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Reconstruction Finance Corporation Arizona Records

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RECONSTRUCTION FINANCE CORPORATION
MINING DIVISION
REPORT OF SUPERVISING ENGINEER
****

Docket No: B-120
Date Authorization for Examination: Sept 20, 1945
Date of Examination: Sept 25, 1945
Date of Report: October 10, 1945

Contact mine

1. NAME AND ADDRESS OF APPLICANT:

Wesley W. Cates
Route 3, Box 750
Tucson, Arizona

Correspondent: Wesley W. Cates
Tucson, Arizona

2. CHARACTER OF PROJECT:

Applicant proposes to sink shaft and buy equipment to develop a gold property.

3. LOCATION OF MINE:

In Southern part of Section 8, T. 22 S., R. 10 E. Arivaca Mining District, Pima County, Arizona. Actually the mine is in the Northern part of the Oro Blanco mining district which is mostly in Santa Cruz County, Arizona.

Nearest railway station is Amado, Arizona, approximately 35 miles by dirt road. The mine is reached from Arivaca, Arizona over 5 miles of unimproved dirt road that follows an arroya part way.

4. APPLICANT:

Mr. Cates is 75 years old, pretty well preserved, but unable to do any work around the mine except supervision. He claims that his sons will help mine the ore, but one son is a plasterer, making between $18.00 and $20.00 a day, and another one works at Consolidated Vultee, who might be available in a few months.

5. LOAN REQUESTED:

Applicant applies for a loan of $4700.00.

6. DESCRIPTION OF PROJECT:

Applicant has ten unpatented mining claims acquired by a Quit-Claim Deed from Guy W. Cates, apparently one of applicant's sons. Most of the work done by the applicant has been on the Contact No. 2 where an inclined shaft dipping 33 degrees has been sunk for 140 feet (See Maps). This shaft was sunk near an old caved shaft which was, no doubt, sunk at some earlier date. On the surface, about 125 feet south of inclined shaft, applicant has sunk a small hole about 15 feet deep on a steeply dipping vein which shows some copper coloration.

Surface water nearly fills the shallow shaft, but it is the vein exposed in this shaft which applicant desires to intersect by sinking the inclined shaft an additional 60 feet. The property is like any place that has not received any care for four years or more. The collar of the shaft is caved in, loose rock fills the shaft for 30 feet and all equipment has been removed. Even the concrete foundations have been broken by hammers. Equipment which applicant lists, lies on the ground about 0.3 miles from the shaft near where the applicant once had a camp. Engines for hoist and compressor have been stolen. From a casual inspection of the material which the applicant listed in his application as equipment, junk would properly classify it as it is not worth repairing.

History and Production:

The property is known as the Old Tunnel or Old Contact Mine and was acquired by the applicant in 1931 when he sank the present incline shaft. Later he shipped some ore in 1934 and 1939 as per data submitted. On April 27, 1934 he received from the smelter at El Paso, Texas, $52.24 for 1.064 tons of ore that assayed 1.55 ounces gold, 8.6 ounces silver, 26.7 percent lead and .95 percent copper. Later in the year, August 22, 1934, he made a shipment of 1.113 tons of ore to Miller's Assay Office, Nogales, Arizona that assayed 0.59 ounces gold, 12.4 ounces silver, 10.0 percent lead and 1.4 percent copper. After deductions he received 16.80. Another settlement sheet, from Miller's Assay office May 16, 1939, shows a shipment of 1.101 tons of ore by a lessee that assayed .70 ounces gold and 1.6 ounces silver. After deductions, the ore was worth $10.05. Thus, there has been shipped 3.3 tons of ore, However, it is noted that two shipments contained lead whereas the other had none. I believe that the ore shipped has come from two different properties, one which contained lead (probably the Old Tunnel Mine) and the one which has no lead (see assay sheet on applicants ore) the Old Contact Mine.

Sampling:

My examination consisted of a casual inspection of the equipment, a tape and compass survey of the surface and underground workings and the cutting of samples. Some of the samples were taken at the same place the applicant cut his. But the applicant did not show the widths of his samples. Applicant also mentioned that other engineers had taken their samples across the whole width of the quartz-tourmaline zone and that the samples did not represent what he considered ore. I, therefore, suggested to the applicant that he indicate the width of the ore on each sample. As you will note, the widths of the ore sample are narrow. The following is a description of the samples which I cut.

Sample No. 154 was cut 140 feet from collar of shaft on the east side across 18 inches of iron-stained massive white quartz. It assayed .04 ounces gold.

Sample No. 155 was cut 120 feet from collar of shaft on the east side across 21 inches of iron-stained massive white quartz. It assayed .40 ounces gold.

Sample No. 156, taken at same place applicant's No. 6 was taken, is 110 feet from collar of shaft and cut across 6 inches of iron-stained massive white quartz. It assayed .48 ounces gold.

Sample No. 157, taken at same place applicant's No. 4 was taken, is 80 feet from collar of shaft and was cut across 13 inches of iron-stained massive white quartz. It assayed 1.12 ounces gold and 2.7 ounces silver.

Sample No. 158, taken at same place applicant's No. 2 was taken, is 2 feet in from the shaft at the 60 foot crosscut and was cut across 9 inches of iron-stained massive white quartz. It assayed .44 ounces gold and 3.8 ounces silver.

Sample No. 159, cut at same place applicant cut his No. 1, is in the small stope from the 30 foot cross-cut to the 60 foot cross-cut. It was cut across 15 inches of iron-stained massive white quartz and assayed .50 ounces gold and 1.7 ounces silver.

Description of Ore Deposit:

The ore deposit is of the sulfide - bearing quartz vein type, although no sulfides were observed. However, there was evidence in the form of limonite and hematite that pyrite would occur below the zone of oxidation. Exposures of the vein on the surface and underground indicate a N.65 to 70 degree W. strike and a 33 degree dip to the southwest, but the outcrop of the vein was not traceable except for a few feet beyond the underground workings. The quartz vein is between 6 and 7 feet thick and has a soft white volcanic ash deposit for a footwall and a massive light colored rhyolite for a hanging wall. According to the applicant's statement much of the quartz vein-the lower four feet which contains tourmaline or manganese oxide - has no value. Only the massive white quartz with disseminations and bunches of iron oxide contain the gold values and this quartz lies directly beneath a 2 inch gouge slip that separates it from the rhyolite hanging wall. Long association with the ore apparently separates it from the footwall quartz containing the tourmaline and manganese oxides. This makes difficult mining as all the ore must be sorted. Also the ore bearing quartz pinches against the gouge slip both laterally and along the dip forming lenticular bodies varying in thickness between 6 and 20 inches.

Ore Reserves and Grade of Ore:

Applicant has a small shoot of ore that averages 1.1 feet thick, 100 feet long and 30 feet wide and .46 ounces gold. This gives 275 tons of $14.87 value provided the ore could be skinned off clean. The total value of the ore is about $4000.00 which is less than the amount of loan applied for. Since it is an impossibility to mine the ore clean there will be a large delution factor because of the friability of the quartz.

7. COMMENTS OF SUPERVISING ENGINEER:

I do not recommend a loan to the applicant because of the following unfavorable factors. (1) Size of applicants ore body is small and has a value less than loan applied for. (2) Sampling indicates that ore body does not continue beyond No. 155. (3) Examination of underground exposures shows that the ore pinches out against fault slip both laterally and along dip, and (4) the ore can not easily be separated from the barren quartz-tourmaline gangue in mining.

Applicant is probably sincere and needs the money but a more favorable showing is necessary for favorable consideration.

CHARLES A. RASOR
Supervising Engineer

CAR:ch

Attachments:
Maps
Assay Data

CLAUDE E. McLEAN
P. O. BOX 1888

ARIZONA TESTING LABORATORIES

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS
823 EAST VAN BUREN STREET

TELEPHONE 3-6272

ASSAY CERTIFICATE

PHOENIX, ARIZONA, Sept. 28 1945

Mr. C. A. Rasor, Supervising Engineer, RFC.,
325 Heard Building,
Phoenix, Arizona

WE HAVE ASSAYED THE SAMPLES RECEIVED FROM YOU AND FIND THE RESULTS AS FOLLOWS:

GOLD FIGURED AT $ 35.00 PER OUNCE.

SILVER FIGURED AT $ 0.70 PER OUNCE.

LAB. FORM 2

LAB. NO.	SAMPLE	GOLD		SILVER		PERCENTAGES			
		OZ. PER TON	VALUE	OZ. PER TON	VALUE	COPPER	LEAD		
57945	#154 18" Qtz	0.04	$ 1.40	0.20	$0.14				
46	#155 21" Cut on wall	0.40	14.00	0.60	0.42		Fe stained Qtz		
47	#156 6"Cut across vein	0.48	16.80	0.70	0.49		"	"	"
48	#157 13"Cut across vein	1.12	39.20	2.70	1.89				
49	#158 60' crosscut	0.44	15.40	3.80	2.66		9" across vein		
50	#159 15" Cut Stope	0.50	17.50	1.70	1.19				
	Wesley Cates Property								

REGISTERED ASSAYER
CERTIFICATE EXPIRES
CLAUDE E. McLEAN
DEC. 31, 1945
ARIZONA, U. S. A.

RESPECTFULLY SUBMITTED,
ARIZONA TESTING LABORATORIES

BY Claude E. McLean ASSAYER

CHARGES $ 6.00

LAB FORM 1A

ARIZONA TESTING LABORATORIES

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS

PHONE 3-6272 | 823 EAST VAN BUREN STREET | P. O. BOX 1888

CERTIFICATE OF ANALYSIS

Phoenix, Ariz., October 3, 1945

No. 57991

Sample of Ore Received, 194

From Mr. C. A. Rasor, Supervising Engineer, RFC.

Marked Wesley Gates Composite #154-159

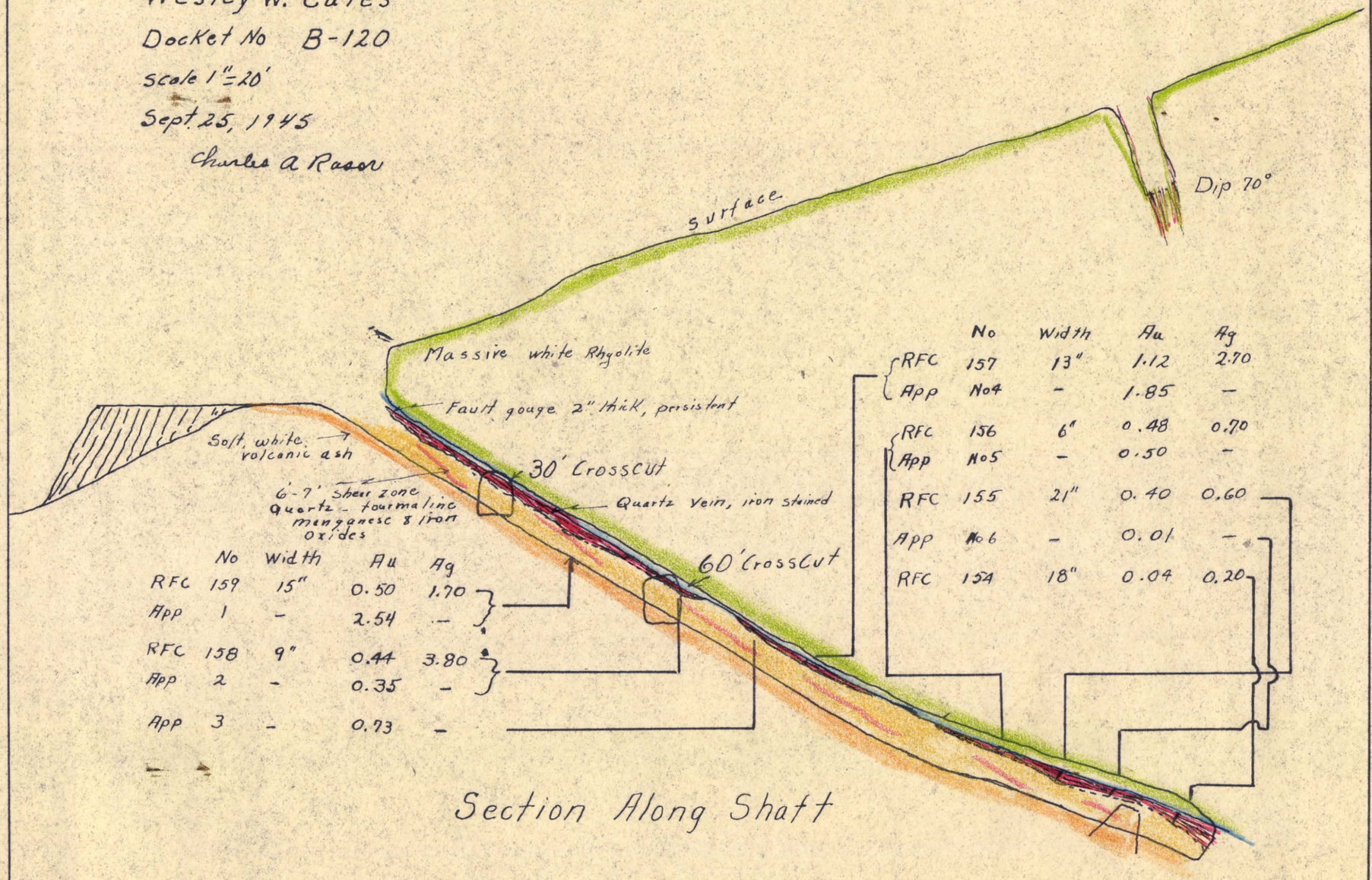
We have employed official methods in the examination of the above sample, and find the results as follows:

Lead (Pb)	2.04%
Silica (SiO_2)	78.10%

REGISTERED ASSAYER
CERTIFICATE EXPIRES
CLAUDE E.
McLEAN
DEC. 31, 19
ARIZONA, U.S.A.

Respectfully submitted,
ARIZONA TESTING LABORATORIES,
By Claude E. McLean Chief Chemist

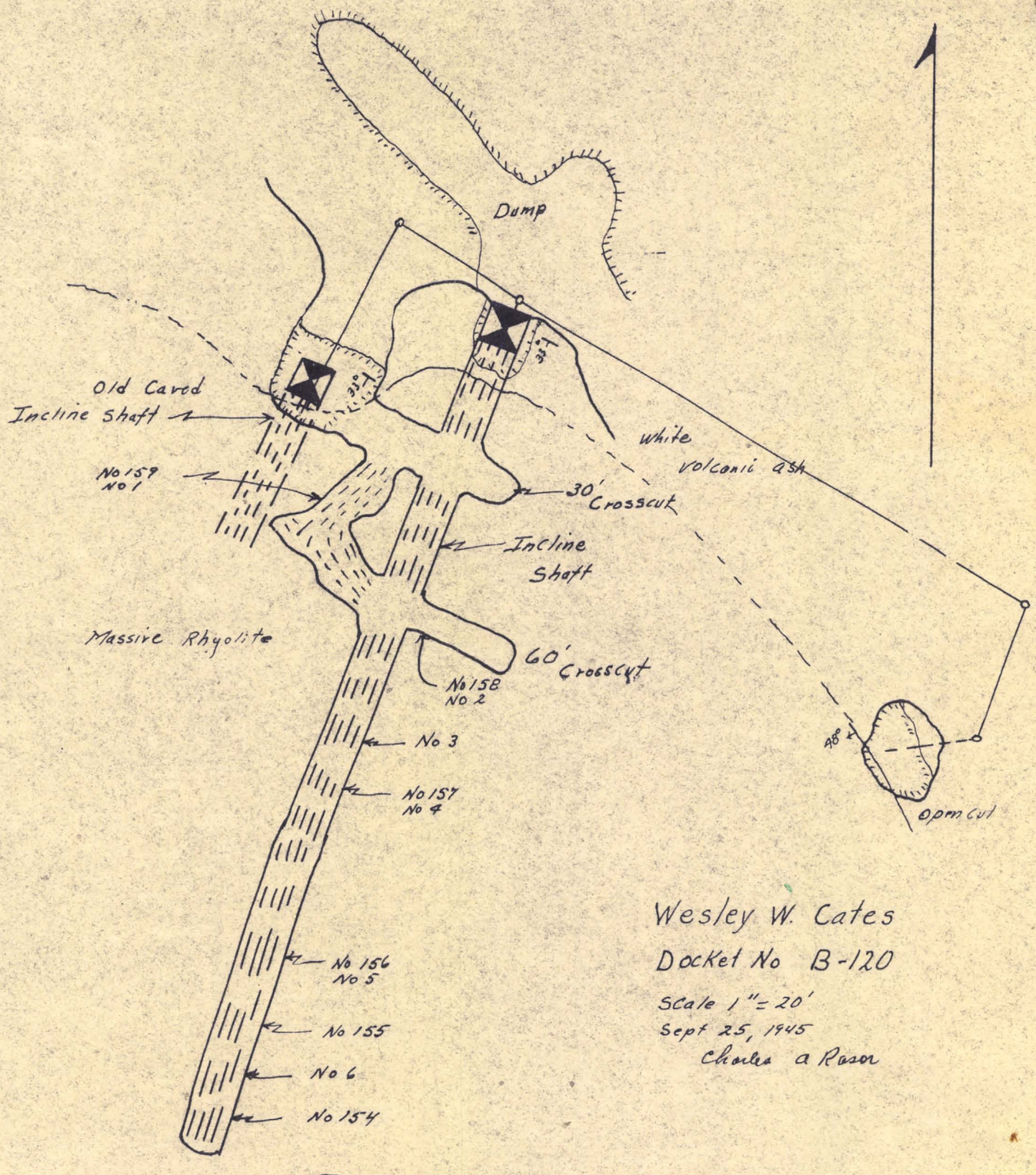
Wesley W. Cates
Docket No B-120
Scale 1" = 20'
Sept. 25, 1945
Charles A Rason



	No	Width	Au	Ag
RFC	159	15"	0.50	1.70
App	1	-	2.54	-
RFC	158	9"	0.44	3.80
App	2	-	0.35	-
App	3	-	0.73	-

	No	Width	Au	Ag
RFC	157	13"	1.12	2.70
App	No4	-	1.85	-
RFC	156	6"	0.48	0.70
App	No5	-	0.50	-
RFC	155	21"	0.40	0.60
App	No6	-	0.01	-
RFC	154	18"	0.04	0.20

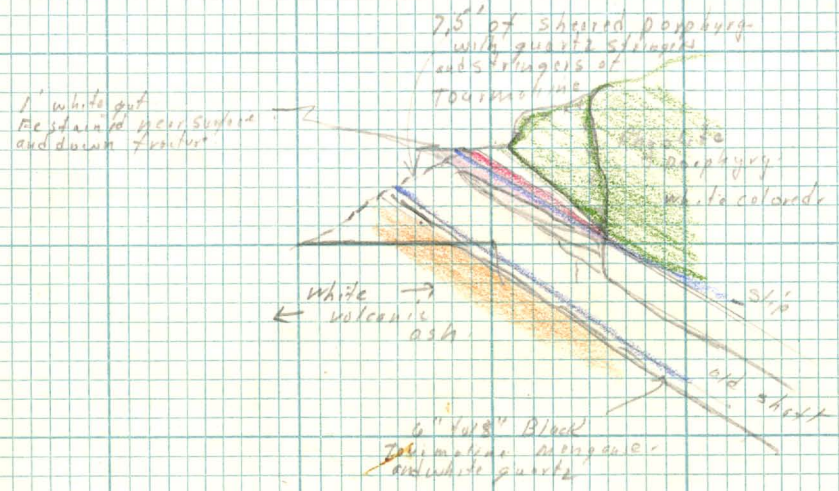
Section Along Shaft



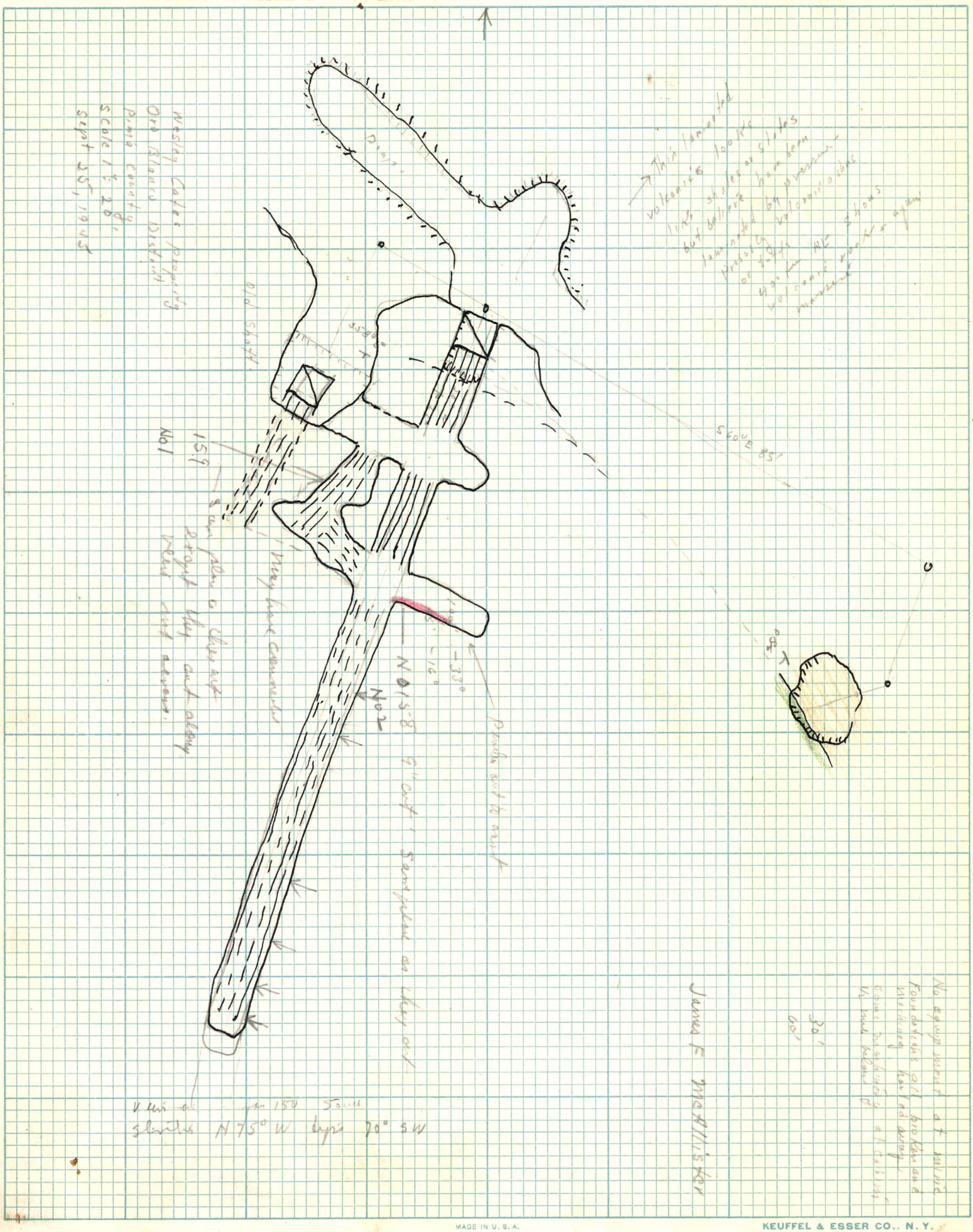
Wesley W. Cates
Docket No B-120
Scale 1" = 20'
Sept 25, 1945
Charles a Rason

PLAN

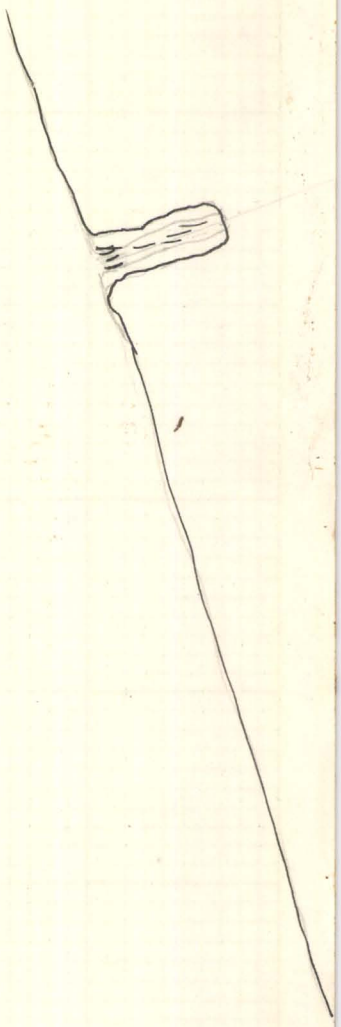
Section old Shaft
Scale 1" = 20'
Sept 25 1945



KEUFFEL & ESSER CO., N. Y.
10 × 10 to the inch.
MADE IN U. S. A.



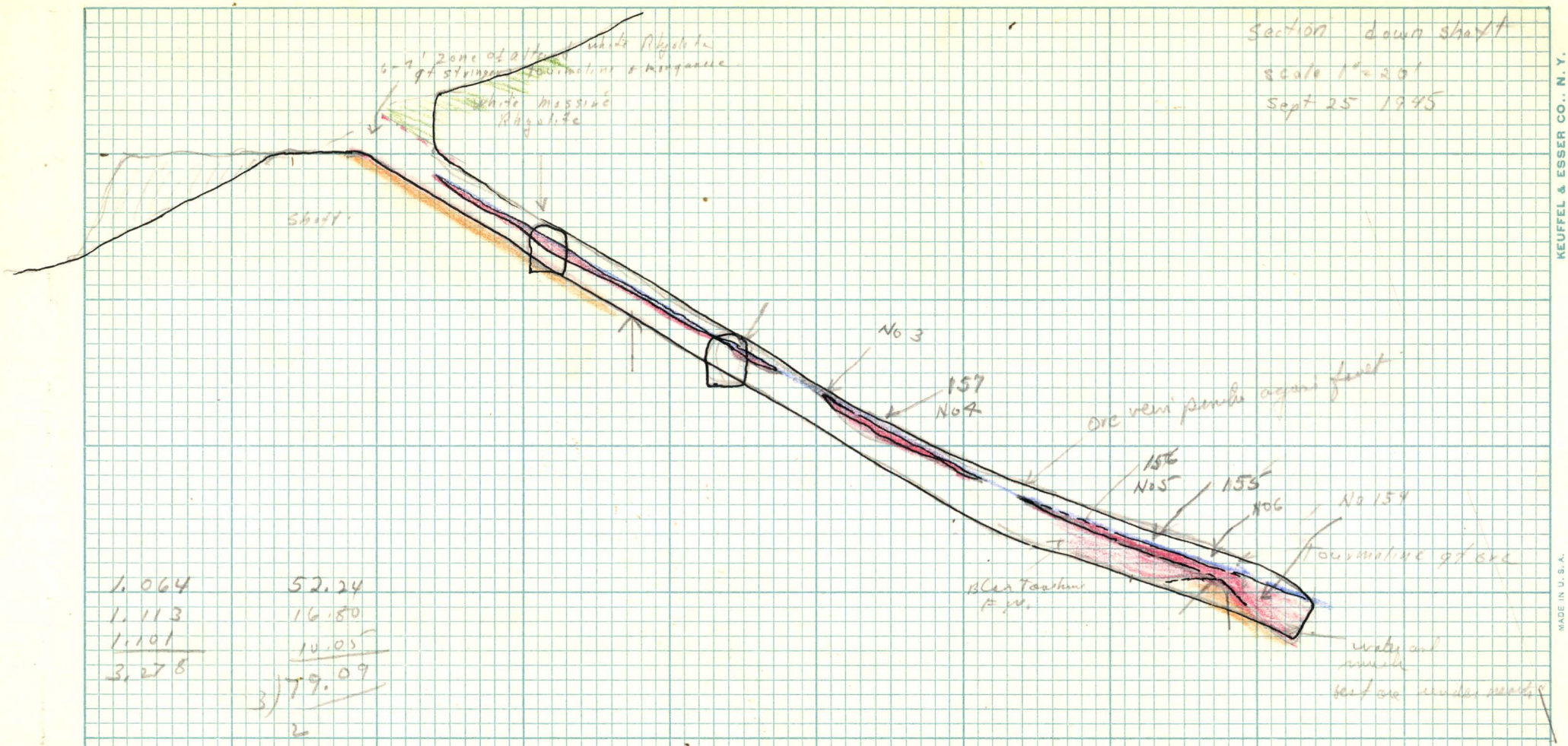
MADE IN U. S. A.
KEUFFEL & ESSER CO., N. Y.
10 × 10 to the inch.



Section down shaft

Scale 1" = 20'

Sept 25 1945



1.064	52.24
1.113	16.80
1.101	10.05
3.278	3)79.09
	26

Index Fossils
of
N. America

John Wiley & Sons
Grabau & Shimer

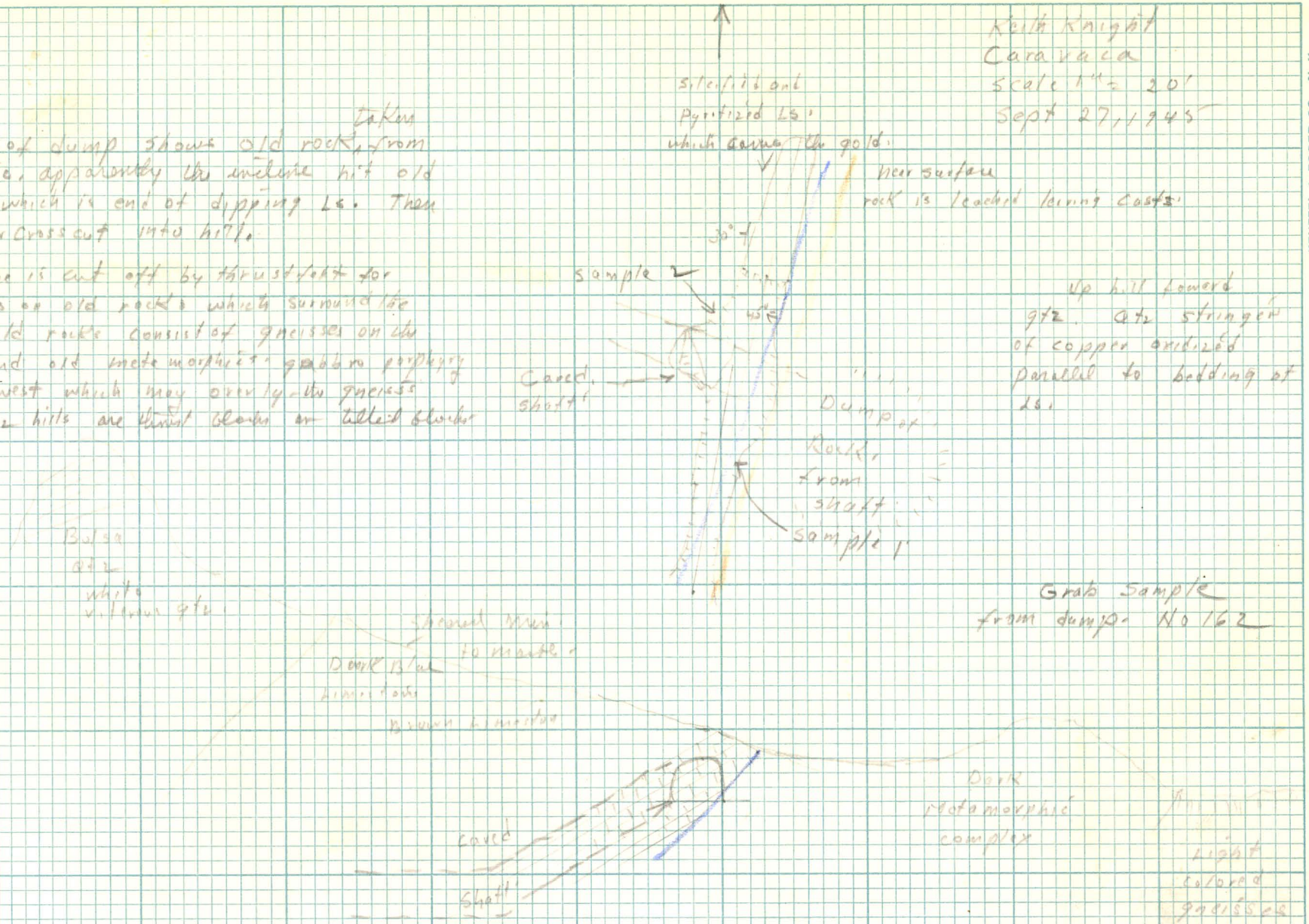
by
Shimer & Shrock

KEUFFEL & ESSER CO., N. Y.
10 × 10 to the inch.
MADE IN U.S.A.

Keith Knight
Caravaca
Scale 1" = 20'
Sept 27, 1945

Part of dump shows old rock, taken from incline, apparently the incline hit old rock which is end of dipping Ls. Then drift or cross cut into hill.

Ls stone is cut off by thrust fault for is rests on old rocks which surround the hill. Old rocks consist of gneisses on the east and old metamorphic gabbro porphyry on the west which may overly the gneiss. Ls + qtz hills are thrust blocks or tilted blocks.



Grab Sample from dump. No 162

KEUFFEL & ESSER CO., N. Y.
10 × 10 to the inch.
MADE IN U.S.A.