

[illegible]

[illegible]

ARCTIC

PROJECT: Ruby Creek, Alaska

Hole No. A-3

Interval 0

To 80

Collar Elev. 2985

Inclination VERTICAL

Bearing

Logger A. JOHNSON

Date Aug. 1967

Sheet No. 1 of 3

[illegible]

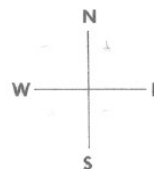
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HOLE NO. DH - 3

\* Union  
KCC

BC 12-66

FORM SP-42 (REV. 4)



FIELD ARCTIC

SURVEY  
DATE JULY 7/70

[illegible]

PLAN VIEW  
SCALE 1" = 10'

1 = 200

N 9,886.  
E 10,428.  
E 0.00  
COLLAR  
C 0.00

N 9,907.31  
E 10,466.42  
E 2423.03  
0.00

PLAN VIEW  
SCALE 1" = 50'

K-E

ALABAMA © GUIDE LINE 10 5741  
NON-REPRODUCIBLE 10 X 10 TO THE INCH

GEORGE & SONS CO.  
MADE IN U.S.A.

El 3021

PROJECT:

Arctic

**WORKING PLACE:**

DM-3

**SAMPLER:**

DATE \_\_\_\_\_

1/67

[illegible]

NWD PROJECT ARCTIC HOLE NO. 3 PAGE 1 OF 1 VERTICAL ☒ HOLE DEPTH 600 TRUE        ASSAY SHEET  
05-00-0013

ASSAY  
SHEET

BY P.K.B. DATE AUG. 23/70 SUBJECT ARCTIC D.R.H. # 3  
 CHKD. BY DATE FILED JUNE 1970  
SURVEY JULY 7/70

SHEET NO. 1 OF 1  
 JOB NO. 05-02-0013

| STATION | DIFFERENCE | INTERVAL           | INCL. $\angle$ | OBSERVED<br>BEARING | CORRECTED<br>BEARING | COURSE<br>HOR. DEV. | ACCUM.<br>HOR. DEV. |
|---------|------------|--------------------|----------------|---------------------|----------------------|---------------------|---------------------|
| 0'      |            |                    |                |                     |                      |                     |                     |
|         | 100'       | 50' - 0 = 50'      |                |                     |                      |                     |                     |
| 100'    |            |                    |                |                     |                      |                     |                     |
|         | 100'       | 150' - 50' = 100'  | 2° 30'         | N 64° 00' E         | N 88° 30' E          | 4.36                | 4.36                |
| 200'    |            |                    |                |                     |                      |                     |                     |
|         | 100'       | 250' - 150' = 100' | 4° 15'         | N 47° 00' E         | N 71° 30' E          | 7.41                | 11.77               |
| 300'    |            |                    |                |                     |                      |                     |                     |
|         | 150'       | 375' - 250' = 125' | 5° 00'         | N 44° 30' E         | N 69° 00' E          | 10.90               | 22.67               |
| 450'    |            |                    |                |                     |                      |                     |                     |
|         | 150'       | 475' - 375' = 100' | 4° 45'         | N 33° 30' E         | N 58° 00' E          | 8.28                | 30.95               |
| 500'    |            |                    |                |                     |                      |                     |                     |
|         | 100'       | 550' - 475' = 75'  | 5° 45'         | N 23° 30' E         | N 48° 00' E          | 7.51                | 38.46               |
| 600'    |            |                    |                |                     |                      |                     |                     |
|         |            | 600' - 550' = 50'  | 8° 00'         | N 13° 00' E         | N 37° 30' E          | 6.96                | 45.42               |

NWD Project ARCTIC Hole(s) No(s) # 3 Data Box 12 Date Aug. 24/70 Down-Hole Surveys July 7/70

JULY 7/70

BEAR CREEK MINING COMPANY  
NORTHWEST DISTRICT

ARCTIC PROJECT

05-00-0013 CODE NO.

3 HOLE NO.

9,886 NORTH

10,428 EAST

VERTICAL INCLINATION

       BEARING

6/18/70 START

6/26/70 COMPLETE

600 DEPTH

FIKKAN DATA BY

PLANS: NO FUTURE DEEPENING  
OF HOLES AT NORTH END  
OF ORE BODY.

PROJECT 05-00-0013

HOLE STATUS: HOLE COMPLETED AT  
600 HAVING FAILED TO PENETRATE  
ANY SIGNIFICANT MINERALIZATION  
BELOW OLD DEPTH OF 336

HOLE SIZE

| FROM       | TO         | CONDITION             |
|------------|------------|-----------------------|
| <u>336</u> | <u>600</u> | <u>BXWL NO CASING</u> |
|            |            |                       |
|            |            |                       |
|            |            |                       |
|            |            |                       |

PURPOSE: TO TEST POSSIBILITY OF  
DEEPER MINERALIZATION.

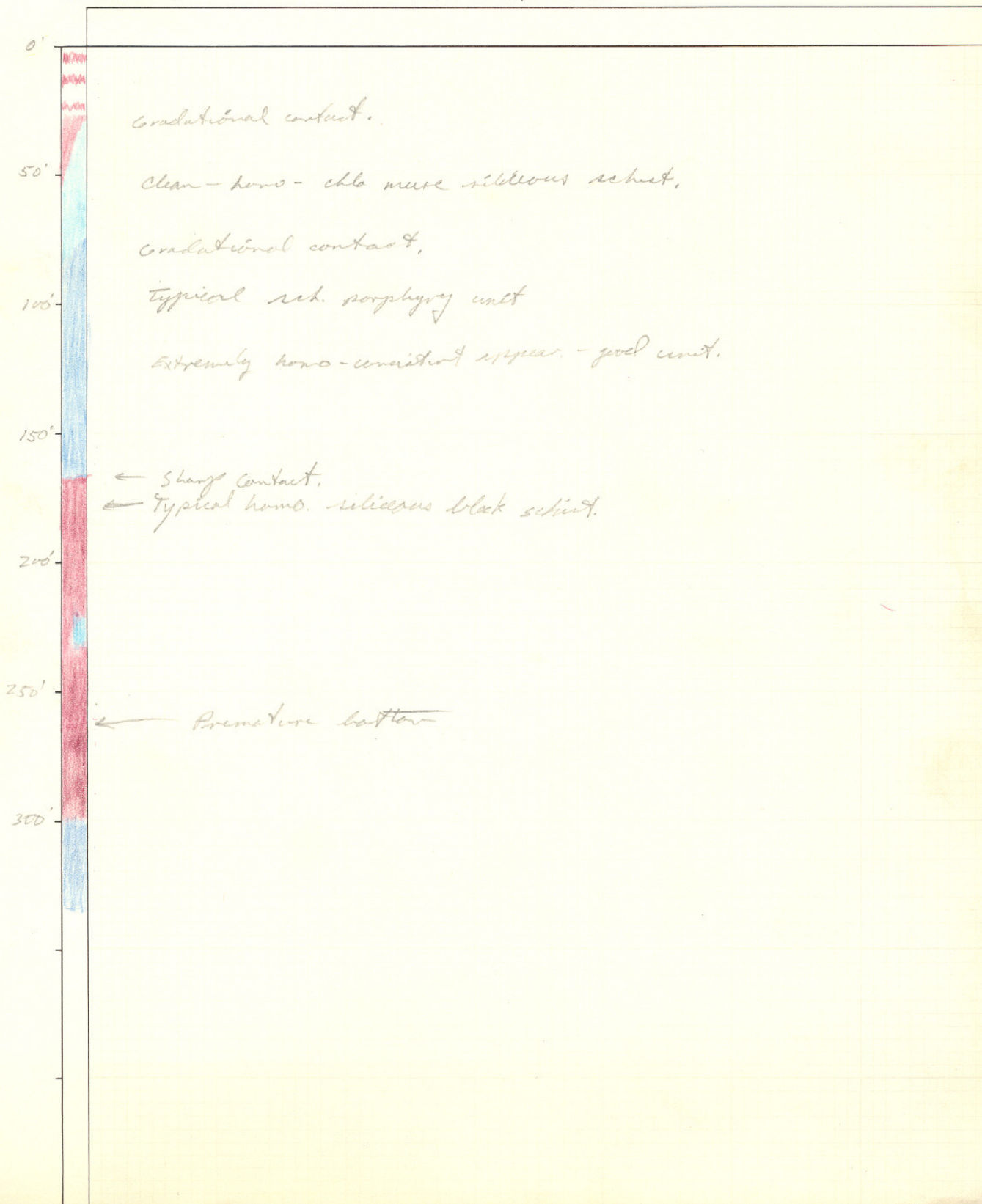
RESULTS: WAS BOTTOMED AT 600 FEET  
HAVING FAILED TO PENETRATE  
SIGNIFICANT SULFIDES FROM 336 → 600

SIGNIFICANCE: THOUGH DDH #3  
PENETRATED SULFIDES UP TO 2.90% CH  
WIDTHS WERE NOT THICK ENOUGH  
TO MAKE AN ORE HOLE.

HOLE NO. 3

SUMMARY SHEET

NORTHWEST DISTRICT NAME Arctic DRILL HOLE NO. 3 PAGE 1 OF 1  
Summary Drill Hole Log CODE 1968 Relog BEARING \_\_\_\_\_ DIP \_\_\_\_\_  
Purpose of hole \_\_\_\_\_ LOCATION \_\_\_\_\_  
TOTAL DEPTH \_\_\_\_\_, BY \_\_\_\_\_  
Scale: 1" = 50' Est. of final depth 263' START \_\_\_\_\_ COMPLETED \_\_\_\_\_



NORTHWEST DISTRICT NAME ARCTIC DRILL HOLE NO. 3 PAGE 1 OF 1  
 Summary Drill Hole Log CODE 05-00-0013 BEARING ———— DIP VERTICAL  
 Purpose of hole CHECK POSSIBILITY OF DEEPEN LOCATION 9886 N 10,428 E.  
MINERALIZED HORIZONS IN NORTHERN  
END OF ORE BODY. TOTAL DEPTH 600 BY P.R.F.  
H.B. + D.G.  
 Scale: 1" = 50' Est. of final depth 600 START 4/18/70 COMPLETED 6/26/70

| ASSAY DATA %              | DESCRIPTION                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 300<br>-1-2-3-4-5-6-7-8-9 |                                                                                                                                                                                                                                                                                                                                               |
| 350                       | LT. SILVERY GRN. GR. TALCY. SLT. CHL. MUS. QTR. SCH. W. OCCASIONAL. ZONLS UP TO 2 FT. OF CONFORM.                                                                                                                                                                                                                                             |
| 400                       | DTY. GR. CHL. MUS. QTR. SCH. W. FAINT. PORPHYRO. AND SOME CALC. MINOR PY. IN LT. SCH. APPROX. 5% IN DTY. GR. SCH. FOL. $\approx 10^\circ$                                                                                                                                                                                                     |
| 450                       | A/A LT. SCH. DOM. WITH WT. VARIABLE QTR. & MICA. DISTRIBUTION. FOL. $\approx 10-15^\circ$ . MINOR. $< 10^\circ$ PY.                                                                                                                                                                                                                           |
| 500                       | A/A. SCH. V. LT. IN COLOR. WITH DISTINCT. SENEVEL. OF MUSC. + TALC. FOL. $\approx 10^\circ$ . CHANGES TO $50^\circ$ WITH SMALL FOLD AT 450. THEN BACK TO $\approx 10^\circ$ UP TO 428 MINOR. PY. 428-431 INTERM. STRINGERS OF CPY. $\approx < 10^\circ$ . 436.5-437.5 FURTHER V. SMALL IRREG. STRINGERS CPY.                                  |
| 550                       | SCH. A/A. MINOR PY. SCH. SOMETIMES HAS V. FINE PORPHYRO. FOL. $\approx 10-15^\circ$ OCCASIONAL. SLT. CALC. SCH. ZONLS W. 3-4% PY.                                                                                                                                                                                                             |
| 600                       | SCH. A/A. PY. UP TO 3%. FOL. $< 10^\circ$<br>530-532 (ASSAY SMP. 96905) $\approx 5\%$ PY 10% CPY.<br>532-537 (ASSAY SMP. 96906) $\approx 2\%$ JALK. SOME CPY, SPHAL. BUT MAINLY. PY. FOL. $\approx 6^\circ$<br>SCH. A/A. W. SOME QTR. PORPHYROBLASTS. FOL. V. POOR. $< 10^\circ$ PY.<br>A/A POOR. DEVEL. QTR. PORPHYRO. MINOR PY $< 10^\circ$ |
|                           | ASSAY SAMPLE FOOTAGE Cu% Pb% Zn% Ag g/ton                                                                                                                                                                                                                                                                                                     |
|                           | 96905 530-532 .69 .02 .03 .42                                                                                                                                                                                                                                                                                                                 |
|                           | 96906 532-537 .32 .47 1.2 .75                                                                                                                                                                                                                                                                                                                 |
|                           | 96360 428-431 2.90 .012 .09 .41                                                                                                                                                                                                                                                                                                               |
|                           | 96361 436.5-437.5 .41 .002 2.15 .13                                                                                                                                                                                                                                                                                                           |
|                           | 96362 464-465 2.01 2.01 2.01 .02                                                                                                                                                                                                                                                                                                              |
|                           | SUMMARY: DDH 3 TERMINATED HAVING BEEN DEEPENED TO 600 WITH PENETRATING SIGNIFICANT LOWER MASSIVE SULFIDE HORIZONS AT NORTH END OF OREBODY.                                                                                                                                                                                                    |

NORTHWEST DISTRICT

NAME ARCTICDRILL HOLE NO. 3 PAGE 1 OF 2

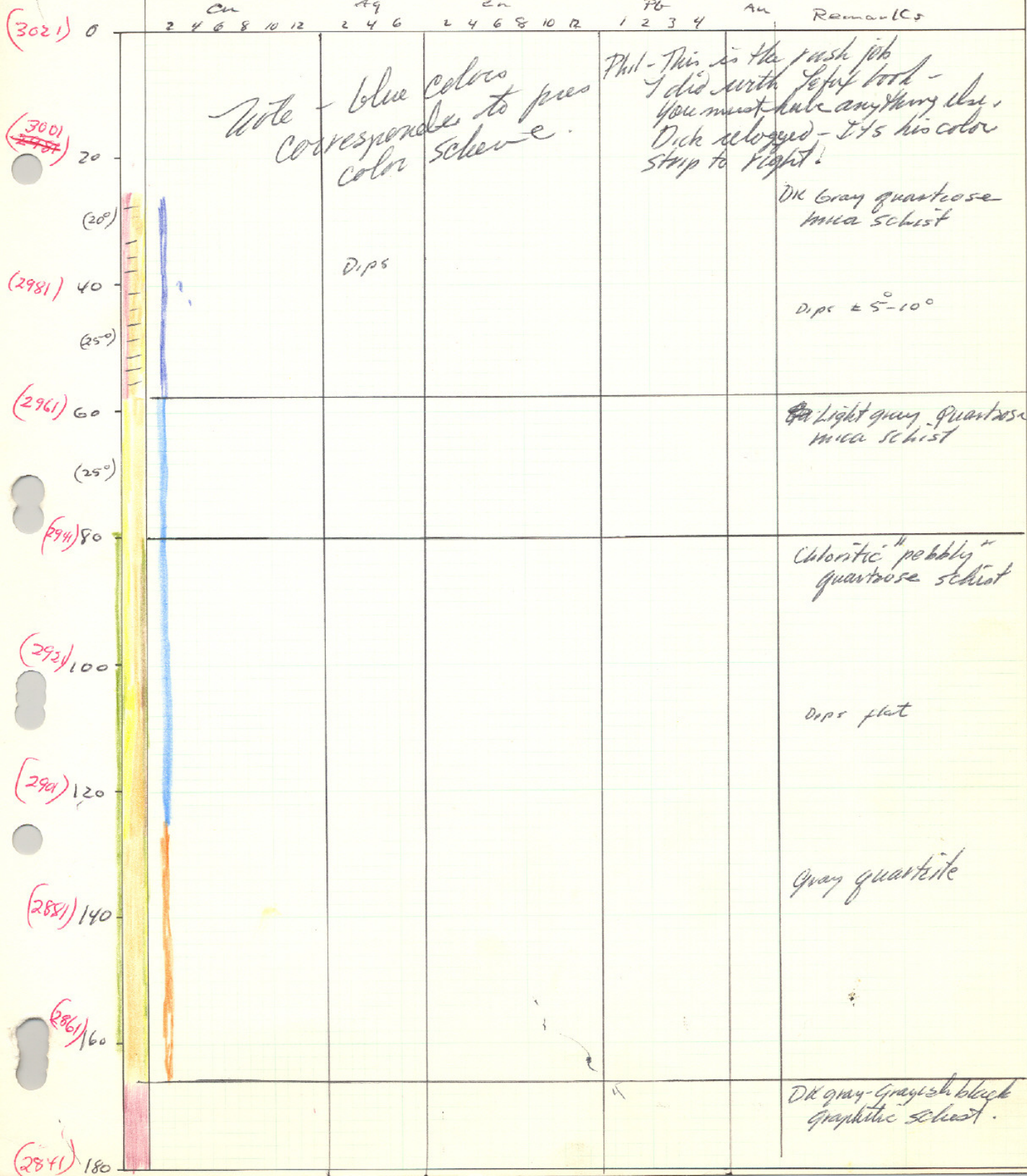
Summary Drill Hole Log

CODE 05-01-0013BEARING VERTICAL DIP \_\_\_\_\_Purpose of hole CONTINUE TEST OF MINERALIZEDTan Cliff Schist unit to north along strike

LOCATION \_\_\_\_\_

TOTAL DEPTH 336, BY CGBEl. 3021START 8/9/67 COMPLETED 8/12/67Scale: 1" = 20'

Est. of final depth \_\_\_\_\_



NORTHWEST DISTRICT

NAME

ARCTIC

DRILL HOLE NO. 3 PAGE 1 OF 2

Summary Drill Hole Log

CODE

05-01-0013

BEARING VERTICAL DIP

Purpose of hole

LOCATION

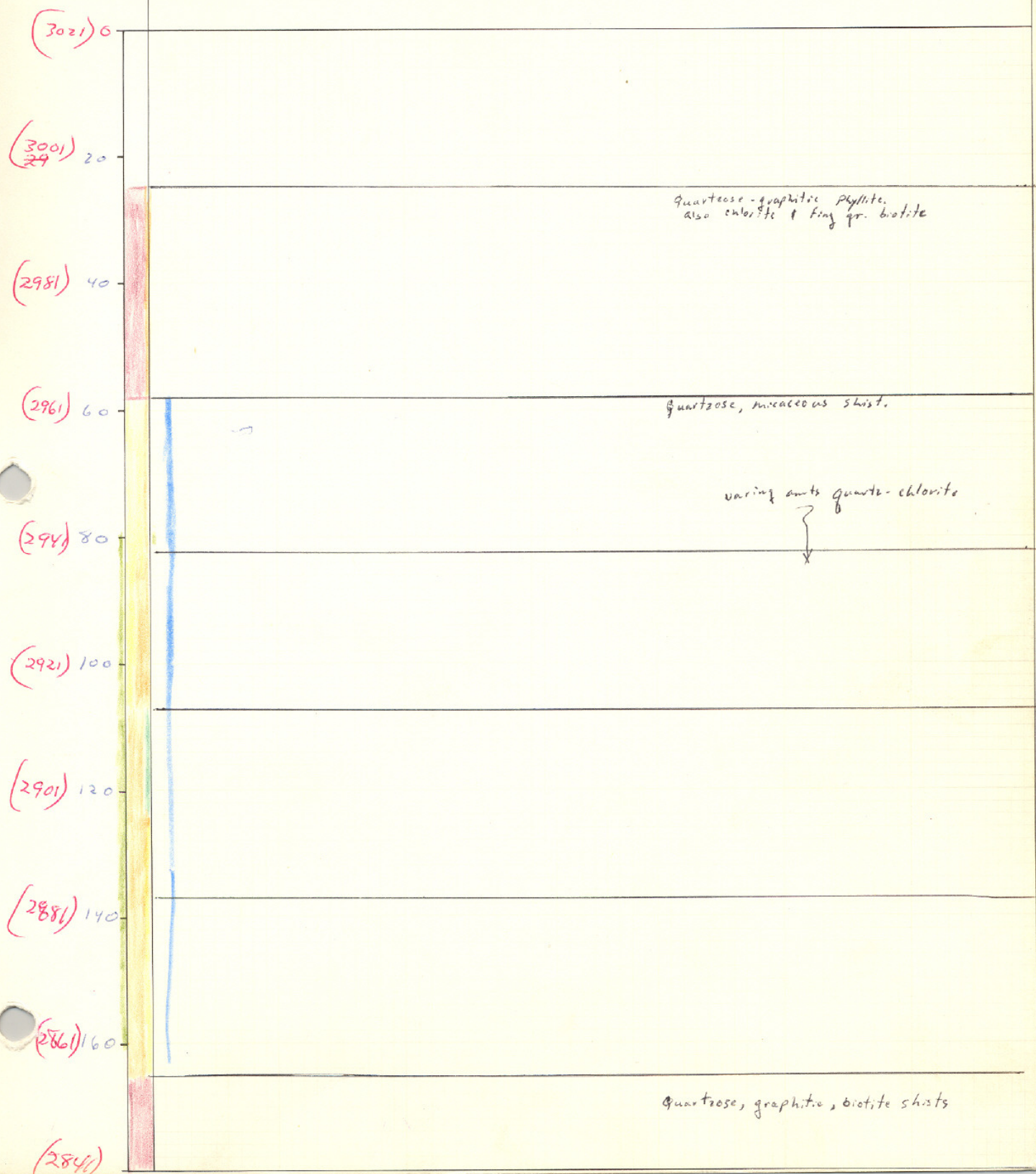
TOTAL DEPTH 336 BY CGB

EI 3021

START COMPLETED

Scale: 1" = 20'

Est. of final depth



DRILL HOLE NO. 3 PAGE 2 OF 2

BEARING VERTICAL DIP \_\_\_\_\_

LOCATION \_\_\_\_\_

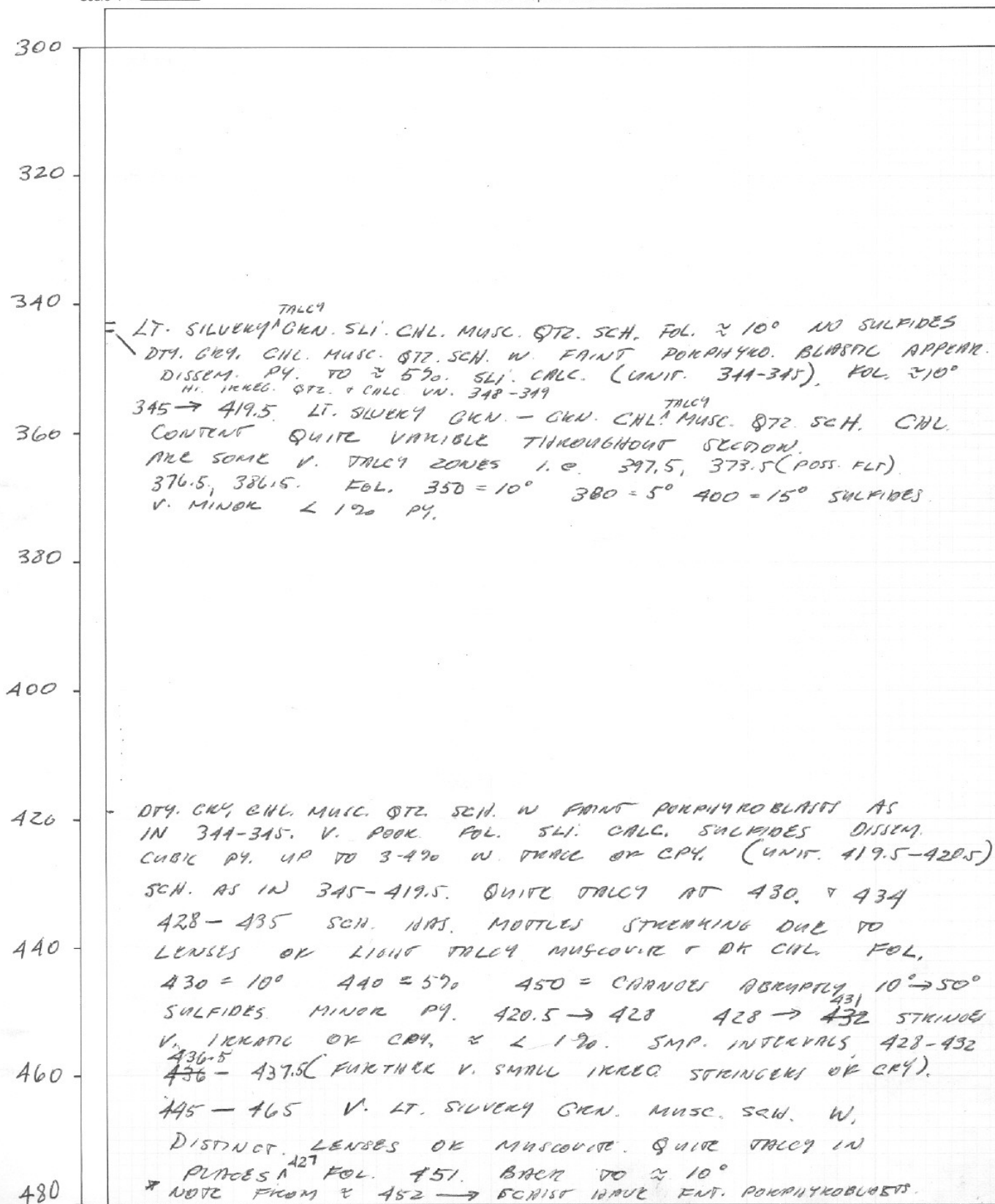
- TOTAL DEPTH 336, BY CGB

Est. of final depth \_\_\_\_\_

START \_\_\_\_\_ COMPLETED \_\_\_\_\_

|            | Cu            | Ag    | Zn            | As      | Pb | Remarks                                                                 |
|------------|---------------|-------|---------------|---------|----|-------------------------------------------------------------------------|
|            | 2 4 6 8 10 12 | 2 4 6 | 2 4 6 8 10 12 | 1 2 3 4 |    |                                                                         |
| (2891) 180 |               |       |               |         |    |                                                                         |
| (2821) 200 |               |       |               |         |    | Dips 5°-10°                                                             |
| (2801) 220 |               |       |               |         |    | Quartzose phlorite, muscovite shists.<br>Dip<br>Graphitic units - cont. |
| (2781) 240 |               |       |               |         |    | dips ± 10°                                                              |
| (2761) 260 |               |       |               |         |    |                                                                         |
| (2741) 280 |               |       |               |         |    | Limy Quartzose Muscovite Shists.                                        |
| (2721) 300 |               |       |               |         |    | Limy Quartzose muscovite to talc shists.                                |
| (2701) 320 |               |       |               |         |    |                                                                         |
| (2681) 340 |               |       |               |         |    |                                                                         |
| (2661) 360 |               |       |               |         |    |                                                                         |

NORTHWEST DISTRICT NAME ARCTIC DRILL HOLE NO. 3 PAGE 1 OF 1  
 Summary Drill Hole Log CODE 05-00-0013 BEARING \_\_\_\_\_ DIP \_\_\_\_\_  
 Purpose of hole CHECK POSSIBILITY OF FURTHER MINERALIZATION WITH DEPTH LOCATION \_\_\_\_\_  
 TOTAL DEPTH \_\_\_\_\_, BY \_\_\_\_\_  
 Scale: 1" = 20' Est. of final depth 810 START \_\_\_\_\_ COMPLETED \_\_\_\_\_



NORTHWEST DISTRICT NAME ARCAC DRILL HOLE NO. 3 PAGE 1 OF 1  
 Summary Drill Hole Log CODE 05-00-0013 BEARING \_\_\_\_\_ DIP \_\_\_\_\_  
 Purpose of hole CHECK POSS. MINERALIZED LOCATION \_\_\_\_\_  
HORIZONS W DEPTH. TOTAL DEPTH \_\_\_\_\_, BY \_\_\_\_\_  
 Scale: 1" = 20 Est. of final depth 810 START \_\_\_\_\_ COMPLETED \_\_\_\_\_

400 SULFIDES. PRIM. PY. IN THIN LENSES. PARALLEL TO  
 FOL. PY. LENSES. MAY MAKE UP TO 3-4% IN PLACES.  
 FOR CHECK OK POSS. CPY. + SPIRAL. CONTENT. SAMPLE.  
 464 → 465  
 520 465 - 465.75. DTY. GRN. V. POOR. FOL. MUS. QTZ. SCH. (CHL).  
 W. DISSEM. PY. UP TO 3%.  
 465.75 → 470.5 LT. GRN. GRN. V. SLI CHL. MUSC. QTZ.  
 SCH. AS IN 465-465.75 FOL. = 10° SULFIDES. AS IN 465-465  
 LENSES OF PY. UP TO 3-4% IN PLACES  
 540 470.5 → 471.8 CALC. SCH. AS IN 465-465.75. 1-2% PY.  
 471 → 472 SCH. AS IN 465.75-470.5 FOL. ≈ 10°  
 FINELY PORPHYROBLASTIC.  
 472 - 472.5 CALC. SCH. AS IN 465-465.75. ≈ 465 →  
 475.  $\frac{1}{4}$ " NEAR 90° CALC. UN. OFFSET ≈  $\frac{1}{2}$ "  
 PAR. TO FOL. SULFIDES IN LT. SCH. + CALC. SCH.  
 UNCHANGED. PRIM. PY.  
 472.5 - 492 LT. SILVERY GRN. GRN. SCH. AS IN 471 → 472  
 FOL. ≈ 10-15° POSS. FLT. LOW ANGLE ≈ 10° AT 482'

NORTHWEST DISTRICT

NAME \_\_\_\_\_

DRILL HOLE NO. 3 PAGE \_\_\_\_\_ OF \_\_\_\_\_

Summary Drill Hole Log

CODE \_\_\_\_\_

BEARING \_\_\_\_\_ DIP \_\_\_\_\_

Purpose of hole \_\_\_\_\_

LOCATION \_\_\_\_\_

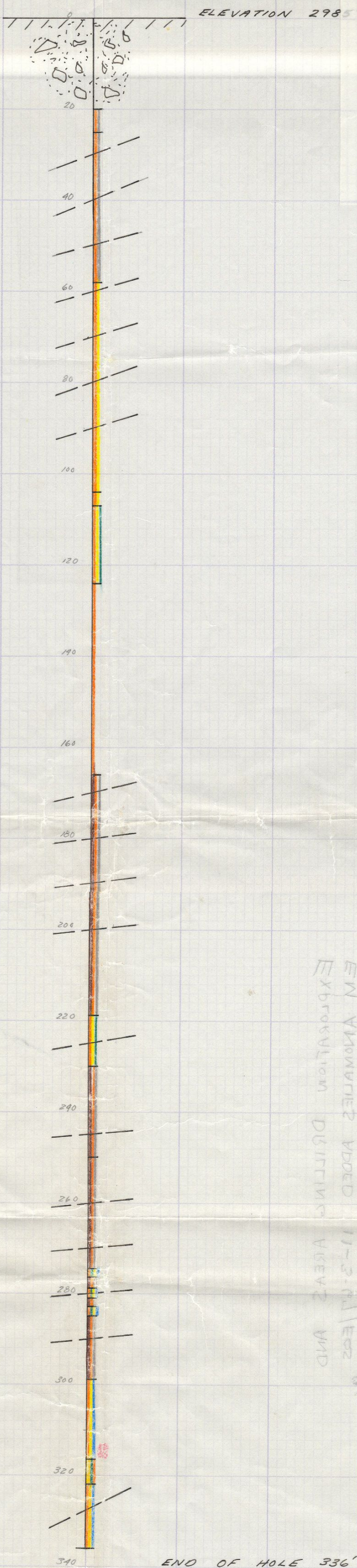
TOTAL DEPTH \_\_\_\_\_, BY \_\_\_\_\_

Scale: 1" = 20'

Est. of final depth \_\_\_\_\_

START \_\_\_\_\_ COMPLETED \_\_\_\_\_

|     |            |                                                                                                                                                    |
|-----|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 490 | 1. 492-525 | Lt. silver gray qtz musc schist with pyritic bands composing Less than 10% of the rock - foliation 8° off horiz                                    |
| 510 | 2. 525-530 | Lt grayish bands of sulphides in Lt silver gray qtz musc. schists. Bands of pyrite more common - perhaps 3% of rock                                |
| 530 | 3. 530-532 | Same silver gray rock as above but with larger bands of sulphides ( $\frac{1}{4}$ - $\frac{3}{8}$ " thick) with approx 5% pyrite & 1% chalcopryite |
| 550 | 4. 532-537 | Lt. silver gray unit as #1 above except contains approx. 2% sulphides - some sphalerite & chalcopryite but mainly pyrite                           |
| 570 | 5. 537-570 | Lt silver gray qtz musc schist as #1 above with 1-2% pyrite foliation 6°                                                                           |
| 590 | 6. 570-590 | Lt silver gray qtz musc schist with some qtz porphyroblasts. foliation not very distinctive. Sulphides: very minor pyrite Pyrite < 1%              |
|     | 590-600    | A/A. PORPHYROBLASTS QUITE VAGUE POOR FOL. MINOR TRAC. PY. < 1%.                                                                                    |
|     | TD 600     |                                                                                                                                                    |



PROJECT ArcticHOLE NO. 3 Rig 40c

## ASSAY LOG

| SAMPLE<br>NUMBER | SAMPLE INTERVAL |    |      | ASSAY |                                            |                                           |                           |          |
|------------------|-----------------|----|------|-------|--------------------------------------------|-------------------------------------------|---------------------------|----------|
|                  | FROM            | TO | FEET | Rate  | Hrs. Setting Up<br>or Standby<br>@ \$16.00 | Hrs. Wedging<br>or Surveying<br>@ \$25.00 | Remarks                   | \$       |
| Date             | NX              | BX | AX   |       |                                            |                                           |                           |          |
| 6/12             |                 |    |      |       |                                            |                                           | Waterline 9 hrs.          | 72.00    |
| 6/12             |                 |    |      |       |                                            |                                           | " 18 hrs                  | 144.00   |
| 2-6/12           |                 |    |      |       | 9 1/2 hrs = 18 hrs                         |                                           |                           | 216.00   |
| 6/13             |                 |    |      |       | 9 (maybe treated as waterline)             |                                           |                           | 144.00   |
| 6/13             |                 |    |      |       | 4 1/2 " " " "                              |                                           |                           | 72.00    |
| 6/15             |                 |    |      |       | 3 standby                                  |                                           | Waterline 12 hrs.         | 144.00   |
| 6/15             |                 |    |      |       | 1 1/2 standby                              |                                           | Waterline 6 hrs           | 72.00    |
| 6/16             |                 |    |      |       | 3 hrs M.C.                                 |                                           | " 2 hrs                   | 72.00    |
| 6/16             |                 |    |      |       | 7 M.C.                                     |                                           | " 4 hrs                   | 144.00   |
| 6/17             |                 |    |      |       | 9                                          |                                           |                           | 144.00   |
| 6/17             |                 |    |      |       | 9                                          |                                           |                           | 144.00   |
| 6/18             |                 | 10 |      | 8.65  |                                            |                                           | Other time - No Op.       | 86.50    |
| 6/19             |                 | 25 |      | 8.65  |                                            |                                           | Other time + 3 hrs M.C.   | 216.25   |
| 6/21             |                 | 47 |      | 8.65  |                                            |                                           | Other time 2 1/2 hrs M.C. | 406.55   |
| 6/22             |                 |    |      |       | 1 hr.                                      |                                           |                           | 16.00    |
| 6/22             |                 | 70 |      | 8.65  |                                            |                                           |                           | 605.50   |
| 6/23             |                 |    |      |       |                                            |                                           | Waterline 8 hrs           | 64.00    |
| 6/23             |                 | 5  |      | 8.65  |                                            |                                           |                           | 43.25    |
|                  |                 | 45 |      | 9.30  |                                            |                                           |                           | 418.50   |
| 6/24             |                 | 28 |      | 9.30  |                                            |                                           |                           | 260.40   |
| 6/24             |                 |    |      |       |                                            |                                           | Waterline 2 hrs.          | 16.00    |
| 6/25             |                 | 11 |      | 9.30  |                                            |                                           |                           | 102.30   |
| 6/26             |                 | 16 |      | 9.30  |                                            |                                           | Hole completed TD         | 148.80   |
|                  |                 |    |      |       |                                            |                                           | Total                     | 3,536.05 |

Return to:  
H. Hammit

ORIGINAL COPY 1910 BY J. C. PARKER

5 LINES TO INCH

LEFAX, PHILADELPHIA PA 19107 MADE IN U.S.A.

TR. MK. REG. U.S. PAT. OFF.

A-3~~263-299-N~~

263-274 - MDG Graphite  
 schist - same as  
 193 - 215 segment  
 in A-2

274-299 - MG - MLG  
 schist - same graph;  
 rx looks good except  
 for 6" sect of broken  
 rx (<10% of total)

299-312 - Highly siliceous  
 competent muscovite  
 schist - Light gray -  
 gritty

312-334 - Talc  
 muscovite schist  
 LGG - LG -

Spec. 263, 304, 311, 334.