4 SEP 80  DDH 431 +50° 1450 P. 1750 LEV.
   DRILLED FROM 45' TO 72'. ALL ORE.
   GOT MORE CALCITE-PYRITE FROM
   2700 N. (E.V.)
5 SEP 80  DDH 431
   DRILLED FROM 72' TO 97'. ORE TO 77'.
   77'-97' ROCK. CHECKED 1660 U. P.
   THEY JUST FIRED FOOTWALL-NADOA.
8 SEP 80  DDH 432 +52° 1450 P. 1750 LEV
   10° EAST OF SOUTH OVER SOUTH M/W.
   SET UP DRILL, DRILLED 0'-6', ALL ROCK.
   STARTED STRIPPING ROCK IN FRONT OF DRILL.
9 SEP 80  DDH 432
   DRILLED 6' TO 24'. ALL ROCK. FINISHED
   STRIPPING (WITH REAMER BIT). SET UP ROD
   PULLED. SCALED IN NORTHERN PART OF E.V.
10 SEP 80  DDH 432
   DRILLED FROM 24' TO 52'. ALL PYROXENE ZONE
11 SEP 80  DDH 432
   DRILLED FROM 52' TO 82'. PYROX. ZN-56'-GNIESS-
   73.5'-ORE. GOT MORE CALCITE-PYRITE FROM
   2700 N IN E.V.
12 SEP 80 DDH 432 +52° 1450 P. 1750 LEV.

Drilled from 82' to 112'. Low grade ore to 106'. High grade (mass. will) to 112'.

The company announced a partial lay off and reduction in operations today.

15 SEP 80 DDH 432

Drilled 112' to 132'. Good ore to 123', Green to 128', ore to 130'.

16 SEP 80 DDH 432

Drilled 132' to 150'. Ore to 136'. Green and white rock to 150'. The mine is rife with rumors about the reasons for the lay-off and what working condition will be like for the reduced crew. Some people expect violence.

17 SEP 80 DDH 433 +40° 1450 P. 1750 LEV.

65° South of east over south m/w set drill for new hole. Drilled 0' to 11'. All rock. Stripped rock from wall in front of rod puller.
18 SEP 80 DDH 433 1450 P. 1750 Lev.
Drilled 11' to 46'. All Rock. Have not crossed fault yet. Was told today that my helper under the new regime will be Dutch Wulfers.

19 SEP 80 DDH 433
Drilled from 46' to 71'. 46' to 56' Pyroxene and Gniess zones, 56' to 61' H/w Type Marble, 61' to 71' ore.
Today was the last day of operation under the old two shift high production system. Monday, the lay-off takes effect and one shift will try to produce 10,000 tons per month. Good luck to us.

22 SEP 80 DDH 433
Drilled from 71' to 96'. First 2'' ore and all the rest was white rock.

23 SEP 80 DDH 434 +5° 1450 P. 1750 Lev. Due East. Drilled 0'-22'. Ore 0'-5'. Green 5'-6'. White 6'-14'. Green 14'-22'.
24 SEP 80  DDH 434  1450 P.  1750 LEV.
DRILLED FROM 22' TO 52'. GREEN TO 26'; WHITE TO 52'. TED GAVE US ALL A PEP TALK IN THE ADIT. DON GUARDERMAN IS SPENDING HIS LAST WEEK AS A BOSS SUPERVISING THE REMOVAL OF EQUIPMENT FROM SHUT-DOWN SLOPES AND PILLARS.

25 SEP 80  DDH 434
DRILLED FROM 52' TO 84'. ORE 59' TO 62'. ALL THE REST WAS MARBLE. THE ORE WAS SHEARED. POSSIBLY A FRAGMENT IN A SHEAR ZONE.

26 SEP 80  DDH 434
DRILLED FROM 84' TO 129'. ALL WHITE ROCK EXCEPT GRAY CUTTINGS 120' - 120.5'.

29 SEP 80  DDH 434  E' 435 +20°
DRILLED FROM 129' TO 131'. HIT GRAY ROCK THAT WAS TOO HARD TO DRILL WITH THE WORN BITS I HAVE. RAISED DRILL TO 20° AND DRILLED 13'. ALL ROCK.
30 Sep 80
HAD BIRTHDAY OFF

1 Oct 80 1340 P. 1200 LEV.
SLUSHED AND HAND MUCKED.
FINISHED FINAL CLEAN-OUT. 1340 P
IS NOW ONLY MINING CZZ ON
FOOTWALL. FOUND SOME MICROS IN
A SLIP. RHODOCHROSITE - ALACTITE T.
BARITE - OPTICS BY PETER DUNN 30 Oct 80.

2 Oct 80 1340 P 1200 LEV
PULLED CHUTE. 25 CAMS. HAD
TO FIRE CHUTE TWICE. WENT INTO
PILLAR AND MOVED TOOLS TO FOOTWALL
END. FLAT BENCH IN H/W HAS TO BE
FIRED. GOT 2 MORE RHODOCHROSITE
MICROS.

3 Oct 80
TOOK DAY OFF DUE TO SINUSITIS.

6 Oct 80 DDH 435 1450 P. 1750 LEV.
DRILLED 13' TO 58'. 17'- 27' GREEN.
EVERYTHING ELSE WHITE.
7 OCT 80  1020 ST.  900 LEV.
Set up slusher. Went to
1000 lev and pulled 39 cars from
chute. Muck pile arched over crib.
Had to back slush to open crib.
Checked muck pile under 740 raise.
Saw a few small flakes of McGovern.

Got 2 spec. of brown sperules of ?
* x-ray by P. Dunn = Alleghanyite.

8 OCT 80  1020 ST.  900 LEV.

Got 100' of cable for pull rope.
Cleaned around crib and put on
grizzly rail. Slushed. An ore car
tipped over on 1000. Helped Riker
shovel up. Got 75 cars today.
Saw a vein of gemmy green willemite
in footwall marble.

9 OCT 80  1020 ST.  900 LEV.
Put 100' of cable on tail rope. Slushed
and trammed 78 cars. Got some
zincite from the footwall band. Saw
the transverse sphalerite vein in
the south end. No Gerstmannite.
10 OCT 80  1020 ST.  900 LEV.
SLUSHED AND TRAMMED 42 CARS.
P ut in 3 Rock Bolts in North End. Drilled Pin Holes and Block Holed 2 Big Chunks, got more oxide.
13 OCT 80  DDH 435  1450 P.  1750 LEV  
Drilled from 58' to 98'. Ore from 60' to 63'. The rest is white Rock.
14 OCT 80  DDH 435
Drilled from 88' to 98.6''. All white Rock. Water pipe broke in main shaft at 10 a.m. Cleaned up 3 cars of mud on 1750 level. Did a few odd chores in 1620 U.P. 1680 level, to tidy up after fill crew. Found a veinlet in 1520 pillar, 1600 level, with fluorite, heiterolite, zincite, ++?
15 OCT 80
SEE OVER →
15 Oct 80  DDH 435  1450 P.  1750 Lev.
Drilled 98.5' to 121.5'. All white rock. Drill jammed at 121.5'.
Started moving drill and tools out of the pillar. Got more vein specimens from 1520 pillar, 1600 lev.

16 Oct 80  DDH 406  1220 U.P.  1000 Lev.
Moved gear out of 1450 P, 1750 Lev and took it to 1000 level. Took old drill to the shop and brought down the rebuilt spare. Set up column, drill, and rod puller.

17 Oct 80  DDH 406  1220 U.P.  1000 Lev.
Used a reamer bit to cut a hitch behind the drill for extra room to change steels. Drilled from 100' to 109'. Black ore to 106', white with fluorite to 109'.

30 Oct 80  DDH 406
Drilled from 109' to 133'. White to 110.5'. Black ore to 133'.

Powder order in A.M. Welker gave us the wrong order. Had to put 15 bags back.
Drilled from 133' to 154'. All black ore.

22 Oct 80  DDH 406
Drilled from 154' to 174'. Black ore to 163', white rock to 174'. Hole done.

23 Oct 80  1015 STOPE 180 LEVEL
Used sick air slusher to move muck off the top of the pile.
Trying to expose South Rib which needs to be bolted; helped Ed Dunn drill and fire 40 block holes.
Saw lots of mud but no 960 type arsenates.

24 Oct 80  DDH 436  1300 U.P.  1000 Lev.
Moved equipment to 1300 U.P. Hanging wall drift and set up. Drilled 0' to 6'.
All rock. This hole is being drilled at -20° from the hanging wall to the footwall. Secured drill site for a vacation week.
3 Nov 80  1570 E. Stope 1200 Lev.

Stopped on 900 Lev. To put up 2 manway pipes in 1020 St. Walked down 400 to 1000 Lev to activate pump under 1020 chute. Went down to 1570E to drill uppers with "53" and long leg. Drilled 100'. Got some vein? Arsenopyrite? From 1020 St. footwall. Went to 820 P. (East vein) and got some Yeatmanite - Tilasite.

4 Nov 80  1570 E. Stope 1200 Lev.

Drilled uppers. 150'. This is a real drag - long leg, high back, no helper. Got more 820 P. Yeatmanite - Tilasite.

5 Nov 80  1570 E. Stope 1200 Lev.

Drilled uppers. 170'. Finished up high drilling and switched to short leg. Got more Yeatmanite - Tilasite from 820 Pillar in East vein.
6 NOV 80  1570 E. STOPE 1200 FEET. PUT POWDER AWAY AT 8:30.
DRILLED UPPERS, 155'. GOT SOME GOOD RED & GREEN FROM THE OLD
1520 TRANSVERSE STOPE.

7 NOV 80  1570 E. STOPE 1200 FEET. DRILLED UPPERS, 185'. ED KEITH
FIRED THE BREAKING RAISE. WENT TO 820 PILLAR AND GOT MORE
YEATMANITE-TILASITE. A DRILL WOULD BE NEEDED TO GET ANY MORE.

10 NOV 80  DDH 436  1300 U.P.  1000 FEET
DRILLED 6' TO 34.5'. ALL ROCK. LOOKED
AT 1260 U.P. SHEAR ZONE HAS MUCH
FRIEDELITE & WILLEMIT.

11 NOV 80  935 STOPE 500 LEVEL
PULLED CHUTE. 40 CARS. ONE CAR
TIPPED AND DUMPED ON A CORNER. HAD
TO SHOVEL UP. THE BACK IN 935 IS
ABOUT 40' ABOVE 500 LEVEL. THE STOPE
IS HUGE. THE NORTH END IS PINCHING OUT
DUE TO THE NASON FAULT.
12 Nov 80  1540 U.P.  1400 Level

Set up to drill a test hole with an "83" and extension steels. Drilled 18' due east. Appears to be rock. Checked the 900 pillar area in the East vein. Found something that looks like tilasite or adelite.

13 Nov 80  1540 U.P.  1400 Level

Finished test hole. Hit fill at 43'. Appeared to be all rock. Checked 1680 stope Greenockite location. It is now buried under 20' of fill. Too bad! Got some strange willemite or tephroite from the south end of 1680 stope. Moved to 1000 level and drilled 3.5' in DDH 436. All rock.

14 Nov 80  DDH 436  1300 U.P.  1000 Lev.

Got out powder order in A.M. Drilled 38' to 58'. All rock. Hit fill at 58'. Got 2 kraisslite and two apatite specimens from 1200 U.P. Saw a lens of rhodonite in ore similar to the St. Silver area.
17 NOV 80 DDH 436 1300 U.P., 1000 LEV.

SURVEYORS GAVE US A PROPER CENTER LINE. RESTARTED HOLE AND DRILLED 33'.
ALL ROCK, CHECKED 1260 U.P., NADA.

18 NOV 80 DDH 436

DRILLED 33' TO 73'. ORE 57' TO 73'.
GOT A KRAISSLITE FROM 1260 U.P. SAW
ARSENOPOYRITE IN TWO PLACES IN THE
1320 STOPE AREA.

19 NOV 80 DDH 436

WORKED ON POWDER SHIPMENT UNTIL
9:20 AM. DRILLED FROM 73' TO 94.5'.
ALL ORE. SAW LARGE PYROXENE XTALS
AT 3 PLACES IN THE EAST VEIN F/W.

20 NOV 80 DDH 436

DELIVERED POWDER ORDERS. DRILLED FROM
94.5' TO 105'. ORE TO 100'. WHITE ROCK TO 105'.
FOOTWALL BAND OF BLACK WILLEMITE AT 105'.
HOLE FINISHED. MOVED GEAR TO STATION. GOT
A STRANGE WILLEMITE SPECIMEN FROM 1260 U.P.
21 NOV 80 DDH 437 560 STOPE 500 LEV.
DELIVERED 50 BAGS OF ANFO TO VARIOUS
LEVELS. MOVED GEAR TO 500 LEVEL. HAD
TO GET PIPE AND FITTINGS TO FIX A
40' GAP IN AIR & WATER LINES. GOT
SOME AZURITE - CHRYSOCOLLA IN RHODO-
NITE FROM 1060 U.P.

24 NOV 80 DDH 437
GOT A STOPER AND PUT IN 20
ROCK BOLTS. SCALED IN OLD MAGAZINE.
FOUND TINY RHODONITE XTALS EMBEDDED
IN SHEAR.

25 NOV 80 DDH 437
PUT IN 5 ROCK BOLTS. SVECZ AND
DOUMA USED TRANSITS TO SET UP THE
DRILL. DRILLED 0' TO 10'. ORE TO 2'.
F/W ROCK AFTER 2'. THIS HOLE HAS TO
HIT THE DRIFT ON 430 LEV. TO DRAIN
ANY WATER IN IT.
26 Nov 80 1540 U.P. 1500 Lev.

Watched Homer slush until we found a mishole. Fired miss hole. Went down to 1600 Lev. to pull chute. Got 15 cars before raise hung up. Went back up to 1500 Lev. And ran water into the raise. Homer finished slushing muck went down in raise. Extended air pipe in sub-drift. Dominic gave me some apparent brandtite from 1580 P.

1 Dec 80  DDH 437 560 St. 500 Lev.

Drilled 10' to 39'. Ore 17' to 28' and 34' to 39'. Got a Friedelite vein specimen from 560 Stope and some copper alterations in Rhodocite from 1060 U.P.

2 Dec 80 1540 U.P. 1500 Lev.

Homer is driving a raise to 1400 Lev. The rule about not working alone is now being strictly enforced so I'm working with him while his buddy is off. I keep busy in the sub-drift while Homer drills. Today I slushed a little, put in
4 Rockbolts, Drilled a 5' strip and fired. Got some apparent apatite, manganopyrosomalite X-rays. They are in a narrow wedge of green rock folded or faulted into the black ore from the contact (ore-rock) just below. Slips a few feet away show a fine grain brown filling (like friedelite).

3 Dec 80 1540 U.P. 1500 Lev.
Slushed out muck from raise and strip. Put in 5 bolts.

4 Dec 80 1540 U.P. 1500 Lev.
Put in 3 bolts, drilled and fired a 5' strip on each side of the sub-drift. Homer drilled and fired in raise.

5 Dec 80 1540 U.P. 1500 Lev.
Slushed out raise & strip muck. Put in 4 bolts. Ground is badly cracked and hard to bolt.
8 DEC 80  1020 ST.  1300 LEV.
Mucked with LHD. Rilled down muck pile and put 7 bolts in H.W.
Fired a huge block hole. Got 2 KRAISSLITE specimens from East Branch. This is the first KRAISSLITE I have seen in 1020 ST.

9 DEC 80  1020 ST.  1300 LEV.
Put in 25 bolts and mucked out 24 cars. Fired strip on footwall.
Doug tipped over the motor and two ore cars at the ore pass.

10 DEC 80  1020 ST.  1300 LEV.

11 DEC 80  1020 ST.  1300 LEV.
Put in 12 bolts. Mucked 26 cars.
Fired strip on footwall. Got some nice KRAISSLITE. Had to jump start LHD with battery from the shop.