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PRINTED: 02-04-2013

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: TRENCH

ALTERNATE NAMES:
JOSEPHINE
LUNCH CANS

SANTA CRUZ COUNTY MILS NUMBER: 140B

LOCATION: TOWNSHIP 23 S RANGE 16 E SECTION 5 QUARTER NE
LATITUDE: N 31DEG 27MIN 54SEC LONGITUDE: W 110DEG 43MIN 45SEC
TOPO MAP NAME: LOCHIEL - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
LEAD
ZINC
SILVER
STONE DIMENSION
GOLD
MANGANESE MIL

BIBLIOGRAPHY:
INDEX OF MINING PROP. IN SANTA CRUZ CO.
HINTON
AZBM CARD FILE SANTA CRUZ CO.
ADMMR TRENCH FILE

TRENCH MILL

SANTA CRUZ COUNTY

MINING WORLD MAY 1963 p37

MINING WORLD JULY 1963 p40

METAL MINING & PROCESSING, APRIL 1964 p 25

E & M J October 1965 p 134

ABM Bull. 127, p 91

ABM Bull. 140, p 100

Mining Statistics West of the Rocky Mountains

R.W. Raymond, 1874, p. 389 (C.F. Willis Library)

USGS BULL. 582 - p 253, p 27

EAGLE-PICHER (geology file) (Trench-Josephine Mines)

Ariz. Mng. Journal, June, 1918, p. 43

Eagle-Picher Confidential Files "B" Big Jim (Blue Nose) report

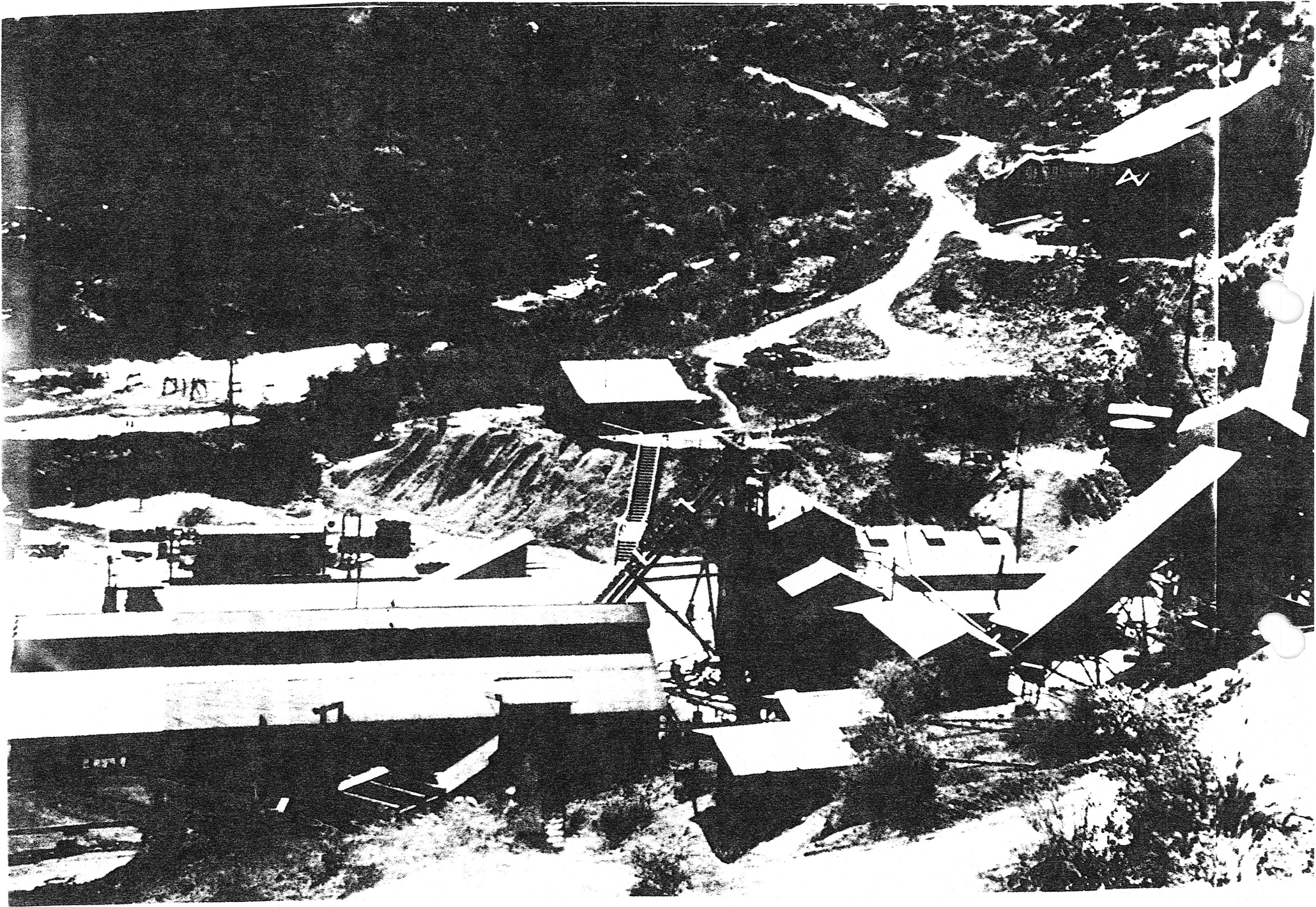
District File = Harshaw and Washington District file

USGS PP 658-E, p. 21-22

ABM Bull 191, p. 59

~~REDACTED~~

Harshaw 7.5 (included in file)



French mine and mill operated by American Smelting and Refining Co., Harshaw district, c. 1935. Courtesy of George Argall.

The Mining Environment

[REDACTED]

TRENCH MILL

SANTA CRUZ COUNTY

MG WR 9/11/81: Learned that the relatively large tailings pile at the Trench Mine has about $\frac{1}{2}$ oz Ag/Ton.

HEM WR 5/20/88: The Trench Mine, Santa Cruz County was visited. Evidently there was been no recent activity or exploration of any kind. A sizable land position is still held by ASARCO.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

C
O
P

Mine Flux Mine & Trench Mill

Date January 10, 1963 Y

District Harshaw District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from E. W. McFarland.

References: Report of Jan. 4, 1962.

Present Mining Activity: Mining and milling lead-zinc ores. 17 men working, 12 of these working in the mine, 4 at the mill and 1 in the shops. Both mine and mill works 1 shift, 6 days per week. Production about 1,000 tons per month.

Mining operations were discontinued on the 750 ft. and 670 ft. levels, because the ore remaining on these levels was too low grade for a profitable operation at the present prices for lead.

Stoping is being continued on the 590 ft., 430 ft. and 360 ft. levels of the mine.

Mill was shut down from Nov. 15 to Dec. 15 for repairs on motors. During this time the mine continued to operate, stockpiling the ore.

Trench Mine - fresh car tracks doors open, no one in sight at mine or mill.

McFarland shut down Trench Mill.

GWI WR 7/3/65

The Red Rock Mining Co. is cleaning up the mill spill at the Trench and shipping to ASARCO.

GWI WR 1/7/67

Visited Trench Mine - the mill has been removed from property.

GWI WR 3/9/68

Flux and Trench properties inactive GWI WR 5/8/70

Mine visit at Trench mine area. Asarco is drilling in the area and it is reported that they have drilled a fairly deep hole, no figures given. GI WR 3-29-74

MG/WR 3/7/79 - Visited the Trench mine & mill site. The shaft and mill have been bulldozed over. Two large tailings areas are present with standing water; no vegetation on tails. ASARCO Inc. is diamond drilling a hole about 250 feet northwest of the old shaft...in the SW1/4, NE1/4, Sec. 5, T23S, R16E (protracted).

REFERENCE 1 FI ABGMT-USBM DATA

REFERENCE 2 F2 USBM FILES JANUARY AND NORTON MINE GROUP

REFERENCE 3 F3 (SCHRAEDER FRANK C. 1915, MINERAL DEPOSITS OF THE SANTA RITA AND PATAGONIA MOUNTAINS ARIZONA. USGS BULLETIN 582 p. 252-253 ✓)

REFERENCE 4 F4 KARTCHNER, WAYNE E. 1944. THE GEOLOGY AND ORE DEPOSITS OF A PORTION OF THE HARSHAW DISTRICT, PATAGONIA MOUNTAINS, ARIZONA. PH.D. THESIS UNIVERSITY OF ARIZONA. p. 95-96.

C43< 60% Zn, 40% Pb, 7 OZ. ITON Ag, AND MINOR CU AND AU >
L110< MINING CO. IN 1882; PROPERTY COMPRISES 2 PATENTED CLAIMS >

M110 < ON NORTHERN CONTINUATION OF RED BIRD DIKE OR VEIN, WHICH STRIKES N30W, DIPS 7-5 NE, AND IS 6-7 FT. WIDE >

M220 < SHAFT >

K4 < GANGUE STAINED WITH LIMONITE AND A LITTLE LEAD CARBONATE >

N15 < CAMP AREA >

N30 < ARE BARREN OF ORE >

DIO < WORKED FROM EARLY 1870'S FOR HIGH-GRADE SILVER, AND IN 1925-1928 AND 1944-1949 FOR ZINC AND LEAD >

F5 < KEITH, STANTON B. 1975 INDEX OF MINING PROPERTIES IN SANTA CRUZ COUNTY, ARIZONA;
ARIZONA BUREAU OF MINES BULLETIN 191, p. 59 >

F6 < ARGMT FILES STANTON B. KEITH >

F7<ADMR FILE DATA: JANUARY MINE: TRENCH MILL>

FS< ABGMMT CLIPPINGS FILE: JANUARY MINE: TRENCH MINE>

F9< SIMONS, FRANK S. 1974 GEOLOGIC MAP AND SECTIONS OF THE MOGALES AND LOCHIEL
QUADRANGLES, SANTA CRUZ COUNTY, ARIZONA: USGS MAP I-762 (1:48000)>

FIG 5 SIMONS, FRANKS, 1972 MESOZOIC STRATIGRAPHY OF THE PATAGONIA MOUNTAINS AND ADJOINING AREAS, SANTA CRUZ COUNTY ARIZONA. USGS PROFESSIONAL PAPER 658-E p 21-22

MILS# 58A

U.S. CRIB-SITE FORM

RECORD IDENTIFICATION

RECORD NUMBER B10 () *RECORD TYPE B20 (X, 1, M) DEPOSIT NUMBER B40 ()
REPORT DATE G1 (2, 2, 0, 3) INFORMATION SOURCE B30 (1, 2) *FILE LINK IDENT. B50 (USRM-004023 0061)
YR MO
REPORTER(SUPERVISOR) G2 CALDER SUSAN R. (last, first, middle initial)
REPORTER AFFILIATION G5 ABG-MT *SITE NAME A10 JANUARY AND NORTON MINE GROUP
SYNONYMS A11 PADREZ: BLUE FLAG AND RED BIRD, UNCLE GEORGE

LOCATION

MINING DISTRICT/AREA	A30	< HARSHAW DISTRICT			
COUNTY	A60	< SANTA CRUZ	>	* STATE A50	< AZ >
				* COUNTRY A40	< U.S. >
PHYSIOGRAPHIC PROV	A63	< 12th			
DRAINAGE AREA	A62	< 15.059301, 1. LOWER COLORADO	>	LAND STATUS	A64
QUADRANGLE NAME	A90	< LOCHIEL	< 1958 >	QUADRANGLE SCALE	A100
SECOND QUAD NAME	A92	< HARSHAW	< 1948 >	SECOND QUAD SCALE	A91
ELEVATION	A107	< 4900 FT >			

UTM
• NORTHING A120 < 3481800 >
• EASTING A130 < 525720 >
• ZONE NUMBER A110 < +12 >

*ACCURACY

ACCURATE **ACC** (circle)

ESTIMATED **EST** < _____

GEODETIC
*LATITUDE A70 <31-28-21 N>
*LONGITUDE A80 <110-43-45 W>

CADASTRAL

*TOWNSHIP(S) A77<0225>
*SECTION(S) A79<32>
*SECTION FRACTION(S) A76<SE>
*MERIDIAN(S) A81<GILA AND SALT RIVER>

LOCATION COMMENTS A83 < RED BIRD MINE, ALSO KNOWN AS UNCLE GEORGE OR NORTON MINE, IS JUST EAST OF ROAD; JANUARY MINE IS ABOUT 1/3 MILE NORTH OF THE RED BIRD ON THE NE SIDE OF FLUX CANYON

COMMODITY INFORMATION

COMMODITIES PRESENT C10 Zn, Ag, Pb, Cu, Mn
 ORE MINERALS C30 ARGENTITE, GALENA, SPHALERITE, PYRITE, CERUSSITE, MINOR CHALCOPYRITE AT DEPTH
 COMMODITY SUBTYPES C41
 GEN. ANALYTICAL DATA C43 EARLY 1900'S ASSAY VALUES AVERAGED 35% Pb, 60 OZ./TON Ag; 1940 VALUES AVERAGED
 COM. INFO. COMMENTS C50

SIGNIFICANCE

MAJOR PRODUCTS MAJOR Zn, Pb, Ag
 MINOR PRODUCTS MINOR Au, Cu
 POTENTIAL PRODUCTS POTEN
 OCCURRENCES OCCUR Mn

NON-PRODUCER
 MAIN COMMODITIES PRESENT C11
 MINOR COMMODITIES PRESENT C12
 OCCURRENCES OCCUR

*PRODUCTION

PRODUCER
 PRODUCTION YES (circle) PRODUCTION SIZE SML MED LGE (circle one)

NON-PRODUCER
 PRODUCTION UND NO (circle one)

*STATUS

EXPLORATION OR DEVELOPMENT

PRODUCER
 STATUS AND ACTIVITY A20 H

NON-PRODUCER
 STATUS AND ACTIVITY A20 L

DISCOVERER L20 PADREZ (?)
 YEAR OF DISCOVERY L10 1870'S NATURE OF DISCOVERY L30 B YEAR OF FIRST PRODUCTION L40 1925 YEAR OF LAST PRODUCTION L45 1949
 PRESENT/LAST OWNER A12 J. NASH AND E. MCFARLAND (1954-?)
 PRESENT/LAST OPERATOR A13
 EXPL./DEV. COMMENTS L110 OWNERS AND OPERATORS INCLUDED JANUARY MINES CO., AMERICAN SMELTING AND REFINING CO., BLUE FLAG MINING CO., FARRELL, BIG JIM MINES INC.; MINES RELOCATED BY BLUE FLAG; FRANK GALLAGER AND ASSOCIATES

DESCRIPTION OF DEPOSIT

DEPOSIT TYPE(S) C40 VEIN, CONTACT METASOMATIC
 DEPOSIT FORM/SHAPE M10 TABULAR, POCKETS
 DEPTH TO TOP M20 450 UNITS M21 FT MAXIMUM LENGTH M40 2500 UNITS M41 FT
 DEPTH TO BOTTOM M30 450 UNITS M31 FT MAXIMUM WIDTH M50 20 UNITS M51 FT
 DEPOSIT SIZE M15 SMALL M15 MEDIUM M15 LARGE (circle one) MAXIMUM THICKNESS M60 75 NE UNITS M61
 STRIKE M70 N53W DIP M80 75 NE PLUNGE M90
 DIRECTION OF PLUNGE M100
 P. DESC. COMMENTS M110 MINERALIZED RHYOLITE DIKE IS 15-20 FT WIDE; CONSIDERABLE MANGANESE CONTAINED IN DIORITE, AS MUCH AS 4 FT. FROM CONTACT ON NE OR HANGING-WALL SIDE; JANUARY MINE LOCATED

DESCRIPTION OF WORKINGS

Workings are: SURFACE M120 UNDERGROUND M130 BOTH M140 (circle one)
 DEPTH BELOW SURFACE M160 500 UNITS M161 FT OVERALL LENGTH M190 UNITS M191
 LENGTH OF WORKINGS M170 UNITS M171 OVERALL WIDTH M200 UNITS M201
 DESC. OF WORK. COM. M220 JANUARY MINE WORKINGS INCLUDED 2 VERTICAL, TIMBERED SHAFTS, SEVERAL CROSS-CUTS; ONE SHAFT ON THE RED BIRD CLAIM; JANUARY SHAFT IS 500 FT DEEP, HORTON SHAFT (NORTH END OF PROPERTY) IS 120 FT DEEP; TUNNEL CONNECTS 500-FT LEVEL OF JANUARY SHAFT WITH TRENCH

GEOLOGY

AGE OF HOST ROCK(S) K1 L.C.R.E.T.
 HOST ROCK TYPE(S) K1A COARSE RHYOLITE INTRUSIVE DIKES
 AGE OF IGNEOUS ROCK(S) K2 L.C.R.E.T.
 IGNEOUS ROCK TYPE(S) K2A GRANODIORITE AND QUARTZ DIORITE; PORPHYRIC TRACHYANDESITE
 AGE OF MINERALIZATION K3 L.C.R.E.T.-TERT.
 PERT. MINERALS (NOT ORE) K4 CONSIDERABLE AMOUNTS OF ALUM AND SULFUR LEACHED FROM RHYOLITE AND MINE DUMP; QUARTZ
 ORE CONTROL/LOCUS K5 CONTACT OF RHYOLITE DIKE WITH DIORITE COUNTRY ROCK; VEINS ASSOCIATED WITH DIKE
 MAJ. REG. TRENDS/STRUCT. N5 RHYOLITE SIMILAR TO THAT OF RED MOUNTAIN
 TECTONIC SETTING N15 MEADOW VALLEY TRACHYANDESITE FLOW; THICK LAVA FLOWS OF HARSHAW-TRENCH
 SIGNIFICANT LOCAL STRUCT. N70 ISOLATED OUTCROPS OF LIMESTONE OCCUR NEAR DIKE
 SIGNIFICANT ALTERATION N75 WALL ROCK IS LOCALLY STRONGLY PYRITIZED AND PROPYLITIZED
 PROCESS OF CONC./ENRICH. N80 SECONDARY ENRICHMENT; MINERALIZATION IS NOT UNIFORM IN DIKE AND SOME SECTIONS
 FORMATION AGE N30 G.R.E.T.
 FORMATION NAME N30A COMANCHE LIMESTONE
 SECOND FM AGE N35
 SECOND FM NAME N35A
 IGNEOUS UNIT AGE N50 L.C.R.E.T.
 IGNEOUS UNIT NAME N50A JOSEPHINE CANYON DIORITE
 SECOND IG. UNIT AGE N55
 SECOND IG. UNIT NAME N55A
 GEOLOGY COMMENTS N85 SO-CALLED JANUARY-NORTON VEIN LIES TO NE OF TRENCH VEIN SYSTEM

GENERAL COMMENTS

GENERAL COMMENTS GEN SEE ALSO: TRENCH MINE (OPERATED IN CONTINUATION WITH JANUARY MINE BY AMERICAN SMELTING AND REFINING CO.); WORLD'S FAIR MINE FOR GEOLOGIC INFORMATION

1500
H. SOW

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

110°45' 524000m E.
31°30'

42'30"

3484000m N.

3.3 MI. TO ARIZ. 82

T. 22 S.

T. 23 S.

27'30"



Daily Mining Record
(Denver)
November 14, 1910

TRENCH CONSOLIDATED COMING TO FRONT

Salt Lake City, Utah, Nov. 14.—
Advices just received from Harshaw,
Ariz., are to the effect that the Trench
Consolidated Mines company's devel-
opments is bringing that property to
the front. Only a few men are work-
ing at present. Recently a large body
of high-grade silver-lead ore was en-
countered. Mr. Newman, the manager,
stated a short time ago that they ex-
pect to start work permanently by the
first of the year, and that the com-
pany contemplate erecting a 100-ton
mill on the property.

MINING WORLD 3/1963

December 1964
Metal Mining & Processing

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Flux Mine & Trench Mill

Date Jan. 4, 1962

District Harshaw District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from E. W. McFarland. mgr.

*Nash & McFarland
Box 172, Nogales, Ariz.*

C
O
P
Y

References Report of Sept. 7, 1961.

Present Mining Activity Mining and milling lead-zinc ores. 30 men working, 26 of these working in the mine, 3 at the mill, and 1 in the shops. Both mine and mill now works 1 shift, 6 days per week. Production now about 2,000 tons per month.

Operators are not, at present, doing any custom milling. Alvaro Alvarez and Armando Majalco, who operates the Indiana Mine, and who, previous to about Oct. 1, shipped their ore to the Trench mill for milling, are now shipping their ore to the Peru Mining Co. mill at Deming, N. Mex.

Mr. McFarland reports that no work is done on the Bonanza Mine at the present time. A small amount of exploration work was done at this mine by McFarland and Nash in Oct. and Nov. (see Memorandum of Nov. 9, 1961), but this was discontinued some time ago. Mr. McFarland states, however, that some diamond drilling on the Bonanza will be considered at a later date.

Active Feb. 1962

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

C O P Y

Mine FLUX MINE & TRENCH MILL

Date Sept. 7, 1961

District Harshaw District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from E. W. McFarland

References - Report of July 6, 1961

Present Mining Activity - Mining and milling lead-zinc ores. 47 men working, 38 working in the mine, 7 at the mill, and 2 in the shops. Mine is now working one shift, 6 days per week. Mill is working two shifts, 6 days per week. Production now about 3,000 tons per month.

Operators are also doing custom milling for Alvaro Alvarez and Armando Majalca, who are operating the Indiana Mine. This amounts to about 50 tons per month.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

COPY

Mine Flux Mine & Trench Mill

Date July 6, 1961

District Harshaw District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Present Status. Information from E. W. McFarland.

References: Report of April 6, 1960 and previous reports.

Present Mining Activity Production of lead and zinc ores, mining same at the Flux Mine and milling the ore in the Trench mill. 47 men working, of which 38 are working in the mine, 7 at the mill, and 2 in the shops. Mine is working 1 shift, 5 days per week, and 2 shifts when the mill is short of ore. Mill is working 2 shifts, 5 days per week. Production is about 2,800 tons per month. The lead concentrates are shipped to the A.S. & R. smelter at El Paso, and the zinc concentrates are shipped to Amarillo, Texas.

Ore Purchases Operators are also purchasing ore for the Indiana Mine, operated by Alvaro Alvarez and Armado Majalca. This amounts to about 20 tons per month, one shipment of 52 tons being made in March, and another of 50 tons in June.

TRENCH MILL

SANTA CRUZ COUNTY
HARSHAW DIST.

Approximately 2,500 tons of ore per month are being mined and milled by the operators of the Flux Mine and Trench mill in the Harshaw district of Santa Cruz County, Arizona. A crew of 37 men is employed, 29 in the mine, working one shift; six in the mill working two shifts; and two in the shops. The operation is directed by E. W. McFarland, Nogales, Arizona.

MINING WORLD, June, 1960, p 61

See: MINING WORLD, July, 1960, p 58

This property active Sept. 1960, Feb. 1961

The crushing plant and flotation concentrator at the Trench Mine near Patagonia is being operated by the firm of Nash and McFarland. The Mill is handling custom ores and a lead zinc-copper ore from the Flux mine in the Harshaw mining district. Mill capacity is 200 tons per shift.

Republic - 6-25-61 - by John L. Parker.

Nash and McFarland, of Washington Camp and Patagonia, continue their operation of the Trench Mill, principally on lead-zinc-copper ores from the Flux Mine, but partially on custom ores. They employ over 40 men in this operation, and ship their concentrates by rail to the El Paso and Amarillo smelters.

Taken from ENGINEERING & MINING JOURNAL - April, 1961, p 120

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Flux Mine & Trench Mill

Date April 6, 1960

District Harshaw District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Present Status. Information from E.W. McFarland and personal visit.

References: Reports of December 2 and September 18, 1959, and previous reports.

Present Mining Activities: Producing lead and zinc ores and milling same. 47 men working, of which 38 are working in the mine, 7 at the mill, and 2 in the shops. Both the mine and mill are working 2 shifts, 6 days per week, production is about 3100 tons per month. The lead concentrates are shipped to A.S. & R. at El Paso and the zinc concentrates are shipped to Amarillo, Texas.

Ore Values: The ore mined is reported by McFarland to run approximately as follows:

Lead	4%
Zinc	8%
Silver	3.5 to 4.0 ounces
Gold	Trace

Ore Purchases: The operators Nash and McFarland are also purchasing ore from Armando De La Ossa and Oswaldo De La Ossa, operators of the Pride of the West mine, and concentrating this ore in the Trench mill. Since January 1, 1960, 156 tons of this ore has been purchased, which is reported to run approximately 2.5% copper, 2.5% lead and 10 to 11% zinc.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

C O P Y

Mine Flux Mine & Trench Mill

Date Dec. 2, 1959

District Harshaw District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Present Status. Information from E. W. McFarland and personal visit/

References Report of Sept. 18, 1959, and previous reports

Present Mining Activity Producing lead and zinc ores and milling same. 37 men working, of which 29 are working in the mine, 6 at the mill and 2 in the shops. The mine is working one shift and the mill 2 shifts, each 6 days per week. Production about 2,500 tons of ore per month. The lead concentrates are being stockpiled for the duration of the strike, while the zinc concentrates are being shipped to Amarillo, Texas, for smelting. Mr. McFarland reported that he will have a stockpile of from 750 to 800 tons of lead concentrates by Jan. 1, 1916.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

C O P Y

Mine Flux Mine and Trench Mill

Date September 18, 1959

District Harshaw District, Santa Cruz County

Engineer Axel L. Johnson

Subject: Present Status -- Information from L. T. O'Brien.

References: Report of April 9, 1959 and previous.

Present Mining Activity: Producing lead and zinc ores and milling same. 31 men working, of which 23 are working in the mine (17 on days and 6 on nights), 6 at the mill and 2 in the shops. Production about 2000 tons of ore per month. The lead concentrates are being stockpiled for the duration of the strike, while the zinc concentrates are being shipped to Amarillo, Texas, for smelting.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine FLUX MINE & TRENCH MILL

Date April 9, 1959

District HARSHAW DISTRICT --- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Present Status. Information from E.W. McFarland, operator, and personal visit.

References: Reports of Sept. 25, 1958 and Feb. 12, 1958.

Present Mining Activity: Producing lead and zinc ore and milling same. 38 men working 1 shift, 6 days per week. Production about 2,600 tons of ore per month. 4 men are employed on exploration and development. Exploration consists of U.G. diamond drilling with 1 rig, and some long hole drilling.

Additional: Electric power for the milling operations is now obtained from the Citizens Utility Company. Connection to this power supply was made on Mar. 12, 1959.

C O P Y

JOSEPHINE

SANTA CRUZ COUNTY
HARSHAW DISTRICT

The Trench Mine, which is now idle, and on which the Trench Mill now stands, is on the Josephine claim. The Trench mine, formerly operated by the A. S. & R. Co. is now idle, and has not been operated since about 1949. Jas. P. Nash and E. W. McFarland bought the mill, but I don't know for sure if that included the mining claim or not. Claim is located in the Harshaw District.

A. L. JOHNSON
Letter to Chas. H. Dunning
April 13, 1959

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Flux Mine and Trench Mill Date March 15, 1957
District Harshaw District, Santa Cruz Co. Engineer Axel L. Johnson
Subject: Mine Report. Information from A. E. Haeseler, Supt. Trench Unit, and R. S. Burton, Mine Superintendent.

Location Flux mine located about 7 miles south of Patagonia. Trench mill located about 10 miles south of Patagonia.

Owners and Operators American Smelting and Refining Co., 813 Valley National Bank Bldg., Tucson, Ariz. T. A. Snedden, Mgr. A. E. Haeseler, Supt. Trench unit. Jack Preston, Mill Supt. Trench mill. R. S. Burton, Mine Supt. Flux mine. S. H. Carlton, Mine Foreman, Flux mine. Ray Kenney, Master Mechanic Trench unit.

Principal Minerals Lead and Zinc.

Present Mining Activity Production of lead and zinc concentrates.

Number of men employed ----- 135 men; 105 at the Flux mine, 15 men at the Trench mill, and 15 men at the power house and shops.

Production ---- 4,000 to 4,200 tons per month from the Flux mine. This is milled at the Trench mill. In addition about 500 to 600 tons per month of custom ore, mostly from the Washington Camp area, is milled at the Trench. This ore is purchased by Co.

Geology and Mineralization See Mineral Deposits of the Santa Rita and Patagonia Mts. (Bulletin 582) by Frank C. Schrader 1915.----pages 258 to 263.

Ore Values Ore mined at the Flux mine is reported as averaging about 3.5 % lead, 3.5 % zinc, and 3 oz. of silver. There is very little copper in the ore, and there is no direct separation of the copper made at the mill. The lead concentrates are reported as running 2.8 % in copper.

Ore in Sight and Probable No figures reported by the management. Additional ore reserves are, from time to time, developed by the exploration work. This may be sufficient to continue mining operations for several years.

Milling and Marketing Facilities Ore from the Flux mine is milled at the Trench mill. Concentrates are shipped to the A. S. & R. Smelter at El Paso, Texas. In addition, the company purchases complex lead-zinc sulphide milling ores from producers in the Washington Camp and Patagonia districts. The company purchases this ore on schedules derived by a mill test of the ore made by their Deming concentrating plant at Deming, N. Mex.

TRENCH MILL

SANTA CRUZ COUNTY
HARSHAW DIST.

Mill working. ALJ Report 6-5-58

Producing and milling - See "Flux Mine" file
ALJ Report 9-25-58

See: "Min. Deposits of Santa Rita & Patagonia
Mtns." by Frank C. Schrader 1915-Bull 582-
pp 258-263,

1-24-58

Ray Davis

AMERICAN SMELTING AND REFINING COMPANY
Tucson Arizona

March 31, 1948

AIR MAIL

Mr. D.J. Pope, General Manager
American Smelting and Refining Company
Western Mining Department
Salt Lake Office

TRINCH UNIT
Palmachia, Arizona
January-Norton Development

Dear Sir:

Various plans and estimates have been made for the development of the January-Norton mine. The situation, as I see it, is herewith reviewed briefly.

DEVELOPED RESERVES AND LIFE AS OF JANUARY 1, 1948:

On January first, the ore reserve estimate shows available --

<u>Tons</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
24570	6.4 oz.	4.1%	5.3%

At, say 1700 tons per month, this is a little over one year's supply of ore, which supply includes around 6000 tons lying immediately below the 500 level, the present bottom level.

CHARACTER OF DEPOSIT AND POSSIBILITIES:

The vein is narrow, as a rule, values are erratic, considerable timbering is required, and an excessive amount of development has to be carried on. Practically all the ore mined and developed to the southeast of the cross cut to the shaft has come from what might be called "blind" development, in that there was no drilling to indicate ore, and there were no favorable showings in surface croppings or surface workings.

Development to the southeast is going on and we hope it may continue to find ore above the 500 level, but we have nothing definite to go on, and must feel our way. Development to the northwest has been disappointing and we do not feel optimistic as to that end of the mine.

We have no definite ore bodies developed by drilling below the 500 level. Based on the vein, as mined, on the 500 level, we have only the J-10 (or the Ore Reserve) block estimated to contain about 6000 tons and extending for about 30 feet below the 500 level for about

Mr. D.J. Pope
Trench Unit - January
Norton Development

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March 31, 1948

350 feet northwest from the shaft cross cut. There are indications of commercial ore in hole J-9 on Section 10 (map attached to Mr. Brown's letter to me of February 19, 1948) near the north end of block J-10, but this is some 200 feet below the 500 level; we also have indications of ore in the drilling from "500-70" cross cut at about Section 15.9 (map attached to Mr. Brown's letter to me of February 19, 1948); this ore is 400 feet to 600 feet northwest of the J-10 block, and the fan drilling on that section shows ore at various elevations to a depth of 265 feet vertically below the 500 level.

DEVELOPMENT PLANS SUGGESTED TO DATE:

A. Inclined winze on vein near shaft cross cut, per Mr. Brown's letter to me of December 29, 1947.

B. Vertical winze from 500 to 700 levels, per Mr. Brown's letter to me of January 24, 1948. This winze to be in the footwall of the vein and to be used for development to the north and south.

C. Unwater Josephine Shaft and cross cut to vein on Trench 700 level -- also see Mr. Brown's letter of January 24, 1948.

Any of these plans will cost \$40,000 to \$50,000, or more, and require a year or more to complete, and make no provision for any possible development below the 700 level.

Plans B and C would require raising to the 500 level from the 700 level in addition to the development as estimated. Unless we are unusually fortunate in opening up ore to the southeast, we are likely to be out of ore before these plans can be completed. Plan "A" could be modified by stopping the winze at, say 125 feet, and drifting under Block J-10; doing the balance of the sinking after Block J-10 was opened to some extent, assuming that the ore extended downward this 100 feet to 125 feet.

GENERAL:

This mine is a small mine producing, say 75 tons a day. The ore lenses are erratic. There is no large tonnage developed or assured. Because of its type it will always be a high operating cost mine. There is no justification at present for laying out a program costing \$50,000 to \$75,000 to develop the mine on the basis that, if enough ore is found, it can be mined cheaper than in the past and, if it holds up in value to current production or better, it might yield a profit.

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It is my opinion that we should take immediate steps to start a program to investigate this area below the 500 level, and that we should do it by feeling our way by the most economical method possible. Therefore, I suggest the following plan to be started now:

1. Start a drift from the shaft cross cut at approximately N. 6225 E. 5520 (about 70 feet toward the shaft from the intersection of the vein with the shaft cross cut). This drift to be driven northwesterly parallel to 500-1 drift N.W. until past a point under 563-2 raise, after which it is to swing back into 500-1 drift N.W. This drift will be about 200 feet long.
2. As soon as (1) is completed, make this drift the main haulage drift from the north section of the mine to the shaft; then sink an inclined two-compartment winze on the vein, or possibly on the footwall of the vein, directly below raise 563-2 at about N. 6345 E. 5525. Sink this winze 125 feet (approx.) or possibly 150 feet, and drift northward under Block J-10 and develop Block J-10 from it.
3. If the drifting from the bottom of this winze shows commercial ore, go on down another 150 feet with the winze, and drift northward again.
4. A small hoist and skip can be used here without much trouble as there will only be a small tonnage to handle in the winze for a year (approx.).
5. If developments justify it, we can later install a larger hoist up in 563-2 raise on the 470 sub-level, and put up a connecting raise from the haulage drift (Item 1) to use as an ore pocket. We could then go on down with this winze for 300 to 400 feet if necessary.

It is useless to estimate the cost of this program now, because any estimate would depend on where you made a "cut-off". The 200-ft. of drift (Item 1) and, say 150 feet of sinking might cost \$15,000 to \$20,000 spread over 5 or 6 months. I believe we should feel our way with a winze of this kind rather than try to lay out an elaborate program costing a lot of money and dependent entirely on possibilities only. I feel sure that with the small tonnage that will have to be handled, this winze will be entirely satisfactory for such a small mine.

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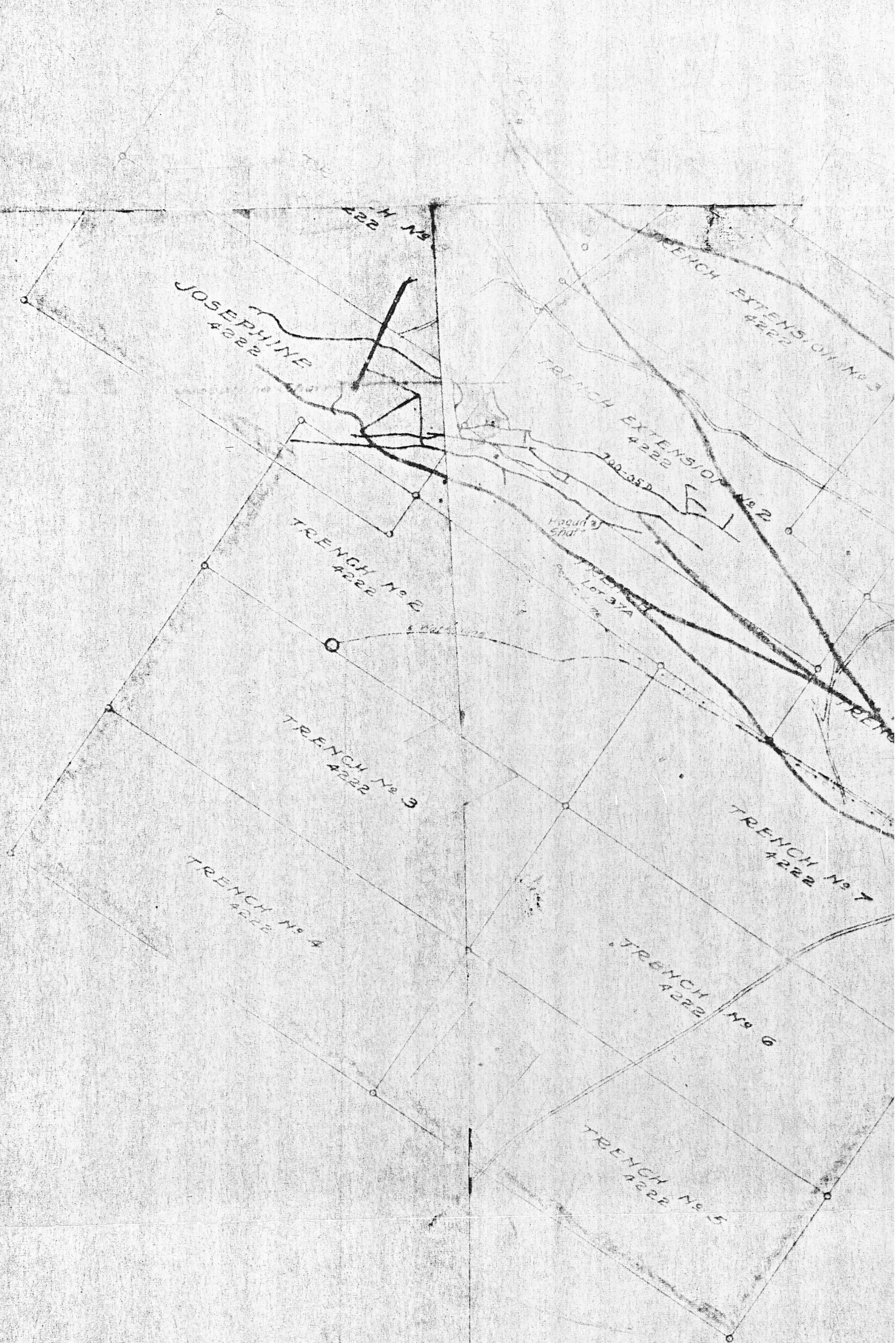
I will be glad to have your suggestions as to the above proposed plan, as I feel we should get started on this as quickly as possible.

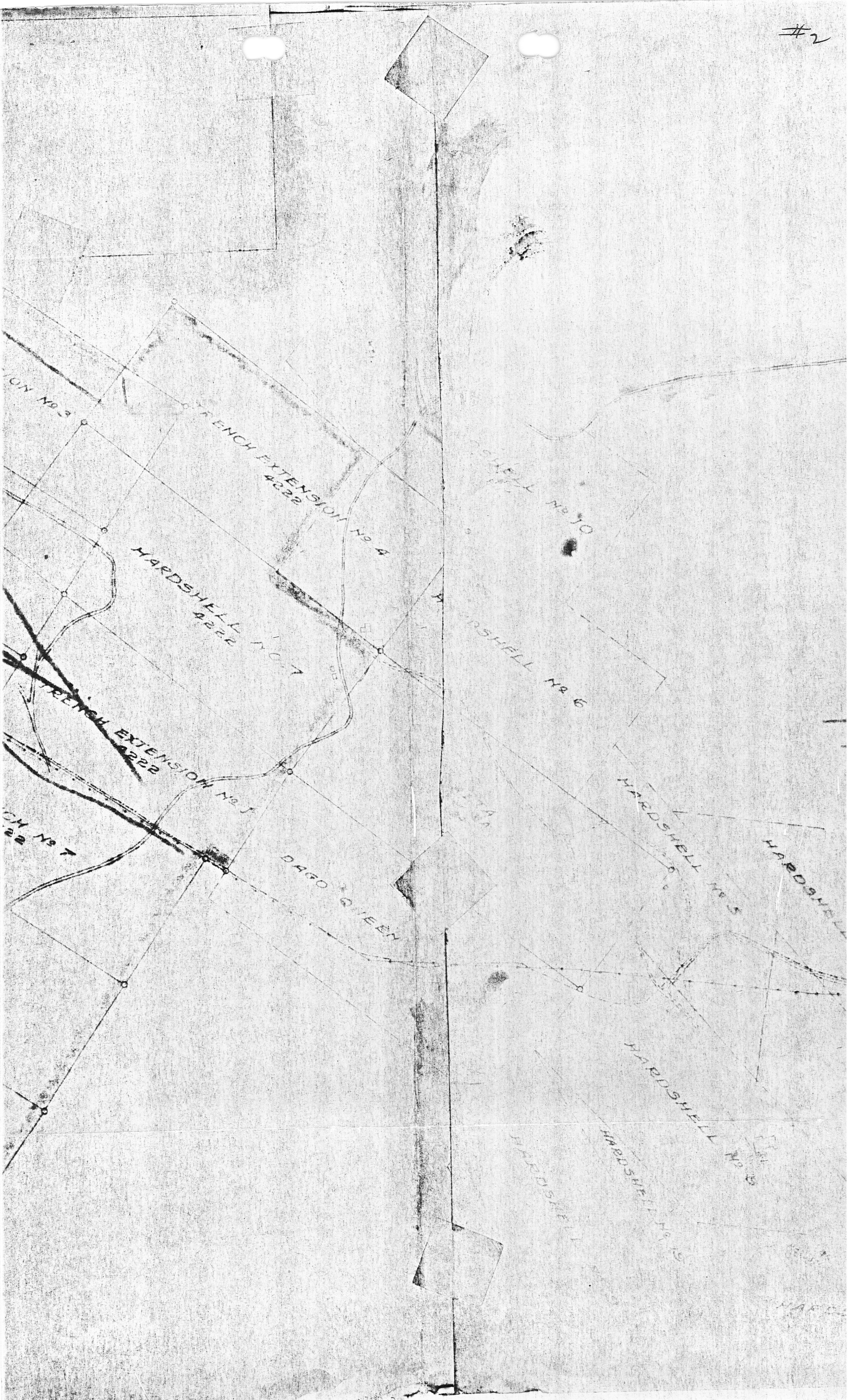
Very truly yours,

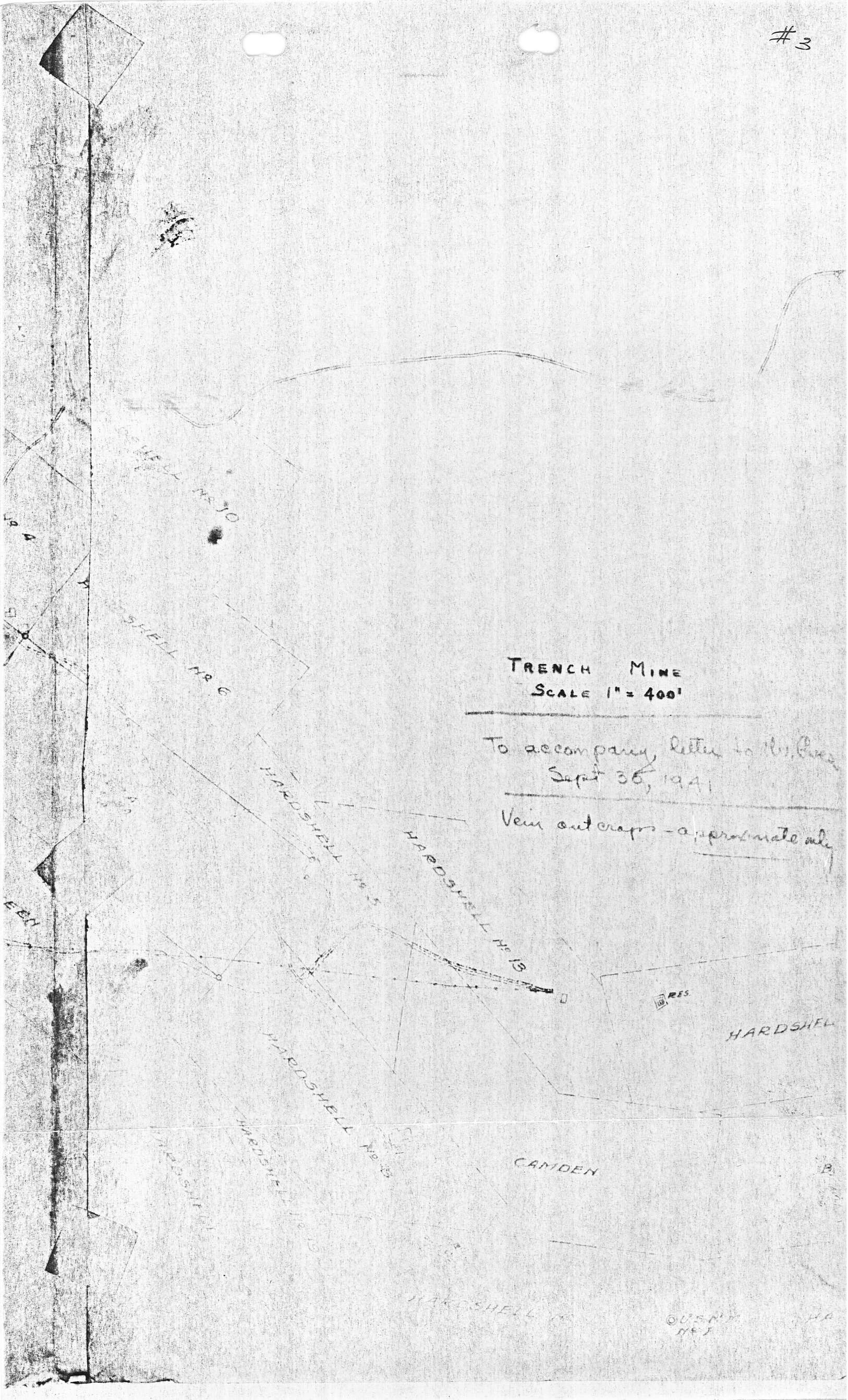
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WTR:own

A. E. RING

AKR:tlc







TRENCH MINE
SCALE 1" = 400'

To accompany letter to Mr. Price
Sept 30, 1941

Vein outcrops - approximate only

NAME OF MINE: TRENCH FLUX
(A.S. & R.)

COUNTY: S. CRUZ
DISTRICT:
METALS: PB, ZN

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

5/1/44

Al Snedden, (Harshaw)
Patagonia

1/46

✓ Chas. B. Hanraty, Mgr.

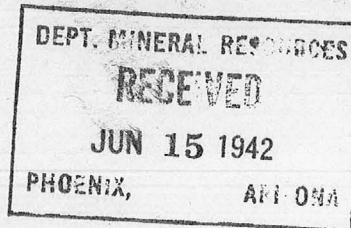
DATE:

5/1/44

Milling, mining

SURVEY OF OPERATING MINES

By: George A. Ballam



TRENCH

June 11, 1942

The Trench Mine and mill of the A.S.&R.Co. near Harshaw is employing 200 men mining and milling 225 tons of lead-zinc ore daily. Ore is being hauled from the Flux mine of the company about 6 miles west of the mill. About equal amounts of each ore is being handled at present.

Mr. Snedden, Gen.-Mgr. said he had no problems of operation at present. He has plenty of labor. All junk has been cleaned up on the property several months ago.

This company has been examining the Chief mine, situated near the Flux, with a view to developing additional sources of ore, but has apparently abandoned the idea.

George A. Ballam