60000840

Mining District File Summary Sheet

| | |
|---|---|
| DISTRICT | Rosebud |
| DIST_NO | 4010 |
| COUNTY<br>If different from written on document | Pershing |
| TITLE<br>If not obvious | Rosebud Drill Hole File - Hole No. D-38-94 |
| AUTHOR | M. Nelson; C. Muerhoff; S. Fairclotl |
| DATE OF DOC(S) | 1994 |
| MULTI_DIST Y / N?<br>Additional Dist_Nos: | |
| QUAD_NAME | Sulphur 7.5' |
| P_M_C_NAME<br>(mine, claim & company names) | Rosebud Mine; Hecla Mining Co.; Rosebud Project South Zone |
| COMMODITY<br>If not obvious | gold; silver |
| NOTES | Drill log; geology; assay; total depth 240'; receipt; handwritten notes<br><br>11p. |

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

SS: DD 5/1/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D 38-94

6000 0840

4010

60000848

South Zone

**Hecla** MINING COMPANY

# ROSEBUD PROJECT
# DIAMOND DRILL LOG

| | | | | | |
|---|---|---|---|---|---|
| HOLE NUMBER | D 38-94 | LOCATION | D.D.S. #11, SECTION 600N. | REMARKS | All core assayed, |
| PAGE 1 OF 4 | | NORTHING | 2203673.4 | | core photographed, collar |
| DATE | 10/21/1994 | EASTING | 481609.8 | | location D.D.S. #11, section 600N. |
| LOGGED BY | MARTIN A. NELSON | ELEVATION | 4681.0 | | |
| SCALE | 1" = 10' | AZIMUTH | 133.5° | | |
| TOTAL DEPTH | 239.5 | INCLINATION | -1.0° | | |

| %REC | RQD | LITHOLOGY | FT | GRAPHIC LOG | STRUCTURE | ALTERATION AND MINERALIZATION |
|---|---|---|---|---|---|---|
| | | 0'-9.8' Very pale green/ with tan-pink irregular patches and along fxs, fine grained, homogeneous ash tuff, has been ubiquitously weakly ser'itized, alun'tized in irregular patches and along fracs. Tuff is well indurated - probably some silicification also.<br>9.8'-20.2' Very pale green matrix w/ tan-pink clasts. Breccia w/ laminated clasts, clast supported. Clasts are elongate, somewhat tabular.<br>20.2'-27' Pervasively alunitized, weakly sericitized flowbanded, fluidal tuff. Alunitized areas are tan/pinkish, appears that zones that were not are very pale green sericite.<br>27'-50' Light gray, very pale green tuff breccia w/ intercalated fine tuff horizons. Typically clast supported, moderately-well indurated. Locally pink/tan (wet) alunitized. | 0' contact 10' 20' 30' 40' 50' | Lith Struct Alt/Miner 35° 80° 50° 45° 65° 25° 60° | 0'-9.8' cut by 100's of hairline, mostly alunite filled, fxs. Hairline fxs. Cut by later 1/16"-1/8" $CaCO_3$/marc fxs.<br>9.8'-20.2' little structure interval cut by several joints.<br>20.2'-27' little structure, interval cut by several joints.<br>27'-32' wk-mod. alun. w/ w/ local sericite<br>32'-35.5' sparse fxs.<br>@35.5' 1/2" chlorite, py filled fault<br>35.5'-50' sparse fxs<br>@ 40' 1.5" strong clay, py | 0'-9.8' w/ 1% dissem py, marc. $CaCO_3$, marc on late fxs. Marc w/ clear $CaCO_3$.<br>@ 7'-1/4" opaque white, clear/gray $CaCO_3$ vnlt w/ marc, chlorite. Chlorite, marc. predate $CaCO_3$.<br>9.8'-20.2' Interval pervasively alun'ized, ser'ized Tr-1% dissem py throughout To 5% dissem py in some layered clasts.<br>20.2'-27' Pervasively alun'ized w/ sericite patches. Tr-1% dissem py/marc throughout.<br>27'-32' Tr-1% dissem py, clear $CaCO_3$ on fxs, small faults. Mod alunite, wk ser.<br>32'-35.5' Mod ser, wk. local alunite. Tr-.5% dissem marc. Hairline chlorite fxs cut by later $CaCO_3$/marc. filled fxs.<br>35.5'-50' Moderately alun'ized tuff breccia. Tr-1% dissem. py throughout, and in patches of 10% Py. 2-3 fxs w/ $CaCO_3$/marc. |

| FROM | TO | W | Au | Ag | Au2 | Ag2 |
|---|---|---|---|---|---|---|
| 0 | 5 | 5 | <.001 | .02 | | |
| 5 | 10 | 5 | <.001 | <.02 | | |
| 10 | 15 | 5 | <.001 | <.02 | | |
| 15 | 20 | 5 | <.001 | <.02 | | |
| 20 | 25 | 5 | <.001 | <.02 | | |
| 25 | 30 | 5 | <.001 | .03 | | |
| 30 | 35 | 5 | <.001 | .03 | | |
| 35 | 40 | 5 | .002 | .05 | | |
| 40 | 45 | 5 | .003 | .10 | | |
| 45 | 50 | 5 | .013 | .36 | | |

HOLE NUMBER D 38-94 PAGE 2 OF 4

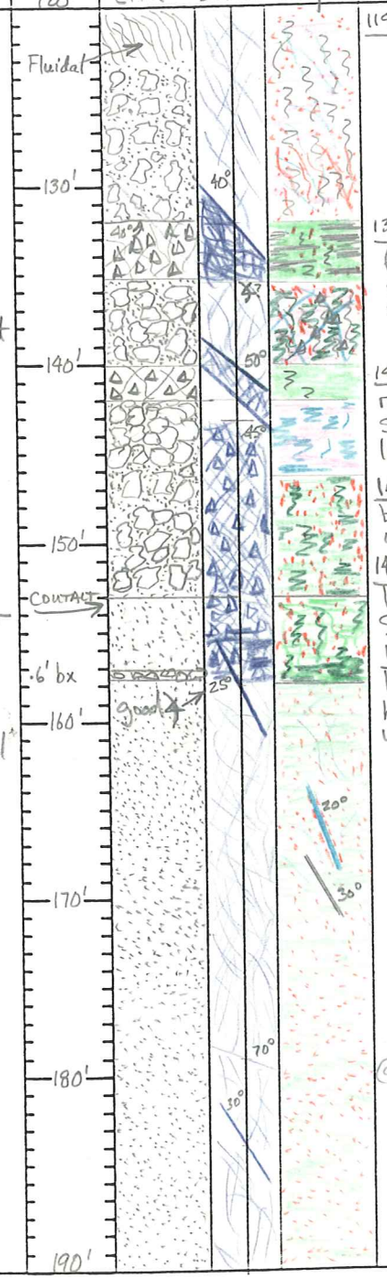
| REC | RQD | LITHOLOGY | FT | GRAPHIC LOG (Lith, Struct, Alt/Min) | STRUCTURE | ALTERATION AND MINERALIZATION |
|---|---|---|---|---|---|---|
| | | 50'–68' Light gray, with very pale green and pink/tan zones, tuff breccia w/ intercalated fine tuff horizons (large clasts?). Typically clast supported, moderately-well indurated. | 50' | | 50'–108.8' Cut by 1.5-2 fxs/ft. No major faults. | 50'–73' Wk pink tan alunitization, wk, local ser. Disseminated tr-1% py throughout - 5% py in patches. Marc. mostly in fxs, often w/ $CaCO_3$ |
| | | | | | @ 54' 3/8" $CaCO_3$ vult w/ marc. | |
| | | | 60' | | @ 58.1'–59.1' fault/rubble zone, 1/4"–3/4" angular fgs - no gouge | 58.1'–59.1' w/ fault strong $CaCO_3$, marc., + wk. blue-blk S= |
| | | 68'–108.8' Pale tan-pink tuff breccia, varies between matrix support and clast supported. Tr-1% py throughout, @ 10x entire rock mass is often cut by 100's of hairline fxs that are filled w/ $CaCO_3$, marc. | | | wk.-moderate alunitization | 68'–73' Tr-1% dissem py. Wk pink-tan alunitization. |
| | | | 70' | | | 73'–78' Moderate-strong white clays on all fxs w/ strong marc., tr blue-blk S=, chlorite on fxs. |
| | | | | | @ 74' 0.8' rubble w/ strong white clay, chlorite | |
| | | | 80' | | 1" patch py/$SiO_2$ | 78'–108.8' Pervasive wk. alunitization, local wk. sericite, chlorite, Tr-1% py throughout. Marc. mostly on fxs w/ $CaCO_3$, white clays. Tr blue-blk S= w/ marc. on fxs. |
| | | | | | @ 86' 1/4" fault w/ strong ser, white clay, marc, possible gray-blk S= | |
| | | | 90' | | | |
| | | | 100' | | | |
| | | 108.8'–119' Fault zone. Hanging wall and F.W. @ ~40° to c.a. Zone is mostly 1/4"-1" angular rubble w/ minor gouge. Rubble is tan-pink tuff bx as above. | 110' | Rubble w/some gouge | @ 106' 1/4" w/ white clays, marc, chlorite. | |
| | | | | | 108.8'–119' Fault zone, HW/FW @ 40° to c.a. Internally zone is all 1/4"-1" angular rubble | 108.8'–119' Tr-1% dissem. py throughout, strong white clays locally on broken surfaces. Wk-mod marc on broken surfaces. @ 109.3' have 1.5" massive f.g. py parallel to fault plane. Tr cut S=, blue-blk S=. |
| | | | 120' | | 117'–119' Strong chl. on fxs. | |

ANALYTICAL DATA

| FROM | TO | W | Au | Ag | Au2 | Ag2 |
|---|---|---|---|---|---|---|
| 50 | 55 | 5 | .041 | .36 | .046 | |
| 55 | 60 | 5 | .031 | .74 | | |
| 60 | 65 | 5 | .016 | .69 | | |
| 65 | 70 | 5 | .034 | 1.58 | | |
| 70 | 73 | 3 | .015 | .14 | | |
| 73 | 78 | 5 | .031 | .44 | | |
| 78 | 83 | 5 | .039 | .85 | | |
| 83 | 88 | 5 | .052 | 1.67 | .051 | |
| 88 | 93 | 5 | .056 | 1.14 | | |
| 93 | 98 | 5 | .319 | 3.50 | | |
| 98 | 103 | 5 | .133 | .74 | | |
| 103 | 108.5 | 5.5 | .204 | 1.58 | | |
| 108.5 | 114 | 5.5 | .032 | .16 | | |
| 114 | 117 | 3.0 | .004 | .07 | | |

HOLE NUMBER D38-94 PAGE 3 OF 4

| REC | RQD | LITHOLOGY | STRUCTURE | ALTERATION AND MINERALIZATION |
|---|---|---|---|---|
| | | 119'–153' Medium gray, slightly tan tuff breccia, mostly matrix supported. Tr-1% disseminated py throughout<br><br>135.5'–140' Tan-pink tuff bx as 119'-156.7' that is brecciated, broken, and healed w/ chlorite and $CaCO_3$.<br><br>143'-153' Tectonic breccia composed tuff bx fragments. Cemented w/ sericite(?), strong white clays,<br>153'–156.8' Tectonic breccia composed of white-very light tan, clast supported, very angular Dozer fragments cemented with soft gray clay (sericite?),<br>156.8'–190' Off-white to very pale green, fine ash tuff. Very homogeneous, not layered<br><br>Dozer Fm | 119'–132' 1-2 fxs/ft.<br><br>132'–135.5' Strong fault zone - mostly sericitized rubble w/ some gouge. No slix<br><br>140'–142' Strong fault/rubble zone. Mostly soft sericitized rubble w/ little gouge. No slix.<br>142'-146.3' Zone faulted, broken healed as noted in ALT/miz<br>146.3'–156.8' Fault breccia healed w/ gray sericite(?) Strong soft clays 155.5'-156.8' 190' 1-2 fxs/ft. has 10's/ft – 100's/ft of hairline fxs, mostly healed w/ $CaCO_3$/ marc.<br><br>@179' 1" clay/rubble | 119'–132' Interval weakly indurated - possibly weakly silicified. Tr-1% py throughout. $CaCO_3$/ marc. on fxs – intensifies toward 132'-135.5' fault.<br><br>132'-135.5' Interval strongly sericitized, w/ chlorite, $CaCO_3$, wk. py/marc throughout interval.<br>135.5'-140' Broken, w/ Chl, $CaCO_3$.<br>140'-142' strong sericite, w/ mod marc on fxs, $CaCO_3$. Probable wk. $CuFeS_2$<br>142'–146.3' broken interval, healed w/ gray sericite(?) strong coarse, white opaque $CaCO_3$ contains wk marc. Possible $CuFeS_2$<br>146.3'–156.8' Argillized, soft, Strong marc of fxs.<br>156.8'–190' Very weakly sericitized throughout. Stronger along hairline fxs. 1-2% marc (fxs, dissem) and py (dissem) Some sooty, blk $S^=$<br><br>@166' ½" $CaCO_3$ w/ marc @ edges of vult.<br>@169½' ¼" pure white clay w/ tr marc. |




ANALYTICAL DATA

| FROM | TO | W | Au | Ag | Au2 | Ag2 |
|---|---|---|---|---|---|---|
| 117 | 122 | 5 | .005 | .06 | | |
| 122 | 127 | 5 | .001 | .08 | | |
| 127 | 132 | 5 | .002 | .03 | | |
| 132 | 135.5 | 3.5 | .005 | .04 | | |
| 135.5 | 140 | 4.5 | .050 | .76 | | |
| 140 | 142 | 2 | .021 | .08 | | |
| 142 | 147 | 5 | .012 | .04 | | |
| 147 | 152 | 5 | <.001 | .02 | | |
| 152 | 154.5 | 2.5 | <.001 | .03 | | |
| 154.5 | 156.8 | 2.3 | .001 | .03 | | |
| 156.8 | 162 | 5.2 | .001 | <.02 | | |
| 162 | 167 | 5 | <.001 | <.02 | | |
| 167 | 172 | 5 | <.001 | <.02 | | |
| 172 | 177 | 5 | <.001 | <.02 | | |
| 177 | 182 | 5 | <.001 | <.02 | | |
| 182 | 187 | 5 | <.001 | <.02 | | |

HOLE NUMBER D38-94 PAGE 4 OF 4

| REC | RQD | LITHOLOGY | FT 190' | GRAPHIC LOG (Lith, Struct, Alt/Miner) | STRUCTURE | ALTERATION AND MINERALIZATION | ANALYTICAL DATA FROM | TO | W | Au | Ag | Au2 | Ag2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 190'–239.5' (continued) White to, locally, very PALE green fine ash tuff. Not layered. Quite dense, gets denser, more indurated toward EOH. @ 230' will scratch steel. Not silicified w/ typical gray, pervasive $SiO_2$. | 200' 210' 220' 230' | 38 30° 30° 25° 25° 40° 20° 30° | 190'–239.5' ~1 fx/ft. Has 10's/ft of hairline fxs. Most are $CaCO_3$ + marc. filled. @200' 1" fault zone w/ strong, gray $SiO_2$ halo. @202' 1.5" fault w/ strong gray $SiO_2$. @209' 1/2" $CaCO_3$/marc vnlt. 2" Patch of 8% f.g. py @213' 1" crushed/bx zone. 10's of hairline fxs/ft. Most healed w/ $CaCO_3$ + marc. Hairline fxs predate larger (1/8"-3/8"), coarse $CaCO_3$ veinlets. Some chl. along fxs. | 190'–220' Tr-1% dissem py + marc. Also have marc (usually coarser than dissem.) w/ $CaCO_3$ vnlts: Marc. typically @ edges – $CaCO_3$ By 220' seritization almost all gone - present only along fx, small, irr. patches @224' 3/8" $CaCO_3$ w/ marc. @ EOH have tr-.5% dissem py + marc. on fxs. | 187 | 192 | 5 | <.001 | <.02 | | |
| | | | | | | | 192 | 197 | 5 | <.001 | <.02 | | |
| | | | | | | | 197 | 202 | 5 | <.001 | .02 | | |
| | | | | | | | 202 | 207 | 5 | <.001 | <.02 | | |
| | | | | | | | 207 | 212 | 5 | <.001 | .02 | | |
| | | | | | | | 212 | 217 | 5 | .001 | <.02 | | |
| | | | | | | | 217 | 222 | 5 | <.001 | <.02 | | |
| | | Dozer Fm | | | | | 222 | 227 | 5 | <.001 | <.02 | | |
| | | | | | | | 227 | 232 | 5 | <.001 | <.02 | | |
| | | | | | | | 232 | 239.5 | 7.5 | <.001 | <.02 | | |
| | | Weak layering @ 232'-236' | | | | | | | | | | | |
| | | T.D. 239.5' | | | | | | | | | | | |

# HECLA MINING COMPANY – ROSEBUD PROJECT
## GEOTECHNICAL DRILL LOG

HOLE # D-38-94 DATE: 10-20-94 LOGGED BY: RK, MAN PAGE 1 OF 3

| DRILL RUN FROM | DRILL RUN TO | SOLID CORE RECOVERY (%) | TOTAL CORE RECOVERY (%) | RQD | ROCK STRENGTH DOWNHOLE DEPTH | ROCK STRENGTH POINT LOAD INDEX (psi) | FRACTURE DATA FRACTURE DENSITY/FT. | FRACTURE DATA AVG. ANGLE TO C.A. | FRACTURE DATA ROUGHNESS | FRACTURE DATA INFILL | DENSITY DATA DOWNHOLE DEPTH | DENSITY DATA SAMPLE WEIGHT (g) | DENSITY DATA DISPLACEMENT (cc) | DENSITY DATA DENSITY (g/cc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 8 | 70 | 90 | .47 | 4 | R3 | 1.9/ft. | ~50° | S/R | $CaCO_3$, Chlorite ~1/8" | 4 | 209.5 | 85 | 2.46 |
| 8 | 18 | 80 | 95 | .63 | 13 | R3 | 1.0/ft. | ~75° | R | little infilling some rk. flour ~1/16" | 13 | 386.1 | 158 | 2.44 |
| 18 | 28 | 89 | 97 | .70 | 23 | R3 | 1.7/ft. | ~60° | VR-R | little infilling - scant clay | 23 | 345 | 140 | 2.46 |
| 28 | 38 | 55 | 85 | .33 | 33 | R3 | 2.6/ft. | ~70° | R-VR | Ground Rk - ~1/8" | 33 | 360.2 | 147 | 2.45 |
| 38 | 48 | 50 | 75 | .31 | 43 | R2 | 2.3/ft. | ~55° | VR | Ground Rk, $CaCO_3$, marc. ~1/8" | 43 | 357 | 142 | 2.51 |
| 48 | 58 | 57 | 80 | .23 | 53 | R2 | 2.8/ft. | ~70° | S-R | Scant $CaCO_3$, white clay ~1/16" | 53 | 300.3 | 123 | 2.44 |
| 58 | 65 | 29 | 73 | .17 | 61 | R3 | 3.7/ft. | ~90° | S | Most have no infilling. 1/16" | 62 | 303.5 | 125 | 2.43 |
| 65 | 70 | 46 | 76 | .38 | 67 | R3 | 2.8/ft. | ~45° | R | Sparse rk. flour, Chlorite, $CaCO_3$. 1/16" | 67 | 220 | 90 | 2.44 |
| 70 | 78 | 32 | 78 | .10 | 74 | R2 | 3.8/ft. | ~55° | R | White clay, Chlorite 1/16" | 74 | 268.4 | 110 | 2.44 |
| 78 | 88 | 59 | 91 | .42 | 83 | R2 | 2.5/ft. | ~70° | R | White clay, Chlorite, marc. 1/8" | 83 | 299 | 122 | 2.45 |
| 88 | 98 | 60 | 88 | .39 | 93 | R2 | 2.3/ft. | ~80° | VR | Little infill: $CaCO_3$, Chl, Marc. 1/8" | 93 | 309.3 | 130 | 2.38 |

# HECLA MINING COMPANY – ROSEBUD PROJECT
## GEOTECHNICAL DRILL LOG

HOLE # D-38-94 DATE: 10-20-94 LOGGED BY: RK, MAN PAGE 2 OF 3

| DRILL RUN FROM | DRILL RUN TO | SOLID CORE RECOVERY (%) | TOTAL CORE RECOVERY (%) | RQD | ROCK STRENGTH DOWNHOLE DEPTH | ROCK STRENGTH POINT LOAD INDEX (psi) | FRACTURE DATA FRACTURE DENSITY/FT. | FRACTURE DATA AVG. ANGLE TO C.A. | FRACTURE DATA ROUGHNESS | FRACTURE DATA INFILL | DENSITY DATA DOWNHOLE DEPTH | DENSITY DATA SAMPLE WEIGHT (g) | DENSITY DATA DISPLACEMENT (cc) | DENSITY DATA DENSITY (g/cc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 98 | 108 | 70 | 91 | .56 | 103 | R2 | 1.3/ft. | ~60° | R-VR | Chlorite, White clays, MARC. 1/16" | 103 | 433.6 | 185 | 2.34 |
| 108 | 115 | 6 | 66 | 0 | 111 | S1 | N/A - rubble | N/A-rubble | N/A-rubble | White clay, MARC, PY on brkn SURFACES | N/A-rubble → | | | |
| 115 | 125 | 47 | 85 | .18 | 120 | R1 | 115'-117' rubble 117'-125' 2.9/ft | 115'-117' rubble 117'-125' ~40° | VR | White clay, MARC 1/8" | 120 | 289 | 120 | 2.41 |
| 125 | 135 | 48 | 85 | .34 | 130 | R2 | 2.7/ft | ~35° | R | Sericite white clays PY. 1/16" - 3/16" | 130 | 266 | 110 | 2.42 |
| 135 | 145 | 42 | 90 | .30 | 140 | R1 | 1.8/ft | ~50° | R-VR | Sericite white clays MARCASITE 1/16" - 1/8" | 140 | 252 | 105 | 2.40 |
| 145 | 155 | 54 | 83 | .36 | 150 | R1 | 2.0/ft. | ~45° | VR | Sericite, Chlorite MARCASITE 1/16" - 1/8" | 150 | 261.5 | 108 | 2.42 |
| 155 | 164 | 73 | 97 | 50 | 159 | R3 | 2.0/ft. | ~40° | S | $CaCO_3$, tr MARC. 1/16" | 160 | 255.7 | 105 | 2.43 |
| 164 | 174 | 83 | 97 | .67 | 169 | R3 | 1.5/ft. | ~40° | S | $CaCO_3$, MARC sericite 1/16" | 170 | 305.4 | 125 | 2.44 |
| 174 | 184 | 92 | 99 | .62 | 179 | R3 | 1.5/ft. | ~60° | S-R | $CaCO_3$, PY, MARC 1/16" | 180 | 374.5 | 158 | 2.37 |
| 184 | 194 | 71 | 97 | .58 | 189 | R3 | 1.6/ft. | ~70° | S-R | $CaCO_3$, PY, MARC 1/16" | 190 | 315 | 130 | 2.42 |
| 194 | 204 | 80 | 93 | .54 | 199 | R3 | 1.6/ft | ~75° | S-R | White clays $CaCO_3$, PY 1/16" | 200 | 407.6 | 168 | 2.43 |

# HECLA MINING COMPANY – ROSEBUD PROJECT
## GEOTECHNICAL DRILL LOG

HOLE # D-38-94 DATE: 10-20-94 LOGGED BY: RK, MAN. PAGE 3 OF 3

| DRILL RUN FROM | DRILL RUN TO | SOLID CORE RECOVERY (%) | TOTAL CORE RECOVERY (%) | RQD | ROCK STRENGTH DOWNHOLE DEPTH | ROCK STRENGTH POINT LOAD INDEX (psi) | FRACTURE DATA FRACTURE DENSITY/FT. | FRACTURE DATA AVG. ANGLE TO C.A. | FRACTURE DATA ROUGHNESS | FRACTURE DATA INFILL | DENSITY DATA DOWNHOLE DEPTH | DENSITY DATA SAMPLE WEIGHT (g) | DENSITY DATA DISPLACEMENT (cc) | DENSITY DATA DENSITY (g/cc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 204 | 214 | 85 | 97 | .73 | 209 | R3 | 1.4/ft. | ~55° | S-R | Sparse sericite, white clays, MARL 1/16" | 209 | 410.3 | 170 | 2.41 |
| 214 | 224 | 96 | 97 | .71 | 219 | R3 | 1.5/ft. | ~60° | S-R | Coarse $CaCO_3$ MARL, clays 1/8" | 219 | 393.2 | 162 | 2.43 |
| 224 | 229.5 | 99 | 100 | .91 | 227 | R3 | 1.8/ft | ~70° | S | $CaCO_3$, Py, MARL 1/16" | 227 | 335.1 | 138 | 2.43 |
| 229.5 | 239.5 EOH | 95 | 97 | .70 | 234 | R3 | 1.5/ft. | ~70° | S-R | $CaCO_3$, clays, Py, MARL 1/16" | 234 | 389.8 | 160 | 2.44 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

## SAMPLE SUBMITTAL FORM

**American Assay Laboratories Inc.**

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 71060
Reno, NV. 89570
Telephone
(702) 356-0606
Fax
(702) 356-1413

Elko Office
2320 Last Chance Rd.
Nevada 89801
Box 2908
Elko, NV. 89801
Telephone
(702) 738-9100
Fax
(702) 738-2594

Company: Hecla Mining Co.

Address:

Telephone Number: ( ) Fax Number: ( )

Project Name: Rosebud Purchase Order Number:

Transport Company: Waybill Number:

Date Shipped: Number of Packages: [ ] Prepaid [ ] Collect

**ANALYSIS REQUIRED**

| D 38-74 SAMPLE | | | | TYPE | ELEMENTS REQUIRED |
|---|---|---|---|---|---|
| 0'-5' | 73'-78' | 142'-147' | 212'-217' | Core | 2 AT Fire Assay Au + Ag |
| 5'-10' | 78'-83' | 147'-152' | 217'-222' | | w/ Hecla Rosebud custom prep |
| 10'-15' | 83'-88' | 152'-154.5' | 222'-227' | | |
| 15'-20' | 88'-93' | 154.5'-156.8' | 227'-232' | | |
| 20'-25' | 93'-98' | 156.8'-162' | 232'-239.5' | | |
| 25'-30' | 98'-103' | 162'-167' | EOH | | *Grav finish on all Au ≥ .05 opt* |
| 30'-35' | 103'-108.5' | 167'-172' | | | |
| 35'-40' | 108.5'-114' | 172'-177' | | | |
| 40'-45' | 114'-117' | 177'-182' | | | |
| 45'-50' | 117'-122' | 182'-187' | | | |
| 50'-55' | 122'-127' | 187'-192' | | | |
| 55'-60' | 127'-132' | 192'-197' | | | |
| 60'-65' | 132'-135.5' | 197'-202' | | | |
| 65'-70' | 135.5'-140' | 202'-207' | | | |
| 70'-73' | 140'-142' | 207'-212' | | | ~~*[illegible]~~ |

**COARSE REJECTS (Normally Discarded)**

[ ] Return COD after analysis complete
[ ] By prior arrangements

**PULPS (Normally Stored Free For One Month)**

[ ] Discard after one month
[ ] Return COD after one month
[ ] By prior arrangements

**RESULTS AND INVOICES TO BE SENT TO:**

Please mark invoice person and address [ I ]

(1) Charles Muerhoff

(2)

(3)

**Comments:**

CLIENT FILE COPY

# ANALYSIS REPORT

American Assay Laboratories

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

## HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: D-38-94
LABORATORY JOB No. : SP031465
SAMPLE TYPE :

RECEIVED : 29 OCT 1994
REPORTED : 9 NOV 1994
No. SAMPLES : 50

| ANALYSIS | ANALYTICAL METHOD | QUALITY PARAMETER | UNIT | DETECTION |
|---|---|---|---|---|
| Au(OZ) | FA60 | 15% | OPT | 0.001 |
| Au(RZ) | FA60 | 15% | OPT | 0.001 |
| Ag(OZ) | D210 | 10% | OPT | 0.02 |

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES
# ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-38-94
JOB NUMBER : SP031465
REPORTED : 9 NOV 1994

| SAMPLES | Au(OZ) FA60 OPT | Au(RZ) FA60 OPT | Ag(OZ) D210 OPT |
|---|---|---|---|
| D-38-94 00-05 | <0.001 | | 0.02 |
| D-38-94 05-10 | <0.001 | | <0.02 |
| D-38-94 10-15 | <0.001 | | <0.02 |
| D-38-94 15-20 | <0.001 | | <0.02 |
| D-38-94 20-25 | <0.001 | | <0.02 |
| D-38-94 25-30 | <0.001 | | 0.03 |
| D-38-94 30-35 | <0.001 | | 0.03 |
| D-38-94 35-40 | 0.002 | | 0.05 |
| D-38-94 40-45 | 0.003 | | 0.10 |
| D-38-94 45-50 | 0.013 | | 0.36 |
| D-38-94 50-55 | 0.041 | 0.046 | 0.36 |
| D-38-94 55-60 | 0.031 | | 0.74 |
| D-38-94 60-65 | 0.016 | | 0.69 |
| D-38-94 65-70 | 0.034 | | 1.58 |
| D-38-94 70-73 | 0.015 | | 0.14 |
| D-38-94 73-78 | 0.031 | | 0.44 |
| D-38-94 78-83 | 0.039 | | 0.85 |
| D-38-94 83-88 | 0.052 | 0.051 | 1.67 |
| D-38-94 88-93 | 0.056 | | 1.14 |
| D-38-94 93-98 | 0.319 | | 3.50 |
| D-38-94 98-103 | 0.133 | | 0.74 |
| D-38-94 103-108.5 | 0.204 | | 1.58 |
| D-38-94 108.5-114 | 0.032 | | 0.16 |
| D-38-94 114-117 | 0.004 | | 0.07 |
| D-38-94 117-122 | 0.005 | | 0.06 |

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JOB NUMBER : SP031465
REPORTED : 9 NOV 1994

| SAMPLES | Au(OZ) FA60 OPT | Au(RZ) FA60 OPT | Ag(OZ) D210 OPT |
|---|---|---|---|
| D-38-94 122-127 | 0.001 | | 0.08 |
| D-38-94 127-132 | 0.002 | | 0.03 |
| D-38-94 132-135.5 | 0.005 | | 0.04 |
| D-38-94 135.5-140 | 0.050 | | 0.76 |
| D-38-94 140-142 | 0.021 | | 0.08 |
| D-38-94 142-147 | 0.012 | | 0.04 |
| D-38-94 147-152 | <0.001 | | 0.02 |
| D-38-94 152-154.5 | <0.001 | | 0.03 |
| D-38-94 154.5-156.8 | 0.001 | | 0.03 |
| D-38-94 156.8-162 | 0.001 | | <0.02 |
| D-38-94 162-167 | <0.001 | | <0.02 |
| D-38-94 167-172 | <0.001 | | <0.02 |
| D-38-94 172-177 | <0.001 | | <0.02 |
| D-38-94 177-182 | <0.001 | | <0.02 |
| D-38-94 182-187 | <0.001 | | <0.02 |
| D-38-94 187-192 | <0.001 | | <0.02 |
| D-38-94 192-197 | <0.001 | | <0.02 |
| D-38-94 197-202 | <0.001 | | 0.02 |
| D-38-94 202-207 | <0.001 | | <0.02 |
| D-38-94 207-212 | <0.001 | | 0.02 |
| D-38-94 212-217 | 0.001 | | <0.02 |
| D-38-94 217-222 | <0.001 | | <0.02 |
| D-38-94 222-227 | <0.001 | | <0.02 |
| D-38-94 227-232 | <0.001 | | <0.02 |
| D-38-94 232-239.5 | <0.001 | | <0.02 |