14 JAN 83 DDH 461 1570E, ST. 1200 LEV.
HELPED BOB WILLIAMSON IN 1300 X-CUT 1300 LEV. UNTIL THE WATER SWIVEL CAME BACK FROM THE SHOP. DRILLED FROM 5' TO 25'. ALL WHITE CUTTINGS. GOT 2 PIECES OF "RED & GREEN" FROM THE SOUTH END OF 1570E.

17 JAN 83 DDH 461
DRILLED FROM 25' TO 59'. 25 TO 37 WHITE; 37-59 GREEN ROCK AND VERY HARD. CHISELLED SOME CHIPS OFF THE YENTMANITE LOCATION IN 820 P. CAME UP EARLY FOR A GEOLOGY LECTURE IN THE MINE OFFICE.

18 JAN 83 DDH 461
DRILLED FROM 59' TO 85'. 59 TO 73 GREEN ROCK; 73 TO 81 WHITE ROCK; 81 TO 85 ORE.
19 Jan 83  DDH 461  1570E ST, 1200 LEV, DRILLED 85' TO 92.5'. ALL ORE. HELPED STEVE DEKMAAR WITH CRUSHER REPAIRS BEFORE 9 AM AND AFTER 1:30 PM. HE WAS MY HELPER FROM 9 AM TO 1:30 PM. CHISELLED SOME PIECES OFF THE 1200 LEV. YORKMANITE LOCATION.

20 Jan 83  1260 U.C.P. 1000 LEV. HELPED ROY RUSSMAN TODAY. TRAMMED 28 CARS. HAD TO FIRE THE CHUTE 3 TIMES. GOT A PIECE OF A QUARTZ VEIN FROM A SHEAR ZONE AT THE HANGING WALL CONTACT OF THE C. Z. Z.

21 Jan 83  MINE RESCUE TRAINING. TOOK A FIRE HOSE TO 1540 U.C.P. AND USED WATER FROM THE FILL SYSTEM TO PRACTICE FIRE FIGHTING.
24 Jan 83  DDH 461  1570 E. ST. 1200 LeV.
Drilled from 92.5' to 110', 92.5 to 106' white rock; 106 to 110' ore. The rebuilt water swivel has developed a leak. Scaled loose in the 1220-1240 X-cut area. There are epidote veins there that are worthy of investigation.

25 Jan 83  DDH 461
Drilled from 110' to 130'. 110 to 114 calcite (fl. red) with sparse large ore grains; 114 to 130 calcite (h/w - non fl.) looked in 1020 stope. No sign of arsenates in east branch. (10' below 1200)

26 Jan 83  DDH 461
Drilled from 130' to 134'. All white rock. Moved drill to 430 level and took it back to 935 stope.
27 JAN 83  DDH 462  935 ST.  430 LEV.
SET UP THE DRILL AT THE SITE OF
DDH 389.  ANGLE IS + 25° 4.  DRILLED
13'.  0' TO 1' WHITE ROCK; 1' TO 9' GREEN
ROCK; 9' TO 13' WHITE ROCK.

28 JAN 83  DDH 462
DRILLED FROM 13' TO 47'.  MOSTLY WHITE
ROCK WITH NARROW BANDS OF GREEN.
SET UP ROD PULLER.  CHECKED OUT
1060 U.C.P.  SAW 2 NARROW BANDS OF
COPPER ALTERATION.

31 JAN 83  1020 STORE  1200 LEV.
HELPED DOUG PUT 3 BOLTS IN THE
HANGING WALL.  TRAMMED 75 CARS.
TRAMMED 6 CARS FROM 1300 X-CUT.

1 FEB 83  DDH 462
DRILLED FROM 47' TO 68'.  47 TO 63 WHITE
ROCK; 63 TO 68 ORE.  STARTED TAKING
CORE AT 60'.  WALKED DOWN THE 1020 U.C.P.
RAISE TO 600 LEV.  GOOD ORE ALL THE WAY.
2 FEB 83 DDH 462 935 ST 430 LEV.
DRILLED FROM 68’ TO 80’. ALL ORE.
HAD TROUBLE WITH FREQUENT BIT PLUGS.

3 FEB 83 935 ST. 430 LEV.
HELPED RESTREPO INSTALL ROOF BOLTS. 19 BOLTS. PULLED CHUTE AFTER LUNCH. 33 CARS.

4 FEB 83 935 STOPE
TRAMMED 90 CARS. HAD TO GO DOWN TO 600 LEVEL AFTER LUNCH TO RUN THE ORE PASS.

14 FEB 83 DDH 462
DRILLED FROM 80’ TO 100’. 80’ TO 89’ ORE W/ZINCITE; 89’ TO 100’ WHITE ROCK. HOLE FINISHED.
15 FEB 83  1060 CHUTE  600 LEVEL
SPENT ALL MORNING GETTING A
LOADED ORE CAR OUT OF THE HOLE BY
THE BULKHEAD DOOR. REBUILT THE
BRIDGE (IT HAD COLLAPSED). TRAMMED
30 CARS FROM 1060 CHUTE. GOT THE
MOTOR OFF THE TRACK THREE TIMES.

16 FEB 83  DDH 463  935 ST  430 LEV.
MOVED DRILL 20' SOUTH AND SET UP
FOR NEXT HOLE. HELPED RESTREPO
REMOVE AIR & WATER PIPES FROM THE
DRIFT ABOVE 935 STOPE. REPAIRED
CHUTE PLATFORM ON 500 LEVEL.

17 FEB 83  1060 CHUTE  600 LEVEL
PULLED 63 CARS. HAD TO FIRE ONCE.
GOT THE MOTOR OFF THE TRACK TWICE.
PULLED FOUR CARS FROM 1200 CHUTE.
18 FEB 83 1060 U.C.P. 430 LEVEL
TRAMMED 37 CARS IN AM WHILE
DOMINIC SLUSHED. WENT INTO THE
PILLAR AFTER LUNCH, DOMINIC WENT
HOME AT 2 PM AND I SLUSHED AFTER
THAT. SCALED A LARGE CHUNK OFF
THE SOUTH RIB. IT HAD A BAND OF
COPPER ALTERATIONS IN IT. BREAKING
IT OPEN PRODUCED A SPECIMEN OF SILVER.

21 FEB 83 DDH 463 935 STOPE 430 LEV.
FINISHED SETTING UP DRILL AND DRILLED
FROM 0' TO 16'. 0' TO 9' WHITE ROCK;
9' TO 14.5' GREEN ROCK; 14.5' TO 16'
WHITE ROCK.

22 FEB 83 DDH 463
DRILLED FROM 16' TO 38'. ALL WHITE ROCK.
PUT A NEW SEAL IN THE WATER SWIVEL.
PULLED TWO CARS OUT OF THE OVERSIZE
RAISE. THIS HOLE IS AT +30° 4. IT IS
BEING DRILLED ON THE SAME BEARING AS
DDH 391.
23 Feb 83  DDH 463  935 St.  430 Level
Drilled from 38’ to 85’.  38 to 58
White Rock; 58-66 Gray Cuttings
(Black Rock?); 66 to 85 White Rock.

24 Feb 83  DDH 463
Cored from 85’ to 105’.  85’ to 96’
White Rock; 96’ to 101’ Pyroxene
Zone (Massive); 101’ to 105’ ORE.

25 Feb 83  DDH 463
Cored from 105’ to 113’. All ORE.
Last four feet Massive Zincite ORE.
Hit Raise. Bore Hole at 113’. Hole
came out 3 1/2 ladders below 340
Level. Started packing up gear for
Move to 1100 Level.

28 Feb 83  Moved drill and tools to
the station. Did some odd jobs on 430
and 500 levels, so that some one would
be near 935 Store while Chris Auer
Jumbo Drills alone.
1 Mar 83  1060 U.C.P.  430 Level
Worked with Lorenzo. We slushed and hand mucked. Moved the slusher and jumbo to the footwall side of the crib. Began moving steels, tools, etc. in preparation for firing the Black ore.

2 Mar 83  1060 U.C.P.  430 Level
Moved equipment to the footwall side of the crib. Fired the breaking raise in the Black ore.

3 Mar 83  1380 U.C.P.  1300 Level
Stopped on 430 Lev. to pick up my drill log book and "38". Went to 1100 Lev. to fire ore pass which was hung up above the crusher. Went down to 1380 U.C.P. and put in two bolts. Restrepo and I took turns mucking with the caavo til' lunch. Neville came back after lunch and he mucked while I trammed 12 cars.
4 MAR 83 DDH 464 EAST VEIN 1100 LEV.
LOOKED OVER THE SITE FOR THE NEW TEST HOLE. IT WILL BE DRILLED FROM THE BROWN WILLEMITE ZONE DRIFT AT @ 1420 NORTH SECTION. WENT UP TO 1020 U.C.P. 600 LEVEL, WHERE I PLAYED "VICTIM" FOR A MINE RESCUE TEAM PRACTICE RESCUE. WENT BACK TO 1100 AND MOVED DRILL AND TOOLS TO THE DRILL SITE. CHECKED OUT THE 780 PILLAR-800 TRANSVERSE STOPE AREA AND DISCOVERED A LOCATION FOR GYPSUM IN 780 PILLAR. IT IS A LEACHED OUT ZONE IN THE FOOTWALL OF THE EAST VEIN. THE EAST VEIN IS @ 10' WIDE AND RICH IN ZINCRATE.

7 MAR 83 DDH 464
SET UP DRILL AND DRILLED 26 INCHES. HAVE TO GET A VALVE TO DRILL THRU BEFORE GOING ANY FARTHER. CLEANED UP SOME MUD UNDER 1220 U.C.P. GOT ANOTHER GYPSUM SPECIMEN.
8 Mar 83 DDH 464 East Vein 1100 Lev.
Drilled 3' to make room for a valve on a 5' pipe, cleaned mud in 1220 x-cut while waiting for an insert for the reamer bit. Got the insert and found out that the "38" did not work. Had to go to the surface to get a "53". Got started on reaming the hole. Got more gypsum from 780 pillar.

9 Mar 83 DDH 464
Reamed the hole 5' deep. Put in the 2" pipe. I had to drive it in with the drill. Put in two 6' bolts to hold it. Went up to 180 level to get a water remover from the air line. I have to modify it for use as a grouter on the pipe I put in for DDH 464. Checked out the gravity tram above 180 Lev. and the old shaft area on 180. Got more gypsum. Also got a piece of sphalerite loellingite from 1015 st. 180 Lev. that has strange micros in it. # 484
10 MAR 83  DDH 464  EAST VEIN  1100 LEVEL
GOT THE PIPE FITTINGS FOR THE
GROUTER AND GROUTED THE VALVE.
WENT TO 1540 U.C.P. AND SET UP THE
JUMBO DRILL.

11 MAR 83  1540 U.C.P.  1500 LEV.
FINISHED JUMBO DRILL SET UP.
DRILLED UP-HOLES  450'.

14 MAR 83  DDH 464
DRILLED FROM 5'6" TO 35'.  5'6" - 24
GREEN ROCK (VERY HARD); 24' TO 35'
WHITE ROCK. THE VALVE SET-UP I AM
DRILLING THRU SEEMS TO BE WORKING OK.
GOT MORE GYPSUM.

15 MAR 83  DDH 464
DRILLED FROM 35' TO 67'.  35' TO 64'
WHITE ROCK; 64' TO 67' GREEN ROCK.
SET UP ROD PULLER. GOT ANOTHER
GYPSUM SPECIMEN.
16 Mar 83  110 Stope  800 Level
WorKed with Mike halloween. We scaled and Bolted. 25 bolts.

17 Mar 83  1020 Stope  1200 Level
Helped Doug bolt. 10 bolts. I used the LHD to fill the crib.
Trammed 15 cars while Doug Mucked. Drilled and fired 10 block holes. Got some Willemite xls.

18 Mar 83  1220 U.C.P.  700 Lev.
Helped Steve Yanecko Jr. load 7 1/2 bags of anfo. Wired up and fired after everyone else got up to the adit. Found some Krierite in a slip on the South Rib. The slip dips approx. 45° west & strikes north.
21 MAR 83  DDH 464  1100 LEVEL
DRILLED FROM 67' TO 100'.  67' TO 71'
GREEN ROCK; 71' TO 83' WHITE ROCK;
83' TO 85' GREEN ROCK; 85' TO 100' WHITE
ROCK. CHECKED OUT 740 PILLAR. EAST
VEIN MINED, WEST VEIN ORE STILL THERE.
SAW A SLIP WITH OPEN POCKETS BUT COULD
NOT GET ANYTHING. BROUGHT OUT A
780 PILLAR GYPSUM.

22 MAR 83  1020 STOPE 1200 LEV.
HELPED ROY MILLER. WE FIRED 2 MISHOLES
IN A DRIFT ROUND. DRILLED AND FIRED
A LARGE STRIP ON THE FOOTWALL OF THE
EAST BRANCH.

23 MAR 83  HAD TO GO TO NEWARK FOR
GRAND JURY DUTY. GOT PICKED TO SERVE ON
THE TUESDAY GRAND JURY FOR ELEVEN MONTHS.

24 MAR 83  DDH 464
DRILLED FROM 100' TO 125'. ALL WHITE ROCK.
CAME UP AT 1:30 PM TO TAKE A TEST FOR
A BLASTING LICENSE.
25 Mar 83 Mine Rescue Training
Used the Chemox Breathing Apparatus on a practice rescue. Went to 1220 U.C.P. on 700 Level and put Bob Svecz in the new stretcher. Pulled him up the manway. Used the McCaas on the surface to practice on a tire fire.

28 Mar 83 DDH 464 1000 St. 1100 Lev. Cored from 125' to 155'. 125 to 130.5 White Rock; 130.5 to 131 Ore; 131 to 141 White Rock; 141 to 155 Pyroxene Zone with lots of Franklinite.

29 Mar 83 Grand Jury Duty

30 Mar 83 1110 St. 800 Lev. Trammed on 900 Level after spending three hours on track repairs. Did some fill prep in the stope.
31 MAR 83  1110 STOPE  800 LEVEL
WORKED ON FILL PREP.  GOT SOME
NORBERGITE FROM 1220 X-CUT.  GOT
SOME PYRITE MICROs FROM 1250 STOPE.

5 APR 83  JURY DUTY

6 APR 83  ANNUAL SAFETY TRAINING.

7 APR 83  1110 STOPE  800 LEV.
PUT UP CRIBBING.  GOT SOME PIECES
OF AN AMPHIBOLE FROM THE F/W.

8 APR 83  1110 STOPE  800 LEV.
FINISHED NORTH CRIB AND NORTH
MANWAY TUBE, MOVED ALL TOOLS
SOUTH TO THE SOUTH CRIB AREA.
THE FILL CREW IS GOING TO START
FILLING THE NORTH END WHILE WE
ARE WORKING ON THE SOUTH END.
(CBOLTING AND MUCKING)
11 APR 83  FILL CREW
FINISHED FILLING 1060 U.C.P. ON
430 LEVEL AND MOVED TO 1220 U.C.P.
on 700 LEVEL. INSTALLED A PUMP
AND DISCHARGE HOSES UNDER THE
CHUTE ON 900 LEVEL AND STARTED
RUNNING FILL.

12 APR 83  GRAND JURY DUTY

13 APR 83  1110 ST. 800 LEVEL
TRAMMED ON 900 LEVEL. 60 CARS,
HAD TROUBLE WITH WEAK BATTERIES
IN THE MOTOR. SCARED LOOSE AT 1580 N
IN THE EAST VEIN DRIFT. NO SPECIMENS.

14 APR 83  1110 ST. 800 LEVEL
TRAMMED AGAIN. 66 CARS. GOT SOME
PIECES OF CALCITE FROM THE SELIG-
MANNITE LOCATION.
15 APR 83  1110 STOPE 800 LEVEL
RILLED DOWN THE MUCK PILE AND PUT 5 BOLTS IN THE HANGING WALL.
CONTINUED BOLTING ON TOP. 16 BOLTS. WE WANTED TO FIRE BLOCK HOLES
BUT A TRAMMING HOSE BLEW OUT ON THE EIMCO 911.

18 APR 83  1110 ST.  800 LEV.
TRAMMED ON 900 LEVEL. 78 CARS. HAD TO STOP AND CHARGE THE MOTOR 4 TIMES.

19 APR 83  JURY DUTY

20 APR 83  1110 ST.  800 LEVEL
TRAMMED ON 900 LEV. 78 CARS. HAD TO STOP AND CHARGE THE MOTOR 4 TIMES.
SCALED LOOSE IN 1120 STOPE. THERE IS GAGNITE AND RHODONITE IN THE NORTH END.

21 APR 83  1110 ST.  800 LEV.
SCALED AND BOLTED. 25 BOLTS.
22 APR 83  1110 STOPE 800 LEV.
TRAMMED ON 900 LEVEL. 78 CARS.
HAD TO CHARGE THE MOTOR 4 TIMES,
TIGHTENED UP LOOSE FISH PLATES
IN THE TRACK. TOOK HOME TWO PIECES
OF ZINCITE ORE.

25 APR 83  1060 U.C.P. 430 LEVEL
DRILLED UP-HOLES WITH JACKLEG WHILE
BOB WILLIAMSON JUMBO DRILLED. TOTAL
OF 700'. GOT SOME ZOEULINGITE IN
SPHALERITE FROM THE BLACK WILLEMITE ZONE.

26 APR 83  JURY DUTY

27 APR 83  1660 U.C.P. 1600 LEVEL
RUSSMAN FIRED DOWN THE RED ORE LAST
NITE. WE WASHED DOWN THE MUCK PILE
AND SET UP TO BOLT. 10 BOLTS.
SCALED DOWN LOTS OF BIG LOOSE.
28 APR 83 1660 U.C.P. 1600 LEV.
SPENT THE WHOLE SHIFT SCALING
AND FIRING DOWN BIG LOOSE.

29 APR 83 1110 STOPE 800 LEVEL
WORKED ON THE FILL CREW. HAD TO
MAKE ABOUT 8 PIPE CONNECTIONS
BEFORE WE STARTED. WE ARE USING
THE NEW FILL - CRUSHED LIMESTONE
FROM LIME CREST. IT BUILDS UP
FAST AND SEEMS TO HOLD CEMENT
BETTER THAN THE SAND PREVIOUSLY USED.

2 MAY 83 1060 U.C.P. 430 LEVEL
JIM BEDNAR AND I DRILLED UP-HOLES
WITH THE JUMBO AND JACKLEG. 475'.

3 MAY 83 1660 U.C.P. 1600 LEVEL
SCALED AND BOLTED THE BROW. 17 BOLTS.
SCALED SOME BIG PIECES OFF THE BROW.
HAD TO FIRE TO GET THEM DOWN. 1/2 STICK.
GOT MOST OF A LARGE FRANKLINITE IN
3 PIECES.
4 MAY 83  1660 U.C.P.  1600 LEVEL
Scaled and bolted, 10 bolts.
Drilled 10 block holes and broke
them with wedge pins. Got some
quartz crystals in calcite from the
H/W of an old stope in the 1020 area.

5 MAY 83  DDH 464  1000 ST.  1100 LEV.
Drilled from 155' to 175'. 155' to
168' - Pyroxene zone; 168' to 175' looks
like ore. Needs lamp test.

6 MAY 83  1060 U.C.P.  430 LEVEL
Bednar fired about five rows
back from the hanging wall slot.
Yesterday, we scaled and bolted 13
bolts. Since the muck pile will
be too high at the H/W and too low
at the crib we slushed some muck
towards the crib. Got 2 pieces of
Loellingite in sphalerite.
DATE ISSUED: August 9, 1982  
1540 UP - MINING  
1400 Level  

Contract # 844  

Breaking raises if required will be part of this Contract and will not be paid as a separate development contract.  
The base used to calculate this Contract will be 8.5 tons per man shift.  

It will include the following operations:  

1. Drilling uppers with jackleg or stoper, 3.0' between rows and 2.5' between holes, inclination of holes will not be less than 65° from the horizontal and not more than 70°; drilling intermediate rib holes 18" apart;  

2. Drilling test holes to establish mining limits.  

3. Drilling strip holes or benches with jackleg or stoper;  

4. Loading and blasting of all drill holes that are required;  

5. Scaling and roof bolting as required;  

6. Secondary blasting (blockholing);  

7. Mucking out ore with slusher;  

8. Handmucking;  

9. Final clean-out (complete ore removal to bare fill floor and clean F.W. and H.W.);  

10. Tramming all ore on level below;  

11. Complete hydraulic fill preparation includes:  
   A. Putting up steel crib to proper height including tightening of all crib bolts and shimming if required;  
   B. Putting up manway pipe to proper height; and tightening bands;  
   C. Drainage pipe installation to proper height and tightening band if required;  
   D. Picking up and hanging all equipment above what will be finished fill elevation;  
   E. Chute and crib clean out (removal of all muck);  
   F. Whatever materials that are required to finish elevating cribs, manways and vent pipe as filling progresses, an ample supply of timber that will be required to complete filling of the working place.  

12. All pipe work (air, water, and hydraulic fill pipe) that is required;  

13. Ventilation work (air movers, etc.);  

14. All work must be done in a safe manner and according to the General Foreman's instructions.  

D. W. Smith  
Superintendent of Operations