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10/09/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: BONANZA

ALTERNATE NAMES:

SANTA CRUZ COUNTY MILS NUMBER: 66A

LOCATION: TOWNSHIP 24 S RANGE 16 E SECTION 2 QUARTER NW  
LATITUDE: N 31DEG 22MIN 23SEC LONGITUDE: W 110DEG 41MIN 11SEC  
TOPO MAP NAME: LOCHIEL - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

COPPER SULFIDE  
ZINC SULFIDE  
LEAD SULFIDE  
SILVER  
GOLD  
MANGANESE  
QUARTZ CRYSTAL

BIBLIOGRAPHY:

AZBM BULL. 191, INDEX OF MINING PROP. IN  
SANTA CRUZ CO.  
AZBM CARD FILE SANTA CRUZ CO.  
ADMMR "U" FILE Q1  
SCHRADER, F.C., 1915, USGS BULL. 582,  
P. 322-332  
ADMMR BONANZA FILE  
ADMMR ROYAL MINE FILE  
ADMMR GEOLOGY MAP OF THE SOUTHERN PART OF THE  
PATAGONIA MTN. GEOLOGY FILE  
THAIME, VOL. 36, P. 626  
ADMMR PATAGONIA PROJECT FILE  
ADMMR MAPS UPSTAIRS - DRAWER 4

BONANZA MINE

SANTA CRUZ COUNTY

T24S R16E Sec. 2

USGS Bull. 582 p. 322

AEC 172-489 p. 36 in AEC files

USBM "U" reports quartz crystals - 1943

TAIME Vol 36 p. 626

Mining World August 1961 p. 47

Patagonia Project (file)

See Geology map of the Southern part of the Patagonia Mts. in geology drawer

MAPS - Upstairs in Flat File - Drawer 4

MILS Sheet sequence number 0040230129

**American Smelting and Refining Company****EL PASO SMELTING WORKS  
EL PASO, TEXAS****PURCHASE SCHEDULE No. 2092****Date Effective August 18, 1955****Mine** BONANZA**Location** Duquesne, Patagonia Mining District  
Santa Cruz County, Arizona**Shipper** SAM KNIGHT MINING LEASE, Inc. **Address** 195 N. Meyer Ave., Tucson, Arizona**Character Ore** COPPER ORE**R. R. Station** Patagonia, Arizona

The following purchase terms are subject to the General Clauses shown on the back of this sheet, and are subject to change on 30 days notice. Unless shipments are begun within 30 days this quotation is automatically cancelled.

**DELIVERY:** F. O. B. unloading bins American Smelting and Refining Company, El Paso, Texas. The rates quoted are based upon shipment in gondola equipment. Extra unloading charges of \$1.00 per dry ton will be assessed for products received in box cars.

**PAYMENTS**

**GOLD:** If .03 of an ounce per dry ton or over pay for 92.57% at the net realized price. Under present Mint price this is equivalent to paying for 100% at \$32.3185 per troy ounce.

**SILVER:** Pay for 95% (minimum deduction of ½ ounce) at the average Handy & Harmon New York Silver quotations for the calendar week, including date of delivery of last car of each lot at plant of Buyer, or, if higher, at the realized Mint price provided silver qualifies for Government purchase and affidavit is furnished, less a deduction in either case of 1½c per ounce.

**COPPER:** Deduct from the wet copper assay eight pounds and pay for ninety-five per cent of the remaining copper at the daily net refinery domestic quotations for electrolytic cathodes as published in the E. & M. J. Metal and Mineral Markets of New York averaged for the calendar week including date of delivery of last car of each lot at the plant of the buyer less a deduction of 3.18 cents per pound of copper accounted for. Nothing paid for copper if less than one-half per cent by wet assay.

No payment will be made for any metal or content except as above specified.

**DEDUCTIONS**

**BASE CHARGE:** \$ 4.50 per net dry ton of 2,000 pounds; provided the sum of payments for gold, silver, and copper does not exceed \$ 15.00 per ton. Add to the base charge ten per cent of the excess over \$ 15.00 to a maximum charge of \$ 7.00 per dry ton. The base charge just specified is for ores containing at least eight pounds of copper per ton; when a smaller quantity is contained, there will be added to the base charge a sum equivalent to the value of the deficiency between actual contents and eight pounds per ton computed according to the terms specified herein for copper payment.

**INSOLUBLE:** Allow all units free; charge for excess at \_\_\_\_\_ cents per unit, fractions in proportion.

**ZINC:** Allow five units free; charge for the excess at thirty cents per unit, fractions in proportion.

**ARSENIC:** Allow two units free; charge for the excess at \$0.50 per unit, fractions in proportion.

**ANTIMONY:** Allow one unit free; charge for the excess at \$1.50 per unit, fractions in proportion.

**BISMUTH:** One-tenth of one percent (0.1%) by wet assay allowed free, excess charged at 50¢ per pound, fractions in proportion.

**MOISTURE:** ~~A minimum deduction of 1% will be made from wet weight; when over 1% contained actual moisture will be deducted.~~


**TAXES:** See Clause 1 on reverse side of this schedule.

**FREIGHT:** All railroad freight and delivery charges for account of shipper. Deduct from settlement freight and other advances made by Buyer.

**TONNAGE:** Limited to 250 tons per month except by special arrangement.

**AMERICAN SMELTING AND REFINING COMPANY**

By

  
REED F. WELCH

cc:D.C.Gilbert

(over)



# General Clauses Governing All Open Schedules

- 1 **Taxes:** All taxes or other governmental charges, national, local or municipal, now or hereafter imposed in respect to or measured by the product purchased hereunder, or the production, extraction, smelting, refining, sale, transportation, proceeds or value thereof, or of the metals derived therefrom, other than income taxes levied upon the BUYER, shall be for account of the SELLER and shall be deducted from the purchase price payable hereunder.
- 2 **Sampling:** Weighing, moisture and ore sampling (at which Seller or a representative may be present) as done by Buyer according to standard practice, promptly after receipt of product, will be accepted as final. The absence of Seller or a representative shall be deemed a waiver of the right in each instance. After sampling, the product may be placed in process, commingled, or otherwise disposed of by Buyer.
- 3 **Assaying:** As soon as available Buyer will furnish a pulp sample to Seller, or to Seller's representative or the firm handling Seller's assay work. On Seller's request Buyer will make assay comparison with Seller, or his representative, by exchange of assay certificates over the counter. Comparison may be made by exchange of certificates through the mail, and in such event Buyer and Seller will mail to each other their respective assay certificates on the sixth day following date appearing on smelter pulp sample envelope, or other such date as may be agreed upon. The following splitting limits will be used for comparison of assays under either exchange method listed above:

Gold	—	.02 troy ounce per ton
Silver	—	.5 troy ounce per ton
Lead	—	0.5%
Copper	—	0.3%

If assays of Buyer and Seller are within limits above specified, settlement assays will be determined by averaging the two results. If assay comparisons indicate differences greater than the above limits, control sample shall be submitted to umpire. Umpires shall be selected in rotation from a list mutually agreed upon, whose assays shall be final if within the limits of the assays of the two parties; and if not, the assays of the party nearer to the umpire shall prevail. Losing party shall pay cost of umpire. In case of Seller's failure to make or submit assays, Buyer's assays will govern.

4. The rates quoted herein are for carload lots. On any lot containing one ton or less, there will be a sampling and handling charge of \$10.00. This charge will be decreased \$1.00 for each ton in excess of one ton.
5. In this schedule where the word "ton" is used, it is understood to be a ton of two thousand pounds avoirdupois; where the word "ounce" is used, as referring to gold and silver, it is understood to mean the troy ounce; and where the word "unit" is used, it is understood to mean one per cent of a ton, or twenty pounds avoirdupois.
6. The rates quoted herein are based on present published all rail freight rates on lead and copper bullion from El Paso, Texas to New York City. Any increase or decrease is for account of Seller and proper deduction or credit will be made accordingly.
7. Seller should consign his shipments to—American Smelting and Refining Company, El Paso Smelting Works, El Paso, Texas, and it is required that the original bill of lading covering each such shipment be delivered to the Buyer promptly on release of the shipment to the carrier. Full details as to disposition of settlement returns, including royalty instructions if any, must be furnished by Seller to Buyer before shipments can be processed.

**AMERICAN SMELTING AND REFINING COMPANY**

**El Paso Smelting Works**

El Paso, Texas

(over)

**AMERICAN SMELTING AND REFINING COMPANY**  
EL PASO SMELTING WORKS

BOUGHT OF SAM Knight  
ADDRESS 195 North Meyer Ave., Tucson Ariz.  
SHIPPING POINT Katagonia, Arizona  
NAME OF MINE \_\_\_\_\_

EL PASO, TEXAS, 19 6/17  
SMELTER LOT 2044  
SHIPPERS LOT \_\_\_\_\_  
CLASSIFICATION CU G. & S.  
PURCHASE TERMS 2/67

RATES, EXCEPT ON CONTRACTS, SUBJECT TO CHANGE WITHOUT NOTICE

MIX	ARRIVAL DATE	CAR NUMBER	RR	GROSS WEIGHT	CONTAINERS NO.	WEIGHT	WET WEIGHT	% H2O	DRY WEIGHT	QUOTATIONS
128	6/7	360509	SP.				45840	25	44644	COINAGE SILVER \$ PER OZ.
										FOREIGN " 90.875 \$ PER OZ.
										LEAD \$ PER CWT.
										COPPER 31.270 \$ PER LB.
										B/L DATE: 6-3-57

ASSAYS	OZ. PER TON		WET LEAD %	COPPER, %	INSOL %	SiO2 %	IRON %	MN %	LIME %	ZINC %	S %	AL2O3 %	As %	Sb %	Bi %	%
	GOLD	SILVER														
SMELTER	0	1.8	0	3.80						4.4						
SHIPPER		2.1		3.96												
UMPIRE																
METALLICS																
SETTLE		1.95		3.88												

VALUES PER TON					DEDUCTIONS			CHARGE	CREDIT
PAYMENT				FREIGHT	BASE, INCL. LABOR ADJ.			550	
PAY CONTENT	PRICE	AMOUNT	(FIXED)		EXCESS VALUE OVER \$ 15.00			48	
SOLD					\$ PER UNIT Pb + - %				
SILVER, LESS % MIN. .58,	1.45	89375	130	130	LEAD-COPPER PRICE ESCALATOR				
LEAD, LESS # @ %					BULLION FREIGHT TAX, .00039			03	
COPPER, LESS 8 # @ 95%	66.12	2793	1847	704	INSOL-SILICA				
					IRON-LIME				
					ZINC				
GROSS VALUE		1977	834		AS: SB: Bi:				
LESS DEDUCTIONS (NET CHARGE)		601	553		NET CHARGE			601	
FREIGHT VALUE		X X X	281	=2.74	WET TON				
NET VALUE		1376	22347		DRY TONS				
LESS FREIGHT:	77.44	WET TONS @ 374	P.T. 11220	TAX 337				11557	30747
LESS SWITCHING	5.30	RESET	5.78					1108	
LESS HAULING	1.75 + 3.90		40.11 + 1.20					4131	
LESS REPRESENTATION \$	10.50	UMPIRE \$	SAMPLING \$					1050	
AMOUNT WITHHELD PENDING RECEIPT OF SILVER AFFIDAVIT	P. 922								
LESS ROYALTY	10% = 12.76							1276	
(Ariz. Sales Tax - 1.40)					D. M. E. A.			174	
BALANCE DUE SHIPPER								11433	
CHECKED	CORRECT	APPROVED						30747	30747

# AMERICAN SMELTING AND REFINING COMPANY

EL PASO SMELTING WORKS

12/17/56

BOUGHT OF SAM KNIGHT MINING LEASE, INC.  
 ADDRESS 195 N. MEYER AVE., TUCSON, ARIZONA  
 SHIPPING POINT PATAGONIA, ARIZ.  
 NAME OF MINE BONANZA

EL PASO, TEXAS, \_\_\_\_\_ 19\_\_\_\_  
 SMELTER LOT 4660  
 SHIPPERS LOT \_\_\_\_\_  
 CLASSIFICATION Cu 6-2  
 PURCHASE TERMS 2092

RATES, EXCEPT ON CONTRACTS, SUBJECT TO CHANGE WITHOUT NOTICE

MIX	ARRIVAL DATE	CAR		GROSS WEIGHT	CONTAINERS		WET WEIGHT	% H2O	DRY WEIGHT	QUOTATIONS
		NUMBER	RR		NO.	WEIGHT				
262	12/16	151554	SP				53000	22	51136	COINAGE SILVER 1 PER OZ.
										FOREIGN "91.375 1 PER OZ.
										LEAD \$ PER CWT.
										COPPER 35.570 1 PER LB.
										B/L DATE: 11-28-56

ASSAYS	OZ. PER TON		WET LEAD %	COPPER %	INSOL %	SIO2 %	IRON %	MN %	LIME %	ZINC %	S %	AL2O3 %	As %	SB %	Bi %	%
	GOLD	SILVER														
SMELTER	.005	4.8	1.0	6.08						3.4						
SHIPPER	.01	5.2		6.26												
UMPIRE																
METALLICS																
SETTLE		5.0		6.17												

VALUES PER TON					DEDUCTIONS			CHARGE	CREDIT
PAYMENT					FREIGHT				
	PAY CONTENT	PRICE	AMOUNT		(FIXED)				
GOLD									
SILVER, LESS % MIN. .5	4.5	.89875	4.04		4.04			4.50	
LEAD, LESS # @ %								2.44	
COPPER, LESS 8 # @ 95 %	109.63	.3227	35.38		11.73				
GROSS VALUE			39.42		15.77				
LESS DEDUCTIONS (NET CHARGE)			6.98		4.62				
FREIGHT VALUE			X X X		11.15				
NET VALUE			32.44		@ 26.068				
LESS FREIGHT:	76.60	WET TONS @ 4.34	P.T. 130.20		TAX 3.91			134.11	
LESS SWITCHING	5.05		RESET		5.50			10.55	
LESS HAULING 1.75 + 3%								47.95	
LESS REPRESENTATION \$ 10.50		UMPIRE \$			SAMPLING \$			10.50	
AMOUNT WITHHELD PENDING RECEIPT OF SILVER AFFIDAVIT									
LESS ROYALTY 15% - (10% = 63.60) (EXCESS OF 10% = 31.80)								95.40	
DMEA 5%								32.13	
(ARIZ. SALES TAX MEMO DUE - 6.53) BALANCE DUE SHIPPER								515.01	
CHECKED		CORRECT			APPROVED			845.65	845.65



# TRENCH UNIT (Corporation name 1/20)

## AMERICAN SMELTING AND REFINING COMPANY

### ORE SETTLEMENT

Bought of **Sam Knight Mining Lease, Inc.**  
 Address **195 North Meyer Avenue, Tucson, Arizona**  
 Shipping Point **Duquesne, Arizona**

Date **August 31, 1955**  
 Mill Lot No. **D-595**  
 Mine Lot No. **M1**  
 From Mine **BONANZA**  
 Schedule No. **Tr-72**

WEIGHT				METAL PRICES—of Settlement Date					August 20, 1955	
NET WET LBS.	Moisture %	NET DRY LBS.	NET DRY TONS	METAL	QUOTATION	DEDUCTION	NET QUOTATION	Percent Paid	NET PRICE PAID	
86120	4.1	82589	41.2945	Gold	\$/oz.					
				Silver	90.750 \$/oz.	1.500 ✓			\$ .89250	
				Lead	15.000 \$/lb.	4.980 ✓			.10020	
				Copper	37.790 \$/lb.	9.500 ✓			.28290	
				Zinc	12.500 \$/lb.	7.025 ✓			.05475	

ASSAYS						CONTENTS				
BY	AU—oz.	AG—oz.	PB—%	CU—%	ZN—%	AU—oz.	AG—oz.	PB—lbs.	CU—lbs.	ZN—lbs.
A.S. & R. Co.	"	6.88	3.40	2.17	12.55					
Settlement	"	6.88	3.40	2.17	12.55	"	284	2808	1792	10365

PAYMENTS FOR METALS											
LIQUIDATION										PER DRY TON	TOTAL AMOUNT
METAL	ASSAY		DEDUCTED	NET ASSAY	EQUIVALENT IN LBS. OR OZS.	PERCENT PAID FOR	NET PAID FOR		RATE		
Gold		Oz.						Oz.	\$		
Silver	6.88	Oz.	.20	6.68	6.68 ✓	80 ✓	5.344 ✓	Oz.	.89250	\$ 4.77 ✓	
Lead	3.40	%	.20	3.20	64.0 ✓	84 ✓	53.76 ✓	lbs.	.10020	5.39 ✓	
Copper	2.17	%	.20	1.97	39.4 ✓	77 ✓	30.338 ✓	lbs.	.28290	8.58 ✓	
Zinc	12.55	%	.50	12.05	241.0 ✓	78 ✓	187.98 ✓	lbs.	.05475	10.29 ✓	
TOTAL PAYMENTS FOR METALS										29.03	1198.78 ✓

DEDUCTIONS								AMOUNT	
Treatment 41.2945 Dry Tons @ \$ 5.00 Per Dry Ton								\$	206.47 ✓
Hauling: Pay Strong & Harris: 43.060 Wet Tons @ \$1.25								\$53.83	
" " " " Fed. Transp. Tax: 3% of \$53.83								1.61	55.44 ✓
Net Mill Return or Liquidation Value: \$22.69 per Dry Ton									261.91 ✓
Royalty: Due James P. Nash: 15% of \$936.87 = \$140.53									936.87 ✓
Pay Valley National Bank, Escrow Dept.: 10% of \$936.87									
" James P. Nash: \$140.53 less \$93.69								93.69	
Royalty: Pay Defense Minerals Exploration Administration:									
5% of \$936.87								46.84 ✓	187.37 ✓
TOTAL DEDUCTIONS									
BALANCE DUE SHIPPER									749.50 ✓

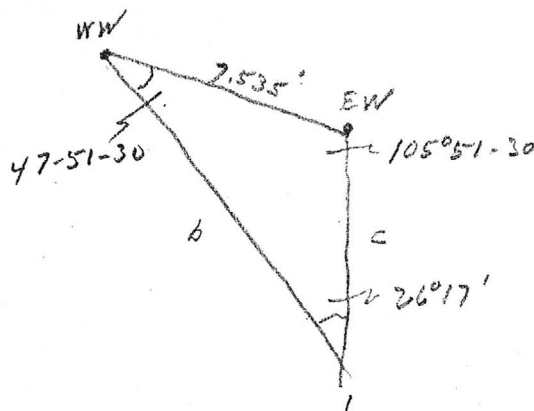
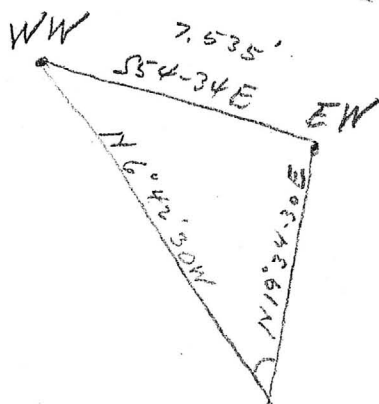
### FINAL SETTLEMENT

Orig: & lcc: Sam Knight cc: V6, DRJ, JPN, DCG, Correct  
 Mining Lease DMEA(3), VNB(3), Tr-2.4,  
 Tr-9.1.2

Approved

*J.C. Henderson*

*W.C. Stein*



$$b = 7.535 \frac{\sin 105.51-30}{\sin 26-17}$$

$$c = 7.535 \frac{\sin 132.08-30}{\sin 26.17}$$

$$\log 7.535 = 0.877083$$

$$\begin{array}{r} \log \sin 105- = 9.983148 \\ 0.860231 \\ \hline 9.646218 \\ 1.214013 \end{array}$$

$$WW-1 = 16.37$$

$$\begin{array}{r} \log 7.535 \quad 0.877083 \\ 9.870074 \\ \hline 0.777157 \\ 9.646218 \\ \hline 1.100939 \end{array}$$

$$EW-1 = 12.62$$

BONANZA

# Bonanza 235

Sta	Elev	Lat	Dep	
19	5140.23	7251.17	7904.84	235 Level South
DD461		7252.69	7898.31	"
20	5141.25	7213.38	7918.99	"
21	5141.77	7172.54	7905.58	"
22	5143.95	7142.71	7901.71	"
23	5143.31	7125.74	7891.53	"
24	5145.77	7069.69	7897.96	"
25	5146.77	7044.44	7893.88	"
26	5147.25	7031.70	7887.61	"
27	5146.72	6996.99	7890.85	"
28	5148.35	6944.26	7878.88	"
29	5149.13	6926.59	7866.86	"
30	5150.10	6901.57	7870.19	"
31	5149.57	6865.77	7862.36	"
N. 20	FI - 6.7 5130.99	8027.89	7991.48	7 br at N x E 235 North
21	5131.84	8003.68	7983.63	7 br at N x W "
F <sub>1</sub>		8027.53	7907.06	Cor Stone "
22	FI - 6.7 5132.00	8105.09	8005.35	"
23	FI - 6.8 5132.35	8108.21	7979.35	2 N x W "
24	FI - 6.5 5132.11	8094.61	7958.60	"
F <sub>2</sub>		8069.39	7924.39	"
F <sub>2</sub>		8019.15	8047.81	"

Bonanza 235

Sta	Elev.	Lat.	Dep.
(N) 25	FI - 6.4 5131.62	8121.70	7996.78 235 North
26	FI - 6.2 5131.47	8152.02	7958.91 "
27	FI - 6.4 5131.67	8175.46	7935.44 "
N.P.		8240.21	8023.62 "
DDH 53	5135.82	7348.11	7786.73 S <sub>o</sub> .
" 54	5138.80	7344.49	7795.33
" 47	5134.35	7447.31	7735.08 N 75.59E + 2° 31' 72"
" 48	5134.02	7450.45	7734.30 N 41-41E + 0° 34' 56"
" 49	5135.84	7438.10	7722.67 S 39-32W + 7° 09' 90"

# Bonanza - Surface

Sta.	Elev.	Lat.	Dep.	Location etc
Shaft Collar	5361	8000	8000	NW Cor.
Δ 1A	5364.82	8067.75	7944.03	1A-B <sub>2</sub> N106W Int. Sta. B <sub>2</sub> Triang. 34 B <sub>2</sub> 97.147
Δ B <sub>6</sub>	5443.71	8498.44	7935.76	1A = Iron rod, W side slope W of Bon Sh.
Δ C <sub>1</sub>	5522.05	9722.30	7296.60	C <sub>1</sub> = Pipe on hill
Δ C <sub>3</sub>	6328.85	9510.	3944.	B <sub>6</sub> -C <sub>1</sub> N2734W 1386.71' C <sub>3</sub> = Pipe on ls peak
Δ Rod	5463.07	6913.77	7584.47	B <sub>6</sub> -C <sub>3</sub> N75-47W 4118.11'
Δ E <sub>1</sub>	5629.39	6148.58	6304.25	B <sub>6</sub> - Rod = Base Line S12030W, 1628.14'
Δ H <sub>1</sub>	5776.43	6833.40	5561.67	E <sub>1</sub> = Rod on tp hill E of Empire Shaft B <sub>6</sub> -E <sub>1</sub> S35-14W
H <sub>3</sub>				Alaskite hill S of Holland R <sub>6</sub> -H <sub>1</sub> S65-16W 2925'
Δ S <sub>1</sub>	5671.09	8521.94	6108.97	B <sub>6</sub> -H <sub>3</sub> S66-26W
Δ 4	5385.43	7650.27	7913.56	B <sub>6</sub> -S <sub>1</sub> N89-16W 1826.68'
Δ 8A		7267.54	8007.71	B <sub>6</sub> -4 S1029W Between Roads near Estelle ore bin
B <sub>1</sub>	5400.39	7734.23	7823.15	Stake = beside road above West slope So West of Bon Sh 300'
B <sub>2</sub>		7747.16	7657.65	
New B <sub>1</sub>	5359.48	8007.70	7869.31	
" B <sub>2</sub>	5345.56	7902.20	7793.40	
" B <sub>3</sub>	5391.38	7773.27	7777.64	
" B <sub>4</sub>	5411.80	7754.76	7727.28	
BS	5359.69	7987.69	8015.37	BS-B <sub>1</sub> S50-11E 11-B <sub>2</sub> N80°57'W
BS <sub>1</sub>		7951.91	8058.26	
Δ 11	5359.94	7961.43	8180.70	1.2' to ground Stake near road on upper dump East of Bon Sh.
Δ 12	5360.15	7981.17	8006.05	12-11 S83-33E 175.76 12-1A N35-32W 106.50 12 = Stake on old shaft dump 150' S of Bon Sh



Bonanza 285

Sta	Elev	Lat	Dep	
W Wire		7999.43	8001.29	En Shift NW Cor
200 <sup>n</sup>		7990.06	8009.88	235 Level
200 <sup>s</sup>		7982.33	8008.61	"
204		7982.73 <sup>.30</sup>	7981.13 <sup>0.83</sup>	See "4"
205				"
3	5132.45	7992.15	8012.14	235 Level South
4	5131.12	7982.30	7980.83	Diff Plumb Same as 204
5	5132.33	7884.37	7954.59	"
6	5131.61 <sup>Rt 25.28</sup>	7847.58	7957.32	"
7	5132.44 <sup>26.19</sup>	7814.13	7971.18	"
8	5133.50 <sup>26.23</sup>	7772.06	7956.06	"
9	5132.75 <sup>26.58</sup>	7753.50	7957.86	"
10	5134.52	7633.48	7894.45	"
11	5134.41	7594.95	7850.44	"
12	5135.42	7559.74	7804.55	"
13	5135.78 <sup>in</sup>	7534.76	7741.80	"
14	5136.82	7467.02	7723.67	"
15	5137.47	7423.36	7728.44	"
14A	5137.41	7446.34	7733.67	"
16	5137.86	7386.84	7764.29	"
17	5138.01	7373.02	7781.61	"
18	5138.50	7349.77	7794.88	"

JULY 9, 1958

SANTA CRUZ COUNTY  
DUQUESNE MINING DIST.

✓  
BONANZA MINE

✓  
See: Report on the DUQUESNE MINING  
AND REDUCTION COMPANY

By- Franklin Wheaton Smith  
April 15, 1916

In- "DUQUESNE" (file)

BONANZA MINE

*T 245 R 16 E (Unsurveyed)  
about 1 1/2 mi S of Washington Camp.*

SANTA CRUZ COUNTY

The holdings of Mr. Nash at Washington Camp were purchased by Mr. Carl Sandberg, 7425 N. Obregon Drive, Tucson, and Fred Williams, Jr., 2060 Yandes Street, Indianapolis, Indiana (2)  
See Nash Mine (file) Memo ALJ 11-12-64

---

No activity. GWI WR 7-30-65

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Visited Duquesne - Bonanza Mine - J.R. Simplot Co. - no one around. GWI WR 3-4-67

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Mine visit to the Bonanza Mine - J.R. Simplot operations - still exploratory.  
GWI WR 5-6-67

---

Mine visit. Bonanza mine, no sign of activity. GWI WR 3/27/72

---

MINE visit at Bonanza mine, still shut down. Tunnel broaded up. Water used by cattle still flowing. The 4 wheel rubbered tired compressor is still there but someone has removed the wheels and tires on the side next to the road. GI WR 3-29-74

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MG/WR 3/7/79 - Visited the Bonanza Mine near Duquesne, Az., there is no activity.  
4/18/79 a.p.

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MG WR 9/17/80: Visited the Bonanza Mine in Santa Cruz County. There was no sign of activity at mine site.

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BONANZA MINE

SANTA CRUZ COUNTY

Not working at present. ALJ WR 7-8-61

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MEMORANDUM

To: Frank P. Knight  
From: Axel L. Johnson  
Re: Bonanza Mine

I was informed by E. W. McFarland on Nov. 9, 1961 that McFarland and Nash have started doing exploration and development on the Bonanza mine, and that a few truckloads of ore had been shipped to the Trench mill for milling. More details will be obtained on my January visit to the area, and a full report will be made on same.

LEAD-ZINC QUESTIONNAIRE

October 10 1957.

Do you approve of the Emergency Lead-Zinc Committee's seeking relief for the lead-zinc industry and has it your authorization to speak for you? Yes

What Arizona Mines and Mills in the lead-zinc class do you control?

(1) Bonanza Mine

(2) \_\_\_\_\_

Which ones are operating? (1) None (2) \_\_\_\_\_

If not operating, when shut down? (1) 7-3-57 (2) \_\_\_\_\_

Number employed, prior to shut-down, in mine, mill or sections thereof producing lead or zinc ores? (1) 2 (2) \_\_\_\_\_

Number so employed on January 1, 1957? (1) 2 (2) \_\_\_\_\_

Number so employed on October 1, 1957? (1) 0 (2) \_\_\_\_\_

Remarks \_\_\_\_\_

SAM KNIGHT MINING LEASE, INC.

Company

By: Sam Knight

Signature

Please fill in NOW, tear off, and mail to:

Arizona Department of Mineral Resources  
Mineral Building, Fairgrounds  
Phoenix, Arizona

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine **Bonanza Mine**

Date **Sept. 7, 1961**

District **Duquesne District, Santa Cruz Co.**

Engineer **Axel L. Johnson**

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

Reference: Report of May 5, 1961.

Present Status: Operations reported as closed down some time ago.

STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine	Bonanza Mine	Date	May 5, 1961
District	Duquesne District - Santa Cruz County	Engineer	Axel L. Johnson
Subject:	Field Engineer's Report. Information from Fernando De La Ossa & Personal Visit		

References: Reports of Sept. 18, 1959, June 4, 1959 & previous reports.

Location: T24S, R16E (unsurveyed). About 1½ miles south of Washington Camp.

Number of Claims: 1 patented claim.

Owners: Nash Mines, 406 Nash Building, Austin, Texas.

Lessee: James V. Marino, Washington Camp, Arizona

Operator: Lease includes the Illinois and Estella Louise Mines.  
Date of lease - March 20, 1961.

Principal Minerals: Lead, zinc, copper, silver.

Present Mining Activity: Raising from the 235 ft. level. Repair work. Pumping water. 4 men working.

Present Operations: The lessees started work at the property on March 31, 1961. Since that time they have been dewatering the workings and have done some repair work. They have now started a raise from the 235 ft. level, following an ore showing, and hope to develop some ore.



**DEPARTMENT OF MINERAL RESOURCES**

**STATE OF ARIZONA**

**FIELD ENGINEERS REPORT**

Mine ✓ Bonanza Mine Date September 18, 1959  
District Duquesne District, Santa Cruz County Engineer Axel L. Johnson  
Subject: Present Status -- Information from Fernando De La Ossa

References: Report of June 4, 1959

Lessees and Operators: ✓ Mar-Pak Corporation

Principal Minerals: 'Lead, zinc, copper, silver.

Present Mining Activity: None (See report on Illinois Mine adjoining the Bonanza.)

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine

Date June 4, 1959

District Duquesne District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from Edward Eisenbrey & Personal Visit.

References Report of March 15, 1957 and previous reports.

Location T 24 S -- R 16 E. Unsurveyed. About 1 1/2 miles S. of Washington Camp.

Number of Claims One patented claim.

Owners Nash Mines, 406 Nash Building, Austin, Texas.

Lessees & Operators Mar-Pak Corporation, Mining Division, Painesville, Ohio.

Joe Martin, Pres., Painesville, Ohio.

O. D. Terry, Vice-Pres., 2644 S. Alvernon, (Box 15012, Tucson.

Robert A. Fogle, Mines Manager, 3808 E. 25th St., Tucson.

Edward Eisenbrey, Geologist, Washington Camp.

Principal Minerals Lead, Zinc, Copper, Silver.

Present Mining Activity

Exploration by long hole drilling. Repair work. Drifting and development work. 9 men working, which includes work done on the Illinois Mine, which is operated in conjunction with the Bonanza.

Ore Values See Illinois Mine for assays on long hole drilling on the Illinois Mine.

Milling and Marketing Facilities Operators are planning on having the ore milled at the Trench Mill. If no arrangements can be made at the Trench, it is possible that some arrangements can be made for milling the ore at the Sahuarita Mill.

Mine Workings Vertical shaft, 635 ft. deep, with 6 levels ---- 135, 235, 335, 435, 535 & 635. Considerable old stoping from past operations.

Present Mining Operations Operations by the new lessees and operators started about May 1st. Since that time, a considerable amount of repair work has been done, and some long hole drilling has also been done. Company is now doing some development work, including the driving of a drift. Some ore is being obtained from the development work, but no shipments either to a mill or smelter has been made yet. Any copper ore obtained from the operations will be shipped directly to the smelter.

TRENCH UNIT  
AMERICAN SMELTING AND REFINING COMPANY

## ORE SETTLEMENT

Date **March 27, 1956**Mill Lot No. **D-611**Mine Lot No. **ML**From Mine **BOHARUA**Schedule No. **Tr-72**Bought of **San Knight Mining Lease, Inc.**  
Address **195 North Meyer Avenue, Tucson, Arizona**  
Shipping Point **Duquesne, Arizona**

WEIGHT				METAL PRICES—of Settlement Date February 13, 1956						
NET WET LBS.	Moisture %	NET DRY LBS.	NET DRY TONS	METAL	QUOTATION		DEDUCTION	NET QUOTATION	Percent Paid	NET PRICE PAID
228510	1.5	225082	112.5410	Gold	91.344	\$/oz.	1.500	-		\$ .89844
				Silver	16.000	¢/oz.	4.980			.11020
				Lead	43.680	¢/lb.	9.500			.33980
				Copper	13.500	¢/lb.	7.135			.06365
				Zinc		¢/lb.				
ASSAYS						CONTENTS				
BY	AU—oz.	AG—oz.	PB—%	CU—%	ZN—%	AU—oz.	AG—oz.	PB—lbs.	CU—lbs.	ZN—lbs.
A.S.M. Co.	-	12.84	6.35	5.18	12.50					
Hawley	.010	12.63	6.44	5.10	13.70					
Parker					13.04					
Settlement	.005	12.735	6.395	5.14	13.04	0.6	1433	14394	11969	29351
PAYMENTS FOR METALS										

## PAYMENTS FOR METALS

LIQUIDATION											PER DRY TON	TOTAL AMOUNT
METAL	ASSAY		DEDUCTED	NET ASSAY	EQUIVALENT IN LBS. OR OZS.	PERCENT PAID FOR	NET PAID FOR		RATE			
Gold	No Pay	Oz.						Oz.	\$		\$	
Silver	12.735	Oz.	.20	12.535	12.535	80	10.028	Oz.	.89844		9.01	1013.99
Lead	6.395	%	.20	6.195	123.9	84	104.076	lbs.	.11020		11.47	1290.83
Copper	5.14	%	.20	4.94	98.8	77	76.076	lbs.	.33980		25.85	2909.18
Zinc	13.04	%	.50	12.54	250.8	78	195.624	lbs.	.06365		12.45	1401.14
TOTAL PAYMENTS FOR METALS											58.78	6615.16
DEDUCTIONS												

## DEDUCTIONS

		AMOUNT
Treatment <b>112.5410</b>	Dry Tons @ <b>\$ 5.00</b> Per Dry Ton	<b>\$ 562.71</b>
Hauling: <b>Pay Strong &amp; Harris: 114.255 Wet Tons @ \$1.25</b>	<b>\$142.82</b>	<b>147.10</b>
Assaying: <b>* Hawley &amp; Hawley, Cert. No. 203118, 2/22/56</b>	<b>4.20</b>	<b>9.00</b>
Smelting: <b>* Charles O. Parker &amp; Co.</b>		<b>5.00</b>

EL PASO, TEXAS, 9/23 1955  
SMELTER LOT 2705  
SHIPPERS LOT 51  
CLASSIFICATION Gen. Ore  
PURCHASE TERMS 2092

**RATES, EXCEPT ON CONTRACTS, SUBJECT TO CHANGE WITHOUT NOTICE**

RATES, EXCEPT ON CONTRACTS, SUBJECT TO CHANGE WITHOUT NOTICE										PURCHASE TERMS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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		NUMBER	RR		NO.	WEIGHT				COINAGE SILVER	† PER OZ.	FOREIGN	“	90.75	† PER OZ.	LEAD \$	PER CWT.	COPPER	44.225	† PER LB.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Information from MINE INSPECTOR'S OFFICE - August 15, 1957

✓  
BONANZA MINE, Duquesne, Ariz., Santa Cruz Co., June 19, 1957

✓ CU - ZN - LEAD

DOWN

Owners: NASH MINES, 406 Nash Bldg., Austin 22, Texas

Supt - D. C. Gilbert, Duquesne, Patagonia, Arizona

11 Men - 200 tons Development (Square sets - Room Pillar stopes)

L.A.S.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine ☒ Bonanza Mine

Date Sept. 16, 1955

District Duquesne District --- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Mine Report. Personal Visit & information from D. C. Gilbert and Frank Knight.

For Location, No. of Claims, Owners, Lessees & operators, Officers see report of June 2, '55.

Principal Minerals Copper, zinc, and lead. The ore mined at present is about 1/2 copper and 1/2 ~~zinc~~ zinc, with a small amount of lead.

Number of Men Employed 12 men (one shift only)

Production Rate Production rate is now reported to be about 100 tons per week. About 300 tons of ore have been produced since operations started about Aug. 1st.

Ore Values Copper from 8 to 12 %; Zinc from 16 to 20 %.

Ore in Sight and Probable About 150 tons of ore is blocked out.  
Probable ore is reported to be about 1,500 tons, 1,000 tons of which is good grade copper ore, and the remaining 500 tons predominantly zinc.

Milling and Marketing Facilities The copper ore is shipped to the A. S. & R. smelter at El Paso, Texas. The zinc ore is trucked to the Trench mill and milled there.

Present Operations

- (1) Production of ore by stoping operations.
- (2) Exploration work (mostly drifting) in order to develop additional ore reserves.
- (3) Exploration work consisting of diamond drilling and drifting on the D. M. E. A. loan. (See report of June 2, 1955 for the D. M. E. A. loan program.) About 290 ft. of diamond drilling has been done on the D. M. E. A. program the past 3 mos.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine

Date March 15, 1957.

District Duquesne District --- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Mine Report. Information from D. C. Gilbert, Nash Mines.

Location T 24 S — R 16 E. Unsurveyed. About 11/2 miles S. of Washington Camp.

Number of Claims One patented claim.

Owners Nash Mines, 406 Nash Bldg., Austin, Texas. D. C. Gilbert, Mgr., Patagonia, Ariz.

Lessees & Operators Sam Knight Mining Lease, Inc., 195 N. Meyer Ave., Tucson, Ariz., retains a lease block, about 400 ft. square, extending from the 300 ft. level to the surface. The remainder of the mine has now been released to the Nash Mines. Nash Mines is getting ready to work this remaining portion of the mine themselves.

Principal Minerals Copper, Lead, Zinc, Silver.

Number of Men Employed 2 men by Knight Bros. and 8 men by Nash Mines.

Production Rate No production at present.

Milling & Marketing Facilities Copper ores mined in the past has been shipped to the El Paso smelter, and lead, zinc, silver ores have been shipped to the Trench mill.

Ore in Sight and Probable Exploration work required to develop additional ore reserves.

Present Operations (Knight Bros.) 2 men reported to be diamond drilling from the 100 ft. level, as a part of the exploration program called for on the D. M. E. A. loan. (For the terms of this loan, see report of June 2, 1955.) This D. M. E. A. loan is reported to expire on April 13, 1957.

Present Operations (Nash Mines) 8 men working cleaning up and getting organized. Some diamond drilling has been done from the 300 ft. level. More drilling is being contemplated. The shaft, now pumped out to the 300 ft. level, will be pumped out to the 400 ft. level. Some equipment, including a compressor and Diesel generator was purchased from Sam Knight Mining Lease, Inc., according to information from Mr. Gilbert, and will be used in the mine development work.

References See reports of June 2, 1955 & Sept. 16, 1955.

FIELD ENGINEERS REPORT

Mine - ✓ NASH MINES

Date - April 8, 1953

District - Duquesne Mining Dist.,  
Santa Cruz Co.

Engineer - Axel L. Johnson

Subject: News Report -- Operations of Nash Mines

Information on individual mines

(a) Bonanza Mine, which has been operating under a D.M. E. A. exploration loan program for some time, reports this project to be a success, as they have found new ore bodies and developed new ore reserves. The D.M. E. A. Program is expected to be completed in from 3 to 4 months. Mr. Hunter, the foreman, states that they expect to start stoping after the D.M.E.A. program is finished, but that they expect to have to resort to "High Grading" in order to break even on their operations under the present low prices for zinc and lead. If there would be a price increase of 3 to 4 cents per pound, they would be able to mine the lower grade ores ~~also~~ and to increase their production also.



DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine

Date Oct. 9, 1952.

District Duquesne District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Mine Report --- Present Status . Information from Carl S. Elayer & D. C. Gilbert/.

Location Near Washington Camp. 2 miles south of same.

Number of Claims One patented Claim.

Owners Nash ~~Interests~~ Mines, Austin, Texas. D. C. Gilbert, ~~Mgr.~~, Patagonia, Ariz.

Lessee Carl S. Elayer, doing business as Elayer & Co., Silver City, N. Mex.

Principal Minerals Zinc, Lead, Copper, And Silver.

Number of men Working 6 men

Production Rate No ore production. Doing exploration work under DMEA loan.

Geology Ore occurs in irregular pockets, as replacements in limestone.

Ore Values Zinc--- 8 %; Lead--- 6 %; Copper--- 5 %; Silver--- 4 oz.

Milling Facilities Will haul ore to the Trench mill for milling.

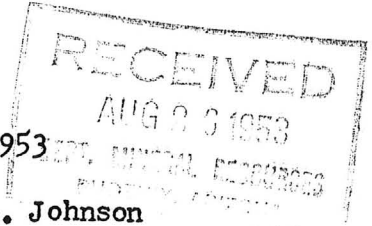
Present Mine Workings Shaft 635 ft. deep, with six levels---135, 235, 335, 435, 535, & 635. Considerable old stoping from past operations.

Past History Operated by Callahan Zinc and Lead from 1942 to 1946.

Present Operations . Working on Government Exploration Loan. This loan is in amount of \$33,479. Loan was for dewatering and repairing shaft down to the 235 ft. level, 400 ft. of drifting on the 235 ft. level, and 200 ft. of cross cuts and raises. Shaft has now been dewatered and repaired, and work has started on the 235 ft. level. Government loan was originally granted to the Nash interests. Nash interests afterwards leased the mine to Carl S. Elayer. A transfer of the loan is now being made to Carl S. Elayer.

Proposed Plans Complete the terms of the Government Exploration loan. Afterwards stope ore and send to the Trench mill for milling.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT



Mine ✓ Bonanza Mine

Date Aug. 7, 1953

District Duquesne District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Mine Report -- Present Status

Location T 24 S -- R 16 E Unsurveyed.  
About 1 1/2 miles south of Washington Camp.

Number of Claims 1 patented claim.

Owners Nash Mines, Inc., 406 Nash Bldg., Austin, Tex.  
✓ Jas. P. Nash, President, 406 Nash Bldg., Austin, Texas  
✓ D. C. Gilbert, Manager, Patagonia, Ariz.

Lessees Carl S. Elayer, doing business as Elayer & Co., Silver City, N. Mex.

Principal Minerals Copper, Zinc, Lead, Silver.

Number of Men Employed 13

Production Production rate now between 800 & 900 tons per month.

Ore Values Latest shipments have run from 10 to 12 % in Copper, with a little Silver, and very little Lead and Zinc.

Marketing Facilities Ore hauled to Patagonia by Strong & Harris, Patagonia at a price of \$2.00 per ton. It is shipped from Patagonia to the A. S. & R. smelter at El Paso.

Present Operations Stoping operations are being conducted from the new copper ore body developed by the D.M. E.A. Exploration program. This is on the 235 ft. level.  
D. M. E. A. exploration work is also being continued. It will be finished the first part of Sept. 90 ft. of drifting remains to be done.

Diamond drilling exploration also has been done by Elayer & Co. from the 235 ft. level (not D. M. E. A. ). 3 diamond drill holes were sunk from this level, but operators state that the results were not favorable.

Proposed Plans Operators expect to step up mine production a slight amount, after the completion of the D. M. E. A. Exploration Program.

Ore Reserves 4,000 to 5,000 tons of good grade copper ore have been proved up. This is ample for 5 to 6 months production. Besides this, operators have reserves of Lead and Zinc ores. The Lead & Zinc portions of the mine is not being worked at present, and no exploration work is being done on same. This is on account of the low price on these metals.

Mine Workings 6 levels ---- viz: 135, 235, 335, 435, 535, & 635.  
Copper ore body developed by D. M. E. A. & now worked is found on the 235 ft. level--- on the north end of the mine. There are no workings below the 235 ft. level on the north end.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Nash Mines

Date April 8, 1953

District Duquesne Mining Dist., Santa Cruz Co.

Engineer Axel L. Johnson

Subject: News Report ---- Operations of Nash Mines

GENERAL PICTURE

(a) The few remaining mines still in production are only mining the higher grade lead-zinc ores, (High Grading), as it does not pay to mine the lower grade zinc and lead ores. This leaves the low grade ores remaining, of such low grade that they can possibly never be mined economically at any future date when the price is fair for these metals. This is a poor way to conserve our natural resources. Also, these low grade ore bodies, that are left behind, often become isolated, inaccessible, and lost for any future mining operations. Again a poor way to conserve our natural resources.

(b) All of the Nash Mines are in badly need of exploration and development work. Very little of this work is done at present on account of the low price of the metals. No more exploration and development than absolutely necessary will be done under the present prices <sup>for</sup> ~~the~~ zinc and lead.

(c) Operators of the Nash Mines have been forced to postpone indefinitely all needed repair work to the mine plant, machinery and underground workings, and also postpone the purchase of new machinery and equipment on account of the present prices for zinc and lead, as they are now already operating at a loss.

(d) Production from the Nash Mines before the price break of last summer and fall was from 1200 to 1650 tons per month. The production from the Nash Mines the past month (March) was only 565 tons, and since then there has been further curtailment. Mr. D. C. Gilbert, Superintendent of the Nash Mines states that he expects that the present operations will be curtailed still further unless there is an increase soon in the price of zinc and lead. "It is purely a question of metal prices," states Mr. Gilbert.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Page 2

Mine Nash Mines

Date 4--8--53

District

Engineer

Subject:

(e) Nash leases call for a minimum work of 48 shifts per month.

(f) The Holland and Kansas mines report losing money on their operations.

In order to attempt to break even on their operations, they have materially reduced the wages to their miners and other workers. In some cases this cut amounts to \$3 per day.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine

Date June 4, 1953

District Duquesne District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Mine Report --- Present Status

Location T 24 S --- R 16 E Unsurveyed.  
About 1 1/2 miles south of Washington Camp.

Number of Claims One patented claim.

Owners Nash Mines, Austin, Texas. D. C. Gilbert, Mgr., Patagonia, Ariz.

Lessees Carl S. Elayer, doing business as Elayer & Co., Silver City, N. Mex.

Principal Minerals Zinc, Lead, Copper, and Silver.

Number of Men Employed 11 men (day shift only)

Production Rate About 120 tons per week of ore production. Also doing exploration work under terms of D. M. E. A. loan.

Geology Ore occurs in irregular pockets, as replacements in limestone.

Ore Values Mine in the past has averaged about 8 % Zinc, 6 % Lead, and 5 % Copper, with some Silver values. New ore body reported found, which averages about 10 % of Copper.

Milling and Marketing Facilities According to mine manager, this new ore body will be mined out, and shipped directly to the smelter. This ore is reported to contain about 10 % copper (chalcopryite and chalcocite), with about 4 oz. Silver, and very little Lead and Zinc.

Present Operations Stoping operations have been conducted from this new ore body for the past 2 months. About 10 to 12 carloads per month have been shipped (120 tons per week). Company expects to step up production to 50 tons per day.

New ore body was found in doing the D. M. E. A. exploration work.

The D. M. E. A. exploration work is also being continued. It is scheduled for completion in about another month.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine

Date June 3, 1954

District Duquesne District ---- Santa Cruz Co. Engineer Axel L. Johnson

Subject: Field Engineers Report -----Present Status ----Information from D. C. Gilbert, Nash.

Location T 24 S -- R 16 E Unsurveyed. 1 1/2 miles south of Washington Camp.

Number of Claims 1 patented claim.

References For additional information see my report of Aug. 7, 1953.

Present Status Working force has now been reduced to 8 or 9 men (was 15 on Feb. 4)  
Production has now dropped to about 2 cars per month (about 100 tons) (was 200 tons per month)  
Ore is shipped to the A. S. & R. smelter at El Paso. Ore values have now dropped to *on 7/4/54*  
about 7 to 8 % Copper (was previously 10 to 12 %)

Ore reserves of copper ore <sup>are</sup> now running very low, the present production coming from cleanup of the old stope on the 235 ft. level.

Company has recently done a lot of exploration, both diamond drilling and drifting, in order to develop additional copper ore reserves. Up to date this exploration has met with very little success.

D. C. Gilbert, Manager of Nash Mines, Inc. states that during the past year, the lessees, Carl S. Elayer & Co. of Silver City, N. Mex. has done over 5,000 ft. of diamond drilling, and considerable drifting on the 335 ft. level along narrow fissures, trying to find additional copper ore bodies. Very little additional ore has been found.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine ✓ Bonanza Mine

Date Feb. 4, 1954

District Duquesne District ---Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineer's Report ----Present Status.----Information from Paul Hunter.

Location T 24 S -- R 16 E Unsurveyed. 1 1/2 miles south of Washington Camp.

Number of Claims One patented claim.

References For additional information see my report of Aug. 7, 1953.

Present Status 15 men are at present employed. 200 tons per month of good grade copper ore is produced and shipped to the A. S. & R. smelter at El Paso. This is a substantial reduction from the shipments made a few months ago.

Ore reserves of good grade copper ore is now running low. The ore shipped now is coming from stoping operations from a winze sunk below the 235 ft. level.

Company is now principally engaged in exploration and development work to locate, explore and develop an extension of the good copper ore body, which has been worked on the 235 ft. level.

12 drill holes have been drilled upward from the 235 ft. level, but no ore was encountered in these holes. 9 drill holes were also drilled downward from the 235 ft. level, several of these drill holes striking commercial ore. Indications, therefore, point to the fact that the ore body extends downward from the 235 ft. level.

Company has now started driving a drift on the 335 ft. level of the mine to get under the ore body which has been worked on the 235 ft. level, so that the additional ore can be mined out from this level.

Proj. Line 0



S. K. M. L.  
BONANZA MINE  
235 LEVEL  
1" = 40'



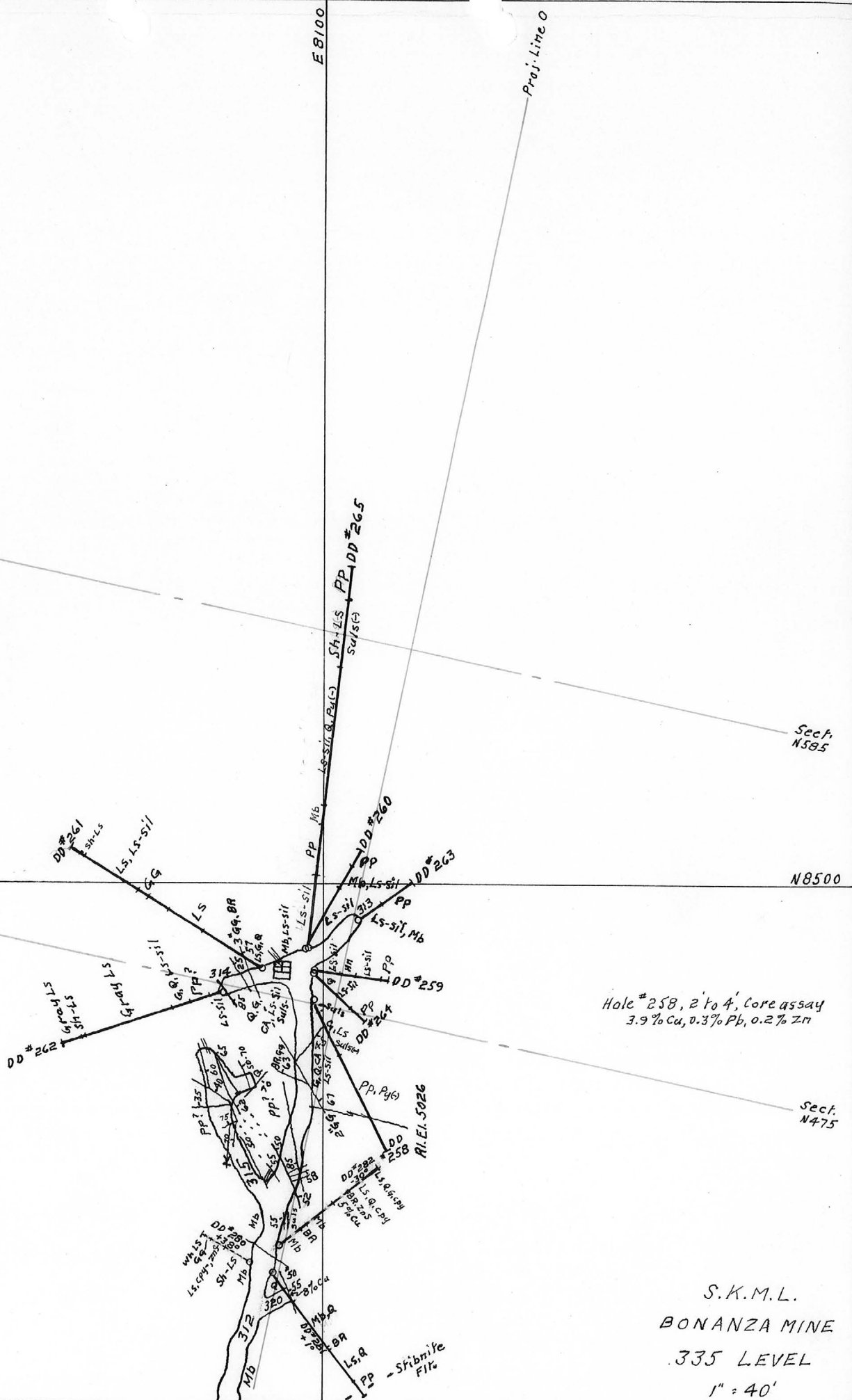
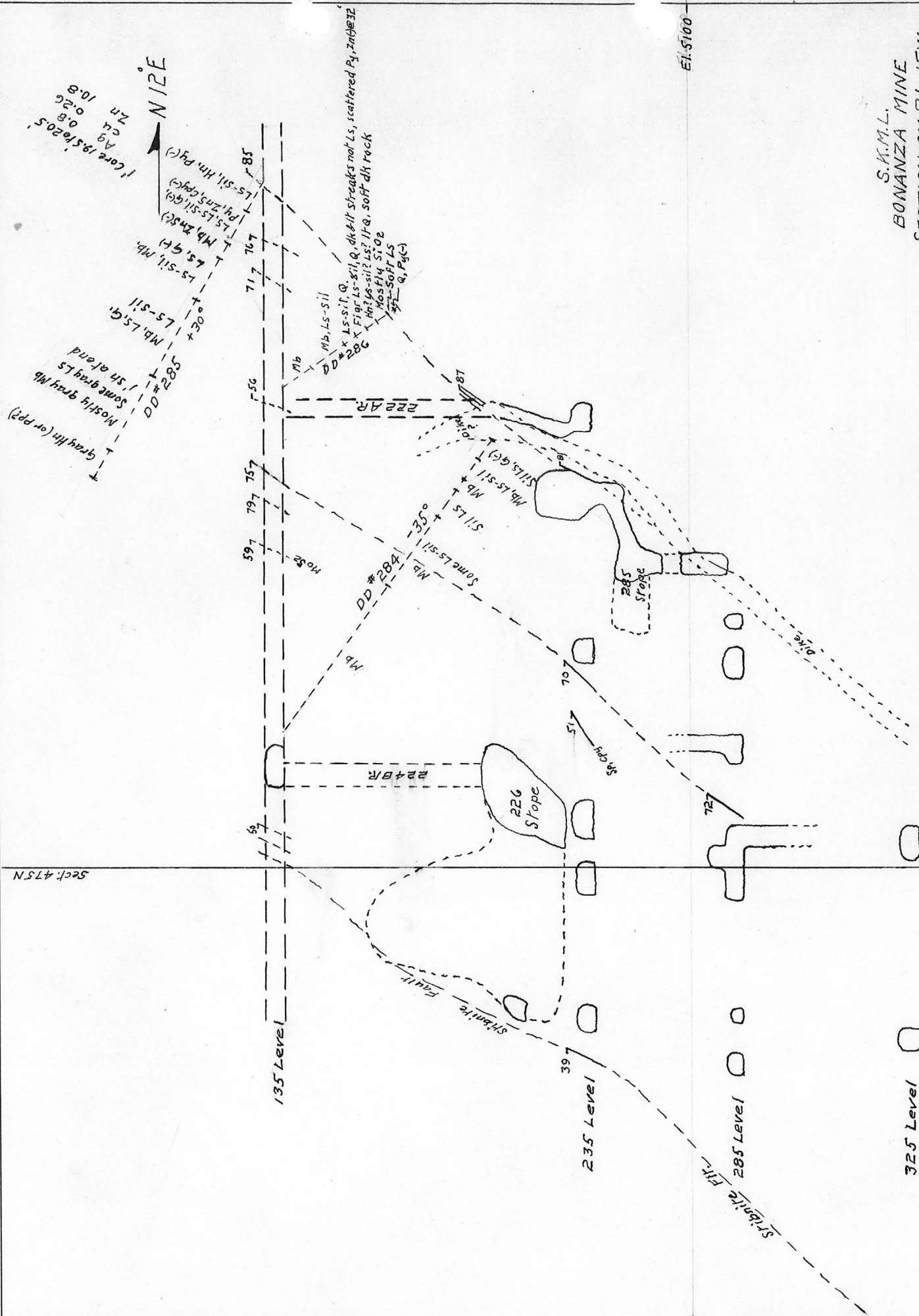
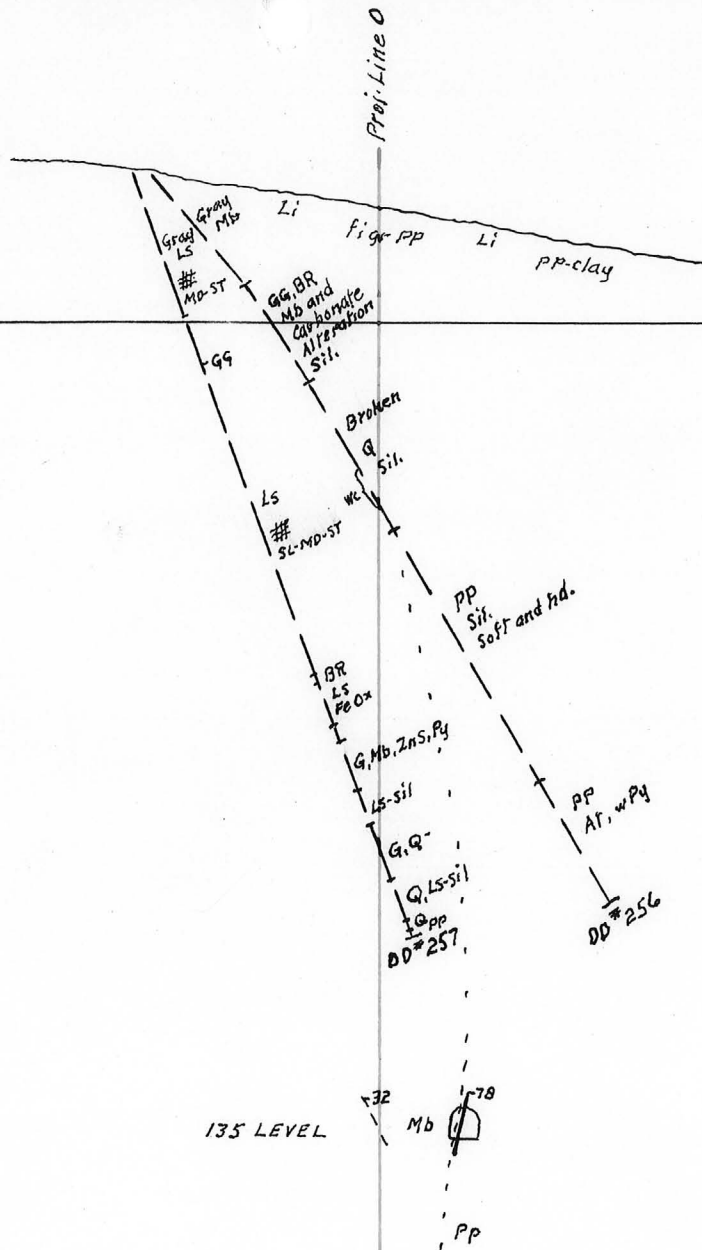


EXHIBIT A

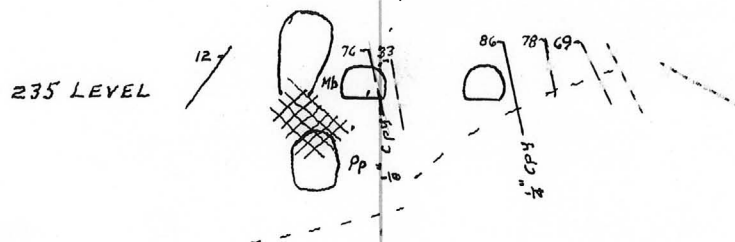


N 78° W

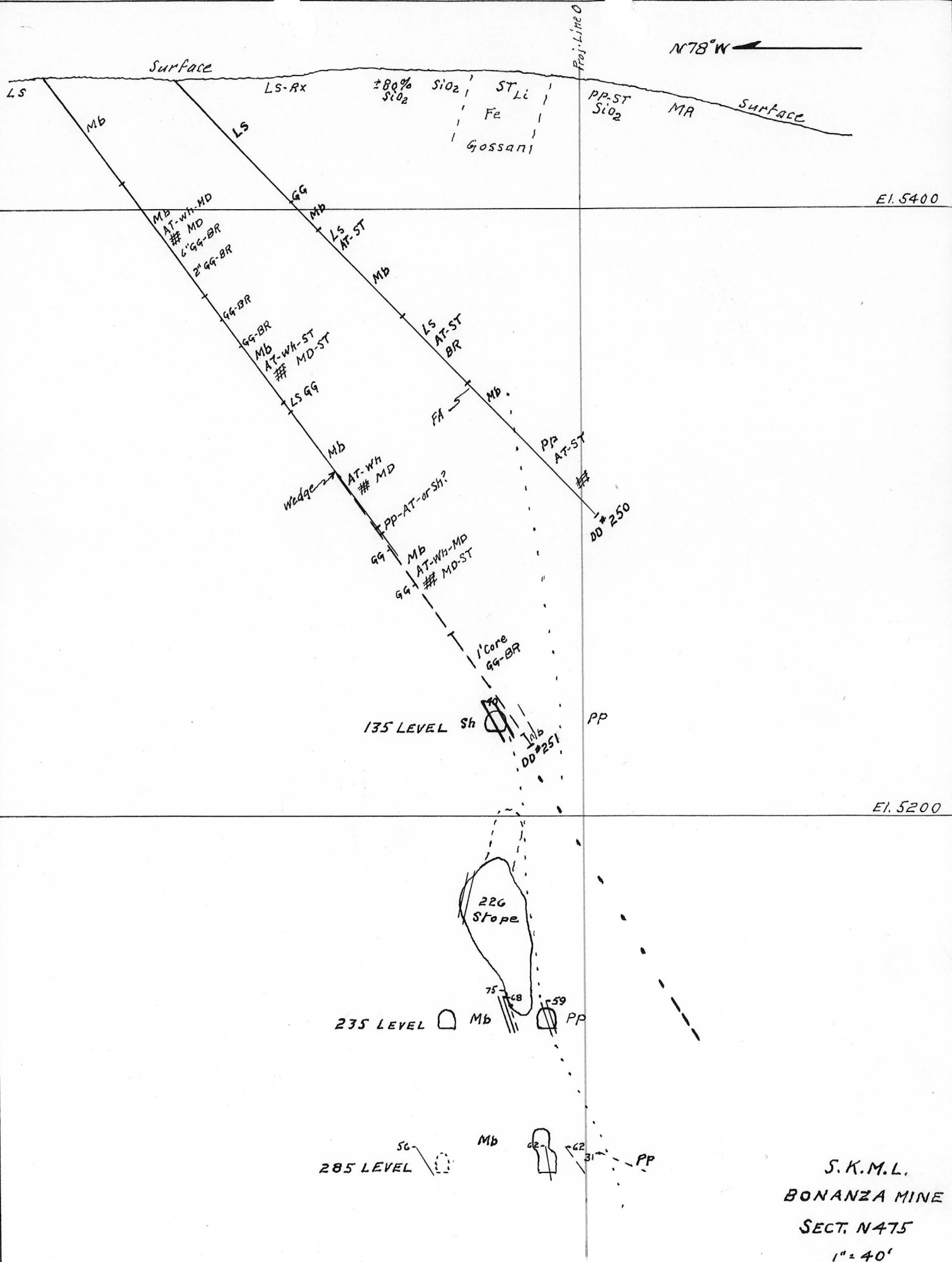


E1.5400

E1.5200



S.K.M.L.  
BONANZA MINE  
SECT. N585  
1" = 40'



Proj-Line 0



S.K.M.L.  
PROGRESS MAP  
135' LEVEL  
1" = 40'  
BONANZA MINE



DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine ☒ Bonanza Mine Date June 2, 1955

District Duquesne Dist., Santa Cruz. Co. Engineer Axel L. Johnson

Subject: Field Engineer's personal visit and information from D. C. Gilbert and Frank Knight.

Location. T 24 S - R 16 E. Unsurveyed. About 1-1/2 miles south of Washington Camp.

No. of claims. 1 patented claim.

Owners. Nash Mines, Inc., 406 Nash Bldg., Austin, Tex. (James P. Nash, President)  
D. C. Gilbert, Manager, Patagonia, Ariz.

Lessees and Operators. Sam Knight Mining Lease, Inc., 195 N. Meyer Ave., Tucson, Ariz.

Officers. Frank Knight, President and Mgr., address as above  
Harrison Smith, Geologist.

Principal Minerals. Lead, Zinc, Copper and Silver.

No. of Men Employed. 6 (day shift only)

Production Rate. None, operators doing exploration work.

Ore Values. 2 drill holes, each 30 ft. long, drilled horizontally on the 235 ft. level showed assays as follows: (1) Ore showing 3 ft. wide assayed 7.49% lead, 16.0% zinc, 1.9% copper and 15.2 oz. Silver. (2) Ore 3 ft. wide assayed 7.95% copper and 9.2% zinc.

Ore in Sight. No blocked out ore at present. Ore reserves depleted by former operators, Carl S. Elayer & Co. of Silver City, N. M., who gave up the lease June, 1954.

Milling and Marketing Facilities. Lead-zinc ores will be hauled to the Trench Mill near Patagonia, operated by the A. S. & R. Co. Copper ores will be shipped to the A. S. & R. Smelter at El Paso, Texas.

Previous Work by Present Lessees: Operators started working this mine in March. Since then, they have done 800 ft. of diamond drilling, 600 ft. from the surface and 200 ft. underground.

Present Operations. Operators obtained a new D. M. E. A. loan about a week ago, and started work on this project May 31. At present, operators are drifting on the 235' level.

D. M. E. A. Loan Terms. Total amount of loan is \$38,000.00, 50% or \$19,000 to be paid by the government. This loan is issued in the name of Sam Knight Mining Lease, Inc. D. M. E. A. loan to include the following items: (1) 400 ft. of drifting on the 235 ft. level, (2) \$2,000 for repairing shaft and head frame, and (3) \$12,000 for diamond drilling and long hole drilling, both surface and underground. The 400 ft. drift on the 235 ft. level will be driven north along the limestone-granite contact, called the "Bonanza Contact", and staying in the limestone, or productive, zone. This is in the northerly part of the Bonanza Mine, which is still undeveloped. A surface outcrop above this part of the mine contains iron oxides, with low zinc-lead values, but no commercial ore values. It is expected that some commercial ore will be found

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine--page 2

Date June 2, 1955

District

Engineer

Subject:

below this outcrop on the 235 ft. level.

Remarks. The dark siliceous rock, previously called limestone, has been interpreted recently from tests made by Harrison Smith, geologist, to be igneous in character, and should properly be called "porphyry" or "rhyolite porphyry".

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine Date June 2, 1955  
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Duquesne Property, Bonanza Claim  
Duquesne, Arizona. P. O. Patagonia, Arizona

Owner - Byrd Investment Company and C. O. Byrd and wife, Tucson

Lessee - Jas. P. Nash, Austin, Texas; Don C. Gilbert, Agent

The Duquesne property is a large group of claims of which about 40 are patented. It is located in the Patagonia Mining District in Santa Cruz County, Arizona, about 18 miles from Patagonia and 20 miles from Nogales by dirt roads, and on the south side of the Patagonia mountains. The Bonanza patented claim in this group is offered for lease with possible addition of the lower levels of the Estrella Louise claim which are accessible only from the Bonanza claim shaft.

The Bonanza claim, just north of Duquesne, was discovered by Thos. Shane and N. H. Chapin in or before the early 80's. It was sold to Hensley who located carbonate ore at 40 ft. depth but shipped none to speak of. It was sold to Duquesne Mining & Reduction Company about 1889. The company was formed by Westinghouse interests seeking copper and it acquired the Duquesne property. The company operated two years until it found sulphide ore, and then tried to find ways to treat it. It leased a small furnace in El Paso in 1896 and treated 200 carloads from the 40, 60 and 70 ft. levels during about 5 months, then shut down when they got to sulphides. Operations resumed in 1899 and continued three years in which the shaft was sunk to the 635 level. Considerable drifting was done and several thousand tons were mined and put on the dump. In 1915 about 15,000 tons of refractory ore were on the dump at the Bonanza and were said to run 6% copper and 18% zinc. In early 1913 and again in early 1914, 50 tons per day of 14% copper ore were said to have been shipped. In 1916 the company started milling with flotation. In 1916 - 1918 they probably mined from the Duquesne property and milled 60 to 70,000 tons of zinc-lead-copper ores with average value of about \$30. per ton. Operations ceased in early 1919 and equipment was sold. From 1919 to 1940 less than 500 tons were mined in any one year. Elsing lists Duquesne production from 1899 to 1925 as follows: Copper 15,000,000 lbs., lead 12,000,000 lbs silver \$350,000., Total value \$4,000,000., including about 3,000,000 lbs. of zinc. In March, 1940 Callahan Lead-Zinc Co. completed a 100 ton mill which operated until July 30, 1944 when operations ceased and the mill was moved. 116,600 tons of Duquesne ore and 5200 tons of custom ore were milled. A. R. Byrd, Jr. then acquired the property and in 1945-51 inclusive about 31,000 tons were shipped from Duquesne, most of it to the Trench Mill.

Year	Tons	Oz. Silver	% Copper	% Lead	% Zinc
1947	4047	4.6	1.6	3.4	9.2
	987	1.7	5.5		
1948	3298	4.7	1.5	3.1	11.9
1949	4295	4.2	2.2	2.5	13.3
1950	2498	6.4	1.7	4.2	12.4

Nash took a lease and option on the property in May 1951. The option price was \$210,000. and royalties have paid off all but

\$94,000. \$42,000. was retired with \$10,000. cash, and present balance is \$52,000. Nash subleased the Bonanza claim to Carl Elayer in April, 1953. Elayer shipped about 3500 tons of high grade copper ore before quitting in December, 1953. The average net mill or smelter return on Elayer's shipments probably was close to \$45.00 per ton. From June to December the content of copper was from 7.4% minimum to 14.6% maximum, with most shipments above 10%. It is said that Elayer made over \$90,000.. much of which he devoted to his uranium and zinc holdings. Elayer himself was at the property very little. He found a rich lens with the help of a Government development loan, and when the lens was mined out he quit, possibly because of reported over-extension elsewhere.

Elayer started shipping to Trench mill with trucking cost of \$1.25 and treatment charge of \$5.00 per wet ton. The ore was low grade and netted him little or nothing. However, there were only five of these low grade carloads before he began shipping higher grade copper ore to El Paso, with \$1.75 trucking to Patagonia and \$3.30 freight to El Paso. El Paso treatment charges apparently were very reasonable and possibly credited some flux value.

Two leasers at least are at work on the Duquesne property but the Bonanza claim is idle. Bonanza ore reserves are negligible. Prospects may bear further investigation. Elayer found 3500 tons of very profitable ore with about 600 feet of development in an unexplored section of the mineralized zone about 600 feet long in the Bonanza claim. Assuming the Bonanza produced at least half of Elsing's 15,000,000 lbs of copper for the Duquesne property, and using Schrader's average grade of 6% copper and an estimated 80% recovery, the Bonanza would have produced about 78,000 tons, or 11 tons per foot for the approximately 7,000 feet of development up to the time of Elsing's figures. Elayer developed about 6 tons per foot. Callahan started with the Bonanza mined down only to about the 70 level and took out substantial tonnages from lenses below it. It is unlikely that the one small lens Elayer cut 3 Or 400 feet north of previous stoping is other than one of a number of lenses, some above and some below it. However, it probably is too much to expect them to be so high in grade. Callahan ore probably averaged 4.5 to 5.0% copper. Elayer's lens was smaller than those mined in the Bonanza.

From \$10,000. to \$25,000. should find another lens and put the property in shape to mine it. Elayer's development cost was under \$20.00 per foot. Miner's wage is about \$10.50 in that location.

The Main Shaft at the Bonanza is 635 feet deep and is flooded to above the 335 level. The shaft makes very little water and Gilbert estimated another 30 days before the 235 level is flooded, to block one from looking at Elayer's lens. The shaft is three compartment, all in limestone, and seemed in good shape to the water level. Ventilation is provided through old stopes and shafts to the surface. A double drum hoist is rented from A. S. & R. at \$50.00 per month. The 75 KW cat-generator that ran it was Elayer's and was removed. A Chicago Pneumatic portable diesel driven compressor of about 325 cu ft capacity is available and said to be in good condition. Shop and assay equipment are fairly complete. No drills, slushers, etc. are at hand, and no cars were at the surface. Some equipment seems to belong to Gilbert, who has a lease on a 100 ft.

by 100 ft. block in the north end of the Bonanza and on the claim to the north of it. Two good houses probably can be rented. Drinking water is hauled from Nogales. Mill water formerly came from a well about a mile away.

The Bonanza mine is along the contact of limestone and granite porphyry on the east. The trend is north - south with vertical or very steep dip to the east. The deposit is replacement in limestone in or near the contact-metamorphic zones. Gilbert says the best ore is in the white crystalline limestone next to the garnet and blue limestone. Schrader in U.S.G.S. Bulletin 582, 1915, stated that the Bonanza ore was in crystalline limestone mainly in garnet-quartz gangue, and that the average grade was 6% copper and 18% zinc with 1% lead and 5 oz. silver. Schrader thought the limestone was Paleozoic. Gilbert thought it correlated with Bisbee Naco.

Maps are good and Gilbert has mapped much geology.

Lease terms as offered (copy attached) are not attractive. Royalties are 10% of net returns less than \$15. per ton; 15% of net from \$15. to \$20. per ton; and 20% of net above \$20. per ton. Elayer paid the same but Nash was instrumental in getting him the development loan. \$5658. remains due to the Government from ore proceeds at  $1\frac{1}{2}$  to 5% of net returns and Gilbert remarked that Nash might split on it. Nash has to pay the Byrds 10% royalty, which applies on the purchase price so that Nash should be willing to modify his terms. A minimum of 96 work shifts per month is required. Trucking must be done by Strong and Harris at prices in contract between them and Nash. The prices are O. K. but protection is needed. Gilbert can give only a two year lease, but probably Nash would give more. Default notice probably can be provided for. The provision that Lessor can terminate in 60 days if Government pays Lessee premiums and prohibits Lessor from participating therein, is not acceptable, and probably will take some negotiating to straighten out.

Letters from Nash to Elayer and Gilbert indicated that Nash is a fair man. Don Gilbert so considers him. Gilbert is a former Anaconda geologist and an old friend of Reed Welch, who put him in contact with Nash. Welch's office put Nash in contact with us.

The above is written following a visit of a few hours to the Nash property.

Harrison is due in Tucson September 10th and the matter can be discussed with him while he is here.

Frank Knight

Tucson, Arizona.  
September 8, 1954



4 (a) Contract Idm-E317 was granted to applicant in 1952 and resulted in the discovery of an excellent copper ore body in a new area, but only a portion of this area was explored.

(b) In former years Bonanza mine produced many thousand tons of copper and zinc ores, but records are not available. Under Idm-E317 the production from Bonanza mine in 1953 was 4776 tons of plus 11% copper ore with net smelter returns of \$204,529 or \$42.87 per ton.

(c) The Bonanza ore bodies are steeply-dipping, lenticular ore sheets along a generally north-south vein zone in limestone near it's contact with granites. The accompanying plan and section show the shape and trend of these ore bodies.

(d) 18 miles from So. Pacific R. R. at Patagonia by good dirt roads; 10 miles on same road to Trench mill of A. S. & R. Co. Housing at Patagonia or at Nogales which is 20 miles by good dirt road. Limited housing at mine.

(e) Good Spanish-American miners available locally. Water supply ample. Diesel engine power used for operations.

5 (b) The accompanying plan and long. section show the workings in the north portion of the Bonanza claim. Under contract Idm-E317 a portion of this area was explored and the ore body in 226 stope was discovered and mined. This was high grade chalcopryite ore with average assay of more than 11% copper. The mining width was 12 to 20 feet. Upward the ore body terminated at the Stibnite fault, but no exploration was carried beyond the fault. Downward an attempt was made to develop the ore sheet by 231 winze and later by driving the 335 level to this area. The work was done by a lessee who ceased operations when this deeper work failed to cut commercial ore immediately.

The Bonanza vein outcrops strongly in the area which we now propose to explore. The vein matter is largely iron oxide and brecciated material carrying low values and associated with the garnet which usually accompanies ore bodies in this district. The ground beneath much of this outcrop is totally unexplored and the possibilities for new ore sheets are believed to be excellent. On the north end line of Bonanza claim the "Arroyo Lease" has developed a small but very high grade lead-silver-zinc ore body in a parallel vein very near the Bonanza vein, and this is increasing in width as the work is deepened.

The upward termination of 226 ore sheet at the Stibnite fault occurred with no change in character of the ore mineral, which was essentially chalcopryite. No secondary enrichment, oxidation or other change was noted, and since this point is 228 feet below the surface and vein outcrop, we believe that there will be more chalcopryite ore above the stope back and that later this ore body will enter a zone of secondary enrichment and then pass upward into an oxidized and leached zone as it nears the surface.

Before operations are started in new exploration, we plan to repair the headframe; repair the upper 50 feet of shaft in which wall pressure has damaged sets and lagging; re-install 8" pipe and electric wiring in the shaft and prepare the 226 stope for the proposed raising. The water level is about 30 feet above 335 level and we will instal a centrifugal electric pump and lower the water to a point below 335 level to permit ventilation up 314 raise.

In addition to the pump we must obtain a Diesel-electric set to

operate the double-drum hoist which is now in place, and must secure all items of mining equipment such as rock drills and accessories, mine cars and tools.

### Proposed Exploration Program

To explore above 226 steps we plan a steep, 2-compartment raise 200 feet high. From the most promising elevation in this raise we plan to drive 200 feet of intermediate level headings, but we cannot forecast the ratio of drifting to crosscutting in these headings.

To explore the northerly continuation of the Bonanza vein zone on 235 level, as indicated by surface croppings, we propose to extend the most northerly drift; first as a crosscut in a northwesterly direction for about 100 feet, from which we will drive 300 feet of headings in the vein zone.

In conjunction with the above exploratory headings at locations wherein additional information will be required, we plan a total of \$10,000 in long-hole percussion drilling and/or EX core drilling. This drilling will not only serve as a guide for exploration but will also be used to search for ore in walls which appear favorable. In general, long-hole drilling will be used for shorter holes with upward inclination, and core drilling will be used for longer holes with downward inclination.

We estimate the cost of preliminary repairs and pumping at \$2000, excluding the cost of pipe and electric wire. We estimate the average cost of raise, drifts and crosscuts at \$35 per foot, including rentals or the depreciation of equipment to be installed. Long hole drilling will cost about \$3 per ft. and core drilling about \$4 per ft, including the necessary stations to permit treading while drilling, and including care of cores and sludges plus assaying. The locations of drill holes and the choice between long-hole and core drilling cannot be forecast as these decisions must be governed by geological factors as they are exposed. At an average cost of \$3.50 per ft, \$10,000 would accomplish 2857 feet of drilling.

Repairs, installations and pumping	\$2,000
200 ft. raise at \$35 per ft.	7,000
200 ft. of headings from raise, at \$35 per ft.	7,000
400 ft. of headings on 235 level, at \$35 per ft.	14,000
Approx. 2857 ft. long-hole or EX core drilling	10,000

Total estimated cost of project \$ 40,000

5 (d) Applicant has operated Nash Mines since June 1951. Operation will be in charge of D. C. Gilbert with 35 years mining and geological experience.

6 (a) Applicant proposes to contract the work to a lessee.  
( b to C incl.) All expenses will be included in the above costs.

#### Note:

We have had this project examined by Mr. Harrison A. Schmitt, mining geologist of Silver City, New Mexico, for an independent analysis. Mr. Schmitt concurs in our belief that new ore shoots similar to that found in Idm-E317 are a good possibility, and has assisted in outlining the program.



## MINING LEASE

THIS MINING LEASE made this day of \_\_\_\_\_, 195 , by and between JAS. P. NASH, by and through his authorized agent, hereinafter called LESSOR and \_\_\_\_\_ hereinafter called LESSEE;

### WITNESSETH:

That for and in consideration of the royalties, covenants and agreements hereinafter reserved to be paid, kept and performed, the LESSOR has hereby leased and demised, and by these presents does hereby lease and demise unto the LESSEE those certain premises situated in the Patagonia Mining District, in Santa Cruz County, State of Arizona, more particularly described as follows:

To have and to hold said premises for a term of \_\_\_\_\_ months from the ~~day~~ day of \_\_\_\_\_, 195 , unless sooner terminated or surrendered as hereinafter provided; and subject to the terms and conditions of that certain lease and option contract between the Byrd Investment Company, a corporation, and C. O. Byrd and Felice C Byrd, his wife, as Lessors, and Jas. P. Nash, as Lessee, dated May 21, 1951. Memorandum of which is recorded in Santa Cruz County Recorder's Office in Book 25 of Miscellaneous Records at page 246.

It is mutually agreed by and between the parties hereto as follows:

1. That the LESSEE will enter into said premises and work, explore and develop, and extract ore therefrom, subject to the royalty payments hereinafter set forth; that he will perform at least 96 man shifts of work per month, doing all of said work in a good and minerlike fashion, will comply with all laws of the State of Arizona with reference to mining, will insure his employees with the Industrial Commission of Arizona when required by law, or with a recognized insurance carrier if his employees reject the Arizona Compensation Law, and upon termination of this lease, leave all of the tunnels, shafts, drifts and crosscuts open and free of obstruction and will not remove from the said premises any timber, pipe or rails placed underground.

2. All ores produced shall be shipped in the name of the LESSEE, copy of settlement sheets to be provided both parties.

3. The ore purchaser shall pay to the LESSOR a royalty on all ores shipped from said premises as follows:

- 10% of the net mill or smelter return value on ores having a net value of less than \$15. per ton;
- 15% of the net mill or smelter return value on ores having a net value of \$15.00 and less than \$20. per ton;
- 20% of the net mill or smelter return value on ores having a net value of \$20. per ton or over.

4. Balance of the net return or smelter value to be paid by the ore purchaser to the LESSEE.

5. The term "net mill or smelter return value" of any lot of such ore shall be the net return received ~~from~~ the mill or smelter for such lot after deducting the cost of railway or truck freight, or both, from the mine to the mill or smelter, treatment, control assaying and other



charges incident to mill or smelter return, plus any premiums payable by the United States Government or any agency thereof on metals contained in such lot on which royalty may be paid under government regulations, less sales tax if not paid by the ore purchaser,

and less any deficiency on any previous lot.

6. LESSEE agrees to keep the said premises free and clear of all liens, to pay all bills or claims for labor or materials used on said premises, to post and keep posted constantly notices of non-liability in accordance with the laws of Arizona protecting LESSOR against damage or loss of any kind, and agrees to hold LESSOR harmless from any such debts or liabilities arising out of the operation of said premises.

7. That the LESSOR may enter said premises for inspection and shall have the right to examine production records of LESSEE on sales of ores mined. All mining operations on said premises, the handling and shipment of ores extracted shall be under the sole and exclusive charge and supervision of LESSEE free from any supervision or control of LESSOR.

8. If LESSEE fails to carry out all terms of this lease or violates any ~~existing~~ term of this lease on his part to be performed, then this lease shall at option of LESSOR be forfeited and terminated, and LESSOR may enter said premises the same as if this lease had never been made; in which event or if LESSEE shall terminate this lease as hereinafter provided, LESSEE agrees to deliver up peaceful possession of said premises to LESSOR and shall remove all mining machinery, equipment or fixtures placed thereon by LESSEE within thirty days or title thereto shall be forfeited to LESSOR; but LESSEE shall not remove from said premises any timber, pipe or rail placed underground.

9. LESSEE may not sell, assign or transfer this lease or any interest in said premises, or sub-lease any portion thereof, without the written consent of LESSOR.

10. LESSEE agrees to have all shipping ores from said premises carried to mill or point of rail shipment through Strong and Harris, carriers, pursuant to contract between LESSOR and Strong and Harris, and the parties hereto do hereby authorize the ore purchaser to pay to Strong and Harris the hauling costs specified in said contract.

11. In the event that the United States Government, or any agency thereof, shall pay to the LESSEE any premiums or incentive money for the production of any ores on said premises, and not permit the LESSOR to participate therein by ~~excluding~~ the same in the "net mill or smelter return value", then the LESSOR shall have the right to terminate this lease by giving LESSEE sixty days notice of termination in writing.

IN WITNESS WHEREOF the LESSOR has caused this agreement to be signed by his duly authorized agent and the LESSEE has hereunto set his hand to duplicate the day and year first above written.

JAS. P. NASH

By \_\_\_\_\_  
LESSOR

\_\_\_\_\_  
LESSEE



SAM KNIGHT MINING LEASE, INC.  
195 N. Meyer Ave.  
Tucson, Arizona

July 22, 1955

*Bonanza Mine  
Patagonia Dist.*

United States Department of the Interior  
Defense Minerals Exploration Administration  
University of Arizona Campus  
Tucson Arizona

Ref: Docket DMEA 2234  
Contract Idm-E317

Gentlemen:

Dr. Harrison Schmitt visited the Bonanza Mine on Tuesday, July 19. Having been but recently unwatered and cleaned out, the 335 level was for the first time subject to his inspection. He also looked at the winze level between the 335 and 235 levels. Three recommendations resulted from his examination.

1. That 222 drift be continued as the main objective.
2. That a bay area on the 335 level, showing good alteration and some garnet and copper sulphides, be explored by about 300 feet of diamond drilling. (See Map A)
3. That a short drift be started from the winze level, to progress north along the porphyry contact. (See Map B)

Dr. Schmitt further gave as his present opinion that if, after the recommended drifting had progressed 50 or 75 feet and the recommended drilling had been completed, the work did not show results more encouraging than hitherto obtained, he had grave doubt of the possibility of finding paying quantities of commercial ore at reasonable expense.

The first recommendation is in accordance with the provisions of the contract as amended. The second and third recommendations are not, in that they call for work on other than the 235 level. Work at the Bonanza under Stage II of the contract has been guided from the beginning by Dr. Schmitt. We wish to continue to follow his recommendations as closely as possible subject, of course, to Government approval. For this reason it is requested that contract Idm-E317 be amended essentially as follows:

Referring to Exhibit "A" attached to Exploration Project Contract Form MF-200A (Revised June 1954), caption "Description of the Work", subheading Stage II, items "3.", "4.", "5." as amended and item "6.", are changed as follows:

- "3." insert after "222 drift" ", the 335 level<sup>and</sup> or the winze level between"
- "4." at end of first sentence insert after "222 drift" ", the 335 level<sup>and</sup> or the winze level between" substitute "headings" for "heading" and "drifts" for "drift"
- "5." substitute "drifts" for "drift"
- "6." substitute "drifts" for "drift"

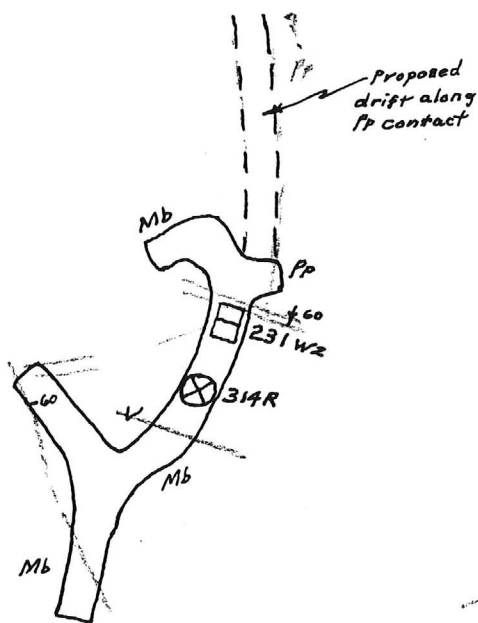
It is further requested that the effective date of the amendment be made retroactive to the date of this application.

No increase in the total cost of the project is contemplated.

Yours very truly,

Sam Knight Mining Lease, Inc.

By \_\_\_\_\_  
Treasurer



El. 46' below 235 Level

N8400

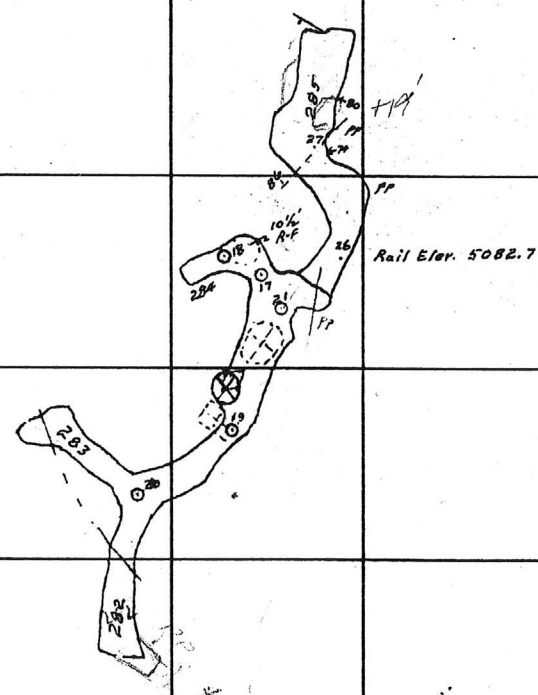
E8000

E8200

Sam Knight Mining Lease  
Bonanza Mine  
280 Inter.  
1" = 40' **B**



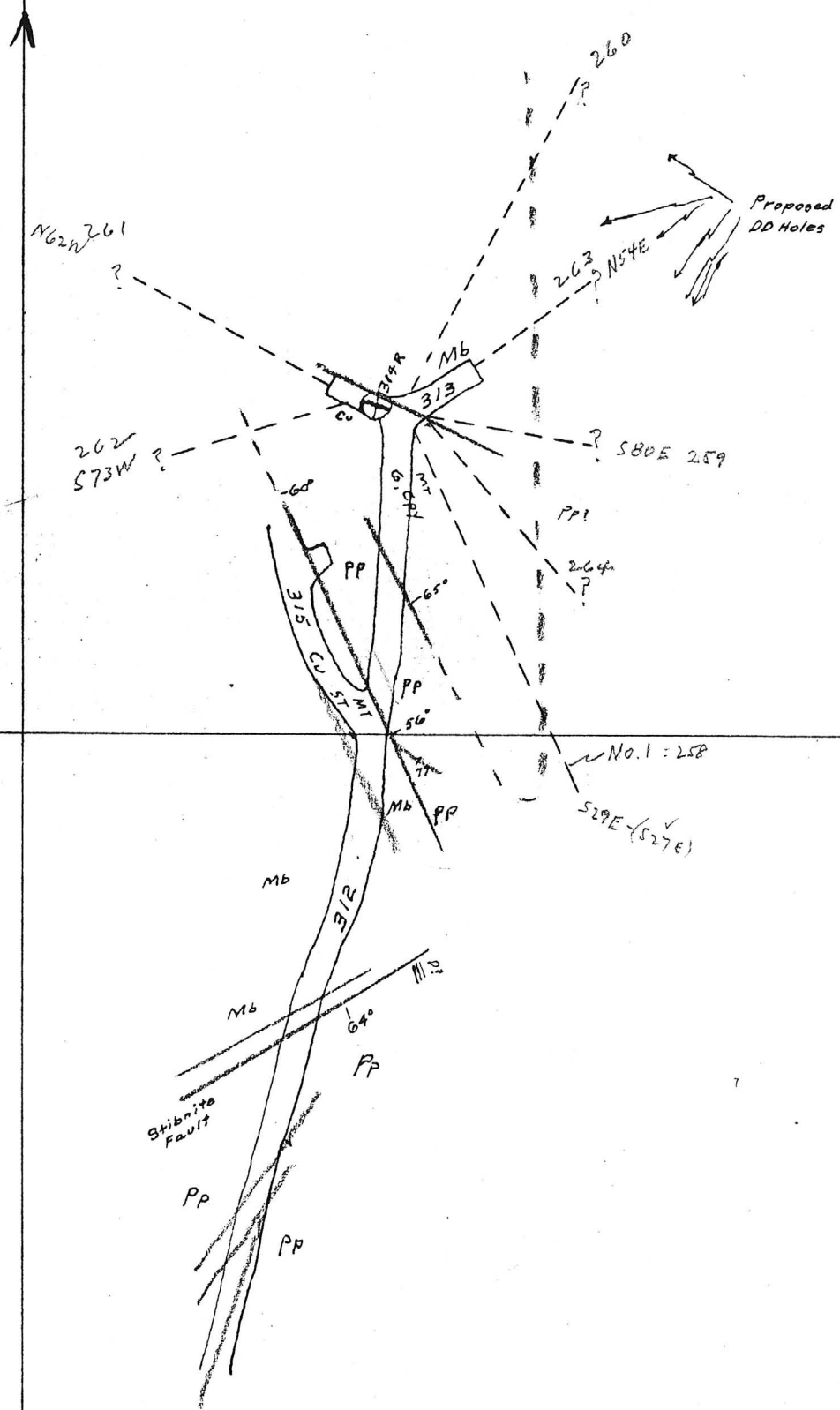
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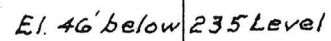
NB400

E8000

S. K. M. L.  
BONANZA  
280 INT.  
1" = 40'  
8-15-55 K<sub>1</sub>



Sam Knight Mining Lease  
 Bunanza Mine  
 335 Level  
 1" = 40' **A**



F800

00387

Sam Knight Mining Lease  
Bonanza Mine  
280 Inter.  
1" = 40' B

B

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine Date Sept. 16, 1955  
District Duquesne District --- Santa Cruz Co. Engineer Axel L. Johnson  
Subject: Mine Report. Personal Visit & information from D. C. Gilbert and Frank Knight.

For Location, No. of Claims, Owners, Lessees & operators, Officers see report of June 2, '55.

Principal Minerals Copper, zinc, and lead. The ore mined at present is about 1/2 copper and 1/2 ~~in~~ zinc, with a small amount of lead.

Number of Men Employed 12 men (one shift only)

Production Rate Production rate is now reported to be about 100 tons per week. About 300 tons of ore have been produced since operations started about Aug. 1st.

Ore Values Copper from 8 to 12 %; Zinc from 16 to 20 %.

Ore in Sight and Probable About 150 tons of ore is blocked out.  
Probable ore is reported to be about 1,500 tons, 1,000 tons of which is good grade copper ore, and the remaining 500 tons predominantly zinc.

Milling and Marketing Facilities The copper ore is shipped to the A. S. & R. smelter at El Paso, Texas. The zinc ore is trucked to the Trench mill and milled there.

Present Operations (1) Production of ore by stoping operations.  
(2) Exploration work (mostly drifting) in order to develop additional ore reserves.  
(3) Exploration work consisting of diamond drilling and drifting on the D. M. E. A. loan. (See report of June 2, 1955 for the D. M. E. A. loan program.)  
About 290 ft. of diamond drilling has been done on the D. M. E. A. program the past 3 mos.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine

Date March 15, 1957.

District Duquesne District --- Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Mine Report. Information from D. C. Gilbert, Nash Mines.

Location T 24 S -- R 16 E. Unsurveyed. About 11/2 miles S. of Washington Camp.

Number of Claims One patented claim.

Owners Nash Mines, 406 Nash Bldg., Austin, Texas. D. C. Gilbert, Mgr., Patagonia, Ariz.

Lessees & Operators Sam Knight Mining Lease, Inc., 195 N. Meyer Ave., Tucson, Ariz., retains a lease block, about 400 ft. square, extending from the 300 ft. level to the surface. The remainder of the mine has now been released to the Nash Mines. Nash Mines is getting ready to work this remaining portion of the mine themselves.

Principal Minerals Copper, Lead, Zinc, Silver.

Number of Men Employed 2 men by Knight Bros. and 8 men by Nash Mines.

Production Rate No production at present.

Milling & Marketing Facilities Copper ores mined in the past has been shipped to the El Paso smelter, and lead, zinc, silver ores have been shipped to the Trench mill.

Ore in Sight and Probable Exploration work required to develop additional ore reserves.

Present Operations (Knight Bros.) 2 men reported to be diamond drilling from the 100 ft. level, as a part of the exploration program called for on the D. M. E. A. loan. (For the terms of this loan, see report of June 2, 1955.) This D. M. E. A. loan is reported to expire on April 13, 1957.

Present Operations (Nash Mines) 8 men working cleaning up and getting organized. Some diamond drilling has been done from the 300 ft. level. More drilling is being contemplated. The shaft, now pumped out to the 300 ft. level, will be pumped out to the 400 ft. level. Some equipment, including a compressor and Diesel generator was purchased from Sam Knight Mining Lease, Inc., according to information from Mr. Gilbert, and will be used in the mine development work.

References See reports of June 2, 1955 & Sept. 16, 1955.



DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine      Bonanza Mine

Date      Feb. 4, 1954

District      Duquesne District ---Santa Cruz Co.

Engineer      Axel L. Johnson

Subject:      Field Engineer's Report ----Present Status.----Information from Paul Hunter.

Location      T 24 S -- R 16 E      Unsurveyed.      1 1/2 miles south of Washington Camp.

Number of Claims      One patented claim.

References      For additional information see my report of Aug. 7, 1953.

Present Status      15 men are at present employed. 200 tons per month of good grade copper ore is produced and shipped to the A. S. & R. smelter at El Paso. This is a substantial reduction from the shipments made a few months ago.

Ore reserves of good grade copper ore is now running low. The ore shipped now is coming from stoping operations from a winze sunk below the 235 ft. level.

Company is now principally engaged in exploration and development work to locate, explore and develop an extension of the good copper ore body, which has been worked on the 235 ft. level.

12 drill holes have been drilled upward from the 235 ft. level, but no ore was encountered in these holes. 9 drill holes were also drilled downward from the 235 ft. level, several of these drill holes striking commercial ore. Indications, therefore, point to the fact that the ore body extends downward from the 235 ft. level.

Company has now started driving a drift on the 335 ft. level of the mine to get under the ore body which has been worked on the 235 ft. level, so that the additional ore can be mined out from this level.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine Date June 4, 1953

District Duquesne District, Santa Cruz Co. Engineer Axel L. Johnson

Subject: Mine Report --- Present Status

Location T 24 S --- R 16 E Unsurveyed.  
About 1 1/2 miles south of Washington Camp.

Number of Claims One patented claim.

Owners Nash Mines, Austin, Texas. D. C. Gilbert, Mgr., Patagonia, Ariz.

Lessees Carl S. Elayer, doing business as Elayer & Co., Silver City, N. Mex.

Principal Minerals Zinc, Lead, Copper, and Silver.

Number of Men Employed 11 men (day shift only)

Production Rate About 120 tons per week of ore production. Also doing exploration work under terms of D. M. E. A. loan.

Geology Ore occurs in irregular pockets, as replacements in limestone.

Ore Values Mine in the past has averaged about 8 % Zinc, 6 % Lead, and 5 % Copper, with some Silver values. New ore body reported found, which averages about 10 % of Copper.

Milling and Marketing Facilities According to mine manager, this new ore body will be mined out, and shipped directly to the smelter. This ore is reported to contain about 10 % copper (chalcopryite and chalcocite), with about 4 oz. Silver, and very little Lead and Zinc.

Present Operations Stoping operations have been conducted from this new ore body for the past 2 months. About 10 to 12 carloads per month have been shipped (120 tons per week). Company expects to step up production to 50 tons per day.

New ore body was found in doing the D. M. E. A. exploration work.

The D. M. E. A. exploration work is also being continued. It is scheduled for completion in about another month.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine      Bonanza Mine      Date      June 3, 1954  
District      Duquesne District ---- Santa Cruz Co.      Engineer      Axel L. Johnson  
Subject:      Field Engineers Report -----Present Status ----Information from D. C. Gilbert, Nash.

Location      T 24 S -- R 16 E      Unsurveyed.      1 1/2 miles south of Washington Camp.

Number of Claims      1 patented claim.

References      For additional information see my report of Aug. 7, 1953.

Present Status      Working force has now been reduced to 8 or 9 men (was 15 on Feb. 4)  
Production has now dropped to about 2 cars per month (about 100 tons) (was 200 tons per month)  
Ore is shipped to the A. S. & R. smelter at El Paso.      Ore values has now dropped to <sup>on 2/1/54</sup>  
about 7 to 8 % Copper (was previously 10 to 12 %)

Ore reserves of copper ore ~~are~~ <sup>are</sup> now running very low, the present production coming from cleanup of the old stope on the 235 ft. level.

Company has recently done a lot of exploration, both diamond drilling and drifting, in order to develop additional copper ore reserves.      Up to date this exploration has met with very little success.

D. C. Gilbert, Manager of Nash Mines, Inc. states that during the past year, the lessees, Carl S. Elayer & Co. of Silver City, N. Mex. has done over 5,000 ft. of diamond drilling, and considerable drifting on the 335 ft. level along narrow fissures, trying to find additional copper ore bodies.      Very little additional ore has been found.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Bonanza Mine Date Oct. 9, 1952.  
District Duquesne District, Santa Cruz Co. Engineer Axel L. Johnson  
Subject: Mine Report --- Present Status . Information from Carl S. Elayer & D. C. Gilbert/.

Location Near Washington Camp. 2 miles south of same.

Number of Claims One patented Claim.

Owners Nash ~~Interests~~ Mines, Austin, Texas. D. C. Gilbert, Mgr., Patagonia, Ariz.

Lessee Carl S. Elayer, doing business as Elayer & Co., Silver City, N. Mex.

Principal Minerals Zinc, Lead, Copper, And Silver.

Number of men Working 6 men

Production Rate No ore production. Doing exploration work under DMEA loan.

Geology Ore occurs in irregular pockets, as replacements in limestone.

Ore Values Zinc--- 8 %; Lead--- 6 %; Copper--- 5 %; Silver--- 4 oz.

Milling Facilities Will haul ore to the Trench mill for milling.

Present Mine Workings Shaft 635 ft. deep, with six levels---135, 235, 335, 435, 535, & 635. Considerable old stoping from past operations.

Past History Operated by Callahan Zinc and Lead from 1942 to 1946.

Present Operations . Working on Government Exploration Loan. This loan is in amount of \$33,479. Loan was for dewatering and repairing shaft down to the 235 ft. level, 400 ft. of drifting on the 235 ft. level, and 200 ft. of cross cuts and raises. Shaft has now been dewatered and repaired, and work has started on the 235 ft. level. Government loan was originally granted to the Nash interests. Nash interests afterwards leased the mine to Carl S. Elayer. A transfer of the loan is now being made to Carl S. Elayer.

Proposed Plans Complete the terms of the Government Exploration loan. Afterwards stope ore and send to the Trench mill for milling.

NAME OF MINE: BONANZA  
OWNER:

COUNTY: Santa Cruz  
DISTRICT:  
METALS: Cu,Pb,Zn

OPERATOR AND ADDRESS

MINE STATUS

Date:		Date:	
10/45	Hugh Young, Washington Camp	9/45	Shipping
10/46	Byrd Bros., Washington Camp via Patagonia	10/46	Shipping