



## **CONTACT INFORMATION**

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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: BLACK BUTTE

ALTERNATE NAMES:

BLUE BIRD  
CORICO

SANTA CRUZ COUNTY MILS NUMBER: 50A

LOCATION: TOWNSHIP 22 S RANGE 15 E SECTION 10 QUARTER SE  
LATITUDE: N 31DEG 32MIN 12SEC LONGITUDE: W 110DEG 48MIN 22SEC  
TOPO MAP NAME: MOUNT WRIGHTSON - 15 MIN

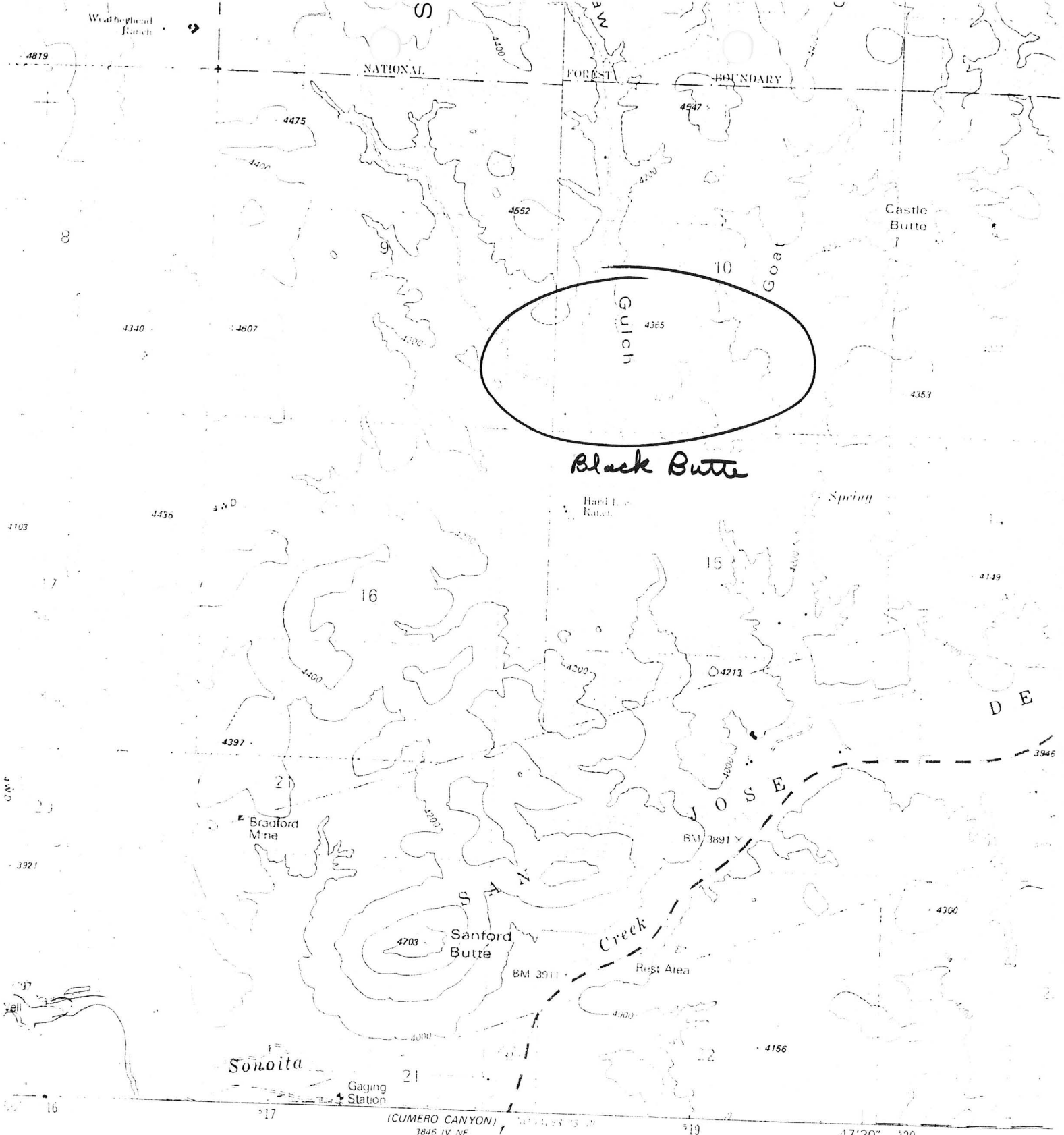
CURRENT STATUS: PAST PRODUCER

COMMODITY:

MANGANESE

BIBLIOGRAPHY:

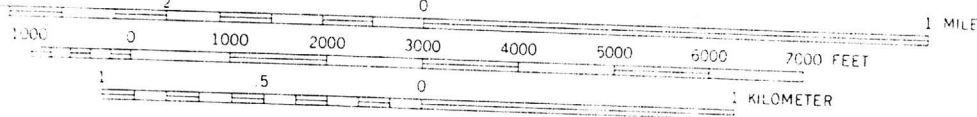
ADMMR BLACK BUTTE FILE  
USBM IC 7990, P. 176-177  
USGS PP 748, P. 7-9



Gulch  
4365

Black Butte

SCALE 1:24 000



CONTOUR INTERVAL 40 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Patagonia Quad



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADANGLE LC

BLACK BUTTE GROUP

6/84

SANTA CRUZ COUNTY  
T22S R15E Sec 10

MILS Santa Cruz Index #50

AKA: Blue Bird, Calico, Wiggley Springs

USBM IC 7990, p.176-177

USGS PP 748, p. 7-9

COMMODITY INFORMATION

COMMODITIES PRESENT C10 Mn, Ag  
 ORE MINERALS C30 PYROLUSITE, WAD  
 COMMODITY SUBTYPES C41  
 GEN. ANALYTICAL DATA C43 1950'S ORE VALUES ASSAYED 25% Mn, 10% Fe  
 M. INFO. COMMENTS C50

SIGNIFICANCE  
 MAJOR PRODUCTS MAJOR Mn, Ag  
 MINOR PRODUCTS MINOR  
 POTENTIAL PRODUCTS POTEN  
 OCCURRENCES OCCUR

\*PRODUCTION  
 PRODUCTION  (circle) PRODUCTION SIZE  SMALL  MEDIUM  LARGE (circle one)  
 NON-PRODUCER PRODUCTION   NO (circle one)

EXPLORATION OR DEVELOPMENT  
 STATUS AND ACTIVITY #A20 H  
 STATUS AND ACTIVITY #A20

DISCOVERER #L20  
 YEAR OF DISCOVERY #L10 NATURE OF DISCOVERY #L30 YEAR OF FIRST PRODUCTION #L40 YEAR OF LAST PRODUCTION #L45  
 PRESENT/LAST OWNER #A12 AVELINO DE LA OSSA (1952)  
 PRESENT/LAST OPERATOR #A13 ROBERT R. HATHAWAY (1952)  
 EXPL./DEV. COMMENTS #L110 PROPERTY COMPRISES 2 UNPATENTED CLAIMS; LOCATED IN 1800'S AS SILVER PROSPECTS; ABANDONED AND RELOCATED SEVERAL TIMES; HELD IN 1940'S BY P.W. CARICO.

DESCRIPTION OF DEPOSIT

DEPOSIT TYPE(S) C40 SHEAR ZONE  
 DEPOSIT FORM/SHAPE #A10 STRINGERS; LENTICULAR MASSES  
 DEPTH TO TOP #A20 UNITS #A21 MAXIMUM LENGTH #A40 UNITS #A41  
 DEPTH TO BOTTOM #A30 UNITS #A31 MAXIMUM WIDTH #A50 4 UNITS #A51 FT  
 DEPOSIT SIZE #A15  SMALL #A15  MEDIUM #A15  LARGE (circle one) MAXIMUM THICKNESS #A60 UNITS #A61  
 STRIKE #A70 N60E DIP #A80 VERTICAL  
 DIRECTION OF PLUNGE #A100 PLUNGE #A90  
 DESC. COMMENTS #A110 FRACTURE IS MINERALIZED IN DISCONNECTED AREAS ABOUT 400 FT ALONG OUTCROP; AVERAGES 2-4 FT WIDE; LENTICULAR MASSES ARE AS MUCH AS 10 FT LONG AND

DESCRIPTION OF WORKINGS

Workings are: SURFACE #M120 UNDERGROUND #M130 BOTH  (circle one)  
 DEPTH BELOW SURFACE #M160 20 UNITS #M161 FT OVERALL LENGTH #M190 UNITS #M191  
 LENGTH OF WORKINGS #M170 UNITS #M171 OVERALL WIDTH #M200 UNITS #M201  
 DESC. OF WORK. COM. #M220 OPENED BY 20-FT SHAFT ADJACENT OPEN CUT 18 FT LONG AND ABOUT 9 FT DEEP, SHALLOW TRENCH ABOUT 30 FT NE OF SHAFT OVERALL AREA #M210 UNITS #M211

GEOLOGY

\* AGE OF HOST ROCK(S) K1 TERT.-PALEO.V.  
 \* HOST ROCK TYPE(S) K1A RHYOLITE WELDED TUFF AND FLOWS  
 \* AGE OF IGNEOUS ROCK(S) K2 TERT.-PALEO.V.  
 \* IGNEOUS ROCK TYPE(S) K2A LARGELY UNDIFFERENTIATED RHYOLITE TUFF, WELDED TUFF, AND SOME FLOWS  
 \* AGE OF MINERALIZATION K3 PALEO.V.  
 \* PERT. MINERALS (NOT ORE) K4 QUARTZ AND IRON OXIDE GANGUE  
 \* ORE CONTROL/LOCUS K5 NE-TRENDING VERTICAL FRACTURE CUTTING RHYOLITE; ORE OCCURS IN  
 \* MAJ. REG. TRENDS/STRUCT. #N5 NW-TRENDING SALERO FAULT ZONE; E-W TRENDING QUARTZ FISSURE VEINS  
 \* TECTONIC SETTING #N15 GROSVENOR HILLS FAULT BLOCK  
 \* SIGNIFICANT LOCAL STRUCT. #N70 SERIES OF E-W TRENDING FAULTS, LOCATED ON E-W FAULT WITH DOWNTHROW ON  
 \* SIGNIFICANT ALTERATION #N75 SURFACE OXIDATION TO UNKNOWN DEPTHS  
 \* PROCESS OF CONC./ENRICH. #N80 OXIDATION AND SUPERGENE ENRICHMENT  
 \* FORMATION AGE #N30  
 \* FORMATION NAME #N30A  
 \* SECOND FM AGE #N35  
 \* SECOND FM NAME #N35A  
 \* IGNEOUS UNIT AGE #N50 PALEO.V.  
 \* IGNEOUS UNIT NAME #N50A GRINGO GULCH VOLCANICS - LOWER MEMBER  
 \* SECOND IG. UNIT AGE #N55  
 \* SECOND IG. UNIT NAME #N55A  
 GEOLOGY COMMENTS #N85 SOME MANGANIFEROUS FLOAT FOUND TO NE OF SHALLOW TRENCH; LARGER MASSES OF ORE OCCUR IN AN AREA ALONG FRACTURE ABOUT 60 FT LONG

GENERAL COMMENTS

GENERAL COMMENTS GEN

\*GENERAL REFERENCES

G.C

- REFERENCE 1 F1 < USBM F. 5, BLAC. BUTTE GROUP >
- REFERENCE 2 F2 < FARNHAM, L.L., STEWART, L.A., AND C.W. DELONG, 1961, USBM INFORMATION CIRCULAR 7990, p. 176-177 >
- REFERENCE 3 F3 < DREWES, H., 1971, USGS MAP I-6014 (1:48000) >
- REFERENCE 4 F4 < DREWES, H., 1972, USGS PROFESSIONAL PAPER 748, p. 7-9 >

MI 504

- L110 < FIRST MANGANESE ORE PRODUCED IN 1953 >
- M110 < 2 FT WIDE >
- K5 < NARROW PARALLEL STRINGERS AND OCCASIONALLY AS LENTICULAR MASSES >
- N5 < CUTTING DIORITE AND VOLCANIC FLOWS AND WELDED TUFFS >
- N70 < SOUTH SIDE >
- F5 < ABG-MT FILES, STANTON B. KEITH >

U.S. CRIB SITE FORM

RECORD IDENTIFICATION

RECORD NUMBER: B10 < >  
 REPORT DATE: G1 < 82.05 > YR. MO.  
 REPORTER (SUPERVISOR): G2 < CALDER, SUSAN R. > (last, first, middle initial)  
 REPORTER AFFILIATION: G5 < ABG-MT >  
 SYNONYMS: A11 < BLUE BIRD, CARICO PROPERTY, WIGGLEY SPRINGS >  
 RECORD TYPE: B20 < X, I, M >  
 INFORMATION SOURCE: B30 < 12 >  
 DEPOSIT NUMBER: B40 < >  
 FILE LINK IDENT.: B50 < USBM-0040230011 >

LOCATION

MINING DISTRICT/AREA: A30 < IVANHOE DISTRICT >  
 COUNTY: A60 < SANTA CRUZ > STATE: A50 < AZ > COUNTRY: A40 < U.S. >  
 PHYSIOGRAPHIC PROV.: A63 < 12 >  
 DRAINAGE AREA: A62 < 15,050,301 > LOWER COLORADO  
 QUADRANGLE NAME: A90 < PATAGONIA > (1981)  
 SECOND QUAD NAME: A92 < MT. WRIGHTSON > (1958)  
 ELEVATION: A107 < 4,500 > FT.  
 LAND STATUS: A64 < 01 > (1979)  
 QUADRANGLE SCALE: A100 < 24000 >  
 SECOND QUAD SCALE: A91 < 62500 >

UTM  
 NORTHING: A120 < 3488910 >  
 EASTING: A130 < 518405 >  
 ZONE NUMBER: A110 < 12 >

ACCURACY  
 ACCURATE (ACC) (circle)  
 ESTIMATED EST < >

GEODETTIC  
 LATITUDE: A70 < 31-32-12 >  
 LONGITUDE: A80 < 110-48-22 >

CADASTRAL  
 TOWNSHIP(S): A77 < 022S > RANGE(S): A78 < 015E >  
 SECTION(S): A79 < 09 >  
 SECTION FRACTION(S): A76 < E2 >  
 MERIDIAN(S): A81 < GILA AND SALT RIVER >

POSITION FROM NEAREST PROMINENT LOCALITY: A82 < 3 1/4 MILES WSW OF PATAGONIA >  
 LOCATION COMMENTS: A83 < ON NARROW RIDGE BETWEEN SQUAW GULCH AND ITS WESTERN TRIBUTARY WHICH DRAINS SOUTH FROM AREA OF MAMMOTH AND ST. LOUIS MINES >

\* ESSENTIAL INFORMATION  
 \* ESSENTIAL SOMETIMES OR HIGHLY RECOMMENDED