60000672

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File – Hole No D-187-98
AUTHOR	K. Allen; S King; B Morris
DATE OF DOC(S)	1998
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine, Hecla Mining Co.; Rosebud Project Rosebud Mining Co, LLC
COMMODITY If not obvious	gold; silver
NOTES	drill logs; assay; geology; photographs; [redacted]; total depth 200'; ; receipts down hole camera images; handwritten notes NOTE – scan diagram on folder 27p. 3 down hole camera images

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 4/28/08
Initials Date
DB:
Initials Date
SCANNED:
Initials Date

Revised: 1/22/08

D-187-98

N
330'
300'
1st
D-193-98
+4°
1550
2nd
1st - D-206-98
2nd
1st
D-208-98
ST
St
1525
1525
2nd
LST
Ag.
1st
AW
70S
2nd
1st

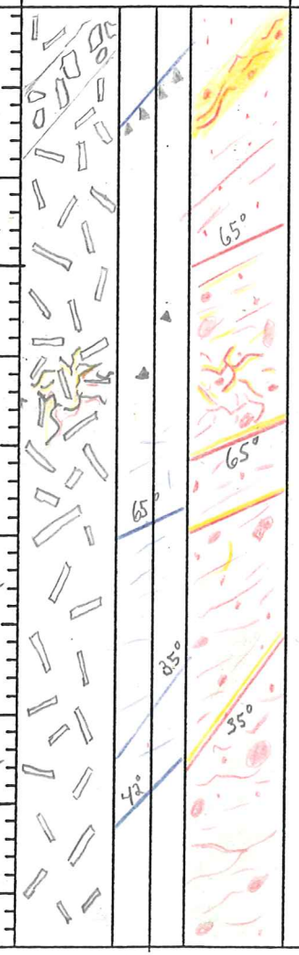
Hecla MINING COMPANY

- quartz, chalcedony, silicification
- faults, fractures
- FeOx
- sulfide
- calcite, carbonate
- argillization, white clays
- propylitization
- potassic alteration
- chlorite, chloritic clays

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-187-98	LOCATION	Stope 43 Sec 1425
PAGE 1 OF 4		NORTHING	
DATE	3-7-98	EASTING	
LOGGED BY	Brian W. Morris	ELEVATION	
SCALE	1" = 10'	AZIMUTH	N54°W
TOTAL DEPTH	200'	INCLINATION	-90°

REMARKS

TH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	Reduced	0 - 50.0 Felsic Porphyry Gry v.fg groundmass w/ wh anhedral-euhedral .2-1cm long Feld phenos, Phenos strongly argil.	5, 10, 15, 20, 25, 30, 35, 40, 45, 50		4.5-7.0' Rubble BXA: Bry vfg angular-rounded porph clasts .1-2cm dia. 13.0-21.5' strong sub parallel fx to shattering healed by dk gry silica + sulf	4.5-7.0' Rubble BXA Vein: Gray Angular-rounded porph. clasts supported by dk gry silica, mod diss sulf & Vn, locally str leaching of mtx w/ wh clay replacement. 13.0-21.5' Strong concentration of Narrow mosaic BXA Vn (1-4cm dia), strong dk gry silica + sulf Vn & stkwk & BXA mtx, Mod-str sulf. soaked patches. 31.6-34.8' Strong silica healed narrow bxa Vns, strong silica + sulf veining & stkwk. 42.0-46.0' Mod silica + sulf ~~vn~~ & stkwk, Mod to str sulf soaked patches.

ANALYTICAL DATA

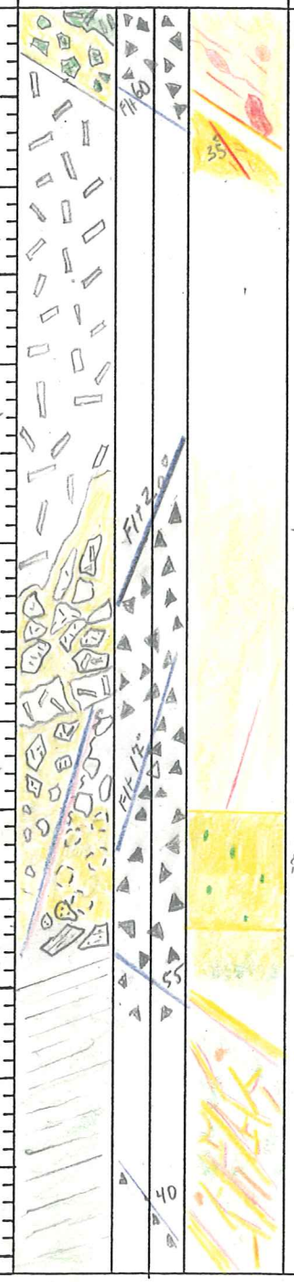
FROM	TO	W	Au	Ag	Au2	Ac
0	5.0					
5.0	10.0					
10.0	13.0					
13.0	18.5					
18.5	21.5					
21.5	25.0					
25.0	30.0					
30.0	35.0					
35.0	40.0					
40.0	45.0					
45.0	50.0					

HOLE NUMBER D-187-98 PAGE 2 OF 4

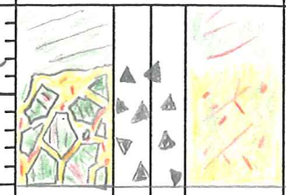
ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	Reduced	50 - 95.0' Felsic Porphyry: White euhedral - anhedral Felsic phenos supported by gry v. fg groundmass. 95.0' - 102.2' Str. arv ± sulf stkwk, str Mtx supported mosaic - rubble bxa Vning, locally wh SiO_2 Vn x-cutting gry Mtx mosaic bxa Vns. 102.2 - 103.5' Str. Fxing of gry SiO_2 Mtx rubble bxa, Clasts are composed of gry angular Mtx supported porph, .5" wide massive stibnite vn x-cutting bxa, str wh Clay coating on Fx surfaces, 106 - 107.4' Clast supported rubble bxa x-cut by Low ∡ (from core ref.) gry - wh silica Vns.	55 60 65 70 75 80 85 90 95 100 105 110 115 120	55° 40° 60° 60° 33° 65 75° 75 65°	55.6 - 63.5' Strongly Fx & narrow Mtx supported monolithic bxa Vns 85' - 86.5' Crackle - mosaic Bxa: Mostly Clasts supported, Clasts are composed of monolithic angular porph 95.0' - 124.0 Crackle - Milled BxA zones, BxA is monolithic Clast → Mtx supported, Clasts are well round - angular, locally str stkwk & x-cutting relationship's, rubble Bxa healed by lt gry gr Bx flour + silica is x-cut by dk gry & wh silica Vn + rubble bxa.	55.6 - 63.5' str sulf + gry silica ± wh clay ± stibnite Vnlets & stkwk 85 - 86.5' Bxa healed by dk gry silica Mtx ± wh clay replacement, mod diss sulf clots 86.5' - 95.0' Mod silica + sulf ± wh clay Vn + stkwk, Mod sulf soaked patches, phenos str argil 95.0 - 124.0' locally v. str silic & silica floodin str py + Marc. + silica ± wh clay replacement of leach silica Mtx. 103' 1cm wide Vug in vein filled w/ massive Stibnite. Commonly high ∡ Cet Vn appear to be zoned from dk gry ± sulf exterior → wh gt in core of vn, silica Mtx & vn commonly are leached w/ wh clay ± marc ± stibnite ± Barite.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	
50	55					
55	60					
60	63.5		.213			
63.5	67					
67	70					
70	75					
75	80		.232			
80	85		.187			
85	90		.192			
90	95					
95	97.7					
97.7	100					
100	105					
105	110					
110	115					
115	120					

HOLE NUMBER D-187-98 PAGE 3 OF 4

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
	Reduced	124-163' Felsic Porphyry Lt gry - Lt gr gry v.fg groundmass supporting wh .1-.5cm long Euhedral-anhedral raggie edge Feld phenos, 149.2-163 Bxa Clasts are composed of Felsic Porph. Pima 163-172' Bud? Tuff. 163-172' Bxa Clasts are comprised of rounded gr Mg-Cg epiclast + Volcaniclastic Rx-Bud? LBT? 172-174 Bxa Clasts are comprised of angular gr fg-mg finely laminated w/ small bleach speckels. 174-200' Pima Green & Lt green rounded speckels (vesculated?) fg lamina 1-6cm apart-LBT, Strong Lt gry SiO_2 + bright brassy fg Sulf ± wh Clay Vn & stkwk.	125 130 135 140 145 150 155 160 165 170 175 180 185 190		149.2-174.0' Crackle - Milled Bxa Mostly gry silica Mtx, locally silica flooded 159.5-162.5 Rubble Bxa: Mtx supported, Subangular - Subrounded felsic clasts supported by dk gry, Mod diss sulf, Mod v.dk gry SiO_2 hail vnlets & stkwk x-cutting bxa 176.2-177.9 Clast Supported Mosaic Bxa healed by wh SiO_2	125-129 Rx is mod. silic w/ wk-Mod sulf + gry SiO_2 vnlets & fine stkwk, wk wh SiO_2 Vn w/wk-mod leaching & wh clay replacement 159.2-162.5' Mod diss sulf in gry SiO_2 Mtx, wk leaching & SiO_2 Bxwk, wk wh clay vnlets. 165-171.6 wh Silica flooding, well rounded silic ghosts of clasts are v.f stable, wk diss sulf. 176.2-177.9 SiO_2 Mtx is str. leached & vuggie, w/ str barite lining of vugs, wk bladed marc x/s in Mtx 187-188' Mtx supported rubble bxa; LBT angular clasts healed by wh SiO_2 or Rx flour Mtx, mod diss sulf blebs.	120 125 130 135 140 145 150 155 158 162.8 165 171.6 174.3 180 185	125 130 135 140 145 150 155 158 162.8 165 171.6 174.3 180 185 190					

HOLE NUMBER D-187-98 PAGE 4 OF 4

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
	Red	190-200' LBT; Green fg fine laminations 1-4cm apart Lt. gr speckels T.D. 200'	195 200		194.5-200' Mosaic Bxa; Clast supported-locally Mtx supported, Angular LBT clasts healed by wh. silica.	194.5-200' Mod-Str diss bladed Marc, Mod leaching of Mtx w/Clay replacement.	190 195	195 200				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-187-98 DATE 3-7-98 LOGGED BY: Brian W. Morris PAGE 1 OF 3

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
0	5	96	96	60										
5	10	92	92	72										
10	15	106	106	85										
15	20	86	86	88										
20	30	94	94	59										
30	40	100	100	92										
40	50	92	92	83										
50	60	93	93	94										
60	62	90	90	56										
62	67	100	100	42										
67	75	103	103	92										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-187-98 DATE 3-8-97 LOGGED BY: BWM PAGE 2 OF 3

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
75	85	97	97	91										
85	95	95	95	88										
95	105	91	91	42										
105	115	99	99	67										
115	125	94	94	52										
125	135	94	94	94										
135	145	90	90	78										
145	155	102	102	71										
155	158	80	80	58										
158	165	97	97	66										
165	173	91	91	67										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-187-98 DATE 3-9-98 LOGGED BY: BWM PAGE 3 OF 3

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
173	180	95	95	96										
180	190	88	88	75										
190	200	100	100	90										

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048273

PO BOX 11530
RENO NV.USA
PH.(702) 356-0606, Fax.(702) 356-1613

HECLA MINING COMPANY

COPIES TO : KURT ALLEN
:
:
:

CLIENT REFERENCE No: D-187-98 RECEIVED : 11 MAR 1998

No. SAMPLES : 45 REPORTED : 17 MAR 1998

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

03/17/1998 13:57 7023561413 AMERICAN ASSAY LABS PAGE 01
7023561413

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048273

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-187-98

REPORTED : 17 MAR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-187-98 00-05	0.023			0.11	
D-187-98 05-10	0.038			0.16	
D-187-98 10-13	0.038			0.11	
D-187-98 13.0-18.5	0.046			0.16	
D-187-98 18.5-21.5	0.055		0.059	0.29	
D-187-98 21.5-25.0	0.052		0.048	0.18	
D-187-98 25-30	0.024			0.12	
D-187-98 30-35	0.031			0.10	
D-187-98 35-40	0.022			0.10	
D-187-98 40-45	0.031	0.027		0.08	
D-187-98 45-50	0.051			0.11	
D-187-98 50-55	0.030			0.09	
D-187-98 55-60	0.031	0.038		0.06	
D-187-98 60.0-63.5	0.259		0.213	1.19	
D-187-98 63.5-67.0	0.080		0.087	0.10	
D-187-98 67-70	0.028	0.028		0.29	
D-187-98 70-75	0.044			0.14	75-90=15' @
D-187-98 75-80	0.214		0.232	0.29	0.168 Au
D-187-98 80-85	0.139		0.187	0.11	0.29 Ag
D-187-98 85-90	0.151		0.192	0.46	
D-187-98 90-95	0.073		0.120	0.14	
D-187-98 95.0-97.7	0.094		0.097	0.13	
D-187-98 97.7-100.0	0.007			0.07	
D-187-98 100-105	0.147	0.081	0.111	0.21	
D-187-98 105-110	0.071		0.088	0.11	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048273

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-187-98

REPORTED : 17 MAR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-187-98 110-115	0.035			0.07
D-187-98 115-120	0.101		0.088	0.10
D-187-98 120-125	0.028			0.07
D-187-98 125-130	0.055		0.039	0.08
D-187-98 130-135	0.015			0.08
D-187-98 135-140	0.077		0.089	0.05
D-187-98 140-145	0.014			0.05
D-187-98 145-150	0.020			0.14
D-187-98 150-155	0.045			0.07
D-187-98 155-158	0.154		0.180	1.05
D-187-98 158.0-162.8	0.031			0.07
D-187-98 162.8-165.0	0.002			0.07
D-187-98 165.0-171.6	<0.001			0.12
D-187-98 171.6-174.3	0.002			0.08
D-187-98 174.3-180.0	0.003			0.21
D-187-98 180-185	0.004			0.16
D-187-98 185-190	0.006			0.09
D-187-98 190-195	0.003			0.08
D-187-98 195-200	0.006			0.34
27767	0.516			5.36

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ANALYSIS REPORT SP048273

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

CLIENT REFERENCE No: D-187-98 RECEIVED : 11 MAR 1998

No. SAMPLES : 45 REPORTED : 17 MAR 1998

MAIN SAMPLE TYPE : DRILL CORE

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ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

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CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-187-98

REPORTED : 17 MAR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-187-98 00-05	0.023			0.11
D-187-98 05-10	0.038			0.16
D-187-98 10-13	0.038			0.11
D-187-98 13.0-18.5	0.046			0.16
D-187-98 18.5-21.5	0.055		0.059	0.29
D-187-98 21.5-25.0	0.052		0.048	0.18
D-187-98 25-30	0.024			0.12
D-187-98 30-35	0.031			0.10
D-187-98 35-40	0.022			0.10
D-187-98 40-45	0.031	0.027		0.08
D-187-98 45-50	0.051			0.11
D-187-98 50-55	0.030			0.09
D-187-98 55-60	0.031	0.038		0.06
D-187-98 60.0-63.5	0.259		0.213	1.19
D-187-98 63.5-67.0	0.080		0.087	0.10
D-187-98 67-70	0.028	0.028		0.29
D-187-98 70-75	0.044			0.14
D-187-98 75-80	0.214		0.232	0.29
D-187-98 80-85	0.139		0.187	0.11
D-187-98 85-90	0.151		0.192	0.46
D-187-98 90-95	0.073		0.120	0.14
D-187-98 95.0-97.7	0.094		0.097	0.13
D-187-98 97.7-100.0	0.007			0.07
D-187-98 100-105	0.147	0.081	0.111	0.21
D-187-98 105-110	0.071		0.088	0.11

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048273

American Assay Laboratories

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PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-187-98

REPORTED : 17 MAR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-187-98 110-115	0.035			0.07
D-187-98 115-120	0.101		0.088	0.10
D-187-98 120-125	0.028			0.07
D-187-98 125-130	0.055		0.039	0.08
D-187-98 130-135	0.015			0.08
D-187-98 135-140	0.077		0.089	0.05
D-187-98 140-145	0.014			0.05
D-187-98 145-150	0.020			0.14
D-187-98 150-155	0.045			0.07
D-187-98 155-158	0.154		0.180	1.05
D-187-98 158.0-162.8	0.031			0.07
D-187-98 162.8-165.0	0.002			0.07
D-187-98 165.0-171.6	<0.001			0.12
D-187-98 171.6-174.3	0.002			0.08
D-187-98 174.3-180.0	0.003			0.21
D-187-98 180-185	0.004			0.16
D-187-98 185-190	0.006			0.09
D-187-98 190-195	0.003			0.08
D-187-98 195-200	0.006			0.34
27767	0.516			5.36

American Assay Laboratories

INVOICE

Remit To: P.O. Box11530
Reno, Nevada 89510
Phone NO.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431

(702) 356-0606

INVOICE NO: SP 0048273-IN
INVOICE DATE: 03/17/98

INVOICE TO:
THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

CUSTOMER P.O.	PROJECT	TERMS
D-187-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
45	SAMPLES RECEIVED	.00	.00
44	DRYING	2.00	88.00
44	JAW CRUSHING CHARGE	2.60	114.40
44	COARSE MILLING CHARGE	9.00	396.00
44	SPLITTING CHARGE	2.40	105.60
44	RING MILLING CHARGE	2.00	88.00
45	Au (1 A.T. FIRE ASSAY)	8.00	360.00
15	Au ANALYSES/GRAVIMETRIC	8.75	131.25
45	HYDROCHLORIC/NITRIC DIGESTION	2.00	90.00
45	Ag ANALYSES	1.00	45.00

86 - 5110 - 477
KDA

NET INVOICE:	1,418.25
LESS DISCOUNT:	283.65
FREIGHT:	.00
INVOICE TOTAL:	1,134.60

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048273

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN
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CLIENT REFERENCE No: D-187-98 RECEIVED : 11 MAR 1998

No. SAMPLES : 45 REPORTED : 17 MAR 1998

MAIN SAMPLE TYPE : DRILL CORE

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Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP048273

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-187-98

REPORTED : 17 MAR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-187-98 00-05	0.023			0.11
D-187-98 05-10	0.038			0.16
D-187-98 10-13	0.038			0.11
D-187-98 13.0-18.5	0.046			0.16
D-187-98 18.5-21.5	0.055		0.059	0.29
D-187-98 21.5-25.0	0.052		0.048	0.18
D-187-98 25-30	0.024			0.12
D-187-98 30-35	0.031			0.10
D-187-98 35-40	0.022			0.10
D-187-98 40-45	0.031	0.027		0.08
D-187-98 45-50	0.051			0.11
D-187-98 50-55	0.030			0.09
D-187-98 55-60	0.031	0.038		0.06
D-187-98 60.0-63.5	0.259		0.213	1.19
D-187-98 63.5-67.0	0.080		0.087	0.10
D-187-98 67-70	0.028	0.028		0.29
D-187-98 70-75	0.044			0.14
D-187-98 75-80	0.214		0.232	0.29
D-187-98 80-85	0.139		0.187	0.11
D-187-98 85-90	0.151		0.192	0.46
D-187-98 90-95	0.073		0.120	0.14
D-187-98 95.0-97.7	0.094		0.097	0.13
D-187-98 97.7-100.0	0.007			0.07
D-187-98 100-105	0.147	0.081	0.111	0.21
D-187-98 105-110	0.071		0.088	0.11

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048273

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-187-98

REPORTED : 17 MAR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-187-98 110-115	0.035			0.07
D-187-98 115-120	0.101		0.088	0.10
D-187-98 120-125	0.028			0.07
D-187-98 125-130	0.055		0.039	0.08
D-187-98 130-135	0.015			0.08
D-187-98 135-140	0.077		0.089	0.05
D-187-98 140-145	0.014			0.05
D-187-98 145-150	0.020			0.14
D-187-98 150-155	0.045			0.07
D-187-98 155-158	0.154		0.180	1.05
D-187-98 158.0-162.8	0.031			0.07
D-187-98 162.8-165.0	0.002			0.07
D-187-98 165.0-171.6	<0.001			0.12
D-187-98 171.6-174.3	0.002			0.08
D-187-98 174.3-180.0	0.003			0.21
D-187-98 180-185	0.004			0.16
D-187-98 185-190	0.006			0.09
D-187-98 190-195	0.003			0.08
D-187-98 195-200	0.006			0.34
27767	0.516			5.36

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

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Box 2908
Elko, NV 89801
Telephone
(702) 738-9100
Fax
(702) 738-2594

Mazatlan Office
Telephone/Fax
011-52-69-170035

Other Offices
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Santiago, Chile
Mendoza, Argentina

Company: Rosebud Mine

Address: P.O. Box 2610

City Winnemucca State NV Zip 89446

Telephone Number: (702) 623-6912 Fax Number: (702) 623-6967

Project Name: Development Purchase Order Number:

Date Submitted: 3/10/98 Number of Samples: 44

RESULTS REPORTED IN: ppm [ ] ppb [ ] opt [ ]

D-187-98 SAMPLE IDENTIFICATION		TYPE	ELEMENTS REQUIRED	
0-5.0	67.0-70.0	Core	Au-Ag According to Rosebud	
5.0-10.0	70.0-75.0		Mine Protocol	
10.0-13.0	75.0-80.0			
13.0-18.5	80.0-85.0		135.0-140.0	190-195.0
18.5-21.5	85.0-90.0		140.0-145.0	195.0-200.0
21.5-25.0	90.0-95.0		145.0-150.0	
25.0-30.0	95.0-97.7		150.0-155.0	
30.0-35.0	97.7-100.0		155.0-158.0	
35.0-40.0	100.0-105.0		158.0-162.8	
40.0-45.0	105.0-110.0		162.8-165.0	
45.0-50.0	110.0-115.0		165.0-171.6	
50.0-55.0	115.0-120.0		171.6-174.3	
55.0-60.0	120.0-125.0		174.3-180.0	
60.0-63.5	125.0-130.0		180.0-185.0	
63.5-67.0	130.0-135.0		185.0-190.0	

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

Kurt Allen

Results to:

Kurt Allen

Comments:

CLIENT FILE COPY

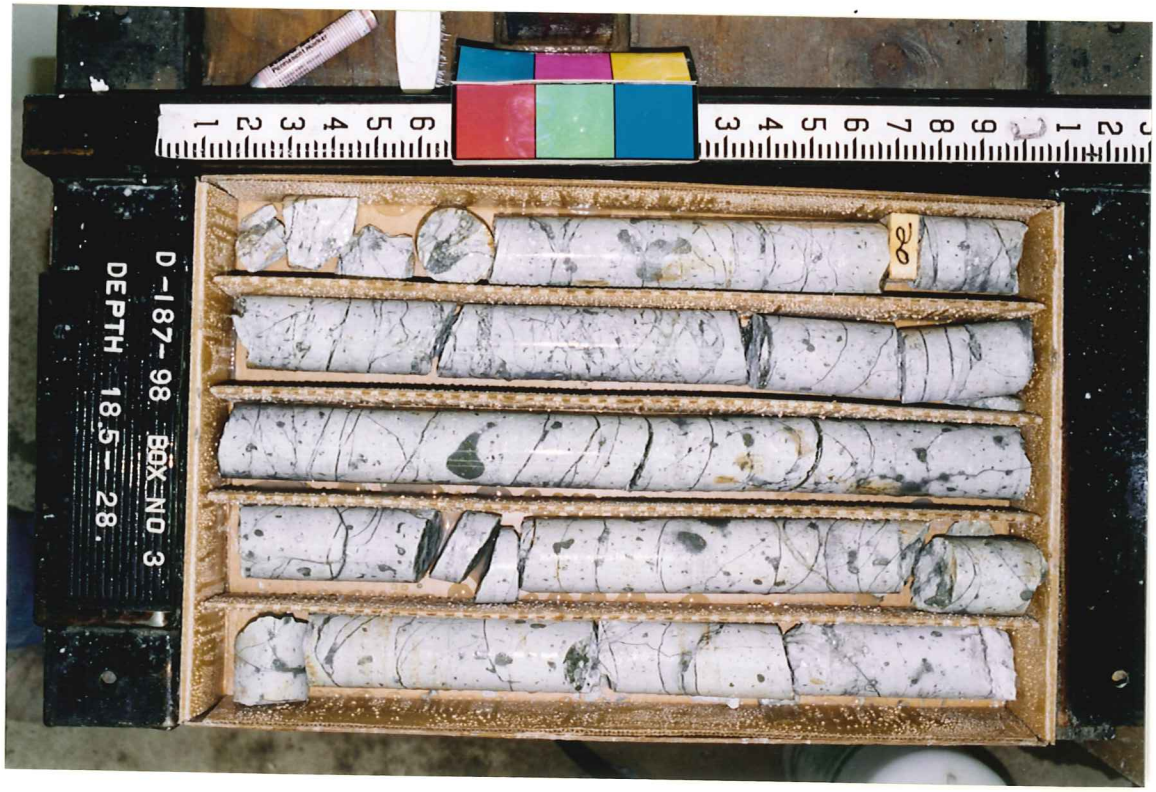
Down-Hole Survey Dec. 15.7°

Hole#	Depth	Bearing	Dip	True Bearing	True Dip
D-187-98	Collar	S67°E	97.5°	N51.3°W	-7.5°
	100'	S67.5°E	97.5°	S51.8°W	-7.5°
	200'	S68°E	98.5°	S52.3°W	-8.5°

Really!?

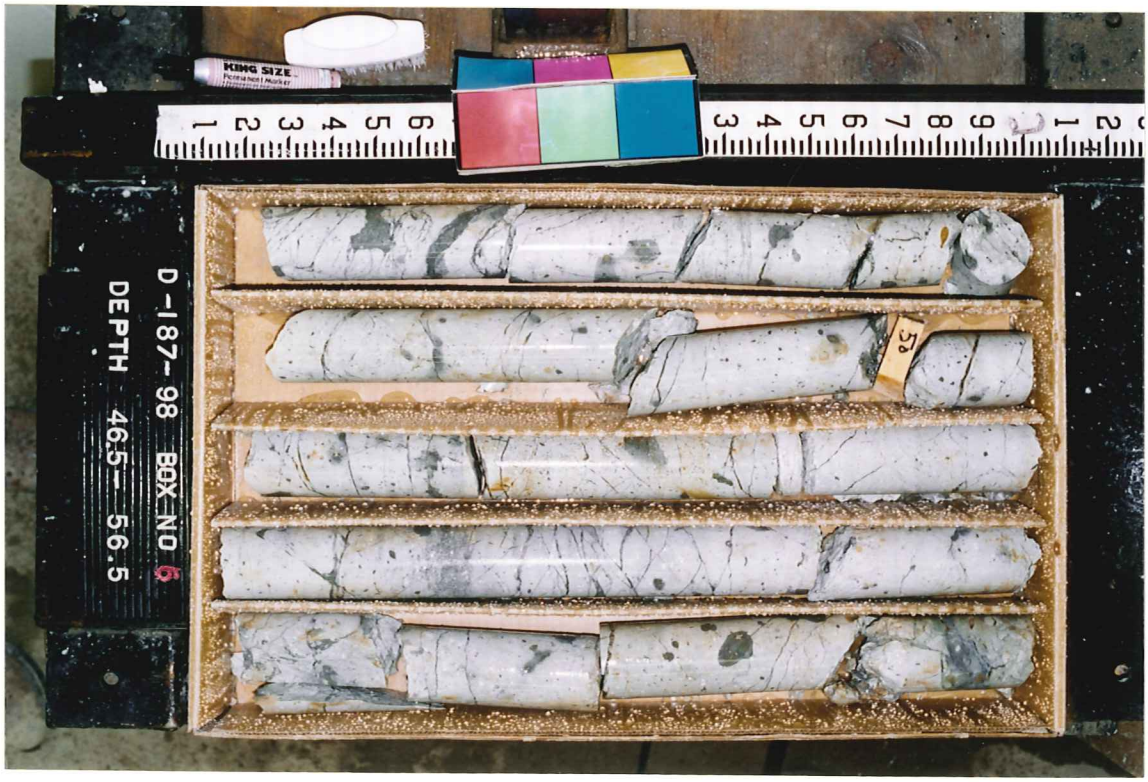
D-187-98 BOX NO 2
DEPTH 9.5 - 18.5

D-187-98 BOX NO 1
DEPTH 0.0 - 9.5


D-187-98 BOX NO 3
DEPTH 18.5 - 28.

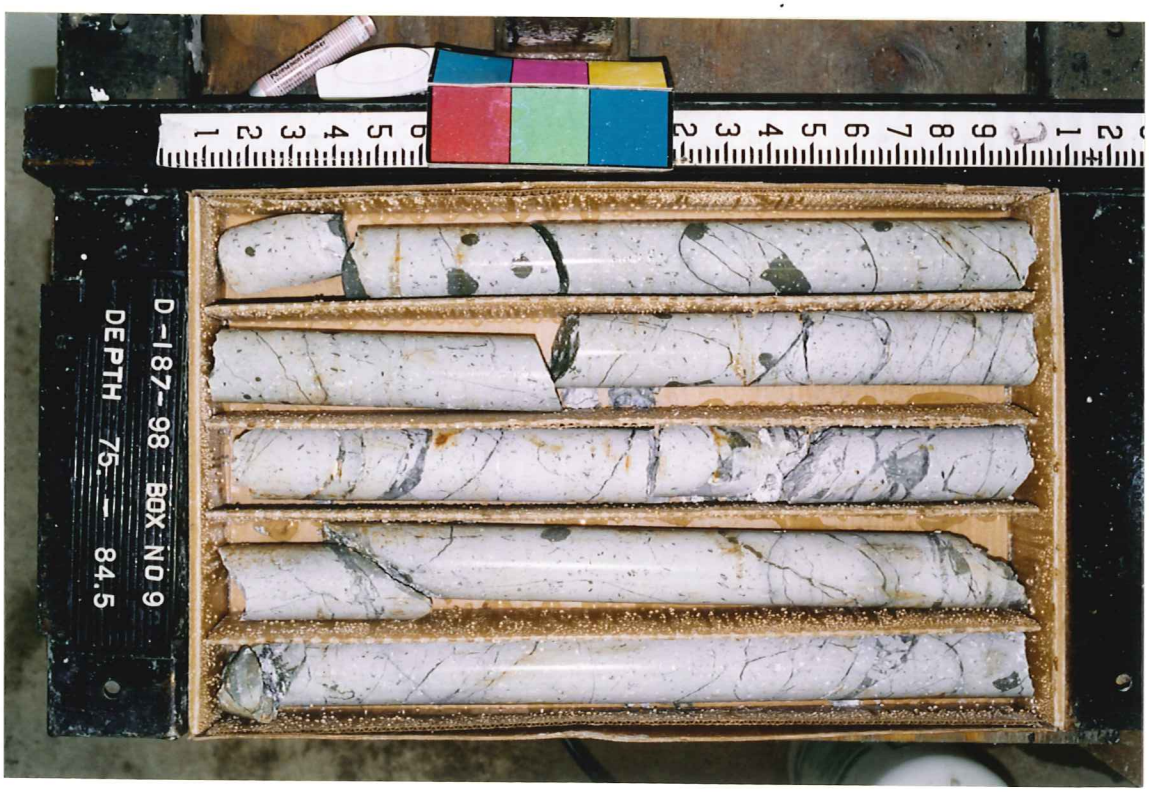
40
D-187-98 BOX NO 5
DEPTH 37.5- 46.5

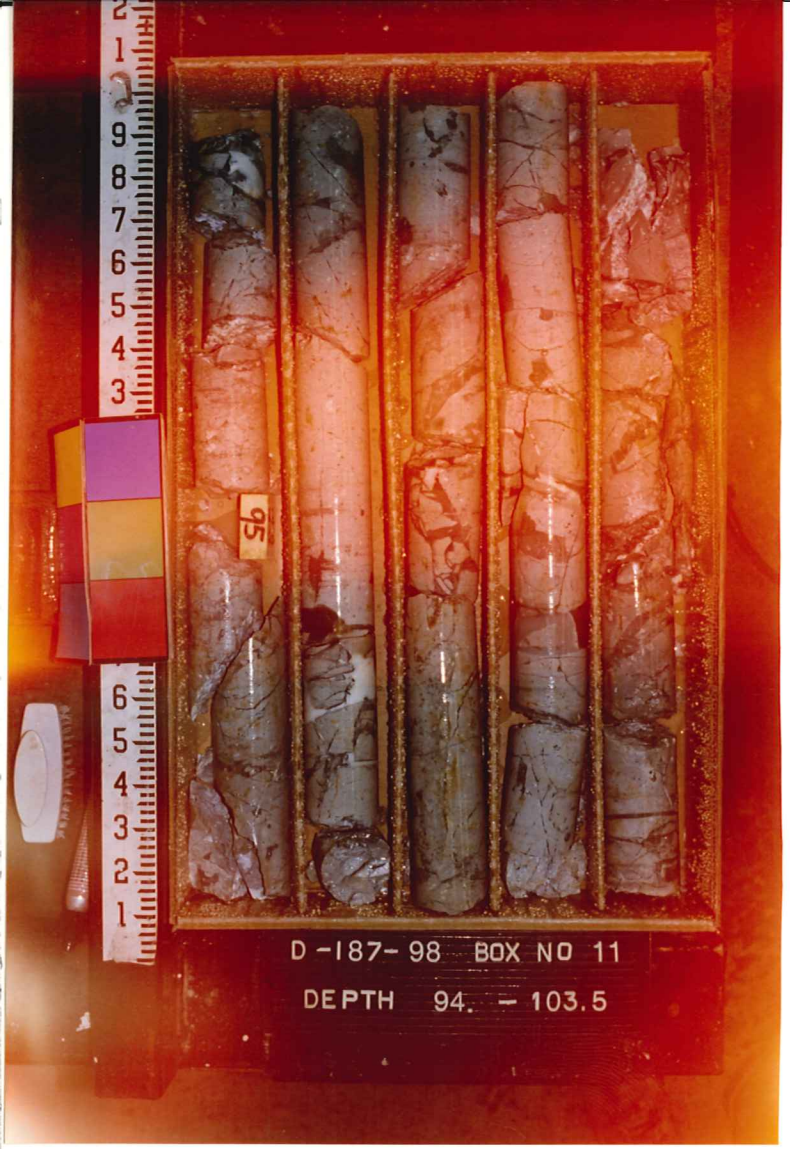
30
D-187-98 BOX NO 4
DEPTH 28. - 37.5


KING SIZE
D-187-98 BOX NO 6
DEPTH 46.5- 56.5

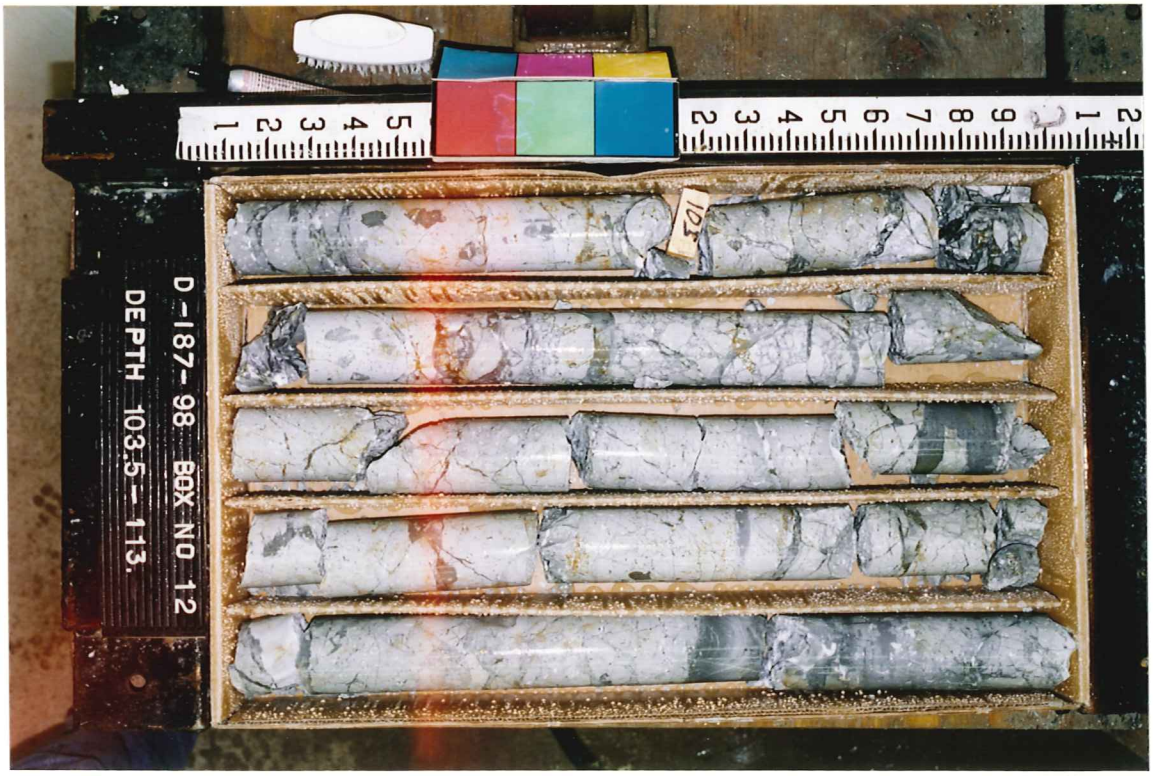
75
D-187-98 BOX NO 8
DEPTH 66. - 75.

60
62
D-187-98 BOX NO 7
DEPTH 56.5- 66.


D-187-98 BOX NO 9
DEPTH 75. - 84.5

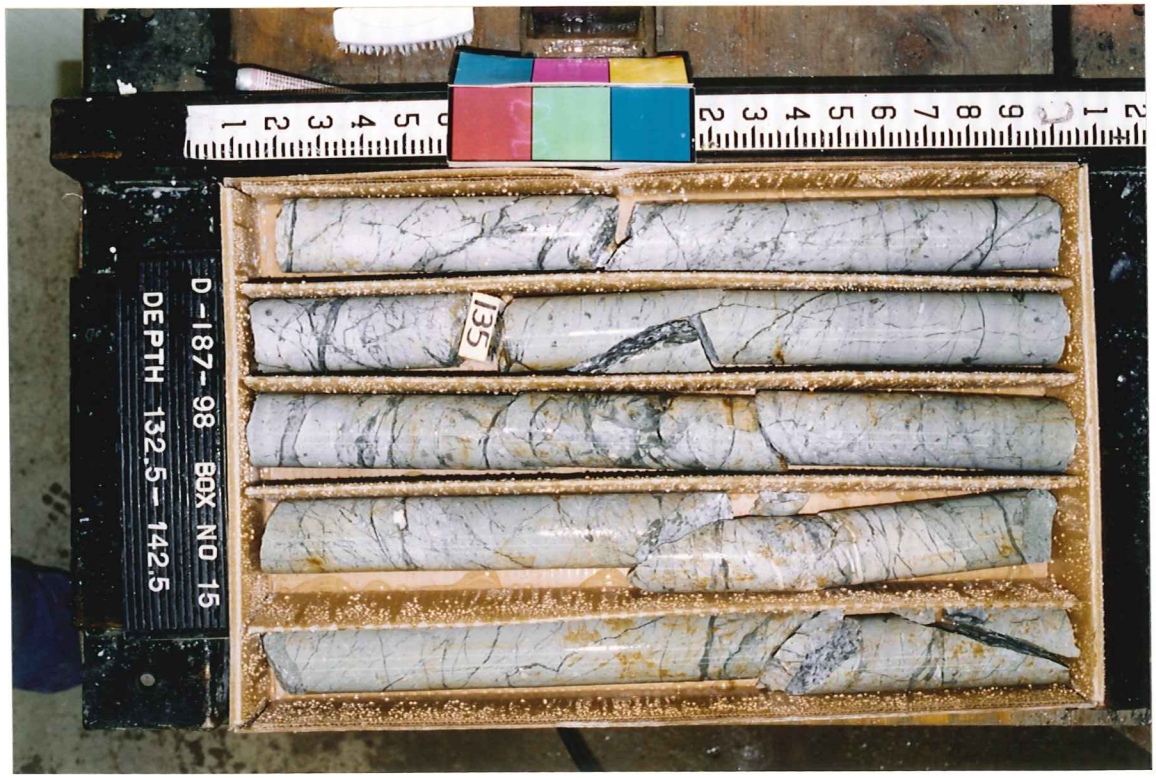

95
D-187-98 BOX NO 11
DEPTH 94. - 103.5

85
D-187-98 BOX NO 10
DEPTH 84.5- 94.


103
D-187-98 BOX NO 12
DEPTH 103.5- 113.

125
D-187-98 BOX NO 14
DEPTH 122.5- 132.5

115
D-187-98 BOX NO 13
DEPTH 113. - 122.5


135
D-187-98 BOX NO 15
DEPTH 132.5- 142.5

MISLATCH
158
155
D -187- 98 BOX NO 17
DEPTH 151.5 - 161.

145
D -187- 98 BOX NO 16
DEPTH 142.5 - 151.5

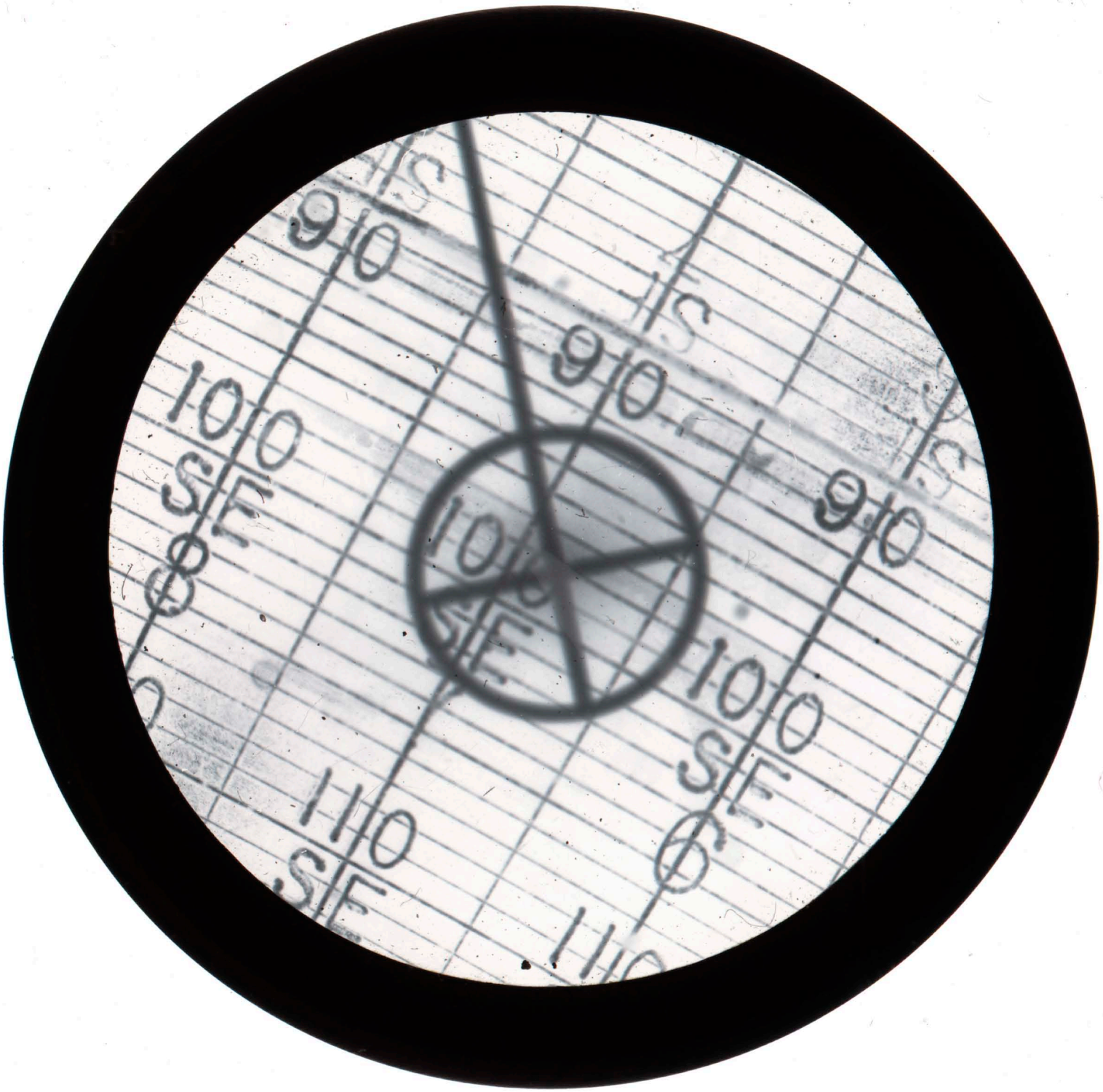
D -187- 98 BOX NO 18
DEPTH 161. - 169.5
165

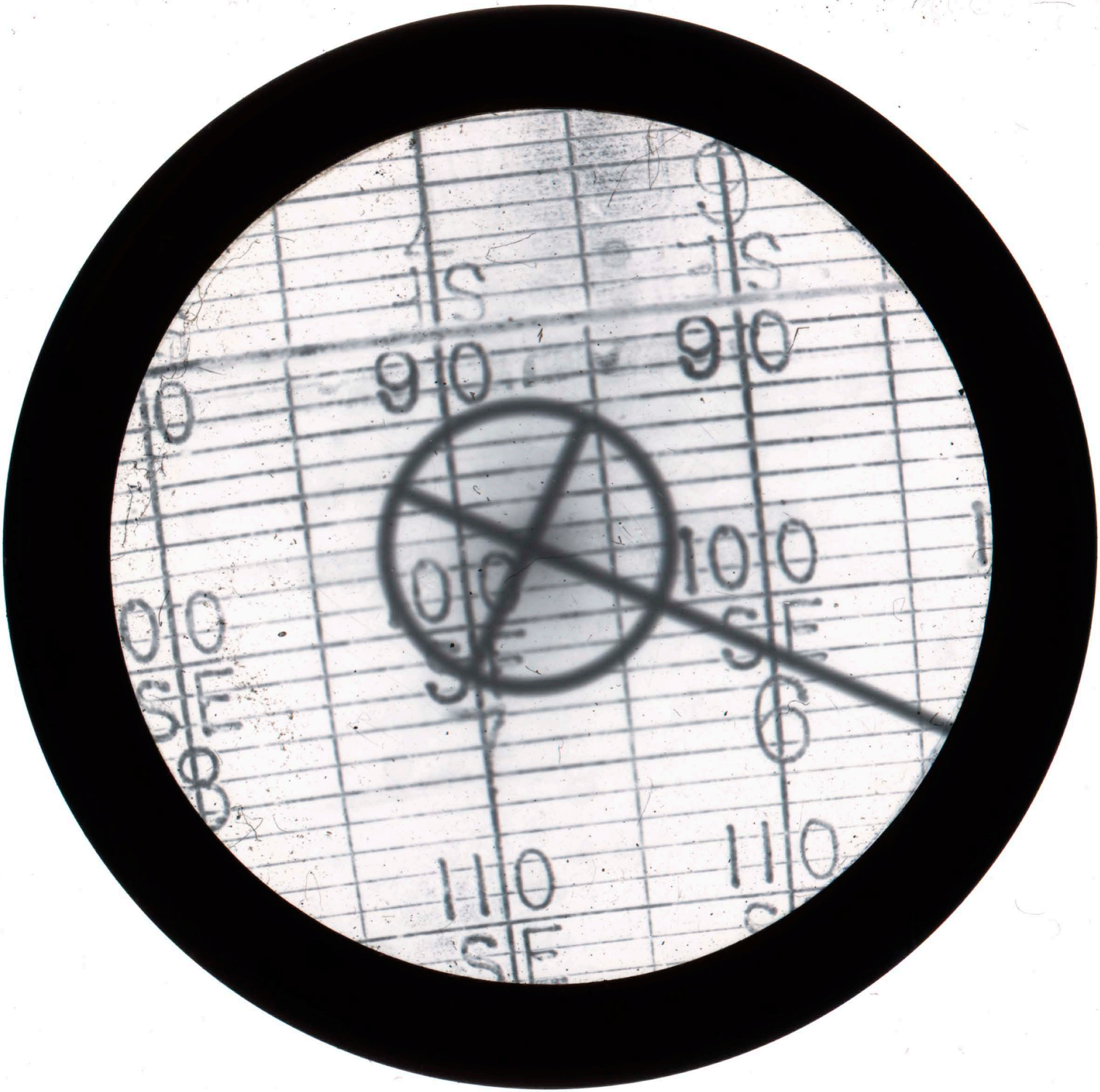
180'
D-187-98 BOX NO 20
DEPTH 178.5 - 188.5

173
D-187-98 BOX NO 19
DEPTH 169.5 - 178.5

D-187-98 BOX NO 21
DEPTH 188.5- 197.5
D-10
R-10

200
TD
D-187-98 BOX NO 22
DEPTH 197.5 - 200. TD


90
90
90
100
100
100
SF
SF
SF
110
110
110
SF
SF


S
E
90
100
110