP -45° PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	GOLD %	SLUDGE GOLD %		
0-16	CASING						
16-46	GREYWACKE: Typical, fine-grained, grey, even-textured. Pyrrhotite blebs up to 3% of mass.						
46-73	QUARTZ BRECCIA: Silicified greywacke particles. 50-60% quartz.						
	Copper mineralization from 46-52 ft.			Cu. %	gold		
	Pyrrhotite min. from 52-73 ft.	1-1	46-49'	3.30	nil	60 Fl.	Spec.
		1-2	49-52'	2.86	"		
		1-3	52-59'	0.06	"	60 Fl.	Spec.
73-91	QUARTZITE: Highly siliceous, fine-grained, even-textured, grey						
91-250 end	(as 16-46) Quartz breccia 105-107, no min.						

N.M.P., TORONTO-STOCK FORM NO. 301 REV. 12/51

DRILLED BY Lake Superior Diamond Drilling Co. Ltd.

SIGNED G.L. Kirvan, 3. Sc.



41104NW0006 0011B1 HALLAM

020

CONSOLIDATED BELLEKENO MINES LIMITED

DIAMOND DRILL REPORT

HALLAM TOWNSHIP, ONTARIO

Gerald L. Kirwan

SUMMARY:

Seven holes totalling 1,963 ft. of diamond drilling recently investigated a known surface copper showing, substantiated by geophysical methods, on your Hallam Township property, Ontario.

Results indicated that a copper deposit exists on this property with dimensions 100 ft. (plus) along strike east-west, three feet wide, 120 ft. deep. Average grade would be over 3% copper per ton. The zone was apparently delimited.

This zone is too small to support a mining operation. Prior to due date of the claim group, a re-appraisal of work done will be made in light of results of other programs in the area insomuch that a study of this nature may point to areas on the property worthy of further attention.



G.L. Kirwan

Toronto, Ontario,
March 4, 1968

CONSOLIDATED BELLEKENO MINES LIMITED,
Suite 503-62 Richmond St. West,
Toronto 1, Ontario.

Gentlemen:

This report covers results of a diamond drill program recently completed over your property located in Hallam, Township, Ontario.

A total of 1,963 ft. of drilling was done from seven drill hole locations to test potential of a known occurrence of copper mineralization.

PROPERTY, LOCATION, ACCESS:

The property consists of 15 contiguous, unpatented mining claims, numbered S.147948-954; S.147967-974, all inclusive, located in the south central portion of Hallam Township, Lots 7 and 8, Concessions 2 and 3, in Sudbury Mining Division, District of Sudbury, Ontario.

The claim group is located some six miles west south-west from the townsite of Espanola, Ontario, and is reached by all-weather good secondary roads. A short walking distance is required from access road to drilling site.

Gerald L. Kirwan
EXPLORATION & MINING GEOLOGIST

GEOLOGY:

The claim group is underlain by Precambrian metasedimentary rocks consisting of Huronian and/or Pre-Huronian age greywacke and quartzite, according to O.D.M. Map No. P.105, Espanola Sheet.

Trend of formation is east-west. A strike fault passing through claims S.147967 and S.147968 forms a prominent valley with a corresponding prominent scarp on the south side of the valley.

Diamond Drilling was done from valley into scarp face.

HISTORY:

As exhibited in old trenches and pits, an east-west trending copper occurrence is located atop a fault scarp in the northwest portion of claim S.147967 and the northeast portion of claim S.147968, Hallam Township.

According to assessment files of the Ontario Department of Mines, the Keevil Mining Group examined the area through use of self potential and magnetic methods in 1966 resulting in the detection of an intensive and reasonably large self potential anomalous zone in the area of the pits and trenches. Diamond drilling was not recommended by the Keevil representatives, and there is no field or statutory indications that the copper zone has been drill tested prior to acquisition by present management.

DIAMOND DRILLING:

Based upon results of exploration to that date, Consolidated Bellekeno Mines Ltd. initiated a drill program under the direction and supervision of the writer to explore more fully the known copper-mineralized occurrence. Seven holes totalling 1,963 ft. of drilling investigated the copper zone, the results of which form subject material of this report. Holes were spotted so that collaring was located at base of fault scarp thus allowing maximum vertical testing with minimum of drill footage.

Diamond drilling commenced December 13th, 1967, and was terminated February 20th, 1968.

<u>HOLE NO.</u>	<u>LATITUDE</u>	<u>DEPARTURE</u>	<u>AZIMUTH</u>	<u>DIP</u>	<u>DEPTH (ft.)</u>	<u>DATUM</u>
1	1+75S	0+00E	180°	-45°	250	DATUM
2	1+75S	0+50E	180°	-45°	245	REFERENCE
3	1+85S	1+00E	180°	-45°	250	FOR ALL
4	1+75S	0+60W	180°	-45°	333	HOLES IS
5	1+75S	1+60W	180°	-45°	225	POST NO. 4,
6	1+85S	1+50E	180°	-45°	335	CLAIM No.
7	0+75S	0+00E	180°	-45°	325	S.147967
		Total Footage:			1,963	

DRILL RESULTS:

Essentially a typical greywacke type rock was encountered with amounts of typical quartzite. The target area was a quartz breccia appearing in trenches on surface with abundant copper mineralization in the form of chalcopyrite with minor bornite.

Drill holes 1, 2, and 3 respectively intersected 3.08% copper per ton over 3 ft., 2.46% copper over 3 ft., and 5.07% copper over 3 ft. No gold values of importance were returned. A 310 ft. strike length was examined, and hole No. 7 examined the downdip extension of the copper zone to 250 ft. vertical below trenches.

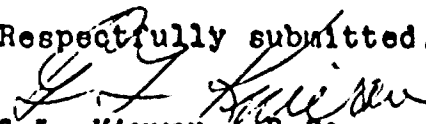
CONCLUSIONS AND RECOMMENDATIONS:

Seven holes totalling 1,963 ft. examined a 310 ft. strike length to vertical depth 250 ft. of a copper-mineralized zone previously detected through trenching and self potential coverage on the Hallam Township property of Consolidated Bellekeno Mines Ltd.

Results indicated good copper mineralization occurs from surface to depth 120 ft. along strike for a distance of 100 ft. and is contained in a quartz breccia. The copper zone appears to be localized in the area drilled and was delimited by diamond drilling.

No further work is warranted at this time. Prior to due date of the claim group, a re-appraisal of work done will be made in light of results obtained and in light of results of work programs on other properties in the area. This study may point to areas on the property deserving further attention.

Respectfully submitted,


G.L. Kirwan, B.Sc.
Consulting Geologist

GLK/lk

March 4, 1968

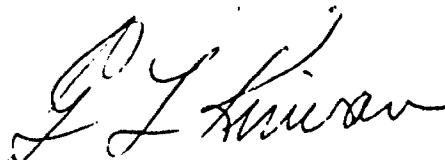
Gerald L. Kirwan
EXPLORATION & MINING GEOLOGIST

CERTIFICATE

I, Gerald L. Kirwan of the city of Toronto in the Province of Ontario, certify as follows:

1. THAT I am a geologist with offices at 160 Bay St., Toronto, and 130 Kingslake Rd., Willowdale, Ontario.
2. THAT I have practised my profession continuously since being graduated from Carleton University, B.Sc., 1957.
3. THAT I am a Fellow of the Geological Association of Canada.
4. THAT I have not directly or indirectly received nor do I expect to receive any interest direct or indirect in the property of Consolidated Bellekeno Mines Ltd. or any affiliate, nor do I beneficially own directly or indirectly any security of the Company or any affiliate thereof.
5. THAT the accompanying report has been prepared by myself and is based upon many visits to the subject property, a study of pertinent data found in government reports, maps, and files, upon a general knowledge of the area, and upon supervision of the drill program herein noted.

Dated at Toronto, Ontario, this 4th day of March, 1968



G.L. Kirwan



• CHEMICAL RESEARCH AND ANALYSIS
• INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGNER TECHNICAL ENTERPRISES LIMITED
355 KING ST. W., TORONTO 2B, ONT., CANADA

TELEPHONE: 362-4348

Representing ...
JARNELL ASH COMPANY
MILNER & WATTS LIMITED
SADLER RESEARCH
ULTRA CARBON CORPORATION
METALS RESEARCH LIMITED

CERTIFICATE OF ANALYSIS

Sample(s) FROM ^{Consolidated} o Gerald L. Kirwan,
Exploration & Mining Geologist,
130 Kingslake Road,
Willowdale, Ontario.

REPORT NO.
T-09709

Sample(s) OF
DRILL CORE

<u>Sample No.</u>	<u>Gold (Au) oz:ton</u>	<u>Copper (Cu) %</u>
1 - 1	---	3.30
1 - 2	---	2.86
1 - 3	nil	0.06
4 - 1	---	0.02

Samples, Pulps and Rejects discarded after six months

DATE Dec. 27/67

SIGNED C.S. Joyce
C.S. JOYCE; B.Sc., Manager of Laboratories



VANCOUVER - TSL LABORATORIES LTD., 325 HOWE ST., VANCOUVER 1, B.C.

X-RAY ASSAY LABORATORIES LIMITED

45 LESMILL ROAD - DON MILLS, ONTARIO - TELEPHONE 445-5755

Certificate of Analysis

NO.599

TO: G. L. Kirwan, (Consolidated Bellekeno Mines Ltd.)
130 Kingslake Rd.,
Willowdale, Ont.

RECEIVED Jan. 11, 1968

INVOICE NO. 2089

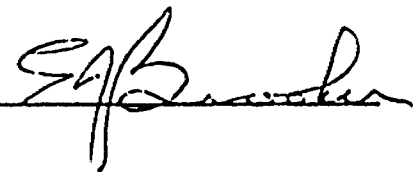
SAMPLE(S) OF split core SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

<u>Sample No.</u>	<u>% Cu</u>	<u>Au oz/ton</u>
2-1	2.46	Nil

X-RAY ASSAY LABORATORIES LIMITED

DATE January 12, 1968

CERTIFIED BY



ASSAYERS - ANALYTICAL CHEMISTS - SPECTROGRAPHERS

X-RAY ASSAY LABORATORIES LIMITED

45 LESMILL ROAD - DON MILLS, ONTARIO - TELEPHONE 445-5755

Certificate of Analysis

NO. 641

TO. Consolidated Bellekeno Limited,
c/o G.L.Kirwan,
130 Kingslake Rd.,
WILLOWDALE, Ontario.

RECEIVED January 29, 1968

INVOICE NO. 2132

SAMPLE(S) OF split core

SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

<u>Sample No.</u>	<u>% Cu</u>
3-1	5.79
3-2	3.63
3-3	5.58

X-RAY ASSAY LABORATORIES LIMITED

DATE January 31, 1968

CERTIFIED BY



ASSAYERS - ANALYTICAL CHEMISTS - SPECTROGRAPHERS



• CHEMICAL RESEARCH AND ANALYSIS
• INSTRUMENT SALES AND SERVICE

TECHNICAL SERVICE LABORATORIES

DIVISION OF BURGNER TECHNICAL ENTERPRISES LIMITED

355 KING ST. W., TORONTO 2B, ONT., CANADA

TELEPHONE: 362-4248 - AREA 416

Representing...

JARRELL-ASH COMPANY
MILNER & WATTS LIMITED
BADTLER RESEARCH
ULTRA CARBON CORPORATION
METALS RESEARCH LIMITED

CERTIFICATE OF ANALYSIS

Somiquantitative Spectrographic

SAMPLE(S) FROM ^{CON} United Bellekeno Mines Limited,
c/o Gerald Kirwan,
Exploration & Mining Geologist,
130 Kingslake Road,
Willowdale, Ontario.

REPORT NO.
T-09709

SAMPLE(S) OF
DRILL CORE

	Sample 1 - 1	Sample 1 - 3	Sample 4 - 1		Sample 1 - 1	Sample 1 - 3	Sample 4 - 1
Antimony	-	-	-	Phosphorus	-	-	-
Arsenic	-	-	-	Platinum	-	-	-
Barium	.02%	.1%	.02%	Rhenium	X	X	X
Beryllium (BeO)	-	-	-	Rhodium	-	-	-
Bismuth	-	-	-	Rubidium	X	X	X
Boron	-	-	-	Ruthenium	-	-	-
Cadmium	-	-	-	Silver	.1oz:t	-	<.1oz:t
Caesium (CeO ₂)	-	-	-	Strontium	-	-	-
Caesium	X	X	X	Tantalum (Ta ₂ O ₅)	-	-	-
Chromium	-	-	-	Tellurium	-	-	-
Cobalt	-	-	-	Thallium	-	-	-
Columbium (Cb ₂ O ₅)	-	-	-	Thorium (ThO ₂)	-	-	-
Copper	LM3%	.05%	.02%	Tin	-	-	-
Gallium	.001%	.001%	.001%	Titanium	LM2%	LM2%	LM2%
Germanium	-	-	-	Tungsten	-	-	-
Gold	<.01oz:t	-	<.01%	Uranium (U ₂ O ₅)	-	-	-
Indium	-	-	-	Vanadium	.01%	.03%	.03%
Iridium	-	-	-	Yttrium (Y ₂ O ₃)	.005%	.005%	.005%
Iridium	-	-	-	Zinc	-	-	-
Lanthanum (La ₂ O ₃)	-	-	-	Zirconium (ZrO ₂)	.02%	.02%	.01%
Lead	.005%	.005%	.005%	ROCK FORMING METALS			
Lithium (Li ₂ O)	-	-	-	Aluminum (Al ₂ O ₃)	MH	MH	MH
Manganese	.02%	.02%	.05%	Calcium (CaO)	2%	3%	15%
Mercury	-	-	-	Iron (Fe)	10%	15%	5%
Molybdenum	.01%	.01%	.003%	Magnesium (MgO)	2%	5%	5%
Niodymium (Nd ₂ O ₃)	-	-	-	Silica (SiO ₂)	H	H	H
Nickel	.001%	.001%	<.001%	Sodium (Na ₂ O)	M5%	M5%	M5%
Palladium	<.005oz:t	<.005oz:t	<.005oz:t	Potassium (K ₂ O)	2%	2%	1%

Figures are approximate:

CODE Samples are stored for 6 months, then discarded.

H - High - 10 - 100% approx.
MH - Medium High - 5 - 50% approx.
M - Medium - 1 - 10% approx.

LM - Low Medium - .5 - 5% approx.
L - Low - .1 - 1% approx.
TL - Trace Low - .05 - .5% approx.
T - Trace - .01 - .1% approx.

- : not detected
FT - Faint Trace - approx. less than .01%.
PT - Possible Trace - Presence not certain.
XXXXXXXXXXXX - Elements looked for but not found.
X - Not looked for

DATE Dec. 28/67

SIGNED C.S. Joyce

C.S. JOYCE, B.Sc., Manager of Laboratories



