



31D09NW0010 2.15556 CAVENDISH

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MINING LANDS BRANCH

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CAVENDISH TOWNSHIP VERMICULITE COMPLEX  
SOUTHEASTERN ONTARIO

63A.412

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## INDEX

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	<u>Page Number</u>
Summary	1
Property	3
Location and Access	3
Resources	4
History	4
Geology	5
Markets	6
Exploration Program	7
Sample Analysis	8
Observations and Results	9
Conclusions	10
Recommendations	11

## APPENDIX

- Section 1 Line 300 N
- Section 2 Line 200N
- Section 3 Line 00-BL
- Section 4 Line 400S

## Cavendish Vermiculite Complex

### Summary-

Previously, a vermiculite bearing zone was delineated over an area of 1500 meters X 120 meters; and consequently brought to lease. In 1992, the exploration defined another marble complex to the west; and consequently five vermiculite-bearing trends were outlined.

The program was used to drill-outline an area of one of the vermiculite-bearing zones to a depth of 6.0 to 7.0 meters; to try and define tonnage potential. Four drill fences were put in to define an area of approximately 150 meters X 300 meters. Drill holes were spaced at 15.0 meters apart on the lines.

Another part of the program was to evaluate both size and grade averages from a random check of samples from this area (covering Anomalies B and C from the previous program).

Some forty-seven samples were taken in forty-one drill holes. The drilling was done during October and November, 1993 and was done over a period of eight days.

A total of some \$9676.00 was spent on the drilling and sample size-grade analyses.

Approximately five percent of the drillholes intersected amphibolite dykes; the rest intersecting marble (altered dolomite) rocks. All of the samples returned vermiculite values.

An average value of 23.4 percent vermiculite by volume was delineated. Values increased with depth generally, and values continue past the 6.0 to 7.0 meter depth. Due to the difficulty in drilling past this depth, an alternative drilling method or backhoe is suggested.

In this area, approximately 8% of the vermiculite is in the +12 to -28 mesh category; the rest in the -28 mesh category. The grade is 10.4 and 24.3 pounds per cubic foot respectively. It is expected that these results are poor due to the fact that the vermiculite was not exfoliated under proper conditions; thus exfoliation of the vermiculite was not done to the fully-expanded state.

It is recommended that a bulk sample be exfoliated using a proper type of furnace (optimum temperatures and air-blower circulation).

Results indicate a potential for a large tonnage situation with good grade vermiculite. It is recommended that the area over 350 meters X 900 meters be fully tested, and to test to a greater depth. If results are consistent, then a bulk sample and metallurgical test are recommended. This can be accomplished during the next program phase.

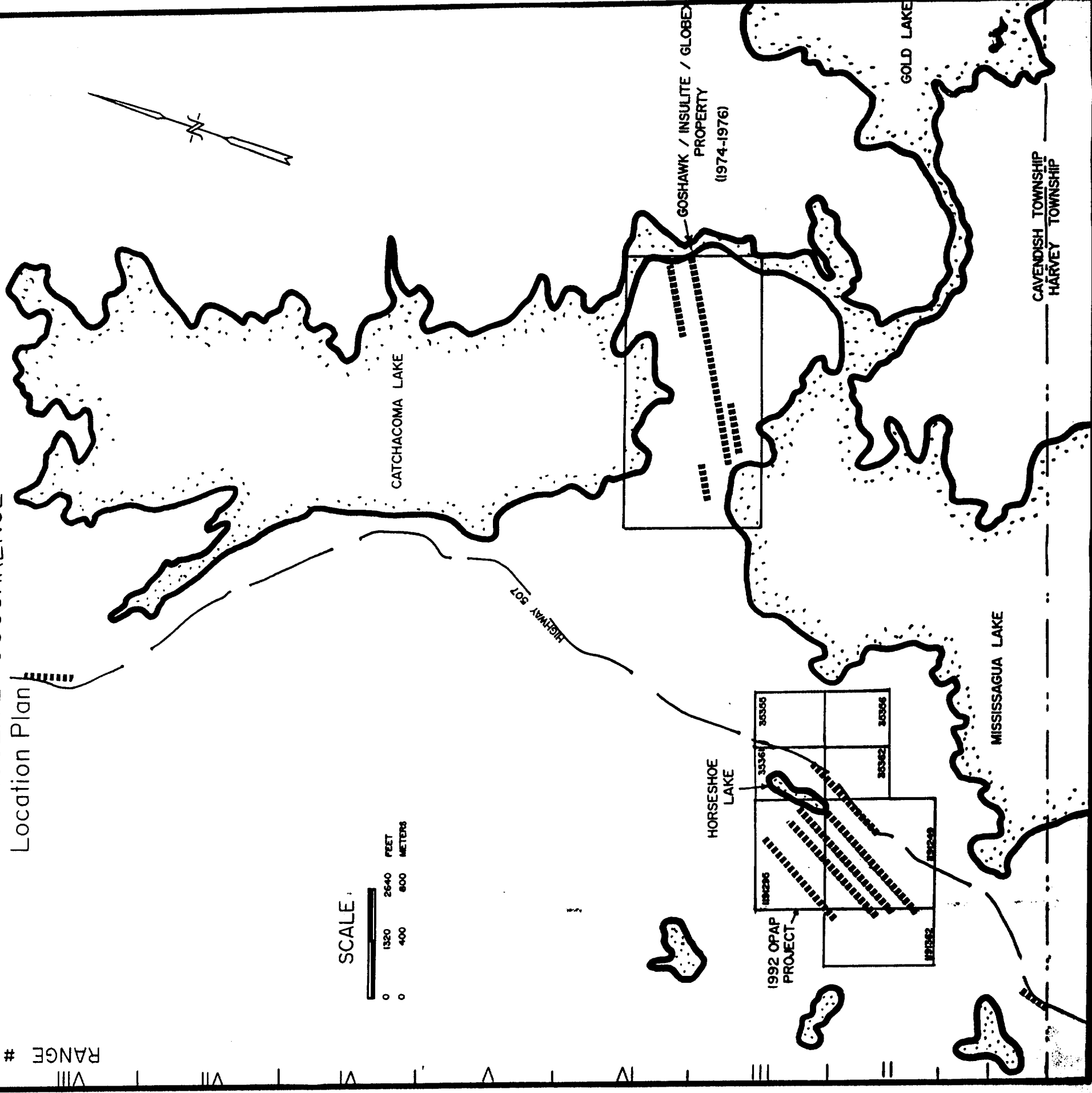
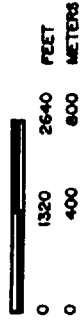
CAVENDISH VERMICULITE OCCURRENCE  
Location Plan

RANGE #

VIII VII VI V IV III II I

LOT #

SCALE



LOCATION  
PLAN

*Cavendish*

Property-

The property initially consisted of leased claims (mining and surface rights) numbered 35355, 35356, and 35362 totalling 120 acres. In the 1992 exploration program it was found the results continued to the west and south west of the claim group, and consequently three claim groups totalling eight claims were staked contiguously with the patented group. These claims are numbered : 1191249, 1191295, and 1191362. The claim group now covers an area of 550 acres in size. The vermiculite is associated with a marble complex, and the claims cover this complex in entirety. Approximately five percent of the drilling was done on claim 1191249 and ninety-five percent on claim 1191295.

Location & Access-

The property lies some 200 kilometers northeast of Toronto, and some 56 kilometers northwest of Peterborough. It lies within the southwestern section of Cavendish Township (Concessions 2 and 3, Lots 12 and 13).

The property is accessed from Highway #507 which joins Gooderham in the north to the highway between Bobcaygeon and Buckhorn in the south. The property is immediately west of Mississagua/Catchacoma Lakes.

The area of study is accessed from a road (some 0.8 kilometers north of the Trappers Inn) which continues west to Horseshoe Lake. A trail was cut west to the site from the end of the Horseshoe Lake Road. It is approximately 120 meters west from Highway #507 to the drill site area.

### Resources-

The area of drilling is ~~sw~~ covered by red and white pine ridges. The surrounding area is open swamp and hardwood (oak and maple)- spruce combination. Power is available some 200 meters to the east of the site. Highway #507 is accessible year-round. No cottages or buildings are present in the areas of study, and gravel-limestone pits are numerous in Cavendish Township and the surrounding townships.

### History-

Previous to 1973, the only person to evaluate vermiculite in the area was Harvey Greene, a local prospector. Harvey Greene, upon retiring, handed over his reports and properties to C.W. Archibald.

From 1973 to 1977, an area some two kilometers to the east of the study site was studied, and a commercial vermiculite deposit was delineated over an area of 1500 meters X 120 meters. Some 54,000 tons averaging +5% vermiculite was outlined. This property was brought to lease but no production to date has been carried out.

The records of Harvey Greene indicated high grade vermiculite values were observed on Concession 2-Lot 14. This area was prospected during the 1992 OPAP study.

In 1992, another marble complex with vermiculite values was outlined. Some five anomalous vermiculite zones (trending north-south) were observed.

The purpose of the 1993 OPAP grant was to delineate an area of the marble complex which returned the highest and most consistent values, in an attempt to evaluate some tonnage with economical grades of vermiculite.

Problems related to the opening of a vermiculite mine were presented during a meeting between the Cottagers Association and the Ministry of Natural Resources in the mid 1970's. This activity was welcomed by both parties.

Geology-

The claim group is underlain by altered Grenville Limestone series of marble, dolomite and diopside. The mica series within these units (phlogopite and biotite) have altered to vermiculite. Some of the units have weethered and secondary concentration of vermiculite minerals have taken place. To the east and southeast of the claim group is the Anstruther Granite Gneiss Complex. Both these units have been cut by amphibolite and biotite gneiss and schist units. The units are dipping from 30 degrees to 85 degrees to the southeast.

Vermiculite values coincide to marble and dolomite rock units, and also coincide with amphibolite dykes in close proximity to the marble complexes.

The present marble complex is some 900 to 1000 meters (north-south) by 500 to 900 meters (east-west). There are several swamp areas overlying the marble complex; with up to 4.5 to 10.0 meters of overburden on average in these areas. On the ridges there is only overburden coverage of up to 0.5 meters of sand.

The higher-grade vermiculite coincides with the green and red mica-rich materials.



Markets-

There are sufficient markets in Toronto and Montreal if a viable grade and tonnage could be evaluated. Other metallurgical tests previously indicate there are no contaminants (ie-talc,serpentine,asbestos) associated with these deposits. The only other Canadian vermiculite occurrence, around Perth and Sudbury, have serpentine and talc associated with them. Freight rates and dwindling reserves from the present producers in Libby- Montana, South Africa, and Brazil make this a viable commodity.

Depending upon the size and bulk density of the exfoliated vermiculite, it can be used for: insulation fill, hot-ingot transportation, concrete aggregate, agricultural use, plaster or wall-board aggregate or filler, and paint extenders.

### Exploration Program-

The drilling was done using a Pionjar 120 drill with 3.3 centimeter samples. This system uses a principal of hammering-vibrations to drill through the unconsolidated soil formations. Drilling was made difficult due to the angular-colluvial nature of the sand-rock grains. These samplers were fitted with lexan tube liners and by-pass tubes. The samplers were changed every 1.0 meter in case of compaction and obstructions. One person was used to drill while the other cleaned and set up the samplers.

The drilling was done over a 200 meter by 200 meter grid on four drill fences. These fences covered sections of previous Anomalies B and C which are situated in the central section of the marble complex. Holes are approximately 15.0 meters apart.

The area was initially sampled by augur to depths of approximately 1.5 meters. The drilling was done between 1.5 meters and 6.0 to 7.0 meters in depth (where possibly due to compactness of soils). An attempt was made to sample below the contaminated surficial soils and within the weathered basal rock in-situ.

The sample tubes were extracted with use of a 12-ton jack.

The drilling was conducted in October and November of 1993. The samples were exfoliated and size-grade analyses done in December of 1993.

See slide photos of drilling as per attached.

A total of thirty-nine holes were drilled on claim 1191295, and two holes were drilled on claim 1191249.

A total of forty-seven samples were taken during the program. In four holes, samples were taken from different intervals. In the other holes, samples were taken from the bottom of the hole.

All of the holes intersected vermiculite-bearing material; although approximately five percent of the holes intersected amphibolites.

Sample Analyses-

The samples were dried with heats of -100 degrees centigrade. It has been found that heats higher than this set up a chemical reaction so that the vermiculite will not exfoliate. The samples are then weighed dry. The samples were exfoliated with use of a Blue M Muffle Furnace- 2000 degree F. capacity. Heat was set at 1650 to 1850 degrees F. The samples remained for 20 minutes to 30 minutes. The samples were then separated by air, and the exfoliated vermiculite was weighed. A comparison was done using exfoliation of sample cuts by propane torch.

A total of thirty-five samples from this area (drill and augur samples) were used in the size distribution study. Sieve sizes were done using size fractions:

- +4 mesh
- 4 to +8 mesh
- 8 to +12 mesh
- 12 to +28 mesh
- 28 mesh

Each fraction was weighed to determine percentages of vermiculite, and to determine bulk densities (pounds per cubic foot).

Spot analyses were done for wetability / water-absorption.

Samples with upwards of 10% vermiculite by volume are considered to be commercial when using open-pit extraction methods.

### Observations & Results-

The samples were described, and approximately 5% of the samples are of the amphibolite unit. The rest are marble-dolomite material. Samples with green mica and red mica produced higher vermiculite values. The white marble produced buff colour vermiculite (which is better quality for plaster and paint products).

The samples produced values between 3.9 and 62.2 percent vermiculite by volume when using the propane torch; and an average value of 23.4 percent vermiculite by volume. (See Drillhole Statistic Charts). The value increased by 204% (double) when using the muffle furnace. It is thought that some of the material disintegrated due to the high heats of the furnace; and that a system with fans and floating-exfoliation is needed in the case of production.

Approximately 92% of the material was in the range of -28 to +48 mesh size fraction, and 8% of the material was in the -12+28 mesh size fraction. The average density (pounds per cubic foot) was 24.3 and 10.4 for each size fraction respectively. (See Size & Grade Evaluation Charts).

The drilling covered an area of 200 meter by 200 meters. This same area (over an area of 152 meters X 290 meters) was detailed by a surface till sampling program to a depth of 1.5 meters. The drilling sampled between 1.5 meters and 6.0 meters on average.

The values continue with depth. Drilling was not attempted at a greater depth due to difficulty in drilling.

Conclusions-

This zone, situated in the central area of the marble complex, delineates Anomalies B and C which are in fact the same anomalous zone. This zone is indicated to be at least 900 meters in length and at least 200 meters wider towards the west. A total of some 1,880,000 cubic meters of material estimated in this area to a depth of 6.0 meters.

Results indicate there is a viable grade and tonnage vermiculite situation in this area but more work has to be done to outline the potential.

Recommendations-

The next phase should delineate the area of 900 meters X 350 meters with use of auguring in the low-overburden areas and pionjar drilling in the high-overburden and swamp areas. This can be done on a grid system of 30 meters between lines and 15 meters between stations.

If results prove promising, then a bulk sampling can be done with use of a backhoe. One line over the width of 350 meters is sufficient.

Part of this sample can be used for a metallurgical test, as well as a test for marketability (using one of W.R. Grace's furnaces).

January 5, 1994.

Toronto, Ontario



C.W. Archibald, Mining Engineer

Drillhole Statistics- 1993 OPAP Program - Cavendish Vermiculite Occurrence

<u>Drillhole</u>	<u>Depth(m.)</u>	<u>Coordin.</u>	<u>Description</u>	<u>Dry Wt(gm)</u>	<u>Vermic.Wt(gm)</u>	<u>% Vermiculite</u>
BH-1	3.0	L00-050W	oran.marb.-gn.mica	55.0	5.0	9.0
BH-2	3.0	L00-100W	beig.marb-cs.gn.mica	58.0	12.0	20.7
BH-3	2.5	L00-150W	beig.marb-gn.mica	50.0	17.0	34.6
	3.5	L00-150W	orang.marb-mica	68.0	41.0	60.3
	5.0	L00-150W	beig.marb-gn.mica	70.0	16.5	23.6
BH-4	2.5	L00-200W	brn.marb.-mica(fine)	69.0	9.5	13.5
	4.5	L00-200W	beig.marb-mica	66.0	14.5	21.8
BH-5	2.0	L00-250W	oran.marb-blk.mica	73.0	20.0	27.7
	3.0	L00-250W	beig.marble(fine)	64.0	4.0	6.3
	4.0	L00-250W	beig.marb-gn.mica	71.0	13.5	18.9
BH-6	3.0	L00-300W	beig.marb-gn.mica	44.0	10.0	22.2
BH-7	4.0	L00-350W	beig.marb-gn.mica	50.0	3.0	6.0
BH-8	7.0	L00-400W	sample lost	-----	-----	-----
BH-9	4.0	L00-450W	beig.marb-gn.mica	58.0	12.0	20.7
BH-10	2.5	L00-500W	oran.marb.-mica (fine)	61.0	7.0	11.5
BH-11	2.0	L00-550W	beig.marb-coarse	48.0	9.0	18.8
BH-12	2.5	L00-600W	brn.marb-mica(fine)	55.0	10.0	17.9
BH-13	3.0	L00-650W	brn.marb-gn.mica(cs)	45.0	28.0	62.2
BH-13A	7.0	L00-700W	lost sample	-----	-----	-----
BH-14	2.5	400S-450W	beig.amph-gn.mica	77.0	3.0	3.9
BH-15	2.0	400S-500W	brn.marb.-mica(coars	50.0	11.0	22.0
	3.0	400S-500W	buff marb-gn.mica(fn)	44.0	12.0	27.2
→BH-16	1.5	400S-550W	brn.marb-coars mica	53.0	15.0	28.3
BH-17	2.5	400S-600W	buff marb-gn.mica(fn)	44.0	9.0	20.5
BH-18	2.5	400S-650W	beig.marb-greenmica	36.0	11.0	30.6
BH-19	3.5	400S-700W	beig.marb-cs.gn.mica	48.0	16.0	33.3
BH-20	4.0	400S-750W	beig.marb-gn.mica	76.0	20.0	26.3
BH-21	1.5	200N-BL	beig.marb,mica(fine)	53.0	13.0	24.1
BH-22	2.0	200N-050W	beig.marb-mica	52.0	18.0	34.6
BH-23	4.0	200N-100W	beig.marb.-gn.mica	89.0	39.0	39.1
BH-24	4.0	200N-150W	beig.marb-gn.mica	52.0	9.0	17.2
BH-25	3.0	200N-200W	beig.marb-gn.mica	83.0	19.0	22.7
BH-26	3.5	200N-250W	beig.marb-gn.mica	70.0	13.0	18.9
BH-27	4.0	300N-400W	brn.marb-coarsemica	74.0	7.5	10.4
BH-28	2.5	300N-350W	orang.amph-mica	57.0	5.5	10.0
BH-29	2.0	300N-300W	beig.marb-fine mica	40.0	5.0	12.5
BH-30	2.0	300N-250W	beig.marb-coars.mica	70.0	18.0	25.7
BH-31	3.0	300N-200W	beig.marb-fine mica	68.0	54.0	20.5
BH-32	4.0	300N-150W	beig.marb-mica rich	80.0	25.5	31.8
BH-33	6.0	300N-100W	beig.marb (fine)	65.0	9.0	15.1
BH-34	6.0	300N-050W	coarse beige marb.	56.0	9.0	15.9
BH-35	2.0	300N-BL	beig.marb-mica rich	42.0	12.0	28.6

BH-36	2.0	300N-050E	beig.marb-cs.mica	31.0	12.0	38.7
BH-37	2.0	300N-100E	buff marb-fine mica	47.0	12.0	25.6
BH-38	6.5	300N-150E	beig.marb-gn.mica	85.0	27.5	32.5
BH-39	4.0	200N-150E	brn.marb-gn.mica	31.0	7.0	22.6
BH-40	6.0	200N-100E	beig.-green marb.(fn)	59.0	6.0	10.0
BH-41	4.0	200N-050E	beig.marb-gn. mica	59.0	15.0	25.0

\* Twenty seven duplicate samples exfoliated using furnace and propane torch simultaneously. The furnace samples had values double (204% higher) than the propane samples. For this study, the lower values (propane exfoliated samples) were used.



# Size & Grade Evaluation - Main Zone Sampling

(lbs. vermiculite per cubic foot)

<u>Coordinate</u>	<u>Percentage Vermiculite</u>			<u>Pounds Vermiculite per cubic foot</u>		
	<u>+8 mesh</u>	<u>+12-28 mesh</u>	<u>-28 mesh</u>	<u>+8-12mesh</u>	<u>+12-28mesh</u>	<u>-28 mesh</u>
BL-150W	----	21.4	78.6	----	5.7	7.0
100N-075W	6.2	-----	93.8	19.0	----	24.4
100N-125W	----	3.8	96.2	----	3.8	38.0
BL-100W	----	-----	100.0	----	-----	45.7
BL-025W	----	3.7	96.3	----	7.6	33.0
50N-175W	----	4.8	95.2	----	3.3	38.0
50S-125W	----	10.2	89.8	----	12.7	16.7
150N-200E	----	16.7	83.3	----	11.4	19.1
200N-450W	----	3.4	96.6	----	7.6	32.8
100N-050W	----	2.7	97.3	----	7.6	34.2
100S-025W	----	10.5	89.5	----	15.2	25.9
050S-600W	----	20.0	80.0	----	11.4	18.3
050S-175W	----	4.4	95.6	----	15.2	3.7
100N-100W	----	2.3	97.7	----	7.6	26.6
100N-225W	----	16.7	83.3	----	7.6	19.0
50N-100E	----	7.1	92.9	----	15.2	33.0
650S-875W	13.7	26.5	59.8	26.6	22.8	20.1
600S-575W	3.5	14.9	81.6	15.2	25.9	29.5
100S-300W	----	4.5	95.5	----	7.6	15.9
100S-350W	----	7.1	92.	----	7.6	14.1
600S-750W	----	4.3	95.7	----	7.6	23.9
50N-150W	----	5.9	94.1	----	7.6	30.4
600S-600W	----	9.5	90.5	----	15.2	20.6
50S-200W	----	6.6	93.4	----	7.6	35.3
550S-575W	----	17.3	82.7	----	10.1	16.0
100N-250E	----	10.0	90.0	----	7.6	17.1
200S-475W	----	4.5	95.5	----	7.6	22.8
550S-575W	----	9.5	90.5	----	7.6	20.6
→ 400S-550W	----	7.6	92.4	----	7.6	22.9
650S-900W	2.7	10.8	86.5	7.6	15.2	27.0
100S-275W	----	-----	100.0	----	-----	19.7
250S-525W	----	-----	100.0	----	-----	33.0
100N-125E	----	7.1	92.9	----	15.3	16.5
350S-475W	----	-----	100.0	----	-----	20.3
<u>50N-025W</u>	<u>----</u>	<u>5.9</u>	<u>94.1</u>	<u>----</u>	<u>7.6</u>	<u>30.5</u>
<b>AVERAGES</b>	<b>0.75</b>	<b>8.0</b>	<b>91.25</b>	<b>17.1</b>	<b>10.4</b>	<b>24.3</b>

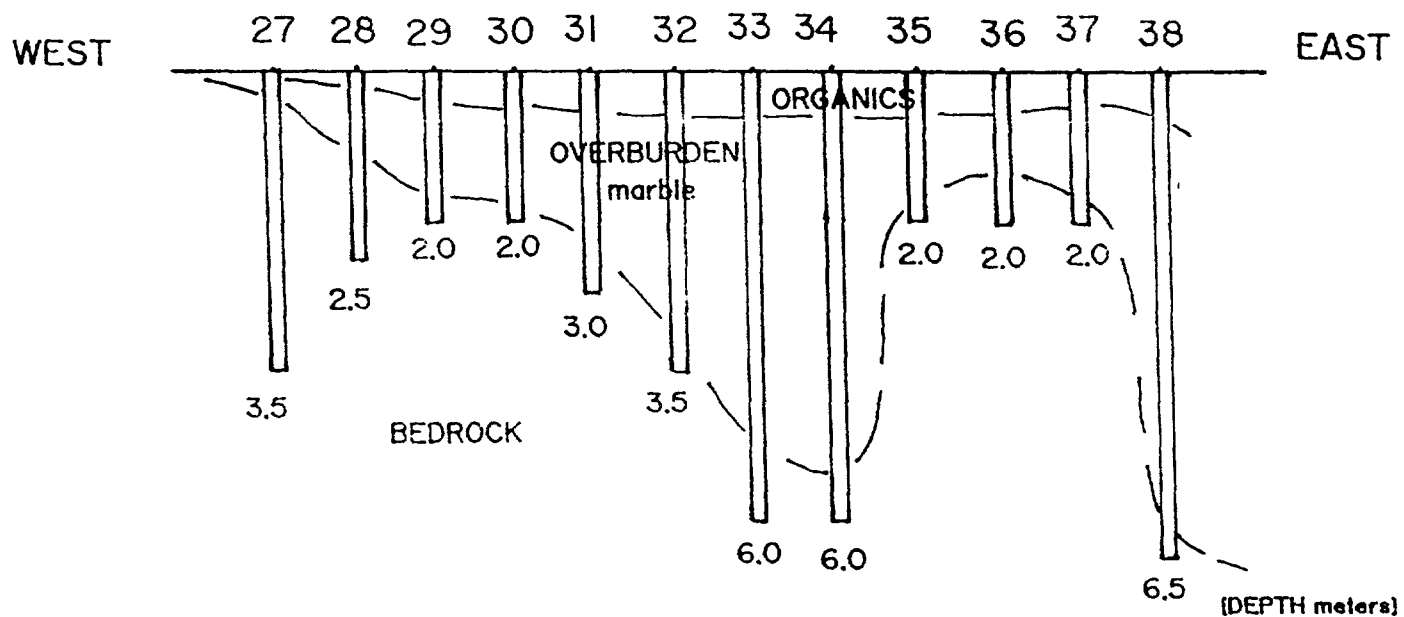
\* (random selection from Main Zone)

# Size & Grade Evaluation - Main Zone Sampling

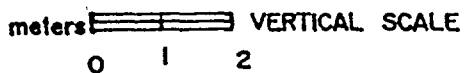
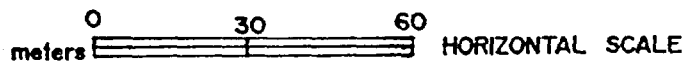
(lbs. vermiculite per cubic foot)

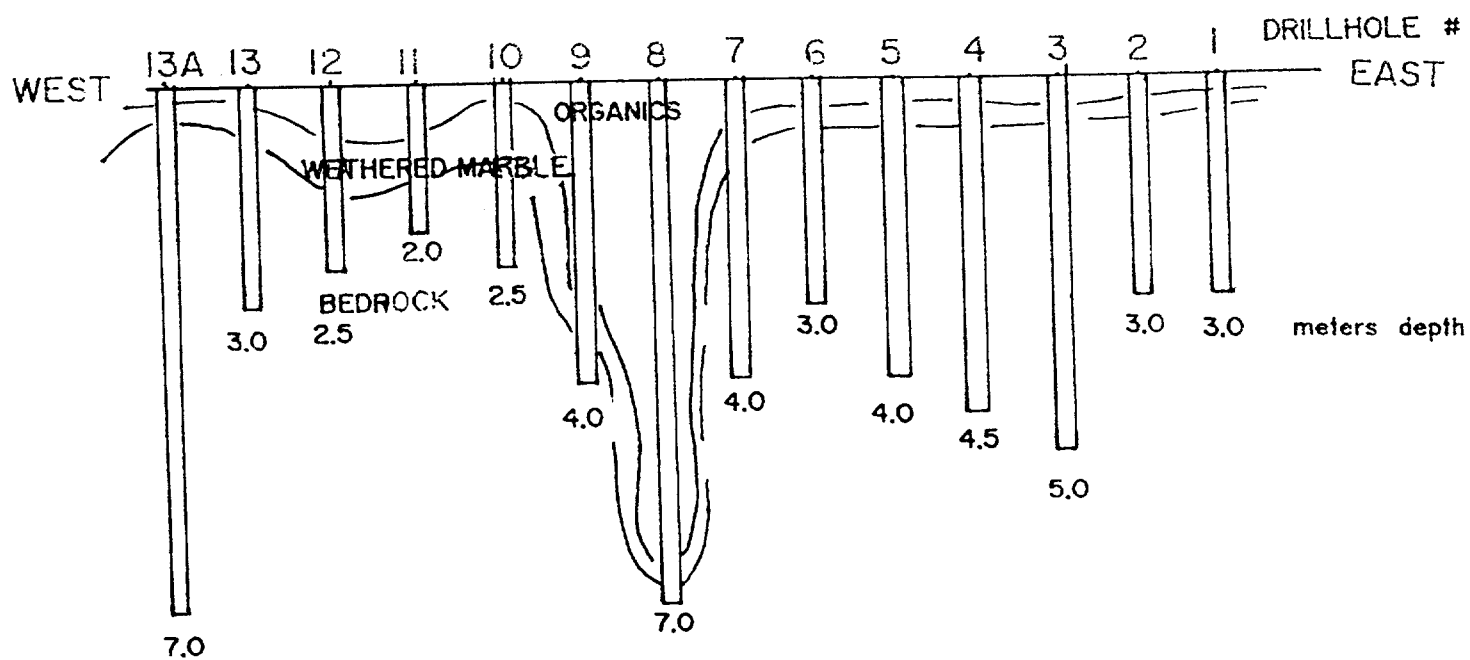
<u>Coordinate</u>	<u>Percentage Vermiculite</u>			<u>Pounds Vermiculite per cubic foot</u>		
	<u>+8 mesh</u>	<u>+12-28 mesh</u>	<u>-28 mesh</u>	<u>+8-12mesh</u>	<u>+12-28mesh</u>	<u>-28 mesh</u>
BL-150W	----	21.4	78.6	----	5.7	7.0
100N-075W	6.2	-----	93.8	19.0	----	24.4
100N-125W	----	3.8	96.2	----	3.8	38.0
BL-100W	----	----	100.0	----	----	45.7
BL-025W	----	3.7	96.3	----	7.6	33.0
50N-175W	----	4.8	95.2	----	3.3	38.0
50S-125W	----	10.2	89.8	----	12.7	16.7
150N-200E	----	16.7	83.3	----	11.4	19.1
200N-450W	----	3.4	96.6	----	7.6	32.8
100N-050W	----	2.7	97.3	----	7.6	34.2
100S-025W	----	10.5	89.5	----	15.2	25.9
050S-600W	----	20.0	80.0	----	11.4	18.3
050S-175W	----	4.4	95.6	----	15.2	3.7
100N-100W	----	2.3	97.7	----	7.6	26.6
100N-225W	----	16.7	83.3	----	7.6	19.0
50N-100E	----	7.1	92.9	----	15.2	33.0
650S-875W	13.7	26.5	59.8	26.6	22.8	20.1
600S-575W	3.5	14.9	81.6	15.2	25.9	29.5
100S-300W	----	4.5	95.5	----	7.6	15.9
100S-350W	----	7.1	92.	----	7.6	14.1
600S-750W	----	4.3	95.7	----	7.6	23.9
50N-150W	----	5.9	94.1	----	7.6	30.4
600S-600W	----	9.5	90.5	----	15.2	20.6
50S-200W	----	6.6	93.4	----	7.6	35.3
550S-575W	----	17.3	82.7	----	10.1	16.0
100N-250E	----	10.0	90.0	----	7.6	17.1
200S-475W	----	4.5	95.5	----	7.6	22.8
550S-575W	----	9.5	90.5	----	7.6	20.6
400S-550W	----	7.6	92.4	----	7.6	22.9
650S-900W	2.7	10.8	86.5	7.6	15.2	27.0
100S-275W	----	----	100.0	----	----	19.7
250S-525W	----	----	100.0	----	----	33.0
100N-125E	----	7.1	92.9	----	15.3	16.5
350S-475W	----	----	100.0	----	----	20.3
<u>50N-025W</u>	<u>----</u>	<u>5.9</u>	<u>94.1</u>	<u>----</u>	<u>7.6</u>	<u>30.5</u>
<b>AVERAGES</b>	<b>0.75</b>	<b>8.0</b>	<b>91.25</b>	<b>17.1</b>	<b>10.4</b>	<b>24.3</b>

\* (random selection from Main Zone)



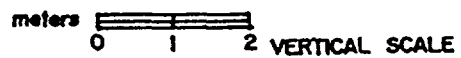
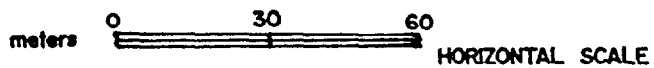
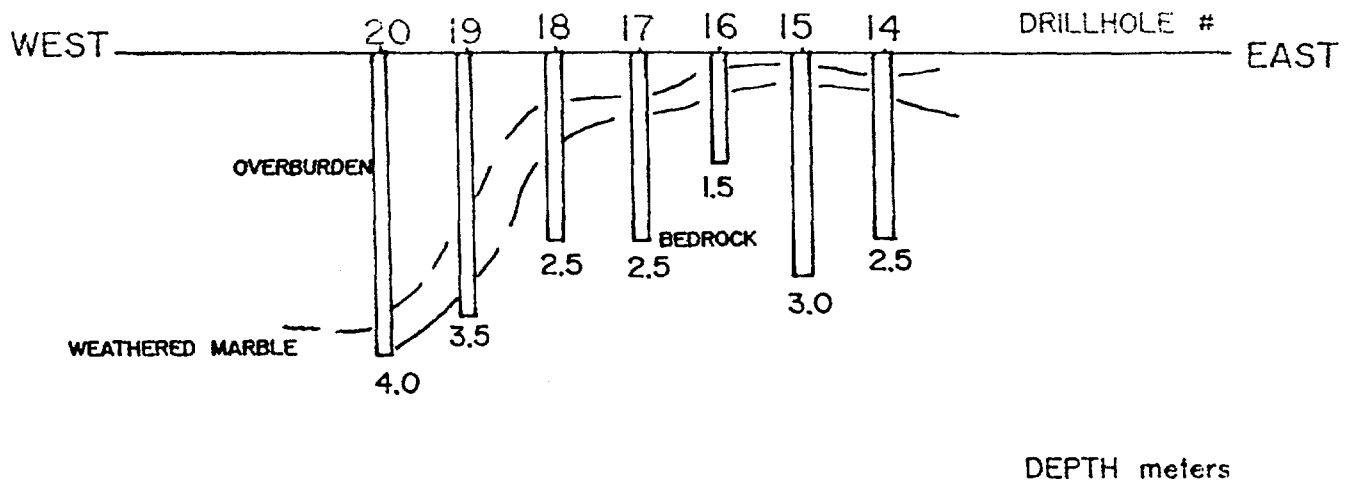
SECTION #1 LINE 300 NORTH





SECTION # 3 LINE 00 BASE LINE





SECTION # 4 LINE 400 SOUTH

C.W. Archibald Expenses- opap 1993

Drilling contracting 8days ----- \$6800.00

24 days exfoliation / sizing / report preparation-- \$2400.00

Total expenditures ----- \$9200.00

**INVOICE** № 037

Date: DEC 31/93

**Shipped Via:**

TERMS: NET 30 DAYS

Address: 100 ADELAIDE ST WEST

Suite 702 Toronto ONT

M54 153

[illegible]


# INVOICE

A 3508



33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2  
TELEPHONE (416) 239-3527 • FAX (416) 239-4012

30

SOLE TO:  **Archibald Consulting Ltd**  
702 - 100 Adelaide Street West  
Toronto, Ontario  
M5H 1S3

1.5% LATE CHARGE OVER 30  
DAYS (ANNUAL RATE 18%)

Att'n: Mr. Fred Archibald

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
140	Analysis of Vermiculite Samples	\$15.00	\$2100.00
	Thank You!		
	Subtotal:		\$2100.00
	GST No. R123717001		
	GST @ 7%:		147.00
	*** Total:		\$2247.00
	*** PLEASE KINDLY MAKE PAYABLE TO: CHAUNCEY ASSAY LABORATORIES LTD		

MINING • METALLURGICAL • ENVIRONMENTAL • I.C.P. MULTI-ELEMENT ANALYSIS

**TM 9**



L300N

L200N

L150N

L100N

L050N

L00

L050S

L100S

L150S

L200S

L250S

L300S

L350S

L400S

L450S

L500S

L550S

L600S

LEGEND

L650S

VG- significant anomaly

V - minor anomaly

MAIN ZONE

CAVENDISH VERMICULITE COMPLEX

SCALE

0 to 1 meter depth sample station  
1 to 2 meter depth line

Cavendish

SEPARATE 1A (1941)

11/19/1995

base line

11/19/1995

survey line

L125

±

±

±

L115

125

125

±

±

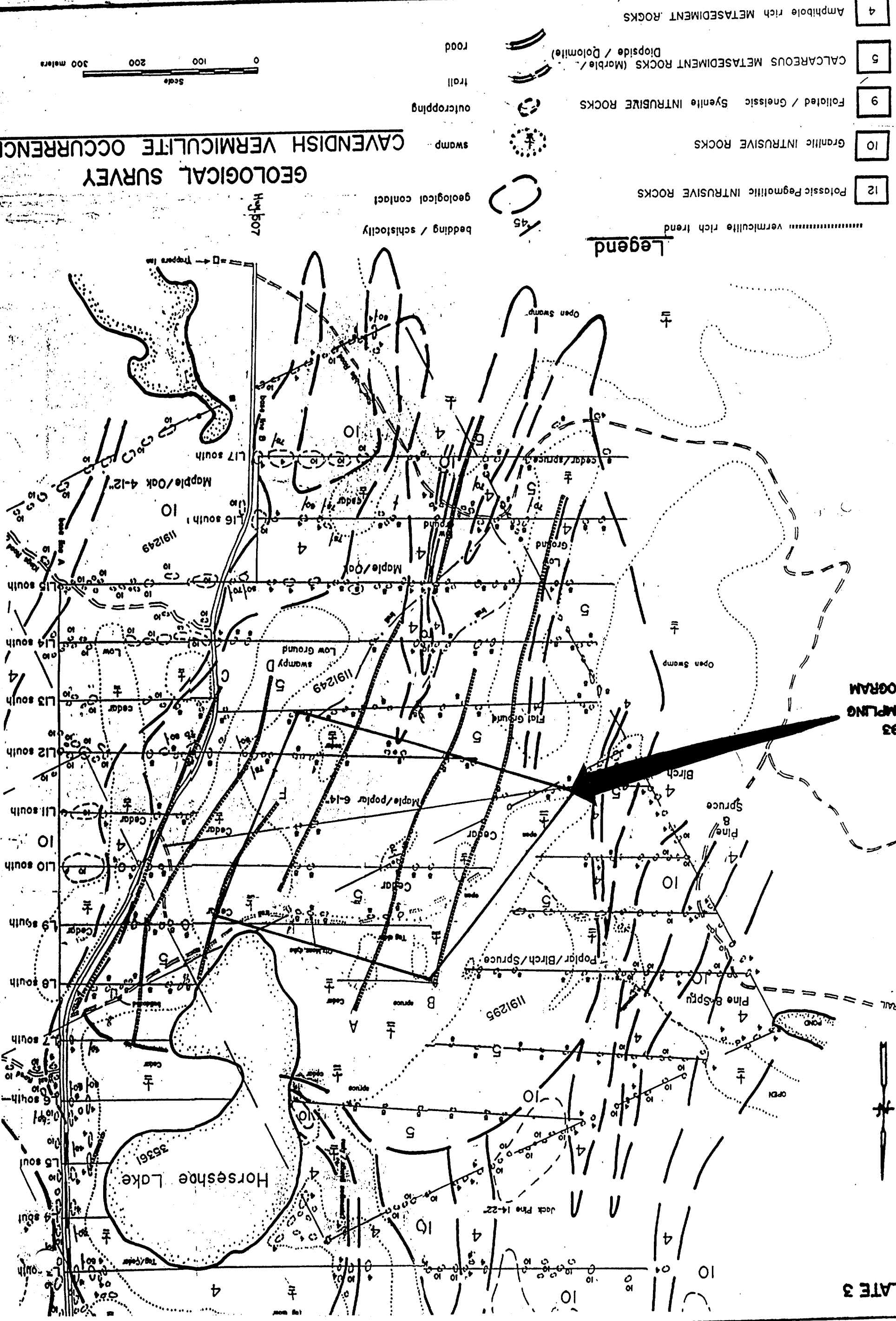
±

±

±

1993  
SAMPLING  
PROGRAM

# GEOLOGICAL SURVEY CAVENDISH VERMICULITE OCCURRENCE



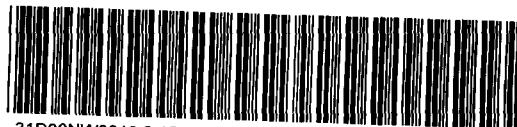
**Ministry of  
Northern Development  
and Mines**

**Report of Work Conducted  
After Recording Claim**

**Mining Act**

Res. Geo. Tweed  
Transaction Number  
W9490.00051  
**2.155 56**

Personal information collected on this form is obtained under the authority of the Mining Act. Collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Ontario, P3E 6A6, telephone (705) 670-7264.



31D09NW0010 2.15556 CAVENDISH

900

- Instructions:**
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of the Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s)	ALAN A. ARCHIBALD	Client No.	A 51431 102780
Address	74 CONLEY ST. THORNHILL, ONTARIO L4J 2X5	Telephone No.	905-660-1554
Mining Division	Southern Ontario	Township/Area	Cavendish
		M or G Plan No.	M72
Assessment Period	From: June 1993	To:	December 1993

**Work Performed (Check One Work Group Only)**

Work Group	Type
Geotechnical Survey	GEOLOGICAL
Physical Work, Including Drilling	Till Sampling, Bedrock Sampling
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

RECEIVED  
SEP 6 1994  
MINING LANDS BRANCH

1) Assessment Work Claimed on the Attached Statement of Costs \$ 610,760.00

2) The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

**Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)**

Name	Address
Lex Industries Ltd.	116 Viceroy Rd. Unit #13, Concord, Ontario
C. Archibald Consulting Ltd.	702-100 Adelaide St. West Toronto, Ont. M5H 1S3

(Attach a schedule if necessary)

**Declaration of Beneficial Interest \* See Note No. 1 on reverse side**

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest in the current recorded holder.	Date July 18, 1994	Recorded Holder or Agent (Signature) C. Archibald
--	-----------------------	--

**Declaration of Work Report**

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after completion and attached report is true.

Name and Address of Person Certifying Charles W. Archibald 702-100 Adelaide St. West Toronto, Ont. M5H 1S3		
Phone No. 416-363 5054	Date July 18, 1994	Certified By (Signature) C. Archibald

**Office Use Only**

Mineral Value Cr. Recorded	Date Recorded July 20/94	Mining Recorder [Signature]	Received By [Signature]
	Deemed Approval Date Oct 18/94	Date Approved [Signature]	
	Date Notice for Assessment Paid		

RECEIVED  
JUL 20 1994

[illegible]

Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
2511-00	-9684
-----	-1076
2511-00	10760

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as prioritized on the attached appendix.

Signature \_\_\_\_\_

Date \_\_\_\_\_

July 18/94



Ministre du  
Développement du Nord  
et des mines

## État des coûts aux fins du crédit d'évaluation

W9490.00051

**2. 155 5 6**

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

## 2. Indirect Costs/Coûts indirects

**\*\* Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work.**  
**Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.**

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation	30¢ X 1200	360	360
Sub Total of Indirect Costs Total partiel des coûts indirects			360
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			360
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)	Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)		10,760

**Note :** Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

**Remises pour dépôt**

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
x 0,50 =	

### Attestation de l'état des coûts

**J'atteste par la présente :**

que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé  
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature

~~July 18, 1994~~

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.



Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

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

November 7, 1994

Our File: 2.15556  
Transaction #: W9490.00051

Telephone: (705) 670-5853  
Fax: (705) 670-5863

Mining Recorder  
Ministry of Northern Development  
and Mines  
MacDonald Block  
Room M2-17  
Toronto, Ontario  
M7A 1C3

Dear Sir/Madam:

**Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS  
SO.1191249 & 1191295 IN CAVENDISH TOWNSHIP**

The deficiencies in the original submission have been rectified.

Assessment work credits have been approved as outlined on the report of work form for the submission. The credits have been approved under Section 13, Geochemical, Mining Act Regulations.

The approval date is November 1, 1994.

If you have any questions regarding this correspondence, please contact Lucille Jerome at (705) 670-5861.

ORIGINAL SIGNED BY:

Ron C. Gashinski  
Senior Manager, Mining Lands Section  
Mining and Land Management Branch  
Mines and Minerals Division

LJ/jl  
Enclosures:

cc: Resident Geologist  
Tweed, Ontario

✓ Assessment Files Library  
Sudbury, Ontario



