

11 SEP 81 DDH 455 1340 N. SECT  $\Delta +15^{\circ}$  800 LEV  
DRILLED 93' - 131'. 93' LOW ORE 101' PYROXENE  
ZONE 106' WHITE CUTTINGS 125' GREEN 131'.  
SCALED LOOSE IN 1160 X-CUT. FOUND A  
WEDGE BAR AND STARTER STEEL w/GOOD BIT.

14 SEP 81 1060 U.P. 500 LEV.  
COLWELL WAS OUT TODAY SO I HAD  
TO WORK WITH MANCIK. SCALED A HELL  
OF A LOT OF LOOSE AND PUT IN 16 BOLTS.  
THE BLACK ORE WAS JUST FIRED. THERE  
ARE MANY LARGE PATCHES OF PINK CAR-  
BONATE BUT NO WELL FORMED XTLS OF  
ANY KIND.

15 SEP 81 DDH 455  
DRILLED 131' TO 154'. 131' ROCK 148' ORE  
(BRW.Z.) 154'. HAD TROUBLE WITH BIT PLUGS  
AND HARD GROUND. BROUGHT OUT SOME  
1110 ST. SULPHIDES.

16 SEP 81 1220 U.P. 1000 LEV.  
WORKED WITH CLIFF VAN STRANDER. CRIB BOX  
IS DETERIORATING. HUNG 12 LADDERS DOWN  
CRIB TO EXAMINE CRIB BOX. MUCKED UP A  
CAR OF ORE UNDER THE CHUTE. SLIKER LOOKED  
AT CRIB BOX AND TOLD US WHAT TO DO. BUILT  
A PLATFORM TO WORK ON. GOT SOME 1220 PIECES.

17 SEP 81 1220 U.P. 1000 LEV.

GOT POWDER ORDERS OUT IN A.M. GOT  
TIMBER AND TOOLS AND STARTED RE-INFORCING  
CRIB BOX. GOT SOME PIECES FROM 1220 X-CUT  
REALGAR LOCATION ON 1100 LEVEL. <sup>URANOSPINITE OK</sup> #448

18 SEP 81 1220 U.P. 1000 LEVEL

FINISHED FIXING CRIB BOX. TOOK DOWN  
PLAT FORM. STARTED REPAIRS ON CHUTE.  
GOT A REALGAR - ARSENOPIRYTE SPECIMEN.

21 SEP 81 1340 N. SECTION DDH 455 800 LEV.

THE DIAMOND DRILL QUIT RUNNING. HAD THE  
SPARE SENT DOWN FROM THE SHOP. DRILLED  
FROM 154' TO 166'. 154' BROWN ORE 159' LOW  
ORE 166'. MACHINE IS DRILLING VERY SLOW.

22 SEP 81 DDH 455

DRILLED FROM 166' TO 184'. 166' BROWN ORE  
180' LOW ORE 184'. MACHINE DRILLING VERY  
SLOW. BROUGHT OUT SOME 1110 ST. SULFIDES.

23 SEP 81 DDH 455

GOT A NEW CORE BIT. DRILLED FROM 184' TO  
211'. 184' LOW ORE 193' ORE W/ZINCITE 200' GREEN  
ROCK (PYROXENE W/GAHNITE & MICA) 211'. BROUGHT  
OUT AN 1110 ST. SULFIDE SPEC.

24 SEP 81 DDH 455 1340 N, SECT. 800 LEV.

DRILLED FROM 211' TO 221'. 211' GREEN  
ROCK 216.5' ORE 218' WHITE ROCK 221'.  
HOLE FINISHED. MOVED COLUMN 4' NORTH  
AND SET UP TO DRILL DDH 456 25° NORTH  
OF DDH 455.  $\times +15^\circ$ . HAD TO STRIP DRIFT  
WALL FOR TAIL ROOM. DRILLED 5' WHITE ROCK.

25 SEP 81 DDH 456 800 LEV.

DRILLED FROM 5' TO 35'. WHITE ROCK. DID  
SOME MORE STRIPPING ON DRIFT WALL. BROUGHT  
OUT SOME 740P. MCGOVERNITE, NG.

28 SEP 81 DDH 456

DRILLED FROM 35' TO 75'. 35' WHITE 37'  
GRAY 39' WHITE 69' GREEN 70' BLACK 73.5'  
GRAY 75'. SET UP ROD PULLER.

29 SEP 81 DDH 456

DRILLED FROM 75' TO 109'. ALL GRAY  
CUTTINGS.

30 SEP 81 BIRTHDAY OFF

1 OCT 81 DDH 456

DRILLED FROM 109' TO 140'. 109' GRAY 137'  
BROWN 139' GRAY 140'. CHECKED OUT 1110 ST.  
THE SULFIDE VEIN IN THE H/W RUNS FOR  
ABOUT 40'. THE VEIN GOES FARTHER NORTH  
BUT LOSES THE SULFIDES.

2 OCT 81 DDH 456 800 LEV.

DRILLED FROM 140' TO 165'. 140' TO 155' WAS BROWN CUTTINGS VARYING FROM LIGHT TO DARK. 155' PYROXENE IN MARBLE 159' LEAN ORE 165'.

5 OCT 81 DDH 456

DRILLED FROM 165' TO 192'. 165' WHITE ROCK 176' LOW ORE (FRANKLINITE & PYROXENE IN MARBLE) 186' WHITE ROCK 192'.

SCALED IN 1160 X-CUT.

6 OCT 81 DDH 456

DRILLED FROM 192' TO 210'. 192' WHITE ROCK 194.5' ORE 210'. SLOW GOING DUE TO LENGTH OF HOLE AND DULL BIT.

7 OCT 81 DDH 456

DRILLED FROM 210' TO 220'. 210' ORE 216' WHITE ROCK 220'. MOVED COLUMN BACK TO SITE OF DDH 455. SET DRILL FOR NEW HOLE 8° SOUTH OF 455 AT  $\frac{1}{4}$  + 12°. DRILLED 5' WHITE ROCK.

8 OCT 81 DDH 457

DRILLED FROM 5' TO 72'. 5' WHITE 37' GRAY 39' WHITE 43' GRAY 60' GREEN 66' GRAY 72'.

CHECKED OUT 1250 ST. BILL FIRED THE NORTH HALF LAST NIGHT. GOT SOME AMPHIBOLE SPECIMENS FROM A CALCSILICATE BLOCK WHICH WAS FAULTED INTO THE ORE.

9 OCT 81 DDH 457 800 LEV. (FOR 1250 ST)

DRILLED FROM 72' TO 125'. 72' GRAY  
93' BLACK 97' GRAY 118' WHITE 125'. CHECKED  
1110 STOPE AT DINNER TIME. SAW A CALCSILICAT  
BLOB IN THE FOOTWALL. ORE CONTACT  
CURVED OVER THE BLOB.



12 OCT 81 DDH 457

DRILLED FROM 125' TO 156'. 125' WHITE  
131' GRAY CUTTINGS. 145' BLACK ORE 153'  
SALMON CALCITE 155.5' GREEN 156'.

13 OCT 81 DDH 457

DRILLED FROM 156' TO 180'. 156' GREEN  
157' WHITE 160' TAN 161' BROWN 164'  
GREEN 180'. GREEN ROCK IS VERY HARD.

14 OCT 81 DDH 457

DRILLED FROM 180' TO 200'. 180' GREEN  
183' WHITE 187' GREEN 200'. CORE BITS  
DULL. NEW ONES ON ORDER.

15 OCT 81 DDH 457 800 LEV (FOR 1250 ST)  
DRILLED FROM 200' TO 216'. 200'  
GREEN 206' ORE 215' ORE W/ZINCITE  
216'. STILL WAITING FOR NEW BITS.  
WHEN MACHINE IS DRILLING THIS SLOW  
IT IS VERY "BORING", ALSO COLD.

16 OCT 81 DDH 457 & 458  
DRILLED 216' TO 220'. ALL ORE. DONT  
HAVE ENOUGH STEELS TO REACH H/W.  
TURNED DRILL TO N 78° E AT +15° X.  
BEGAN DRILLING DDH 458. 11' OF WHITE  
CUTTINGS. STRIPPED DRIFT RIB BEHIND  
DRILL.

19 OCT 81 DDH 458  
STRIPPED DRIFT RIB IN FRONT OF  
DRILL. DRILLED 11' TO 32'. 11' WHITE  
15.5' GRAY 18' WHITE 32'. TURNED IN  
OLD CORE BITS AND GOT A NEW CORE  
BIT AND PILOT BIT.

20 OCT 81 DDH 458  
DRILLED FROM 32' TO 86'. CUTTINGS CAME  
OUT THE SAME AS DDH 455. CHECKED OUT  
740 X-CUT AREA AT LUNCH TIME.

21 OCT 81 DDH 458 800 LEV. FOR 1250 ST.  
DRILLED 86' TO 131'. 86' GRAY 88' BLACK  
95' GRAY 131'.

22 OCT 81 DDH 458  
DRILLED 131' TO 166'. ALL WHITE OR  
GRAY CUTTINGS. SOME ANDRADITE IN A  
SHEAR ZONE AT 150'. TOOK A LOOK AT  
1250 STOPE. THE NORTH END HAS BEEN  
FIRED DOWN AND ELLISON IS STRIPPING  
THE REST OF THE WAY TO THE LEVEL. THE  
ORE WAS THOUGHT TO BE POOR BUT IS  
TURNING OUT TO BE OK. KOROLY AND  
PENNEL. BEGAN DEVELOPEMENT WORK  
TODAY ON 600 LEVEL FOR THE 1020 U.P.

23 OCT 81 DDH 458  
DRILLED FROM 166' TO 193'.  
166' LOW ORE 173' WHITE 182' LOW ORE  
188' ORE w/ZINCITE 190' WHITE 193'.  
SCALED IN 1220 U.P. NADA.

26 OCT 81 DDH 458  
DRILLED FROM 193' TO 218'. 193' ORE  
216' WHITE ROCK 218'.

27 OCT 81 DDH 458 800 LEV.

DRILLED FROM 218' TO 221'. ALL WHITE ROCK. HOLE FINISHED. PACKED UP TO MOVE OUT. PUT IN FOUR ROCK BOLTS TO COVER HOLES, TO PREVENT INJURIES CAUSED BY BLASTING AT THE OTHER END OF THE HOLES. RON RILEY WAS INJURED BY ROCK FRAGMENTS FLYING OUT OF A DIAMOND DRILL HOLE ON 1400 LEVEL (1680 ST.) MOVED GEAR DOWN TO 1300 LEVEL AND TOOK IT INTO 1300 X-CUT.

28 OCT 81 DDH 459 1300 U.P. 1300 LEV.

SET UP DRILL IN 1300 X-CUT. WILL BE DRILLING EAST AT  $X + 30^\circ$ . DRILLED 15'. ALL GREEN ROCK AND VERY HARD. HAD TO GET A NEW PILOT BIT TO CUT IT. WENT INTO 1020 ST. EAST BRANCH. SAW SOME LEACHED ZINCITE ORE AND KRAISSLITE VEINLETS (THE TWO GO TOGETHER IN MANY PLACES IN THE CENTRAL ZINCITE ZONE).

29 OCT 81 DDH 459

DRILLED FROM 15' TO 48'. 15' GREEN 29' WHITE 36' F/W RAISE 41' BLACK ORE 48'. HAD TO CLIMB UP IN THE F/W RAISE TO STEADY THE STEEL WHILE DRILLING INTO



THE HANGING WALL OF THE RAISE.  
WENT UP THE OLD 1340 F/W RAISE AT  
LUNCH TIME AND DID SOME CHIPPING  
ON THE MANGANAXINITE LOCATION.

30 OCT 81 DDH 459 1300 U.P. 1300 LEV.  
DRILLED FROM 48' TO 69'. 48' ORE 63'  
WHITE ROCK 69'. HAVING TROUBLE DRILLING  
IN CRACKED GROUND. LOSING DRILL WATER  
THRU CRACKS. WENT INTO 1340 F/W RAISE  
AND CHISELLED SOME NICE PIECES OFF  
THE MANGANAXINITE POCKET. GOT SOME  
NICE FLUORITE <sup>#450</sup> XLS.

2 NOV 81 1020 ST. 1300 LEV.  
DRILLED UPPERS IN THE EAST BRANCH  
WITH A "53". 230'. BROUGHT HOME SOME  
PIECES FROM THE 1340 <sup>#452</sup> AXINITE LOCATION.

3 NOV 81 DDH 459  
DRILLED FROM 69' TO 90'. ALL BLACK ORE.  
WORKED ON THE AXINITE POCKET AND  
BROUGHT HOME SOME NICE SPECIMENS.

4 NOV 81 DDH 459  
DRILLED FROM 90' TO 110'. 90' BLACK ORE  
109' WHITE ROCK 110'. WAS DELAYED BY LACK  
OF EMPTY CORE BOXES. GOT MORE AXINITE.

5 NOV 81 DDH 459 1300 U.P. 1300 LEV.  
DRILLED FROM 110' TO 120'. ALL WHITE ROCK.  
HOLE FINISHED. MOVED GEAR TO STATION.  
CHECKED OUT 860 PILLAR (H/W). NADA.

6 NOV 81 DDH 460 1570E. ST. 1200 LEVEL  
MOVED GEAR TO 1200 LEVEL. SET UP  
DRILL IN 1540 X-CUT. DRILLED 0' TO 17'.  
ALL ROCK. (PYROXENE ZONE). TOOK A LOOK  
AT 1570E. THE FILL CREW IS JUST  
FINISHING. THE FILL ELEVATION IS 1200 LEV.

9 NOV 81 DDH 460  
DRILLED FROM 17' TO 60'. 17' TO 54'  
GRAY CUTTINGS; 54' TO 60' WHITE CUTTINGS.  
INSTALLED ROD PULLER. CHECKED OUT  
1260 CHUTE AREA. THERE ARE MANY  
EPIDOTE VEINS AND LOTS OF LOOSE.

10 NOV 81 DDH 460  
DRILLED FROM 60' TO 100'. 60' WHITE  
61' GRAY 64' WHITE 76' GRAY 81'  
WHITE 88' LOW ORE 100'. WALKED UP  
TO 1100 LEVEL THRU 1300 U.P. AND GOT SOME  
URANOSPINITE FROM THE 1220 X-CUT  
REALGAR LOCATION. ALSO GOT SOME HOLDENITE  
FROM 1380 U.P.

11 NOV 81 DDH 460 1570 E. ST. 1200 LEV.

DRILLED FROM 100' TO 115.5'. 100' LOW  
ORE 102' WHITE W/GARNET 108' ORE?  
113' ORE W/ZINCITE 115.5'. HAD TO  
REPLACE A BLOWN GASKET ON THE DRILL.  
MADE ONE OUT OF A PLASTIC OIL JUG.  
SHUT DOWN AT 2 PM WHEN THE WATER  
SWIVEL BEARING BROKE. GOT MORE  
HOLDENITE FROM 1380 U.P.

12 NOV 81 1220 U.P. 800 LEV.

WORKED WITH JARREL TODAY. MUCKED  
WITH CAAVO IN A.M., TRAMMED ON  
900 LEV. IN P.M. 38 BIG CARS. HAD TO  
GET 2 WEDGE PINS TO BREAK A LARGE  
CHUNK IN THE MUCK PILE. THE CAAVO  
COULDN'T MOVE IT.

13 NOV 81 1020 ST. 1300 LEV.

JUMBO DRILLED. 540'. LOOKED AT  
WEST VEIN PILLARS SOUTH OF 1020 ST.  
GROUND CONDITIONS HAVE DETERIORATED  
IN THE PAST TWO YEARS; PROBABLY DUE  
TO MINING 1020 STOPE.

16 NOV 81 1220 U.P. 1000 LEV.

WORKED ON FILL CREW. WENT TO 1540 U.P. 1400 LEVEL TO REMOVE FILL HOSES AND TELEPHONE. MOVED UP TO 900 LEVEL AND HOOKED UP FILL PIPES ON STATION TO ROUTE FILL TO 1220 U.P. CLIFF WAS NOT READY FOR FILL. WE WENT DOWN TO 1200 LEVEL AND HOOKED UP PIPES TO ROUTE FILL TO 1020 STOPE. POURED FILL IN 1220 U.P. AFTER LUNCH.

17 NOV 81 1540 U.P. 1500 LEV.

THIS PILLAR WAS JUST FILLED. PREPARED FOR MINING. REARRANGED LADDERS IN BOTH RAISES TO BRING THEM UP TO SAFETY SPECIFICATIONS. TOOK SLUSHER DOWN FROM ITS HANGER. WENT DOWN TO 1600 LEVEL TO CLEAN UP UNDER CHUTE. GOT SOME MICROS FROM 1660 U.P. AND SOME AMPHIBOLE SPECIMENS NEAR THE OLD SHAFT.

18 NOV 81 1540 U.P. 1500 LEV.

FINISHED CLEANING FILL MUD UNDER CHUTE. SET UP TO DRILL A BREAKING RAISE. THE "53" WAS NO GOOD. HAD TO GET A NEW ONE.

19 NOV 81 1540 U.P. 1500 LEV.

DRILLED MOST OF BREAKING RAISE AND SLOT. 240'. SCALED LOOSE IN 140 X-CUT. NO SPECIMENS.

20 NOV 81 1540 U.P. 1500 LEV.

FINISHED DRILLING SLOT AND STARTED UPPERS. 180'. WENT TO 1000 LEV. AFTER LUNCH AND BROUGHT A JUMBO DRILL TO 1400 LEV. LOWERED MOST OF THE PIECES DOWN THE 1540 RAISE BORE INTO THE PILLAR. GOT SOME GREEN SILICATES FROM 1420 X-CUT 1500 LEV.

23 NOV 81 DDH 460 1570E. STOPE 1200 LEV.

PICKED UP REBUILT WATER SWIVEL IN THE MINE OFFICE. THIS IS THE NEW STYLE THAT ONLY FITS ON THE 2 NEW 5' STEELS. WE STILL NEED A NEW 10' STEEL BECAUSE THE 5' STEELS VIBRATE EXCESSIVELY. DRILLED FROM 115.5' TO 138'. 115.5' ORE W/ZINCITE 118' ORE 127' WHITE 138'. GOT 2 HOLDENITES FROM 1380 U.P.

24 NOV 81 1540 U.P. 1500 LEV.

TOOK THE REST OF THE JUMBO INTO THE PILLAR AND SET IT UP. GOT SOME MICROPHARMACOLITE FROM THE 1500 LEV. LATRINE CAV AREA.

25 NOV 81 DDH 460 1200 LEV & 1540 U.P. 1500 LEV.

FINISHED DDH 460. DRILLED FROM 138' TO 148'.

ALL WHITE ROCK. GOT A HOLDENITE SPEC.

FROM 1380 U.P. TOOK THE 10' CORE BARREL

UP TO THE SHOP TO BE REPAIRED.

WENT TO 1540 U.P. AND FINISHED SETTING

UP THE JUMBO. A WATER HOSE ON THE

JUMBO BROKE SO WE DRILLED A ROW OF

UPPERS WITH THE JACKLEG. 45'

30 NOV 81 1540 U.P. 1500 LEV.

REAMED OUT TWO HOLES IN THE BREAKING-

RAISE. DRILLED UPPERS WITH JUMBO.

420'. SCALED IN 1420 X-CUT.

1 DEC 81 1540 U.P. 1500 LEV.

DRILLED UPPERS WITH JUMBO. USED

A JACKLEG TO DRILL A LOW AREA, 350'.

2 DEC 81 1540 U.P. 1500 LEV.

FINISHED DRILLING LOW AREA. DRILLED

WITH JUMBO. 450'. SCALED IN 1420 X-CUT.

3 DEC 81 1540 U.P. 1500 LEV.

DRILLED UPPERS WITH JUMBO AND JACKLEG.

400'. SCALED LOOSE IN 1500 X-CUT.

GOT 4 SPECIMENS OF A STRANGE PINK  
MINERAL\* IN A FINE GRAIN, GREEN ROCK.

\* PYROPE/ALMANDINE WITH SILLIMANITE

4 DEC 81 1540 U.P. 1500 LEV.

DRILLED UPPERS WITH JUMBO. STARTED DRILLING DRIFT ROUND IN H/W TO GET A SMALL PIECE OF ORE. TOTAL 360'. SCALED IN 1420 X-CUT.

7 DEC 81 1620 U.P. 1600 LEV.

HELPED ROY RUSSMAN PULL SLUSHER OUT OF THE PILLAR. WENT UP TO 1540 U.P. AND DRILLED 54' ON THE DRIFT ROUND. GOT SOME ROCK SPECIMENS FROM 1500 X-CUT, 1500 LEVEL.

8 DEC 81 1620 U.P. 1600 LEVEL.

HOISTED ALL THE TOOLS OUT OF THE PILLAR. STARTED SETTING UP SLUSHER IN 1620 X-CUT. BROUGHT OUT A 1660 U.P. MICRO.

9 DEC 81 1540 U.P. 1500 LEV.

DRILLED 130' ON THE DRIFT ROUND. GROUND IS BROKEN. IT IS VERY HARD TO GET A CLEAN HOLE. HAD TO PULL THE STEEL OUT OF THE HOLES WITH THE DRILL. WE FINALLY GOT THE PARTS FOR THE DIAMOND DRILL BUT SVE CZ HAS NOT SET UP A NEW HOLE YET.

10 DEC 81 1540 U.P. 1500 LEV.

FINISHED DRIFT ROUND. DRILLED UP-HOLES WITH JUMBO AND JACKLEG. 190'. DIFFICULT DRILLING IN BROKEN GROUND.

11 DEC 81 1540 U.P. 1500 LEV.

DRILLED UP-HOLES WITH JACKLEG. GOT A NEW "53" AND SHORT LEG. 230'.

14 DEC 81 1540 U.P. 1500 LEV.

DRILLED UP-HOLES WITH JACKLEG. 45'. MOVED JUMBO TO THE FOOTWALL AND DRILLED 250'. CARRIED AN OLD "53" FROM 1580 U.P. TO THE STATION.

15 DEC 81 1540 U.P. 1500 LEV.

DRILLED UP-HOLES WITH JUMBO AND JACKLEG. 265'.

16 DEC 81 1540 & 1580 U.P. 1500 LEV.

STARTED OUT DRILLING UP-HOLES IN 1540. 40'. HAD TO STOP AT 9 AM AND GO TO 1580 TO LOAD NILITE. HAD TROUBLE WITH NEW LOADER. GOT ANOTHER FROM THE SHOP. LOADED 5 BAGS OF NILITE. REMOVED AIR AND WATER PIPES AND LADDERS FROM RAISE.



17 DEC 81 1540 U.P. 1500 LEV.

DRILLED UP-HOLES WITH JACKLEG.  
STARTED CROSS OVER. 250'. CHECKED  
OUT EAST VEIN DRIFT. IT IS ALMOST  
COMPLETELY BLOCKED BY LOOSE THAT FELL  
AT THE SOUTH END OF THE STEEL SETS.  
THE SETS ARE HOST TO A FOOT OF SOFT  
MUD.

18 DEC 81 1540 U.P. 1500 LEV.

DRILLED UP-HOLES WITH JACK-LEG.  
IN ORDER TO FINISH UP-HOLES WE HAVE  
TO STRIP A LOW, NARROW AREA JUST  
EAST OF THE ORE CRIB. STARTED THAT  
TODAY. 230'.

21 DEC 81 1540 U.P. 1500 LEV.

FINISHED DRILLING STRIP. 50'. MOVED  
SLUSHER AND ALL TOOLS, HOSES, ETC. TO  
THE F/W SIDE OF THE CRIB. LOADED AND  
FIRED STRIP. 95 LBS. OF POWDER & 36 CAPS.

22 DEC 81 1540 U.P. 1500 LEV.

SCALED AND BOLTED AROUND CRIB.

5 BOLTS. SET UP SLUSHER. SLUSHED  
OUT PART OF STRIP MUCK. 16 CARS.

FOUND SOME NICE ALLACTITES IN A  
FRIEDELITE VEIN. #459

23 DEC 81 1540 U.P. 1500 LEV.  
SLUSHED A LITTLE MORE MUCK. BOLTED  
STRIPPED AREA. 31 BOLTS. GOT MORE  
ALLACTITE<sup>#460</sup> SPECIMENS.

28 DEC 81 1540 U.P. 1500 LEV.  
FINISHED BOLTING. 17 BOLTS. SLUSHED  
ENOUGH MUCK OUT OF THE WAY TO  
BEGIN UP-HOLES, DRILLED 25'. GOT  
TWO NICE ALLACTITES. SENT A PIECE  
TO PETE FOR IDENTIFICATION.

29 DEC 81 1540 U.P. 1500 LEV.  
DRILLED UP-HOLES. 325'. GOT SOME  
ALLACTITE SPECIMENS.

30 DEC 81 1540 U.P. 1500 LEV.  
DRILLED UP-HOLES, 300'. BROUGHT  
HOME THE LAST TWO ALLACTITE SPECIMENS.

31 DEC 81 1540 U.P. 1500 LEV.  
DRILLED TWO UP-HOLES IN THE CROSS-  
OVER. THAT FINISHES THE UP HOLES.  
SLUSHED THE REMAINING STRIP MUCK  
INTO A PILE IN FRONT OF THE CRIB. HOPE-  
FULLY THAT WILL PREVENT A HIGH BACK IN  
THAT AREA WHEN THE UP-HOLES ARE FIRED.  
FIRED THE DRIFT ROUND IN THE HANGING-  
WALL AND THE BREAKING RAISE. 180 LBS. ATLAS.

4 JAN 82 1540 U.P. 1500 LEV.

DRIFT ROUND AND BREAKING RAISE  
CAME OUT GOOD. LOADED SLOT AND  
ELEVEN ROWS OF UP-HOLES. 6 BAGS  
OF NILITE AND 30 LBS. OF ATLAS  
POWERMAX. FIRED AT QUITTING TIME.

5 JAN 82

TOOK DAY OFF FOR WONDERFUL ROOT CANAL  
TREATMENT. OUCH!

6 JAN 82 1220 U.P. 1000 LEV.

WORKED ON FILL PREP. TRAMMED 15  
CARS AFTER LUNCH.

7 JAN 82 1020 ST. 1300 LEV.

WAS DOUG FRANCISCO'S HELPER TODAY.  
REFIRED A MISHOLE IN THE EAST  
BRANCH. DRILLED AND FIRED A STRIP  
IN THE FOOTWALL OF THE WEST VEIN.  
SCALED AND BOLTED THE STRIPPED  
AREA. 10 BOLTS. TRAMMED 18 CARS.  
DRILLED A BIG STRIP IN THE EAST  
BRANCH. 75'. FIRED AT 3 PM. 45 LBS ANFO.  
LOOKED FOR WEST VEIN MICROS AND  
EAST BRANCH ARSENATES. NOTHING.

8 JAN 82 1020 ST. 1300 LEV.

WORKED WITH DOUG AGAIN. HELPED HIM BOLT W/V F/W. 7 BOLTS. I BOLTED IN EAST BRANCH WHILE DOUG BOLTED W/V H/W. 13 BOLTS. TRAMMED 30 CARS. NO SIGN OF KRAISSLITE, HOLDENITE OR KOLICITE.

11 JAN 82 1220 U.P. 1000 LEV.

WORKED WITH CLIFF VAN STRANDER. WE SET UP THE SLUSHER. WE WEDGED AND SCALED 2' OF ORE OFF THE NORTH RIB TO MAKE ROOM FOR MANWAY CONSTRUCTION. SLUSHED OUT THE ORE AND ENOUGH FILL TO MAKE A TROUGH FOR A MANWAY TUNNEL. MOVED CRIBBING INTO THE PILLAR AND PUT ONE RING ON THE CRIB.

12 JAN 82 1220 U.P. 1000 LEV.

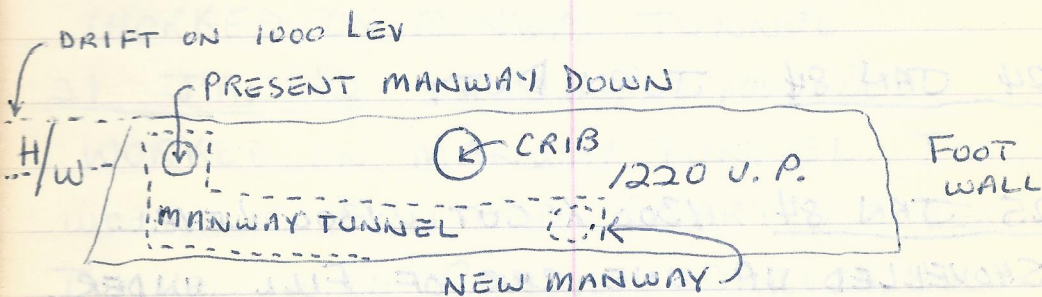
PUT UP 4 RINGS OF CRIBBING. WE ARE USING SHIMS TO BEND THE CRIB. THAT DISTORTS THE RINGS AND MAKES THEM VERY HARD TO GET TOGETHER. TRAMMED THE CHUTE EMPTY AFTER LUNCH. 25 CARS.

13 JAN 82 1220 U.P. 1000 LEV.

HAULED TIMBER UP INTO THE PILLAR AND STARTED CONSTRUCTING MANWAY TUNNEL. HUNG SLUSHER BUCKET ON H/W. GOT OUT POWDER ORDER IN A.M. 40 BAGS ANFO.

14 JAN 82 1220 U.P. 1000 LEV.

WORKED ON MANWAY TUNNEL. GOT OUT POWDER ORDER IN A.M. 20 BAGS ANFO.



THEY NEED A SECOND MANWAY TO 1000 LEVEL TO PROVIDE ACCESS <sup>AND VENTILATION</sup> WHEN THE H/W MANWAY IS COVERED BY MUCK.

15 JAN 82 935 ST 430 LEV, 1220 U.P. 1000 LEV.

GOT OUT POWDER ORDERS. TOOK 8 BAGS OF ANFO TO 935 STOPE. HELPED WIRE UP A LARGE PRIMA DET ROUND. TOOK PIPES AND LADDERS <sup>OUT</sup> OF F/W RAISE. WENT TO 1220 U.P. AND WORKED ON M/W TUNNEL.

18 JAN 82 1220 U.P. 1000 LEV.

WORKED ON MANWAY TUNNEL.

19 JAN 82 1220 U.P. 1000 LEV.

WORKED ON MANWAY TUNNEL. HEARD A LOT OF RUMORS TODAY ABOUT A COMPANY REQUEST TO RENEGOTIATE THE UNION CONTRACT. THEY WANT GIVE-BACKS.

20 JAN 82 1220 U.P. 1000 LEV.

WORKED ON MANWAY TUNNEL.

21 JAN 82 1220 U.P. 1000 LEV.

WORKED ON MANWAY TUNNEL. TIMBER WORK IS FINISHED. STARTED COVERING TUNNEL WITH BURLAP. DRILLED HOLES AND PUT UP A STEEL RACK ABOVE THE PROJECTED FILL LINE.

22 JAN 82 1020 STOPE 1300 LEV.

BOATED IN THE EAST BRANCH. 25 BOLTS. GOT 2 SPECIMENS FROM A SLIP WHICH SHOWED SMALL SPARKLIES. MICROSCOPIC EXAMINATION REVEALED MINUTE SPECKS OF KOLICITE. THE STOPE IS NOW 30' BELOW 1200 LEVEL.

FIRE AT 3:30

25 JAN 82 1540 U.P. 1500 LEV.

HALLED PRIMA-DET CAPS AND 12 BAGS OF ANFO UP INTO THE PILLAR. STARTED LOADING A LARGE ROUND. LOADED 9 BAGS. MY HELPER, HANK RIKER, WENT HOME AFTER LUNCH BECAUSE OF A TOOTHACHE. DOMINIC LORENZO CAME DOWN TO HELP AT ABOUT 1:30. GOT A BRANDTITE SPECIMEN FROM THE BLACK ORE.

26 JAN 82 1540 U.P. 1500 LEV.

BROUGHT 7 BAGS OF ANFO INTO THE PILLAR. LOADED 10 BAGS. HAVE 3 MORE ROWS TO LOAD. WAITED 1.5 HOURS FOR A NEW NYLITE BLOWER. GOT 3 MORE ALLACTITE SPECIMENS.

27 JAN 82 1540 U.P. 1500 LEV.

FINISHED LOADING UP-HOLES. 1 BAG ANFO & 1 BOX ATLAS POWERMAX. TIED UP CAPS. 5 SERIES. REMOVED PIPES AND LADDERS FROM RAISE. WASHED THE FLOOR TO DISSOLVE SPILLED ANFO. FIRED AT 3:30 P.M.

28 JAN 82 1540 U.P. 1500 LEVEL

CHECKED OUT YESTERDAYS ROUND.

BROKE GOOD. SCALED LOOSE AND

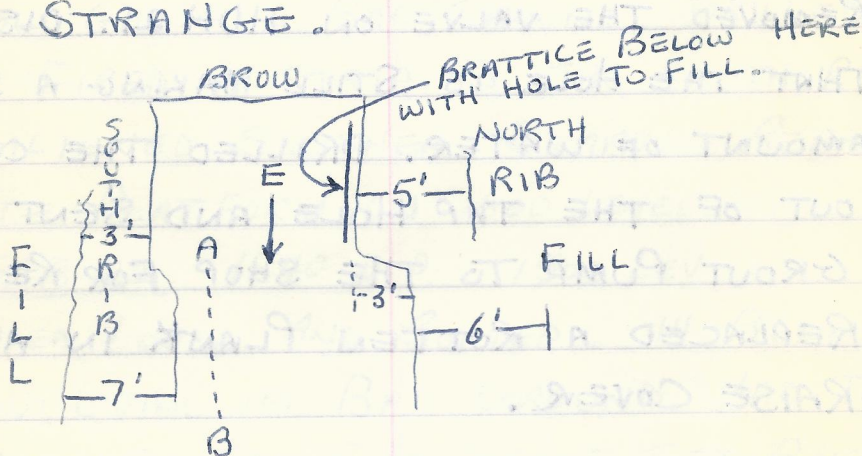
STARTED ROOF BOLTING. 15 BOLTS.

THE BACK IS NOT TOO BAD BUT THE RIBS ARE VERY LOOSE. GOT SOME MORE ALLACTITES AND A NICE HOLDENITE. SAW THIN FILMS OF KRAISSLITE.

29 JAN 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 20 BOLTS.

DRILLED TEST HOLES IN RIBS. RESULTS ARE STRANGE.



HAD TO PUT IN 8' BOLTS FROM "A" TO "B" DUE TO BAD GROUND AT 6'.



1 FEB 82 1540 U.P. 1500 LEV.

SCALED LOOSE AND BOLTED. 20 BOLTS.  
SLOW GOING IN BAD GROUND. DRILLED  
AND FIRED A STRIP ON THE SOUTH RIB.

2 FEB 82 1540 U.P. 1500 LEV.

SCALED LOOSE AND BOLTED. 15 BOLTS.  
SLOW GOING IN BAD GROUND. DRILLED  
AND FIRED ANOTHER STRIP ON SOUTH RIB.  
GOT AN ALLACTITE AND 2 HOLDENITES.

3 FEB 82 1540 U.P. 1500 LEV.

SCALED LOOSE AND BOLTED. 12 BOLTS.  
SLOW GOING IN BAD GROUND. DRILLED  
AND FIRED A STRIP ON THE SOUTH RIB.  
REALIGNED SLUSHER. STARTED REPAIRING  
CHUTE PLATFORM ON 1600 LEVEL.

4 FEB 82 1540 U.P. 1500 LEV.

SCALED LOOSE AND BOLTED. 14 BOLTS.  
SLOW GOING IN BAD GROUND. HAD TO  
PUT IN 2 SIX FOOT SPLIT SET BOLTS.  
REGULAR BOLTS WOULD NOT ANCHOR.  
DRILLED AND FIRED A STRIP AND TWO  
BLOCK HOLES.

5 FEB 82 1540 U.P. 1500 LEV.

PUT 3 BOLTS IN SOUTH RIB. MOVED GEAR OFF MUCK PILE TO MAKE WAY TO SLUSH. REPAIRED CHUTE PLATFORM ON 1600 LEV. HAVE TO SLUSH BECAUSE MUCK PILE IS TOO HIGH TO ALLOW ANY MORE BOLTING. 38 CARS OF ORE. GOT SOME NICE ALLACTITES WHEN I BROKE UP A LARGE CHUNK IN THE MUCK PILE.

8 FEB 82 1540 U.P. 1500 LEV.

SLUSHED MUCK OFF THE TOP OF THE MUCK PILE. 30 CARS. SET UP DRILL AND PUT IN 5 BOLTS. DRILLED STRIP ON SOUTH RIB. FIRED IT AND STRIP ON NORTH RIB THAT WE DRILLED LAST WEEK.

9 FEB 82 1540 U.P. 1500 LEV.

SCALED LOOSE AND BOLTED. 18 BOLTS. GROUND GETTING WORSE. DRILLED AND FIRED A STRIP ON THE NORTH RIB. LARGE CHUNKS ARE FALLING AHEAD OF US AS WE DRILL.

10 FEB 82 1540 U.P. 1500 LEV.

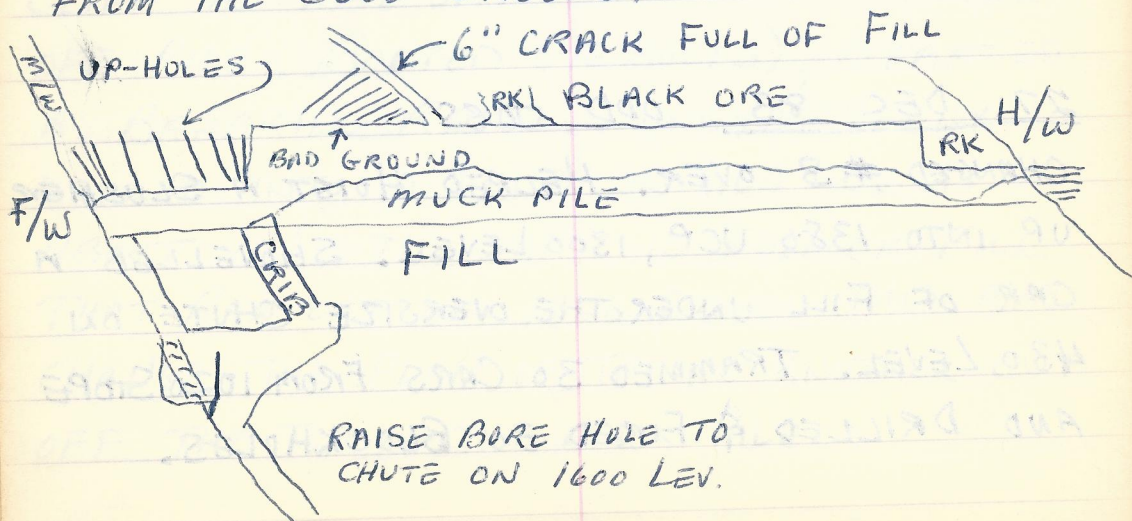
DRILLED HOLES FOR SLUSHER PINS.  
MOVED TOOLS OUT OF THE WAY AND  
SLUSHED. 32 CARS.

11 FEB 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED, 15 BOLTS.  
SLOW GOING IN BAD GROUND. DRILLED  
AND FIRED A STRIP. GOT A NEW  
SHORT LEG FROM THE SHOP. IT WAS  
BROKE. HAD TO CANNIBALIZE OUR OLD  
LEG TO FIX THE NEW ONE.

12 FEB 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 15 BOLTS.  
ALMOST THROUGH THE BAD GROUND. THE  
WORST GROUND IS WHERE I AM NOW; AT  
THE SHEAR THAT SEPARATES THE BAD  
FROM THE GOOD GROUND.



15 FEB 82 1540 U.P. 1500 LEV.

WENT TO 1660 X-CUT 1600 LEV AND HELPED KUDOLY BUILD A PLATFORM OVER THE RAISE THAT HE JUST DROVE UP FROM THE PILLAR. CAME UP TO 1540 U.P. AT 10:30 AM. SCALED AND BOLTED. 10 BOLTS. STILL IN BAD GROUND. BOLTED UP SOME LARGE, LOOSE SLABS.

16 FEB 82 1340 U.P. 1100 LEV.

CHANGED #3 FROM THE MANCAGE TO THE SKIP IN THE AM AND BACK AT QUITTING TIME. GOT A PIECE OF BLEACHED ORE FROM 1950 LOADING POCKET. IT LOOKS LIKE STUFF ~~1~~ SAW IN 1020 ST. 1300 LEV, EAST BRANCH. WORKED WITH CLIFF IN 1340 U.P. MUCKED TO LEVEL OFF PILE, BOLTED (16 BOLTS), STARTED A BREAKING RAISE. UNEXPECTEDLY DRILLED INTO A DRIFT ON 1100 LEV. AT ABOUT 10'. THE DRIFT IS FULL OF FILL THAT RAN OUT OF 1320 STOPE. THIS MAY CHANGE THE PLAN OF TAKING ANOTHER CUT OFF THE TOP OF THE MUCK PILE.

17 FEB 82 1340 U.P. 1100 LEV.

WORKED WITH CLIFF AGAIN TODAY. THE PLAN TO TAKE ANOTHER 9' CUT HAS BEEN ABANDONED. WE DRILLED 3 TEST HOLES TO FIND THE BEST PLACE TO DRILL A 13' BURN THRU TO THE LEVEL. STARTED DRILLING BURN. SCRAPED MUCK OFF THE TOP OF THE PILE TO FACILITATE DRILLING WITH THE 11 AND 13 FOOT STEELS. WHEN THE PILLAR IS FINISHED A FILL HOSE WILL POUR FILL DOWN THRU THE BURN.

18 FEB 82 1020 STOPE 1300 LEV.

SCALED LOOSE AND BOLTED. 27 BOLTS. HAD TROUBLE WORKING AROUND A LARGE PILE OF ORE FRAGMENTS WHICH HAVE BEEN SPALLING OFF THE BACK. GOT SOME WEST VEIN <sup>#469</sup> MICROS. SOME OF IT LOOKS LIKE KRAISSLITE OR MCGOVERNITE.

X-RAY BY PETE

19 FEB 82 1030 ST. 1300 LEV.

SCALED AND BOLTED. 27 BOLTS.

✓ GOT SOME WEST VEIN MICROS. SOME  
OF THE MOST STRIKING CRYSTALS I  
HAVE SEEN. CLEAR RED TRANSPARENT.  
THERE ARE ALSO SOME ORANGE AND  
PINK XTALS THAT LOOK LIKE  
KOLICITE<sup>#464</sup> AND HOLDENITE. I WOULD  
NORMALLY EXPECT TO SEE THOSE  
SPECIES IN THE EAST BRANCH. THESE  
XTALS ARE IN A VEINLET WHICH LINES  
UP WITH ONE IN THE EAST BRANCH  
THAT DID HAVE KOLICITE IN IT. THE BEST  
XTALS TODAY WERE EXPOSED WHEN A  
LARGE SLAB BEGAN TO SPALL OFF. AS  
THE SLAB WAS WORKING LOOSE I WAS  
ABLE TO PRY SMALL PIECES OFF. IN  
THE END I SCALED DOWN THE SLAB  
AND BROKE OFF THE END TO GET THE  
BEST SPECIMEN. THE RED XTALS SEEM  
TO BE LARGER VERSIONS OF THE ORANGE  
AND PINK XTALS.

22 FEB 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 5 BOLTS.  
SLUSHED OFF THE TOP OF THE MUCK  
PILE IN ORDER TO BOLT THE RIBS,  
46 CARS.

23 FEB 82 1540 U.P. 1500 LEV.

FINISHED SLUSHING. SET UP TO  
BOLT. TRIED TO BOLT THE LAST PART  
OF THE BAD GROUND. MOST OF IT FELL  
OUT. THIS MADE SOME OF THE  
PREVIOUSLY BOLTED GROUND UNSAFE  
SO IT HAD TO BE FIRED DOWN. PUT  
5 BOLTS IN THE NORTH RIB. DRILLED  
5 POP HOLES IN CHUNKS ON THE  
SOUTH RIB. FIRED AT QUITTING TIME.

24 FEB 82 1540 U.P. 1500 LEV.

FIRED ANOTHER SLAB IN THE TOP.  
SLIKER'S PRESCRIPTION FOR DEALING  
WITH THE BAD AREA: TIMBER IT. HE  
SENT ROY RUSSMAN, A TIMBER ACE,  
TO HELP ME. WE GOT SOME GOOD BOLTS  
IN THE SOUTH RIB AND BEGAN PUTTING  
IN 4"x6" PROPS.

25 FEB 82 1540 U.P. 1500 LEV.

FINISHED PROPPING LOOSE GROUND. PUT  
IN 2 BOLTS. GOT A FRIEDELITE VEIN  
SPECIMEN.

26 FEB 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 12 BOLTS.  
SLUSHED AND TRAMMED. 24 CARS. WALKED  
UP TO 1020 STOEPE AT LUNCH TIME AND  
GOT SOME SMALL PIECES OF THE MINERALS  
SEEN ON 19 FEB 82.

1 MAR 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 25 BOLTS.

2 MAR 82 1540 U.P. 1500 LEV.

SCALED LOOSE AND BOLTED. 24 BOLTS.

3 MAR 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 25 BOLTS.

GOT BOLTED PAST THE MANWAY RAISE  
TO 1400 LEVEL.

4 MAR 82 1540 U.P. 1500 LEV.

HUNG LADDERS FROM RAISE DOWN TO  
THE MUCK PILE. PUT MANIFOLDS ON AIR  
AND WATER PIPES IN THE RAISE. CHANGED  
AIR AND WATER HOSES TO THE RAISE. SCALED  
AND BOLTED. 18 BOLTS. THE WATER HOSE  
BURST TWICE DUE TO INCREASED



PRESSURE IN THE WATER PIPE FROM  
1400 LEVEL.

5 MAR 82 1540 U.P. 1500 LEV.  
FINISHED BOLTING AND PROPPING  
BAD GROUND. 10 BOLTS. MUCKED AND  
TRAMMED. 24 CARS.

8 MAR 82 1540 U.P. 1500 LEV.  
MUCKED AND TRAMMED. 64 CARS. DRILLED  
3 BIG CHUNKS AND BROKE THEM WITH  
WEDGE PINS. GOT SOME PIECES OF A  
PINK VEIN FILLING SIMILAR TO HOLDENITE.  
<sup>SEE # 470</sup>

9 MAR 82 1540 U.P. 1500 LEV.  
GOT BOB CORBY SET UP TO BOLT  
PAST THE RAISE. I SLUSHED MORE OFF  
THE PILE AND THEN SET UP ANOTHER  
DRILL AND BOLTED THE RIBS. 22 BOLTS  
BETWEEN US. GOT MORE OF THE PINK  
MINERAL.

10 MAR 82 1540 U.P. 1500 LEV.  
CORBY AND I BOTH BOLTED. 40 BOLTS.  
GOT MORE OF THE PINK MINERAL.

11 MAR 82

1540 U.P.

1500 LEV.

CHANGED # 3 OVER TO ORE SKIP IN AM AND BACK TO CAGE IN PM. SCALED AND BOLTED. 22 BOLTS. DRILLED AND FIRED 2 STRIPS BY THE RAISE. GOT SOME BRANDTITE FROM A SLIP IN BLACK ORE.

12 MAR 82

1540 U.P.

1500 LEV.

SCALED AND BOLTED. 30 BOLTS. GOT A BLACK WILLEMITE CRYSTAL.

15 MAR 82

1540 U.P.

1500 LEV.

MUCKED AND TRAMMED. <sup>66 CARS.</sup> GOT MORE HOLDENITE. TOOK OUT 340 CARS SO FAR.

16 MAR 82

1540 U.P.

1500 LEV.

SCALED AND BOLTED. 28 BOLTS. DRILLED AND FIRED 2 STRIPS EAST OF THE RAISE. 52 FEET AND 52 STICKS OF POWDER. GOT MORE HOLDENITE.

17 MAR 82

1540 U.P.

1500 LEV.

SCALED AND BOLTED. 27 BOLTS. SCRAPED MUCK OFF THE PILE TO MAKE DRILLING THE NEXT STRIP EASIER. GOT A BLACK WILLEMITE XTAL AND MORE HOLDENITE.

18 MAR 82 1540 U.P. 1500 LEV.

FINISHED MUCKING. SCALED AND BOLTED. 20 BOLTS. DRILLED AND FIRED TWO STRIPS. 35' AND 30' STICKS OF POWDER. GOT 2 WILLEMITE XTALS AND SOME BRANDTITE ON QUARTZ XTALS.

19 MAR 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 21 BOLTS. DRILLED AND FIRED A STRIP ON THE NORTH RIB. DRILLED SOME HOLES AROUND A POCKET OF BRANDTITE ON QUARTZ XTALS. USED WEDGE PINS TO BREAK OFF SOME NICE PIECES.

22 MAR 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 20 BOLTS. DRILLED AND FIRED A STRIP ON THE SOUTH RIB. GOT SOME HOLDENITE.

23 MAR 82 1540 U.P. 1500 LEV.

SCALED AND BOLTED. 8 BOLTS. DRILLED AND FIRED STRIPS ON BOTH RIBS. THIS SHOULD BE THE LAST STRIP ON THE NORTH RIB. ADJUSTED SLUSHER SET-UP AND STARTED SLUSHING. GOT A LARGE HOLDENITE. BOLTED UP SLUSHER HANGER.