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Produced for Excellon Resources USA inc.
by The Orthoshop - Tucson
Aerial Photo Date - October 12 1992

Ground control provided by the A-TEAM Professional Associates, Inc.
using NAD83 State Plane coordinates for the Arizona Eastern Zone

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
| 10 | 11 | 12 |
| 13 | 14 | 15 |

SCALE 1" = 200'

200 100 0 200 400 600 800

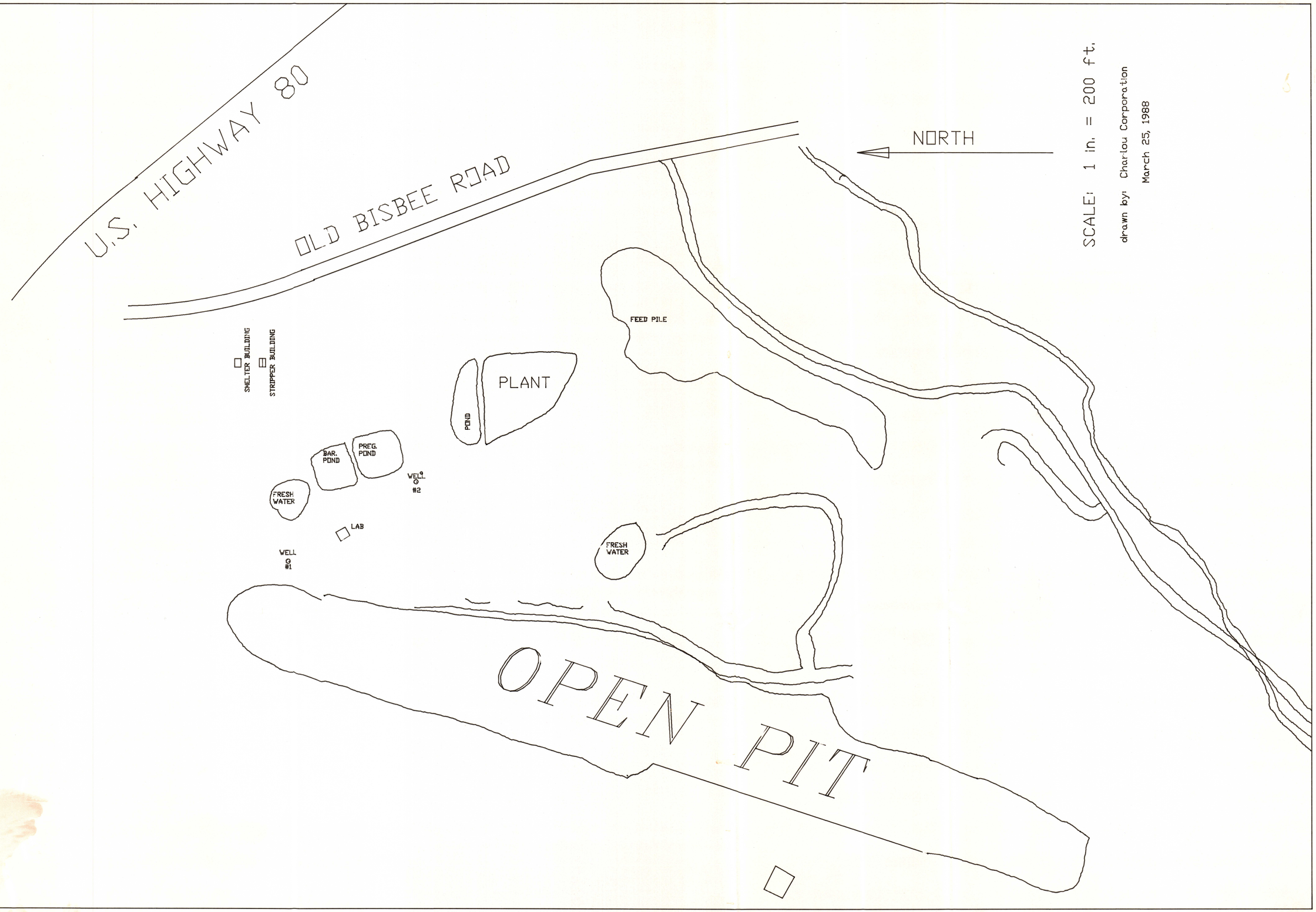
CONTOUR INTERVAL = 5 ft

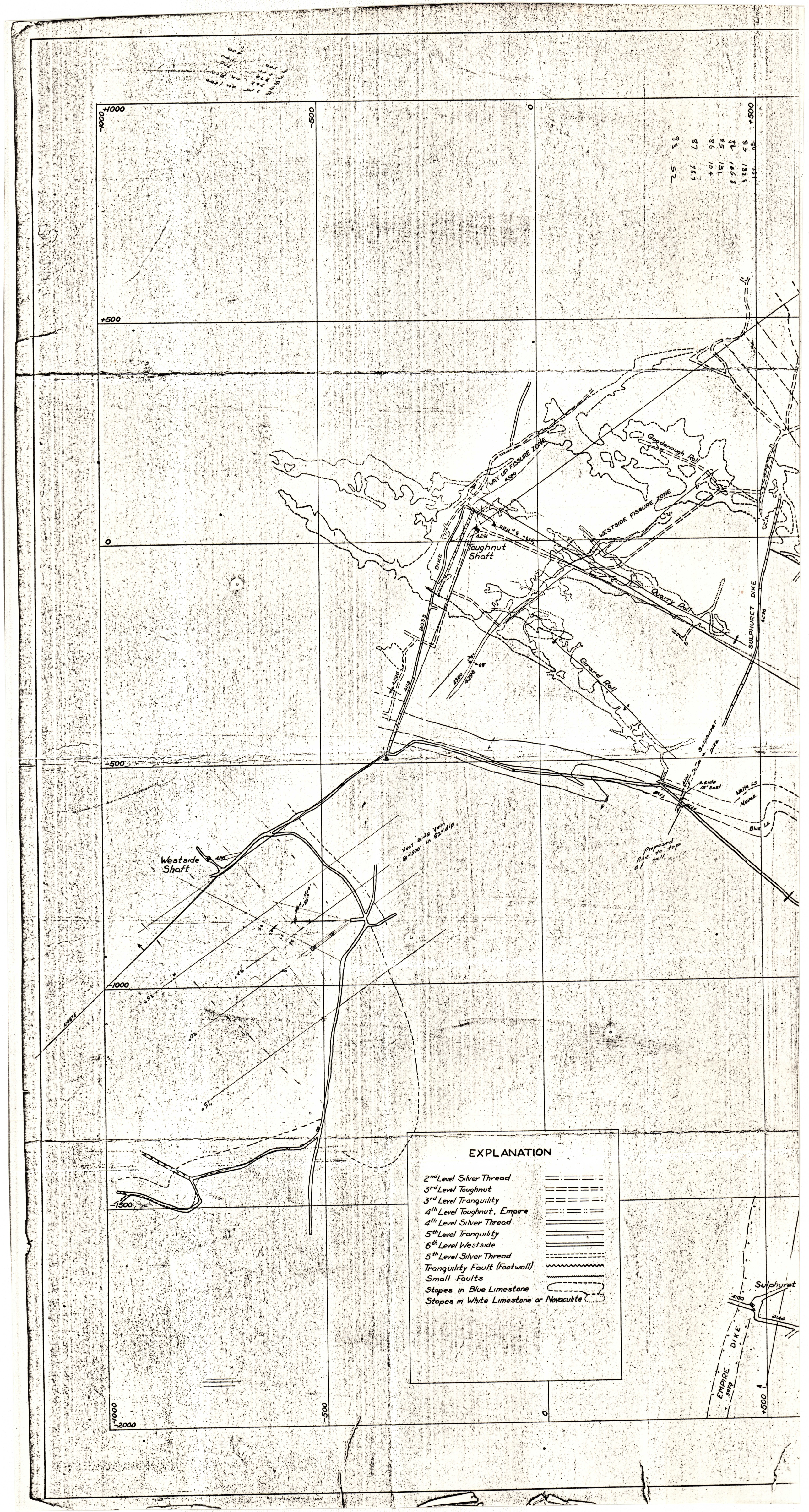
| | | |
|---|---|---|
| Grid | Building | Concrete |
| Control | Trailer | Cattle Guard |
| Index Contour | Fence | Hydrant |
| Intermediate Contour | Rail | Pole |
| Spot Elevation | Tank | Light Pole |
| Paved Road | Stream | Mine Shaft |
| Dirt Road | Pond | Cuts |
| Trail | Scar | Toe |
| | Wash | Crest |
| | Pipe Line | Prospect |

# TOMBSTONE
## COCHISE CO., ARIZONA

GIRARD INCLINE
1" To 100ft
W. E. SPEER
Brunton & TAPE MAP
NOV. 1980
copy by JRS. 4/21/82
No vertical correction

Girard Incline


U.S. HIGHWAY 80
OLD BISBEE ROAD
NORTH
SCALE: 1 in. = 200 ft.
drawn by: Charlou Corporation
March 25, 1988
FEED PILE
SMELTER BUILDING
STRIPPER BUILDING
PLANT
POND
BAR. POND
PREG. POND
WELL #2
FRESH WATER
LAB
WELL #1
FRESH WATER
OPEN PIT


+1000
-1000
-500
0
+500
-1500
-2000
Toughnut Shaft
Westside Shaft
WAY UP FISSURE ZONE
WESTSIDE FISSURE ZONE
Goodenough Rail
Quarry Rail
Grand Rail
SULPHURET DIKE
DIKE
Sulphuret Dike
Vein side 15° East
Proposed Rise to top of rail
Vein side 60° dip
EMPIRE DIKE
Sulphuret
EXPLANATION
2nd Level Silver Thread
3rd Level Toughnut
3rd Level Tranquility
4th Level Toughnut, Empire
4th Level Silver Thread
5th Level Tranquility
6th Level Westside
5th Level Silver Thread
Tranquility Fault (Footwall)
Small Faults
Stopes in Blue Limestone
Stopes in White Limestone or Novaculite

TRACED ORE SHIPMENTS TO SMELTERS

| Date | Where Shipped | Dry Wt. in tons | Ounces per ton Gold | Silver | Lead |
|---|---|---|---|---|---|
| 10/29/12 | Douglas | 32.074 | 0.29 | 26.4 | |
| 12/24/12 | " | 30.720 | 0.38 | 35.9 | |
| 8/21/20 | El Paso | 15.999 | | 7.3 | 19.8% |
| 8/21/20 | El Paso | 19.355 | 0.25 | 35.4 | |
| 9/13/20 | " " | 37.439 | 0.31 | 40.9 | |
| 10/ 5/20 | Douglas | 44.005 | 0.393 | 36.54 | |
| 11/24/20 | " | 51.034 | 0.37 | 28.97 | |
| 1/ 3/21 | " | 54.292 | 0.313 | 22.83 | |
| 10/15/25 | " | 54.905 | 0.185 | 19.23 | |
| 10/15/25 | " | 67.034 | 0.17 | 16.34 | |
| 10/19/25 | " | 44.481 | 0.18 | 19.10 | |
| 10/24/25 | " | 58.360 | 0.17 | 17.86 | |
| 10/24/25 | " | 50.3 | 0.14 | 15.90 | |
| 5/24/34 | El Paso | 38.105 | 0.37 | 41.0 | |
| 7/25/34 | " " | 32.779 | 0.754 | 59.0 | |
| 11/ 634 | " " | 30.937 | 0.39 | 29.6 | |
| 2/19/35 | " " | 41.936 | 0.305 | 45.4 | |
| 3/19/35 | " " | 34.41 | 0.125 | 13.0 | 27.2% |

TOTALS (738.165 tons, 205.06 ounces Gold, 20,412.33 ounces Silver)(Average 0.278 Au., 27.65 Ag per ton)

NOTE: According to C.L. Orem, mining engineer, who did work on this mine in 1923 and again in 1935: "Previous to any of these shipments the property already had a much larger production than the above." The mine was worked in 1884, pattented in 1891. Some of the above shipments were rejects dump material from those earlier high-grading operations. The above smelter shipment assays and all of the assays of samples listed below each represent just fractional cross-sections of the total width of the ore deposit.

## ASSAYS *from many souces including Orem*

| MAP REF. NO. | GOLD OZS. | SILVER OZS. | WIDTH | DESCRIPTION OF SAMPLING |
|---|---|---|---|---|
| 1 | 0.183 | 10.60 | 15' | 3 CUTS, across S. end and top of stope. |
| 2 | 0.34 | 23.74 | 6' | Floor of underhand stope. |
| 3 | 0.02 | 10.58 | 3' | " " " |
| 4 | 0.02 | 0.70 | 3' | Surface white quartz. |
| 5 | 0.12 | 4.20 | | Grab sample, barren looking white quartz. |
| 6 | 0.74 | 6.8 | | " " yellowish quartz, small vugs. |
| 7 | 0.20 | 19.0 | | " " lead ore on dump. |
| 8 | 0.17 | 5.5 | 12' | Across collar of 20' winze. |
| 9 | 0.035 | 1.22 | 18" | "Barren" quartz below entrance |
| 10 | 0.60 | 20.8 | 2' | Cut 4' above and E. of 20' winze. |
| | | | | Ten assay average: 0.242 Au. 10.31 Ag. |
| 11 | 0.107 | 10.12 | 18' | At 30' depth, one horizontal cut |
| 12 | 0.11 | 10.4 | 7' | Across S. side, bottom of 20' winze. |
| 13 | 0.11 | 10.0 | | Upper dump, estimated over 1,000 tons. |
| 14 | 0.12 | 7.1 | | " " |
| 15 | 0.19 | 13.80 | | " " estimated 900 tons. |
| 16 | 0.08 | 5.96 | | " " chips from many course boulders |
| 17 | 0.14 | 3.6 | | " " 5 assays average 0.128 Au. 8.07 ozs. Ag. |
| 18 | 0.20 | 17.1 | 12' | Across back of drift and short crosscut, 20' S. shaft. |
| 19 | 0.06 | 4.0 | 13' | Across roof 25' SW of 70' shaft, 40' level. |
| 20 | 0.04 | 5.52 | 5' | Roof and both walls 6' back from face, 55' level. |
| | | | | Ten assay average: 0.115 Au. 8.76 ozs. Ag. |
| 21 | 0.16 | 13.6 | 4' | SW face, 55' level, 42' fr. shaft, (Pb= 12.0%) |
| 22 | 0.09 | 8.0 | 10' | Across S. side of shaft, 57 feet down. |
| 23 | 0.10 | 8.9 | 5' | From side and bottom of shaft, 75-80 ft. down. |
| 24 | 0.20 | 19.0 | | Lead ore on 55' level, (Pb= 42.0%) |
| 25 | 0.08 | 6.20 | 4' | 20' S. of shaft, 55' level. (Pb= 20.35%) |
| 26 | 0.22 | 29.78 | 12' | Up and down E side 40' level stope, 15' S of shaft. |
| 27 | 0.18 | 7.3 | 20' | Across roof 40' level, 15' S of shaft. |
| 28 | 0.12 | 6.88 | 20' | " " " 10' " " |
| 29 | 0.46 | 50.39 | 4' | "E wall of 60' level drift 1/2 way from shaft to face." |
| 30 | 0.25 | 8.2 | 2' | Intersection of 2 fractures, top of winze. N wall. |
| | | | | Ten assay average: 0.186 Au. 15.82 ozs. Ag. |
| 31 | 0.19 | 15.2 | 6' | 2 cuts, roof, 15' and 20' N of shaft, 40' level. |
| 32 | 0.56 | 26.24 | 2' | 20' E of winze on level with collar. |
| 33 | 0.59 | 22.5 | 2' | " " " " " " |
| 34 | 0.14 | 13.0 | 6' | 2 cuts, E side of drift, 25' from winze. |
| 35 | 0.30 | 14.1 | 7' | 40' level, 25' N of winze. |
| 36 | 0.17 | 12.7 | 12' | Along E crosscut 43' N of winze. |
| 37 | 0.16 | 6.3 | 12' | Side and face of E crosscut, 40' level. |
| 38 | 0.21 | 13.7 | 5' | West side of stope about opposite crosscut. |
| 39 | 0.06 | 3.14 | 3' | Hard quartz, west wall. |
| 40 | 0.16 | 10.4 | 6' | Continuation above #39, shattered material. |
| | | | | Ten assay average: 0.254 Au. 14.83 ozs. Ag. |
| 41 | 0.28 | 8.52 | 5' | 10' N of #39 and #40. 5' hard quartz across floor. |
| 42 | 0.04 | 1.72 | 3' | Continuation of #41, hard quartz, (across 13'). |
| 43 | 0.06 | 6.20 | 5' | 10' N of #42, E wall, shattered material. |
| 44 | 0.32 | 27.9 | 6' | Continuation of #43, hard quartz. |
| 45 | 0.22 | 16.0 | 6' | 7 cuts, 6' int., 48'-84' N of shaft, 40' level. |
| 46 | 0.19 | 15.2 | 6' | Top of drift 64' N of shaft. |
| 47 | 0.48 | 52.3 | | Considerable iron sulphide, 40' level. |
| 48 | 0.24 | 24.1 | 8-1/2' | N side 40' Level stope, 9' S of NW corner of old stope. |
| 49 | 0.20 | 13.6 | 7' | NW corner of old 40' level stope. |
| 50 | 0.13 | 9.6 | 4' | Small crosscut near face of drift. |
| | | | | Ten assay average: 0.218 AU. 17.57 ozs. Ag. |
| 51 | 0.16 | 21.2 | 6' | Across face of drift, 84' NE from shaft, 40' level. |
| 52 | 0.18 | 11.4 | 8' | " " " " |
| 53 | 0.08 | 7.92 | 6-1/2' | |
| 54 | 0.40 | 49.7 | | Sample showing considerable iron sulphide, NE face. |
| 55 | 0.18 | 30.4 | | " " little " " |
| 56 | 0.04 | 3.32 | 15' | Cut all around hole, West-most excavation sampled. |
| 57 | 0.43 | 9.6 | 6' | "Surface remnant of probable high-grade lense." |
| 58 | 0.06 | 9.54 | | Dump, estimated 100 tons. |
| 59 | 0.08 | 4.76 | 15' | Across 12' high face. |
| 60 | 0.02 | 0.14 | 6' | Hard rib, more massive than #59. |
| | | | | Ten assay average: 0.163 oz Au, 14.8 ozs Ag. |
| 61 | 0.06 | 3.4 | 8' | Ore in opencut. |
| 62 | 0.38 | 33.5 | | Vuggy ore from 3' in bottom dipping north. |
| 63 | 0.08 | 1.60 | | Dump, estimated 50 tons. |
| 64 | 0.109 | 2.11 | 6' | Five vertical cuts. |
| 65 | 0.11 | 2.5 | 9' | At each side of little tunnel. |
| 66 | 0.06 | 1.26 | 10' | Hard red fractured quartz. |
| 67 | 0.45 | 4.3 | 2' | North side bottom of opencut. |
| 68 | 0.06 | 5.7 | | Quartz specimen from right edge of opencut. |
| 69 | 0.42 | 11.2 | | Grab, small pile in from of tunnel portal. |
| 70 | 0.20 | 18.6 | | Better grade ore on dump. |
| | | | | Ten assay average: .193 oz Au. 8.42 ozs Ag. |
| 71 | 0.04 | 1.44 | | Dump, estimated 120 tons. |
| 72 | 0.02 | 3.10 | 12' | At face of 105' tunnel |
| 73 | 0.06 | trace | | Bright red oxide midway 105' tunnel, 10 inches. |
| 74 | 0.16 | 3.24 | 4' | Face of short drift 50' from portal, 4' vert. cuts. |
| 75 | 0.45 | 4.3 | 2' | top E side. |
| 76 | 0.06 | 1.4 | 2' | " " " " " " lower E side. |
| 77 | 0.08 | 2.1 | 15' | Altered limestone, cuts 10' and 20' in from portal. |
| 78 | 0.76 | 4.2 | | Oxidized ore on surface over 105' tunnel. |
| 79 | 0.16 | 5.5 | 14' | Across ore above 195' tunnel portal, 25 lb. sample. |
| 80 | 0.20 | 16.0 | 6' | Across ore below 14' sample #79. |
| | | | | Ten assay average: 0.20 Au, 4.03 Ag. |
| 81 | 0.10 | 5.6 | 8' | Two cuts at portal of 105' tunnel. |
| 82 | 0.175 | 10.7 | 6' | Next 6' of ore above 8' sample #81. |
| 83 | 0.038 | 2.56 | 8' | Five vert. cuts 5' apart in opencut. |
| 84 | 0.26 | 23.8 | | Rejects dump, estimated 1,000 tons. |
| 85 | 0.15 | 10.2 | | " " " " |
| 86 | 0.19 | 12.5 | | " " " " |
| 87 | 0.12 | 22.56 | | " " 4 assays average 0.18 Au, 17.26 Ag. |
| 88 | 0.06 | 2.5 | 13' | Across surface gossan. |
| 89 | 0.04 | 2.2 | 15' | Continuation from 13' sample #88. |
| 90 | 0.02 | 1.2 | | "Altered rock." |
| | | | | Ten assay average: 0.115 Au. 9.40 Ag. |
| 91 | 0.02 | 0.18 | 5' | Short tunnel, several vertical cuts. |
| 92 | 0.02 | 1.02 | 10' | Mostly quartz. |
| 93 | 0.007 | 1.23 | 8' | SE face of opencut, five vertical cuts. |
| 94 | 0.15 | 6.0 | 7' | Across bend or ore between cuts. |
| 95 | 0.08 | 7.40 | 8' | Hard quartz taken over an area of 8' x 40'. |
| 96 | 0.10 | 23.30 | 6' | Ore overlying quartz in sample #95, 3 vert. cuts. |
| 97 | 0.243 | 7.66 | | Rejects dump, est. 300 tons, grab from 40 places. |
| 98 | 0.044 | 4.82 | 25' | Across S face of surface stope. |
| 99 | 0.01 | 0.12 | 6' | Breast of 60' tunnel, hard, lean quartz. |
| 100 | 0.13 | 11.0 | 2' | Across good looking quartz above 60' tunnel. |
| | | | | Ten assay average: 0.08 oz Au, 6.27 ozs Ag. |
| 101 | 0.03 | 0.3 | 2-1/2' | Above 60' tunnel, red dirt and chert. |
| 102 | 0.04 | 0.9 | 3' | " " hard dense rock. |
| 103 | 0.90 | 34.5 | 4-1/2' | In raise under open stope. |
| 104 | 0.025 | 1.83 | 10' | Face of opencut, 4 vertical cuts. |
| 105 | 0.02 | trace | 25' | Red stained limestone, not silicified. |
| 106 | 0.141 | 35.45 | | Chip sample of 5 ton pile, course hard quartz. |
| 107 | 0.06 | 3.82 | | Dump, estimated 1,000 tons. |
| 108 | 0.02 | 2.38 | | " " re-sample. |
| | | | | * two assays average: 0.04 Au. 3.1 ozs Ag. |
| 109 | 0.12 | 9.95 | | Chunks of heavy sulphide ore in bottom tunnel dump. |
| 110 | 0.085 | 18.00 | | Composite sample, 3 dumps, 7 faces, for smelter lab. 100 lbs. |
| | | | | Ten assay average: 0.144 Au, 10.71 ozs Ag. |
| 111 | 0.08 | 2.88 | 5' | S end of 40' level stope. |
| 112 | 0.09 | 11.0 | 3 | At 105' tunnel portal. |
| | | | | Average of 112 samples: 0.172 Au, 10.925 Ag. |

Including the 18 assays of traced smelter shipments, the average of 130 assays is: 0.186 oz gold and 13.29 ozs silver.

## SILICA ASSAYS

SMELTER SHIPMENTS

| Tons | %Silica |
|---|---|
| 32 | 80.0 |
| 20 | 84.9 |
| 37 | 83.1 |
| 44 | 77.0 |
| 51 | 68.2 |
| 54 | 75.0 |
| 55 | 80.4 |
| 67 | 82.9 |
| 44 | 83.6 |
| 58 | 79.2 |
| 50 | 79.0 |
| 31 | 77.2 |
| 42 | 85.0 |

13 car loads, total 585 tons

Arith. Average = 79.65%

11 Samples of Ore in place and dumps

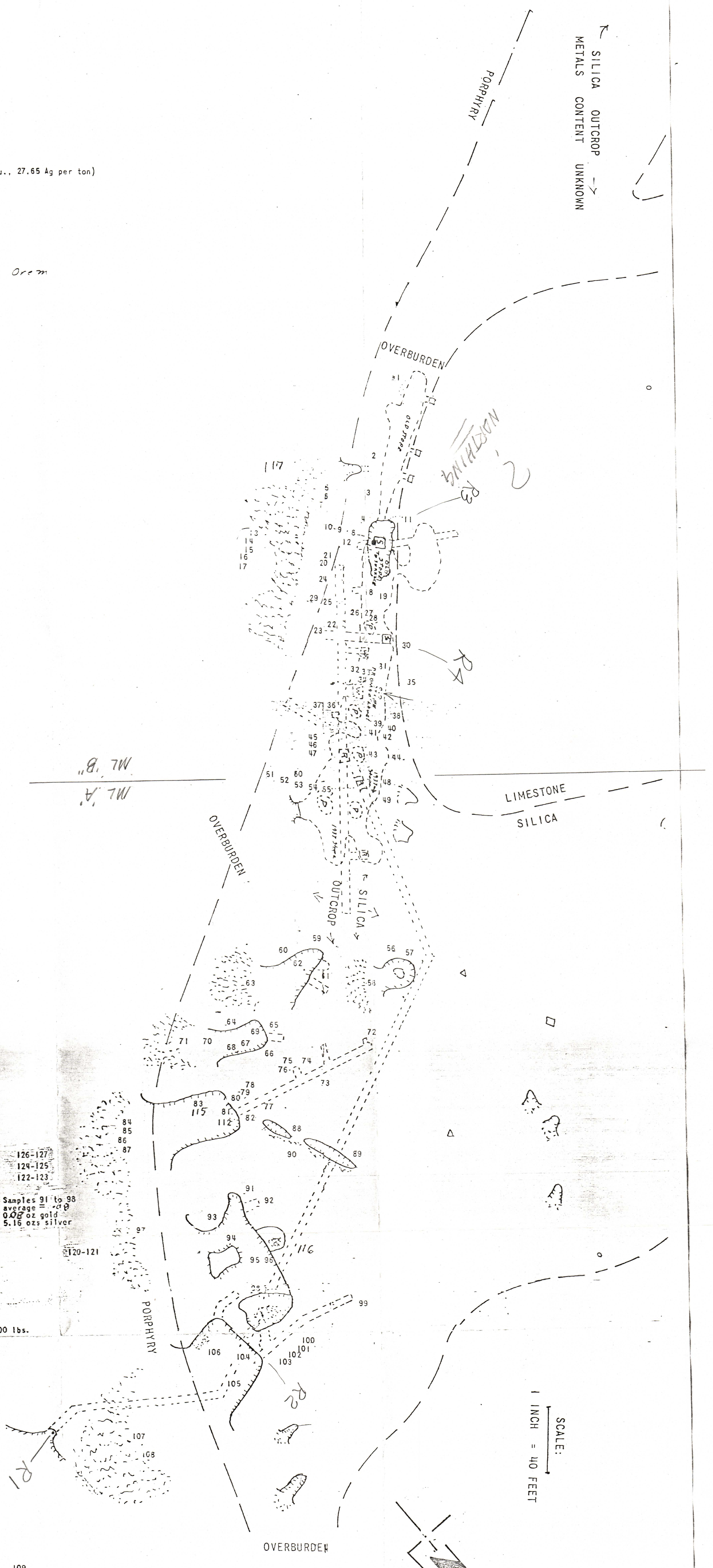
83.18%
88.24
89.15
84.76
78.80
85.75
85.15
84.80
85.6
88.72
91.50

Average = 85.97%

## DUMP RE-SAMPLES

| MAP REF NO. | GOLD OZS. | SILVER OZS. | IRON % Fe | SILICA % $SiO_2$ | DESCRIPTION OF SAMPLING |
|---|---|---|---|---|---|
| 114 | 0.21 | 8.16 | | | Upper dump, rejects from underground stopes. |
| 115 | 0.014 | 2.08 | | | Ore piled S. side entrance to 105' tunnel. Est. 15 tons |
| 116 | 0.10 | 5.4 | | | Ore pile 50' SW of portal 60' tunnel. Est. 30 tons |
| 117 | 0.11 | 5.2 | | | Upper dump, S. of ramp. 80 grabs of fines. Est. 100 tons |
| 118A | - | | | | " " N. " r. 200 1# grabs minus 2-1/2" EST. 100 tons |
| 118B | 0.06 | 4.9 | | | Minus 6-mesh screenings from No. 18A after crushing. 5% |
| 119 | 0.06 | 8.4 | 4.7 | 87.0 | Upper dump, chips from 300 6"-24" chunks. Est. 400 tons |
| 120 | 0.02 | 2.4 | 4.3 | 85.5 | Middle dump N-1/4, chips 142 6"-24" chunks EST. 100 tons |
| 121 | 0.05 | 4.5 | 4.1 | 89.0 | " " " minus 3" from 3 trenches. Est. 100 tons |
| 122 | 0.06 | 3.8 | | | " " Mid. 1/2, N trench, chips, 60 ch. EST. 100 tons |
| 123 | 0.04 | 4.5 | | | " " " " " minus 3" EST. 100 tons |
| 124 | 0.04 | 2.0 | | | " " " " 2nd " chips, 50 ch. Est. 100 tons |
| 125A | | | | | " " " " " " minus 3" Est. 100 tons |
| 125B | 0.04 | 4.0 | | | " " " " " " minus-6-mesh. 5% |
| 126 | 0.16 | 18.0 | | | " " " " S " chips, 55 ch. Est. 100 tons |
| 127 | 0.04 | 4.0 | | | " " " " " " minus 3" Est. 100 tons |
| --- | 0.08 | 7.7 | 4.8 | 90.1 | Composite of samples 122 thru 127. |
| 128A | 0.02 | 2.02 | | 87.62 | Lower dump, N side, 28# of chips. (Est. 350 tons.) |
| 128B | 0.008 | 2.86 | | 90.49 | " " S " 20# of chips. (Est. 350 tons.) |
| 129A | 0.065 | 7.76 | | 88.53 | " " N third, 27# of chips. Est. 100 tons |
| 129B | 0.033 | 5.35 | | 90.43 | " " " " 30# of chips. Est. 100 tons |
| 130 | 0.073 | 10.46 | | 87.00 | " " S two thirds, 38# of chips. Est. 500 tons |
| 131A | 0.064 | 7.11 | | | " " N third, 65 grabs of fines. Est. 100 tons |
| 131B | 0.011 | 1.67 | | 90.65 | " " S 2/3 80 grabs of fines. Est. 200 tons |
| --- | 0.036 | 5.16 | | 89.12 | weighted average of seven samples |
| 132 | 0.020 | 2.87 | | 82.44 | Dump just SE of 105' tunnel, chips, 37# Est. 100 tons |
| 133 | 0.061 | 2.64 | | | " " " " " " 60 grabs fines Est. 20 tons |
| 134 | 0.033 | 2.64 | | 91.26 | Dump just S of 105' tunnel, 18# chips Est. 40 tons |
| 135 | 0.045 | 5.70 | | | " " " " " 12# fines Est. 10 tons |
| 136 | 0.022 | 2.93 | | 89.31 | Dump SW of 105' tunnel, 28# of chips. EST 80 tons |
| 137 | 0.052 | 3.96 | | | " " " " 50 grabs fines EST. 20 tons |
| 151 | 0.178 | 11.77 | | | " " " " 20 grabs fines Est. 5 tons |

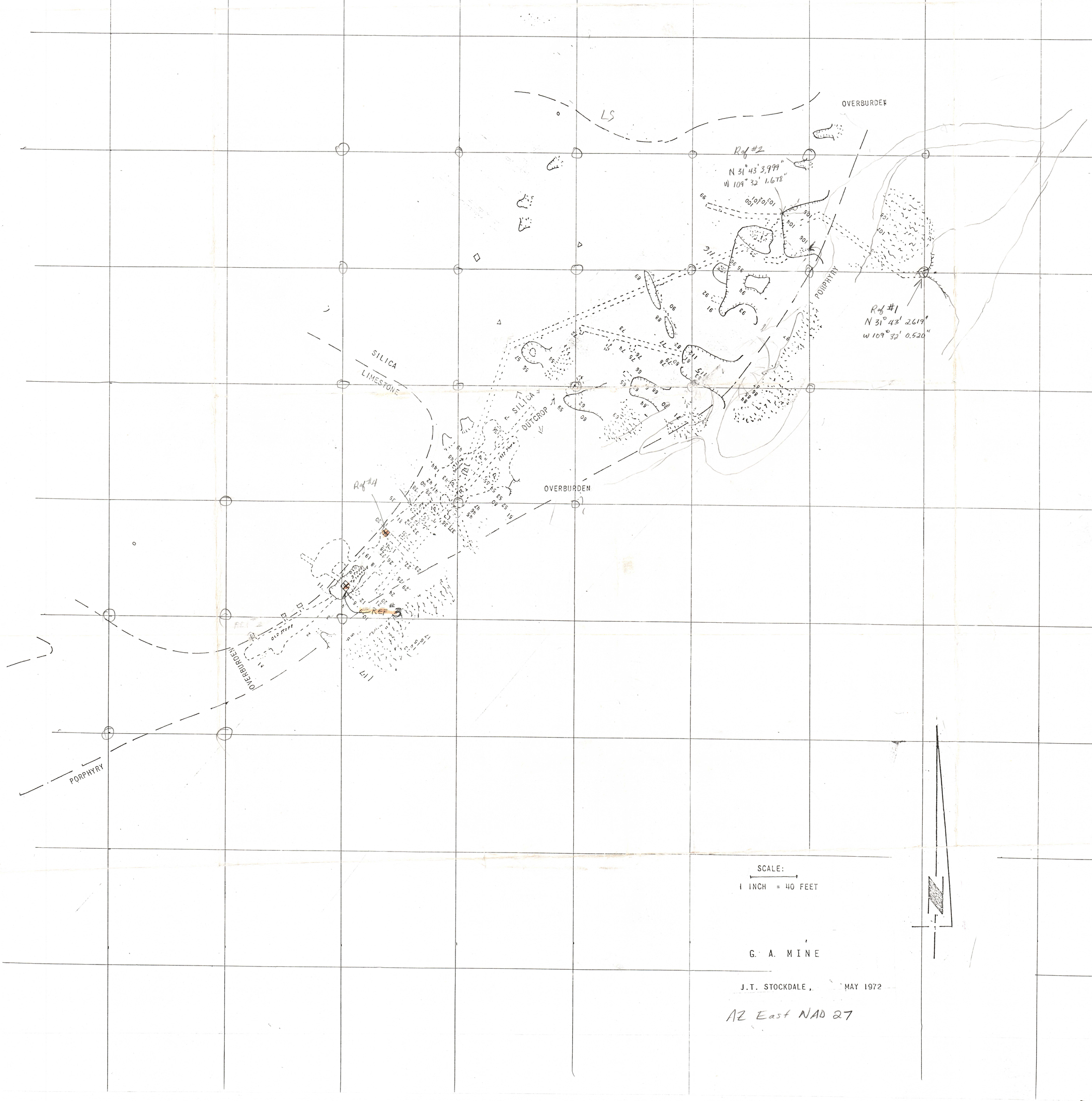
(No. 151 from ore pile on top of dump)




ASSAY MAP

G. A. MINE

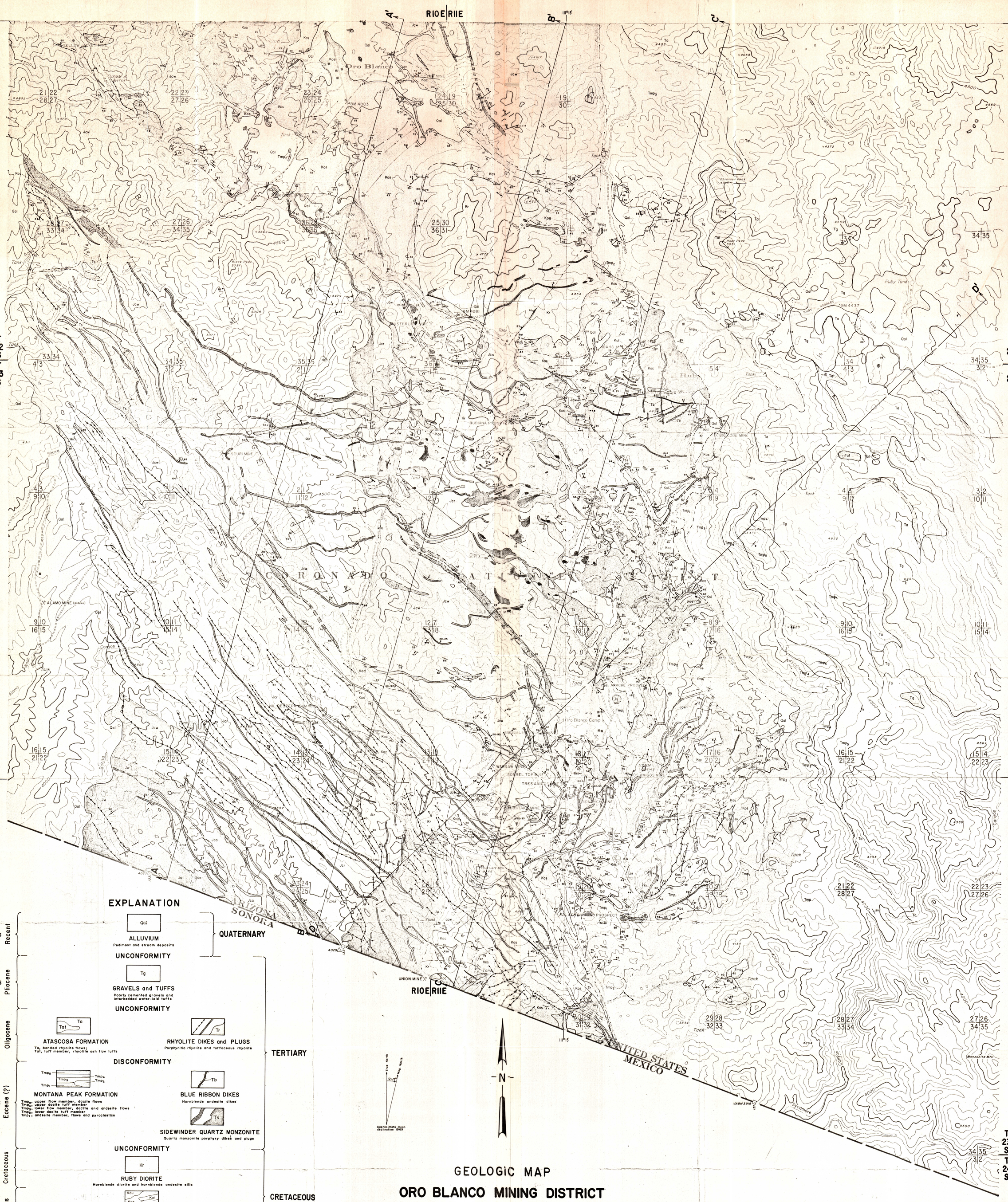
J.T. STOCKDALE, MAY 1972




G. A. MINE

J.T. STOCKDALE, MAY 1972

AZ East NAD 27




## EXPLANATION

**QUATERNARY** — Pleistocene or Recent

Qal — **ALLUVIUM**
Pediment and stream deposits

**UNCONFORMITY**

**TERTIARY** — Miocene or Pliocene

Tg — **GRAVELS and TUFFS**
Poorly cemented gravels and interbedded water-laid tuffs

**UNCONFORMITY**

Oligocene

Ta, Tat — **ATASCOSA FORMATION**
Ta, banded rhyolite flows;
Tat, tuff member, rhyolite ash flow tuffs

Tr — **RHYOLITE DIKES and PLUGS**
Porphyritic rhyolite and tuffaceous rhyolite

**DISCONFORMITY**

Paleocene (?) or Eocene (?)

Tmp5, Tmp4, Tmp3, Tmp2, Tmp1 — **MONTANA PEAK FORMATION**
Tmp5, upper flow member, dacite flows
Tmp4, upper dacite tuff member
Tmp3, lower flow member, dacite and andesite flows
Tmp2, lower dacite tuff member
Tmp1, andesite member, flows and pyroclastics

Tb — **BLUE RIBBON DIKES**
Hornblende andesite dikes

Ts — **SIDEWINDER QUARTZ MONZONITE**
Quartz monzonite porphyry dikes and plugs

**UNCONFORMITY**

**CRETACEOUS** — Middle or Upper Cretaceous

Kr — **RUBY DIORITE**
Hornblende diorite and hornblende andesite sills

Lower Cretaceous

Kou, Kos, Kol, Koc — **ORO BLANCO FORMATION**
Kou, upper conglomerate member
Kos, sandstone and siltstone member
Kol, limestone member
Koc, Oro Blanco conglomerate member

**UNCONFORMITY**

**JURASSIC (?)**

Jw — **WARSAW QUARTZ MONZONITE**
Equigranular leuco-quartz monzonite and mafic-rich quartz monzonite

Jcw, Jca, Jcr — **COBRE RIDGE TUFF**
Jca, arkose member, arkose and arkosic sandstone
Jcw, welded tuff member, quartz latite welded and non-welded tuff, minor interbedded sandstone
Jcr, rhyolite member, non-welded rhyolite tuff and minor welded quartz latite tuff

True North
Magnetic North
12 1/2°
Approximate mean declination 1969

# GEOLOGIC MAP
# ORO BLANCO MINING DISTRICT
## SANTA CRUZ COUNTY, ARIZONA

JULY, 1969

1000 600 200 0 1000 2000 3000 FEET
800 400
Contour Interval 100 Feet

4 inches = 1 mile — 1:15,840

Base map from U.S. Geological Survey
Oro Blanco and Ruby Quadrangles

Geology by Louis H. Knight, 1968-1969

## SYMBOLS

Contact, showing dip, dashed where approximately located, dotted where concealed

Fault, showing dip, dashed where approximately located, dotted where concealed
D, downthrown side
U, upthrown side

Vein, showing dip

Silicified zone, showing general strike and dip

Strike and dip of beds
Horizontal
Normal
Vertical
Overturned

Strike and dip of foliation
Normal
Vertical

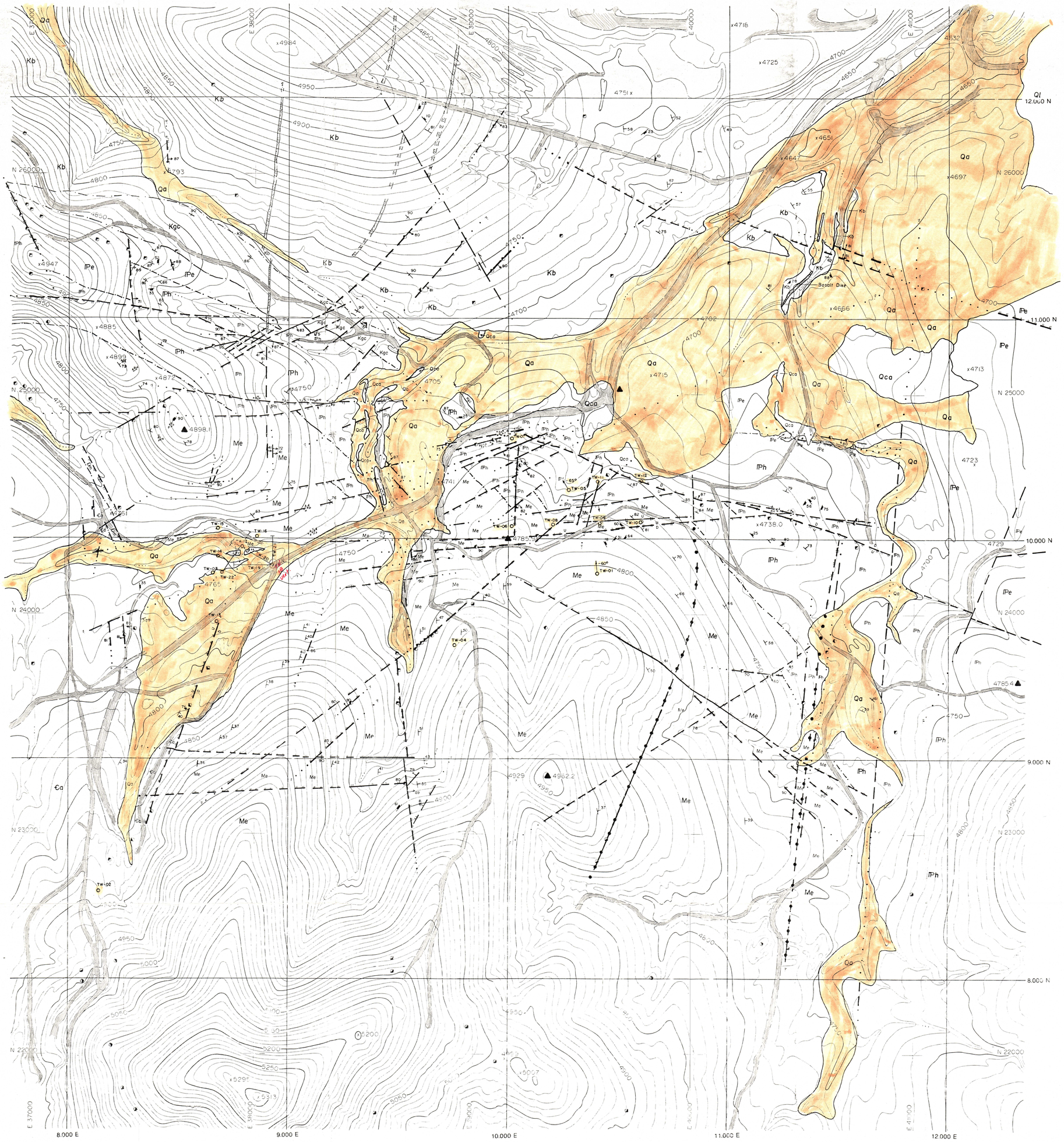
Trend and plunge of lineation
Horizontal

DRAWING NUMBER

| D. N. | R. | P. | F. | LOC. |
|---|---|---|---|---|
| 1247 | 0 | 119 | AF | S11E3 |

FIGURE 3

Louis Knight Dissertation, Geology, 1970




## LEGEND

| | |
|---|---|
| Qa | Quaternary Alluvium |
| Qca | Quaternary Well Cemented Alluvium |
| Ql | Quaternary Lacustrine |
| Kb | Bisbee Formation |
| Kgc | Glance Conglomerate |
| IPe | Earp Limestone |
| IPh | Horquilla Limestone |
| Me | Escabrosa Limestone |
| Dm | Martin Limestone |
| €a | Abrigo Limestone |

Strike & Dip

Strike & Dip (overturned)

Joint & Dip

Strike & Dip (vertical)

Vertical Shaft

TW-03 Drill Hole

Formation Contact

Fault, Strike-Slip

Fault, Reverse

Felsite Dike

Andesite Dike

N

SCALE 1" = 200'

0 100 200 400
FEET

McLAIN HARBERS CO., INC.
AERIAL MAPPING & SURVEYING
720 W. Prince Rd.
Tucson, Arizona 85705

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS.
1" = 200' HORIZONTAL SCALE AND 10' CONTOUR INTERVALS
IT IS BASED ON GROUND CONTROL SURVEY DATA PROVIDED BY:

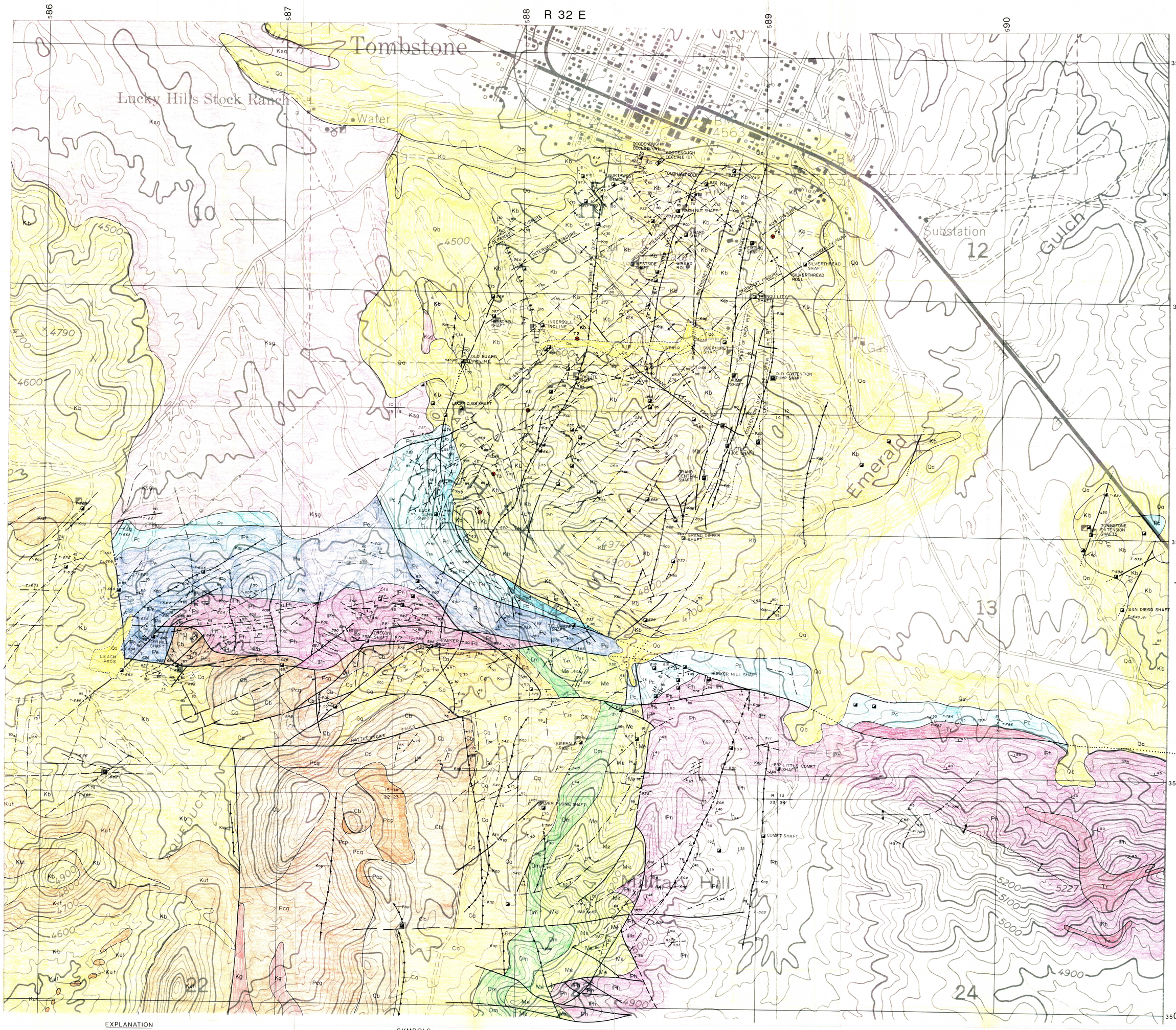
# Santa Fe Pacific Mining, Inc.

Albuquerque, New Mexico

| Revisions | |
|---|---|
| By | Date |
| LB | 11-27-91 |
| BB | 1-28-92 |

## General Geology of the TOMBSTONE – WEDGE PROJECT

| | | | |
|---|---|---|---|
| Scale: 1" = 200' | Data by K.E. EAGAN | State ARIZONA | Date 9-14-90 |
| | Drawn by K.E. EAGAN | County COCHISE | File No. |




## EXPLANATION

| Period | Symbol | Description |
|---|---|---|
| Quaternary | Qa | Alluvium, dumps, tailings, etc. |
| Tertiary | Tr | rhyolite plugs and dikes |
| Cretaceous | Kg | granophyre |
| | Kut | Uncle Sam tuff |
| | Ksg | Schieffelin granodiorite |
| | Kop | andesite porphyry dikes |
| | | unconformity |
| | Kb | Bisbee Formation |
| | | unconformity |
| Pennsylvanian-Permian, Naco Group | Pe d | Epitath dolomite |
| | Pc | Colina limestone |
| | Pe c | Earp limestone |
| | Ph | Horquilla limestone |
| | | disconformity |
| Mississippian | Me | Escabrosa limestone |
| | | disconformity |
| Devonian | Dm | Martin limestone |
| | | disconformity |
| Cambrian | Ca | Abrigo limestone |
| | Cb | Bolsa quartzite |
| | | unconformity |
| Pre-Cambrian | Pcg | granite |
| | Pcp | Pinal schist |

## SYMBOLS

- anticline, overturned anticline, showing plunge
- contact, approximately located, concealed, showing dip
- fault, approximately located, concealed, showing dip
- fissure or air photo linear, showing dip
- strike and dip of bedding, vertical dip
- vertical shaft
- inclined shaft
- adit
- prospect pit
- drill hole

R 32 E

SCALE 1" = 500'

500 0 500 1000 1500

CONTOUR INTERVAL 25 FEET

# Santa Fe Pacific Mining, Inc.

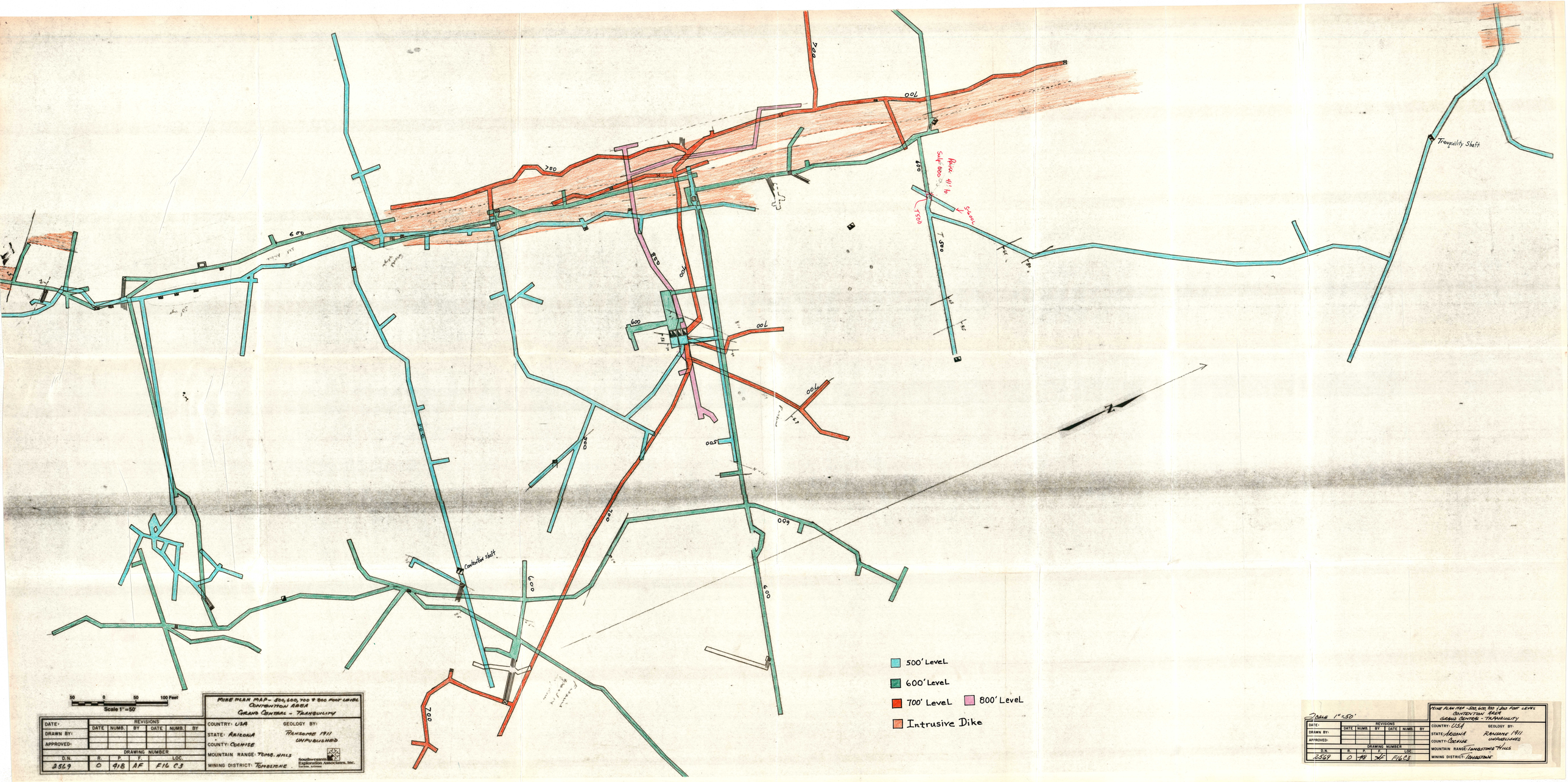
Albuquerque, New Mexico

| Revisions | |
|---|---|
| By | Date |
| BB | 1-2-89 |

# GEOLOGIC MAP OF THE TOMBSTONE MINING DISTRICT

## PLATE 1.

| | | | |
|---|---|---|---|
| Scale: 1" = 500' | Data by D. Riesmeyer | State Arizona | Date 10-3-88 |
| | Drawn by B. Bone | County Cochise | File No. G-27 |


500' Level
600' Level
700' Level
800' Level
Intrusive Dike
Combination shaft
Tranquility Shaft
Raise 41 ft.
Sump 800 ft.
Scale 1" = 50'
50 0 50 100 Feet
Scale 1" = 50'
MINE PLAN MAP - 500, 600, 700 & 800 FOOT LEVEL
COMBINATION AREA
GRAND CENTRAL - TRANQUILITY
COUNTRY: USA
STATE: ARIZONA
COUNTY: COCHISE
MOUNTAIN RANGE: TOMB. HILLS
MINING DISTRICT: TOMBSTONE
GEOLOGY BY:
RANSOME 1911
UNPUBLISHED
Southwestern Exploration Associates, Inc.
Tucson, Arizona
DATE:
DRAWN BY:
APPROVED:
REVISIONS
DATE NUMB. BY DATE NUMB. BY
DRAWING NUMBER
D.N. R. P. F. LOC.
2569 0 418 AF F16 C3