# ASSESSMENT REPORTS

WMD

## MAP No. 105 D 11 TYPE OF WORK: DIAMOND DRILLING

| | |
|---|---|
| REPORT FILED UNDER | NEW IMPERIAL MINES LIMITED |
| DATE PERFORMED | 1964 DATE FILED: |
| LOCATION – LAT. | |
| LONG. | |
| CLAIM Nos. | WHITEHORSE COPPER BELT |
| WORK DONE BY | A. Parker |
| WORK DONE FOR | NEW IMPERIAL MINES LIMITED |
| REMARKS | Summary of assessment work for 316 claims. (DD34) |

091123

DD-34

NEW IMPERIAL MINES LIMITED

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NEW IMPERIAL MINES LIMITED

## APPENDIX I

Graph showing required assessment work and fees necessary to bring 316 mineral claims as described under Appendix #II to a common anniversary date of 1 January 1965.

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NEW IMPERIAL MINES LTD

ASSESSMENT WORK AND RENEWAL FEES

ON MINERAL CLAIMS FOR

WHITEHORSE COPPER BELT

JAN 1/63 | JAN 1/64 | JAN 1/65 | JAN 1/66 | JAN 1/67

CREDIT GIVEN BY GOV'T
1 FT OF DRILLING = $4.00

**GROUP A**

APRIL-MAY-JUNE — THERE ARE 47 CLAIMS WITHIN THIS TIME PERIOD
RENEWAL FEES PER CLAIM UP TO JAN 1/68 - $18.75
ASSESSMENT WORK PER CLAIM UP TO JAN 1/68 - $375.00
DRILL FOOTAGE PER CLAIM UP TO JAN 1/68 - 42.0 FT.

TOTAL AMOUNT OF RENEWAL FEES FOR THIS PERIOD = 47 x $18.75 = $881.25
" " " ASSESSMENT WORK = 47 x $375.00 = $17,625.00
" " " DRILL FOOTAGE = 47 x 42 = 1,974 FT.

**GROUP B**

JULY-AUG-SEPT. — THERE ARE 174 CLAIMS WITHIN THIS TIME PERIOD
RENEWAL FEES PER CLAIM UP TO JAN 1/68 - $17.50
ASSESSMENT WORK PER CLAIM UP TO JAN 1/68 - $350.00
DRILL FOOTAGE PER CLAIM UP TO JAN 1/68 - 39.0 FT

" " " RENEWAL FEES = 174 x $17.50 = $3,045.00
" " " ASSESSMENT WORK = 174 x $350.00 = $60,900.00
" " " DRILL FOOTAGE = 174 x 39 = 6,786 FT

**GROUP C**

OCT-NOV-DEC — THERE ARE 36 CLAIMS WITHIN THIS TIME PERIOD
RENEWAL FEES PER CLAIM UP TO JAN 1/68 = $16.25
ASSESSMENT WORK " " " = $325.00
DRILL FOOTAGE " " " = 36 FT

" " " RENEWAL FEES = 36 x $16.25 = $585.00
" " " ASSESSMENT WORK = 36 x $325.00 = $11,700.00
" " " DRILL FOOTAGE = 36 x 36 = 1,296 FT.

**GROUP D**

JAN-FEB-MAR — THERE ARE 27 CLAIMS WITHIN THIS TIME PERIOD
RENEWAL FEES PER CLAIM UP TO JAN 1/68 = $15.00
ASSESSMENT WORK " " " = $300.00
DRILL FOOTAGE " " " = 33.3 FT

" " " RENEWAL FEES = 27 x $15.00 = $405.00
" " " ASSESSMENT WORK = 27 x $300.00 = $8,100.00
" " " DRILL FOOTAGE = 27 x 33.3 = 900 FT

**GROUP E**

APRIL-MAY-JUNE
THERE ARE 12 CLAIMS WITHIN THIS PERIOD
RENEWAL FEES PER CLAIM UP TO JAN 1/68 = $13.75
ASSESSMENT WORK " " " = $275.00
DRILL FOOTAGE " " " = 31 FT

" " " RENEWAL FEES = 12 x $13.75 = $165.00
" " " ASSESSMENT WORK = 12 x $275.00 = $3,300.00
" " " DRILL FOOTAGE = 12 x 31 = 372 FT

**GROUP F**

JULY-AUG-SEPT.
THERE ARE 20 CLAIMS WITHIN THIS PERIOD
RENEWAL FEES PER CLAIM UP TO JAN 1/68 = $12.50
ASSESSMENT WORK " " " = $250.00
DRILL FOOTAGE " " " = 28 FT

" " " RENEWAL FEES = 20 x $12.50 = $250.00
" " " ASSESSMENT WORK = 20 x $250.00 = $5,000.00
" " " DRILL FOOTAGE = 20 x 28 = 560 FT.

TOTAL NUMBER OF CLAIMS = 316

OVER-ALL TOTALS RENEWAL FEES = $5,331.25
ASSESSMENT WORK = 106,625.00
DRILL FOOTAGE = 11,707 FT

SEE **APPENDIX 1** FOR BREAK DOWN OF CLAIMS BY GROUPS

A ROGERS

NEW IMPERIAL MINES LIMITED

APPENDIX II

Anniversary Dates on Mineral Claims

(Referenced to Appendix I)

# NEW IMPERIAL MINES LIMITED

## Anniversary Dates on Mineral Claims held by New Imperial Mines Limited on the Whitehorse Copper Belt

(referenced to Appendix I)

| Due Date | Claim Name | Number | Reference |
|---|---|---|---|
| 1964 | | | |
| May 31 | Snell 1-10 incl. | 85067-76 incl. | Group A |
| | Simmons 1-8 incl. | 85077-84 incl. | A |
| | Pitt 1-3 incl. | 85085-87 incl. | A |
| June 1 | Sue 9-16 incl. | 75717-24 incl. | A |
| | Gladys 3-4 incl. | 75711-12 incl. | A |
| | Mabel 5,6 | 75713-14 incl. | A |
| | George 7,8 | 75715-16 incl. | A |
| June 15-16 | Prince 1-8 incl. | 75752-55 incl. | A |
| | " | 75757-60 incl | A |
| 25 | Rapuzzi 1-4 incl. | 85107-10 incl. | A |
| Aug. 1 | Margaret 1, Dorothy 2, Betty 3, Zoe 4 | 76178-81 incl. | Group B |
| 7 | Bob 1-6 incl. | 76092-97 incl. | B |
| | Cameron 1-6 incl. | 75982-87 incl. | B |
| | Blackie 1,3,5010 incl. | 75988-95 incl. | B |
| | Geno 1-8 incl. | 75972-79 incl. | B |
| Aug. 26 | Jim2,4,6,8,10-26 incl. | 85330,85332,85334,85336 | B |
| | 28,31-34 incl. | 85338-54 incl.,85356 | B |
| | 36-38 incl. | 85359-62 incl. | B |
| | | 85364-66 incl. | B |
| Sept. 6 | Mac 1-8 incl. | 76387-94 incl. | B |
| 8 | Tess 1-6 incl. | 76395-400 incl. | B |
| 9 | Bornite 1,2 | 73783-84 | B |
| ~~11~~ | ~~Solo Fctn.Rover, Brownie~~ | ~~91780-83 incl.~~ Deleted | B |
| 11 | Geno9,10; Ken 1: Angela 1-4 incl. Della 9-12 incl. | 76401-11 incl. | B |
| 17 | Ace 1-6 incl. | 85422-27 incl. | B |
| | Ace 1-24, 34-49, incl. | 85428-67 incl. | B |
| 19 | Ace 25-33 incl. | 85472-80 incl. | B |
| 20 | Acme 1-16 incl. | 85481-96 incl. | B |
| 23 | Gem 2 | 75221 | B |
| 25 | Heather 1-4 incl. | 76497-500 incl. | B |
| 26 | Peter 1,2 | 76778-79 | B |
| 29 | Bill 1-8 incl. | 76770-77 incl. | B |

## Anniversary Dates on Mineral Claims

| Due Date | Claim Name | Number | Reference |
|---|---|---|---|
| Oct. 10 | Oro 1-5 incl. | 73893-97 incl. | Group C |
| 11 | Gem 1 | 75346 | C |
| 16 | Kohler 1-3 incl. | 76780-82 incl. | C |
| 17 | Ley 1 - 4 Fctns. | 82027-30 incl. | C |
| 30 | Lil Fraction | 85565 | C |
| 30 | Jan (Spring Creek) | 85566 | C |
| Nov. 15(18) | Peter 1-4 incl. | 85743-46 incl. | C |
| 18 | Skirll-14 incl. Todd 1,2 | 85747-62 incl. | C |
| Dec. 13 | Gem 3 | 75474 | C |
| 1965 | | | |
| Jan. 31 | Whitehorse 1, Golden Gate 1 | 85846-47 incl. | D |
| Feb. 3 | It 1-6 incl. | 85848-53 incl. | D |
| 10 | Mo 1-19 incl. | 85854-72 incl. | D |
| April 16 | Parke 1-3 incl. | 77664-66 incl. | E |
| May 1 | Sue 1-4 incl. | 75653-56 incl. | E |
| 31 | Pitt 4 Fraction | 85088 | E |
| June 1 | Emily 1, 2 | 75709-10 incl. | E |
| 15-16 | Prince 9, 10 | 75756, 75761 | E |
| July 30 | Della 13-16 incl. | 85271-74 incl. | FF |
| Aug. 26 | Jim 1,3,5,7,9,27,29, 30,35, | 85329,85331,85333, 85335,85337,85355, 85357,85358,85363 | F |
| Aug. 31 | Zircon 1-6 incl. | 64182-84, 74157-8 incl. 76412 (4pt) | F |
| Sept. 11 | Bonzo Fraction | 72699 | |
| Oct. 3 | | | |

Totals: Whitehorse Area-Owned 252
Optioned 62 = 314 + 2 = 316

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APPENDIX III

Index Map

- Location of claims
- Distribution of Work
- (Whitehorse Map 105D-10 & 11)

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APPENDIX IV

Detail Maps

- Property Location -

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APPENDIX V

Detail Maps showing location of Work

(Arctic Chief and Best Chance Areas)

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# APPENDIX VI

Drill Logs with Assays

DD-34

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 2

Page 1 of 3

Coord. N 49,990 E 49,931 ELEVATION 2943 BEARING S 72° E INCLINATION -45 DATE FROM May 28 TO 30

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft | ASSAYS Cu. | ASSAYS Fe | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC | BORN | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 29 | 0 | | | | | | | | | | | | | | | | | | overburden - no core |
| 29 | 29.8 | 0.8 | | 0.8 | | | 3 | | 85 | | | | | | | | 6 | amph. 6 | | magnetite-massive, with coa gobs chalcopyrite estimate 1% cu. |
| 29.8 | 31. | 0.3 xx2 | | 1.2 | | | | | | | | | | | | 30 | 70 | | | limestone |
| 31. | 53.5 | 22. | | 22.5 | | | | | | | | | | | | 15 | 85 | | | limestone |
| 53.5 | 55. | 1.5 | | 1.5 | | | | | | | | | | 50 | 15 | 15 | 10 | amph. 10 | | skarn - garnetite |
| 55. | 67. | 12 | | 12 | | | | | | | | | | | | 10 | 90 | | | limestone |
| 67. | 80. | 11 xx | | 13 | | | | 1 | 10 | | mal. 0.5 | | | 30 | | 65 | | amph. 5 | skarn | garnet, chlorite alteration fine grain green sediment. ~~coarsely disseminated borni~~ est. 0.5% cu. |
| 70 | 75 | | 16403 | 5 | | | | | | | | | | | | | | | | |
| 75 | 80 | | 6404 | 5 | | | | | | | | | | | | | | | | |
| 80 | 87 | 4 | | 5.5 | | | | | | | | | | 80 | | 5 | 10 | actinolite 5 | | skarn-garnetite, coarse dis bornite est. 0.7% cu. |
| 80 | 85 | | 6405 | 5 | | | | | | | | | | | | | | | | |
| 87 | 98 | 11 | | 11 | | | | | | | | 5 | | 40 | | 50 | | amph. 5 | | altered diorite dyke-dioriti tion? |
| 85 | 90 | | 16406 | 5 | | | | | | | | | | | | | | | | |
| 90 | 95 | | 16407 | 5 | | | | | | | | | | | | | | | | |

DD-34

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 2

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 98 | 107 | 9 | | 9 | | | 4 | 30 | | | | | | | | 66 | | | | mineralized zone - bornite chalcopyrite, estimate 15% cu. |
| 98 | 103 | | 16409 | 5 | | | | | | | | | | | | | | | | |
| 103 | 108 | | 16410 | 5 | | | | | | | | | | | | | | | | |
| 107 | 109.5 | 1.5 | | 2.5 | | | 12 | 2 | | | | | | 40 | | 55 | | amph. 5 | skarn | alteration-partial alteration of finegrained green rock diss. bornite and chalcopyrite est. 1% cu |
| 109.5 | 110. | 0.5 | | 0.5 | | | 2 | 8 | | | 2 mal. | | | | | 33 | 25 | | | fault zone-bornite and chalcopyrite est. 4% cu. |
| 110. | 130. | 2.5 | | 2.9 | | | 1.5 | 1.5 | 70 | | | | | | | 20 | 8 | | | magnetite-massive, diss. cu to 120.5 est. 50% Fe 1.5% cu from 110-120.5 |
| 110 | 115 | | 16412 | 5. | 5.90 | 56.00 | | | | | | | | | | | | | | |
| 115 | 120 | | 16413 | 5. | 2.30 | 60.40 | | | | | | | | | | | | | | |
| 120 | 130 | | 16414 | 10. | 3.95 | 46.40 | | | | | | | | | | | | | | |
| 130 | 141.5 | 2.5 | | 2.5 | | | | | | | | | | | | 95 | | amph. 5 | | light green sedimnt, chloritized, minor magnetite |
| 130 | 135 | | 16415 | 5. | 0.15 | 53.60 | | | | | | | | | | | | | | |
| 135 | 139 | | 16416 | 4. | 0.60 | 52.60 | | | | | | | | | | | | | | |
| 141.5 | 142.7 | 1.2 | | 1.2 | | | 1 | | 99 | | | | | | | | | | | massive, minor cu. est. 50% Fe, 0.3% Cu. |
| 142.7 | 151. | 8.5 | | 8.5 | | | | | | | | | | | | 95 | | 5 | sed. | same as 139-141.5 |
| 151. | 166.2 | 15. | | 15.2 | | | | | 90 | | | | | | feld | 5 | | 5 | | magnetite, massive, minor cu est. 50% Fe, 0.2% Cu. |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 2

Page 3 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE | | | Sample No. | Length Ft. | ASSAYS | | ESTIMATED % COMPOSITION OF ORE & SKARN | | | | | | | | | | | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Recov. | | | Cu. | Fe. | CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | |
| 154.6 | 160 | | 16417 | 5.4 | 0.25 | 54.20 | | | | | | | | | | | | | |
| 160 | 167 | | 16413 | 7 | 0.47 | 53.20 | | | | | | | | | | | | | |
| 166.2 | 169 | 2.8 | | 2.8 | | | | | | | | | | | | 90 | | amph. 10 | sed. | same as 139-141.5 |
| 169 | 188 | 1.8 | | 1.9 | | | | | | | | | | 90 | | 10 | | | skarn | mostly garnet |
| 188 | 191.5 | 3.5 | | 3.5 | | | | | | | | | | | | 75 | | 15 | | diorite dyke |
| 191.5 | 201. | 7.5 | | 9.5 | | | | | | | | | | 85 | | 10 | | 5 | skarn | garnetite. |

# DIAMOND DRILL LOG

HOLE No. _____



Coord. N 49,931 E 49,936 ELEVATION 2952 BEARING N 85° E INCLINATION -45 DATE FROM June 4 TO 6/63

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 41 | 0 | | | | | | | | | | | | | | | | | | casing - no core |
| 41 | 46.5 | 4.5 | | 5.5 | | | 0.5 | 0.5 | 35 | Mal. | .5 | 2 | | | | 50 | 5 | | | magnetite |
| 46.5 | 51.5 | 4.5 | | 5.0 | | | 0.5 | | | Act. | 5 | 2 | | 30 | | 62.5 | | | | garnet alteration of fine grain green sediment |
| 51.5 | 70.5 | 18. | | 19. | | | | | | | | | | | | | | | | fine grained green sediment |
| | | | | | 0.2 | | | | | | | 1 | | | | 90 | 2 | chlorite 7 | | at 68.5-68.8 - diss. chalcopyrite |
| 70.5 | 74. | 3.0 | | 3.5 | | | | | | | | | | | | | | | | altered limestone |
| 74. | 118.5 | 41.5 | | 44.5 | | | | Tr. | 50 | Mal. | tr. | | | | | 45 | | chlorite 5 | | magnetite |
| 118.5 | 121. | 2.5 | | 2.5 | | | | | | | | 25 | | 40 | | 35 | | | | altered fine to medium grained sediment |
| 121. | 151. | 28.5 | | 30. | | | | | 60 | | | | | | | 35 | | chlorite 5 | | magnetite |
| 151. | 156.5 | 5.5 | | 5.5 | | | 95 | 5 | | | | 5 | | | | 95 | | | | mineralized chert |
| 156.5 | 160.5 | 4 | | 4. | | | | 100 | | | | | | 85 | | | | amph. 5 | | garnet-amphibole skarn |
| 160.5 | 186. | 25.5 | | 25. | | | | | | | | | | 100 | | | | | | altered diorite (?) or dioritized sediments |
| 186. | 187.5 | 1.5 | | 1.5 | | | | | | | | 5 | | 20 | | 75 | | | | white silicified limestone |
| 187.5 | 207. | 19 | | 19.5 | | | | | | | | 5 | | 70 | | 25 | | | | skarn altered chert? |

SIGNED _____

DD-34

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 4

Page 1 of 1

Coord. N 49882 E 49939 ELEVATION 2954 BEARING N 85 E INCLINATION -45° DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 41 | 0 | | | | | | | | | | | | | | | | | | overburden - no core |
| 41 | 59 | 18. | | 18. | | | | | | | | | | | | | | ADYK 100 | | acid dyke |
| 59. | 61.7 | 2.7 | | 2.7 | | | Tr. | | | | | 10 | | 15 | | 60 | 15 | | | skarn - garnet, epidote |
| 61.7 | 86.5 | 25.5 | | 24.8 | | | | | | | | | | 3 | 0.5 | | | 97 | | acid dyke |
| 86.5 | 152.8 | 62.4 | | 66.3 | | | | | | Rho. | 0.5 | 20 | | 30 | 10 | 40 | 1 | | | skarn-partial garnet-epido replacement of fine graine green sediment |
| 152.8 | 200. | 47.2 | | 45.7 | | | | | | | | | | | | | | 100 | | acid dyke |

Note: Hole stoped by Snell at specified depth before my arrival on property.

DD-34

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF — HOLE No. 5 — Page 1 of 1

Coord. N _____ E _____ ELEVATION 2961 BEARING N 85° E INCLINATION -70 DATE FROM June 7 TO 13

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 20 | 0 | | | | | | | | | | | | | | | | | | overburden - no core |
| 20 | 47.3 | 23.8 | | 27.3 | | | | | | | | | | | | | 100 | | | limestone |
| 47.3 | 71.5 | 22.4 | | 24.2 | | | | | | | | | | | | | 100 | | | limestone |
| 71.5 | 76.6 | 5.0 | | 5.1 | | | | | | | | | | | | | | | | limestone |
| 76.6 | 88. | 5.6 | | 11.4 | | | | | | | | | | | | | 100 | | | limestone-limonite stained probable fault zone |
| 88. | 106.2 | 7.1 | | 18.2 | | | | | | FeO 0.8 | | | | | 5 | | 95 | | | limestone |
| 106.2 | 139.5 | 31.8 | | 33.3 | | | | | | | | | | | 30 | | 70 | | | serpentinized limestone |
| 139.5 | 190.5 | 48.4 | | 57. | | | | | | | | | | | 1 | | 99 | | | limestone |
| 190.5 | 200. | 9.5 | | 9.5 | | | | | | | | 30 | | 0.5 | | 70 | 0.5 | | | fine grained, green silica skarn |
| 200. | 203.7 | 3.6 | | 3.7 | | | 1 | | | | | | | | 20 | 9 | 70 | | | limestone-serpentine alter diss. chalcopyrite |
| 203.7 | 301. | 95.7 | | 97.3 | | | | | | | | | | | 1 | | 99 | | | limestone |
| 301. | 334.4 | 30.1 | | 33.4 | | | | | | | | | | | 0.1 | Tr. | 100 | | | limestone |
| 334.4 | 346.2 | | | 11.8 | | | | | | | | | | | | | | | BDYK | feldspar porph. dyke |

Note: Impossible to drill beyond ft.346.2 since large amount of gouge present at this point-gouge in plastic flowing state containing angular chunks of dyke rock-"pressure in hole" preventing cementing and passage of tools without [illegible] available. 100

SIGNED _____

PROPERTY [illegible]

# DIAMOND DRILL LOG

HOLE No. 8 DD-34

Page 1 of 1

Coord. N 49,973 E 49,833 ELEVATION 2961 BEARING N 83°E INCLINATION -60 DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 22 | 0 | | 22 | | | | | | | | | | | | | | | | casing through overburden |
| 22 | 82.5 | 56.3 | | 60.5 | | | | | | | | | | | | 1 | 99 | | Sed. | alternating bands of gray and white limestone |
| 82.5 | 123.5 | 31.6 | | 41. | | | | | | | | | | | | 1 | 99 | | Sed. | grayish white limestone |
| 123.5 | 133.5 | 9.5 | | 10. | | | | | | | | | | | 1 | 1 | 98 | | Sed. | thin banded gray and white limestone-serpentenized along fractures |
| 133.5 | 149.3 | 13.7 | | 15.8 | | | | | | limonite 0.4 Rho. 0.8 | | 12 | | | | 20 | 67 | | Sed. | dioritized silaceous limestone |
| 149.3 | 155.5 | 4.7 | | 6.2 | | | | | | | | 25 | 25 | 12 | 2 | 11 | 25 | | skarn | alternating bands of gray limestone and garnetiferous epidote skarn |
| 155.5 | 164.8 | 7.2 | | 9.3 | | | | | | | | 30 | 15 | 15 | 1 | 9 | 30 | | | dioritized garnetiferous epidote diopsode skarn |
| 164.8 | 170.5 | 5.6 | | 5.7 | | | | | | | | | 10 | | 5 | 35 | 50 | | | altered silaceous limestone |
| | | | | | | | N.B. Lost hole due to driller dropping tools in hole. | | | | | | | | | | | | | |

[illegible]NED

DS-34

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 7

Page 1 of 2

Coord. N 49,973 E 49,833 ELEVATION 2961 BEARING N 85° E INCLINATION -58°30' DATE FROM June 15 TO 19

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 23 | 0 | | 23 | | | | | | | | | | | | | | | | overburden - no core |
| 23 | 100 | 66 | | 77 | | | | | | | | | | | | | | | | limestone |
| 100 | 107.5 | 7.5 | | 7.5 | | | | | | | | | | | | | | | | fault zone |
| 107.5 | 132.5 | 23 | | 25 | | | | | | | | | | | | | | | | limestone |
| 132.5 | 137. | 4.5 | | 4.5 | | | | | | | | | | | | | | | | skarn-garnet and dioritizat |
| 137 | 139. | 2. | | 2. | | | | | | | | | | | | | | | | dyke (dioritization) diorit |
| 139. | 142.5 | 3.5 | | 3.5 | | | | | | | | | | 50 | | 50 | | | | altered diorite (dioritizat - garnet |
| 142.5 | 145. | 2.5 | | 2.5 | | | | | | | | 20 | | 70 | | | 5 | Chl. 5 | | skarn -garnet, epidote |
| 145. | 154. | 8 | | 9 | | | | | | | | | | | | | | | | limestone |
| 154. | 174.5 | 17.5 | | 20.5 | | | | | | | | 154-165 | | 5 | 20 | 70 | | Ep. 5 | | skarn-partial replacement o |
| | | | | | | | | | | | | 165-166.5 | | | | 80 | 20 | | | limestone by garnet, epidot |
| | | | | | | | | | | | | 166.5-172 | | | 50 | | 50 | | | feldspar and serpentine |
| 174.5 | 179 | 3.5 | | 4.5 | | | | | | | | | | | | | | | | skarn-garnet, epidote (alte diorite?) |
| 179 | 187.7 | 7.7 | | 8.7 | | | | | | | | 2 | | 8 | | 90 | | | | diorite dyke (dioritization |
| 187.7 | 231.5 | 41.8 | | 43.8 | | | | | 183.5-195.5 | | | 5 | | 95 | | | | | | skarn-mostly garnet alterati |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 7

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 231.5 | 274.5 | 30. | | 35. | | | | | | | 239.5-252 | | | 100 | | | | | | partial skarn alteration of finegrained limy sediment |
| | | | | | | | | | | | 252.-262.5 | | | 5 | 95 | | | | | |
| | | | | | | | | | | | 262.5-274.5 | | | | 20 | 80 | | | | |
| 274.5 | 277. | 3.5 | | 3.5 | | | | | | | | | | | | | | | | diorite - dioritization? |
| 277. | 284. | 7.0 | | 7.0 | | | | | | | | | | | | | | | | limestone - serpentine alteration |
| 284. | 302.5 | 17 | | 17.5 | | | | | | | | | | | | | | | | limestone |
| 302.5 | 316 | 13 | | 13.5 | | | | | | | | | | | | | | | | limestone - abundant serpentine |
| 316. | 318 | 2 | | 2 | | | | | | | | | | | | 70 | 30 | | | skarn-garnet, feldspar |
| 318 | 323.5 | 5.5 | | 5.5 | | | | | | | | | | | | | | | | diorite - (dioritization?) |
| 323.5 | 325.5 | 2.0 | | 2.0 | | | | | | | | | | 30 | | 70 | | | | skarn - garnet, feldspar |
| 325.5 | 353.5 | 28. | | 28. | | | | | | | | | | | 50 | | 50 | | | limestone -seprentenized |
| 353.5 | 358. | 4.5 | | 4.5 | | | | | | | | | | | | | | | | diorite -basic, same as in hole AC-5 from 334.4-346.2 |

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# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 8

Page 1 of 2

Coord. N 49,971 E 49,833 ELEVATION 2961 BEARING S 5° E INCLINATION -46° DATE FROM June 19 TO June 21, 1963

| FOOTAGE | | | Sample No. | Length Ft. | ASSAYS | | ESTIMATED % COMPOSITION OF ORE & SKARN | | | | | | | | | | | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Recov. | | | Cu. | Fe. | CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | |
| 0 | 24 | 0 | | 24 | | | | | | | | | | | | | | | Casing - overburden |
| 24 | 41 | 16 | | 17 | | | | | | | | | | | | | | | white crystalline limestone |
| 41 | 43 | 2 | | 2 | | | | | | | | | | | | | | | same limestone |
| 43 | 50.5 | 7 | | 7.5 | | | | | | | | | | | | | | | limestone |
| 50.5 | 53.0 | 2.5 | | 2.5 | 0.90 | | | | | | | | | | | | | | dark grey serpentenized lim |
| 50.5 | 55.0 | 4.5 | | | 0.90 | | | 1.5 | 10 | Mal. | Tr. | | | | 50 | | 50 | | stone |
| 53.0 | 55.0 | 2 | | 2 | | | | | | | | | | | | | | | fine grained green altered sediment? |
| 55.0 | 57.0 | 2 | | 2 | 0.55 | | 0.5 | 0.5 | 5 | | Trinative cu Mal.Tr. | | | 30 | | | | 5 chlorite | skarn alteration |
| 57. | 60. | 2.1 | | 3 | 0.50 | | 0.5 | 0.5 | 5 | | ~~trinative cu.~~ Tr. | | | 30 | 10 | | | 5 chlorite | skarn |
| 60. | 63. | 2.5 | | 3 | 0.30 | | | 0.5 | 2 | Mal. | 0.5 | | | | 15 | | 30 | | altered green finegrain sed |
| 63. | 65. | 1.7 | | 2 | | | | | | | | | | | 50 | | 50 | | serpentenized limestone |
| 65. | 67. | 1.3 | | 2 | | | | | 10 | | | | | | 15 ~~60~~ | | 60 | | serpentenized limestone |
| 67. | 69.5 | 1.8 | | 2.5 | 0.30 | | | 0.5 | 20 | Mal. | 1 | | | 30 | | | | | skarn |
| 69.5 | 71.5 | 2.0 | | 2.0 | | | | | | | | | | | | | | | fine granular serpentine ma netite calcite skarn |

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# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

HOLE No. 8 DD-34

Page 2 of

PROPERTY ARCTIC CHIEF

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71.5 | 73. | 1.0 | | 1.5 | 0.18 | | 1 | | | | | 20 | | | | 60 | 20 | | | green, fine grained silicat |
| | | | | | | | | | | | | | | | | | | | | same as above |
| 73. | 73.9 | 0.9 | | 0.9 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | dark finegrain lime serpent |
| 73.9 | 75. | 1.1 | | 1.1 | | | | | | | | | | | | | | | | magnetite in fine grained g |
| | | | | | | | | | | | | | | | | | | | | granular sed. |
| | | | | | | | | | | | | | | | | | | | | skarn |
| 75. | 78. | 2.0 | | 3.0 | | | 0.5 | 1 | 10 | | Mal. 0.5 | | | 20 | | 40 | 20 | | | |
| | | | | | | | | | | | | | | | | | | | | fine grained green silicate |
| 78. | 83. | 4.8 | | 5.0 | | | | | | | | | | 20 | | 70 | 10 | | | with some garnet alteration |
| | | | | | | | | | | | | | | | | | | | | same as above section |
| 83. | 85.2 | 1.6 | | 2.2 | | | | | | | | | | 50 | | 50 | | | | |
| | | | | | | | | | | | | | | | | | | | | fine grained green sedimen |
| 85.2 | 88. | 2.8 | | 2.8 | 1.92 | | 0.5 | 2 | 2 | | Mal. 0.25 | | | | | 80 | | | | |
| | | | | | | | | | | | | | | | | | | | | white recrystallized limes |
| 88. | 92. | 4 | | 4 | | | | | | | | | | | | | | | | grey limestone |
| 92. | 93. | 1 | | 1 | | | | | | | | | | | | | | | | dark green silicate rock |
| 93. | 94. | 1 | | 1 | | | | | | | | | | | | | | | | altered white limestone-s |
| 94. | 100. | 6 | | 6 | | | | | | | | | | | | | | | | white statuary marble |
| 100. | 105. | 5 | | 5 | | | | | | | | | | | | | | | | limestone |
| 105. | 106.5 | 1.5 | | 1.5 | | | 2 | | 5 | | Mal. tr. | | | | | | | | | limestone |
| 106.5 | 108. | 1.5 | | 1.5 | | | | | | | | | | | | | | | | fragments green limestone |
| 108. | 109.5 | 1.5 | | 1.5 | | | | | | | | | | | | | | | | green serpentine-fault zo |
| 109.5 | 116 | 5.4 | | 7.5 | | | | | | | | | | | | | | | | gray and white limestone |
| 116 | 120 | 3.0 | | 4.0 | | | | | | | | | | | | | | | | limestone. |

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## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 9

Page 1 of 5

Coord. N 50021 E 49932 ELEVATION 2943 BEARING N 88° E INCLINATION -45° DATE FROM June 21 TO 24

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 32 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 32 | 47.5 | | | | | | | | | | | | | | | | | | | garnet epidote skarn |
| 32 | 35. | 2.4 | 26351 | 3.0 | | | 0.1 | 0.1 | | Mal. | 0.1 | 15 | | 20 | | 74 | | | | garnet-epidote skarn-sulfide finely disseminated |
| 35. | 40.5 | 3.8 | 26352 | 5.5 | 1.00 | | | | | | | | | | | | | | | |
| 40.5 | 44.5 | 4.1 | 26353 | 4.0 | 0.35 | | | | | | | | | | | | | | | |
| 44.5 | 48. | 3.2 | 26354 | 3.2 | 0.40 | | | | | | | | | | | | | | | |
| 35. | 45.3 | 8.6 | | 10.3 | | | 0.2 | 0.2 | | | | 40 | | 50 | 0.5 | 10 | | | | garnet-epidote skarn - disseminated finegrains and clots of copper sulfides |
| 45.3 | 47.5 | 2.6 | | 2.2 | | | Tr. | Tr. | | Mal. | Tr. | 40 | | 35 | | 25 | | | | mottled to finegrain epidote garnet skarn |
| 47.5 | 61. | 12.1 | | | | | Tr. | | | Rho. | 2.5 | | | | | | 2 | ADYK 90 | | chloritized granitized acid dyke |
| 61. | 63. | 2.0 | | | | | | | | Rho. | 5 | 20 | | | | 65 | 10 | | | (dioritize) green porph. silicate limes rhodonote as porphroblasts |
| 63.8 | 101.0 | | | | | | | | | | | | | | | | | | | garnet-epidote skarn with m actinolite-bornite associat with actinolite |
| 63. | 64.5 | 1.4 | | | | | 0.1 | 0.3 | | Mal. | Tr. | 15 | | 30 | | 55 | | | | garnet-epidote skarn -mino sulfides |
| 63. | 66. | 2.9 | 26442 | 3.0 | 0.65 | | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 9

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 64.5 | 66. | 1.5 | | | | | Tr. | 0.2 | | | Chl. 5 | 15 | | 40 | | 40 | | | | garnet-epidote chlorite skarn |
| 66. | 69. | 2.4 | 16443 | 3.0 | 1.00 | | | 0.4 | | Mal. tr. | Act. 10 | | | 80 | | 10 | | | | garnet-actinolite skarn |
| 69. | 72. | 2.7 | | 3.0 | | | | 0.8 | | | | 3 | | 90 | 0.5 | 6 | | | | garnet skarn |
| 69. | 75. | 5.5 | 16444 | 6.0 | 0.70 | | | | | | | | | | | | | | | |
| 72. | 82. | 9.6 | | 10. | | | | 1.0 | | Act. | 5 | 10 | | 80 | | 3 | | | | garnet actinolite skarn |
| 75. | 80. | 4.8 | 16445 | 5.0 | 2.00 | | | | | | | | | | | | | | | |
| 80. | 86.5 | 6.1 | 16446 | 6.5 | 0.90 | | | | | | | | | | | | | | | |
| 82. | 86.5 | 3.9 | | | | | | 0.5 (high) | | | | 30 | | 60 | | | | | | garnet epidote skarn |
| 86.5 | 90. | 3.0 | 26355 | 3.5 | 0.85 | | 0.05 | 0.05 | 1.0 | Mal. | Tr. | 40 | | 30 | | 28 | | | | epidote garnet skarn |
| 90. | 92. | 1.0 | 26356 | 2.0 | 0.70 | | | | | Mal. | 0.5 | 20 | | 5 | | 65 | 10 | | | leached lime silicate |
| | | | | | | | | | | FeO | 1.0 | | | | | | | | | |
| 92. | 95. | 1.6 | 26357 | 3.0 | 0.80 | | | 0.05 | | Mal. | Tr. | 30 | | 20 | | 50 | | | | epidote garnetiferous skarn |
| 95. | 98. | 1.8 | 26358 | 3.0 | 0.50 | | | 0.05 | | Mal. | 0.5 | 30 | | 30 | | 40 | | | | garnet epidote skarn |
| | | | | | | | | | | Chl. | 0.5 | | | | | | | | | |
| 98. | 99.5 | 0.9 | 26359 | 1.5 | 1.15 | | | 0.2 | | Mal. | 2.0 | 40 | | 40 | | 18 | | | | garnet-epidote skarn |
| 99.5 | 105. | 5.2 | 16447 | 5.5 | 0.70 | 18.00 | | | | | | | | | | | | | | |

# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

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HOLE No. 9

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PROPERTY ARCTIC CHIEF

Coord. N. E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 101. | 101.1 | | | | | | | | | | | | | | | | | | | limonite stained |
| 101.1 | 131.5 | | | | | | | | | | | | | | | | | | | dark green to light green li silicate splotched with occa garnet - highly mineralized with magnetite and bornite |
| 105. | 110. | 5.0 | 16448 | 5.0 | 0.55 | 15.00 | | | | | | | | | | | | | | |
| 101.1 | 110. | | | | | | 0.3 | 0.5 | 20 | | | 30 | | 3 | 0.1 | 26 | 10 | | | dark to light green lime silicate with massive magnet -occasional clots of chalcop rite and diss. grains of bor |
| 110. | 112.5 | 2.4 | | | | | 1.5 | Tr. | 15 | | | 20 | | | | 60 | 5 | | | green lime silicate |
| 110. | 115. | 5.0 | 16449 | 5.0 | 3.00 | 7.40 | | | | | | | | | | | | | | |
| 112.5 | 123. | 8.9 | | | | | 11.0 | 0.05 | 2 | | | 20 | | 5 | | 57 | 5 | | | green lime silicate with me grained chalcopyrite & some ~~fine grained bornite all ac~~ with minor actinolite |
| 115. | 120. | 5.0 | 16450 | 5.0 | 1.90 | | | | | | | | | | | | | | | |
| 120. | 123. | 3.0 | 26360 | 3.0 | 0.90 | | | | | | | | | | | | | | | |
| 123. | 131.5 | 5.7 | 26361 | 6.5 | 0.80 | | | 0.5 | | | | 25 | | 15 | | 35 | 5 | | | mottled greenish silaceous lime silicate with garnet ~~forming the major bands cl~~ of bornite |
| 131.5 | 139.1 | 5.8 | | | | | | 0.1 | 0.8 | Mal. | Tr. | 10 | | 12 | | 45 | 2 | | | med. to finegrain dioritiz garnet epidote skarn-borni in fine grains and clots |
| 131.5 | 138. | 5.0 | 26362 | 6.5 | .15 | | | | | | | | | | | | | | | |
| 138. | 139. | 0.6 | 263[illegible] | 1.0 | 6.55 | | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 9

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Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139.1 | 140.4 | 1.2 | | | | | | | | | | | | | 0.1 | 2 | 98 | | | white limestone |
| 140.4 | 141.8 | 1.3 | 26364 | 1.4 | 1.60 | | 0.1 | 0.05 | 95 | | | 5 | | | | | | | | massive magnetite - med. gr epidote -small clots of ~~chalcopyrite~~ and bornite |
| 141.8 | 148.7 | 6.0 | | | | | | | | Mal. Tr. | | 1. | | | 0.5 | 4 | 95 | | | white limestone -occasional epidote -copper carbonates present in occasional small hair fractures |
| 148.7 | 156.8 | 7.7 | | | | | | | | Amph. | 15 | 5 | | 3 | | 77 | | | | med. grained dioritized ska banded with minor garnet ar ~~epidote~~ |
| 156.8 | 189 | | | | | | 0.5 | | 85 | | | | | | | 14 | 1 | | | massive magnetite with occa clots of chalcopyrite all ~~trenched in a finegrain gre~~ ish lime silicate |
| 156.4 | 159. | 2.5 | 26365 | 2.6 | 0.90 | 49.60 | | | | | | | | | | | | | | |
| 156.8 | 159. | 2.1 | | | | | | | | | | | | | | | | | | |
| 159. | 164. | 4.5 | 26366 | 5.0 | 0.50 | 56.00 | | | | | | | | | | | | | | |
| 164. | 170. | 5.8 | 26367 | 6.0 | 0.40 | 53.60 | | | | | | | | | | | | | | |
| 170. | 172.2 | 2.1 | 26368 | 2.2 | 0.20 | 62.40 | | | | | | | | | | | | | | |
| 172.2 | 176.4 | 3.5 | 26369 | 4.2 | 0.10 | 58.40 | | | | | | | | | | | | | | |
| 176.4 | 181. | 4.3 | 26370 | 4.6 | 0.25 | 62.40 | | | | | | | | | | | | | | |
| 181. | 186. | 5.0 | 26371 | 5.0 | 0.12 | 60.00 | | | | | | | | | | | | | | |
| 186. | 191. | 4.1 | 26372 | 4.1 | 0.60 | 38.00 | | | | | | | | | | | | | | |
| 191. | 192.5 | 1.4 | 26373 | 1.5 | 0.90 | 6.40 | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

HOLE No. 9

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE | | | Sample No. | Length Ft. | ASSAYS | | ESTIMATED % COMPOSITION OF ORE & SKARN | | | | | | | | | | | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Recov. | | | Cu. | Fe. | CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | |
| 189. | 192.3 | 2.3 | | | | | | | | | | 15 | | 40 | 0.5 | 45 | | | garnetiferous epidote skar |
| | | | | | | | | | | | | | | | | | | | serpentenization along fra |
| | | | | | | | | | | | | | | | | | | | tures often stained with m |
| 192.3 | 192.8 | 0.3 | | | | | | | | Gouge | | 4 | 10 | | ~~81~~ XX | | 81 | 5 | lichensided serpentenized |
| | | | | | | | | | | | | | | | | | | | lime silicates |
| 192.8 | 199. | 4.0 | | | | | | | | Rho. | 0.5 | 5 | | 10 | | 85 | | | medium to fine grain silic |
| | | | | | | | | | | | | | | | | | | | altered to dioritized garn |
| | | | | | | | | | | | | | | | | | | | ~~epidote skarn~~ |
| | | | | | | | | | | | | | | | | | | ~~BDYK~~ | |
| 199. | 206.5 | 6.0 | | | | | | | | | | | | | | | | 100 | med. grained porphyritic st |
| | | | | | | | | | | | | | | | | | | | white porphroblasts with fi |
| | | | | | | | | | | | | | | | | | | | ~~greenish gray ground mass~~ |
| 206.5 | 209. | | | | | | | | | Rho. | 0.5 | 20 | | | | 80 | | | med. to finegrain greenish |
| | | | | | | | | | | | | | | | | | | | dioritized skarn-rhodonite |

Note: Drillers lost rim off diamond bit in hole at 209 - lost 2 bits in retrieving - stoped hole.

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 10



Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE | | | Sample No. | Length Ft. | ASSAYS | | ESTIMATED % COMPOSITION OF ORE & SKARN | | | | | | | | | | | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Recov. | | | Cu. | Fe. | CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | |
| 0 | 25 | 0 | | | | | | | | | | | | | | | | | casing through overburden |
| 25 | 26.2 | 1.2 | | 1.2 | | | | | | | | | | | | | 100 | | Xtln. white limestone |
| 26.2 | 29.6 | 3.3 | 26374 | 3.4 | 3.10 | 59.60 | 85 | 1.5 | 90 | | | | | | | | | | massive magnetite with chalcopyrite filling fractures |
| 29.6 | 31.2 | 1.6 | | 1.6 | | | | 0.3 | | | | 10 | | 15 | | | 74 | | dioritized garnetiferous epidote skarn |
| 29.6 | 33.8 | 4.2 | 26375 | 4.2 | 0.45 | | | | | | | | | | | | | | |
| 31.2 | 33.8 | 2.6 | | 2.6 | | | | 0.1 | | | | 10 | | 80 | 0.1 | 10 | | | garnetiferous epidote skarn |
| 33.8 | 50.7 | 16.4 | | 16.9 | | | | | | | | | | | | | | | greenish white limestone |
| 50.7 | 51.6 | 0.9 | | 0.9 | | | 0.5 | 2.0 | | Mal. 2 | | | | | | 75 | 20 | | greenish gray silicified limestone impregnated with small grains of chalcopyrite and bornite |
| 51.6 | 62. | 10.3 | | 10.4 | | | | | | | | | | | | | 100 | | gray and white banded limesto |
| 62. | 72.2 | 10.2 | | 10.2 | | | | | | | | | | | | | 100 | | Xtln. white limestone diss. grains of chalcopyrite and bornite |
| 72.2 | 74.6 | 2.4 | 26376 | 2.4 | 1.35 | 32.80 | 0.5 | 20 | 70 | | | 10 | | | | 13 | 5. | | mottled to massive magnetite finegrain greenish lime silic with disseminated chalcopyrit and considerable clots of bornite |

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 10

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 74.6 | 76.1 | 1.5 | | 1.5 | | | | | | | | | | | | | 100 | | | white Xtln. limestone |
| 76.1 | 90.3 | 13.8 | | 14.2 | | | | | | | | | | | | | | | | massive magnetite encased in a finegrain greenish gray lime silicate rock-contains clots and disseminated grains of bornite, chalcopyrite is fracture filling |
| 75.1 | 80.3 | 4.2 | 26377 | 4.2 | 1.70 | 41.20 | 0.80 | 2.0 | 65 | | | 10 | | | | 13 | 10 | | | |
| 80.3 | 85.3 | 4.9 | 26378 | 5.0 | 0.90 | 36.40 | 0.8 | 1.5 | 65 | | | 10 | | | | 14 | 10 | | | |
| 85.3 | 90.3 | 4.7 | 26379 | 5.0 | 0.25 | 25.60 | 0.1 | 0.5 | 40 | FeO | 1.0 | 10 | | | | 32 | 18 | | | |
| 90.3 | 96.4 | 5.9 | 26380 | 6.1 | 0.30 | | 0.5 | | | FeO | 2.0 | 10 | | | | 40 | 50 | | | greenish gray to grayish white silaceous lime - disseminated chalcopyrite present |
| 96.4 | 104.0 | 7.5 | 26381 | 7.6 | 0.20 | | | 0.1 | | | | 20 | | 60 | | 15 | 5 | | | garnet-epidote skarn cross frac |
| 104. | 108. | 8.9 | 26382 | 4.0 | 0.15 | | | | | | | | | | | | | | | |
| 108. | 110. | 1.3 | 26383 | 2.0 | 0.30 | | | | | | | | | | | | | | | |
| 110. | 112. | 2.0 | 26384 | 2.0 | 0.25 | | | | | | | | | | | | | | | |
| 112. | 115. | 3.0 | | 3.0 | | | | | | | | | | | | | | | | |
| 104. | 112. | 7.2 | | | | | | | 15 | | | 20 | | | 0.1 | 60 | 5 | | | greenish gray lime silicate low grade magnetite present in fine disseminated grains and clots |
| 112. | 114. | 2.0 | | 2.0 | | | | | | | | 10 | | 70 | 2.0 | 16 | 2 | | | garnet epidote skarn with granular sections of olivine |
| 114. | 127.5 | 13.0 | | 13.5 | | | | | 70 | | | 20 | | | | 10 | | | | finegrain mottled & cross fraced greenish black silicate heavily mineralized with magnetite-occasional small bands of |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 10

Page 3 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115. | 117.5 | 2.2 | 26385 | 2.5 | 0.50 | 31.60 | | | | | | | | | | | | | | |
| 117. | 122.5 | 5.0 | 26386 | 5.0 | 0.60 | 22.80 | | | | | | | | | | | | | | |
| 122.5 | 127.5 | 5.0 | 26387 | 5.0 | 0.20 | 20.80 | | | | | | | | | | | | | | |
| 127.5 | 130.2 | 2.7 | | 2.7 | | | | 1.0 | | | | 3 | | 90 | | 6 | | | | garnet skarn with occasional clots of bornite developed along fract. |
| 127.5 | 132.3 | 4.0 | 26388 | 4.8 | 0.95 | 29.20 | | | | | | | | | | | | | | |
| 130.2 | 132.3 | 2.1 | | 2.1 | | | Tr. | 0.2 | | | | 10 | | | | 90 | | | | med. grained dioritized skarn cross fractured with finegrain ~~bornite developed along frac-~~ tures |
| 132.3 | 138. | 5.5 | 26389 | 5.7 | 2.05 | 39.60 | 0.8 | 1.5 | | | 5.0 | 40 | | 40 | | 13 | | | | cross fract. garnet epidote skar mineralized with clots of bornit ~~and disseminated grains of~~ chalcopyrite |
| 138. | 165. | | | | | | 2.5 | 12. | 72.5 | | 15 Chl. 10 | | | | 0.1 | 1.5 | 0.5 | | | mottled to massive coarse grayis black silicate - clots and diss. ~~grains of magnetite, bornite~~ and chalcopyrite |
| 138. | 141.7 | 3.0 | 26390 | 3.7 | 10.30 | 20.00 | | | | | | | | | | | | | | |
| 141.7 | 146. | 4.3 | 26391 | 4.3 | 4.50 | 26.80 | | | | | | | | | | | | | | |
| 146. | 151. | 4.5 | 26392 | 5.0 | 1.50 | 25.60 | | | | | | | | | | | | | | |
| 151. | 156. | 5.0 | 26393 | 5.0 | 3.15 | 16.80 | | | | | | | | | | | | | | |
| 156. | 161. | 4.2 | 26394 | 5.0 | 1.40 | 4.00 | | | | | | | | | | | | | | |
| 161. | 165. | 3.9 | 26395 | 4.0 | 1.10 | 5.20 | | | | | | | | | | | | | | |
| 165. | 193 | 27.5 | | 28. | | | | | | | | | | | | | | ADYK 100 | | light colored feldspar porph. d |

Note: Hole stoped 19 ft. in dyke but drillers continued to end of run to retrieve core in core barrel & tools-hole forms section at right angles to

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 11

Page 1 of 4

Coord. N 49,743 E 49,948 ELEVATION 2959 BEARING N 85° E INCLINATION -43° DATE FROM June 22 TO 30

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 34 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 34 | 38 | 4.0 | | 4.0 | | | | | | | | | | | | | | BDYK | | |
| | | | | | | | | | | | | | | | | | 50 | 50 | | basic dyke and Xtln. limestone |
| 38 | 64.5 | 25.1 | | 26.5 | | | | | | | | | | | | | | 100 | | basic dyke |
| 64.5 | 68.2 | 3.5 | | 3.7 | | | | | | Rho. 5 | | 20 | | 15 | | 60 | Tr. | | | banded epidote-garnet and rhodonite skarn |
| 68.2 | 71.0 | 2.4 | | 2.8 | | | | | | | | 20 | | | | 50 | 30 | | | banded to mottled epidote lime silicate |
| 71.0 | 78.2 | 7.2 | | 7.8 | | | 0.1 | | | Mal. Tr. Rho. 20 | | 10 | | | 0.1 | 70 | 0.1 | | | rhodonite-epidote skarn with minor serpentine |
| 78.2 | 83.4 | 5.1 | | 5.2 | | | | | | | | 60 | | 0.5 | | 40 | | | | finegrain mottled to banded greenish epidote skarn |
| 78.2 | | | | | | | | | | | | | | | | | | | | |
| 83.4 | 89.1 | 5.7 | | 5.7 | | | | | | | | 10 | | 70 | | 15 | 5 | | | garnet epidote skarn |
| 89.1 | 93.6 | 4.5 | | 4.5 | | | | | | | | 60 | | 10 | Tr. | 25 | 5 | | | mottled epidote garnet skarn |
| 93.6 | 97.1 | 3.5 | | 3.5 | | | | | | | | 5 | | 80 | 0.1 | 15 | Tr. | | | garnet skarn |
| 97.1 | 98.5 | 1.1 | | 1.4 | | | | | | 0.5 | | 3 | | 2 | | 65 | 30 | | | gra[illegible]h-green lime silicate-disseminated grains of pyrite |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 11

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | Rock Type | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 98.5 | 103.1 | 4.6 | | 4.6 | | | | | | Mal. | Tr. | 40 | | 50 | | 8 | 2 | | | garnet epidote skarn |
| 103.1 | 107.8 | 4.7 | | 4.7 | | | 0.05 | | | Mal. | 0.2 | 10 | | | | 80 | 10 | | | serpentenized epidote skarn |
| 107.8 | 110.2 | 2.4 | | 2.4 | | | | | | | | 20 | | 8 | | 67 | 5 | | | mottled epidote garnet skarn |
| 110.2 | 111.8 | 1.6 | | 1.6 | | | | | | | | 40 | | | 2 | 58 | Tr. | | | med. grained granular epidote skarn |
| 111.8 | 119.5 | 7.5 | | 7.3 | | | | | | | | 40 | | 5 | 40 | 15 | Tr. | | | alternating bands of granular serpentine porph. and epidote porph. |
| 119.5 | 121 | 1.5 | | 1.5 | | | 0.02 | | 1 | | | 20 | | | | 70 | 10 | | | greenish-gray lime silicate occasional clots of chalcopyrite developed along fractures |
| 121 | 151.5 | 29.4 | | 30.5 | | | 0.2 | | 80 | | | 5 | | | | 10 | 5 | | | finegrain massive magnetite spotted with clots of chalco-pyrite |
| 121 | 125.5 | 4.0 | 26396 | 4.0 | 0.93 | 41.60 | | | | | | | | | | | | | | |
| 125.5 | 131. | 3.5 | 26397 | 5.5 | 0.54 | 55.00 | | | | | | | | | | | | | | |
| 131. | 136. | 4.9 | 26398 | 5.0 | 0.37 | 64.40 | | | | | | | | | | | | | | |
| 136. | 141. | 5.0 | 26399 | 5.0 | 0.22 | 64.60 | | | | | | | | | | | | | | |
| 141. | 146. | 4.9 | 26400 | 5.0 | 0.35 | 63.40 | | | | | | | | | | | | | | |
| 146. | 151.5 | 5.2 | 26407 | 5.5 | 0.48 | 52.00 | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 11

Page 3 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 151.5 | 152.6 | 1.1 | | 1.1 | | | | | | | | 20 | | 60 | | 20 | Tr. | | | mottled garnet epidote skarn |
| 152.6 | 155.2 | 2.6 | 26408 | 2.6 | 0.20 | 56.40 | | | 95 | | | 1 | | | | 3 | 1 | | | massive magnetite in a light greenish gray ground mass |
| 155.2 | 158.2 | 3.0 | 26409 | 3.0 | 0.20 | 9.20 | | | 4 | | | 30 | | 15 | | 50 | 1 | | | mottled (finegrain) epidote garnet skarn |
| 158.2 | 162.5 | 4.3 | | 4.3 | | | | | | | | 5 | | 15 | | 40 feld. 40 | Tr. | | | feldspar - garnet skarn |
| 162.5 | 164.2 | 1.4 | | 1.7 | | | | | | | | | | | 5 | 85 | 10 | | | greenish gray lime silicate |
| 164.2 | 167.4 | 3.2 | | 3.2 | | | | | | | | | | | 40 | 20 | 40 | | | fine to med. grained grayish yellow serpentenized limestone |
| 167.4 | 173.6 | 6.7 | | 6.2 | | | | | | | | 5 | | | 5 | 5 | 85 | | | white limestone - serpentenization along bedding |
| 173.6 | 174.5 | 0.9 | | 0.9 | | | | | | Mal. | 1.0 | | | | | | | ADYK 99 | | diorite dike |
| 174.5 | 175.4 | 0.9 | | 0.9 | | | | | | | | 1 | | | | 19 | 80 | | | greenish white dioritized skarn |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 11

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LIMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 175.4 | 177.1 | 1.7 | | 1.7 | | | | | | Mal. | Tr. | | | | | | | ADVK 100 | | diorite dyke |
| 177.1 | 185.8 | 8.3 | | 8.7 | | | 0.2 | | | | | 40 | | 40 | | 18 | 2 | | | alternating bands of epidote & garnet skarn |
| 177.4 | 182.4 | 5.0 | 26410 | 5.0 | 0.23 | | | | | | | | | | | | | | | |
| 182.4 | 187.4 | 5.0 | 26411 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 187.4 | 192.4 | 5.0 | 26412 | 5.0 | 1.00 | | | | | | | | | | | | | | | |
| 192.4 | 194.1 | 1.7 | 26413 | 1.7 | 0.35 | 18.00 | | | | | | | | | | | | | | |
| 185.8 | 188.4 | 2.6 | | 2.6 | | | | | | | | | | Tr. | | 100 | | | | diortized-chloritized skarn |
| 188.4 | 192.4 | 3.9 | | 4.0 | | | 0.9 | 0.5 | | Na.Cu. | 0.1 | 30 | | 15 | | 34 | 20 | | | finegrain garnet and epidote skarn-bands of chalcopyrite and bornite at ft. 191 |
| 192.4 | 196.8 | 4.4 | | 4.4 | | | | | 15 | | | | | | 0.1 | Tr. | 85 | | | Xtln. limestone (white) |
| 196.8 | 210.5 | 10.6 | | 13.7 | | | | | | | | | | | | | 100 | | | alternating narrow & wide band of gray and white limestone |
| 210.5 | 220 | 9.3 | | 9.5 | | | | | | | | | | | | | | | | Xtln. white limestone |

Note: Hole stoped at ft. 220 - due to structural control and anomaly indications.

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 12

Page 1 of 3

Coord. N 50014 E 49883 ELEVATION 2951 BEARING N88°E INCLINATION -59 DATE FROM 27 June TO 3 July

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 23 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 23 | 103 | 76.5 | | 80 | | | Tr. | | | | 0.01 | | | | 0.1 | 0.1 | 99.9 | | | white Xtln. limestone |
| 103 | 111.6 | 6.5 | 26427 | 8.6 | | | | 0.8 | | Mal. | Tr. | 10 | | 70 | | 18 | 1 | | | garnet epidote skarn |
| 111.6 | 114.5 | 2.9 | | 2.9 | | | | | | Mal. | Tr. | | | | 0.5 | | 100 | | | white limestone |
| 114.5 | 116.8 | 1.8 | | 2.3 | | | | | | Mal.<br>Kaolin | Tr.<br>2 | | | | | | | ADYK<br>98 | | feldspar porph. dyke |
| 116.8 | 118.3 | 1.5 | | 1.5 | | | | | | | | 15 | | 65 | | 15 | 5 | | | banded garnet epidote skarn |
| 118.3 | 120.6 | 1.5 | | 2.3 | | | | | | | | | | | | | 100 | | | Xtln. limestone |
| 120.6 | 121.7 | 1.1 | | 1.1 | | | | Tr. | | Mal. | 0.2 | | | | | | | | | banded garnet and epidote skarn |
| 121.7 | 129.1 | 5.5 | | 7.4 | | | | | | Kaolin | 5 | 5 | | 5 | 5 | 50 | 30 | | | light green silaceous limestone |
| 129.1 | 148.6 | 18.3 | | 19.5 | | | | | | FeO | 2 | | | | | | 98 | | | white and gray and white lime-stone |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 12

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 148.6 | 150.5 | 1.6 | | 1.9 | | | | | | Fe0 5 | | 10 | | | | 35 | 40 | | | silicous lime stained with limonite |
| | | | | | | | | | | Gouge | 10 | | | | | | | | | |
| 150.5 | 187.7 | 31.2 | | 37.2 | | | | | | | | | | 5 | 1 | 19 | 15 | ADYK 60 | | diortized acid dyke |
| 187.7 | 199.5 | 11.7 | | 11.8 | | | | | | | | 15 | | | | 15 | 70 | | | pale green silaceous lime |
| 199.5 | 208.8 | 7.2 | | 9.3 | | | | | | | | 10 | | 15 | | 65 | 10 | | | green lime silicate with clots and grains of garnet |
| 208.8 | 213.8 | 4.9 | | 5.0 | | | | | | | | 5 | | | 15 | 40 | 40 | | | serpentenized lime silicate |
| 213.8 | 235.8 | 18.7 | | 22.0 | | | | | | | | 12 | | | 8 | 10 | 70 | | | dioritized acid dyke |
| 235.8 | 260.8 | 23.9 | | 25.0 | | | | | | Mal. Tr. | | 5 | | | 15 | 10 | 30 | ADYK 40 | | pale green silaceous limestone |
| 260.8 | 269.6 | 4.2 | | 8.8 | | | | | | | | 5 | | 10 | | 65 | 5 | 15 | | greenish gray lime silicate partially replaced by clots of garnet |
| 269.6 | 275.4 | 4.8 | | 5.8 | | | | | | | | | | | 1 | | 99 | | | Xtln. grayish white limestone |
| 275.4 | 284.2 | 8.8 | | 8.8 | | | | | | | | 2 | | 2 | 15 | 56 | 5 | 20 | | mottled pale green lime silicate highly serpentenized |
| 284.2 | 290.6 | 4.6 | | 6.4 | | | | | | | | | | | | | 100 | | | brecciated white limestone |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 12

Page 3 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 290.6 | 311.2 | 19.6 | | 20.6 | | | | | | | | | | | 0.5 | | 100 | | | brecciated white limestone |
| 311.2 | 315. | 3.3 | | 3.8 | | | | | | | | 10 | | | 10 | 75 | 5 | | | greenish gray serpentenized to diortized lime silicate |
| 315.0 | 324.3 | 7.2 | | 9.3 | | | | | | | | | | | | | | ADYK | | |
| | | | | | | | | | | | | | | | | | | 100 | | med. grained feld. porphyritic dyke (diortized and "young") |
| 324.3 | 341.9 | 16.7 | | 17.6 | | | | | | | | | | | 2 | | 98 | | | serpentenized limestone |
| 341.9 | 362. | | | 20.1 | | | | | | FeO Tr. 0.5 | | | | | | | 100 | | | grayish white limestone |

Note: Hole stoped at ft. 362 since apparently the hole is traversing down-dip and away from the mineralized zone -which appears to be the nose of a fold (at this time) - mineralization should have been intersected between 100 and 300 ft. if structure had been vertical.

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 13

Page 1 of 3

Coord. N 43,694 E 49,953 ELEVATION 2961 BEARING N 85° E INCLINATION -45° DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 29 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 29. | 32.9 | 3.3 | | 3.9 | | | 0.1 | | | | | 30 | | 60 | | 5 | 5 | | | alternating bands of garnet an epidote skarn - clots of ~~chalcopyrite~~ |
| 32.9 | 34.9 | 1.0 | | 2.0 | | | 1.0 | | | | 0.5 malacite | 20 | | | 10 | 39 | 30 | | | greenish lime silicate |
| 34.9 | 50.1 | 14.2 | | 15.2 | | | 0.1 | | | | | 40 | | 50 | | 10 | Tr. | | | garnet and epidote skarn - ser pentenization developed along ~~fractures~~ |
| 50.1 | 50.8 | 0.7 | | 0.7 | | | | | | amph. | 5 | 15 | | | 5 | | 80 | | | greenish-gray epidote-lime silicate mineralized with chal ~~pyrite and exhibiting rhodoni~~ on upper margin |
| 50.8 | 54.2 | 3.3 | | 3.4 | | | 0.1 | | | | | 15 | | 40 | | 43 | 2 | | | cross-fractured garnet epidote skarn - occasional clots of ~~chalcopyrite~~ |
| 54.2 | 68.4 | 14.2 | | 14.2 | | | 0.1 | | | | | 55 | | 40 | 0.1 | 4 | 1 | | | garnet epidote skarn |
| 68.4 | 72.8 | 4.0 | 26414 | 4.4 | 1.50 | 42.40 | 3.5 | | 70 | FeO | 0.1 | 1.5 | | | | 15 | 10 | | | massive magnetite |
| 72.8 | 78. | 5.2 | 26415 | 5.2 | 1.23 | 12.00 | | | | | | | | | | | | | | |
| 78. | 81. | 3.0 | 26416 | 3.0 | 0.45 | 6.80 | | | | | | | | | | | | | | |
| 72.8 | 81. | 8.0 | | 8.9 | | | 2.0 | Tr. | | NaCu | 0.1 | 25 | | 15 | | 33 | 25 | | | epidote garnet skarn with clo & occlusions of chalcopyrite |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 13

Page 2 of

Coord. N. _____ E. _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO _____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81.0 | 95. | 13.0 | | 13.3 | | | 0.4 | | 80 | | | 2 | | 0.5 | | 12 | 5 | | | massive finegrain magnetite a greenish gray ground mass disseminated grains of chal pyrite present along fractu |
| 81. | 85. | 3.3 | 26417 | 4. | 0.40 | 43.20 | | | | | | | | | | | | | | |
| 85. | 90. | 5.0 | 26418 | 5. | 0.22 | 44.80 | | | | | | | | | | | | | | |
| 90. | 95. | 4.8 | 26419 | 5. | 0.23 | 49.60 | | | | | | | | | | | | | | |
| 95.0 | 112.2 | 17.1 | | 17.2 | | | 13 | | 80 | | | 1 | 1 | | | | 5 | | | finegrain massive magnetite containing numerous bands, porphroblasts and fracture filling stringers of chalco. |
| 95. | 98. | 3.0 | 26420 | 3.0 | 3.00 | 45.60 | | | | | | | | | | | | | | |
| 98. | 101. | 3.0 | 26421 | 3.0 | 3.15 | 48.00 | | | | | | | | | | | | | | |
| 101. | 106. | 5.0 | 26422 | 5.0 | 2.56 | 54.80 | | | | | | | | | | | | | | |
| 106. | 111. | 5.0 | 26423 | 5.0 | 2.30 | 55.20 | | | | | | | | | | | | | | |
| 111. | 112.2 | 1.2 | 26424 | 1.2 | 1.10 | 57.20 | | | | | | | | | | | | | | |
| 112.2 | 130. | 17.8 | | 17.8 | | | | | | | | | | | | | 100 | | | gray and white limestone |
| 130. | 138.6 | 8.6 | | 8.6 | | | | | | | | | | | | | 100 | | | gray and white limestone |
| 138.6 | 146.1 | 7.0 | | 7.5 | | | 14 | | 86 | | 0.1 | | | | | | | | | massive magnetite impregnated with numerous clots, grains and xtls. of chalcopyrite - giving the effect of lattice work in some sections |
| 138.6 | 143.6 | 4.7 | 26425 | 5.0 | 3.27 | 58.40 | | | | | | | | | | | | | | |
| 143.6 | 146.1 | 2.3 | 26426 | 2.5 | 0.63 | 61.60 | | | | | | | | | | | | | | |
| 146.1 | 150.7 | 4.6 | | 4.6 | | | | | | | | | | | | | 100 | | | gray limestone |

DD-34

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 13

Page 3 of

Coord. N. E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150.7 | 155.3 | 4.6 | | 4.6 | | | | | | | | | | | | | 100 | | | mottled to brecciated grayish white limestone |
| 155.3 | 168.2 | 12.9 | | 12.9 | | | | | | | | | | | | | 100 | | | gray limestone in white limestone ground mass |
| 168.2 | 181.0 | 12.8 | | 12.8 | | | | | | | | | | | | | 100 | | | white limestone |
| 181.0 | 195. | | | 14. | | | | | | | | | | | | | 100 | | | med. grained grayish white limestone. |

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# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

HOLE No. 14 DD-34

Page 1 of 2

PROPERTY ARCTIC CHIEF

Coord. N 50,017 E 49,881 ELEVATION 2953 BEARING ____ INCLINATION -45°30' DATE FROM July 3 TO 6

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 19 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 19 | 53 | 30.7 | | 34.0 | | | | | | | | | | | | | 100 | | | ytln. grayish white limestone |
| 53 | 67.3 | 14.0 | | 14.3 | | | | | | | | | | | | | 100 | | | alternating bands of gray and white limestone |
| 67.3 | 68.9 | 1.6 | | 1.6 | | | | | | | | | | | | | 100 | | | grayish white limestone |
| 68.9 | 70.7 | 1.8 | | 1.8 | | | | | | | | 1 | | | 0.1 | 1 | 98 | | | greenish silaceous limestone |
| 70.7 | 72.9 | 1.5 | | 2.2 | | | | | | | | | | | | 1 | 99 | | | limonite stained white limes |
| 72.9 | 77.4 | 4.5 | | 4.5 | | | | | | | | | | | | 1 | 99 | | | green silaceous limestone |
| 77.4 | 80.0 | 1.4 | | 2.6 | | | | | | | FeO 40 | 1 | | | | 10 | 49 | | | limonite stained silaceous limestone |
| 80.0 | 94.3 | 12.8 | | 14.3 | | | | | | | | | | | Tr. | | 100 | | | grayish white limestone |
| 94.3 | 101.5 | 5.9 | | 7.2 | | | | | | | Amph. 40 | | | 30 | 1 | 9 | 20 | | | mottled to banded garnet ep skarn |
| 101.5 | 103.7 | 2.2 | | 2.2 | | | | | | | | 30 | | 1 | | 50 | 20 | | | greenish lime silicate with minor section of garnet |

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JD-34

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 14

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 103.7 | 126. | 21.0 | | 22.3 | | | | | | | | | | | 0.3 | | 100 | | | Xtln. grayish white to white limestone |
| 126. | 130. | 4.0 | | 4.0 | | | | | | | | 15 | | | 0.2 | 25 | 60 | | | light green lime silicate ser pentenization along fractures |
| 130. | 134.9 | 3.0 | | 4.9 | | | | | | | | | | | 80 | 15 | 5 | | | dark green serpentenized lime silicate |
| 134.9 | 160. | 23.1 | | 25.1 | | | | | | | | 20 | | 50 | | 28 | 2 | | | greenish lime silicate partially replaced by splotc of garnet |
| 160. | 172. | 12.0 | | 12.0 | | | | | | | | 10 | | 15 | 0.9 | 73 | 2 | | | massive finegrain greenish l silicate - splotches of garn |
| 172. | 182.5 | 10.5 | | 10.5 | | | | | | | | 10 | | 1 | | 89 | 0.5 | | | dioritized skarn |
| 182.5 | 188 | 5.5 | | 5.5 | | | | | | | | | | | | | 100 | | | feldspar porph. dyke |

Note: Hole stoped at ft. 188 due to intersection of acid dyke which forms ore boundary of the mineralized zone.

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# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 15

Page 1 of 3

Coord. N 49645 E 49951 ELEVATION _____ BEARING N83°30'E INCLINATION -43° DATE FROM July 4 TO 8

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 28 | 0 | | | | | | | | | | | | | | | | | | Casing through overburden |
| 28 | 32.5 | 4.5 | | 4.5 | | | Tr. | | | | | 12 | | 3 | 0.1 | 65 | 20 | | | greenish lime silicate sporadically replaced with small clots of garnet |
| 32.5 | 38.2 | 5.7 | | 5.7 | | | Tr. | | | | | 15 | | 5 | | 70 | 10 | | | finegrain diortized epidote-garnet skarn |
| 38.2 | 42.2 | 4.0 | | 4.0 | | | Tr. | | | | | 10 | | 10 | | 70 | 10 | | | greenish gray lime silicate-sporadicly replaced by clots garnet |
| 42.2 | 60. | 15.8 | | 17.8 | | | 0.1 | | | | | 20 | | 40 | | 35 | 5 | | | greenish-gray lime silicate sporadically replaced by clots and bands of garnet and epidote |
| 42.2 | 45 | 2.8 | 26428 | 2.8 | 0.03 | | | | | | | | | | | | | | | |
| 45 | 50 | 5.0 | 26429 | 5.0 | 0.01 | | | | | | | | | | | | | | | |
| 50 | 55 | 4.5 | 26430 | 5.0 | 0.03 | | | | | | | | | | | | | | | |
| 55 | 60 | 3.5 | 26431 | 5.0 | 0.05 | | | | | | | | | | | | | | | |
| 60. | 72.2 | 9.2 | | 12.2 | | | 0.6 | | | | | 15 | | 40 | 0.2 | 41 | 3 | | | finegrain cross fractured brownish green lime silicated replaced by clots and grains of epidote |
| 60 | 65 | 4.0 | 26432 | 5.0 | 0.28 | | | | | | | | | | | | | | | |
| 65 | 70 | 3.5 | 26433 | 5.0 | 0.13 | | | | | | | | | | | | | | | |
| 70 | 72.2 | 1.7 | 26434 | 2.2 | 0.10 | | | | | | | | | | | | | | | |
| 72.2 | 77.5 | 4.4 | 26435 | 5.3 | 0.07 | 43.20 | 0.1 | | 70 | 0.1 | | 1 | | 0.5 | | 26 | 2 | | | massive finegrain magnetite replacing greenish gray lime silicate |
| 77.5 | 81.6 | 4.0 | 26436 | 4.1 | 0.16 | | 0.1 | | 0.9 | 0.1 | | 1 | | 2 | | 60 | 10 | | | greenish gray lime silicate |

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DD-34

# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 15

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81.6 | 86.9 | 5.0 | 26437 | 5.3 | 0.16 | | 0.7 | | 12 | | | 8 | | 10 | | 55 | 15 | | | brown lime silicate |
| 86.9 | 88.3 | 1.4 | 26438 | 1.4 | 7.70 | | 35 | Tr. | Tr. | | Tr. marcasite | 8 | | 10 | | 32 | 15 | | | brown lime silicate |
| 88.3 | 102.8 | 14.4 | | 14.5 | | | | | | | | | | | | | | | | greenish gray lime silicate partly replaced with garnet epidote and stringers of mas chalcopyrite along fractures |
| 88.3 | 93. | 4.7 | 26439 | 4.7 | 2.35 | | | | | | | | | | | | | | | |
| 93 | 98. | 5.0 | 26440 | 5.0 | 1.88 | | | | | | | | | | | | | | | |
| 98. | 102.8 | 4.7 | 26441 | 4.8 | 0.60 | | | | | | | | | | | | | | | |
| 102.8 | 107. | 4.0 | 26442 | 4.2 | 0.95 | 14.40 | 2 | | 8 | | | 7 | | 3 | 0.5 | 60 | 20 | | | finegrain dirty grayish gree lime silicate mineralized wi occasional clots of magneti small stringers of massive chalcopyrite along fractures |
| 107. | 111. | 3.8 | 26443 | 4. | 1.20 | 38.00 | 5.5 | | 45 | | | 7 | | 3 | | 30 | 10 | | | grayish green lime silicate mineralized by replacement w bands of massive magnetite clots of diss. chalcopyrite |
| 111.0 | 112.3 | 1.3 | 26444 | 1.3 | 0.24 | | 0.3 | | Tr. | | | 10 | 20 | 20 | | 50 | 20 | | | greenish lime silicate parti replaced by garnet with dis grains of chalcopyrite alon fractures |
| 112.3 | 121.4 | 9.0 | | 9.1 | | | 0.8 | | 92 | | | 2 | | | | 1 | 5 | | | hair-fractured magnetite re ing greenish gray lime sili |
| 112.3 | 116.8 | 4.5 | 26445 | 4.5 | 0.21 | 47.00 | | | | | | | | | | | | | | |
| 116.8 | 121.4 | 4.5 | 26446 | 4.6 | 0.10 | 61.60 | | | | | | | | | | | | | | |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 15 DD-34

Page 3 of

PROPERTY ARCTIC CHIEF

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 121.4 | 143. | 21.3 | | 21.6 | | | 18 | | 79 | | | 0.5 | | | | 2 | 1 | | | massive magnetite replacing greenish gray lime silicate - disseminated grains of chalcopyrite |
| 121.4 | 127. | | 26447 | 5.6 | 1.60 | 54.00 | | | | | | | | | | | | | | |
| 127. | 132. | | 26448 | 5.0 | 1.30 | 52.00 | | | | | | | | | | | | | | |
| 132. | 137. | | 26449 | 5.0 | 2.45 | 50.40 | | | | | | | | | | | | | | |
| 137. | 143. | | 26450 | 6.0 | 2.17 | 57.20 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 100 | | | grayish white limestone |
| 143. | 152. | 8.9 | | 9.0 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | ADYK 100 | | greenish feldspathized diorite silicate |
| 152. | 153. | 1.0 | | 1.0 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 0.2 | | 100 | | | grayish white limestone |
| 153. | 168. | 14.9 | | 15. | | | | | | | | | | | | | | | | |

Note: Hole stoped at foot 168 due to controlling structure and magnetic data of the area.

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. [illegible] DD-54

Page 1 of 2

Coord. N 50036 E 50083 ELEVATION 2938 BEARING N 86° E INCLINATION -46° DATE FROM July 8 TO 10

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | 0 | | | | | | | | | | | | | | | | | | Casing through overburden |
| | | | | | | | | | | | | | | | | | | BDYK | | |
| 40 | 40.6 | 0.6 | | 0.6 | | | | | | | | | | | | | | 100 | | basic dyke |
| 40.6 | 55.4 | 14.4 | | 14.8 | | | | | | | | | | | | | 100 | | | Xtln. limestone |
| 55.4 | 63.5 | 6.9 | | 8.1 | | | | | | Rho. 3 | | | | 5 | | 80 | 2 | | | light green lime silicate |
| | | | | | | | | | | Chlorite 10 | | | | | | | | | | replacement of silicate |
| | | | | | | | | | | | | | | | | | | | | ~~garnetiferous~~ in some sec |
| | | | | | | | | | | | | | | | | | | ADYK | | |
| 63.5 | 67. | 3.5 | | 3.5 | | | | | | Rho. | 5 | | | 15 | | | | 80 | | medium grain dyke with hor |
| | | | | | | | | | | | | | | | | | | | | garnetiferous skarn in cen |
| | | | | | | | | | | | | | | | | | | | | ~~of section~~ |
| 67.0 | 76.6 | 9.3 | | 9.6 | | | | | | Chl. | 0.5 | | | 93 | 0.8 | 5 | 1 | | | complete replacement by me |
| | | | | | | | | | | | | | | | | | | | | grain garnetiferous skarn |
| | | | | | | | | | | | | | | | | | | | | ~~ly stained by chlorite~~ |
| 76.6 | 81. | 3.9 | | 4.4 | | | | | | | | 10 | | | 0.5 | 85 | 5 | | | dark green lime silicate |
| | | | | | | | | | | | | | | | | | | | | (epidotic) |
| 81.0 | 101. | 19.9 | | 20. | | | | | 70 | | | 5 | | | | 15 | 10 | | | massive finegrain magneti |
| | | | | | | | | | | | | | | | | | | | | replacing finegrain dark |
| | | | | | | | | | | | | | | | | | | | | ~~lime silicate~~ |
| 81 | 86 | 4.7 | 3401 | 5.0 | Tr. | 47.80 | | | | | | | | | | | | | | |
| 86 | 91 | 5.0 | 3402 | 5.0 | 0.25 | 37.80 | | | | | | | | | | | | | | |
| 91 | 96 | 5.0 | 3403 | 5.0 | 0.05 | 28.80 | | | | | | | | | | | | | | |
| 96 | 101 | 5.0 | 3404 | 5.0 | 0.21 | 37.20 | | | | | | | | | | | | | | |
| 101. | 121.1 | 19 | | 20.1 | | | | | | | | | | | 1 | | 99 | | | white to grayish white X |
| | | | | | | | | | | | | | | | | | | | | limestone (massive chalc |
| | | | | | | | | | | | | | | | | | | | | between ft. 126.6 and 12 |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 16

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 121 | 126.6 | 5.1 | 3405 | 5.6 | 2.23 | 8.00 | | | | | | | | | | | | | | |
| 126.6 | 128. | 1.4 | 3406 | 1.4 | 9.27 | 33.60 | | | | | | | | | | | | | | |
| 128 | 132.5 | 4.1 | 3407 | 4.5 | 1.60 | 30.80 | | | | | | | | | | | | | | |
| 132.5 | 135. | 2.5 | 3408 | 2.5 | 0.33 | 12.40 | | | | | | | | | | | | | | |
| 135.3 | 139.6 | 4.3 | | 4.3 | | | 0.1 | | 15 | | 15 | 5 | | 0.5 | | 55 | 10 | | | Xtln. white to gray limestone replaced by highly serpentenized lime silicate |
| 136.4 | 139.6 | 3.2 | 3409 | 3.2 | 0.80 | 10.40 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | ADYK | | |
| 139.6 | 154.2 | 13.1 | | 14.6 | | | | | | Mal. | 0.2 | 3 | | 20 | | 72 | | 5 | | finegrain grayish green lime silicate-partial sporadic replacement by clots of garnet intermingled with porphroblas of rhodonite |
| | | | | | | | | | | FeO | 0.1 | | | | | | | | | |
| 154.2 | 158.2 | 4.0 | | 4.0 | | | | | | | | 0.5 | | | 5 | 94 | 0.5 | | | finegrain greenish yellow silicate |
| | | | | | | | | | | | | | | | | | | ADYK | | |
| 158.2 | 195.4 | 33.5 | | 37.2 | | | | | | Rho. | 10 | 15 | | 15 | | 53 | 5 | 2 | | pale green lime silicate - p phroblasts of pink rhodonite |
| 195.4 | 199.1 | 3.7 | | 3.7 | | | | | | FeO | Tr. | | | | 10 | | 90 | | | white limestone boldly serpe ized along brecciated fractu |
| 199.1 | 236. | 36.9 | | 36.9 | | | | | | Gouge | 2% | | | | | | 100 | | | gray (dark) limestone |
| | | | | | | | | | | FeO | 0.1 | | | | | | | | | |

Note: Hole stoped at ft. 236 in gray limestone at 4 A.m. 10 July 1963 - action taken due to structural control and interpolation of magnetic surveys.

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 17

Page 1 of 2

Coord. N 49595 E 49955 ELEVATION 2955 BEARING N 84°30'E INCLINATION -46 DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 20 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 20 | 40.7 | 19.5 | | 20.7 | | | | | | Rho. 25 | | 15 | | 15 | | 40 | 5 | | | green lime silicate characterized by pink porphroblasts of rhodonite |
| 40.7 | 55.9 | 14.9 | | 15.2 | | | Tr. | | | | | 15 | | 20 | | 60 | 5 | | | green lime silicate sporadically replaced by disorganized grains and clots of garnet and epidote |
| 55.9 | 68.8 | 10.8 | | 12.9 | | | 0.1 | | | | | 20 | | 65 | | 12 | 3 | | | med. grained garnet and epidote |
| 68.8 | 77.0 | 9.1 | | 9.2 | | | Tr. | | | | | 15 | | 10 | 5 | 60 | 10 | | | light green silaceous lime garnet and clots of epidote |
| 77.0 | 153 | | | 76 | | | 1.9 | | 25 | | | 25 | | 30 | | 15 | 35 | | | brownish green garnetiferous epidote skarn mineralized with diss. clots and grains of chalcopyrite along fractures and banding of massive magnetite also containing chalcopyrite in disseminated grains and clots along f |
| 77 | 82 | 4.5 | 3410 | 5. | 0.30 | | | | | | | | | | | | | | | |
| 82 | 87 | 5.0 | 3411 | 5. | 0.22 | | | | | | | | | | | | | | | |
| 87 | 91.5 | 4.5 | 3412 | 4.5 | 0.46 | 16.00 | | | | | | | | | | | | | | |
| 91.5 | 93 | 1.4 | 3413 | 1.5 | 0.90 | 19.60 | | | | | | | | | | | | | | |
| 93 | 98 | 4.8 | 3414 | 5.0 | 1.14 | 14.80 | | | | | | | | | | | | | | |
| 98 | 103 | 4.8 | 3414 | 5.0 | 0.68 | 15.60 | | | | | | | | | | | | | | |
| 103 | 108 | 4.7 | 3416 | 5.0 | 0.50 | 17.20 | | | | | | | | | | | | | | |
| 108 | 113 | 5.0 | 3417 | 5.0 | 0.30 | 6.40 | | | | | | | | | | | | | | |
| 113 | 118 | 5.0 | 3418 | 5.0 | 0.80 | 32.12 | | | | | | | | | | | | | | |
| 118 | 123 | 5.0 | [illegible]19 | 5.0 | 0.38 | 6.40 | | | | | | | | | | | | | | |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 17

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 128 | 133 | 4.9 | 3421 | 5.0 | 0.28 | 37.60 | | | | | | | | | | | | | | |
| 133 | 138 | 5.0 | 3422 | 5.0 | 0.32 | 45.20 | | | | | | | | | | | | | | |
| 138 | 143 | 4.8 | 3423 | 5.0 | 1.50 | 50.00 | | | | | | | | | | | | | | |
| 143 | 148 | 5.0 | 3424 | 5.0 | 0.90 | 44.00 | | | | | | | | | | | | | | |
| 148 | 153 | 4.9 | 3425 | 5.0 | 0.65 | 21.20 | | | | | | | | | | | | | | |
| 153 | 164 | 10.7 | | 11 | | | | | | | | | | | | | 100 | | | recrystallized grayish white limestone |
| 164 | 183.5 | 19.4 | | 19.5 | | | | | | | | | | | | | | BDYK 100 | | dark dense basic dyke containing small disseminated grain of pyrite |
| 183.5 | 205. | 21.2 | | 21.5 | | | | | | | | | | | 2 | | 96 | BDYK 2 | | cross craftured & ruptured grayish white limestone -min ~~serpentenization along fract~~ |

Note: Hole driven to ft. 205 for exploratory purposes - economic and geological - ~~hole stoped at 830 hours Friday~~ July 13th/63.

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 18

Page 1 of 2

Coord. N 29982 E 50090 ELEVATION 2937 BEARING N87°E INCLINATION -54° DATE FROM 12 July TO 16 July

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN. | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | 0 | | | | | | | | | | | | | | | | | | Casing through bedrock |
| 40 | 42.6 | 2.6 | | 2.6 | | | | | | | | 5 | | | 1 | 64 | 30 | | | serpentenized silicaceous limestone |
| 42.6 | 47.5 | 4.9 | | 4.9 | | | | | | | | 2 | | | | 93 | 5 | | | porph. lime silicate dior tized |
| 47.5 | 54.5 | 7.0 | | 7.0 | | | | | | | | | | | | | | | Note - | diorite intrusive |
| 54.5 | 74.7 | 20.1 | | 20.2 | | | | | | | | 5 | | | | 93 | 2 | | | med. grained porph. lime silic |
| 74.7 | 93. | 18.2 | | 18.3 | | | | | | | 0.2 Rho. | 5 | | 90 | | 5 | Tr. | | | complete replacement by g netiferous epidote skarn having minor serp. along fractures |
| 93.0 | 111.8 | 18.8 | | 18.8 | | | 5 | | 60 | | Tr. Mal. | 10 | | | | 20 | 5 | | | lime silicate containing bands of massive magnetit some bands exhibit chalco pyrite while some are bar of the mineral |
| 93.0 | 97.5 | 3.9 | 3445 | 4.5 | 0.30 | 37.20 | | | | | | | | | | | | | | |
| 97.5 | 100. | 2.2 | 3446 | 2.5 | 1.10 | 28.80 | | | | | | | | | | | | | | |
| 100. | 105. | 4.9 | 3447 | 5.0 | 0.58 | | | | | | | | | | | | | | | |
| 105. | 107.7 | 2.6 | 3448 | 2.7 | 0.32 | 39.60 | | | | | | | | | | | | | | |
| 107.7 | 111.8 | 3.7 | 3449 | 4.1 | 1.37 | 54.00 | | | | | | | | | | | | | | |
| 111.8 | 112.7 | 0.9 | | 0.9 | | | | | | | | | | | | | 100 | | | white Xtln. limestone |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.
## DIAMOND DRILL LOG

HOLE No. 18

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN Chalc. | Born. | Magn. | Pyr. | Other | Epid. | Diop. | Garn. | Serp. | Silic. | Limest. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 112.7 | 114.4 | 1.7 | 3450 | 1.7 | 1.20 | 50.60 | 2 | | 95 | | | | | | | 3 | | | | massive finegrain mag. wi disseminated chalcopyrite toward center of section |
| 114.4 | 126.0 | 0.0 | | 11.6 | | | Tr. | | 20 | | | 1 | | | 2 | 2 | 75 | | | grayish white limestone - magnetite between ft. 124 and 125.9 |
| 124.0 | 125.9 | 1.9 | 3451 | 1.9 | 0.23 | 39.20 | | | | | | | | | | | | | | |
| 126. | 133.5 | 7.4 | | 7.5 | | | | | | Re0 5 | | | | | | 10 | 85 | | | limonite stained grayish white limestone |
| 133.5 | 157.3 | 23.7 | | 23.8 | | | | | | Rho. | 0.1 | 10 | | | | 70 | 20 | | | med. grain cross fracture limy feldspathized-diorti skarn |
| | | | | | | | | | | Jasper | 0.2 | | | | | | | | | |
| 157.3 | 173.0 | 15.5 | | 15.7 | | | | | | 10 | | | | | | | 90 | | | cross fractured white limestone. |

Note: Hole piereced "tail" of "contact" mineral deposit and was stoped in structural bottom of limestone.

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 19



Coord. N 49589 E 49956 ELEVATION 2956 BEARING N 79° E INCLINATION -64° 30' DATE FROM 12 July TO 16 July

| FOOTAGE | | | Sample No. | Length Ft. | ASSAYS | | ESTIMATED % COMPOSITION OF ORE & SKARN | | | | | | | | | | | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Recov. | | | Cu. | Fe. | CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | |
| ~~0~~ | 13 | 0 | | | | | | | | | | | | | | | | | casing through overburde |
| 13 | 21.4 | 8.2 | | 8.4 | | | Tr. | | | | 3 Rho. | 10 | | | | 82 | 1 | 4 bdyk | med. grain greenish sili of porph. texture, porph ~~blasts of rhodonite~~ |
| 21.4 | 43.0 | 21.6 | 2 | 21.6 | | | 0.1 | | | | | 2 | | 90 | 0.5 | 7 | 0.1 | | finegrain greenish silic replaced by massive fine ~~grained cross fractured~~ garnet |
| 43.0 | 71.9 | 28.9 | | 28.9 | | | 0.2 | | | | | 10 | | 40 | 0.5 | 45 | 1 | | greenish lime silicate p ~~tially~~ replaced by spora ~~clots and large grains c~~ epidote and garnet -minc ~~clots~~ of chalcopyrite de veloped along fractures |
| 71.9 | 78.2 | 6.3 | | 6.3 | | | Tr. | | | | | 10 | | 40 | | 45 | 5 | | fine grain greenish lime silicate partially repla ~~and blended with garnet~~ |
| 78.2 | 95.9 | 17.7 | | 17.7 | | | | | 0.5 | | 0.1 FeO | 10 | | 35 | | 53 | 2 | | finegrain greenish lime silicate partially repl ~~by garnet~~ |
| 95.9 | 111.1 | 15.2 | | | | | 1 | | | | | 5 | | 35 | | 57 | 2 | | finegrain dense & blend garnetiferous skarn car ~~ing chalcopyrite in clo~~ and grains |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 19 DD-34

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PROPERTY ARCTIC CHIEF

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 95.9 | 101.1 | 5.1 | 3426 | 5.2 | 0.32 | | | | | | | | | | | | | | | |
| 101.1 | 106.1 | 5.0 | 3427 | 5.0 | 1.00 | | | | | | | | | | | | | | | |
| 106.1 | 111.1 | 5.0 | 3428 | 5.0 | 1.50 | | | | | | | | | | | | | | | |
| xxxx | xxxx | 5.0 | | | | | | | | | | | | | | | | | | dense garnet epidote skarn |
| 111.1 | 125. | 13.8 | | 13.9 | | | 0.6 | | 75 | | | 0.5 | | 2 | | 22 | 0.1 | | | in combination with massiv magnetite-minor chalcopyri developed along fractures |
| 111.1 | 116.1 | 5.0 | 3429 | 5.0 | 1.20 | 38.80 | | | | | | | | | | | | | | |
| 116.1 | 121.1 | 4.8 | 3430 | 5.0 | 0.22 | 49.60 | | | | | | | | | | | | | | |
| 121.1 | 125.0 | 3.9 | 3431 | 3.9 | 0.10 | 45.00 | | | | | | | | | | | | | | |
| 125.0 | 133.7 | 8.7 | 3432 | 8.7 | 0.17 | | 0.5 | | | 0.8 | | 3 | | 3 | | 92 | 1 | | | mottled to blended (finegr garnet epidote skarn-frac olds of pyrite and chalco pyrite along fract. |
| 133.7 | 135.8 | 3.1 | 3433 | 3.1 | 0.27 | 52.00 | Tr. | | 85 | 0.1 | | 3 | | 1 | | 11 | Tr. | | | massive finegrain magneti in combination with a gre ish brown lime silicate replacing limestone |
| 135.8 | 142.2 | 4.9 | 3434 | 5.4 | 0.20 | | Tr. | | 1 | | | 10 | | 15 | | 72 | 2 | | | mottled to blended garne epidote skarn |
| 142.2 | 143.8 | 1.6 | 3435 | 1.6 | 0.12 | 37.60 | Tr. | | 95 | | | 0.5 | | | | 5 | Tr. | | | massive finegrain magnet with splotches of green lime silicate |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 19

Page 3 of

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO _____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 143.8 | 150. | 6.2 | | 6.2 | | | Tr. | | | | | 5 | | 70 | | 23 | 2 | | | fract. & blended garnet epidote skarn |
| 143.8 | 148.8 | 5.0 | 3436 | 5.0 | 0.15 | | | | | | | | | | | | | | | |
| 150 | 174 | 23.5 | | 24 | | | Tr. | | | | | 30 | | | 0.1 | 60 | 10 | | | Xtln. epidote skarn -minor garnet along fract. in upp section |
| 174 | 190.5 | 16.5 | | 16.5 | | | 1.8 | | | | | 35 | | 15 | | 43 | 5 | | | med. to fine grain mottled to Xtln. epidote garnet skarn - Cu mineralization along fract. |
| 174. | 180.5 | 6.5 | 3437 | 6.5 | 0.20 | | | | | | | | | | | | | | | |
| 180.5 | 185.5 | 5.0 | 3438 | 5.0 | 0.80 | | | | | | | | | | | | | | | |
| 185.5 | 190.5 | 5.0 | 3439 | 5.0 | 0.95 | | | | | | | | | | | | | | | |
| 190.5 | 205.2 | 14.3 | | 14.7 | | | 1 | | 70 | | | 4 | | 10 | | 15 | 0.5 | | | Xtln. epidote-garnet skarn in combination with massiv finegrain magnetite - chalcopyrite developed alo fractures primarily and di sominated through the mag. in some sections |
| 190.5 | 192.3 | 1.7 | 3440 | 1.8 | 0.37 | 37.60 | | | | | | | | | | | | | | |
| 192.3 | 194.8 | 2.5 | 3441 | 2.5 | 0.52 | | | | | | | | | | | | | | | |
| 194.8 | 199.8 | 4.9 | 3442 | 5.0 | 0.46 | 50.00 | | | | | | | | | | | | | | |
| 199.8 | 205.2 | 5.2 | 3443 | 5.2 | 0.83 | 54.60 | | | | | | | | | | | | | | |
| 205.2 | 210.5 | 5.3 | | 5.3 | | | 1 | | 20 | | | | | | | | 79 | | | cryst. grayish white lime- stone - disseminated chalc pyrite |
| 209.2 | 209.6 | 0.1 | 3444 | 0.4 | 2.35 | 54.00 | | | | | | | | | | | | | | |
| 210.5 | 221 | 10.5 | | 10.5 | | | | | | 0.2 | | | | | | | | BDYK | | |
| | | | | | | | | | | | | | | | | | | 100 | | dark dense finegrain basic |

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# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

HOLE No. 20

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PROPERTY ARCTIC CHIEF

Coord. N 50095 E 49929 ELEVATION 2942 BEARING S 85 E INCLINATION -42°30' DATE FROM 16 July TO 20 July/63

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 33.5 | 0 | | | | | | | | | | | | | | | | | | Casing through overburden |
| 33.5 | 34.5 | 0.9 | | | 1.0 | | | | | | | 0.5 | 95 | 95 | | 5 | | | Skarn | massive medium grain garnet skarn. |
| 34.5 | 58.5 | 23.8 | | 24 | | | | | | | Tr. malac. | 10 | | 8 | | 45 | 2 | 35 | Skarn Basic dyke | medium grain light greenish porphyritic diortized epidote garnet skarn |
| 58.5 | 108.7 | 47.6 | | 50.2 | | | 0.8 | | 2 | | Tr. malac. 0.1 FeO | 30 | | 45 | 0.1 | 8 | 14 | | Skarn | complete replacement by garnetiferous epidote skarn-chalcopyrite developed along fractures |
| 56.0 | 60.5 | 4.5 | 3452 | 4.5 | 0.50 | | | | | | | | | | | | | | | |
| 60.5 | 65.5 | 5.0 | 3453 | 5.0 | 0.82 | | | | | | | | | | | | | | | |
| 65.5 | 70.5 | 5.0 | 3454 | 5.0 | 0.64 | | | | | | | | | | | | | | | |
| 70.5 | 75.5 | 4.9 | 3455 | 5.0 | 0.42 | | | | | | | | | | | | | | | |
| 75.5 | 80.5 | 3.7 | 3456 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 80.5 | 85.5 | 5.0 | 3457 | 5.0 | 0.23 | | | | | | | | | | | | | | | |
| 85.5 | 90.5 | 5.0 | 3458 | 5.0 | 0.40 | | | | | | | | | | | | | | | |
| 90.5 | 95.5 | 5.0 | 3459 | 5.0 | 0.90 | | | | | | | | | | | | | | | |
| 95.5 | 100.5 | 4.4 | 3460 | 5.0 | 1.45 | | | | | | | | | | | | | | | |
| 100.5 | 105.5 | 5.0 | 3461 | 5.0 | 0.80 | | | | | | | | | | | | | | | |
| 105.5 | 108.7 | 2.3 | 3462 | 3.2 | 0.42 | 16.30 | | | | | | | | | | | | | | |

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## DIAMOND DRILL LOG

HOLE No. 20 DD-34



PROPERTY ARCTIC CHIEF

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 108.7 | 111.4 | 2.7 | | 2.7 | | | | | | | | | | | | | 100 | | Sed. | medium grain white Xtln. limestone |
| 111.4 | 115.6 | 3.2 | 3463 | 4.2 | 0.22 | | Tr. | | | | Tr. malac. | 20 | | 40 | | 20 | 20 | | Skarn | epidote-garnet skarn |
| 115.6 | 130.5 | 12.5 | | 14.9 | | | | | | | | | | | | 100 | | | Sed. | white and gray limestone |
| 130.5 | 199 | 61.9 | | 68.5 | | | | | | | | | | | 1 | | 99 | | Sed. | grayish white and gray limestone |

SIGNED_____

# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

HOLE No. 21 DD-64

Page 1 of 3

PROPERTY ARCTIC CHIEF

Coord. N 49639 E 49852 ELEVATION 2978 BEARING N84 30E INCLINATION -45° DATE FROM July 16 TO 20/64

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 26 | 0 | | | | | | | | | | | | | | | | | | Casing through overburden |
| 26 | 31.7 | 4.9 | | 5.7 | | | | | | | | | | | | | | | Intr. | med. grain grano - diorite |
| 31.7 | 43.3 | 11.5 | | 11.6 | | | | | | | 0.2 Rho | 5 | | | | 95 | | | Transitional | meta diorite (diortized skarn) |
| 43.3 | 70.7 | 26.2 | | 27.4 | | | | | | | | | | | | 100 | | | Dyke | porphyritic dyke (basic) |
| 70.7 | 116.2 | 45.1 | | 45.5 | | | | | | | | | | | | 100 | | | Hypabyssal | porphyritic dyke (basic) |
| 116.2 | 119.4 | 3.2 | | 3.2 | | | | | | | 2 Rho | 1 | | | | 97 | | Tr. Feld. | Skarn | green silic. skarn porphroblasts of pink rhodonite |
| 119.4 | 120.2 | 0.8 | | 0.8 | | | | | | | | | | | | | | | Plutonic | medium grain quartz diorite |
| 120.2 | 123. | 2.8 | | 2.8 | | | | | | | 2 Rho | 1 | | 1 | | 94 | | 2 Feld. | Skarn | green - silic. skarn characterized by porphroblasts of pink rhodonite |
| 123 | 149.6 | 26.6 | | 26.6 | | | | | | | | | | | | 100 | | | Hypabyssal | porphyritic (basic) dyke- diss. pyrite throughout the dyke |

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# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 21

Page 2' of

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 149.6 | 168.2 | 18.1 | | 18.6 | | | Tr. | | | | | 20 | | 35 | | 30 | 15 | | Skarn | finegrain blended garnet epidote skarn |
| 168.2 | 183.2 | 14.7 | | 15. | | | 0.2 | | Tr. | | | 20 | | 35 | | 30 | 15 | | Skarn | cockade-blended to banded garnet epidote skarn |
| 168.2 | 173.2 | 5. | 3464 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 173.2 | 178.2 | 5. | 3465 | 5.0 | 0.10 | | | | | | | | | | | | | | | |
| 178.2 | 183.2 | 4.7 | 3466 | 5.0 | 0.13 | | | | | | | | | | | | | | | |
| 183.2 | 258.2 | | | 75 | | | 1.9 | Tr. | 65 | | 0.5 marasite | 10 | | 10 | | 3 | 10 | | Skam | greenishbrown lime-silicate in combination with massive magnetite replacing original sediment - chalcopyrite in clots & stringers along fractures |
| 183.2 | 188.2 | 5. | 3467 | 5.0 | 0.15 | | | | | | | | | | | | | | | |
| 188.2 | 193.2 | 5. | 3468 | 5.0 | 0.50 | | | | | | | | | | | | | | | |
| 193.2 | 198.2 | 5. | 3469 | 5.0 | 0.23 | 47.60 | | | | | | | | | | | | | | |
| 198.2 | 203.2 | 4.7 | 3470 | 5.0 | 0.12 | | | | | | | | | | | | | | | |
| 203.2 | 208.2 | 5. | 3471 | 5.0 | 0.20 | 27.60 | | | | | | | | | | | | | | |
| 208.2 | 213.2 | 5. | 3472 | 5.0 | 0.08 | 53.60 | | | | | | | | | | | | | | |
| 213.2 | 218.2 | 5. | 3473 | 5.0 | 0.13 | 58.40 | | | | | | | | | | | | | | |
| 218.2 | 223.2 | 5.8 | 3474 | 5.0 | 0.60 | | | | | | | | | | | | | | | |
| 223.2 | 228.2 | 5.0 | 3475 | 5.0 | 0.52 | | | | | | | | | | | | | | | |
| 228.2 | 233.2 | 5.0 | 3476 | 5.0 | 0.50 | | | | | | | | | | | | | | | |
| 233.2 | 238.2 | 5.0 | 3477 | 5.0 | 0.30 | 53.20 | | | | | | | | | | | | | | |
| 238.2 | 243.2 | 5.0 | 3478 | 5.0 | 1.05 | 49.60 | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 21

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Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 243.2 | 248.2 | 5.0 | 3479 | 5.0 | 0.63 | 53.60 | | | | | | | | | | | | | | |
| 248.2 | 253.2 | 5.0 | 3480 | 5.0 | 0.72 | 48.80 | | | | | | | | | | | | | | |
| 253.2 | 258.2 | 5.0 | 3481 | 5.0 | 0.30 | 45.80 | | | | | | | | | | | | | | |
| 258.2 | 264.0 | 5.8 | 3482 | 5.8 | 0.57 | | | | | | | | | | | | | | | |
| 258.2 | 264. | 5.8 | | 5.8 | | | 0.8 | | 2 | | | 10 | | 15 | | 67 | 5 | | Skarn | mottled garnet-epidote sk |
| 264. | 277.8 | 12.6 | | 13.8 | | | | | | | | | | | | 5 | 95 | | Sed. | grayish white limestone |
| 277.8 | 288 | 10.2 | | 10.2 | | | | | | | | | | | | | 100 | | Sed. | Xtln.-thin banded gray limestone |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 22

Page 1 of 2 of

Coord. N 49842 E 49482 ELEVATION 3065.5 BEARING N45°E INCLINATION -45°30' DATE FROM July 22 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3 | 0 | | | | | | | | | | | | | | | | | | casing through overbur |
| 3 | 30 | 23.8 | | 27. | | | | | | | | 10 | | | 0.1 | 70 | 20 | | Skarn | pale green lime silicate |
| 30 | 41.2 | 10.5 | | 11.2 | | | | | | | | 5 | | 60 | | 15 | 20 | | Skarn | porphyritic rhodonite ga skarn |
| 41.2 | 44.2 | 3.0 | | 3.0 | | | | | | | | 10 | | 2 | | 83 | 5 | | skarn | pale green silicate |
| 44.2 | 82.3 | 37.5 | | 38.1 | | | | | | | | 10 | | 70 | | 15 | 5 | | Skarn | porphyritic rhodonite ga skarn (altered diorite?) |
| 82.3 | 115.4 | 23.2 | | 33.1 | | | | | | | | 25 | | 20 | 1 | 49 | 5 | | Skarn | alternating bands of epi and garnet skarn |
| 112.2 | 117.2 | 4.6 | 3483 | 5.0 | 0.02 | | | | | | | | | | | | | | | |
| 115.4 | 122.2 | 6.6 | | 6.8 | | | 0.3 | 0.3 | 1 | | | 25 | | | | 68 | 5 | | Skarn | fine grain light green si cate mineralized with di grains of chalcopyrite a bornite |
| 117.2 | 122.2 | 4.7 | 3484 | 5.0 | 0.55 | | | | | | | | | | | | | | | |
| 122.2 | 156.5 | | | 34.3 | | | 5.5 | 35 | 65 | | 0.5 olivine 0.3 Pyrrhotite 5 chlorite | 1 | | | 3.0 | 12 | 5 | | Ore.min. | light green silicate min aliced with bands of magnetite with dissemin clots and grains of cha pyrite and bornite throu |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 22

Page 2 of

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 122.2 | 127.2 | 4.9 | 3485 | 5.0 | 1.60 | 34.00 | | | | | | | | | | | | | | |
| 127.2 | 132.2 | 5.0 | 3486 | 5.0 | 2.40 | 43.60 | | | | | | | | | | | | | | |
| 132.2 | 137.2 | 5.0 | 3487 | 5.0 | 3.75 | 40.80 | | | | | | | | | | | | | | |
| 137.2 | 142.2 | 5.0 | 3488 | 5.0 | 2.60 | 18.00 | | | | | | | | | | | | | | |
| 142.2 | 147.2 | 4.4 | 3489 | 5.0 | 2.30 | 28.00 | | | | | | | | | | | | | | |
| 147.2 | 151.5 | 4.2 | 3490 | 4.3 | 2.00 | 47.20 | | | | | | | | | | | | | | |
| 151.5 | 154.4 | 2.9 | 3491 | 2.9 | 0.70 | | | | | | | | | | | | | | | |
| 154.4 | 159.4 | 4.9 | 3492 | 5.0 | 0.17 | | | | | | | | | | | | | | | |
| 159.4 | 164.4 | 5.0 | 3493 | 5.0 | 0.10 | 1.20 | | | | | | | | | | | | | | |
| 156.5 | 164.4 | 7.9 | | 7.9 | | | 0.2 | Tr. | | | | 1 | | 2 | 0.1 | 77 | 20 | | Skarn | green lime silicate |
| 164.4 | 167 | 2.6 | 3494 | 2.6 | 0.03 | 39.60 | | | | | | | | | | | | | | |
| 167 | 171 | 3.4 | 3495 | 4.0 | 0.17 | 53.20 | | | | | | | | | | | | | | |
| 164.4 | 171.0 | 6.3 | | 6.6 | | | 0.1 | 0.05 | 81 | pyrrhotite 5 Chlorite | tr. | Tr. | | | 0.2 | 14 | Tr. | | Ore.min. | massive magnetite - mino chalcopyrite and bornite |
| 171.0 | 218 | 44.6 | | 47 | | | | | | | Tr. Tetrahidrite | | | | | | 100 | | Sed. | medium grain Xtln. white limestone - fault zone f 216-218 |
| 218 | 235 | 16.8 | | 17 | | | | | | | | | | | | | 100 | | Sed. | Xtln. gray limestone. |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 23

Page 1 of 3 of

Coord. N 49639 E 49852 ELEVATION 2978 BEARING N84°30'E INCLINATION -65° DATE FROM July 21 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 20 | 0 | | | | | | | | | | | | | | | | | | Casing through overburd |
| 20 | 25.2 | 5.2 | | 5.2 | | | | | | | | 1 | | 2 | Tr. | 96 | 1 | | Skarn | porphyritic rhodonite si cate with pale green gr mass |
| 25.2 | 32.0 | 6.4 | | 6.8 | | | | | | | | | | | | 100 | | | Intr. | altered quartz diorite |
| 32. | 33.8 | 1.8 | | 1.8 | | | | | | | | 1 | | 2 | | 96 | 1 | | Skarn | porphyritic rhodonite s cate |
| 33.8 | 34.2 | 0.4 | | 0.4 | | | | | | | | | | | | 100 | | | Intr. | altered quartz diorite |
| 34.2 | 47.4 | 11.8 | | 13.2 | | | | | | | | 1 | | 2 | | 96 | 1 | | Skarn | porphyritic rhodonite s cate |
| 47.4 | 60.3 | 12.5 | | 12.9 | | | | | | | | | | | | 100 | | | Intr. | altered quartz diorite |
| 60.3 | 66.2 | 2.8 | | 5.9 | | | | | | | | 10 | | 1 | Tr. | 79 | 10 | | Skarn | pale green lime silicat |
| 66.2 | 76.3 | 9.9 | | 10.1 | | | | | | | | | | | | 100 | | | Int | altered quartz diorite |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 23

Page 2 of

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 76.3 | 173.3 | 96.5 | | 97.0 | | | | | | | | | | | | 100 | | | Dyke | porphyritic micro-quartz diorite |
| 173.3 | 191.5 | 18.1 | | 18.2 | | | Tr. | | | | 2 Rho. | 5 | | 5 | 1 | 87 | 5 | | Skarn | mottled garnet-epidote skarn |
| 191.5 | 213.4 | 21.5 | | 21.9 | | | 0.7 | | Tr. | | Tr. FeO | 5 | | 5 | | 84 | 5 | | Skarn | epidote-garnet skarn mineralized with minor chalcopyrite |
| 191.5 | 196.5 | 5.0 | 8703 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 196.5 | 201.5 | 5.0 | 8704 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 201.5 | 206.5 | 5.0 | 8705 | 5.0 | 0.17 | | | | | | | | | | | | | | | |
| 206.5 | 213.4 | 6.4 | 8706 | 6.9 | 0.08 | | | | | | | | | | | | | | | |
| 213.4 | 266.8 | 53.4 | | 53.4 | | | | | 0.5 | | | 10 | | 5 | 5 | 75 | 5 | | Skarn | medium grain to finegrained light green lime silicate minor diortization |
| 266.8 | 327.6 | 59.8 | | 60.8 | | | 0.05 | 0.05 | 7 | | 70 Chl. | 1 | | | | 52 | 20 | | Sed. | green "chlorite rich" lime silicate mineralized with disseminated magnetite - clot of chalcopyrite and bornite |
| 267.5 | 269.7 | 2.2 | 8707 | 2.2 | 0.08 | 12.60 | | | | | | | | | | | | | | |
| 305.5 | 311.6 | 6.1 | 8708 | 6.1 | 0.06 | 20.00 | | | | | | | | | | | | | | |
| 319.3 | 320.5 | 1.2 | 8709 | 1.2 | 0.57 | 14.60 | | | | | | | | | | | | | | |
| 327.6 | 332.3 | 6.7 | | 6.7 | | | | | | | | Tr. | | 30 | | 69 | 1 | | Ska | mottled and serpentenized garnet-lime silicate |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 23

Page 3

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 332.3 | 357.5 | 24.0 | | 25.2 | | | | | | | 5 Chl. | | | | 30 | 25 | 46 | | Sed. | mottled to granular se tenized silaceous lime |
| 357.5 | 377.8 | 20.1 | | 20.3 | | | | | | | 1 Chl. | 10 | | 40 | 1 | 47 | 1 | | Skarn | mottled garnet skarn |
| 377.8 | 407. | 28. | | 29.2 | | | | | | | 0.1 FeO | | | | | 100 | | | Dyke | medium grain diorite d |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 24

Page 1 of 2 of

Coord. N 49842 E 49842 ELEVATION 3065.5 BEARING N45°30'E INCLINATION -70° DATE FROM July 24 TO 25

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Limst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3 | 0 | | | | | | | | | | | | | | | | | | Casing in bedrock |
| 3 | 27.9 | 21.8 | | 24.9 | | | | | | | | 8 | | 2 | 0.1 | 70 | 20 | | Skarn | green lime-silicate (colo from diopside & epidote?) |
| 27.9 | 50.8 | 22.6 | | 22.8 | | | | | | | | 5 | | 60 | 1 | 14 | 20 | | Skarn | paphyritic rhodonite garn skarn |
| 50.8 | 61.3 | 9.9 | | 10.5 | | | | | | | | 5 | | 5 | 1 | 69 | 20 | | Skarn | porphyritic garnet rhodon skarn (dioritized) |
| 61.3 | 74.5 | 11.1 | | 13.2 | | | | | | | | 5 | | | 1 | 69 | 25 | | Skarn | dioritized-porphyritic li silicate (green) |
| 74.5 | 88.4 | 11.4 | | 13.9 | | | | | | | | 5 | | 10 | 1 | 79 | 5 | | Skarn | porphyritic rhodonite garnet skarn |
| 88.4 | 96.4 | 7.5 | | 8.0 | | | | | | | | 5 | | 20 | | 70 | 5 | | Skarn | alternating bands of garn and epidote skarn |
| 96.4 | 104.5 | 6.9 | | 8.1 | | | | | | | 5 chlorite | 10 | | | 1 | 79 | 5 | | Skarn | light green lime silicat |
| 104.5 | 136.5 | 29.9 | | 32.0 | | | 2 | 0.4 | 60 | | 10 chlorite | | | | 1 | 22 | 5 | | Mind.Sed. | massive magnetite; combi tion with chalcopyrite a bornite emplaced in chlo rich sediment |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 24

Page 2 of

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO _____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 104.5 | 109.5 | 5.0 | 3496 | 5.0 | 0.40 | 36.00 | | | | | | | | | | | | | | |
| 109.5 | 114.5 | 4.0 | 3497 | 5.0 | 1.32 | | | | | | | | | | | | | | | |
| 114.5 | 119.5 | 4.9 | 3498 | 5.0 | 0.80 | 30.00 | | | | | | | | | | | | | | |
| 119.5 | 124.5 | 4.3 | 3499 | 5.0 | 1.15 | 34.80 | | | | | | | | | | | | | | |
| 124.5 | 129.5 | 4.6 | 3500 | 5.0 | 0.20 | 38.00 | | | | | | | | | | | | | | |
| 129.5 | 133. | 3.5 | 8701 | 3.5 | 0.20 | 50.40 | | | | | | | | | | | | | | |
| 133. | 136.5 | 3.4 | 8702 | 3.5 | 2.15 | 31.60 | | | | | | | | | | | | | | |
| 136.5 | 179 | 40.3 | | 42.5 | | | | | | | 0.5 limonite | | | | | | 100 | | | White Xtln. limestone |
| 179 | 180.5 | 1.5 | | 1.5 | | | | | | | | | | | | | 100 | | | grey Xtln. limestone |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 25

Page 1 of 3

Coord. N 49686 E 49849 ELEVATION 2975 BEARING N 85° E INCLINATION -46° DATE FROM July 30 TO August 2

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 25 | 0 | | | | | | | | | | | | | | | | | | Casing through overburden |
| 25 | 62.5 | 30 | | 37.5 | | | | | | | 1 Rho. | | 10 | 10 | | 67 | 2 | | Skarn | mottled diopside garnet epidote |
| 62.5 | 80. | 16.2 | | 17.5 | | | | | | | 20 Rho. | 10 | 10 | | | 48 | 2 | | Skarn | porphyritic lime-silicate rhodonite (altered diorit |
| 80. | 81. | 1.0 | | 1.0 | | | | | | | | | | | | 100 | | | Intr. | diorite |
| 81. | 98.8 | 16.3 | | 17.8 | | | | | | | 2 Diopside | 1 | | 2 | | | 15 | | Skarn | diortized diopside rich silicate |
| 98.8 | 109.2 | 8.9 | | 10.4 | | | 0.01 | | | | Tr. malacite | 5 | 2 | | | 91 | 1 | | Skarn | diopside-epidote lime sil cate (fault ft. 109-104.5 ~~limonite~~) ~~chalcopyrite~~ an |
| 103 | 104.5 | 1.0 | 8720 | 1.5 | 1.10 | | | | | | 1 FeO | | | | | | | | | malacite |
| 109.2 | 157. | 46.6 | | 47.8 | | | | | | | | | | | 0.5 | 99 | 1 | | Skarn | medium grain altered dior |
| 157. | 178.9 | 21.5 | | 21.9 | | | Tr. | | | | | 5 | 10 | 5 | | 78 | 2 | | Skarn | epidote-diopside garnet skarn (mottled to finegra |

# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 25

Page 2

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 178.9 | 222.2 | 42.6 | | 43.3 | | | 0.5 | | | | | 5 | 5 | 5 | | 79 | 5 | | Skarn | garnet epidote diopsi skarn- Chalcopyrite a fract. |
| 178.9 | 183.9 | 5.0 | 8721 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 183.9 | 188.9 | 4.5 | 8722 | 5.0 | 0.11 | | | | | | | | | | | | | | | |
| 188.9 | 193.9 | 5.0 | 8723 | 5.0 | 0.12 | | | | | | | | | | | | | | | |
| 193.9 | 198.9 | 5.0 | 8724 | 5.0 | 0.15 | | | | | | | | | | | | | | | |
| 198.9 | 203.9 | 5.0 | 8725 | 5.0 | 0.25 | | | | | | | | | | | | | | | |
| 203.9 | 208.9 | 5.0 | 8726 | 5.0 | 0.18 | | | | | | | | | | | | | | | |
| 208.9 | 213.9 | 5.0 | 8727 | 5.0 | 0.27 | | | | | | | | | | | | | | | |
| 222.2 | 229.9 | 7.3 | | 7.7 | | | 0.8 | Tr. | 90 | | | | | | | 10 | | | Ore.min. | replacement by massiv magnetite containing of chalcopyrite |
| 213.9 | 218.9 | 4.4 | 8728 | 5.0 | 0.35 | | | | | | | | | | | | | | | |
| 218.9 | 222.2 | 3.3 | 8729 | 3.3 | 0.47 | | | | | | | | | | | | | | | |
| 222.2 | 229.9 | 7.3 | 8730 | 7.3 | 0.43 | 48.60 | | | | | | | | | | | | | | |
| 229.9 | 234.9 | 5.0 | 8731 | 5.0 | 0.35 | | | | | | | | | | | | | | | |
| 234.9 | 240.1 | 4.7 | 8732 | 5.2 | 0.26 | | | | | | | | | | | | | | | |
| 229.9 | 240.1 | 9.6 | | 10.2 | | | 0.8 | Tr. | 0.5 | | 4 diopside | 5 | | 89 | | 69 | 1 | | Skarn | garnet diopside epido mineralized with cha pyrite and minor mag along fractures |
| 240.1 | 260.9 | 18.5 | | 20.8 | | | Tr. | | Tr. | | | 2 | 5 | 35 | | 55 | 3 | | Skarn | diopside garnet skarn |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 25

Page 3 of

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO _____

| FOOTAGE | | | Sample No. | Length Ft. | ASSAYS | | ESTIMATED % COMPOSITION OF ORE & SKARN | | | | | | | | | | | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Recov. | | | Cu. | Fe. | CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | |
| 260.9 | 264.9 | 4.0 | 8723 | 4.0 | 0.10 | 5.80 | 0.2 | 0.1 | 5 | | | 2 | 5 | 10 | 5 | 58 | 15 | | Skarn | diopside garnet skarn mineralized with diss. magnetite minor clots of chalcopyrite and grains of bornite |
| 264.9 | 273.2 | 7.3 | | 8.3 | | | | | | | | 5 | 30 | 30 | | 33 | 2 | | Skarn | diopside-garnet skarn |
| 273.2 | 280.6 | 7.4 | | 7.4 | | | 0.3 | Tr. | 85 | | | | 5 | | | 8 | 2 | | Ore.min. | replacement by massive magnetite - clots of chal pyrite in fractures along margin of zone |
| 273.2 | 278.2 | 5.0 | 8734 | 5.0 | 0.30 | 39.20 | | | | | | | | | | | | | | |
| 278.2 | 280.6 | 2.4 | 8735 | 2.4 | 0.10 | 55.60 | | | | | | | | | | | | | | |
| 280.6 | 300. | 19.1 | | 19.4 | | | | | | | | | | | | 1 | 99 | | Sed. | gray Xtln. limestone. |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 26

Page 1 of 2

Coord. N 49812 E 49526 ELEVATION 3053.5 BEARING N45°E INCLINATION -46° 30' DATE FROM July 26 TO 29

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 | 0 | | | | | | | | | | | | | | | | | | Casing through overburden |
| 6 | 52.8 | 44.2 | | 46.8 | | | | | | | | | | | | 95 | 5 | | (dyke?) | lime silicate & (dioritize |
| 52.8 | 77.3 | 32.8 | | 24.5 | | | 0.1 | | 3 | | 5 chlorite | 1 | | 5 | | 66 | 20 | | Sed. | green lime silicate mineralized minor magnetite and bornite |
| 67.3 | 72.3 | 4.7 | 8710 | 5.0 | 0.08 | | | | | | | | | | | | | | | |
| 72.3 | 77.3 | 4.5 | 8711 | 5.0 | 0.36 | | | | | | | | | | | | | | | |
| 77.3 | 82.3 | 4.7 | 8712 | 5.0 | 4.90 | 38.40 | | | | | | | | | | | | | | |
| 77.3 | 94.8 | | | 17.5 | | | 2.5 | 3.5 | 50 | | 5 chlorite | 1 | | Tr. | | 33 | 5 | | Sed. | finegrain green lime sili mineralized |
| 82.3 | 87.3 | 5.0 | 8713 | 5.0 | 2.30 | 52.40 | | | | | | | | | | | | | | |
| 87.3 | 92.3 | 4.5 | 8714 | 5.0 | 2.78 | 6.00 | | | | | | | | | | | | | | |
| 92.3 | 97.3 | 4.0 | 8715 | 5.0 | 3.80 | 2.00 | | | | | | | | | | | | | | |
| 94.8 | 118.9 | | | 24.1 | | | 0.1 | 0.9 | 2 | | | 1 | | 25 | | 69 | 2 | | Skarn | garnet and epidote skarn mineralized |
| 97.3 | 102.3 | 5.0 | 8716 | 5.0 | 1.23 | | | | | | | | | | | | | | | |
| 102.3 | 107.3 | 4.8 | 8717 | 5.0 | 0.52 | | | | | | | | | | | | | | | |
| 107.3 | 112.3 | 3.3 | 8718 | 5.0 | 0.39 | | | | | | | | | | | | | | | |
| 112.3 | 118.9 | 6.3 | 8719 | 6.6 | 0.85 | | | | | | | | | | | | | | | |

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 26



Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 118.9 | 121.6 | 2.7 | | 2.7 | | | | | | | 2 Chlorite | 1 | | Tr. | 1 | 76 | 20 | | Skarn | lime silicate |
| 121.6 | 124.6 | 3.0 | | 3.0 | | | | | | | | | | | | 100 | | | Plutonic | altered diorite |
| 124.6 | 137.3 | 11.2 | | 12.7 | | | | | | | Chl. 1<br>2<br>Rho. | 1 | | 30 | | 60 | 5 | | Skarn | porphyritic garnet dpido skarn |
| 137.3 | 194. | | | 56.7 | | | | | | | | | | | | | 100 | | Sed. | grayish-white limestone. |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 27

Page 1 of 3

Coord. N 49812 E 49526 ELEVATION 3053 BEARING N 45° E INCLINATION -70° DATE FROM July 30 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 | 0 | | | | | | | | | | | | | | | | | | |
| 6 | 51.4 | 39.8 | | 45.4 | | | | | | | | | | | | 95 | .5 | | (dyke?) | porphyritic diortized silicate (limy) |
| 51.4 | 54.8 | 2.9 | | 3.4 | | | | | | | | 10 | | 1 | | 79 | 10 | | Skarn | green lime silicate |
| 54.8 | 58.6 | 3.7 | | 3.8 | | | | | | | 1 Rho. | 5 | | 40 | | 52 | 2 | | Skarn | porphyritic garnet epido |
| 58.6 | 63.0 | 4.4 | 8736 | 4.4 | 0.50 | | 0.4 | 0.2 | X | | Tr. malacite 1 Rho. | 0.5 | | 20 | | 76 | 2 | | Skarn | porphyritic garnet skarn |
| 63.0 | 78.8 | 15.7 | | 15.8 | | | 0.2 | | 15 | | | 10 | | 12 | 1 | 42 | 20 | | Skarn | mottled to banded lime silicate mineralized |
| 63.0 | 78.8 | 15.7 | | | 0.10 | 11.40 | | | | | | | | | | | | | | |
| 63.0 | 68.0 | 4.9 | 8737 | 5.0 | 0.10 | 9.20 | | | | | | | | | | | | | | |
| 68.0 | 73.0 | 5.0 | 8738 | 5.0 | 0.10 | | | | | | | | | | | | | | | |
| 73.0 | 78.0 | 5.0 | 8739 | 5.0 | 0.65 | 34.60 | | | | | | | | | | | | | | |
| 78.8 | 96.0 | 16.9 | | 17.2 | | | 0.05 | 0.05 | 70 | | 10 chl. | 5 | | | 2 | 12 | 1 | | Min.sed. | mass magnetite |

SIGNED

DD-34

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 27

Page 2 of

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE | | | Sample No. | Length Ft. | ASSAYS | | ESTIMATED % COMPOSITION OF ORE & SKARN | | | | | | | | | | | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Recov. | | | Cu. | Fe. | CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | |
| 78.0 | 83.0 | 4.7 | 8740 | 5.0 | 0.65 | 34.60 | | | | | | | | | | | | | |
| 83.0 | 88.0 | 5.0 | 8741 | 5.0 | 0.12 | 50.40 | | | | | | | | | | | | | |
| 88.0 | 93.0 | 5.0 | 8742 | 5.0 | 0.33 | 19.20 | | | | | | | | | | | | | |
| 93.0 | 98.0 | 5.0 | 8743 | 5.0 | 0.47 | 13.00 | | | | | | | | | | | | | |
| 96.0 | 101.0 | 4.9 | | 5.0 | | | 0.4 | Tr. | 10 | | 10 chlorite | 5 | | | | 74 | 1 | | Min. sed. | diopside-epidote skarn mineralized - minor magnetite |
| 98.0 | 103. | 4.3 | 8744 | 5.0 | 0.65 | | | | | | | | | | | | | | |
| 103. | 108. | 5.0 | 8745 | 5.0 | 0.28 | | | | | | | | | | | | | | |
| 108. | 113 | 4.7 | 8746 | 5.0 | 0.17 | | | | | | | | | | | | | | |
| 101. | 140. | 38.7 | | 39. | | | 0.2 | | | | | 20 | 5 | 40 | | 35 | 1 | | Skarn | garnetiferous epidote s |
| 113 | 118 | 5.0 | 8747 | 5.0 | 0.05 | | | | | | | | | | | | | | |
| 118 | 123 | 5.0 | 8748 | 5.0 | 0.12 | | | | | | | | | | | | | | |
| 123 | 128 | 4.8 | 8749 | 5.0 | 0.03 | | | | | | | | | | | | | | |
| 128 | 133 | 4.9 | 8750 | 5.0 | 0.18 | | | | | | | | | | | | | | |
| 133 | 138 | 5.0 | 8751 | 5.0 | 0.47 | | | | | | | | | | | | | | |
| 140. | 154. | 13.6 | | 14. | | | Tr. | 0.5 | 2 | | 15 chl. | | | | 2 | 71 | 10 | | Min.sed. | chlorite-rich lime sil |
| 138 | 143 | 5.0 | 8752 | 5.0 | 0.08 | | | | | | | | | | | | | | |
| 143 | 148 | 5.0 | 8753 | 5.0 | tr. | | | | | | | | | | | | | | |
| 148 | 153 | 3.0 | 8754 | 5.0 | 0.23 | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 27

Page 3 of

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54. | 162. | 7.7 | | 8 | | | Tr. | 0.05 | 90 | | 0.3 Pyrrhotite | | | | 3 | 7 | Tr. | | Min. sed. | Mass magnetite |
| 153 | 158 | 5.0 | 6755 | 5.0 | 1.65 | 42.40 | | | | | | | | | | | | | | |
| 158 | 162 | 3.7 | 6756 | 4.0 | 0.32 | 44.40 | | | | | | | | | | | | | | |
| 162 | 185 | 22.6 | | 23. | | | | | | | | | | | | | 100 | | Sed. | granular grayish white limestone. |

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 29



Coord. N 49892 E 49451 ELEVATION 3067 BEARING N 45° E INCLINATION -44°30' DATE FROM Aug. 1

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 | 0 | | | | | | | | | | | | | | | | | | |
| 6 | 38.1 | 30.1 | | 32.1 | | | | | | | | 40 | | 15 | | 44 | 1 | | Skarn | garnetiferous epido |
| 38.1 | 72.0 | 33.8 | | 33.9 | | | | | | | | 30 | 5 | 5 | 5 | 58 | 2 | | Skarn | epidote diopside sk |
| 72. | 112.9 | 40.7 | | 40.9 | | | Tr. | | | | | 30 | | 2- | | 48 | 2 | | Skarn | garnetiferous-epido |
| 112.9 | 117. | 4.0 | 8757 | 4.1 | 0.10 | | 0.1 | | | | | 10 | 10 | | | 70 | 10 | | Skarn | epidote-diopside sk |
| 117.0 | 137.3 | 19.5 | | 20.3 | | | 0.7 | 0.4 | 85 | | | 2 | 1 | | 2 | 9 | 1 | | Ore.min. | massive magnetite s chalcopyrite |
| 117. | 122 | 5.0 | 8758 | 5.0 | 1.42 | 39.80 | | | | | | | | | | | | | | |
| 122. | 127 | 4.5 | 8759 | 5.0 | 0.77 | 36.00 | | | | | | | | | | | | | | |
| 127 | 132 | 5.0 | 8760 | 5.0 | 0.52 | 41.20 | | | | | | | | | | | | | | |
| 132 | 137.3 | 5.0 | 8761 | 5.3 | 0.45 | 46.20 | | | | | | | | | | | | | | |
| 137.3 | 145. | 7.5 | | 7.7 | | | 0.5 | Tr. | 25 | | | 2 | 1 | | | 52 | 20 | | Min.sed. | replacement massive netite |
| 137.3 | 142. | 4.5 | 8762 | 4.7 | 0.32 | | | | | | | | | | | | | | | |
| 142. | 145. | 3.0 | 8763 | 3.0 | 0.13 | 26.60 | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 28

Page 2 of

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 145.0 | 161. | 15.9 | | 16.0 | | | 0.3 | Tr. | 5 | | | 2 | 1 | | | 72 | 20 | | Min.sed. | replacement minor magnet |
| 145 | 150 | 5.0 | 8764 | 5.0 | 0.02 | | | | | | | | | | | | | | | |
| 150 | 155 | 5.0 | 8765 | 5.0 | 0.05 | | | | | | | | | | | | | | | |
| 155 | 161 | 5.9 | 8766 | 6.0 | 0.27 | | | | | | | | | | | | | | | |
| 161. | 167.7 | 2.0 | 8767 | 6.7 | 0.78 | 48.80 | 0.05 | | 0.1 | 90 | | | | | | 10 | 1 | | Min.sed. | replacement massive magnetite - fault between ft. 161 and 155 |
| 167.7 | 186 | 23.2 | | 28.3 | | | | | | | | | | | | 2 | 98 | | Sed. | bands of gray and white limestone. |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 29

Page 1 of 3

Coord. N 49734 E 40847 ELEVATION 2974 BEARING N 86° E INCLINATION -46° DATE FROM August 3 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 29 | | | | | | | | | | | | | | | | | | | |
| 29 | 37.3 | 8.2 | | 8.3 | | | | | | | 0.1 malacite 0.5 chrysocola 3 chlorite | 5 | 10 | Tr. | | 81 | 0.5 | | Skarn | diopside chlorite silicat |
| 37.3 | 45.5 | 8.2 | | 8.2 | | | | | | | | | 5 | 5 | | 85 | 5 | | Skarn | diopside-garnet silicate |
| 45.5 | 79.6 | 31.7 | | 34.1 | | | | | | | 0.1 malacite | | | | | 85 | 15 | | Alt. diorite | alternating 3 ft. bands diortized lime silicate altered diorite |
| 79.6 | 97. | 15.4 | | 17.4 | | | | | | | | 5 | | 3 | | 72 | 20 | | Skarn | diortized epidote silica |
| 97. | 102. | 5.0 | | 5.0 | | | | | | | | 5 | | | | 55 | 40 | | Sed. | olive green silicate |
| 102. | 126.4 | 21.3 | | 24.4 | | | 0.1 | | | | 5 chlorite 1 Rhc. | 8 | | 5 | 5 | 57 | 20 | | Alt.sed. | diorrized lime silicate |
| 126.4 | 136.7 | 9.8 | | 10.3 | | | | | | | | | | | | 95 | 5 | | Alt.Intr. | altered diorite |
| 136.7 | 143.8 | 7.0 | | 7.1 | | | Tr. | | | | | | | | | 100 | | | Int | Green diorite |

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# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 29

Page 2 of

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO _____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 148.8 | 163.4 | 19.6 | | 19.6 | | | | | | | | | | | | 99 | 1 | | Alt. Int. | altered diorite (porphyritic) |
| 163.4 | 169.0 | 5.6 | | 5.6 | | | | | | | | | | | | 100 | | | Int. | Fresh diorite |
| 169.0 | 176.6 | 17.5 | | 17.6 | | | | | | | | | | | | 99 | 1 | | Alt.Int. | altered diorite- slightly serpentenized |
| 176.6 | 196.1 | 19.2 | | 19.5 | | | | | | | | | | | | 100 | | | Int. | fresh diorite |
| 196.1 | 211.6 | 15.5 | | 15.5 | | | | | | | | | | | | 99 | 1 | | Alt.Int. | altered diorite |
| 211.6 | 242.4 | 30.8 | | 30.8 | | | | | | | | 10 | 20 | 15 | | 50 | 5 | | Skarn | diortized to mottled and finegrain diopside epido skarn with garnet |
| 242.4 | 258.5 | 15.5 | | 16.1 | | | | | | | | 5 | 10 | | | 70 | 20 | | Alt.sed. | finegrain diopside lime silicate |
| 258.5 | 274.8 | 15.2 | | 16.3 | | | 0.2 | 0.4 | Tr. | | 20 chlorite | 5 | | 0.5 | | 69 | 5 | | Alt.sed. | chlorite rich lime silic |
| 258.5 | 263.5 | 4.9 | 3768 | 5.0 | 1.15 | | | | | | | | | | | | | | | |
| 263.5 | 268.5 | 4.6 | 3769 | 5.0 | 0.80 | | | | | | | | | | | | | | | |
| 268.5 | 273.5 | 4.9 | 3770 | 5.0 | 1.05 | | | | | | | | | | | | | | | |
| 273.5 | 278.2 | 3.1 | 3771 | 4.7 | 1.05 | | | | | | | | | | | | | | | |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 29

Page 3

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ T

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 274.8 | 279.2 | 4.3 | | 4.4 | | | 0.5 | | Tr. | | | 5 | 10 | | | 65 | 20 | | Alt.sed. | diopside epidote lime silicate |
| 279.2 | 295.5 | 14.7 | | 16.3 | | | | | | | | 5 | 10 | | | 75 | 10 | | Alt.sed. | diopside epidote lime silicate |
| 295.5 | 328.4 | 32.8 | | 32.9 | | | Tr. | | 0.5 | | | 15 | | 10 | 10 | 60 | 5 | | Skarn | mottled to diortized epidote garnet skarn |
| 328.4 | 336.5 | 8.1 | | 8.1 | | | 0.4 | | 80 | | | | | | | 20 | | | Ore.min. | replacement by massive magnetite- very minor chalcopyrite |
| 328.4 | 333.4 | 5.0 | 8772 | 5.0 | 0.60 | 32.00 | | | | | | | | | | | | | | |
| 333.4 | 336.5 | 3.1 | 8773 | 3.1 | 0.20 | 48.00 | | | | | | | | | | | | | | |
| 336.5 | 341.2 | 4.7 | | 4.7 | | | | | | | | | | | | | 100 | | Sed. | white Xtln. limestone |
| 341.2 | 345.5 | 4.3 | 8774 | 4.3 | 0.75 | 60.80 | 0.6 | | 90 | | | | | | | 10 | | | Ore.min. | replacement by massive magnetite -very minor chalcopyrite |
| 345.5 | 376 | 31.2 | | 31.5 | | | | | | | | | | | | | 100 | | Sed. | alt. bands of gray & w limestone. |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 30

Page 1 of 1 of

Coord. N 49892 E 49451 ELEVATION 3067 BEARING _____ INCLINATION -70° DATE FROM August 6 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 7 | 0 | | | | | | | | | | | | | | | | | | Casing in bedrock |
| 7 | 43.7 | 36.6 | | 36.7 | | | | | | | | 5 | 10 | 10 | | 72 | 3 | | Skarn | epidote diopside garnet skarn |
| 43.7 | 57.2 | 12.2 | | 13.5 | | | | | | | | 5 | 10 | 20 | | 60 | 5 | | Skarn | mottled garnet diopside skarn |
| 57.2 | 73.1 | 15.8 | | 15.9 | | | | | | | | 5 | 10 | 3 | | 81 | 1 | | Skarn | diortized diopside epido skarn |
| 73.1 | 93.4 | 17.6 | | 20.3 | | | | | | | | 10 | 20 | 3 | | 57 | 10 | | Alt.sed. | diopside epidote rich li silicate - minor garnet |
| 93.4 | 104.5 | 11.0 | | 11.1 | | | Tr. | | | | | 10 | 5 | 1 | | 59 | 25 | | Alt.sed. | green multiple fractured silaceous lime - color f diopside & epidote |
| 104.5 | 115.3 | 9.5 | | 10.8 | | | | | | | | 10 | 10 | | | 70 | 10 | | Alt.sed. | silaceious lime -color f diopside & epidote |
| 115.3 | 121.0 | 4.2 | | 5.7 | | | | | | | | 5 | 5 | | 5 | 25 | 60 | | Alt.sed. | pale green silaceous lime stone |
| 121.0 | 129.5 | 4.7 | | 8.5 | | | | | | | | | | | | | 100 | | | brecciate white limestone |
| 129.5 | 160. | 30.5 | | 30.5 | | | | | | | | | | | | | 100 | | | banded gray and white le |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 31

Page 1 of 2

Coord. N 49901 E 49400 ELEVATION 6063 BEARING N45° E INCLINATION -45° DATE FROM Aug. 11 TO 1963

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3 | 0 | | | | | | | | | | | | | | | | | | Casing in bedrock |
| 3 | 65.8 | 58.4 | | 62.8 | | | Tr. | | | | | 5 | 10 | 20 | | 60 | 5 | | Skarn | mottled garnetiferous dio side skarn |
| 65.8 | 74.9 | 8.8 | | 9.1 | | | | | | | | | 10 | | | 70 | 20 | | Alt.sed. | finegrain lime silicate (diopside) |
| 74.9 | 84.6 | 8.1 | | 9.7 | | | Tr. | | 5 | | | 5 | 15 | | | 55 | 20 | | Alt.sed. | lime silic (diopside) mi magnetite |
| 84.6 | 102.0 | 11.0 | | 17.4 | | | | | | | | 5 | 15 | 3 | | 57 | 20 | | Alt.sed. | finegrain lime silic. (diopside) |
| 102. | 105.4 | 2.1 | | 3.4 | | | | | | | 10 FeO | | | | | 5 | 40 | | Alt.sed. | fault zone -limonite stained lime silic. |
| 105.4 | 114.3 | 7.8 | | 8.9 | | | 0.3 | | 95 | | | | | | 1 | 3 | 1 | | Ore.min. | massive magnetite, very minor chalcopyrite and tr ~~bornite (serpentenized)~~ |
| 105.4 | 110.4 | 4.3 | 8775 | 5.0 | 0.62 | 48.00 | | | | | | | | | | | | | | |
| 110.4 | 114.3 | 2.5 | 8776 | 3.9 | 1.50 | 48.40 | | | | | | | | | | | | | | |

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 31

Page 2 of

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 114.3 | 121.4 | | | 7.1 | | | 0.9 | | 3 | | | 5 | 3 | 8 | | 76 | 5 | | Alt. sed. (skarn) | garnet-epidote-diopside rich lime silicate mineralized with minor magnetite and chalcopyrite |
| 114.3 | 119.3 | 4.3 | 8777 | 5.0 | 0.47 | | | | | | | | | | | | | | | |
| 119.3 | 122.3 | 2.9 | 8778 | 3.0 | 0.55 | | | | | | | | | | | | | | | |
| 121.4 | 126.8 | 5.4 | | 5.4 | | | | 0.3 | 70 | | | | 2 | Tr. | 5 | 20 | 3 | | Min.sed. | massive serpentenized magnetite in a diopside rich lime silicate - very minor bornite |
| 122.3 | 126.8 | 4.5 | 8779 | 4.5 | 0.12 | | | | | | | | | | | | | | | |
| 126.8 | 165 | | | | | | Tr. | | | | | | | | 2 | 3 | 95 | | Sed. | banded granular gray and white limestone |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 32

Page 1 of 1 of

Coord. N 49901 E 49400 ELEVATION 6063 BEARING ____ INCLINATION -90 DATE FROM August 14 1963 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3 | 0 | | | | | | | | | | | | | | | | | | Casing in bedrock |
| 3 | 17.1 | 12.9 | | 14.1 | | | | | | | | 3 | 10 | 20 | | 62 | 5 | | Skarn | mottled garnetiferous d side skarn |
| 17.1 | 21.7 | 4.6 | | 4.6 | | | | | | | | 5 | 10 | 20 | | 62 | 3 | | Skarn | diortized garnetiferous skarn |
| 21.7 | 64.1 | 41.5 | | 42.4 | | | | | | | | 5 | 10 | 20 | | 57 | 8 | | Skarn | mottled garnetiferous d side skarn - minor epid |
| 64.1 | 73.7 | 9.5 | | 9.6 | | | | | | | | 1 | 20 | 15 | | 54 | 10 | | Skarn | mottled diopside - garn skarn |
| 73.7 | 76.2 | 2.4 | | 2.5 | | | | | | | 2 Jasper | | 10 | | | 75 | 15 | | Skarn | banded and brecciated pinkish-green silicate (~~diopside skarn~~) |
| 76.2 | 159.5 | 70.9 | | 83.3 | | | Tr. | | | | Tr. FeO 2 chlorite | | 5 | | | 63 | 30 | | Skarn | multiple fractured & br ciated silic - minor ~~diopside~~ |
| 159.5 | 199 | 37.9 | | 39.5 | | | Tr. | | | | 5 Rho. | 5 | | 3 | | 67 | 20 | | Skarn | diopside skarn (partial diortized) minor garnet and epidote |
| 199 | 218. | 18.5 | | 19 | | | | | | | 15 | 3 | 10 | | | 70 | 2 | | Skarn | porphyritic rhodonite d |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 33

Page 1 of 5 of

Coord. N 50004 E 49311 ELEVATION 3069 BEARING N72°30'E INCLINATION -45° DATE FROM August 21 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3 | 0 | | | | | | | | | | | | | | | | | | Casing in bedrock |
| 3 | 35 | 0.5 | | 0.5 | | | | | | | 5 chlorite | Tr. | 20 | 5 | | 68 | 2 | | Skarn | diopside chlorite garnet skarn |
| 35 | 6.7 | 3.1 | | 3.2 | | | | | | | | | | | | 100 | | | Int. | diorite |
| 6.7 | 13.7 | 4.7 | | 7.0 | | | | | | | | | 5 | 5 | | 89 | 1 | | Alt.Int. | dioritized diopside garn skarn |
| 13.7 | 17.6 | 3.3 | | 3.9 | | | | | | | | | 10 | 40 | | 48 | 2 | | Skarn | mottled and fine grain g iferous diopside skarn |
| 17.6 | 31.6 | 12.5 | | 14.0 | | | | | | | | | 50 | Tr. | | 30 | 20 | | Skarn | finegrain diopside skarn |
| 31.6 | 50.4 | 16.3 | | 18.8 | | | Tr. | | Tr. | | | Tr. | 60 | 15 | | 20 | 5 | | Skarn | medium grain diopside gar skarn |
| 50.4 | 75.0 | 22.3 | | 25.6 | | | | | | | | 2 | 40 | 5 | | 45 | 5 | | Skarn | fine grain and slightly mottled diopside garnet |
| 75.0 | 141.6 | 63.6 | | 66.6 | | | Tr. | | 2 | 5 chlorite | 5 | | 15 | 1 | 1 | 31 | 50 | | Skarn (Alt.sed.) | finegrain fractured light green diopside enriched ~~siliceous~~ limestone - minor chlorite |

DD-34

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY ARCTIC CHIEF

HOLE No. 33

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 141.6 | 152.8 | 11.2 | | 11.2 | | | Tr. | Tr. | 95 | | | | | | 1 | 3 | 1 | | Min.sed. | Replacement by massive s pentenized magnetite-tr chalcopyrite and bornite |
| 141.6 | 146.6 | 5.0 | 8780 | 5.0 | 0.10 | 26.40 | | | | | | | | | | | | | | |
| 152.8 | 154.2 | 1.4 | | 1.4 | | | | | | | 1 chlorite | | 15 | Tr. | Tr. | 34 | 50 | | Skarn (Alt.sed.) | fine grain light green f tured diopside enriched silicate limestone |
| 154.2 | 154.9 | 0.7 | | 0.7 | | | Tr. | | 95 | | 1 chlorite | | | | 1 | 3 | Tr. | | Min.sed. | Replacement by massive s pentenized chloritized m tite |
| 152.8 | 154.9 | 2.1 | 8788 | 2.1 | Tr. | 21.00 | | | | | | | | | | | | | | |
| 154.9 | 161.9 | 6.9 | | 7.0 | | | | | | | 1 chlorite | | | | 1 | 1 | 97 | | Sed. | brecciated to bedded gr white limestone |
| 161.9 | 164.7 | 2.8 | | 2.8 | | | | | | | | | 15 | 10 | 5 | 60 | 10 | | Skarn | garnetiferous-diopside serpentenized on contac |
| 164.7 | 166.4 | 1.7 | | 1.7 | | | | | | | | | | | | | 100 | | Sed. | ~~xxxxxxx~~ grayish-white limestone |
| 166.4 | 170.6 | 4.2 | | 4.2 | | | | | | | | | | | | | 100 | | Sed. | granular grayish-white limestone |

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DD-34

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 33

Page 3

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 170.6 | 175.1 | 4.5 | | 4.5 | | | | | | | | | | | | 2 | 98 | | Sed. | brecciate white limest in a gray silic. groun mass |
| 175.1 | 179.3 | 4.2 | | 4.2 | | | | | | | | | | | | | 100 | | Sed. | brecciate white limest |
| 179.3 | 185.5 | 6.2 | | 6.2 | | | | | | | 5 chlorite | | 20 | 1 | 5 | 65 | 3 | | Skarn (Alt.sed.) | serpentenized diopside limesilic. |
| 185.5 | 196.1 | 10.5 | | 10.6 | | | | | | | Tr. malacite | | 10 | 3 | | 85 | 2 | | Skarn (dyke?) | dioritized diopside sk containing minor epido and garnet and trace o dyke |
| 196.1 | 197.7 | 1.6 | | 1.6 | | | | | | | | 2 | 15 | 25 | | 55 | 3 | | Skarn | dioritized garnetiferou diopside skarn |
| 197.7 | 199.8 | 2.1 | | 2.1 | | | | | | | | | | | | | 100 | | Sed. | white limestone |
| 199.8 | 215.0 | 12.8 | | 15.2 | | | Tr. | | 40 | | tr. malacite 5 chlorite | | 5 | | 5 | 40 | 10 | | Min.sed. | diopside chlorite rich limestone replaced by massive serpentenized magnetite |
| 199.8 | 204.3 | 4.1 | 8782 | 5.0 | Tr. | 11.00 | | | | | | | | | | | | | | |
| 204.3 | 209.3 | 3.6 | 8783 | 5.0 | 0.11 | 9.30 | | | | | | | | | | | | | | |
| 209.8 | 215.0 | 5.1 | 8784 | 5.2 | 0.10 | 8.20 | | | | | | | | | | | | | | |

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 33



Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 215. | 252 | | | 3.7 | | | Tr. | | 12 | | 5 chlorite | | 3 | | 3 | 67 | 10 | | Alt.Sed. (skarn) | finegrain pale green chlorite enriched lime silic. sporadically mineralized with bands of magnetite |
| 238.3 | 243.3 | 5.0 | 8785 | 5.0 | Tr. | 3.80 | | | | | | | | | | | | | | |
| 243.3 | 248.3 | 5.0 | 8786 | 5.0 | Tr. | 1.00 | | | | | | | | | | | | | | |
| 248.3 | 252 | 3.6 | 8787 | 3.7 | 0.01 | 38.40 | | | | | | | | | | | | | | |
| 252 | 279 | 25.8 | | 27 | | | | | Tr. | | 10 chlorite | 2 | 5 | | | 87 | 1 | | skarn | chlorite diopside skarn "nests" of chlorite in a fine grain light green ground mass |
| 279 | 301.2 | 21.7 | | 22.2 | | | 0.2 | 0.2 | 20 | | 5 chlorite | | 3 | 2 | 1 | 69 | 1 | | min.skarn | chlorite-diopside skarn mineralized with sporadic bands of magnetite containing minor bands of chalcopyrite and trace bornite |
| 282. | 286.2 | 4.2 | 8789 | 4.2 | 0.32 | | | | | | | | | | | | | | | |
| 286.2 | 291.2 | 4.7 | 8790 | 5.0 | Tr. | 8.60 | | | | | | | | | | | | | | |
| 291.2 | 296.2 | 4.9 | 8791 | 5.0 | Tr. | 10.40 | | | | | | | | | | | | | | |
| 296.2 | 301.2 | 5.0 | 8792 | 5.0 | Tr. | 24.00 | | | | | | | | | | | | | | |
| 301.2 | 306.7 | 5.5 | 8793 | 5.5 | Tr. | | Tr. | | | | 1 Rho. 2 0.5 Chlorite | | 5 | 2 | | 90 | 1 | | Skarn (Alt.int.) | diortized diopside garnet skarn |
| 306.7 | 310.8 | 4.1 | 8794 | 4.1 | 1.60 | 41.60 | 0.3 | Tr. | 90 | | | | | | 2 | 8 | Tr. | | Min.sed. | replacement by massive magnetite -minor chalcopyrite and trace amounts of bornite |
| 310.8 | 315.7 | 4.9 | | 4.9 | | | | | | | | | | | | | 100 | | Sed. | white Xtln. limestone |

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 3

Page 5

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 315.7 | 316.5 | 0.8 | | 0.8 | | | | | | | | | | | 1 | 99 | | | Dyke | medium grain po dyke |
| 316.5 | 335.8 | 18.0 | | 19.3 | | | | | | | | | | | 1 | | 99 | | Sed. | grayish white l |
| 335.8 | 364.5 | 28.4 | | 28.7 | | | | | | | | | | | | 1 | 99 | | Sed. | bedded gray lim |
| 364.5 | 370.8 | 6.3 | | 6.3 | | | | | | | | | | | | 100 | | | Dyke | medium grain pa acid-feldspar p dyke |
| 370.8 | 377.0 | 6.2 | | 6.2 | | | | | | | | | | | | | 100 | | Sed. | mottled gray li |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 34

Page 1 of 2 of

Coord. N 50107 E 49284 ELEVATION 3068.5 BEARING N74E INCLINATION -45 DATE FROM August 27 TO Sept. 5

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 | 0 | | | | | | | | | | | | | | | | | | Casing in bedrock |
| 6 | 54 | 47.4 | | 48 | | | | | | | | 5 | 20 | 40 | | 50 | 5 | | Skarn | finegrain mottled garneti ferous diopside skarn |
| 54 | 121.5 | 66.1 | | 74.1 | | | Tr. | Tr. | | Tr. | | 4 | 25 | 15 | | 5 | 5 | | Skarn | finegraim garneti ferous diopside skarn - very mi ~~magnetite bornite and~~ chalcopyrite |
| 121.5 | 190.6 | 67. | | 69.1 | | | | | | 0.01 | Tr. malac. 5 chl. | | 30 | 3 | | 47 | 15 | | Skarn (Alt.sed.) | light green finegrain Xt diopside skarn - minor ~~chlorite along fractures~~ mineralized with 10% pyri and trace amounts malaci |
| 190.6 | 201.0 | 10.4 | | 10.4 | | | Tr. | | | | | | 15 | 7 | | 75 | 3 | | Skarn | finegrain mottled diopsi garnet skarn |
| 201. | 221.5 | 19.2 | | 20.5 | | | Tr. | | Tr. | | 2 chlorite | | 15 | 0.5 | Tr. | 77 | 8 | | Skarn | finegrain dense fracture diopside skarn - minor ~~chlorite~~ |
| 221.5 | 284.8 | 63.1 | | 63.3 | | | Tr. | | Tr. | | 2 calcite 0.01 FeO | 2 | 15 | 8 | | 68 | 5 | | Skarn | mottled finegrain diopsi garnet skarn - very mino ~~chalcopyrite~~ |
| 284.8 | 341.4 | 52.6 | | 56.6 | | | ~~Tr.~~ | | Tr. | | Tr. malacite 0.01 Chrysocola | | | 10 | | 62 | 3 | | Skarn | finegrain alternating 4 bands of diopside and ga ~~net~~ diopside skarn |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 34

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 341.4 | 411. | | | 69.6 | | | | | 1 | | 1 chlorite | | 15 | 4 | 1 | 73 | 5 | | Skarn | finegrain diopside skarn minor garnet (mottled) ~~minor magnetite~~ |
| | | | | | | | | | | | | | | | | | | | dyke | acid dyke 339.2 to 400.7 |
| | | | | | | | | | | | | | | | | | | | | Hole stoped by caving gro and proximity of hole to mineralized formation. |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 35

Page 1 of 3 of

Coord. N 49746 E 49485 ELEVATION 3065 BEARING N72°30'E INCLINATION -45 DATE FROM Sept. 5 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 10 | 0 | | | | | | | | | | | | | | | | | | Casing through o.b. |
| 10 | 29.3 | 16.0 | | 19.3 | | | | | | | 20 Rho. | 20 | 5 | 2 | | 52 | 1 | | Skarn | diortized epidote skarn - minor garnet |
| 29.3 | 33.7 | 4.4 | | 4.4 | | | | | 5 | | | | 60 | | | 30 | 5 | | Skarn | medium grain dense diopsi skarn -minor magnetite ~~band at upper margin~~ |
| 33.7 | 45.3 | 10.3 | | 11.6 | | | | | | | 20 Rho. | 20 | 5 | 2 | | 52 | 1 | | Skarn | diortized epidote skarn |
| 45.3 | 47.5 | 2.2 | | 2.2 | | | | | | | | | 65 | | | 30 | 5 | | Skarn | medium grain diopside ska |
| 47.5 | 76.3 | 25.3 | | 28.8 | | | | | | | 20 Rho. | 2 | 10 | 15 | | 52 | 1 | | Skarn (Alt.Int?) | diortized garnetiferous diopside skarn -porphyri ~~with porphroblasts of~~ Rhodonite |
| 76.3 | 85.2 | 8.8 | | 8.9 | | | | | Tr. | | 5 chlorite | | 10 | 3 | 2 | 70 | 10 | | Skarn | medium grain diopside chl ite skarn - minor garnet |
| 85.2 | 88.5 | 2.7 | 8801 | 3.3 | Tr. | 22.00 | | 0.2 | 15 | | 5 chlorite | | 5 | | 5 | 68 | 2 | | Skarn | diopside-chlorite skarn mineralized with minor ba ~~of massive magnetite~~ |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 35



Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 88.5 | 96.6 | 8.1 | | 8.1 | | | | | | | 5 chlorite | | 20 | | 1 | 70 | 4 | | Skarn | light green diopside chlorite skarn |
| 96.6 | 118.6 | 21.7 | | 22.0 | | | 1.2 | 1.5 | 20 | | 15 chlorite | | 20 | 3 | 5 | | 5 | | Skarn | diopside chlorite skarn (minor garnet - section ~~mineralized with bands~~ massive magnetite in c junction with bornite ~~chalcopyrite throughou~~ magnetite and skarn al |
| 96.6 | 101.6 | 5. | 8802 | 5. | 1.05 | 17.80 | | | | | | | | | | | | | | |
| 101.6 | 106.6 | 5 | 8803 | 5. | 1.27 | | | | | | | | | | | | | | | |
| 106.6 | 111.6 | 4.7 | 8804 | 5. | 0.85 | 7.00 | | | | | | | | | | | | | | |
| 111.6 | 116.6 | 5.0 | 8805 | 5. | 0.50 | 7.80 | | | | | | | | | | | | | | |
| 116.6 | 118.6 | 2.0 | 8806 | 2. | 4.30 | 31.60 | | | | | | | | | | | | | | |
| 118.6 | 126.6 | 7.9 | | 8.0 | | | | | | | | | | | | 1 | 99 | | Sed. | bedded to brecciated g white limestone |
| 126.6 | 128.6 | 2.0 | 8807 | 2.0 | 0.20 | 44.40 | Tr. | Tr. | 90 | | | | | | 1 | 9 | Tr. | | Min.sed. | mass magnetite-trace a of chalcopyrite and bo |
| 128.6 | 131.7 | 1.8 | 8808 | 3.1 | 2.40 | | 0.7 | 0.9 | | | 5 chlorite | | 15 | 5 | | 72 | 2 | | Skarn | ~~diopside garnet skarn~~ alized with minor borni ~~and chalcopyrite along~~ fractures |
| 131.7 | 138.3 | 6.6 | | 6.6 | | | | | Tr. | | 3 chlorite | | 10 | | | 72 | 5 | | Skarn | diopside-chlorite skarn |
| 138.3 | 155.3 | 15.4 | | 17.0 | | | | | | | | | 15 | 70 | | 12 | 3 | | Skarn | mottled garnetiferous side skarn |

PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 35

Page 3 of

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 155.0 | 156.2 | 2.9 | 3309 | 2.9 | 0.60 | | 1.1 | | | | 1 chl. | 2 | 20 | | | 62 | 15 | | Skarn | diopside skarn with mi garnet mineralized wit chalcopyrite along frac |
| 158.2 | 173.5 | 14.9 | | 15.3 | | | | | | | | 2 | 15 | 40 | | 28 | 15 | | Skarn | mottled garnetiferous d side skarn |
| 173.5 | 213 | 36.7 | | 39.5 | | | | | | | | | | | | | 100 | | Sed. | grayish white limestone |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 36

Page 1 of 2

Coord. N 49,746 E 49,485 ELEVATION 3065 BEARING N73°30E INCLINATION -70 DATE FROM Sept. 9 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3 | 0 | | | | | | | | | | | | | | | | | | Casing through o.b. |
| 3 | 19.8 | 16 | | 16.8 | | | | | | | 10 Rho. | | | | | 89 | 1 | | Alt.intr. | diortized rhodonite po phyritic diorite |
| 19.8 | 26 | 6.2 | | 6.2 | | | | | | | | | 30 | 20 | | 50 | Tr. | | Skarn | garnetiferous diopside |
| 26 | 30.5 | 4.5 | | 4.5 | | | | | | | 15 Rho. | | | 5 | | 80 | Tr. | | Skarn | diortized diopside garn skarn*development of po ~~xxxxxx~~ phroblasts of rhodonite |
| 30.5 | 44.0 | 13.4 | | 13.5 | | | | | | | | 1 | 40 | 2 | | 47 | 10 | | Skarn | diopside skarn -minor garnet |
| 44.0 | 49 | 5. | | 5. | | | | | | | 20 Rho. | Tr. | 10 | | | 70 | Tr. | | Skarn | diortized rhodonite porp |
| 49 | 60.3 | 11.2 | | 11.3 | | | | | | | | | 40 | 30 | | 20 | 10 | | Skarn | garnetiferous diopside s |
| 60.3 | 72. | 11.4 | | 11.7 | | | | | | | 15 | | 10 | 5 | 2 | 63 | 5 | | Ska | diortized porphyritic rh donite porph. finegrain diopside ground mass |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 36

Page 2

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72. | 91.8 | 17.1 | | 19.8 | | | | | | | 5 chlorite | 1 | 20 | 3 | 1 | 65 | 5 | | Skarn | diopside skarn - minor along fractures |
| 91.8 | 96.6 | 4.5 | | 4.8 | | | 0.2 | | 90 | | | | | | 5 | 3 | 2 | | Min.sed. | massive magnetite repl diopside |
| 96.6 | 197 | 100 | | 100.4 | | | | | | | | | | | | 100 | | | Dyke | porphyritic (Belds) aci dyke. |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 37

Page 1 OF 2

Coord. N 49699 E 49511 ELEVATION 3058 BEARING ____ INCLINATION -42° DATE FROM Sept. 12 TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 20 | 4.0 | | 20 | | | | | | | | | | | | | | | | Casing through overburde |
| 20 | 32 | 11.1 | | 12 | | | | | | | | | | | | 100 | | | Intr. | medium grain diorite |
| 32 | 56.6 | 19.8 | | 24.6 | | | | | | | | | 80 | 3 | | 15 | 2 | | Skarn | dense diopside skarn -ve minor garnet |
| 56.6 | 71.0 | 11.7 | | 14.4 | | | | | | | | | 20 | 70 | | 6 | 4 | | Skarn | garnetiferous-diopside s |
| 71.0 | 96.5 | 24.5 | | 25.5 | | | | | | | | | 80 | 5 | | 14 | 1 | | Skarn | finegrain green dense di side skarn minor garnet |
| 96.5 | 100.5 | 3.3 | 8799 | 4.0 | 0.25 | 15.20 | | | | | | | | | | | | | | |
| 100.5 | 109.3 | 8.4 | | 8.8 | | | | | | | | | 80 | 5 | | 14 | 1 | | skarn | finegrain green dense di side skarn |
| 109.3 | 115. | 4.8 | 3800 | 5.7 | 0.11 | 16.20 | Tr. | 0.4 | 40 | | 10 chlorite | | 5 | 2 | | 42 | 1 | | Skarn | diopside chlorite skarn mineralized with massive magnetite, minor bornite and trace amounts of chalcopyrite |

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PROPERTY ARCTIC CHIEF

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 37

Page 2 of

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115 | 121 | 5.5 | 8834 | 6. | 0.05 | | | 0.2 | | | 15 chlorite | | 2 | 40 | | 43 | Tr. | | Skarn | garnetiferous chlorite mineralized with very m bornite |
| 121 | 130.3 | 5.8 | | 9.3 | | | | | | | | | 5 | 5 | 20 | 60 | 10 | | Skarn | diortized serpentenized lime silicate - minor garnet |
| 130.3 | 141.5 | 9.8 | | 11.2 | | | | | | | | | | | | 100 | | | Intr. | fresh diorite |
| 141.5 | 160.2 | 17.2 | | 18.7 | | | | | | | 30 Rho. | | 30 | 30 | | 10 | Tr. | | skarn (Alt.diorite) | diortized diopside rhod porphry |
| 160.2 | 175.5 | 12.5 | | 15.3 | | | | | | | | | 2 | | 40 | 48 | 10 | | Skarn | serpentenized silic. limestone |
| 175.5 | 197.5 | 18.8 | | 22.0 | | | | | | | 20 Rho. | | 30 | 35 | | 15 | Tr. | | Skarn | diortized garnet diopsi rhodonite porph. |
| 197.5 | 207.1 | 9.6 | | 9.6 | | | | | | | | | | | | 100 | | | Intr. | fractured diorite |
| 207.1 | 221. | 11.2 | | 13.9 | | | | | | | | | | | | | 100 | | Sed. | granular limestone. |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 10

Page 1 of 4

Coord. N 5-,064 E 49,246 ELEVATION 2686.5 BEARING N 86° W INCLINATION -29.5° DATE FROM 12 August TO 19 August

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 47 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 47 | 48.4 | 1.4 | | 1.4 | | | | | | | | | | | | 100 | | | dyke | finegrain basic (micro-diori |
| 48.4 | 85.1 | 25.7 | | 36.7 | | | | | | | | | | | | 100 | | | int. | fractured hornblende diorite |
| 85.1 | 98. | 12. | | 12.9 | | | | | | | Rhc. 2 | 1 | 1 | 5 | | 92 | 2 | | alt.int. | altered diorite minor garne and rhodonite porphroblast |
| 98. | 127. | 26. | | 29. | | | | | | | | | 10 | | | 85 | 5 | | skarn | diopside lime silic. |
| 127. | 142.2 | 11.3 | | 15.2 | | | 0.2 | | | | FeO 3 | | 3 | | | 79 | 15 | | alt.sed. | diopside rich-silicate lime |
| 142.2 | 152.6 | 10.1 | | 10.4 | | | | | | | | 60 | | | | 20 | 20 | | skarn | med. grained epidote |
| 152.6 | 167.6 | 13.3 | | 15. | | | 0.1 | 1.8 | 0.2 | | | 60 | | | | 18 | 20 | | skarn | med. grained mineralized epi skarn - bornite and minor chalcopyrite |
| 152.6 | 157.6 | 4.2 | 8917 | 5.0 | 1.87 | | | | | | | | | | | | | | | |
| 157.6 | 162.6 | 4.9 | 8918 | 5.0 | 0.18 | | | | | | | | | | | | | | | |
| 162.6 | 167.6 | 4.2 | 8919 | 5.0 | 1.72 | | | | | | | | | | | | | | | |
| 167.6 | 177.5 | 9.9 | | 9.9 | | | Tr. | | 50 | | | 0.5 | 8 | 5 | 0.5 | 43 | 1 | | min.skarn | diopside garnet skarn min lized with massive magnetit |
| 167.6 | 172.6 | 5.0 | 8920 | 5.0 | 0.13 | 25.60 | | | | | | | | | | | | | | |
| 172.6 | 177.5 | 4.9 | 8921 | 4.9 | Tr. | 34.40 | | | | | | | | | | | | | | |

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

DD-34 HOLE No.



PROPERTY BEST CHANCE

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 177.5 | 183.7 | 6.2 | 8922 | 6.2 | 0.30 | 37.60 | 0.9 | Tr. | 25 | | 20 chl. | 1 | | 1 | | 52 | Tr. | | min.skarn | chlorite-diopside xxxxx silic. |
| 183.7 | 194. | 9.5 | | 10.3 | | | 9 | | 65 | | | 2 | | 5 | | 18 | Tr. | | min.skarn | garnet-diopside skarn mineralized with massive magnetite and chalcopyrite |
| 183.7 | 188.7 | 4.4 | 8923 | 5.0 | 5.00 | 45.20 | | | | | | | | | | | | | | |
| 188.7 | 194. | 5.0 | 8924 | 5.3 | 2.25 | 48.00 | | | | | | | | | | | | | | |
| 194. | 199.5 | 1.0 | 8925 | 5.5 | 0.80 | | 0.3 | | Tr. | | | | 15 | 20 | | 63 | 2 | | skarn | parallel faults containing horst of garnetiferous diopside skarn |
| 199.5 | 213.4 | 13.6 | | 13.9 | | | Tr. | | 25 | | | 1 | 10 | 5 | | 57 | 2 | | min.skarn | diopside garnet skarn |
| 199.5 | 204.5 | 5.0 | 8926 | 5.0 | 0.05 | 28.00 | | | | | | | | | | | | | | |
| 204.5 | 209.5 | 4.7 | 8927 | 5.0 | 0.13 | 47.20 | | | | | | | | | | | | | | |
| 209.5 | 213.4 | 3.9 | 8928 | 3.9 | Tr. | 27.40 | | | | | | | | | | | | | | |
| 213.4 | 275.4 | 56.1 | | 67. | | | 0.3 | 0.5 | Tr. xxx | | xxx Mg 1.0 0.2 FeO 3 0.1 chrysocola 0.1 azurite | 2 | 20 | 25 | | 44 | 5 | | skarn | mottled garnetiferous diopside skarn mineralized with sporadic clots of bornite and chalcopyrite-heavily leached and oxidized between ft. 255.5 and 272.2 |
| 213.4 | 218.4 | 5.0 | 8929 | 5.0 | 0.06 | | | | | | | | | | | | | | | |
| 218.4 | 223.4 | 5.0 | 8930 | 5.0 | Tr. | | | | | | | | | | | | | | | |
| 223.4 | 228.4 | 5.0 | 8931 | 5.0 | 0.75 | | | | | | | | | | | | | | | |
| 228.4 | 233.4 | 4.9 | 8932 | 5.0 | 0.35 | | | | | | | | | | | | | | | |
| 233.4 | 238.4 | 4.7 | 8933 | 5.0 | 0.05 | | | | | | | | | | | | | | | |
| 238.4 | 243.4 | 5.0 | 8934 | 5.0 | 0.15 | | | | | | | | | | | | | | | |
| 243.4 | 248.4 | 4.5 | 8935 | 5.0 | 0.23 | | | | | | | | | | | | | | | |
| 248.4 | 253.5 | 5.0 | 8936 | 5.0 | Tr. | | | | | | | | | | | | | | | |
| 253.5 | 258.4 | 4.6 | 8937 | 5.0 | 0.01 | | | | | | | | | | | | | | | |
| 258.4 | 263.4 | 5.0 | 8938 | 5.0 | 0.08 | | | | | | | | | | | | | | | |

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DD-54

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY BEST CHANCE

HOLE No. 10

Page 3 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 263.4 | 268.4 | 3.8 | 8939 | 5.0 | 4.90 | | | | | | | | | | | | | | | |
| 268.4 | 273.4 | 3.5 | 8940 | 5.0 | 4.00 | | | | | | | | | | | | | | | |
| 273.4 | 275.4 | 0 | fault | 2.0 | | | | | | | | | | | | | | | | |
| 275.4 | 356.6 | 75.5 | | 81.2 | | | 0.3 | 0.9 | | calcite | 7 | 0.5 | 15 | | | 27 | 15 | | skarn | mottled garnetiferous -diops skarn - mineralized with ~~sporadic~~ clots of bornite an chalcopyrite (massive cuprit and bornite with minor chalc ~~cite, containing tetrahedrit~~ and native silver occur. bet ft. 332.9 and ft. 334.4) ~~Note: above high grade zone~~ not included in estimated % comp. ore min.) |
| | | | | | | | | | | cuprite | 0.2 | | | | | | | | | |
| | | | | | | | | | | chalcocite | ~~0.01~~ | | | | | | | | | |
| | | | | | | | | | | Nat. ag. | 0.01 | | | | | | | | | |
| | | | | | | | | | | tetrahed. | 0.01 | | | | | | | | | |
| 275.4 | 280.4 | 5.0 | 8941 | 5.0 | 0.42 | | | | | | | | | | | | | | | |
| 280.4 | 285.4 | 4.9 | 8942 | 5.0 | 0.17 | | | | | | | | | | | | | | | |
| 285.4 | 290.4 | 5.0 | 8943 | 5.0 | 0.14 | | | | | | | | | | | | | | | |
| 290.4 | 295.4 | 4.1 | 8944 | 5.0 | 0.96 | | | | | | | | | | | | | | | |
| 295.4 | 300.4 | 4.3 | 8945 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 300.4 | 305.4 | 4.9 | 8946 | 5.0 | 0.25 | | | | | | | | | | | | | | | |
| 305.4 | 310.4 | 4.2 | 8947 | 5.0 | 1.07 | | | | | | | | | | | | | | | |
| 310.4 | 315.4 | 4.7 | 8948 | 5.0 | 1.05 | | | | | | | | | | | | | | | |
| 315.4 | 320.4 | 4.8 | 8949 | 5.0 | 0.63 | | | | | | | | | | | | | | | |
| 320.4 | 325.4 | 5.0 | 8950 | 5.0 | 1.35 | | | | | | | | | | | | | | | |
| 325.4 | 330.4 | 4.8 | 8951 | 5.0 | 0.12 | | | | | | | | | | | | | | | |
| 330.4 | 332.9 | 2.4 | 8952 | 2.5 | 1.17 | | | | | | | | | | | | | | | |
| 332.9 | 333.9 | 0.4 | | 1.0 | | not sampled-cuprite and bornite-est. 35% cu. | | | | | | | | | | | | | | |
| 333.9 | 334.4 | 0.5 | 8953 | 0.5 | 40.10 | | | | | | | | | | | | | | | |
| 334.4 | 339.4 | 4.8 | 8954 | 5.0 | 1.25 | | | | | | | | | | | | | | | |
| 339.4 | 344.4 | 4.9 | 8955 | 5.0 | 0.32 | | | | | | | | | | | | | | | |
| 344.4 | 349.4 | 4.7 | 8956 | 5.0 | 0.26 | | | | | | | | | | | | | | | |
| 349.4 | 354.4 | 4.9 | 8957 | 5.0 | Tr. | | | | | | | | | | | | | | | |
| 354.4 | 356.6 | 1.2 | 8958 | 2.2 | 1.30 | | | | | | | | | | | | | | | |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 10

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Efid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | Rock Type | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 356.6 | 372. | 11. | | 15.4 | | | Tr. | | | Mal. | 0.05 | 2 | 20 | 15 | | 61 | 2 | | skarn | diopside-garnet skarn -mi epidote |
| 372. | 384. | 11.3 | | 12. | | | | | | | | 50 | 5 | 10 | | 33 | 2 | | skarn | dense epidote skarn -mino diopside and garnet |
| 384. | 386.5 | 1.8 | | 2.5 | | | | | | FeO | 10 | | 10 | | | 60 | 20 | | skarn | oxidized lime silic. (gre brown) |
| 386.5 | 395. | 7.7 | | 8.5 | | | | | | | | | | | | 100 | Tr. | | intr. | fractured hornblende diori |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 13

Page 1 of 4

Coord. N 54,064 E 49,246 ELEVATION 2686.5 BEARING N 86 W INCLINATION -50 DATE FROM August 19 Sept. 8 TO

| FOOTAGE From | FOOTAGE To | Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 14 | 0 | | | | | | | | | | | | | | | | | | casing through overburden |
| 14 | 139.2 | 103.2 | | 125.2 | | | | | | | | | | | | 100 | | | intr. | hornblende diorite |
| 139.2 | 168.4 | 26. | | 29.2 | | | | | | | | 1 | 10 | | | 74 | 15 | | skarn | dioritized diopside enriche lime silic. |
| 168.4 | 221.1 | 51. | | 52.7 | | | Tr. | 0.2 | | | 0.05 | | | | | 99 | 1 | | skarn | med. grained dense epidote skarn sporadically mineral ~~with minor~~ bornite and trac amounts of chalcopyrite |
| | | | | | | | | | | chalcocite 0.05 | | | | | | | | | | |
| 191.1 | 196.1 | 5.0 | 8970 | 5.0 | 1.50 | | | | | cuprite | | | | | | | | | | |
| 196.1 | 201.1 | 4.9 | 8971 | 5.0 | 0.46 | | | | | | | | | | | | | | | |
| 201.1 | 206.1 | 4.9 | 8972 | 5.0 | 0.30 | | | | | | | | | | | | | | | |
| 206.1 | 211.1 | 4.8 | 8973 | 5.0 | Tr. | | | | | | | | | | | | | | | |
| 211.1 | 216.1 | 5.0 | 8974 | 5.0 | 0.17 | | | | | | | | | | | | | | | |
| 216.1 | 221.1 | 5.0 | 8975 | 5.0 | 0.66 | | | | | | | | | | | | | | | |
| 221.1 | 224.8 | 0.6 | 8976 | 3.7 | 0.80 | | | 0.5 | | | 1.5 | | | 2 | | 95 | 1 | | skarn | garnetiferous pyroxene skar (fault at ft. 221.6) miner ~~with~~ chalcocite and bornit |
| | | | | | | | | | | chalcocite | | | | | | | | | | |
| 224.8 | 238.3 | 10.8 | | 14.5 | | | | | | mal. Tr. | | 3 | 8 | 3 | | 25 | | | skarn | oxidized and leached calci enriched fracture zone (siderite) ~~mineralized wi~~ |
| | | | | | | | | | | FeC 15 | | | | | | | | | | |
| | | | | | | | | | | chalcocite 0.2 | | | | | | | | | | chalcocite |
| 224.8 | 225.4 | 0.6 | 8977 | 0.6 | 0.40 | | | | | | | | | | | | | | | |
| 225.4 | 234. | 6.5 | 8978 | 8.6 | 0.17 | | | | | | | | | | | | | | | |
| 238.3 | 331.7 | 90.0 | | 93.4 | | | 0.05 | 0.3 | | MeS2 | Tr. | 3 | 20 ~~xxx~~ 15 | | | 52 | 10 | | skarn | med. grained mottled garne erous diopside skarn miner with minor bornite and tra |
| | | | | | | | | | | chalcoc | tr. | | | | | | | | | amounts of chalcopyrite |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY BEST CHANCE

HOLE No. 13

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 234. | 244. | 9.2 | 8979 | 10. | 0.12 | | | | | | | | | | | | | | | |
| 244. | 254. | 9.0 | 8980 | 10. | 0.05 | | | | | | | | | | | | | | | |
| 254. | 264. | 10. | 8981 | 10. | tr. | | | | | | | | | | | | | | | |
| 264. | 274. | 5.1 | 8982 | 10 | 0.08 | | | | | | | | | | | | | | | |
| 274. | 284. | 7.2 | 8983 | 10 | 0.10 | | | | | | | | | | | | | | | |
| 284. | 289. | 4.3 | 8984 | 5 | 1.20 | | | | | | | | | | | | | | | |
| 289. | 294. | 4.9 | 8985 | 5 | 0.37 | | | | | | | | | | | | | | | |
| 294. | 299. | 5. | 8986 | 5 | tr. | | | | | | | | | | | | | | | |
| 299. | 309. | 10 | 8987 | 10 | tr. | | | | | | | | | | | | | | | |
| 309. | 319. | 9.3 | 8988 | 10 | 0.12 | | | | | | | | | | | | | | | |
| 319. | 324. | 5.0 | 8989 | 5. | 0.10 | | | | | | | | | | | | | | | |
| 324. | 331.7 | 7.6 | 8990 | 7.7 | tr. | | | | | | | | | | | | | | | |
| 331.7 | 375.6 | 41.3 | | 43.9 | | | | | | | | | | | | 1 | 99 | | sed. | finegrain Xtln. grayish-whi limestone |
| 375.6 | 381.5 | 5.6 | 8991 | 5.9 | | | 0.05 | 0.2 | | | | | 10 | 3 | | 80 | 7 | | skarn | finegrain diopside-garnet skarn mineralized with min bornite and chalcopyrite |
| 381.5 | 438.3 | 55.5 | | 56.8 | | | | | | | | | | | | | 100 | | sed. | Xtln. grayish-white limest bed |
| 438.3 | 445.2 | 6.9 | | 6.9 | | | tr. | | | $FeS_2$ | tr. | | 15 | 15 | | 60 | 10 | | skarn | mottled-diopside garnet sk |
| 445.2 | 478.4 | 32.3 | | 33.2 | | | | | | FeO | 0.2 | | | | | | 100 | | sed. | mottled grayish white lime limonite stained fractures |
| 478.4 | 489. | 10.1 | | 10.6 | | | | | | | 5 goethite | | | | | 5 | 90 | | sed. | mottled grayish white lime minor goethite |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

HOLE No. 13

Page # 3 of _____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 489. | 499. | 10 | | 10 | | | | | $Fe_2O_3$ | | 0.8 | | 35 | 30 | | 34 | 1 | | skarn | mottled garnetiferous diops skarn mineralized with min specular hematitie |
| 499 | 509.5 | 10.4 | | 10.5 | | | | | | | 15 goethite 0.5 $Fe_2O_3$ | | | | | 15 | 70 | | min.sed. | leached grayish-white limes containing goethite |
| 509.5 | 531.5 | 20.4 | | 22. | | | 0.2 | | 0.2 clots | | 0.2 | $Fe_2$ | 5 | | | | | | sed. | silic. limestone -minor diop side mineralized with minor chalcopyrite |
| 531.5 | 546. | 14.5 | | 14.5 | | | | | | | | | 35 | 30 | | 33 | 2 | | skarn | mottled garnetiferous diopsi skarn |
| 546. | 574.8 | 28.6 | | 28.8 | | | tr. | | | | | | | | | 1 | 99 | | sed. | mottled grayish white limest |
| 574.8 | 602. | 26.3 | | 27.3 | | | | | cuprite hematite | | 0.2 4.5 | tr. | 10 ~~15~~ | 15 | | 55 | 15 | | skarn | replacement of limestone by garnetiferous (yellow) diopsi skarn mineralized with specul hematite minor schoelite and the odd clot of cuprite |
| 602. | 622.3 | 19.8 | | 20.3 | | | 0.4 | Tr. | hematite | Tr. | | | 30 | 3 ~~50~~ | | 42 ~~12~~ | 25 ~~1~~ | | skarn | replacement of limestone by diopside skarn (minor garnet mineralized with minor chalco pyrite and trace amounts of bornite and hematite |
| 611 | 616 | 5 | 9601 | 5 | 0.10 | | | | | | | | | | | | | | | |
| 616 | 621 | 5 | 9602 | 5 | 0.17 | | | | | | | | | | | | | | | |
| 622.7 | 643. | 20.2 | | 20.3 | | | 0.1 | 0.6 | hematite T | | | | 30 | 50 | | 19 | 1 | | sk | fine-grai r -tled garnetifer diopsi e skarn mineralized i |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 13

Page 4 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 635.8 | 641.8 | 5.0 | 3833 | 5.0 | 0.75 | | | | | | | | | | | | | | | |
| 641.8 | 653.6 | 11.8 | | 11.8 | | | | | | | | | | | | | | | | |
| 653.6 | 665 | 11.3 | | 11.4 | | | | | | | | | | | | 100 | | | Sed. | gray limestone -calcite f fractures |
| | | | | | | | | | | | 0.5 $FeS_2$ | | | | | 1 | 99 | | sed. | fractured gray limestone w |
| | | | | | | | | | | | 0.5 FeC | | | | | | | | | fracture filled with calci |
| | | | | | | | | | | | 0.5 Goethite | | | | | | | | | |
| 665. | 670. | 5 | | 5 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | 0.2 hematite | | | | | 95 | 5 | | skarn | med. grain amphibole skarn |
| | | | | | | | | | | | | | | | | | | | | mineralized with very mino |
| | | | | | | | | | | | | | | | | | | | | specular hematite |
| 670. | 694.1 | 21.1 | | 24.1 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | 15 goethite | | 30 | 15 | | 35 | 5 | | skarn | diopside garnet skarn mine |
| | | | | | | | | | | | | | | | | | | | | lized with goethite and mi |
| | | | | | | | | | | | | | | | | | | | | specular hematite fracture |
| | | | | | | | | | | | | | | | | | | | | leached and oxidized betwe |
| 694.1 | 704. | 9.9 | | 9.9 | | | | | | | | | | | | | | | | 634 and 689 |
| | | | | | | | | | | | | | 30 | 20 | | 45 | 5 | | skarn | finegrain diopside garnet s |

N.B. trace amounts of tungsten throughout core.

PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 14

Page 1 of 5

Coord. N 54008 E 49265 ELEVATION ____ BEARING N86°W INCLINATION -30 DATE FROM Sept. 13 TO 27

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 48.7 | 23 | | 48.7 | | | | | | | | | | | | 100 | | | intr. | medium grained hornblende diorite-slightly bleached |
| 48.7 | 99.2 | 27.5 | | 50.5 | | | | | | tr. | 0.5 jasper | | 4 | | Tr. | 26 | 70 | | sed. | mottled grayish-white to beige silicified limestone |
| 99.2 | 117.3 | 17.0 | | 18.1 | | | | | | | 0.5 jasper | 0.5 | | | 15 | 34 | 50 | | sed. | serpentenized silicified limestone |
| 117.3 | 134.5 | 17.2 | | 17.2 | | | | 0.2 | | | 0.2 chalcocite | 40 | 10 | | | | | | skarn | finegrain dense epidote-di skarn |
| 122.3 | 127.3 | 5.0 | 8873 | 5.0 | 0.37 | | | | | | | | | | | | | | | |
| 134.5 | 143.6 | 8.6 | | 9.1 | | | | | | | 60 Rhodo. | | 5 | 1 | tr. | 34 | 0.5 | | skarn | rhodochrocite-diopside skar |
| 143.6 | 151.1 | 7.3 | | 7.6 | | | | | | | 0.5 limonite | 20 | 20 | 5 | | 35 | 20 | | skarn | finegrain dense epidote di side skarn |
| 151.1 | 156.4 | 5.0 | | 5.3 | | | | | | | 2 Rho. | 5 | 15 | 10 x | | 66 | 2 | | skarn | porphyritic to granular di tized diopside garnet epid skarn |
| 156.4 | 175.3 | 18.9 | | 18.9 | | | | 0.01 | | | | | | | | 100 | tr. | | dyke | porphyritic acid dyke |
| 175.3 | 185.6 | 10.3 | | 10.3 | | | | 4.3 | | | | 80 | | | | 10 | 5 | | skarn | finegrain dense light green epidote skarn mineralized diss. bornite |
| 175.3 | 180.3 | 5.0 | 8874 | 5.0 | 0.32 | | | | | | | | | | | | | | | |
| 180.3 | 185.3 | 5.0 | 8875 | 5.0 | 4.15 | | | | | | | | | | | | | | | |
| 185.6 | 210.1 | 23.3 | | 24.5 | | | 0.8 | 0.5 | 5 | | 0.5 | 10 | 20 | 15 | | | 5 | | | mottled diopside epidote garnet skarn mineralized minor magnetite, beads and |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY BEST CHANCE

HOLE No. 14

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185.3 | 190.3 | 5.0 | 8876 | 5.0 | 1.03 | | | | | | | | | | | | | | | |
| 190.3 | 195.3 | 4.1 | 8877 | 5.0 | 1.12 | | | | | | | | | | | | | | | |
| 195.3 | 200.3 | 5.0 | 8878 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 200.3 | 205.3 | 5.0 | 8879 | 5.0 | 0.05 | | | | | | | | | | | | | | | |
| 205.3 | 210.3 | 5.0 | 8880 | 5.0 | 0.13 | | | | | | | | | | | | | | | |
| 210.1 | 220.9 | 10.5 | | 10.8 | | | 0.8 | 0.2 | 45 | | | | 20 | | | 29 | 5 | | skarn | replacement by mottled massi magnetite and diopside skarn minor disseminated chalcopy and borrite throughout sect |
| 210.3 | 215.3 | 5.0 | 8881 | 5.0 | 0.35 | 42.60 | | | | | | | | | | | | | | |
| 215.3 | 220.3 | 5.0 | 8882 | 5.0 | 0.33 | 44.80 | | | | | | | | | | | | | | |
| 220.9 | 227.4 | 6.5 | | 6.5 | | | Tr. | | 3 | | 3 chlorite | | 40 | 2 | | 22 | 30 | | skarn | finegrain dense diopside sk with minor chlorite bands m alized with very minor mag netite and trace amounts of chalcopyrite |
| 220.3 | 227.4 | 7.1 | 8883 | 7.1 | Tr. | | | | | | | | | | | | | | | |
| 227.4 | 257.7 | | | 28.3 | | | 0.9 | 0.1 | 65 | | 0.05 nat.cu. | 1 | 10 | | | 23 | Tr. | | min.skarn | replacement by massive magn containing disseminated "ne of massive chalcopyrite trace amounts of bornite a (native copper at end of section) |
| 227.4 | 232.4 | 4.0 | 8884 | 5.0 | 2.22 | 45.80 | | | | | | | | | | | | | | |
| 232.4 | 237.4 | 4.9 | 8885 | 5.0 | 0.45 | 38.40 | | | | | | | | | | | | | | |
| 237.4 | 242.4 | 5.0 | 8886 | 5.0 | 0.37 | 50.80 | | | | | | | | | | | | | | |
| 242.4 | 247.4 | 5.0 | 8887 | 5.0 | 0.40 | 52.00 | | | | | | | | | | | | | | |
| 247.4 | 252.4 | 5.0 | 8888 | 5.0 | 1.02 | 60.60 | | | | | | | | | | | | | | |
| 252.4 | 257.4 | 5.0 | 8889 | 5.0 | 0.26 | 60.00 | | | | | | | | | | | | | | |
| 257.7 | 265. | 3.7 | 8890 | 7.3 | 0.16 | | tr. | | | mal. malacite limonite calcite | 0.2 0.2 5 | | | 4 | | 48 | 10 | | skarn | oxidized and leached diop garnet skarn zone contain xtln. garnets |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.
## DIAMOND DRILL LOG

HOLE No. 14

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 265. | 271.2 | 5.2 | 8891 | 6.2 | 0.27 | 59.00 | | | 95 | | 0.1 Nat.cu. | | 4 | | | 1 | Tr. | | skarn | replacement of diopside skar by massive magnetite contain ing very minor native copper |
| 271.2 | 274.5 | 3.3 | 8892 | 3.3 | Tr. | | Tr. | | 5 | | | | 25 | 15 | | 50 | 5 | | skarn | mottled diopside garnet skar minor magnetite patches |
| 274.5 | 278.9 | 4.4 | 8893 | 4.4 | Tr. | 46.20 | Tr. | | 74 | | Tr. Nat.cu. | | 10 | | Tr. | 15 | Tr. | | skarn | replacement of finegrain diopside skarn by massive magnetite |
| 278.9 | 286.1 | 6.9 | | 7.2 | | | 0.2 | Tr. | 8 | | 0.2 Azurite 0.9 Nat.cu. | | 30 | 25 | | 26 | 10 | | skarn | mottled (finegrain) garneti erous diopside skarn minera ed with native copper and m chalcopyrite |
| 276.9 | 282.8 | 3.6 | 8894 | 3.9 | 0.36 | oxidized sect. | | | | | | | | | | | | | | |
| 282.8 | 286.1 | 3.3 | 8895 | 3.3 | | | | | | | | | | | | | | | | |
| 286.1 | 291.2 | 4.3 | 8896 | 5.1 | 0.22 | 53.60 | Tr. | | 80 | | 1 Nat.cu. | | 50 | 1 | | 13 | Tr. | | min.skarn | diopside skarn replaced by massive magnetite and very minor native copper |
| 291.2 | 297. | | | 5.8 | | | | 0.3 | 1 | | 50 calcite | | 10 | 15 | | 14 | 10 | | skarn | garnetiferous-diopside skar with very minor bornite and magnetite near lower contac |
| 297. | 299.6 | 2.6 | | 2.6 | | | | 1.5 | | | | 15 | 25 | 10 | | 43.5 | 5 | | skarn | epidote diopside garnet ska mineralized with sporadic of bornite |
| 294.6 | 299.6 | 4.9 | 8897 | 5.0 | 0.20 | | Tr. | | 75 | | | | 10 | | | | | | | |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 14

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Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 299.6 | 303.6 | 4.0 | 8898 | 4.0 | 0.23 | 55.30 | Tr. | | 75 | | | | 10 | 2 | | 13 | Tr. | | min.skarn | replacement of diopside s by mottled massive magnetit |
| 303.6 | 307.3 | 3.6 | 8899 | 3.1 | 1.79 | | | 0.4 | 1 | | 2 chalcocite | | 15 | 15 | | 52 | 15 | | skarn | mottled garnetiferous diops skarn-mineralized with ~~sporadic clots of bornite,~~ minor magnetite and chalcop |
| 307.3 | 314.5 | 6.7 | 8900 | 7.2 | 0.58 | 55.60 | | 1 | 35 | | | | 10 | 0.5 | | 5 | Tr. | | skarn | replacement of diopside ska by massive finegrain magnet ~~containing very minor borni~~ |
| 314.5 | 348.9 | 34.2 | | 34.4 | | | 0.3 | 0.8 | | | | | 40 | 25 | | 30 | 4 | | skarn | med.-finegrain mottled dens garnetiferous diopside skar ~~mineralized with sporadic c~~ and grains and nests and tr amounts of chalcopyrite |
| 314.5 | 319.5 | 4.8 | 6401 | 5.0 | Tr. | | | | | | | | | | | | | | | |
| 319.5 | 324.5 | 5.0 | 6402 | 5.0 | 0.10 | | | | | | | | | | | | | | | |
| 324.5 | 329.5 | 5.0 | 6403 | 5.0 | Tr. | | | | | | | | | | | | | | | |
| 329.5 | 334.5 | 5.0 | 6404 | 5.0 | 0.42 | | | | | | | | | | | | | | | |
| 334.5 | 344.5 | 10. | 6405 | 10. | 0.45 | | | | | | | | | | | | | | | |
| 344.5 | 349.5 | 5.0 | 6406 | 5.0 | 0.05 | | | | | | | | | | | | | | | |
| 348.9 | 357.9 | 7.3 | | 9.0 | | | 0.3 | 0.6 | Tr. | | 0.2 hematite 0.6 chalcocite | | 15 | 65 | | 18 | Tr. | | skarn | highly fractured and leache coarse grained garnet skarn mineralized with clots and nests of bornite and chalc pyrite along with minor chalcocite and hematite |
| 349.5 | 354.5 | 4.2 | 6407 | 5.0 | 0.43 | | | | | | | | | | | | | | | |
| 354.5 | 359.5 | 3.9 | 6408 | 5.0 | 0.50 | | | | | | | | | | | | | | | |
| 357.9 | 378.2 | 20.3 | | 20.3 | | | | 0.3 | | | 0.05 chalcocite | | 60 | 30 | | 9 | 1 | | skarn | diopside-garnet skarn miner lized with very minor borni and traces of chalcocite |
| 359.5 | 369.5 | 10. | 6409 | 10. | 0.25 | | | | | | | | | | | | | | | |
| 369.5 | 378.2 | 8.7 | 64 | 8.7 | 0.05 | | | | | | | | | | | | | | | |

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## DIAMOND DRILL LOG

HOLE No. 14

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Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 378.2 | 392 | 13. | | 13.8 | | | | | | | | | | | | 95 | 5 | | skarn | porphyritic-dioritized lime silic. |
| 392. | 399 | 7.0 | | 7.0 | | | | | | | | | | | | 100 | | | intr. | fresh medium grained hornble diorite. |

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## DIAMOND DRILL LOG

HOLE No. 15

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Coord. N 53,964 E 49242 ELEVATION 2688 N BEARING N86°W INCLINATION 031.5° DATE FROM Sept. 27 TO Oct. 5

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 30 | 0 | | | | | | | | | | | | | | | | | | casing through o.b. |
| 30 | 48.6 | 6.4 | | 18.6 | | | | | | | | | 5 | 2 | | | 60 | | skarn | pale green silic. limesto |
| 48.6 | 53.4 | 3.7 | | 4.8 | | | | | | | | | | | | 99 | 1 | | dyke | porphyritic acid dyke |
| 53.4 | 61. | 2.1 | | 7.6 | | | | | | | | | | | | 10 | 90 | | sed. | beige colored silic. limes |
| 61. | 67.1 | 4.4 | | 6.1 | | | | | | | | | | | | 98 | 2 | | skarn | diortized limestone |
| 67.1 | 67.9 | 0.8 | | 0.8 | | | | | | | | | | | | 100 | | | intr. | fresh diorite |
| 67.9 | 69.9 | 2.0 | | 2.0 | | | | | | | | | | | | 99 | 1 | | skarn | diortized limestone -light green and porphyritic |
| 69.9 | 83.1 | 10. | | 13.2 | | | | | | | | | | | | 100 | | | Intr. | fresh diorite |
| 83.1 | 131.7 | 12.2 | | 48.6 | | | | | | | | | 5 | | | 94 | 1 | | skarn | diortized silic. limestone |
| 131.7 | 149.2 | 15.7 | | 17.5 | | | 0.1 | 0.4 | Tr. | | | | 60 | | 0.5 | 38 | 1 | | skarn | med. grained light green diopside skarn mineralized ~~minor bornite in dissemin~~ grains |
| 139.2 | 144.2 | 4.6 | 6434 | 5.0 | 0.35 | | | | | | | | | | | | | | | |
| 144.2 | 149.2 | 4.8 | 6435 | 5.0 | 0.30 | | | | | | | | | | | | | | | |
| 149.2 | 173.2 | 22.2 | | 24. | | | 0.1 | 0.3 | 80 | | | | 10 | | | 9 | 1 | | skarn | diopside garnet skarn miner ed with massive magnetite ~~very minor bornite and tra~~ amounts of chalcopyrite |
| 149.2 | 154.2 | 4.8 | 6436 | 5.0 | 0.07 | 38.40 | | | | | | | | | | | | | | |
| 154.2 | 159.2 | 5.0 | 6437 | 5.0 | Tr. | 0.00 | | | | | | | | | | | | | | |

PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 15



Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 160.2 | 164.2 | 4.4 | 6438 | 5.0 | 0.12 | 31.60 | | | | | | | | | | | | | | |
| 164.2 | 169.2 | 4.2 | 6439 | 5.0 | 0.40 | 5.20 | | | | | | | | | | | | | | |
| 169.2 | 173.2 | 3.8 | 6440 | 4.0 | 0.20 | 37.60 | | | | | | | | | | | | | | |
| 173.2 | 194. | | | 20.8 | | | Tr. | 0.4 | 4 | | | Tr. | 35 | 10 | | | 3 | | skarn | med. grained diopside skarn (minor garnet) mineralized w ~~disem. grains of bornite an~~ very minor magnetite in band |
| 173.2 | 178.2 | 4.9 | 6441 | 5. | 0.37 | | | | | | | | | | | | | | | |
| 178.2 | 183.2 | 4.9 | 6442 | 5. | 0.82 | | | | | | | | | | | | | | | |
| 183.2 | 193.2 | 9.7 | 6443 | 10. | 0.11 | | | | | | | | | | | | | | | |
| 194. | 206.2 | 12.2 | | 12.2 | | | | | | | | | | | 10 | 1 | 89 | | Sed. | mottled and serpentenized |
| 206.2 | 240.7 | | | 34.5 | | | 2.7 | 0.1 | 75 | | | | 18 | 0.5 | | 12 | 1 | | skarn | diopside skarn mineralized w massive magnetite containin bands and "nests" of massive chalcopyrite 0.5 feet wide foot 220. |
| 206.2 | 211.2 | 4.7 | 6444 | 5.0 | 4.70 | 40.40 | | | | | | | | | | | | | | |
| 211.2 | 216.2 | 4.8 | 6445 | 5.0 | 1.47 | 37.60 | | | | | | | | | | | | | | |
| 216.2 | 221.1 | 4.7 | 6446 | 5.0 | 5.08 | 44.80 | | | | | | | | | | | | | | |
| 221.2 | 226.2 | 4.6 | 6447 | 5.0 | 0.50 | 36.40 | | | | | | | | | | | | | | |
| 226.2 | 231.2 | 4.6 | 6448 | 5.0 | 0.86 | 55.20 | | | | | | | | | | | | | | |
| 231.2 | 236.2 | 4.9 | 6449 | 5.0 | 1.80 | 50.20 | | | | | | | | | | | | | | |
| 236.2 | 241.2 | 4.3 | 6450 | 5.0 | 0.55 | 36.00 | | | | | | | | | | | | | | |
| 240.7 | 251.3 | 5.3 | | 10.6 | | | | 0.1 | | | 0.7 | | 20 | 20 | | 50 | 5 | | skarn | mottled finegrain diopside garnet skarn mineralized w t |
| | | | | | | | | | | | Met.cu. 0.2 | | | | | | | | | patches of native copper, ve |
| 241.2 | 246.2 | 2.0 | 6451 | 5.0 | 0.55 | | | | | | chalcocite 0.1 | | | | | | | | | minor bornite, chalcocite an |
| 246.2 | 251.3 | 2.3 | | 5.0 | 2. | | | | | | cuprite | | | | | | | | | cuprite |
| | | | | | | | | | | | FeO 5 | | | | | | | | | |

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## DIAMOND DRILL LOG

HOLE No. 15

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 251.3 | 262.7 | 5.7 | | 11.4 | | | | 0.1 | 0.8 | | 0.8 | | 10 | 15 | | 35 | 5 | 10 | skarn | leached and oxidized diopsi |
| | | | | | | | | | | | mal. | | | | | | carbonates | | | garnet skarn-partially |
| 251.2 | 256.2 | 1.9 | 6453 | 5.0 | 0.32 | | | | | FeO | 20 | | | | | | | | | brecciated |
| 256.2 | 261.2 | 4.0 | 6454 | 5.0 | 0.50 | | | | | Azurite | 1 | | | | | | | | | |
| 262.7 | 263.8 | 1.0 | | 1.1 | | | | | | | | | | 20 | | 45 | 5 | 30 | skarn | garnet skarn with calcite |
| | | | | | | | | | | | | | | | | | carbonates | | | veins containing Xtln. gar- |
| 261.2 | 271.2 | 7.8 | 6455 | 10. | Tr. | | | | | | | | | | | | | | | nets |
| 263.8 | 274.6 | 9.5 | | 10.8 | | | 0.1 | 0.3 | | | 0.1 | | 35 | 45 | | 15 | 5 | | skarn | mottled diopside garnet ska |
| | | | | | | | | | | | chalcocite | | | | | | | | | mineralized with erratic cl |
| 271.2 | 276.2 | 4.5 | 6456 | 5.0 | Tr. | | | | | | | | | | | | | | | of bornite, disseminated gr |
| | | | | | | | | | | | | | | | | | | | | of chalcocite and trace |
| 274.6 | 281.1 | | | 6.5 | | | | 0.3 | 0.1 | | 0.1 | 30 | 25 | 20 | | 15 | 10 | | skarn | amounts of chalcopyrite |
| | | | | | | | | | | | Azurite | | | | | | | | | finegrain mottled diopside |
| 276.2 | 281.2 | 5.0 | 6457 | 5.0 | 4.10 | | | | | | | | | | | | | | | epidote skarn mineralized w |
| | | | | | | | | | | | | | | | | | | | | very minor disseminated gra |
| 281.1 | 281.3 | 0.2 | | 0.2 | | | | | | mal. | 0.5 | | | | | 18 | 1 | | ore.min. | and clots of bornite and |
| | | | | | | | | | | FeO | 1 | | | | | | | | | chalcocite |
| | | | | | | | | | | | 80 | | | | | | | | | replacement by finegrain ma |
| | | | | | | | | | | chalcocite | | | | | | | | | | chalcocite |
| 281.3 | 287.2 | 5.8 | | 5.9 | | | | 0.2 | | | | 10 | 30 | 20 | | 35 | 5 | | skarn | finegrain mottled diopside |
| | | | | | | | | | | | | | | | | | | | | epidote skarn mineralized w |
| 281.2 | 286.2 | 4.8 | 6458 | 5.0 | | | | | | | | | | | | | | | | very minor disseminated gra |
| | | | | | | | | | | | | | | | | | | | | of borrite |
| 287.2 | 296.5 | 9.1 | | 9.3 | | | | 0.4 | | | tr | 90 | 2 | | | 7 | 1 | | skarn | finegrain dense epidote ska |
| | | | | | | | | | | | curri | | | | | | | | | mineralized with disseminat |
| | | | | | | | | | | | | | | | | | | | | veins of bornite |

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## DIAMOND DRILL LOG

HOLE No. 15

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 286.2 | 291.2 | 4.9 | 6459 | 5.0 | 0.45 | | | | | | | | | | | | | | | |
| 296.5 | 308.8 | 12.3 | | 12.3 | | | | 0.3 | | | 0.1 chrysocola | 3 | 40 | 20 | | 27 | 10 | | skarn | med. to finegrain diopside g epidote skarn-mineralized w disseminated clots of borni and trace amounts of chryso |
| 291.2 | 301.2 | 9.6 | 6460 | 10. | Tr. | | | | | | | | | | | | | | | |
| 308.8 | 321.4 | 12.9 | | 13.1 | | | | 0.1 | | | | | 60 | 20 | | | 5 | | skarn | med. grain mottled epidote garnet skarn-mineralized wi very minor bornite |
| 301.2 | 311.2 | 10. | 6461 | 10. | Tr. | | | | | | | | | | | | | | | |
| 311.2 | 321.2 | 10. | 6462 | 10. | 0.27 | | | | | | | | | | | | | | | |
| 321.4 | 340.7 | 18.3 | | 19.3 | | | 0.1 | 0.4 | | | 0.1 chalcocite | | 50 | 30 | | 15 | 5 | | skarn | med. coarse grained mottled diopside garnet skarn-miner lized with sporadic clots o bornite and trace amounts o |
| 321.2 | 326.2 | 4.9 | 6463 | 5.0 | 1.15 | | | | | | | | | | | | | | | chalcopyrite-core bisects 0. ft. stringer of massive bor containing chalcopyrite at |
| 326.2 | 331.2 | 4.9 | 6464 | 5.0 | Tr. | | | | | | | | | | | | | | | ft. 325.4 -patch of chalcoc |
| 331.2 | 336.2 | 4.4 | 6465 | 5.0 | 0.17 | | | | | | | | | | | | | | | at ft. 334.5 |
| 336.2 | 346.2 | 8.3 | 6466 | 10. | 0.70 | | | | | | | | | | | | | | | |
| 340.7 | 358.8 | 15.5 | | 18.1 | | | | 0.1 | 0.1 | | 0.1 azurite 0.1 chalcocite 0.1 chrysocola 0.1 hematite | | 30 | 15 | | 45 | 10 | | skarn | med.-finegrain mottled diop garnet skarn mineralized wi very minor grains of disem bornite-trace amounts of so chalcocite, azurite, chryso malachite and hydrated garne |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY BEST CHANCE

HOLE No. 15

Page 5 of 5

Coord. N _____ E _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO _____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | 90 | 1 | | skarn | diortized porphyritic lime silic. |
| 358.8 | 388.5 | 23.8 | | 29.7 | | | | | | | | | | | | | | | | |
| 388.5 | 408.3 | 19.5 | | 19.8 | | | | | | | | | | | | | 100 | | sed. | contorted gray limestone exhibiting fluidal to schis structure |
| 408.3 | 425. | 16.2 | | 16.7 | | | | | | | | | | | | | 100 | | sed. | finegrain dense gray Ytln. limestone. |

SIGNED _____

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY WEST CHANCE

HOLE No. 16

Page 1 of 3

Coord. N 54021 E 49144 ELEVATION 2676 BEARING N69° W INCLINATION -81 DATE FROM 1 Sept. TO Oct.

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 26 | 0 | | 26 | | | | | | | | | | | | | | | | casing through overburden |
| 26 | 100.5 | 74.4 | | 74.5 | | | | | | Tr. | | | | | 1 | | 99 | | sed. | grayish-white limestone - slightly serpentenized |
| 100.5 | 107. | 6.5 | | 6.5 | | | 0.1 | 1.2 | Tr. | | | | 10 | 75 | | 13 | 1 | | skarn | med. grain Xtln. garnet skarn (minor diopside) mineralized with disseminated grains and clots of bornite and very minor chalcopyrite |
| 100.5 | 105.5 | 5.0 | 6411 | 5.0 | 0.24 | | | | | | | | | | | | | | | |
| 105.5 | 110.5 | 5.0 | 6412 | 5.0 | Tr. | 35.60 | | | | | | | | | | | | | | |
| 107. | 145.8 | 35.7 | | 38.8 | | | 0.5 | 0.2 | 62 | | 0.05 chalcocite | 1 | 15 | 5 | | 13 | 3 | | skarn garnet skarn | replacement of mottled diop skarn by massive magnetite containing minor bornite and chalcocite and minor massiv chalcopyrite |
| 110.5 | 115.5 | 5.0 | 6413 | 5.0 | Tr. | 46.00 | | | | | | | | | | | | | | |
| 115.5 | 120.5 | 5.0 | 6414 | 5.0 | Tr. | 42.00 | | | | | | | | | | | | | | |
| 120.5 | 125.5 | 5.0 | 6415 | 5.0 | 0.40 | 42.30 | | | | | | | | | | | | | | |
| 125.5 | 130.5 | 5.0 | 6416 | 5.0 | 0.28 | 48.40 | | | | | | | | | | | | | | |
| 130.5 | 135.5 | 4.9 | 6417 | 5.0 | 0.13 | 52.40 | | | | | | | | | | | | | | |
| 135.5 | 140.5 | 5.0 | 6418 | 5.0 | 1.05 | 50.80 | | | | | | | | | | | | | | |
| 140.5 | 145.8 | 5.3 | 6419 | 5.3 | 0.32 | 59.40 | | | | | | | | | | | | | | |
| 145.8 | 159. | | | 13.2 | | | 0.2 | 0.5 | 0.5 | | 1.0 Na.cu.<br>1.5 cuprite<br>0.1 chalcocite<br>1 FeO | 1 | 15 | 20 | | 53 | 5 | | skarn | mottled garnetiferous diop skarn mineralized with pat copper, cuprite, minor bor and chalcocite |
| 145.8 | 150.8 | 5.0 | 6420 | 5.0 | 0.30 | | | | | | | | | | | | | | | |
| 150.8 | 155.9 | 4.6 | 6421 | 5.0 | 0.46 | | | | | | | | | | | | | | | |
| 155.8 | 160.8 | 5.0 | 6422 | 5.0 | 0.28 | | | | | | | | | | | | | | | |
| 160.8 | 170.8 | 10. | 6423 | 10. | 0.06 | | | | | | | | | | | | | | | |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY BEST CHANCE

HOLE No. 16

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 159. | 172. | | | 13. | | | 0.2 | | | | | Tr. | 20 | 60 | | 20 | 1 | | skarn | mottled diopside garnet sk- with very minor bornite |
| 170.8 | 175.8 | 5.2 | 6425 | 5.0 | 1.05 | | | | | | | | | | | | | | | |
| 172. | 176. | 2.0 | | 4.0 | | | .3 | | | | 0.2 cuprite | | | 30 | | 62 | Tr. | | skarn | med. grain garnet skarn min lized with massive chalco minor cuprite and very mino dissem. chalcopyrite-trace amounts of malacite |
| 175.8 | 185.9 | 9.1 | 6426 | 10. | 0.95 | | | | | | | | | | | | | | | |
| 176. | 180.4 | 4.3 | | 4.4 | | | Tr. | Tr. | | | Tr. nat. cu. | 50 | 10 | 15 | | 24 | 1 | | skarn | epidote skarn-minor garnet mineralized with trace amo of chalcopyrite, bornite and native copper |
| 180.4 | 221.5 | | | 41.1 | | | Tr. | 0.5 | | | | | 40 | 30 | | 25 | 5 | | skarn | replacement by mottled dio garnet skarn mineralized wi minor bornite in the form sporadic disseminated clo |
| 185.8 | 190.8 | 4.9 | 6426 | 5.0 | 0.11 | | | | | | | | | | | | | | | |
| 190.8 | 195.8 | 4.7 | 6427 | 5.0 | 0.50 | | | | | | | | | | | | | | | |
| 195.8 | 200.8 | 5.0 | 6428 | 5.0 | 0.70 | | | | | | | | | | | | | | | |
| 200.8 | 205.8 | 5.0 | 6429 | 5.0 | 0.26 | | | | | | | | | | | | | | | |
| 205.8 | 210.8 | 5.0 | 6430 | 5.0 | 0.20 | | | | | | | | | | | | | | | |
| 210.8 | 215.8 | 5.0 | 6431 | 5.0 | 0.23 | | | | | | | | | | | | | | | |
| 215.8 | 225.8 | 9.9 | 6432 | 10. | 0.20 | | | | | | | | | | | | | | | |
| 221.5 | 235.7 | 14.1 | | 14.2 | | | 0.4 | | | mal. FeO | 0.1 4 0.8 chrysocole | | 20 | 35 | | 35 | 5 | | skarn | mottled and slightly oxidi garnetiferous diopside sk mineralized with sporadic of born ite and containing grains of chrysocole |
| 225.8 | 230.8 | 5.0 | 6433 | 5.0 | 0.58 | | | | | | | | | | | | | | | |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 16

Page 3 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 235.7 | 238.7 | 3.0 | | 3.0 | | | | | | FeO | 2 10 goethite | | 20 | 20 | | 36 | 10 | | skarn | oxidized finegrain garnet-epidote skarn-minor goethite |
| 238.7 | 248.5 | 9.8 | | 9.8 | | | | | | | | 90 | | | | 6 | 2 | | skarn | finegrain dense epidote skarn |
| 248.5 | 258 | 9.5 | | 9.5 | | | | | | | | | | | | 100 | | | intr. | fresh diorite. |

DD-34

PROPERTY DENT CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 17



Coord. N 54070 E 42144 ELEVATION 2684 BEARING N 36° W INCLINATION -30° DATE FROM 3 October TO 8 October

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 27 | 0 | | 27 | | | | | | | | | | | | | | | | casing through overburden |
| 27 | 98.8 | 63.6 | | 71.8 | | | | | | | | | | | 12 | | 88 | | sed. | Ytln. gray limestone-slightly serpentinized along fractures |
| 98.8 | 103.8 | 4.4 | | 5.0 | | | 0.5 | | | | | | 30 | 30 | | 9 | 30 | | skarn | replacement of white Ytln. limestone by alternating bands and blotches of diopside - skarn mineralized with clots chalcopyrite |
| 99.5 | 109.5 | 9.2 | 6467 | 10. | 0.18 | | | | | | | | | | | | | | | |
| 103.8 | 109.7 | 5.8 | | 5.9 | | | | Tr. | 1 | | | | 90 | | | 8 | 1 | | skarn | dense diopside skarn mineralized with very minor magnetite and trace bornite |
| 109.7 | 114.4 | 4.7 | | 4.7 | | | 0.3 | Tr. | | | | | 5 | 80 | | 14 | 1.0 | | skarn | mottled garnet skarn-minor diopside mineralized with very minor chalcopyrite and trace amounts of bornite |
| 114.4 | 120.6 | 5.9 | | 6.2 | | | | 0.2 | | | | | 90 | 1 | | 8 | 1.0 | | skarn | finegrain dense diopside skarn mineralized with very minor bornite in disseminated clots |
| 109.5 | 119.5 | 9.6 | 6468 | 10. | 0.30 | | | | | | | | | | | | | | | |
| 120.6 | 123.7 | 3.1 | | 3.1 | | | 0.4 | 0.9 | | | | | 5 | 80 | | 14 | Tr. | | skarn | finegrain garnet skarn mineralized with disseminated clots and grains of bornite and chalcopyrite-trace chalcoci |
| 119.5 | 124.5 | 4.9 | 6469 | 5.0 | 0.10 | | | | | | | | | | | | | | | |
| 123.7 | 130.5 | 6.7 | | 6.8 | | | | | | | | 90 | | | | 5 | 5 | | skarn | finegrain dense epidote skarn |
| 124.5 | 134.5 | 8.7 | 6470 | 10. | 0.25 | | | | | | | | | | | | | | | |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY BEST CHANCE

HOLE No. 17

Page 2 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 130.5 | 144.5 | 12.3 | | 14.0 | | | 0.2 | 0.3 | | | | 1 | 40 | 30 | | 9 | Tr. | | skarn | finegrain and coarse mottled garnet diopside skarn- mineralized with very minor disseminated grains of chalc pyrite and bornite |
| 134.5 | 144.5 | 8.7 | 6471 | 10. | Tr. | | | | | | | | | | | | | | | |
| 144.5 | 156.1 | 11.5 | | 11.6 | | | | Tr. | 70 xx | | | | 10 | 5 | | 12 | 3 | | skarn | mottled diopside garnet skarn mineralized with massive finegrain magnetite |
| 144.5 | 151.1 | 6.6 | 6472 | 6.6 | Tr. | 43.20 | | | | | | | | | | | | | | |
| 151.1 | 156.1 | 4.9 | 6473 | 5.0 | 0.25 | 47.20 | | | | | | | | | | | | | | |
| 156.1 | 163.6 | 7.4 | | 7.5 | | | | 0.4 | | | 2 chalcocite 0.2 Nat.cu. | | | | | | | | skarn | finegrain mottled garnet dio side skarn mineralized with chalcocite, bornite and native cu. |
| 156.1 | 161.1 | 4.9 | 6474 | 5.0 | 1.57 | | | | | | | | | | | | | | | |
| 163.6 | 168. | 4.3 | | 4.4 | | | | | 75 | | | | 10 | | | 15 | Tr. | | skarn | diopside epidote skarn miner lized with massive magnetite |
| 161.1 | 166.1 | 5. | 6475 | 5. | Tr. | 28.30 | | | | | | | | | | | | | | |
| 166.1 | 170.5 | 4.4 | 6476 | 4.4 | 0.20 | 34.40 | | | | | | | | | | | | | | |
| 168. | 170.5 | 2.5 | | 2.5 | | | | Tr. | | | FeOlO | | 10 | 30 | | 30 | 20 | | skarn | oxidized diopside garnet ska |
| 170.5 | 179.4 | 8.8 | | 8.9 | | | | Tr. | | | 9 chalcocite 10 goethite | | | | | 35 | 15 | | skarn | oxidized and brown lime sili mineralized with sporadic clots of massive chalcocite implaced in massive goethite fine disseminated grains of native copper throughout ska |
| 170.5 | 175.5 | 4.6 | 6477 | 5.0 | | | | | | | | | | | | | | | | |
| 175.5 | 180.5 | 4.9 | 6478 | 5.0 | | | | | | | | | | | | | | | | |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 17

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Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn. | Pyr. | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | Rock Type | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 179.4 | 205.7 | 24.4 | | 26.3 | | | | Tr. | | | | 3 | 20 | 15 | | 47 | 15 | | skarn | alternating 2 ft. bands of diopside garnet skarn and diortized skarn |
| 205.7 | 215.4 | 9.7 | | 9.7 | | | | | | | | | | | | 99 | 1 | | skarn | diortized porphyritic lime silic. (diopside) |
| 215.4 | 223.2 | 7.7 | | 7.8 | | | | 0.3 | | | | 15 | 10 | 20 | | 45 | 10 | | skarn | finegrain epidote garnet skarn mineralized with min disseminated grains of bornite |
| 223.2 | | | | | | | | | | | | | | | | | | | | |
| 223.2 | 231.4 | 5.0 | | 8.2 | | | | | | | | | | | | 100 | | | intr. | medium grain diorite |
| 231.4 | 243. | 9.4 | | 11.6 | | | | | | | | | | | | | 20 | | skarn | diortized porphyritic diops lime silic. |
| 243. | 248.2 | 5.2 | | 5.2 | | | | | | | | | | | | 99 | 1 | | skarn | diortized porphyritic (med. grain) silic. |
| 248.2 | 256. | 6.8 | | 7.8 | | | | | | | | | | | | | | | skarn | finegrain diopside epidote skarn |
| 256. | 257. | 1.0 | | 1.0 | | | | | | | | | | | | 100 | | | intr. | medium grain fresh diorite. |

PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 18

Page 1 of 2

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 14 | 0 | | 14 | | | | | | | | | | | | | | | | casing through overburden |
| 14. | 63.0 | 44.6 | | 49. | | | | | | | | | | | | 2 | 98 | | Sed. | serpentenized and mottled gray limestone |
| 63. | 67.6 | 3.0 | 6479 | 4.6 | 5.35 | | 5 | | | | | 90 | | | | 5 | Tr. | | skarn | green epidote skarn miner with disseminated chalcop |
| 67.6 | 81.7 | 13.8 | | 14.1 | | | | | | | | 70 | 10 | | | 5 | 15 | | skarn | finegrain epidote diopside skarn |
| 81.7 | 153.4 | 70. | | 71.7 | | | | | | | | | | | 6 | 3 | 91 | | sed. | gray Xtln. limestone serp enized along fractures |
| 153.4 | 162.1 | 8.7 | | 8.7 | | | 0.2 | 0.5 | 0.3 | mal. 0.1 | 0.3 chalcocite | | 30 | 30 | | 35 | 5 | | skarn | mottled and finegrain gar diopside skarn mineralized |
| 153.5 | 157.7 | 4.2 | 6480 | 4.2 | 4.10 | | | | | | | | | | | | | | | with disseminated clots of bornite and chalcopyrite |
| 157.7 | 162.7 | 5.0 | 6481 | 5.0 | 0.12 | | | | | | | | | | | | | | | with minor clots of chalco surrounding bornite |
| 162.1 | 182.7 | 18.8 | | 20.6 | | | tr. | 0.3 | 0.3 | 0.4 chalcocite | | | 20 | 20 | | 20 | 20 | | skarn | brecciated replacement by mottled and finegrain dio |
| 162.7 | 167.7 | 4.9 | 6482 | 5.0 | tr. | | | | | | | | | | | | | | | garnet skarn containing un altered splotches of limes |
| 167.7 | 172.7 | 4.9 | 6483 | 5.0 | 1.35 | | | | | | | | | | | | | | | and mineralized with disse clots bornite and chalcopy |
| 172.7 | 177.7 | 4.9 | 6484 | 5.0 | 0.90 | | | | | | | | | | | | | | | |
| 177.7 | 182.7 | 4.9 | 6485 | 5.0 | 0.85 | | | | | | | | | | | | | | | |
| 182.7 | 197.7 | | | 15. | | | 2 | 0.7 | | mal. 0.1 | 0.05 tenn.cu 0.05 cupriteO 0.2 chalcocite | | 15 | 40 | | 37 | 5 | | skarn | mottled magnetiferous diop skarn mineralized with dis clots and grains of bornite |
| 182.7 | 187.7 | 3.7 | 6486 | 5.0 | 1.03 | | | | | | | | | | | | | | | containing chalcopyrite and |
| 187.7 | 192.7 | 4.9 | 6487 | 5.0 | 0.17 | | | | | | | | | | | | | | | surrounded by chalcocite - stringers of massive chalco |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

DIAMOND DRILL LOG

HOLE No. 18

Page 2 of 2

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 197.7 | 200.4 | 2.7 | | 2.7 | | | | | | | | | | | | | 100 | | sed. | grayish white limestone |
| 200.4 | 222.9 | 21.2 | | 22.5 | | | 0.7 | 0.5 | 1 | mal. tr. | 0.5 goethite 0.3 chalcocite | | 20 | 30 | | 14 | 20 | 15 calcite | skarn | garnet-diopside skarn mineralized with sporadic clots of ~~bornite, magnetite and chalcocite~~ |
| 200.4 | 200.4 | 4.4 | 6489 | 5.0 | 4.90 | | | | | | | | | | | | | | | |
| 205.4 | 215.4 | 9.9 | 6490 | 10. | tr. | | | | | | | | | | | | | | | |
| 215.4 | 220.4 | 4.9 | 6491 | 5.0 | 0.27 | | | | | | | | | | | | | | | |
| 220.4 | 222.9 | 1.8 | 6492 | 2.5 | 0.30 | | | | | | | | | | | | | | | |
| 222.9 | 238.9 | 14.4 | | 16. | | | tr. | | | | tr. hematite | | 5 | 0.5 | | | 95 | | sed. | grayish white Xtln. limesto containing small distorted ~~of diopside skarn~~ |
| 238.9 | 243.4 | 4.1 | | 4.5 | | | 0.4 | 0.9 | | | | | 30 | 15 | | 34 | 20 | | skarn | mottled finegrain diopside skarn mineralized with spo ~~die clots of chalcopyrite~~ bornite |
| 238.9 | 243.9 | 4.4 | 6493 | 5.0 | 0.50 | | | | | | | | | | | | | | | |
| 243.9 | 253.9 | 10. | 6494 | 10. | 0.30 | | | | | | | | | | | | | | | |
| 243.4 | 251.0 | 7.6 | | 7.6 | | | | | | | | | 2 | | | 3 | 95 | | sed. | fractured grayish-white li stone -stringers of diopsi skarn |
| 251. | 255.6 | 4.6 | | 4.6 | | | 0.2 | | | | | | 30 | 5 | | 35 | 30 | | skarn | finegrain diopside garnet mineralized with very mino chalcopyrite in disseminat grains |
| 255.6 | 256.8 | 1.2 | | 1.2 | | | | | | | | | | | | 1 | 99 | | sed. | mottled grayish white Xtln. limestone |
| 256.8 | 264. | 6.4 | | 7.2 | | | tr. | | | | tr. hematite | | 40 | | | 15 | 5 | | skarn | finegrain mottled garnetif diopside karn-trace amoun ~~of chalcopyrite in calcite~~ long fractures. |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 19

Page 1 of 3

Coord. N 54158 E 40161 ELEVATION 2694 BEARING N 86 W INCLINATION -30° DATE FROM Oct. 8 TO 11

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 20.8 | 6.8 | | 20.8 | | | | | | | | | | | | 96 | 4 | | skarn | diortized prophyritic greenish gray lime silic. |
| 20.8 | 33.5 | 11.3 | | 12.7 | | | | | | | | | | | | 100 | | | Intr. | med. grained fresh diorite |
| 33.5 | 45.0 | 8.6 | | 11.5 | | | | | | | | | | | | 96 | 4 | | skarn | diortized and porphyritic greenish gray limesilic. |
| 45.0 | 63.8 | 13.1 | | 18.8 | | | | | | | | | | | | 100 | | | sed. | finegrain Xtln. gray limest |
| 63.8 | 69.8 | 5.2 | | 6.0 | | | | | | | 0.3 $FeS_2$ | | | | | 100 | | | dyke | finegrain basic dyke-contain disseminated pryite |
| 69.8 | 91. | 21.1 | | 21.2 | | | | | | 2 | 5 | goethite 5 | | | | 73 | 15 | | skarn | finegrain greenish brown li silic. mineralized with ver ~~minor grains of disseminate~~ pyrite |
| 91. | 95.8 | 4.8 | | 4.8 | | | | | | | | | | | | 1 | 99 | | sed. | Xtln. grayish white to gray limestone minor serpentine ~~along fractures~~ |
| 95.8 | 106.2 | 10.4 | | 10.4 | | | | | | | 0.5 $FeS_2$ 2 Chl. | | 10 | | | 83 | 5 | | skarn | finegrain greenish gray dio chlorite skarn-mineralized ~~very minor disseminated gra~~ of pyrite |
| 106.2 | 121.4 | 14.3 | | 15.2 | | | | | | | | | | | 4 | | 96 | | sed. | grayish white Xtln. limeston serpentenized along fractu |
| 121.4 | 130.8 | 9.4 | | 9.4 | | | | | | | | | | | | 99 | 1 | | skarn | diortized and porphyritic diopside lime silic. |

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# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

PROPERTY BEST CHANCE

HOLE No. 19

Page 3 of

Coord. N E ELEVATION BEARING INCLINATION DATE FROM TO

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 250.2 | 260.2 | 10. | 6502 | 10. | tr. | | | | | | | | | | | | | | | |
| 260.2 | 268. | 7.1 | | 8.8 | | | 0.4 | 0.9 | | | 0.7 chalcocite | | 15 | 40 | | 30 | 15 | | skarn | mottled garnet diopside ska mineralized with clots of di ~~seminated~~ bornite, chalco- pyrite and chalcocite |
| 260.2 | 265.2 | 4.9 | 6503 | 5.0 | 4.30 | | | | | | | | | | | | | | | |
| 265.2 | 270.2 | 4.6 | 6504 | 5.0 | tr. | | | | | | | | | | | | | | | |
| 269 | 282.6 | 13.5 | | 13.6 | | | | 0.1 | | | | 15 | 25 | 5 | | 55 | 5 | | skarn | diopside epidote skarn-trac amounts of bornite in disse ~~inated~~ grains |
| 270.2 | 280.2 | 10. | 6505 | 10. | tr. | | | | | | | | | | | | | | | |
| 282.6 | 291. | 8.4 | | 8.4 | | | | | | | | | 40 | 5 | | 50 | 5 | | skarn | finegrain dense diopside sk |

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JD-34

PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 20

Page 1 of 2

Coord. N 53,970 E 49,151 ELEVATION 2677 BEARING N 86° W INCLINATION -32.5 DATE FROM 12 October TO 16 October

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: Chalc. | Born. | Magn | Pyr | Other | Epid | Diop | Garn. | Serp. | Silic. | Lmst. | Other | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6 | 0 | | 6 | | | | | | | | | | | | | | | | casing through o.b. |
| 6 | 19.5 | 3.0 | | 13.5 | | | | | | | | | | | | 99 | 1 | | skarn | diortized porphyritic gray silic. |
| 19.5 | 20.8 | 0.8 | | 1.3 | | | | | | | | | | | | 100 | | | intr. | medium grain fresh hornblend granite |
| 20.8 | 24. | 1.8 | | 3.2 | | | | | | | | | | | | 99 | 1 | | skarn | finegrain dark gray diortize porphyritic silic. |
| 24. | 120.3 | 73.3 | | 96.3 | | | | | | 0.1 | | | | | 4 | 1 | 95 | | sed. | grayish white Xtln. limeston development of serpentine al fractures |
| 120.3 | 159. | 35.4 | | 38.7 | | | 0.2 | tr. | 35 | ft. 157 | 0.02 Nat.cu. 0.01 cuprite | 15 | | 5 | | 42 | 3 | | skarn | mottled diopside garnet skar mineralized with discontinuou patches of massive magnetite trace amounts of bornite and very minor chalcopyrite in d seminated grains and stringe of massive chalcopyrite |
| 119 | 124 | 3.7 | 6506 | 5.0 | 0.08 | 10.40 | | | | | | | | | | | | | | |
| 124 | 129 | 5.0 | 6507 | 5.0 | tr. | 40.40 | | | | | | | | | | | | | | |
| 129 | 134 | 4.7 | 6508 | 5.0 | tr. | 49.60 | | | | | | | | | | | | | | |
| 134 | 139 | 4.6 | 6509 | 5.0 | 0.07 | 31.40 | | | | | | | | | | | | | | |
| 139 | 144 | 4.9 | 6510 | 5.0 | tr. | 49.40 | | | | | | | | | | | | | | |
| 144 | 149 | 5.0 | 6511 | 5.0 | 1.18 | 37.80 | | | | | | | | | | | | | | |
| 149 | 154 | 3.1 | 6512 | 5.0 | 0.95 | 11.60 | | | | | | | | | | | | | | |
| 154 | 159 | 5.0 | 6513 | 5.0 | tr. | 39.00 | | | | | | | | | | | | | | |
| 159. | 165. | 5.2 | | 6.0 | | | 0.6 | tr. | 1 | | | 1 | 30 | 10 | | 54 | 5 | | skarn | mottled diopside garnet skar mineralized with sporadic clo of chalcopyrite and very min magnetite |
| 159 | 164 | 4.2 | 6514 | 5.0 | 0.47 | | | | | | | | | | | | | | | |

PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 20

Page 2 of 2

Coord. N. _____ E. _____ ELEVATION _____ BEARING _____ INCLINATION _____ DATE FROM _____ TO _____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 165. | 174. | | | 9.0 | | | | | | | | 80 | | | | 12 | 8 | | skarn | finegrain highly fractured dense epidote skarn-tr. am of cuprite and native copp |
| 164 | 169 | 5.0 | 6515 | 5.0 | 0.24 | | | | | | | | | | | | | | | |
| 169 | 174 | 4.8 | 6516 | 5.0 | tr. | | | | | | | | | | | | | | | |
| 174 | 185.2 | | | 11.2 | | | 0.1 | | | | 2.5<br>0.1<br>0.7 | 86<br>nat. Cu.<br>chalcocite<br>cuprite | | | | | 10 | | skarn | finegrain dense epidote sk becoming limy at end of se with the complete section mineralized with dissemina grains of native copper an cuprite |
| 174 | 179 | 4.4 | 6517 | 5.0 | 0.50 | | | | | | | | | | | | | | | |
| 179 | 184 | 4.3 | 6518 | 5.0 | 1.10 | | | | | | | | | | | | | | | |
| 184 | 189 | 4.2 | 6519 | 5.0 | 1.03 | | | | | | | | | | | | | | | |
| 185.2 | 261.4 | | | 76.2 | | | 0.1 | 0.6 | chalcocite<br>chrysocola<br>calcite<br>hematite | | tr.<br>tr.<br>10<br>tr. | | 45 | 25 | | 14 | 5 | | skarn | finegrain mottled garnet di side skarn containing c.3 long splotches of calcite- total section mineralized sporadic clots and grains bornite and very minor cha pyrite |
| 189 | 194 | 4.9 | 6520 | 5.0 | tr. | | | | | | | | | | | | | | | |
| 194 | 199 | 3.2 | 6521 | 5.0 | 0.15 | | | | | | | | | | | | | | | |
| 199 | 204 | 5.0 | 6522 | 5.0 | 0.70 | | | | | | | | | | | | | | | |
| 204 | 209 | 4.7 | 6523 | 5.0 | 0.56 | | | | | | | | | | | | | | | |
| 209 | 219 | 9.9 | 6524 | 10. | tr. | | | | | | | | | | | | | | | |
| 219 | 229 | 9.8 | 6525 | 10. | 0.12 | | | | | | | | | | | | | | | |
| 229 | 239 | 9.7 | 6526 | 10. | tr. | | | | | | | | | | | | | | | |
| 239 | 249 | 9.2 | 6527 | 10. | 0.37 | | | | | | | | | | | | | | | |
| 249 | 259 | 9.5 | 6528 | 10. | tr. | | | | | | | | | | | | | | | |
| 261.4 | 264.1 | 2.6 | | 2.7 | | | | | | FeO (at fault) | 0.9 | 2 | 20 | | | 63 | 15 | | skarn | brecciated bands of grayis green diopside skarn |
| 264.1 | 269 | 3.6 | | 4.9 | | | | | | | | | | | | 99 | 1 | | Intr | blended hornblende granite and diortized lime silic. |

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PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 21

Page 1 of

Coord. N 53926 E 40148 ELEVATION 2682 BEARING N 86° W INCLINATION -33° DATE FROM Oct. 12 TO 16

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe | ESTIMATED % COMPOSITION OF ORE & SKARN CHALC. | BORN. | MAGN | PYR | OTHER | EPID | DIOP | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 13 | 0 | | 13 | | | | | | | | | | | | | | | | casing in bed rock |
| 13 | 90 | 61.3 | | 87 | | | | | | | | | | | | 100 | | | Intr. | med. grained porphyritic b blende granite |
| 90 | 144.5 | 33.1 | | 54.5 | | | | | | | | | 20 | | 5 | 70 | 5 | | skarn | fractured and mottled diop lime silic. serpentenized fractures |
| 144.5 | 151.2 | 4.0 | | 6.7 | | | | | | | | | | | | 99 | 1 | | skarn | finegrain dense green epid skarn |
| 151.2 | 176.8 | 24.4 | | 25.6 | | | | | | | 0.05 chalcocite | | 5 | | | 65 | 20 carbonates | 10 | skarn | diopside lime-silicate gra gray (siderite between 16 and 170) |
| 166.8 | 176.8 | 9.9 | 6529 | 10. | 0.32 | | | | | | | | | | | | | | | |
| 176.8 | 196.3 | 0.1 | | 19.5 | | | | | | | | | | | | 1 | 99 | | calcite | white Ytln. -no visible mineralization |
| 196.3 | 205.1 | 5.3 | | 8.8 | | | | Tr. | | | | | 2 | 70 | | 27 | 1 | | skarn | granular-light brown garne skarn -minor diopside -tr amounts of bornite, malaci and hematite |
| 196.3 | 206.3 | 6.4 | 6530 | 10. | tr. | | | | | | | | | | | | | | | |
| 206.3 | 216.3 | 9.6 | 6531 | 10. | 0.15 | | | | | | | | | | | | | | | |
| 205.1 | 214.8 | 9.4 | | 9.7 | | | 0.01 | 0.01 | | mal. 0.01 | 0.05 chrysocolla | | 15 | 25 | | 40 | 10 | 10 calcite | skarn | mottled garnet-diopside sk containin 0.3 ft. long patches o calcite-section mineralized with trace amo of chalcocite, bornite an chalcopyrite |

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DD-34

PROPERTY BEST CHANCE

# NEW IMPERIAL MINES LTD.

## DIAMOND DRILL LOG

HOLE No. 21

Page 2 of 2

Coord. N_____ E_____ ELEVATION_____ BEARING_____ INCLINATION_____ DATE FROM_____ TO_____

| FOOTAGE From | FOOTAGE To | FOOTAGE Recov. | Sample No. | Length Ft. | ASSAYS Cu. | ASSAYS Fe. | ESTIMATED % COMPOSITION OF ORE & SKARN: CHALC. | BORN. | MAGN. | PYR. | OTHER | EPID. | DIOP. | GARN. | SERP. | SILIC. | LMST. | OTHER | ROCK TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 214.8 | 229.5 | 6.7 | | 14.7 | | | | | | | 1 goethite | 5 | 10 | | | | 20 | | skarn | tan lime silic. containing minor epidote - brecciated marble upper contact with so goethite in brecciated sect |
| 229.5 | 236.5 | 2.5 | | 7.0 | | | | | | | | | | | | | | | intr. | fresh porphyritic hornblend granite. |

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# NEW IMPERIAL MINES LIMITED

## APPENDIX VII

Core Storage

NEW IMPERIAL MINES LIMITED

Core Storage

Beginning on July 1, 1964 the core produced from drilling covered by this report may be found in storage in a Company Warehouse located adjacent to the Alcan Highway at Mile 910.1

A company official should be consulted if an examination of the core is desired.

"This sheet is issued as a preliminary guide to prospectors for which the Department accepts no responsibility, as it is impossible to obtain absolutely accurate surveys. Every effort has been made to show as accurately as possible the location of claims.

This sheet will be revised from time to time upon receipt of more accurate information."

WHITEHORSE 5 Dec. 63

27 Oct. 63 — 11 Mar. 64
20 Dec. 63 — 4 Feb. 64
3 Feb. 64
31 Jan. 64

# SHEET 105-D-11

LATITUDE 60°30' To 60°45
LONGITUDE 135°00' To 135°30'

## WHITEHORSE

CANADA
DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
NORTHERN ADMINISTRATION BRANCH
RESOURCES DIVISION

SCALE: ½ MILE To 1 INCH

FT. 1500 0 1500 3000 4500 6000 7500 9000 10500 FT.

ISSUED UNDER THE AUTHORITY OF THE MINISTER
OF
NORTHERN AFFAIRS AND NATIONAL RESOURCES

| | | |
|---|---|---|
| 105-D-13 | 105-D-14 | 105-D-15 |
| 105-D-12 | 105-D-11 | 105-D-10 |
| 105-D-5 | 105-D-6 | 105-D-7 |

PRICE 25 CENTS

135°30'
60°45'
135°00'

WHITEHORSE

JACKSON CREEK
IBEX RIVER
FRANKLIN LIsellways
LOUISE L.
Control Gate
Dam
Dike
FISH CREEK
FISH LAKE
O'CONNELL LAKES
IBEX RIVER
WOLF CREEK
SCHWATKA LAKE
YUKON RIVER
TAMARAC 50
CARLISLE 49
PUEBLO
WAR EAGLE
ANGELA
LENORE
VIERTT
JULIA
JEAN
DELLA
PRINCE
SIMMONS
CROW
CAT
ACME
TAG
Power Line
Tank Farm
ARMY RESERVE
Miles Canyon
Ice Kon
Railway
Pipe Line
Magnetic North
N 31°00' E
Approximate Design Line for Assessment Work
Work Completed on the East Shore Claim applies to claim located South of the Division Line
Work Completed in the Arctic Chief Area applies to claims located South of the Division Line.
MT. McINTYRE
MT. GRANGER
GOLDEN HORN MTN.
WHITSON RIVER REFERENCE TRAVERSE
4702
5382
5188
6177
6108
6654
6911
6235
5241
3063
4731