

12 DEC 80 1020 STOPE 1300 LEVEL

RILLED DOWN MUCK PILE AND BOLTED HANGING WALL. MOVED ON TOP OF MUCK PILE AND PUT MORE BOLTS IN. TOTAL 24 BOLTS. DRILLED 50' ON A BIG STRIP.

15 DEC 80 1020 ST. 1300 LEV.

FINISHED BIG STRIP (10'). MUCKED 44 CARS WITH LHD. DRILLED AND FIRED 21 BLOCKHOLES. FIRED BIG STRIP.

16 DEC 80 1020 ST. 1300 LEVEL

RILLED DOWN MUCK PILE AND BOLTED HANGING WALL. THE LAST STRIP MADE MUCK PILE TOO HIGH TO BOLT THE BACK. WILL HAVE TO MUCK AND RILL DOWN AGAIN TO MAKE ROOM. MUCKED WITH LHD AND FIRED SMALL STRIP ON FOOTWALL. 15 BOLTS, 16 CARS.

17 DEC 80 1020 STOPE 1300 LEVEL

MUCKED WITH LHD. 23 CARS. RILLED
DOWN PILE AND BOLTED. 16 BOLTS.
DRILLED A 7' STRIP HOLE ON F/W,
GOT TWO KRAISSLITE SPECIMENS.

18 DEC 80 1020 STOPE 1300 LEV

MUCKED WITH LHD. 24 CARS. HAD
TO WORK AROUND FILL CREW. RILLED
DOWN PILE AND BOLTED. 8 BOLTS.
FIRED STRIP ON FOOTWALL. GOT SOME
RECRYSTALIZED ZINCITE. SAW SOME
PRIMARY ZINCITE IN MUCK PILE.

19 DEC 80 1380 U.P. 1300 LEV.

STARTED OUT IN 1020 ST. PUT IN ONE
BOLT AND HAD TO MOVE TO 1380 U.P.
DRILLED 200' WITH JUMBO. GOT SOME
STILBITE FROM 1340 X-CUT.

22 DEC 80 1020 ST. 1300 LEV

PUT IN 20 BOLTS. FIRED SOME LOOSE
OFF H/W AND A SMALL STRIP ON F/W.

23 DEC 80 1020 STOPE 1300 LEVEL
SCALED AND BOLTED. 16 BOLTS.
MOSTLY ON H/W. DRILLED AND FIRED
13' STRIP ON F/W. FIRED 4 BLOCK
HOLES.

26 DEC 80 1020 ST. 1300 LEV.

HELPED REPAIR TRACK BY DRE PASS.
HAD TO PUT IN 3 STEEL TIES, MUCKED
WITH LHD. 45 CARS. CONTROL BROKE ON
LHD. DOUG MADE A MICKEY MOUSE
REPAIR. GOT SOME KRAISSLITE ^(HOLDENITE) ++.

ALL THE MUCKING & BOLTING I'VE BEEN
DOING IN 1020 IS IN THE EAST BRANCH
WEST SECTION. THE ORE IS AMAZINGLY
SIMILAR TO 1010 STOPE (800 TO 700 LEVEL)
AND HAS THE SAME ACCESSORY MINERALS.

29 DEC 80 1020 ST. 1300 LEV.

BOLTED - 17 BOLTS, MUCKED - 12 CARS,
DRILLED & FIRED STRIP ON F/W - 40'.

30 DEC 80 1020 ST. 1300 LEV.

MUCKED WITH LHD 911 - 46 CARS. RILLED
MUCK PILE.

31 DEC 80 1020 STOPE 1300 LEVEL

REMOVED JUMBO DRILL BY DROPPING THE PARTS DOWN THE CHUTE ONTO A FLAT CAR. FINISHED FILL PREP IN NORTH END OF WEST VEIN. PUT IN 10 ROCK BOLTS.

2 JAN 81 1020 STOPE 1300 LEVEL

BOLTED - 11 BOLTS. DRILLED AND FIRED STRIP ON F/W - 50' AND BLOCK HOLES - 9. MUCKED WITH LHD - 7 CARS. GOT SOME PIECES OF VUGGY ORE CONTAINING KRAISSLITE, HOLDENITE, BARITE?, ++.

5 JAN 81 DDH 437 560 STOPE 500 LEVEL

DRILLED FROM 39' TO 70'. ORE 41'-45', THE REST WHITE CUTTINGS. GOT A MEDIOCRE ARAGONITE FROM 1060 U.P.

6 JAN 81 DDH 437

DRILLED FROM 70' TO 100'. ORE 85' TO 100'.
HIT DRIFT ON 430 LEV. AT 100'. ^{IT WAS DRY.} GOT A BLACK WILLEMITE XTAL FROM 1100 U.P. 500 LEV.

7 JAN 81 DDH 437 560 ST. 500 LEV.
STARTED TEARING DOWN DRILL SET-UP.
SMELLED FIRE ALARM AT 7:45 A.M.
AND WENT TO SAFETY EXIT. WALKED
UP LADDERS TO ADIT. GOT THE ALL-
CLEAR AT 9:00 AM. WENT TO 1000 LEV
TO HELP STOW POWDER SHIPMENT IN
MAGAZINE. MOVED DIAMOND DRILL AND
TOOLS TO STATION. WILL MOVE TO
1200 LEVEL TOMORROW. THE FIRE WAS
CAUSED BY A 440 LINE ON 1000 LEV
THAT EXPLODED WITH ENOUGH FORCE
TO RATTLE THE STATION DOORS.

8 JAN 81 DDH 438 1300 U.P. 1200 LEV.
MOVED GEAR FROM 500 LEV. TO 1200 LEV.
GOT A CENTER LINE FROM THE SURVEYORS
AND SET UP COLUMN AND DRILL. THE
HOLE WILL BE DRILLED FROM THE H/W
DOWN AT -20° THRU THE BLACK WILLEMITE
ZONE. GOT SOME MICRO'S FROM 1340 U.P.

9 JAN 81 DDH 438 1300 U.P. 1200 LEV.

BEGAN DRILLING. HAD TO DRILL DOWN THRU 3 1/2' OF LOOSE MATERIAL AND PUT IN CASING. AT 6' THE SLEEVE BROKE OFF THE 5' BARREL AND THE BULL BIT STAYED IN THE HOLE. IT TOOK ABOUT 2 HRS. TO GET IT OUT. FINALLY DRILLED TO 11'. IT WAS ALL WHITE ROCK. STAYED OVERTIME TO GUARD FOR A LARGE BLAST IN 1020 STOPE.

12 JAN 81 DDH 438

RAN ORE PASS FROM 1200 LEV. DOWN TO CRUSHER. DRILLED FROM 11' TO 23'. HIT BLACK ORE AT 21.5'. A POOR SEAL BETWEEN PIPE CASING AND ROCK IS CAUSING LOOSE MATERIAL TO FALL INTO HOLE. HAVE TO DIG OUT CASING.

13 JAN 81 DDH 438

DUG OUT CASING AND SEALED HOLE. DRILLED TO 43'. ALL BLACK ORE.

14 JAN 81 1380 U.P. 1300 LEVEL

HELPED BOB WILLIAMSON LOAD ANFO.
14 BAGS, WIRED UP ROUND AND
FIRED. GOT A TREMOLITE SPECIMEN
FROM THE F/W DRIFT NORTH OF
SAFETY EXIT. SAW A SLIP COVERED
WITH WILLEMITE NEEDLES AND FRANKLINITE
MICROS IN 1020 STOPE (WEST VEIN)

15 JAN 81 DDH 438 1300 U.P. 1200 LEV.

DRILLED FROM 43' TO 69'. BLACK ORE TO
59' - GREEN ROCK TO 69'. GOT A MICRO-
CRYSTAL SPECIMEN FROM 1020 ST. (WEST VEIN)
PYROAURITE, STILPNO MELANE, ^{UNKNOWN #7} FLUORITE (#393)

16 JAN 81 1020 STOPE 1300 LEVEL

RILLED DOWN MUCK PILE. PUT IN 12 BOLTS.
MUCKED WITH LHD. 36 CARS. GOT SOME
NICE MICROS FROM WEST VEIN. #394
#396

19 JAN 81 1060 U.P. 500 LEV.

DRILLED UPPERS WITH "53". 190'. GOT
SOME AZURITE SAMPLES.

20 JAN 81 DDH 438 1300 U.P. 1200 LEV.

DRILLED FROM 69' TO 87.5'. GREEN
ROCK TO 75', BLACK ORE TO 87.5'.

GOT SOME MORE NICE MICROS FROM
 1020 STOPE, WEST VEIN.

21 JAN 81 1060 U.P. 500 LEV.

DRILLED 55' OF UP HOLES. REMOVED
PIPES FROM RAISE. LOADED SLOT

AROUND RAISE. 150 POUNDS OF ANFO.

MOVED AND SET UP SLUSHER. FIRED
SLOT.

22 JAN 81 1060 U.P. 500 LEV.

PUT 6 BOLTS IN AREA BLASTED
YESTERDAY. SLUSHED TO MAKE ROOM
FOR MUCK FROM NEXT ROUND. GOT
SOME AZURITE AND WILLEMITE-FRIEDELITE.

23 JAN 81 DDH 438 1300 U.P. 1200 LEV.

DRILLED FROM 87.5 TO 99. WHITE TO
94.5; BLACK ORE TO 99. BAD GROUND IS
CAUSING DIFFICULT CORING CONDITIONS.

GOT SOME MICROS FROM 820 PILLAR. (W.V.)

26 JAN 81 SHAFT

600

WORKED WITH T. LANER. HE CUT OFF
A MANWAY TUBE IN 1110 STOPE, 900 LEV.
WE DID SHAFT INSPECTION ON # 3 & 4
FROM SURFACE TO 1200 LEV. SENT UP
SCRAP BOXES FROM BOTH CRUSHERS
SENT UP A CHUTE BOTTOM PLATE FROM
700 LEV. SENT UP A MOTOR FROM
1680 LEV. SENT UP A CHARGER PANEL
FROM 600 LEV.

27 JAN 81 1020 STOPE 1300 LEVEL

MUCKED WITH LHD. 51 CARS. DRILLED
A 13' STRIP ON FOOTWALL (W/V). FIRED
AT QUITTING TIME. GOT SOME WEST
VEIN MICROS.

28 JAN 81 1020 STOPE 1300 LEVEL

CARRIED 30 BAGS OF NILITE INTO STOPE.
SCALED LOOSE ON BROW. BEGAN LOADING.
CHUNKS IN NILITE FOULED UP HEAVY DUTY
BUCKET. HAD TO SWITCH TO OLD BUCKET.
LOADED 16 BAGS. (800 LBS)

29 JAN 81 1020 STOPE 1300 LEV. 601

DOUG CAME BACK TO WORK TODAY.

HELPED HIM AND SERGIO FINISH

LOADING BIG ROUND. LOADED 33 BAGS
AND WIRED UP (3 SERIES). FIRED

AFTER MEN WENT UP. SOUNDED GOOD.

30 JAN 81 DDH 438 1300 U.P. 1200 LEV.

DRILLED FROM 99' TO 119'. BLACK
ORE TO 107.5' - WHITE ROCK TO 119'.

CHECKED 1020 STOPE - ROUND BROKE
PERFECTLY. GOT A MICRO SPECIMEN
FROM A PYROCRITTE VEIN IN 1570 E.

DDH 438 IS FINISHED. LOADED GEAR
ON A FLATCAR.

2 FEB 81 DDH 439 1020 STOPE 1200 LEVEL

MOVED GEAR TO THE W/V FOOTWALL DRIFT.

SET UP FOR A HOLE AT +52°. DRILLED

2 FEET WITH BULL BIT. WATER SWIVEL

IS LEAKING BADLY AND MUST BE FIXED.

3 FEB 81 DDH 439 1020 ST. 1200 LEV. 602

DRILLED FROM 2' TO 21', WHITE ROCK.
HAVING TROUBLE WITH WATER SWIVELS,
THEY LEAK SO BAD THAT NO WATER
GETS UP TO THE BIT. REPAIRED ONE
AND SENT OTHER TO SHOP.

4 FEB 81 DDH 439

STOWED POWDER SHIPMENT IN
MAGAZINE IN A.M. 302 BAGS OF ANFO.
DRILLED FROM 21' TO 36'. HIT ORE
AT 27'. HIT A SOFT SPOT AT 21'
AND GOT SOME SAND FILL. APPARENT-
LY HIT A CRACK OR DRILL HOLE IN
1000 STOPS.

5 FEB 81 DDH 439 & 440

COULD NOT CONTINUE IN 439 DUE TO
LOOSE GROUND. TURNED DRILL 6" NORTH
AND RESTARTED HOLE. DRILLED TO 16', ALL
WHITE ROCK. BOLTED LOOSE NEAR DRILL
SITE. 8 BOLTS.

6 FEB 81 DDH 440 1020 ST. 1200 LEV.
DRILLED FROM 16' TO 43.5'. HIT ORE
AT 29'. GOT A MICRO SPECIMEN
FROM 1020 STOPE.

— VACATION AT TUCSON SHOW —

16 FEB 81 DDH 440
DRILLED FROM 43.5' TO 63'. HIT
H/W AT 54'. WHITE ROCK IN H/W
SOFT & CAUSING BIT PLUGS AND
POOR CORE RECOVERY.

17 FEB 81 DDH 440
DRILLED FROM 63' TO 88 FEET. ORE 63'-
80'. WHITE ROCK TO 88'. SCALED LOOSE
IN 820 P.

18 FEB 81 DDH 441 1570 E. STOPE 1200 LEVEL
MOVED TOOLS TO 1570 EAST AND SET UP DRILL.
DRILLED 0' TO 8', ALL ROCK. PICKED UP
SOME SPECIMENS FROM 820 P. F/W SECTION.

19 FEB 81 DDH 441
DRILLED 8' TO 34'. 8'-24' PYROXENE ZONE.
24' TO 34' GNEISS. GOT SOME NICE "RED
AND GREEN" FROM 1520 STOPE.

20 FEB 81 DDH 441 1570 E. ST. 1200 LEV.

DRILLED 34' TO 58'. 34' TO 35' GNEISS.

35' TO 37.5' LO-ORE. 37.5' TO 50' ORE.

50' TO 58' WHITE ROCK. HOLE FINISHED.

GOT A PIECE OF "RED & GREEN" FROM 1520 ST.

23 FEB 81 DDH 442 1570 E. STOPE 1200 LEV.

MOVED GEAR TO NEW HOLE BY OLD SAFETY

EXIT. BOLTED SET-UP AREA. SET UP

DRILL. GOT A PIECE OF "RED & GREEN" FROM

1520 STOPE. CHISELLED SOME CHIPS OFF

YEATMANITE OCCURANCE IN 820 PILLAR.

24 FEB 81 DDH 442

DRILLED FROM 0' TO 32'. ALL WHITE ROCK
WITH SPARSE FRANKLINITE. LOSING DRILL
WATER THRU CRACKS OVER SAFETY EXIT.

GOT SOME YEATMANITE FROM 820 P.

25 FEB 81 DDH 442

DRILLED FROM 32' TO 60'. LOW ORE BAND

33 TO 41. HIT ORE AT 49.

26 FEB 81 DDH 442 1570 E. ST. 1200 LEV. ⁶⁰⁵

DRILLED 60 TO 79 FEET. HIT WHITE ROCK AT 69.5 FEET. CORE BIT WORE OUT AT 62'. HAD TO GET A NEW ONE. GOT SOME YEATMANITE FROM 820 P.

27 FEB 81 DDH 442

DRILLED 79 FEET TO 107 FEET. ORE FROM 79 TO 97 FEET WITH PROMINENT SHEAR ZONE AT 85 FEET. WHITE ROCK AFTER 97'. YESTERDAY'S NEW CORE BIT WENT 20' AND QUIT. HAD TO GET ANOTHER NEW ONE. GOT SOME PYROCHROITE VEIN SPECIMENS FROM 1570 E. #399

2 MAR 81 DDH 442

DRILLED 107 TO 122 FEET. ALL WHITE ROCK. HOLE FINISHED. STARTED MOVING OUT. GOT SOME YEATMANITE FROM 820 P.

3 MAR 81 DDH 443 1220 U.P. 700 LEV.

MOVED TO 700 LEV. AND SET UP DRILL. DRILLED 0' TO 5' WHITE ROCK. GOT SOME "RED & GREEN" FROM 1520 ST. 1200 LEV.

4 MAR 81 SHAFT

STOWED POWDER SHIPMENT IN POWDER MAGAZINE. 193 BOXES ATLAS POWERMAX. WORKED WITH TOM LANER DELIVERING TIMBER, ETC. ATE LUNCH ON 340 LEVEL AND GOT SOME WOLLASTONITE. SAW THE GUERINITE LOCATION. MORE HAS APPEARED SINCE I FIRST COLLECTED IT.

5 MAR 81 DDH 443 1220 U.P. 700 LEV.

DRILLED FROM 5' TO 50'. WHITE CUTTINGS TO 40'. STARTED CORING AT 40'. HAD SPARSE FRANKLINITE IN CALCITE TO 50'. CHECKED 1220 PILLAR. IT IS ABOUT 40' ABOVE 800 LEVEL. SAW MANY SLIPS IN RED ORE COATED WITH MINOR KRAISSLITE.

6 MAR 81 DDH 443.

DRILLED 50' TO 85'. ALL LOW GRADE ORE. SCALED LOOSE IN 1120 X-CUT. GOT A QUARTZ, MICA, FELDSPAR AND ZIRCON SPECIMEN.

9 MAR 81 DDH 443 1220 U.P. 700 LEV. ³⁰⁷

DRILLED FROM 85' TO 117'. LO-ORE
TO 110', BLACK ORE TO 117'. GOT SOME
ZIRCON XTLS FROM 1120 X-CUT.

10 MAR 81 DDH 443

DRILLED FROM 117' TO 135'. BLACK
ORE TO 119'. THE REST IS WHITE ROCK.
THIS HOLE FINISHED. GOT MORE
404, 405
ZIRCON XTLS FROM 1120 X-CUT.

11 MAR 81

SPENT THE DAY PLUGGING PREVIOUS
DIAMOND DRILL HOLES WITH CEMENT. RON
RILEY WAS ONCE INJURED BY ROCK
FRAGMENTS FLYING OUT OF AN OLD DRILL
HOLE WHEN A ROUND WAS FIRED AT THE
OTHER END OF THE HOLE. GOT SOME STRANGE
VEIN SPECIMENS FROM 1260 U.P., 1000 LEVEL.
GOT SOME SPECIMENS FROM MCGOVERNITE
LOCATION IN 740 P., 800 LEVEL. ^{#400}

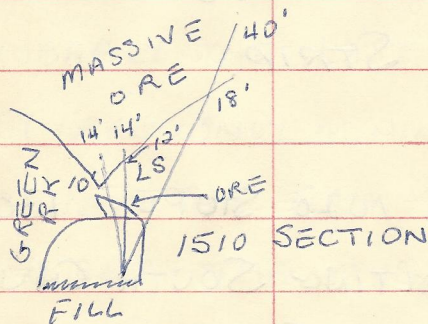
12 MAR 81

608

WORKED ON POWDER SHIPMENT IN A.M.
WENT DOWN TO 1450 P., 1750 LEVEL TO
DRILL 2 HAMMER DRILL TEST HOLES, NO
LOCATION HAD BEEN MARKED TO SHOW WHERE
TO DRILL THEM. THE GEOLOGIST WAS
OUT SICK (HANGOVER?) TODAY, WENT UP TO
1260 U.P., 1000 LEVEL TO DRILL A FLAT
BENCH. HAD TROUBLE WITH BAD GROUND AND
ROCK BOLTS.

13 MAR 81 1450 PILLAR 1750 LEVEL

DRILLED THREE HAMMER DRILL TEST
HOLES. TOTAL 68'.



16 MAR 81 1260 U.P. 1000 LEV. 609

FINISHED FLAT BENCH OF 12 MAR. MOVED AND SET UP SLUSHER. DRILLED STRIP IN ENTRANCE DRIFT. FIRED FLAT BENCH.

17 MAR 81 1450 P., 1750 LEV.

STOPPED IN 1260 U.P., 1000 LEVEL TO COVER ORE CRIBS. ROUND BROKE GOOD. GOT A. SARKINITE SPECIMEN. WENT TO 1450 P. AND DRILLED 3 TEST HOLES. FOUND GOOD ORE IN ALL THREE. TOTAL OF 92'.

18 MAR 81 1180 U.P. 600 LEVEL

SET UP AIR SLUSHER IN SCRAM DRIFT. THIS IS PROBABLY THE LAST CUT IN THIS PILLAR. THEY ARE ONLY MINING THE CENTRAL ZINCITE ZONE. THE BACK SHOWS ONLY DISSEMINATED ORE. THE MASSIVE ORE IS ONLY IN THE SOUTH RIB.