

PLAINTIFF'S
EXHIBIT
JMMC-122

AUSTRALIAN BLUE ASBESTOS LIMITED

WITTENOOM GORGE

WESTERN AUSTRALIA



Johns-Manville

MINUTES OF PRELIMINARY DISCUSSION ON EXPANSION PROGRAM
Australian Blue Asbestos Limited
Western Australia

PRESENT: A. R. Fisher, G. K. Foster, C. W. R. Powell, M. C. King,
C. D. Borrer, R. A. Denovan, K. V. Lindell

Mining Method

It was generally agreed that the present method of mining was both inadequate and costly, and that a change in method was necessary in order to obtain larger tonnage for production as well as to decrease the mining cost.

The present tonnage is all obtained from development driving or one free face blasting. It was agreed that for preliminary purposes a long-wall method of mining in 500-foot panels, backfilling mined out area for both support and waste disposal, should be the basis for initial discussions. The practicability of opening up large areas supported by backfill is to be determined by trial. This question arises from the fact that the capping is a hard ferruginous quartzite or ironstone with numerous horizontal partings 400 feet in height. It has been thought that opening large areas would result in the capping failing at the working face where the unsupported roof would be cantilevered. In any event pillars may be left at intervals to control the size of falls and subsidence, and still obtain a considerably larger tonnage extraction per foot of preliminary development than the present method.

Drilling

It is proposed to use dual jib drill carriages mounted on pneumatic tires for all drilling. One type to be dual jibs mounted in pairs at front end of carriage for development driving, and the other type to be

dual jibs tandem mounted for longwall drilling. Entire wall to be drilled in advance, depth of cut to be determined by trial.

Present drilling has all been done by the conventional forged drill steel. Considerable difficulty has been experienced in maintaining the gauge on drill bits with attendant loss of drilling speed and requiring many steel changes. Use of detachable bits which can be uniformly heat treated for the required conditions should be studied. This will also involve the study of the design of the bit for best results in this ground.

see duplex bit.

Blasting

Waste rock will be blasted in sections of a size to be determined on the job to obtain least overbreak and loss of ore.

Ore to be blasted from the bottom after waste removed. This method will obtain larger tonnage at a working face for most efficient loading conditions, with mechanical equipment reducing man-hour requirements and reducing costs.

Waste Handling

Waste to be used for backfilling mined out area; placed by small diesel bulldozer or equivalent. Bench to be cleaned by hand shovelling and backfill to the roof finished by hand shovelling. This eliminates hauling waste out of the mine.

Mill Rock or Ore Loading

A scraper loader of the air hoist, scraper and ramp type will be used for loading into low cars operated on track with 30-lb. rail and steel ties. Loading will be facilitated by use of 3-ton battery locomotives and switching cars to face by using California type portable switch or equivalent.

Other methods were discussed, such as:

1. Joy Loaders
2. Shuttle Cars
3. Shaker Conveyors and Duckbills
4. Scraping to Lower Seam

It was agreed that these alternatives all had merit but that for preliminary purposes in order to obtain higher production at the earliest date with a proven method, scraper loading into cars should be used for the basis of estimates.

Prior discussion on this subject brought out that two Joy loaders and three shuttle cars are presently on order. With the longwall method proposed, the Joy loader would be required to load one-half ton per minute against its rated capacity of eight tons per minute to handle the hourly output of 31 tons mill ore required for 10,000 ton fibre schedule. One shuttle car (10-ton capacity) would need to make 3 trips per hour to service the loader. Trial of this equipment will determine their desirability and the economics of their operation. As this proposed method of mining lends itself very well to mechanization, it was generally agreed that a method eliminating use of tracks at the working face was desirable.

Haulage

The two 6-ton diesel locomotives presently on the job would be used for haulage to the mill.

Power Supply

The present power supply is inadequate for the increased tonnage. It is proposed to purchase two 2,800 c.f.m. air compressors to increase the air supply and larger lines to the mine will be required. Compressors to be installed at the present mill site.

It was generally agreed that it was desirable to generate all power at one location in preferably two large units, instead of operating many smaller units for generating power or driving compressors. This decreases maintenance costs as well as requiring fewer attendants. A new power plant for 2,290 Kw., building and power line will be necessary, at a new location one mile from the mill. No allowance was made for increase to water supply.

Changehouse, Shops, Stores, Etc.

Additional capacity has been allowed.

Tailing Disposal

It is proposed to build one mile of new road to a tailings dump at a new site. A 10-ton truck is proposed for this work.

Mill Equipment and Building

This phase of the operation will be discussed in a separate report.

We would record here, however, that it is desirable to make immediate additions to the present mill using equipment proposed by Johns-Manville engineers, both to provide additional capacity to keep pace with the mine as well as to permit testing suitability of the proposed new equipment for the Australian ore.

Further study will be required to determine the economics of pushing the main haulage underground, through the peninsula, to the adjacent gorge and erecting the new complete mill in a more central location in respect to the future mining.

/LCG
November 19, 1948

COST ESTIMATE

Mining Equipment

Probable Delivery

2 - 2750 F/M Compressors	\$60,000.00	8 mos.
40 Drifters	40,000.00	1 mo.
18 Jumbos	54,000.00	4-6 mos.
2000' - 6" Pipe	8,000.00	?
3000' - 4" Pipe	9,000.00	?
5 Slusher Units	17,500.00	4-6 mos.
4 - 3Ton Battery Locos.	16,000.00	6 mos.
3 Spare Batteries	3,500.00	6 mos.
Rectifier Equip.	3,000.00	6 mos.
30 Cars	24,000.00	Australia
3 Bulldozers	12,000.00	6-8 mos.
Fans & Auxillary Blowers	10,000.00	4-6 mos.
Power line & Transformers	40,000.00	12 mos.
TOTAL MINING.....	\$297,000.00 ✓	

Power & Miscellaneous

Power Plant 5 500K.W. Units Inst.	500,000.00	8 mos.
Power line & Transformers	110,000.00	12 mos.
Power House with Crane	50,000.00	-
Compressor House	20,000.00	-
Shop, Stores office etc. Bldgs.	150,000.00 ✓	-
Change House	20,000.00	-
Tailings Disposal	25,000.00	-
TOTAL POWER & MISCELLANEOUS.....	\$875,000.00	

Milling Equipment

Milling Equipment	239,000.00	-
Mill Bldg.	128,000.00	-
Dust Collection & Miscellaneous	143,000.00	-
TOTAL MILL	\$510,000.00	

GRAND TOTAL

Mine Equipment	\$297,000.00
Power & Miscellaneous	875,000.00
Mill Total	510,000.00
GRAND TOTAL.....	\$1,682,000.00

/EMM

November 19, 1948

POWER REQUIREMENTS

2 Compressors.....	1000 H.P.
Fans & Blowers.....	100 "
Slushers.....	250 "
Main Haulage Locos.....	200 "
4 Gathering Locos.....	100 "
2 Joy Loaders.....	50 "
3 Shuttle Cars.....	60 "
	<u>1760</u>
Mill Connected Load.....	<u>1300 "</u>
TOTAL CONNECTED LOAD.....	<u><u>3060 "</u></u>
Diversity Factor 0.8.....	2450 "
	1830 K.W.
@ 80% Efficiency	2290 "
5 500 K.W. units required.	

/EMM

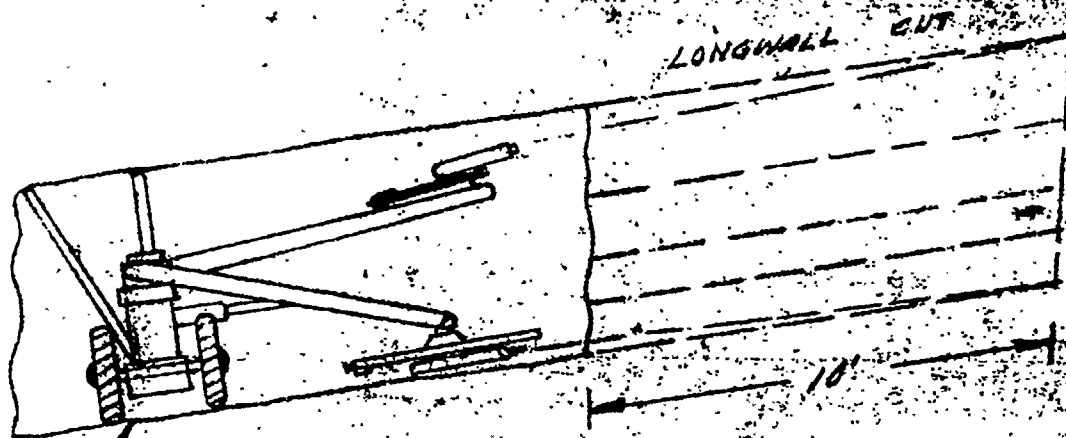
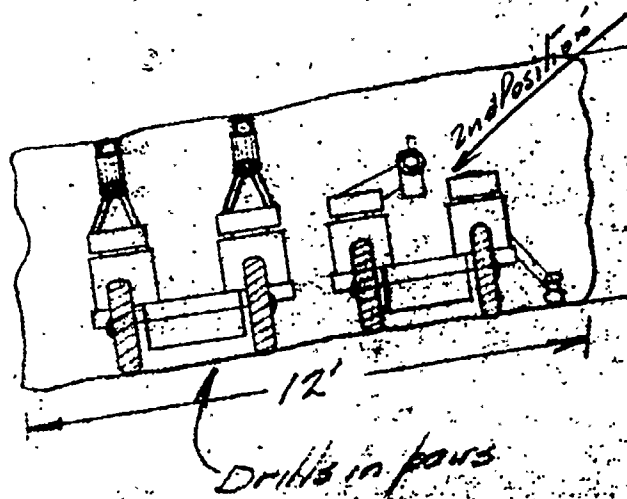
November 19, 1948.

BASIC ASSUMPTIONS

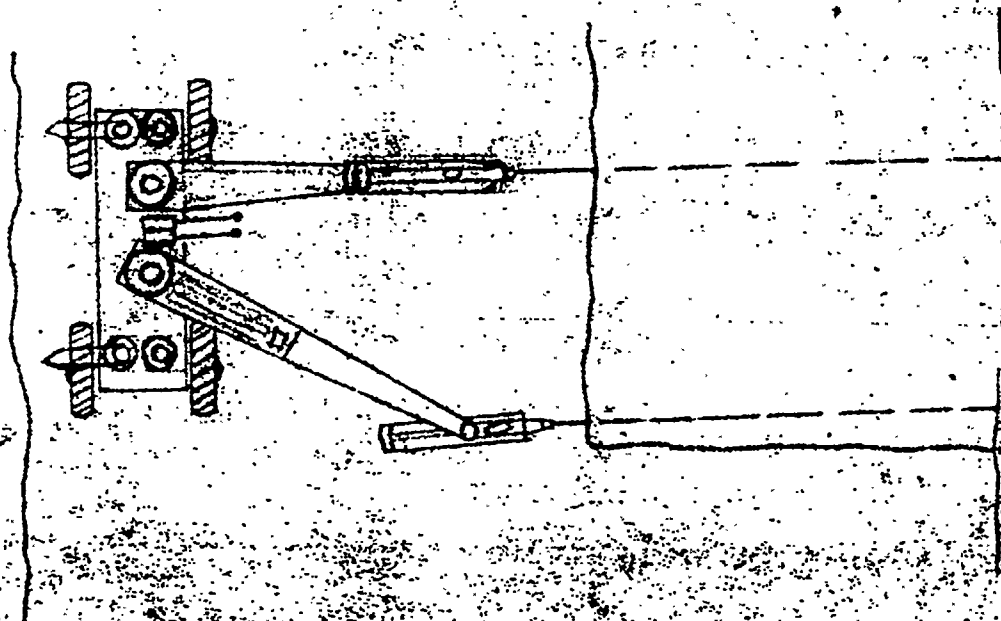
Operating days per week.....	5
Operating days per year.....	250
Nine shifts per day.....	2
Mill shifts per day.....	3
Short tons Fibre required per year.....	10,000
Short tons Fibre required per day.....	40
Short tons Mill Ore per day.....	500
Short tons Mill Ore per mine shift.....	250
Short tons waste rock per day.....	750 ✓
Short tons Waste Rock per mine shift.....	375 ✓
Short tons Total Rock per day.....	1250 ✓
Short tons Total Rock per mine shift.....	625
Short tons Mill Ore per Mill shift.....	167
Short tons Mill Ore per mill hour.....	21
Specific Gravity of Rock.....	3.4
% Fibre in Mill Ore.....	8%
% Fibre in Mill Feed.....	9.5
% Rock removed on Picking belt.....	15.6

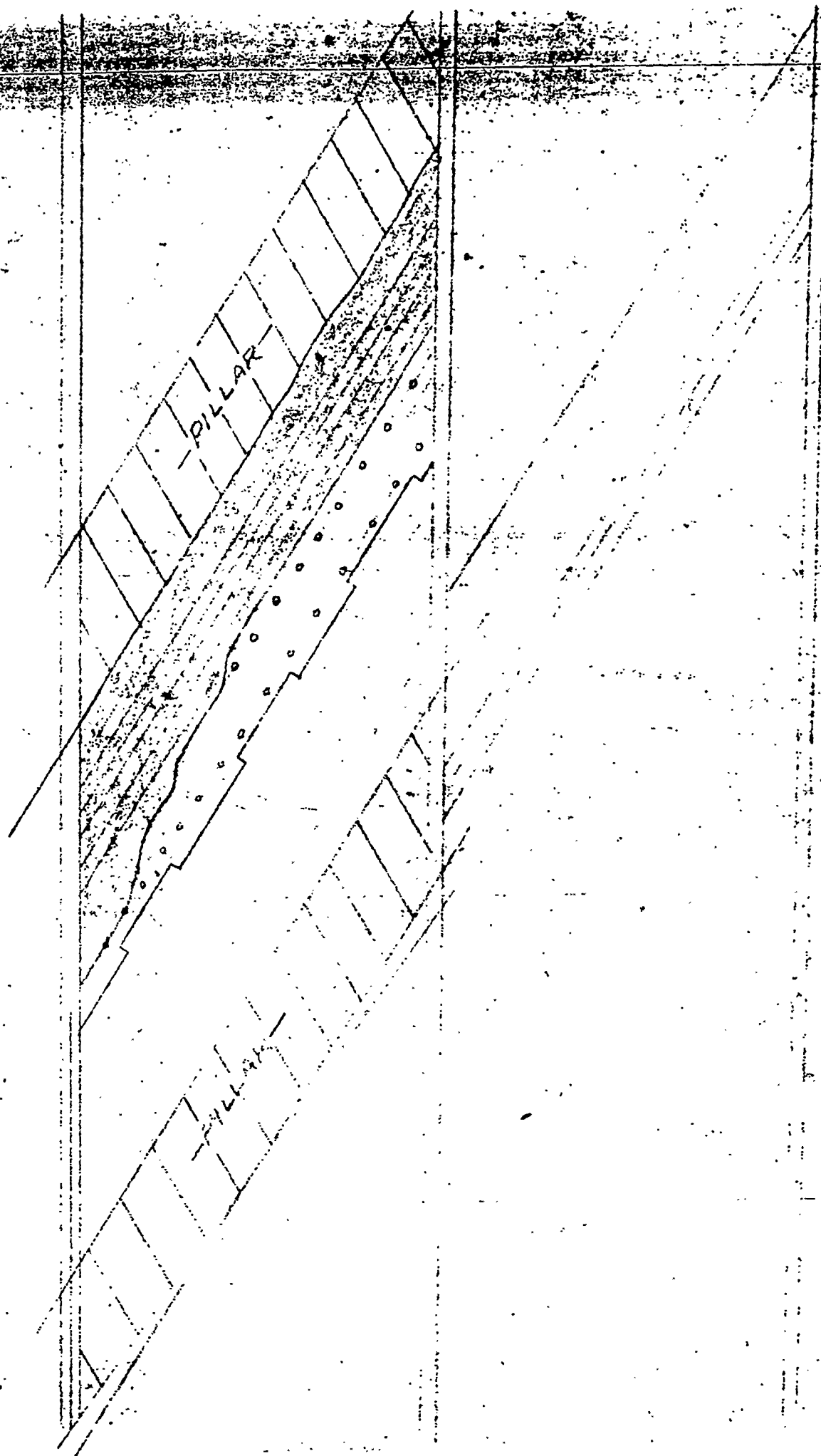
/EMM

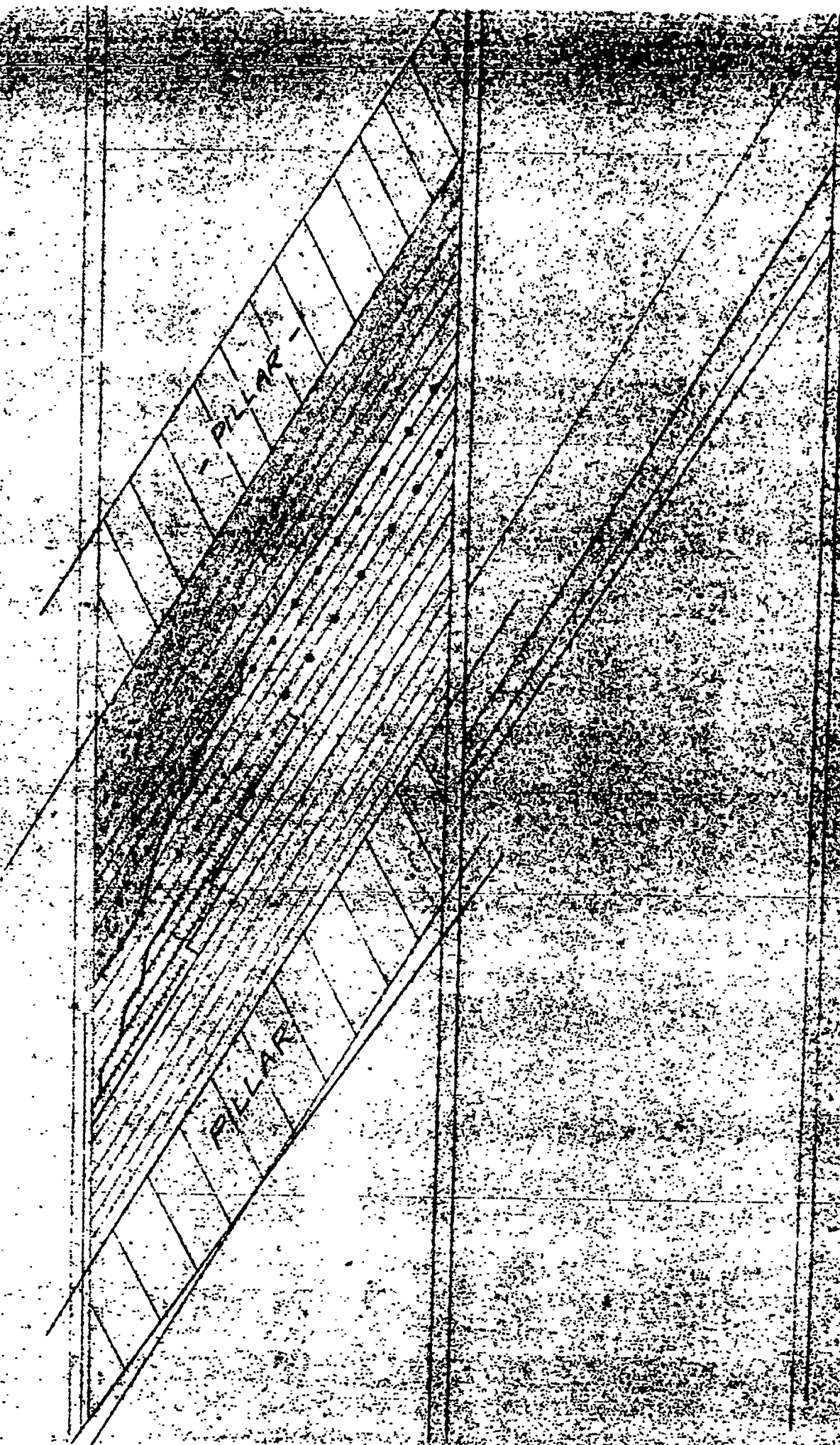
November 19, 1948

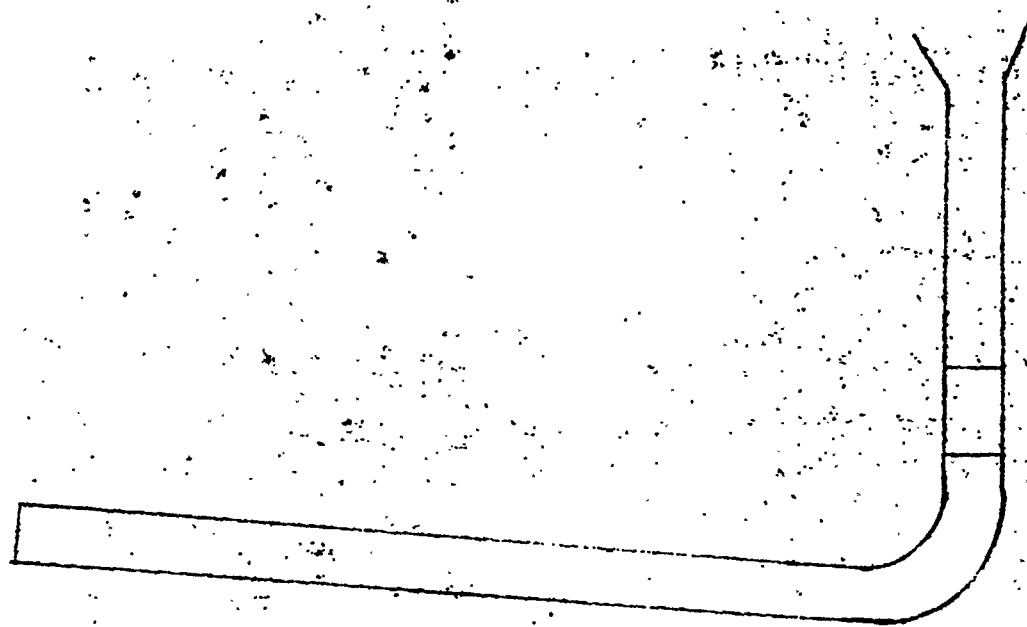
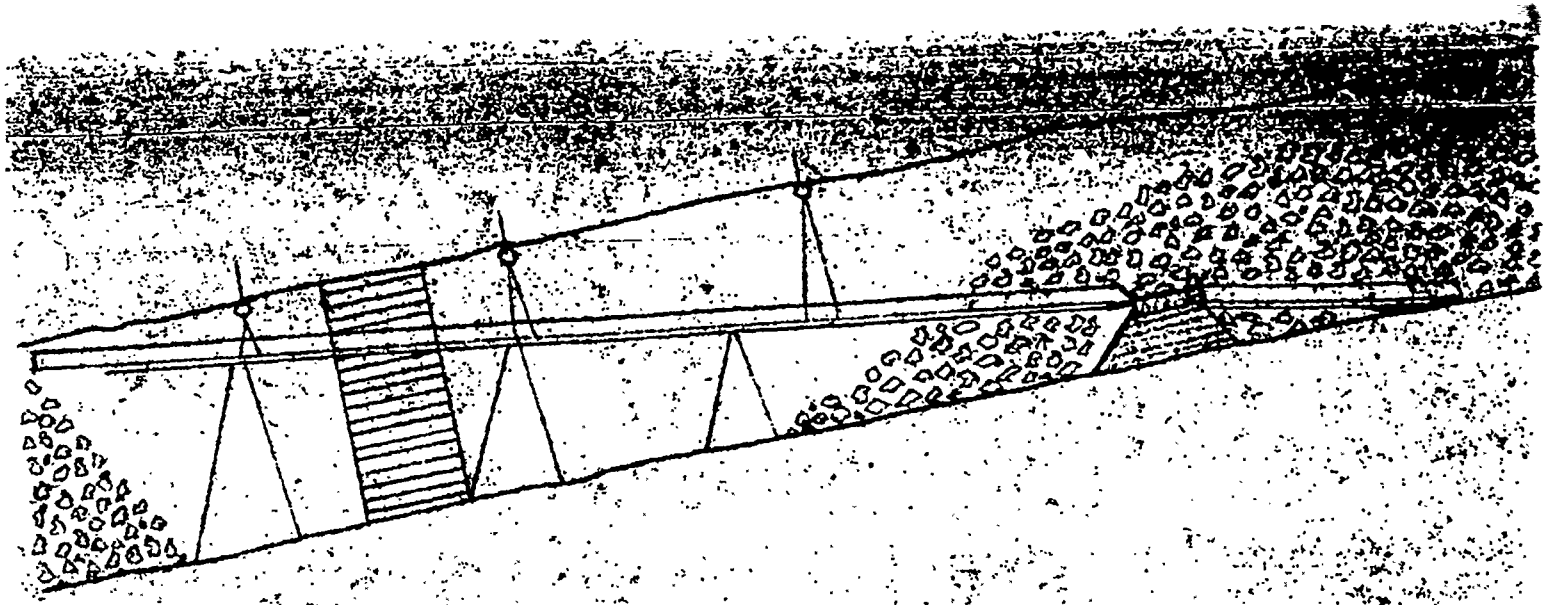


Rubber mounted drill rig
Drills in tandem









START, COPY

INITIALS

DATE

BOX NO./FILE DRAWER NO.

SEGMENT NO.

S 2172

SIGNIFICANT

NOTES

all - B & B

Early letters - Re: Mining
Listing

Manville → Australian Mines