ASBESTOS FIBRE TESTS, BERKENSFIELD

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901002

Watts, Griffis and McOuat (Australia) Pty. Limited

CONSULTING GEOLOGISTS AND ENGINEERS

ROYAL EXCHANGE BUILDING

56 PITT STREET

SYDNEY N.S.W. 2000 AUSTRALIA

TELEPHONE: 27-5764

CABLES: WATGRIF
TELEX: AA21647

March 4, 1971.

Dr. W. Young,
Allstate Exploration N. L.,
Suite 3109,
Tower Building,
Australia Square,
SYDNEY 2000

Dear Dr. Young,

The following will constitute a letter report on the results of the fibre testing that was completed by the Quebec Department of Mine Laboratories, in Quebec city, Canada. The samples tested were selected after an inspection of the diamond drill core and after reviewing the fibre log sheets that had been completed by Miss B. Roberts.

The purpose of the testing was twofold,

(1) to determine if the slip fibre in the core had any value, and
(2) to determine the true percentage of cross fibre in the diamond drill core.

It is not possibly visually, to estimate the value of a slip fibre. Slip fibre, generally, is not as strong as cross fibre and during a milling process it will break down to a shorter length or to dust. The degree to which a fibre breaks down depends upon the strength of the fibre itself and therefore, the visual length of a slip fibre is not a true measure of the fibre length.

In the case of a cross fibre it is possible to estimate the value of the fibre after a consideration of the length distribution in a drill core. However, in every core containing fibre there is always fibre that is not visible to the unaided eye and, furthermore, it is not possible to determine how the fibre will react in a mill, i.e., will it stand up to milling or will the individual fibres themselves break down during a milling process. It is sometimes possible to correlate the results of a visual valuation with the milled valuation and if there is any degree of consistency in this correlation, it may

Cont'd...../2

be possible to evaluate a fibre deposit on the visual counts without having to have all the drill core milled. However, it is imperative that at least some milling results are available so that the accuracy of the visual estimation can be determined.

Furthermore, a factor must be applied to the visual estimation as it is not possible to account for the break down of fibres or for the dust that clings to the individual fibrils during a visual estimation, though this is apparent after a mill test. It was in order to ascertain the characteristics mentioned above that the core testing was recommended.

The reports as received from the Quebec Department of Natural Resources come in two pages for each sample. On the first page, the information is more or less self explanatory except for the section under remarks. It will be noted that for lot No. 05014 under the remarks column there are two tests mentioned; the Wash Test and the Surface Area Test. The Wash Test is a test that is undertaken to measure the -200 mesh content of the fibre and is also a measure of the dust content. This dust content measurement is most important as, for example, a ton of 4T product will contain between 600 to 700 pounds of dust and 1,300 to 1,400 pounds of clean fibre. A 6D product will most likely contain 1,000 pounds of dust and 1,000 pounds of clean fibre. It is therefore important to know how much dust is produced when the fibre is milled. This -200 mesh figure is also a measurement as to how the fibre will stand up to milling. At a later date, it will be necessary to conduct further tests to see how the fibre will react after milling for $\frac{1}{2}$ hour, 1 hour, 2 hour periods, etc. The -200 mesh content after these different milling times will determine how strong the fibre is itself.

The second test mentioned on the first page is the Surface Area Test and this is a test primarily used to determine the degree of openness of a fibre. The surface area is determined from a measurement of the resistance met by compressed air as it is passed through a given quantity of fibre enclosed in a standard cylinder and is reported as square decimetres per gram or square centimetres per gram.

Page 2 of the report from the Laboratory, classifies the results into two sections. The first section indicates the weight of fibre that has been released from the core together with the weight of the rejects. The difference between these weights and the total weight of sample is an indication of the dust produced and the loss during milling. The testing procedure is to run the core through a number of passes which are listed as product 1, 2, 3, 4 and 5. After each pass, the fibre is aspirated and the core returned for further impacting to reduce its size and so release more fibre. The number of passes

Cont'd...../3

is a determination as to how far the core has to be reduced in size to release all the fibre which in turn is a measurement of how easy the fibre is released from the enclosing rock.

The second section of the report is the Quebec Standard Test. This test entails the taking of 16 ounces of fibre and then shaking the fibre on a standard nest of screens. The fibre is then reported as the amount, in ounces, that is retained on each one of the screens. The amount retained is then a measure of the Quebec Standard of that particular fibre and again is a measure of the value of the fibre. It is possible, through a series of calculations, to arrive at a figure that will give you an approximate dollar value to the rock as it is in the ground. (Time is not available to complete the actual calculations at this stage).

Discussion of Results

From a consideration of the results of the testing, the main point that has come from the tests is that the slip fibre does not have a value in itself. In other words, it was apparent from the reports that the slip fibre breaks down almost completely to dust and therefore has little or no value as a fibre for commercial use.

Of the six samples containing slip fibre, four did not release enough fibre for testing which indicates that the fibre broke down almost completely to dust. Two of the samples did release some fibre, though in one instance, it was only 0.48% (sample 18). However, Sample 19 yielded 2.39% and a very rough calculation has indicated that the value of this rock would be between $3.00 and $3.50 per ton. A value of this nature can be economical so that the slip fibre cannot be discounted all together. At this stage, however, no reliance can be placed on the value.

Of the samples (which totalled 3) of cross fibre in the diamond drill core, that were submitted for testing, two revealed enough fibre for measurement and both of these gave indicated values of between $4.00 to $6.00 per ton of rock in the ground. It is interesting to note that the sample submitted from the old waste dump yielded a very good grade of fibre that could be valued at $22.00 per ton. Admittedly, however, this sample was hand selected and is not a measurement of the rock in the ground.

The reason for taking this sample was to gain an appreciation as to what grade of fibre could be extracted from the area.

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The following table should indicate to some degree the relative value of each one of the tests that were undertaken.

TABLE I

Sample	Fibre	% Fibre	$ Value	Hole No.
05013	slip	0.82	-	4
05014	cross	3.91	5-6.00	4
05015	slip	0.66	-	4
05016	slip	0.51	-	4
05017	cross	0.68	-	4
05018	slip	0.42	1-1.50	4
05019	slip	2.39	3-3.50	5
05020	slip	0.45	-	5
05021	cross	3.56	3-4.00	5
05022	cross	10.73	22.00	dump sample

Conclusions

From the results of the tests undertaken, it can be concluded that the slip fibre, generally, does not have any value though it may have some value in some parts of the deposit. (See Sample No. 18).

A second conclusion that can be drawn is that the cross fibre does have a value and that it does stand up to milling and that if there is a large enough volume of a similar type of fibre available, an economic deposit of asbestos may be present. The result of the dump sample indicates that the grade of the fibre would lie between a 4D and a 7R product and based on the latest Quebec prices, these products are worth $258.00 Canadian per ton and $53.50 Canadian per ton, respectively (effective July, 1971). Therefore, the question now arises as to whether there is a sufficient volume of this cross fibre present to enable a large scale mining operation to be undertaken.

Chrysotile fibre has the same chemical composition as the enclosing rock and therefore, there are no known geochemical or geophysical methods available that may determine the presence of asbestos fibre. The only way in which this fibre can be found is to physically examine the rock. Where large areas are covered by alluvium or by vegetation, the ground would have to be

Cont'd...../5

cleared by means of trenching and the fibre actually examined by visual examination. It should be noted that the minimum economic milling rate for an asbestos producer is considered to be 1,000 tons of ore per day and that a total reserve of 10,000,000 tons would be the minimum requirement for an economical operation. However, it is generally considered that to be truly economic, any asbestos deposit should contain a minimum of 20 to 25 million tons of available ore. It would be necessary therefore, to extend the surface exploration for asbestos in such a way as to have at least surface indications for the potential of a tonnage in the vicinity of 20 to 25 million tons. When the surface indication has been established, then it is necessary to determine how the fibre lies at depth and this would have to be done by diamond drilling.

The work that has been done to date at Beaconsfield, has shown that asbestos is present over a fairly large area, though at the present time, it does not appear to run in consistent lines. However, this feature is not unusual for asbestos occurrences and it is felt that possibly more detailed trenching is required to determine how the asbestos occurrences lie in relation to each other and whether there is any continuity between the various exposures. This work should be continued until such time that the surface indications of the tonnage potential sought for are revealed.

The results of the trenching completed to date, are not at hand and it would take a detailed examination of the fibre exposures to determine if the tonnage potential is present in the area presently held. As a guide, 25 million tons would be contained in an area 3,000 feet long by 300 feet wide of which 50% is fibre-bearing (assuming a depth of 700 feet). If this dimension or its equivalent cannot be seen within the area held, then it is recommended that the area outside the boundaries be attained. In this respect, guidance from the people who have worked in the area would be most helpful.

At a later date, a comparison calculation between the visual dollar value and the milled dollar value will be given, but time does not allow for its inclusion in this report.

Yours faithfully,

B. C. Butt,
Director.

BCB:al

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901007

GOUVERNEMENT
DU QUÉBEC

DEPARTMENT
OF NATURAL
RESOURCES

HÔTEL DU GOUVERNEMENT
QUÉBEC

Quebec, February 11, 1971.

Allstate Explorations N.L.
Suite 3109,
Tower Building,
Australia Square,
Sydney 200,
Australia

Att: Mr. W.L. Young

Dear Sir:

You will find enclosed the reports on the processing of 10 samples of D.D. Core from Tasmania. Copies of these reports are being forwarded to Watts, Griffis & McOuat Ltd, of Toronto. As agreed also, the invoice covering cost of processing and overtime will be sent to Watts, Griffis & McOuat, Toronto office.

Yours very truly

Gontran Foy, Eng.

GF/cb

DATE RECEIVED 25 FEB 1971
BY
REFERRED
ANSWERED BY
FILE NO.

006
26.1.39

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901008

PILOT PLANT

ASBESTOS SECTION

Project No. : 653 Lot No. : 05013

Customer : ALLSTATE EXPLORATIONS N.L.
SYDNEY
AUSTRALIA

Diamond drill hole No. : _____

Length of core : _____

Date received : JANUARY 28, 1971

Date processed : FEBRUARY 9, 1971

Description of sample : D.D. CORE

REMARKS : NOT ENOUGH FIBRE FOR EVALUATION.

Quebec : FEBRUARY 10, 1971 By : G. FOY, ENG. G. Foy

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901009

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

05013

TEST RESULTS

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		52.00	832.0	
Product #1			6.8	0.82
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			6.8	0.82
Rejects #1	+ 35 m		102.0	12.26
" #2	- 35 m		698.0	83.89
" #3				
" #4				
" #5				
TOTAL REJECTS			800.0	96.15
DUST			17.0	2.04
LOSS			8.2	0.99
GRAND TOTAL			832.0	100.00

FIBRE CLASSIFICATION

QUEBEC STANDARD TEST

	1/2"	4 m	10 m	35 m	Pan
Product #1					
" #2					
" #3					
" #4					
" #5					

Quebec: FEBRUARY 10, 1971

By: G. Foy, Eng.

901010

008

26.1.39

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

Project No. : 653 Lot No. : 05014

Customer : Allstate Explorations N.L.
Sydney
Australia

Diamond drill hole No. :

Length of core :

Date received : January 28, 1971

Date processed : February 8, 1971

Description of sample : D.D. Core

REMARKS :

	Wash test % -200 m	Surface Area Dm^2/gm
Product No 1- 2- 3=	51.9%	35

Quebec : February 8, 1971 By : G. FOY, ENG.

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QUEBEC DEPARTMENT OF NATURAL RESOURCES

901011

PILOT PLANT

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ASBESTOS SECTION

05014

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		55.00	880.0	
Product #1			34.4	3.91
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			34.4	3.91
Rejects #1	+ 35 m		120.0	13.64
" #2	- 35 m		686.0	77.95
" #3				
" #4				
" #5				
TOTAL REJECTS			806.0	91.59
DUST			31.0	3.52
LOSS			8.6	0.98
GRAND TOTAL			880.0	100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan
Product #1		T	10.1	2.6	3.3
" #2					
" #3					
" #4					
" #5					

Quebec: February 8, 1971

By: G. Foy, Eng.

901012

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26.1.39

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

Project No. : 653 Lot No. : 05015

Customer : ALLSTATE EXPLORATION N.L.
SYDNEY
AUSTRALIA

Diamond drill hole No. : _____

Length of core : _____

Date received : January 28, 1971

Date processed : February 10, 1971

Description of sample : D.D. CORE

REMARKS : NOT ENOUGH FIBRE FOR EVALUATION

Quebec : February 11, 1971 By : G. Foy, Eng.

011

26.1.40

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901013

PILOT PLANT

ASBESTOS SECTION

05015

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		62.00	992.0	
Product #1 - #2 - #3			6.6	0.66
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			6.6	0.66
Rejects #1	+ 35 m		224.0	22.58
" #2	- 35 m		728.0	73.39
" #3				
" #4				
" #5				
TOTAL REJECTS			952.0	95.97
DUST			22.0	2.22
LOSS			11.4	1.15
GRAND TOTAL			992.0	100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan
Product #1 - #2 - #3					
" #2					
" #3					
" #4					
" #5					

Quebec: February 10, 1971

By: G. Foy, Eng.

012
26.1.39

901014

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

Project No. : 653 Lot No. : 05016

Customer : Allstate Exploration, N.L.
Sydney
Australia

Diamond drill hole No. :

Length of core :

Date received : January 28, 1971

Date processed : February 10, 1971

Description of sample : D.D. Core

REMARKS : Not enough fibre for evaluation.

Quebec : February 11, 1971 By : G. Foy, Eng.

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901015

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

05016

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		90.00	1440.0	
Product #1			7.4	0.51
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			7.4	0.51
Rejects #1	+ 35 m		256.0	17.78
" #2	- 35 m		1132.0	78.61
" #3				
" #4				
" #5				
TOTAL REJECTS			1388.0	96.39
DUST			30.0	2.08
LOSS			14.6	1.02
GRAND TOTAL			1440.0	100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan
Product #1					
" #2					
" #3					
" #4					
" #5					

Quebec: February 11, 1971

By: G. Foy, Eng.

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901016

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PILOT PLANT

ASBESTOS SECTION

Project No. : ________ Lot No. : 05017

Customer : Allstate Explorations N.L.
Sydney
Australia

Diamond drill hole No. : ________

Length of core : ________

Date received : January 28,1971

Date processed : February 9, 1971

Description of sample : D.D. Core

REMARKS : Not enough fibre for evaluation.

Quebec : February 9, 1971 By : G. F... Eng.

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26.1.40

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901017

PILOT PLANT

ASBESTOS SECTION

05017

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		42.00	672.0	
Product #1			4.6	0.68
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			4.6	0.68
Rejects #1	+ 35 m		48.0	7.14
" #2	- 35 m		598.0	88.99
" #3				
" #4				
" #5				
TOTAL REJECTS			646.0	96.13
DUST			14.0	2.08
LOSS			7.4	1.10
GRAND TOTAL			672.0	100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan
Product #1					
" #2					
" #3					
" #4					
" #5					

Quebec: February 9, 1971

By: G. Foy, Eng.

016
26.1.39

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901018

PILOT PLANT

ASBESTOS SECTION

Project No. : 653 Lot No. : 05018

Customer : Allstate Exploration, N.L.
Sydney
Australia

Diamond drill hole No. :

Length of core :

Date received : January 28, 1971

Date processed : February 10, 1971

Description of sample : D. D. Core

REMARKS :

	Wash Test % -200 m	Surface Area Dm^2/gm
Product No 1- 2- 3	51.6%	33

Quebec : February 11, 1971 By : G. Foy, Eng.

017
P.1.40

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901019

PILOT PLANT

ASBESTOS SECTION

05018

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		236.00		
Product #1		1.00		0.42
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE		1.00		0.42
Rejects #1	+ 35 m	35.00		14.83
" #2	- 35 m	194.00		82.20
" #3				
" #4				
" #5				
TOTAL REJECTS		229.00		97.03
DUST		4.00		1.70
LOSS		2.00		0.85
GRAND TOTAL		236.00		100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan
Product #1		4.3	6.1	3.2	2.4
" #2					
" #3					
" #4					
" #5					

Quebec: February 11, 1971

By: G. Foy, Eng.

018

901020

26.1.39

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

Project No. :_____ Lot No. : 05019

Customer : Allstate Explorations N.L.
Sydnery
Australia

Diamond drill hole No. :_____

Length of core :_____

Date received : January 28, 1971

Date processed : February 9, 1971

Description of sample : D.D. Core

REMARKS :

	W.T.	S.A.
Product No 1- 2- 3	50.4%	48

Quebec : February 9, 1971 By : G. FOY, ENG.

019

26.1.40

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901021

PILOT PLANT

ASBESTOS SECTION

05019

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		56.00	896.0	
Product #1- #2 - #3			21.4	2.39
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			21.4	2.39
Rejects #1	+ 35 m		56.0	6.25
" #2	- 35 m		782.0	87.27
" #3				
" #4				
" #5				
TOTAL REJECTS			838.0	93.52
DUST			28.0	3.13
LOSS			8.6	0.96
GRAND TOTAL			896.0	100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan.
Product #1 - #2 - #3		0.5	7.2	6.8	1.5
" #2					
" #3					
" #4					
" #5					

Quebec: FEBRUARY 9, 1971

By: J. FOY, Eng.

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901022

QUEBEC DEPARTMENT OF NATURAL RESOURCES

26.1.39

PILOT PLANT

ASBESTOS SECTION

Project No. : _____ Lot No. : 05020

Customer : Allstate Explorations N.L.
Sydney
Australia

Diamond drill hole No. : _____

Length of core : _____

Date received : January 28, 1971

Date processed : February 9, 1971

Description of sample : D.D. CORE

REMARKS : NOT ENOUGH FIBRE FOR EVALUATION

Quebec : FEBRUARY 9, 1971 By : G. FOY, ENG.

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26.1.40

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

05020

TEST RESULTS

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		88.00	1408.0	
Product #1			6.4	0.45
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			6.4	0.45
Rejects #1	+ 35 m		84.0	5.97
" #2	- 35 m		1274.0	90.48
" #3				
" #4				
" #5				
TOTAL REJECTS			1358.0	96.45
DUST			30.0	2.13
LOSS			13.6	0.97
GRAND TOTAL			1408.0	100.00

FIBRE CLASSIFICATION

QUEBEC STANDARD TEST

	1/2"	4 m	10 m	35 m	Pan
Product #1					
" #2					
" #3					
" #4					
" #5					

Quebec: FEBRUARY 9, 1971

By: G. FOY, ENG.

022
26.1.39

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901024

PILOT PLANT

ASBESTOS SECTION

Project No. : 653 Lot No. : 05021

Customer : Allstate Explorations N.L.
Suite 3109
Tower Building
Australia Square
Sydney, Australia

Diamond drill hole No. :

Length of core :

Date received : JANUARY 28, 1971

Date processed : FEBRUARY, 8, 1971

Description of sample : D.D. Core

REMARKS :

	WASH TEST % -200 m	SURFACE AREA Dm^2/gm
Product No 1- 2- 3 =	53.5%	43

Quebec : FEBRUARY 8, 1971 By : G. FOY, ENG.

023 26.1.40

QUEBEC DEPARTMENT OF NATURAL RESOURCES

901025

PILOT PLANT

ASBESTOS SECTION

05021

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		46.00	736.0	
Product #1			26.2	3.56
" #2				
" #3				
" #4				
" #5				
TOTAL FIBRE			26.2	3.56
Rejects #1	+ 35 m		48.0	6.52
" #2	- 35 m		628.0	85.32
" #3				
" #4				
" #5				
TOTAL REJECTS			676.0	91.84
DUST			25.0	3.40
LOSS			8.8	1.20
GRAND TOTAL			736.0	100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan
Product #1- #2 - #3			6.9	6.7	2.4
" #2					
" #3					
" #4					
" #5					

Quebec: FEBRUARY 8, 1971

By: G. Foy, Eng.

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QUEBEC DEPARTMENT OF NATURAL RESOURCES

901026

26.1.39

PILOT PLANT

ASBESTOS SECTION

Project No. : 653

Lot No. : 06022

Customer : ALLSTATE EXPLORATIONS N.Ä.
Sydney
Australia

Diamond drill hole No. :

Length of core :

Date received : January 28, 1971

Date processed : February8, 1971

Description of sample : GRAB SAMPLE

REMARKS :

	WASH TEST % -200 m	Surface Area Dm^2/gm
Product No 1 =	38.9%	38
" No 2 =	26.2%	24
" No 3 =	31.7%	32

Quebec : February 8, 1971

By : G. Foy, Esq.

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901027

26.1.40

QUEBEC DEPARTMENT OF NATURAL RESOURCES

PILOT PLANT

ASBESTOS SECTION

05022

T E S T R E S U L T S

		Lbs	Ounces	%
NET WEIGHT OF SAMPLE		53.00	848.0	
Product #1			21.8	2.57
" #2			61.2	7.22
" #3			8.0	0.94
" #4				
" #5				
TOTAL FIBRE			91.0	10.73
Rejects #1	+ 35 m		48.0	5.66
" #2	- 35 m		664.0	78.30
" #3				
" #4				
" #5				
TOTAL REJECTS			712.0	83.96
DUST			36.0	4.25
LOSS			9.0	1.06
GRAND TOTAL			848.0	100.00

FIBRE CLASSIFICATION

Q U E B E C S T A N D A R D T E S T

	1/2"	4 m	10 m	35 m	Pan
Product #1		7.8	5.7	0.8	1.7
" #2		1.9	7.3	3.9	2.9
" #3 Calculated			6.8	4.6	4.6
" #4					
" #5					

Quebec: February 8, 1971

By: G. Foy, Eng.

026

Watts, Griffis and McOuat (Australia) Pty. Limited

CONSULTING GEOLOGISTS AND ENGINEERS

ROYAL EXCHANGE BUILDING

56 PITT STREET

SYDNEY N.S.W. 2000 AUSTRALIA

TELEPHONE: 27-5764

CABLES: WATGRIF
TELEX: AA21642

April 2, 1971.

Mr. W. Young,
Allstate Exploration N. L.,
Suite 3109,
Tower Building,
Australia Square,
SYDNEY, N.S.W. 2000.

Dear Mr. Young,

Further to my draft letter report of March 4, 1971 (the original final and signed report is included herewith), I have made an analysis of the results of the core testing completed by the Quebec Department of Natural Resources.

I have had the information as presented by Miss Roberts transferred onto our standard fibre log sheets as these sheets present the results of a fibre count a little more clearly than in the original fibre log sheets submitted. The calculations that have been undertaken are as follows:

1. A calculation of the percentage of fibre as evidenced from the visual fibre logs. This calculation has been carried out in order to compare the results of the visual fibre percentage count with the milled fibre percentage.

2. A dollar value calculation based on the visual fibre count and a dollar value calculation based on the milled result. The results of these calculations are presented in the table which appears below.

3. A percentage and dollar value calculation on four sections that were not sent away for testing. These four are represented by

Sample A	Hole 4	205 - 219	This section is suspect as two veins of 3/4" fibre may be slip fibre.
Sample B	Hole 4	350 - 380	
Sample C	Hole 4	354 - 470	

.../2.

Sample C(i) Hole 4 354 - 480 This calculation has been made to include a greater footage with only minimal logged fibre.

TABLE

Sample	Length	Visual results			Milled results		
		%	$	Group	%	$	Group
05014 No. 2	60	2.55	2.76	7D	3.91	5.27	6D
05017	30	0.84	0.81	7F	Insufficient fibre for test		
05018		Slip fibre sample			0.42	1.00	4T
05019		Slip fibre sample			2.39	3.06	6D
05021 No. 9	35	2.76	2.37	7F	3.56	3.70	7D
A	14	3.05	14.60	3T	-	-	-
B	30	1.42	1.46	7D	-	-	-
C	16	2.58	1.76	7H	-	-	-
C(i)	26	1.67	1.05	7H	-	-	-

?

From a study of this table, a number of important points emerge.

1. Fibre Percentage

Unfortunately, of the samples submitted, only two samples can be considered in this respect. These are samples 05014 (Sample No. 2) and 05021 (Sample No. 9). It will be noted that in both cases the percentage of milled fibre recovered is in excess of the percentage of visual fibre as calculated. In the first case, No. 2, the difference is approximately 53% and in the second case, No. 9, the difference is approximately 30%. Therefore, even if the average of these two results was taken which would be 40%, the indication is that the percentage of fibre recovered in the mill is far in excess of the percentage of fibre that can be estimated from a visual count. The reason for the increase is the dust content that cannot be counted and possibly hidden fibre. This fact has particular significance when considering the results of the visual fibre percentage count for samples A, B, C and C(i).

2. Preliminary Dollar Value

Again, we can only compare directly two samples and in sample no. 2 the preliminary dollar value was increased from $2.76 to $5.27 and for sample no. 9 the value was increased from $2.37 to $3.70. These differences are respectively approximately 90% and 56%. Again, if we average these differences we are talking about an increase in the preliminary dollar value of the milled fibre of approximately 73% over the visual value. Again, the result of this calculation would have a bearing on samples A, B, C and C(i).

3. Group

In considering the two samples that have been calculated, it will be noted that for sample No. 2 the group classification of the fibre has been lifted from a 7D

.../3.

to a 6D product which is a higher priced product. In the case of sample no. 9, the classification has been moved from a 7F to a 7D. Again, the results of these calculations can be equated with samples A, B, C and C(i).

Unfortunately, the two samples are not enough to be able to establish, with any confidence, the percentage by which can be increased the value of the percentage of the fibre recovered and the preliminary dollar value when considering the visual log with the milled result. However, the results do serve as an indication that the visual result gives a lower value than would be recovered in a production mill. This fact must be kept in mind when logging any future diamond drill core or even in logging the fibre revealed in trench cuts. From a study of the results the following differences may be applied to samples B, C and C(i). At this point, I have not considered sample A as I feel there may be a wrong classification of the long fibre which could be slip fibre. Using a value of 40% increase for the percentage of fibre recovered and 73% increase for the dollar value, samples B, C and C(i) can be up-graded as follows.

Percentage Fibre	
Sample B	1.42% to 1.9%
Sample C	2.58% to 3.6%
Sample C(i)	1.67% to 2.3%

Dollar value	
Sample B	$1.46 to $2.56
Sample C	$1.76 to $3.40
Sample C(i)	$1.05 to $1.81

The effect that this increase in dollar value has on the possible reserve situation as outlined in holes 4 and 5 is illustrated on the sections through these holes. At the present time, this illustration is not an attempt to indicate reserves or even structure and acts merely as an example of how an asbestos occurrence can be up-graded when the milled results are compared with the visual results. In many instances, the value of an asbestos occurrence can be further up-graded when more extensive tests are carried out upon the fibre itself. In other words, if a fibre can be milled extensively and hence opened up to a greater degree, then the QST and eventual dollar value of that fibre can be increased by as much as 20%.

4. Discussion of Results

Although in holes 4 and 5 the lengths over which fibre has been intersected are not considerable and the dollar value is marginal, the work has given an indication as to what kind of value exists within this immediate area. It depends now, to a great degree, on what area of asbestos is revealed by trenching as to what the eventual potential of the Beaconsfield asbestos prospect is.

.../4.

One point that must be considered is that the slip fibre is not entirely worthless and this fact is evidenced in samples 6 and 7. Sample 6 yielded enough fibre for a test and sample 7 yielded enough to give a preliminary dollar value. However, it just may be that there was a percentage of cross fibre interspersed with the slip fibre over these sections and it is this cross fibre that has contributed to the value of the section.

Examples of the calculation sheets that were used to calculate the percentage of fibre and the preliminary dollar value from both the visual and milled results are attached to this letter report. Although the method of calculation is relatively simple, it is very difficult to describe it in writing and I would suggest that a day be spent explaining the method of calculation over actual fibre logged results. It would be interesting to assess the value of any fibre encountered in the trenches that are being completed at the present, against the results of this preliminary investigation of the visual fibre value as against the milled fibre value.

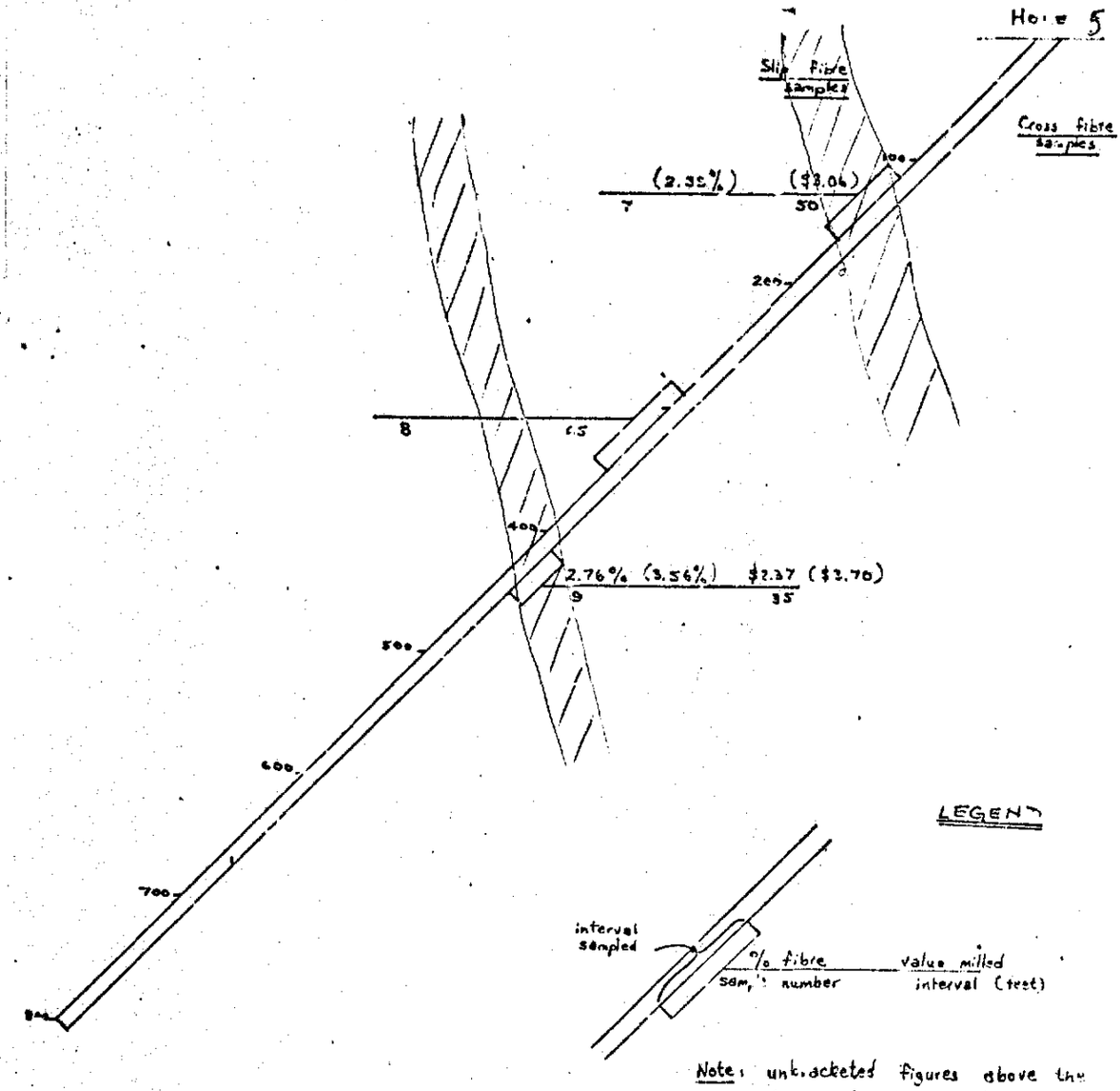
Yours sincerely,

for B.C. BUTT,
Director.

BCB:lh

MILLED DOLLAR VALUE

CUT OFF $3.00



Note: unbracketed figures above the line refer to visual results; figures in brackets show mill results.

WATTS, GRIFFIS AND McOUAT (AUSTRALIA) PTY. LIMITED
CONSULTING GEOLOGISTS & ENGINEERS
[illegible]

ALI STATE EXPLORATION N.L.
Tasmanian Asbestos

SCALE: 1" to 100' [illegible] DRAWING No.:

DRAWN: [illegible] APPROVED:

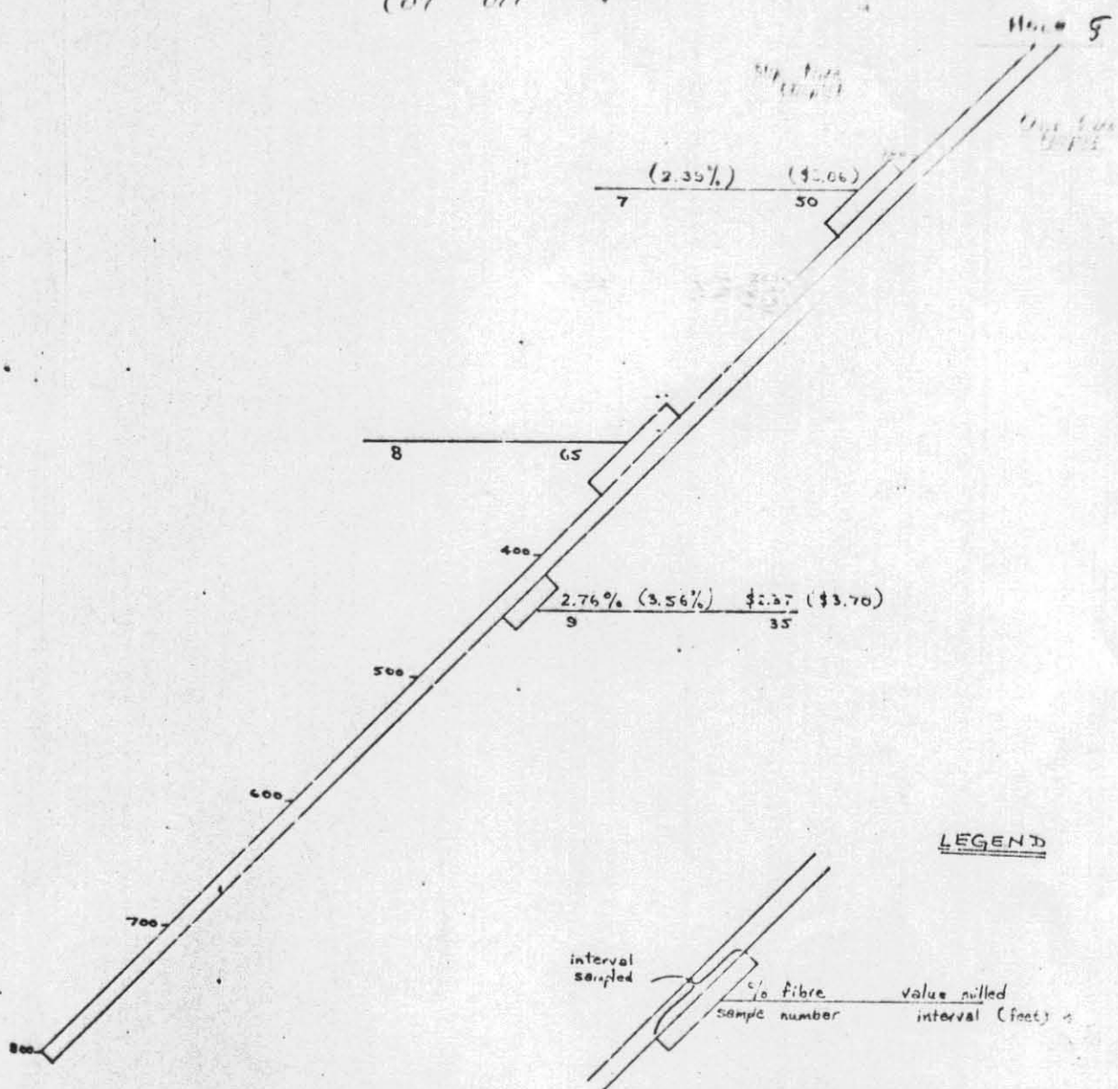
5 cm

901033

031

Visual Dollar Value

Cut off $3.00



LEGEND

Note: unbracketed figures above the line refer to visual results; figures in brackets show mill results.

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56 PITT STREET, SYDNEY

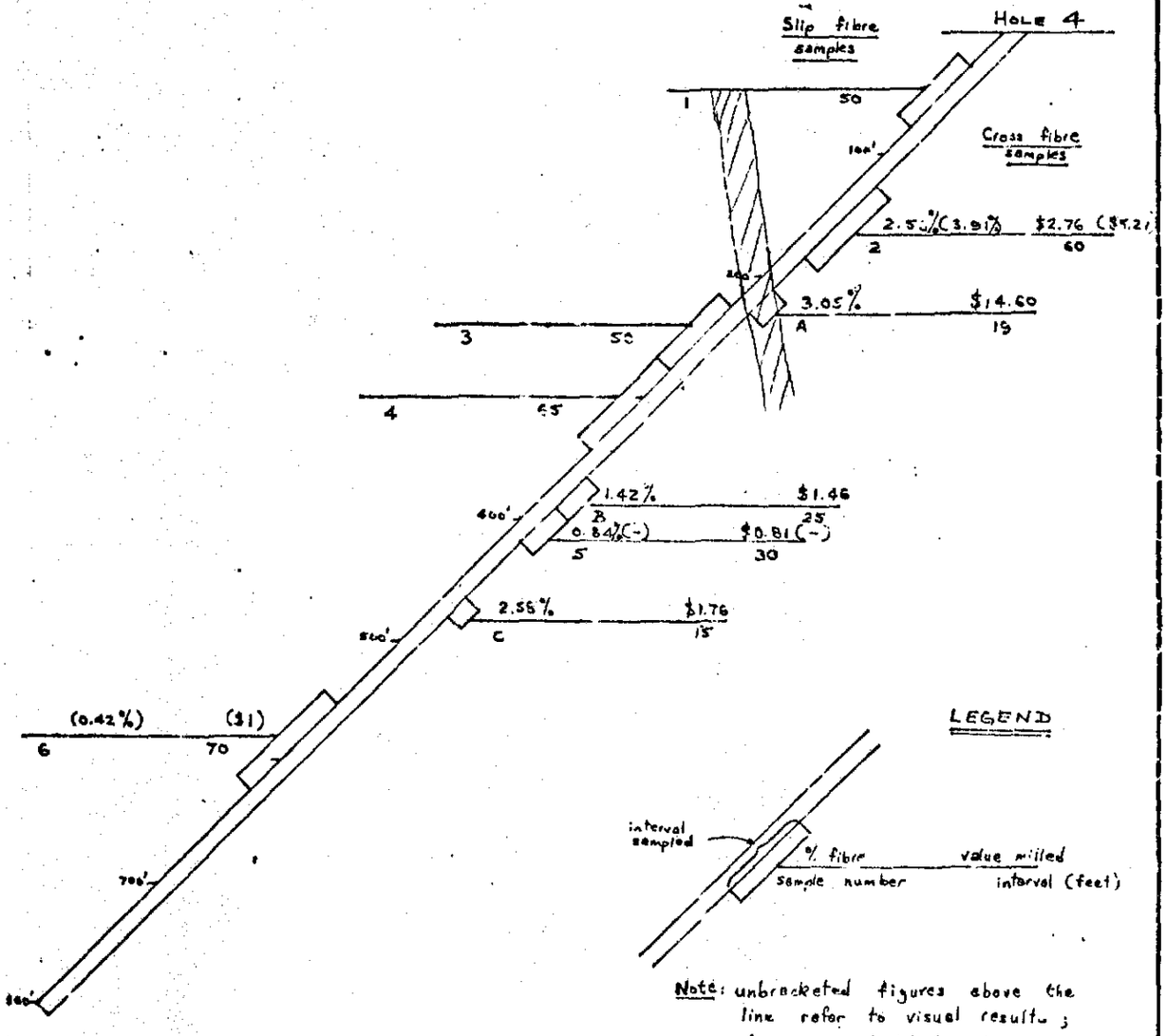
ALLSTATE EXPLORATION N.L.
Tasmanian Asbestos

SCALE: 1" to 100' | DATE: [illegible] | DRAWING No.:
DRAWN: [illegible] | APPROVED:

5 cm

032

Visual Dollar Value
cut off $3.00.



Note: unbracketed figures above the line refer to visual results; figures in brackets show mill results.

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CONSULTING GEOLOGISTS & ENGINEERS
[illegible] PITT STREET, SYDNEY

ALLSTATE EXPLORATION N.L.
Tasmanian Asbestos

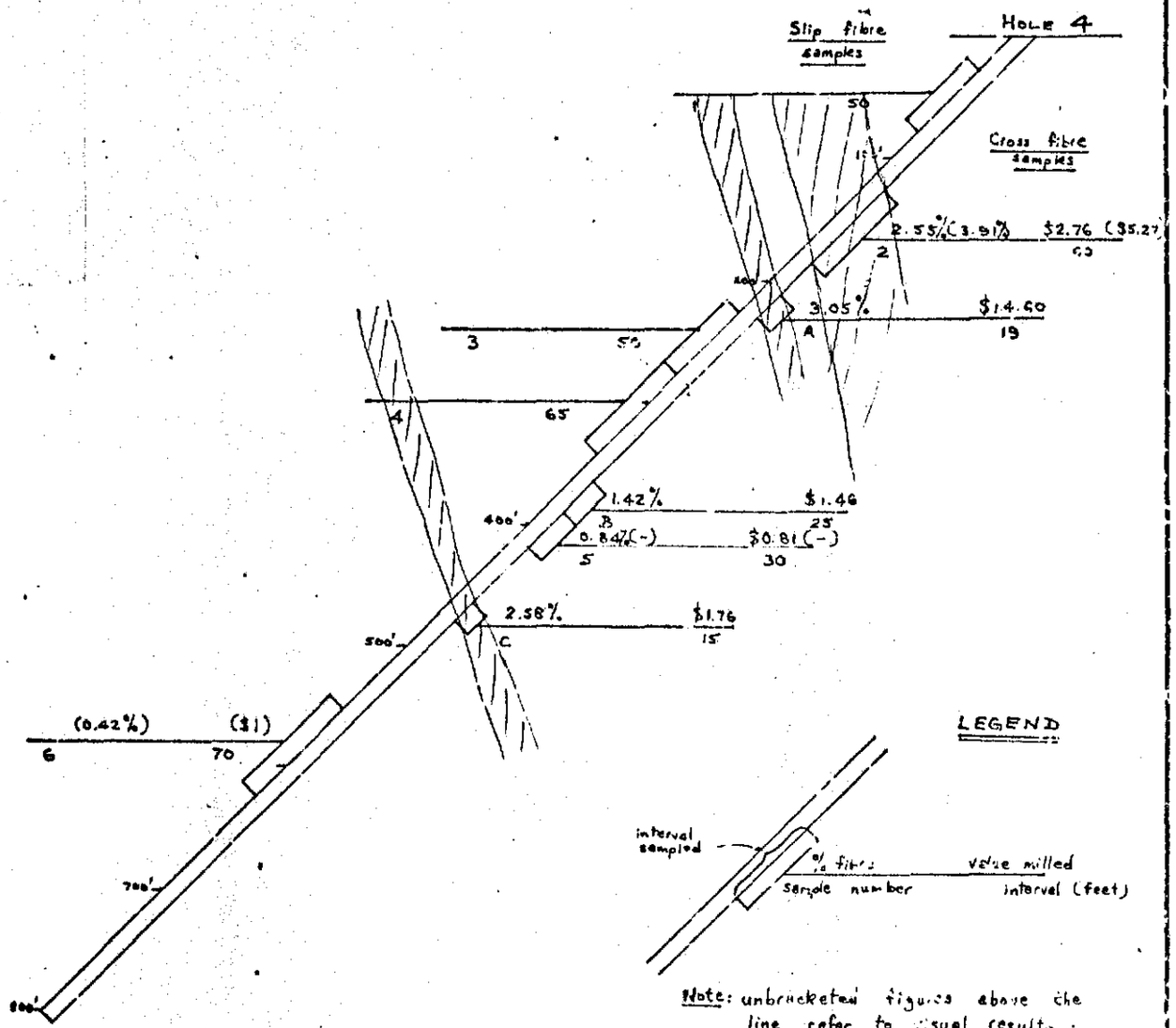
SCALE: 1" to 100' | DATE: [illegible] | DRAWING No.:
DRAWN: [illegible] | APPROVED:

5 cm

0.3

MILLED DOLLAR VALUE

CUT OFF $3.00



Note: unbracketed figures above the line refer to usual results; figures in brackets show mill results.

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CONSULTING GEOLOGISTS & ENGINEERS
[illegible] ST., SYDNEY

ALLSTATE EXPLORATION N.L.
Tasmanian Asbestos

SCALE: 1" to 100' | DATE: [illegible] | DRAWING No.:
DRAWN: [illegible] | APPROVED:

5 cm

901036

034

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: 05014 (No 2) Footage. 155-175 (60)

	1/16	2/16	3/16	4/16	5/16	%	Total
Visual fibre	138	17	7		1	1	
1/16	138	38	21		5	6	205

% fibre = 2.55 %

Q.S.T.

Pan	=	138	=	10.6	=	11 evaluation points
10 mesh	=	59	=	4.5	=	45
4 mesh	=	11	=	0.9	=	36
2 mesh	=		=		=	
Total		205		16.0		82

Value/ton fibre = $ 102.00

Value/ton rock = $ 2.76

Value Milled = $ 5.27

Equivalent to 79 Product

MILLED

[redacted] DOLLAR VALUE.

Hole No.: 4 Sample No.: 05014 Footage. 155-175 (60)

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre						
1/16						

% fibre = 3.91 %

Q.S.T.

Pan	=	From Quebec	=	5.9	=	6 evaluation points
10 mesh	=	results	=	10.1	=	101
4 mesh	=	(35.4 & fan combined)	=		=	
2 mesh	=		=		=	
Total				16.0		107

Value/ton fibre = $ 135.00

Value/ton rock = $ 5.27

Value Milled = $

Equivalent to 10 Product

935

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: 05017 (MILLED) Footage. 330 410 (80)

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre	21	5	1			
1/16	21	10	3			34

% fibre = 0.81 %

Q.S.T.

Pan	= 21	= 99	= 10	evaluation points	
10 mesh	= 13	= 61	= 61		
4 mesh	=	=	=		
2 mesh	=	=	=		
Total	34	160	71		

Value/ton fibre = $ 96 00

Value/ton rock = $ 0 31

Value Milled = $

MILLED

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: 05017 Footage. 330 410 (80)

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre	21	5				
1/16						

% fibre = _____ %

Q.S.T.

Pan	=	=	=	evaluation points	
10 mesh	=	=	=		
4 mesh	=	=	=		
2 mesh	=	=	=		
Total					

Value/ton fibre = $

Value/ton rock = $

Value Milled = $

036

901038

MILLED

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: 05015 (No 61) Footage.

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre 1/16						

% fibre = 0·12 %

Q.S.T.

Pan	=	=	5·6	= 6 evaluation points
10 mesh	=	=	6·1	= 61
4 mesh	=	=	4 3	= 172
2 mesh	=	=		=
Total			160	239

Value/ton fibre = $ 23·00

Value/ton rock = $ 1·00

Value Milled = $

MILLED.

VISUAL DOLLAR VALUE.

Hole No.: 4 5 Sample No.: 05019 (No 1) Footage.

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre 1/16						

% fibre = 2·39 %

Q.S.T.

Pan	=	=	5 3	= 5 evaluation points
10 mesh	=	=	7 2	= 72
4 mesh	=	=	0 5	= 20
2 mesh	=	=		=
Total			16·0	100

Value/ton fibre = $ 23·00

Value/ton rock = $ 3·00

Value Milled = $

037

901039

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: "A" Footage. 305 - 319 (14')

	1/16	2/16	3/16	4/16	5/16	12/32	Total
Visual fibre	1	2	3			3	
1/16	9	4	9			36	58

% fibre = 3.05 %

Q.S.T.

Pan	=	9	=	2.5	=	2 evaluation points
10 mesh	=	13	=	3.6	=	36
4 mesh	=		=	-	=	-
2 mesh	=	36	=	9.9	=	990
Total		58				1025

= 37 product on holes

Value/ton fibre = $ 460.00

Value/ton rock = $ 14.60

Value Milled = $

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: "B" Footage. 332 - 350 (30')

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre	33	11	1			
1/16	33	22	3			58

% fibre = 1.42 %

Q.S.T.

Pan	=	33	=	9.1	=	9 evaluation points
10 mesh	=	25	=	6.9	=	69
4 mesh	=		=		=	
2 mesh	=		=		=	
Total		58				78

= 70 Product.

Value/ton fibre = $ 103.00

Value/ton rock = $ 1.26

Value Milled = $

901040

038

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: C Footage. 454 - 472 (18)

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre	41	6	1			
1/16	41	12	3			56

% fibre = 2.58 %

Q.S.T.

Pan	= 41	= 41	= 41	evaluation points	
10 mesh	= 15	= 43	= 43		
4 mesh	=	=	=		
2 mesh	=	=	=		
Total	56	16.0	55		

711 Product.

Value/ton fibre = $ 65.00

Value/ton rock = $ 1.26

Value Milled = $

VISUAL DOLLAR VALUE.

Hole No.: 4 Sample No.: "C" (1) Footage. 454 - 472 (18)

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre	44	6	1			
1/16	44	12	3			59

% fibre = 1.67 %

Q.S.T.

Pan	= 44	= 11 9	= 11 9	evaluation points	
10 mesh	= 15	= 41	= 41		
4 mesh	=	=	=		
2 mesh	=	=	=		
Total	59	16 0	53		

711 Product.

Value/ton fibre = $ 65.00

Value/ton rock = $ 1.26

Value Milled = $

901041

039

VISUAL DOLLAR VALUE.

Hole No.: 5 Sample No.: 05021 (N°9) Footage. 405 - 440 (35)

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre	82	20	3			151
1/16	82	40	9			

% fibre = 2·76 %

Q.S.T.

Pan	= 82	= 10 0	= 10 evaluation points		
10 mesh	= 49	= 6 0	= 60		
4 mesh	=	=	=		
2 mesh	=	=	=		
Total	131	16 0	70		

= 71 Product

Value/ton fibre = $ [illegible]

Value/ton rock = $ 2·37

Value Milled = $

MILLED

DOLLAR VALUE.

Hole No.: 5 Sample No.: 05021 Footage. 405 - 440 (35)

	1/16	2/16	3/16	4/16	5/16	Total
Visual fibre						
1/16						

% fibre = 3·56 %

Q.S.T.

Pan	=	= 9·1	= 9 evaluation points		
10 mesh	=	= 6·9	= 69		
4 mesh	=	=	=		
2 mesh	=	=	=		
Total		16·0	78		

= 79 Product

Value/ton fibre = $ [illegible]

Value/ton rock = $ 3·79

Value Milled = $