60001101

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-221-98
AUTHOR	S. King; K. Allen
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; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; photographs; total depth 212' receipt; handwritten notes; downhole camera images 26 p. 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: DP 5/13/08
Initials Date

DB: mdh
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D-271-98

60001101 4010

6600 1101

Hecla MINING COMPANY

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

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-221-98	LOCATION	STOPE 42 ACCESS, EAST
PAGE	1 OF 4	NORTHING	
DATE	05/24/98	EASTING	
LOGGED BY	RBM	ELEVATION	
SCALE	1"=10'	AZIMUTH	N54°W
TOTAL DEPTH	212'	INCLINATION	+15°

REMARKS

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0'-17.2 DOZER		0.0'-~33': FINELY AUTOBRECCIATED LIGHT GRAY DOZER. FRAGMENTS ARE HIGHLIGHTED BY BLCHING AT RIMS. INTERIORS ARE MEDIUM GRAY. THE FAINT BACKGROUND BRECCIA TEXTURE IS VARIABLY CRACKLE TO RUBBLE.	0		MOD'LY FRACTURED BUT SPARSE STRAIGHT-WALLED JOINTING.	0'-20.0': MODERATE GRN CLAY ON FRAX & VNLTS. MOD. QUARTZ +/- PY/MARC VNING. TR TO MOD. WISPY PY VNLTS & DISS'D PYRITE.
		~33'-~65.0': DECREASED BRECCIA TEXTURE. TIGHT VNLTS OF CRACKLE-TEXTURED AUTOBXA IN OTHERWISE MASSIVE DOZER THRU THIS INTERVAL.	10			
			20			FROM ~20': DECREASED GRN CLAY & QUARTZ-PY VNING. QUARTZ VNING IS TRACE TO ABSENT BY ~25. GRN CLAY COATINGS ON FRAX REDUCED TO TRACE & PYRITE VNLTS TO WK. FAINT GRNISH CAST PICKS UP IN WALLRK BELOW ~25'.
			30			
			40	30 55 55 30 35 60	SLICKS ON PY COATING	
			50			

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag
0	5.0					
5.0	10.0					
10.0	15.0					
15.0	20.0					
20.0	25.0					
25.0	29.9					
29.9	35.0					
35.0	40.0					
40.0	45.0					
45.0	49.8					

HOLE NUMBER D-221-98 PAGE 2 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0'- DOZER	174.2	~65- ~80.0': SLIGHTLY STRONGER % AGE AUTOBXATD DOZER THROUGH THIS INTERVAL.	50			CONT'D FROM ~25': TRACE GRN CLAY IN WALLROCK. WK QZ+MARC +/- WHT CLAY VNING & WK WISPY PY/MARC VNLTS & WALLRK BLEBBING. TO 125.0'.
		~80.0 - ~150.': FINE-GRAINED AUTOBRECCIA MOSAIC TEXTURE. STRONGLY DEVELOPED TO ~110.0'.	60			
		~127.0'-135.0': MASSIVE? GOOD AUTOBRECCIA TEXTURE IS ABSENT. MODLY MOTTLED WITH SPOTTY RUDDY-BRN FeOx.	70			
			80			
			90			
			100			
			110			
			120			

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	
49.8	55.0					
55.0	60.0					
60.0	65.0					
65.0	70.0					
70.0	75.0					
75.0	80.0					
80.0	84.9					
84.9	90.1					
90.1	95.0					
95.0	100.2					
100.2	105.0					
105.0	109.9					
109.9	115.0					
115.0	120.0					

HOLE NUMBER D-221-98 PAGE 3 OF 4

LITH.	OX/RED	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0'- DOZER	174.2	~135.0 - ~150.0': POSSIBLY FAULT-RELATED "AUTOBXA" TEXTURE IN DOZER WALLROCK. SUB-ANGULAR, MOD'LY PUNKY FRAGMTS OF DOZER IN DOZER RK FLOUR GROUNDMASS. DO NOT HAVE THE FINE, WELL-DEVELOPED MOSAIC TEXTURE WHICH CHARACTERIZES THE AUTOBXA ABOVE. FRAGMTS ARE LTER GRN THAN MATRIX.	120 130			~125-135': PYRITIC BLEBBING INCREASED TO MOD. STR. FeOx STNING FROM 127-134' ~135.0 - ~150.0': WALLRK GRN CLAY ALT'N INCREASED TO MOD/STR. IN FRAGMENTS
		~150.0' - ~171': MASSIVE, APHANITIC, APHYRIC PALE GRN-GRY DOZER. LOCAL WK GRN CLAY + PY VNLT CRACKLE BRECCIA.	140 150		POSSIBLY SUB // TO FLT.	141.0 - 145.6': QUARTZ +/- SULFIDE VNING +/- LATE BARITE = STR TO MOD. CONT'D TRACE GRN CLAY ALT'N OF WALLRK TO MOD. IN FRAGMENTS. 144.7 - 145.6': BLK SILICA-SULFIDE VNING IN MOD'LY GRN CLAY ALTERED MYLONITE + LATER VUGGY LEACHED WHT QUARTZ + BARITE + MARCASITE VNING.
		~171.0' - 174.2': SHEARED LT. GRN DOZER.	160		170.0-174.2': PERVASIVE SILICA COBWEB ON SHEAR FRAX. + GRNISH MYLONITE VNLTS. TECTONIC OVERPRINT. 174.2-176.0': 2 ~3" STRANDS OF SILICIFIED MYLONITE.	145.5 - 165': TRACE GRN CLAY ALTN IN WALLRK. MOD TO WK SILICA + MARC OR Py VNLTS. 165.0 - 170.0': TRACE GRN CLAY ALTERATN IN WALLRK STR. SILICA + MARC + BLK PYRITE +/- WHT (SILICA + CLAY) VNING TRENDING 50° TO C/A.
174.2' - 212.0 SOUTH RIDGE FAULT		174.2 - 176.9': STRLY SILICIFIED, SULFIDIC, MYLONITIC UPPER FAULT STRAND. GRNISH SILICIFIED RK FLOUR + MYLONITE AT 30° FOLLOWED BY BLK-SILICA-SULFIDE MYLONITE VEIN AT 40° TO C/A. STR REPLACEMT SILICA +/- GRY SULFIDES TO 176.9'.	170			170.0' - 174.2': MOD. QUARTZ + MARCASITE VNLTS & PYRITIC BLEBBING IN WALLROCK; TR. GRN CLAY ALTN, MODERATE GRN CLAY MYLONITE VNLTS. 174.2' - 176.9': STRONG GRN CLAY ALT'N, STRONG SILICIFICATN LOCALLY STR BLK SILICA-PYRITE.
		176.9' - 179.4': GRN SPECKLED BUD SLIVER WITH IRREGULAR CONTACTS AT LO ∠ TO C/A.	180		179.4' - 181.1': MOSAIC/CRACKLE BRECCIA, >80% MONOLITHIC. 181.1 - 189.7': DISAGGREGATED, MATRIX-SUPPORTED MONOLITHIC BUD BXA. MOSAIC OR UNMILLED, DOMINANTLY HYDROTHERMAL. 189.7' - 194.6': MULTI-EPISODE BXA. MILLED BXA OVERPRINTED WITH SILICIFIED HYDROTHERMAL CRACKLED BXA.	176.9 - 179.4': STRONG GRN CLAY ALT'N, LOCALLY OVERPRINTED WITH SILICA + MARCASITE VNING (MOD.) 179.4' - 181.1': STR'LY SILICIFIED, CEMENTED WITH GRY SILICA VNING 181.1' - 189.7': STR/MOD. GRN CLAY ALT'N OVERPRINTED WITH STRONG SILICIFICATION
		179.4' - 181.1': FG RUDDY TAN UNIT. STRONGLY MOSAIC TO CRACKLE BRECCIATED. CEMENTED WITH GRY SiO_2 +/- LT. GRN CLAY. VARIABLY CLAST- TO MATRIX-SUPPORTED.	190			
		181.1' - 189.7': STRONGLY SILICIFIED, DISRUPTED, GRN SPECKLED BUD.				

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
120.0	125.0				
125.0	130.0				
130.0	135.0				
135.0	140.1				
140.1	144.7				
144.7	145.6				
145.6	150.5				
150.5	155.0				
155.0	160.0				
160.0	165.0				
165.0	170.2				
170.2	174.0				
174.0	176.0				
176.0	176.9				
176.9	179.4				
179.4	181.1				
181.1	182.4				
182.4	186.0				
186.0	189.7				

HOLE NUMBER D-221-98 PAGE 4 OF 4

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
174.2 - SOUTH RIDGE FAULT	212.0	189.7'-194.6': RUDDY-TAN, MULTI-EPISODE MYLONITIC BRECCIA. FG PEBBLE TO VCG SAND-SIZED FRAGMENTS IN RUDDY TO TAN ROCK FLOUR. CEMENTED +/- OVERPRINTED WITH GRY SILICA. >90% MONOLITHIC. 194.6-198.1': HETEROLITHIC, WKLY MILLED MATRIX-SUPPORTED BRECCIA. DOMINANTLY LBT LITHOLOGIES IN FRAGMENTS WHICH RANGE FROM ANGULAR TO SUBROUNDED. BLCHED PALE GRN CLAY +/- SILICA (+/- RK FLOUR MATRIX. 198.1- ~208' = SHEARED, GRN CLAY DOMINATED RK FLOUR WITH HETEROLITHIC, HIGHLY VARIABLY FRAGMT POPULATN FLOATING IN IT. ~208.0'-211.1': HETEROLITHIC, MATRIX-SUPPORTED, SILICIFIED FAULT BXA. 211.1-212.0': >80% REPLACEMT SILICA. T.D. 212'	190 200 210 220		194.7'-198.1': MATRIX-SUPPORTED, HETEROLITHIC FAULT BRECCIA. 198.1'-211.1': MUSHY, MATRIX-DOMINATED, HETEROLITHIC, SHEARED FAULT BRECCIA. 207.5': UNHEALED, GRN CLAY GOUGE ON FRAX.	189.7'-194.7': STRONG SILICIFICATN, MOD. LATE OHT CLAY + MARC. 194.7-198.1': WK TO MOD. BLCHING, STR. GRN CLAY ALT'N IN FRAGMTS. WK SiO_2 INTERMITTENT THRU OUT. MOD. DISS'D MARC/PY. 198.1-207.3': STR. GRN CLAY ALT'N, MOD. MARC/PY MOD. QZ+/- MARC & WHT CLAY VNLTS. 207.3-211.1': STR TO MOD. GRN CLAY ALT'N, MOD TO WK SILICIFICATN OVERPRINT. MOD. DISS'D MARC. 211.1-212.0': >80% REPLACEMT SILICIFICATN +/- SULFIDE.	189.7 194.6 198.1 DISS'D 203.1 207.3 211.1	194.6 198.1 203.1 207.3 211.1 212.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-221-98 DATE: 05/24/98 LOGGED BY: HBM 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	1.5	90.0	93.3	40.0										
1.5	6.5	100.0	100.0	70.0										
6.5	15.0	105.9	105.9	78.8										
15.0	25.0	98.0	98.0	85.0										
25.0	35.0	101.0	101.0	82.0										
35.0	45.0	100.0	100.0	77.0										
45.0	55.0	97.0	97.0	61.0										
55.0	65.0	97.0	97.0	65.0										
65.0	75.0	100.0	100.0	78.0										
75.0	80.0	86.0	86.0	32.0										
80.0	89.5	106.3	106.3	88.4										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-221-98 DATE: 05/24/98 LOGGED BY: HBM 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
99.5	95.0	101.8	101.8	70.9										
95.0	105.0	100.0	100.0	75.0										
105.0	115.0	101.0	101.0	87.0										
115.0	125.0	100.0	100.0	73.0										
125.0	135.0	100.0	100.0	83.0										
135.0	145.0	99.0	99.0	82.0										
145.0	155.0	101.0	101.0	79.0										
155.0	165.0	98.0	98.0	66.0										
165.0	175.0	103.0	103.0	70.0										
175.0	185.0	100.0	100.0	81.0										
185.0	195.0	101.0	101.0	76.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-221-98 DATE: 05/24/98 LOGGED BY: KM 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 IND EX (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)
195.0	205.0	99.0	99.0	67.0										
205.0	212.0	98.6	98.6	60.0										
	TD													

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP049072

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-221-98 RECEIVED : 5 JUN 1998

No. SAMPLES : 50 REPORTED : 15 JUN 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.

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AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP049072

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-221-98

REPORTED : 15 JUN 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-221-98 00-05	0.002			0.05
D-221-98 05-10	0.003			0.03
D-221-98 10-15	0.006			0.04
D-221-98 15-20	0.007			0.04
D-221-98 20-25	0.004			0.04
D-221-98 25.0-29.9	0.002			0.03
D-221-98 29.9-35.0	0.001	0.002		0.03
D-221-98 35-40	0.002			0.03
D-221-98 40-45	0.004			0.04
D-221-98 45.0-49.8	0.010	0.009		0.05
D-221-98 49.8-55.0	0.007			0.05
D-221-98 55-60	0.002			0.05
D-221-98 60-65	0.009			0.03
D-221-98 65-70	0.007			0.03
D-221-98 70-75	0.120		0.126	0.74
D-221-98 75-80	0.038			0.06
D-221-98 80.0-84.9	0.020			0.07
D-221-98 84.9-90.1	0.001			0.03
D-221-98 90.1-95.0	0.004			0.04
D-221-98 95.0-100.2	0.011			0.04
D-221-98 100.2-105.0	0.006			0.04
D-221-98 105.0-109.9	0.011			0.06
D-221-98 109.9-115	0.012			0.07
D-221-98 115-120	0.012			0.05
D-221-98 120-125	0.063		0.073	0.15

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AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP0490072

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-221-98

REPORTED : 15 JUN 1998

SAMPLES		Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-221-98 125-130		0.034			0.07	
D-221-98 130-135		0.029			0.06	
D-221-98 135.0-140.1		0.006			0.04	
D-221-98 140.1-144.7		0.046	0.033		0.08	
D-221-98 144.7-145.6		0.032			0.18	
D-221-98 145.6-150.5		0.004			0.04	
D-221-98 150.5-155.0		0.009			0.06	
D-221-98 155-160		0.007			0.06	165-194.6 = 29.6' @
D-221-98 160-165		0.031			0.45	
D-221-98 165.0-170.2	5.2	1.135		1.062	0.43	1.274 opt Au
D-221-98 170.2-174.0	3.8	0.288		0.334	0.20	0.99 Ag
D-221-98 174-176	2	0.334		0.319	0.15	
D-221-98 176.0-176.9	0.9	1.707		1.686	0.74	
D-221-98 176.9-179.4	2.5	8.492		8.007	6.98	
D-221-98 179.4-181.1	1.7	1.458		1.821	2.57	
D-221-98 181.1-182.4	1.3	0.283		0.234	0.87	
D-221-98 182.4-186.0	3.6	0.097		0.084	0.10	
D-221-98 186.0-189.7	3.7	0.451	0.273	0.432	0.26	
D-221-98 189.7-194.6	4.9	0.493		0.588	0.23	
D-221-98 194.6-198.1		0.003			0.06	
D-221-98 198.1-203.1		0.003			0.07	
D-221-98 203.1-207.3		0.005			0.10	
D-221-98 207.3-211.1		0.002			0.09	
D-221-98 211.1-212.0		0.005			0.11	
* 33750		0.529			4.80	

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SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

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Company: ROSEBUD MINING Co. LLT

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: 06/04/98 Number of Samples: 49

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

D-221-98 SAMPLE IDENTIFICATION			TYPE	ELEMENTS REQUIRED
0.0 - 5.0	75.0 - 80.0	145.6 - 150.5	CORE	Au-Ag ACCORDING TO ROSEBUD
5.0 - 10.0	80.0 - 84.9	150.5 - 155.0		& MINING PROTOCOL
10.0 - 15.0	84.9 - 90.1	155.0 - 160.0		
15.0 - 20.0	90.1 - 95.0	160.0 - 165.0		198.1 - 203.1
20.0 - 25.0	95.0 - 100.2	165.0 - 170.2		203.1 - 207.3
25.0 - 29.9	100.2 - 105.0	170.2 - 174.0		207.3 - 211.1
29.9 - 35.0	105.0 - 109.9	174.0 - 176.0		211.1 - 212.0
35.0 - 40.0	109.9 - 115.0	176.0 - 176.9		
40.0 - 45.0	115.0 - 120.0	176.9 - 179.4		
45.0 - 49.8	120.0 - 125.0	179.4 - 181.1		
49.8 - 55.0	125.0 - 130.0	181.1 - 182.4		
55.0 - 60.0	130.0 - 135.0	182.4 - 186.0		
60.0 - 65.0	135.0 - 140.1	186.0 - 189.7		
65.0 - 70.0	140.1 - 144.7	189.7 - 194.6		
70.0 - 75.0	144.7 - 145.6	194.6 - 198.1		

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

American Assay Laboratories

INVOICE

Remit To: P.O. Box11530
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Fax No.: 702-356-1413

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INVOICE NO: SP 0049072-IN
INVOICE DATE: 06/15/98

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-221-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
50	SAMPLES RECEIVED	.00	.00
49	JAW CRUSHING CHARGE	1.30	63.70
49	COARSE MILLING CHARGE	4.50	220.50
49	SPLITTING CHARGE	2.40	117.60
49	RING MILLING CHARGE	2.00	98.00
50	Au (1 A.T. FIRE ASSAY)	8.00	400.00
12	Au ANALYSES/GRAVIMETRIC	8.75	105.00
50	HYDROCHLORIC/NITRIC DIGESTION	2.00	100.00
50	Ag ANALYSES	1.00	50.00
2	Ag (ore grade) ANALYSES	5.00	10.00

86-5110-477
DA

NET INVOICE:	1,164.80
LESS DISCOUNT:	232.96
FREIGHT:	.00
INVOICE TOTAL:	931.84

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049072

American Assay Laboratories

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Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

CLIENT REFERENCE No: D-221-98

No. SAMPLES : 50

MAIN SAMPLE TYPE : DRILL CORE

RECEIVED : 5 JUN 1998

REPORTED : 15 JUN 1998

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.

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP049072

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-221-98

REPORTED : 15 JUN 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-221-98 00-05	0.002			0.05
D-221-98 05-10	0.003			0.03
D-221-98 10-15	0.006			0.04
D-221-98 15-20	0.007			0.04
D-221-98 20-25	0.004			0.04
D-221-98 25.0-29.9	0.002			0.03
D-221-98 29.9-35.0	0.001	0.002		0.03
D-221-98 35-40	0.002			0.03
D-221-98 40-45	0.004			0.04
D-221-98 45.0-49.8	0.010	0.009		0.05
D-221-98 49.8-55.0	0.007			0.05
D-221-98 55-60	0.002			0.05
D-221-98 60-65	0.009			0.03
D-221-98 65-70	0.007			0.03
D-221-98 70-75	0.120		0.126	0.74
D-221-98 75-80	0.038			0.06
D-221-98 80.0-84.9	0.020			0.07
D-221-98 84.9-90.1	0.001			0.03
D-221-98 90.1-95.0	0.004			0.04
D-221-98 95.0-100.2	0.011			0.04
D-221-98 100.2-105.0	0.006			0.04
D-221-98 105.0-109.9	0.011			0.06
D-221-98 109.9-115	0.012			0.07
D-221-98 115-120	0.012			0.05
D-221-98 120-125	0.063		0.073	0.15

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049072

American Assay Laboratories

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PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-221-98

REPORTED : 15 JUN 1998

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D-221-98 125-130	0.034			0.07
D-221-98 130-135	0.029			0.06
D-221-98 135.0-140.1	0.006			0.04
D-221-98 140.1-144.7	0.046	0.033		0.08
D-221-98 144.7-145.6	0.032			0.18
D-221-98 145.6-150.5	0.004			0.04
D-221-98 150.5-155.0	0.009			0.06
D-221-98 155-160	0.007			0.06
D-221-98 160-165	0.031			0.45
D-221-98 165.0-170.2	1.135		1.062	0.43
D-221-98 170.2-174.0	0.288		0.334	0.20
D-221-98 174-176	0.334		0.319	0.15
D-221-98 176.0-176.9	1.707		1.686	0.74
D-221-98 176.9-179.4	8.492		8.007	6.98
D-221-98 179.4-181.1	1.458		1.821	2.57
D-221-98 181.1-182.4	0.283		0.234	0.87
D-221-98 182.4-186.0	0.097		0.084	0.10
D-221-98 186.0-189.7	0.451	0.273	0.432	0.26
D-221-98 189.7-194.6	0.493		0.588	0.23
D-221-98 194.6-198.1	0.003			0.06
D-221-98 198.1-203.1	0.003			0.07
D-221-98 203.1-207.3	0.005			0.10
D-221-98 207.3-211.1	0.002			0.09
D-221-98 211.1-212.0	0.005			0.11
33750	0.529			4.80

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049072

American Assay Laboratories

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

HECLA MINING COMPANY

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CLIENT REFERENCE No: D-221-98 RECEIVED : 5 JUN 1998

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D-221-98 65-70	0.007			0.03
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D-221-98 100.2-105.0	0.006			0.04
D-221-98 105.0-109.9	0.011			0.06
D-221-98 109.9-115	0.012			0.07
D-221-98 115-120	0.012			0.05
D-221-98 120-125	0.063		0.073	0.15

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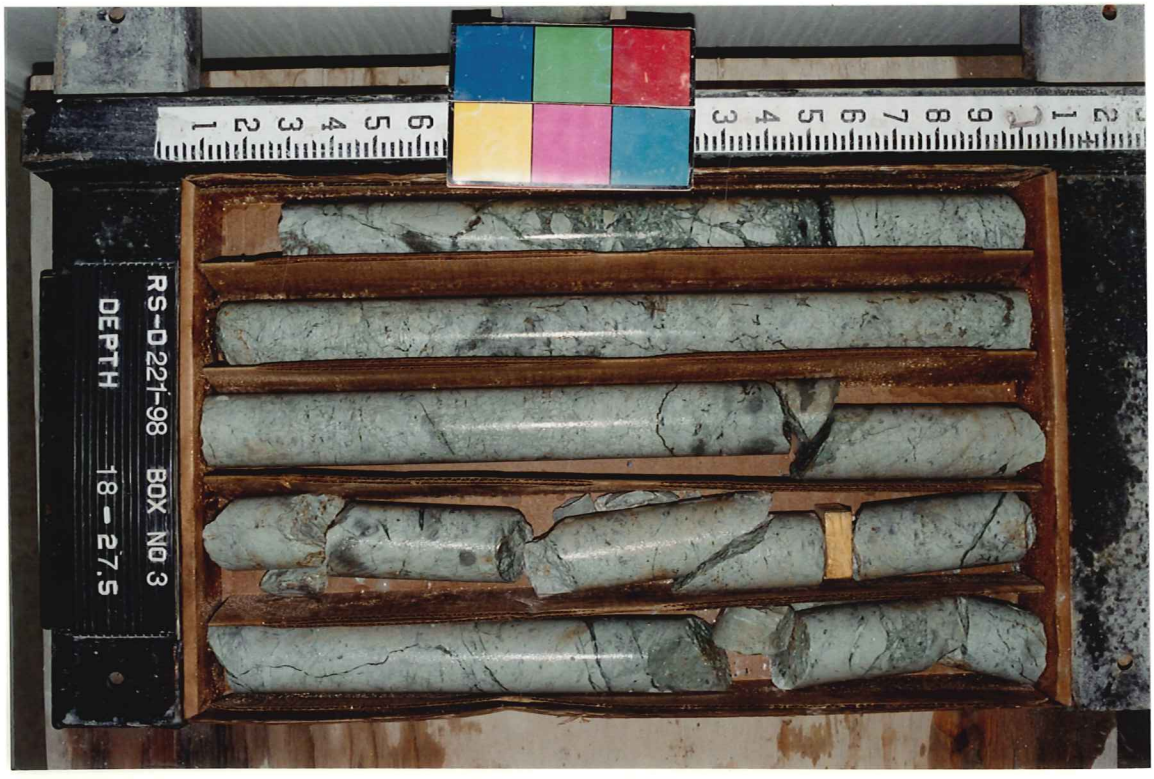
D-221-98 211.1-212.0	0.005			0.11
33750	0.529			4.80

RS-D 221-98 BOX NO 2
DEPTH 9-18

RS-D 221-98 BOX NO 1
DEPTH 0 - 9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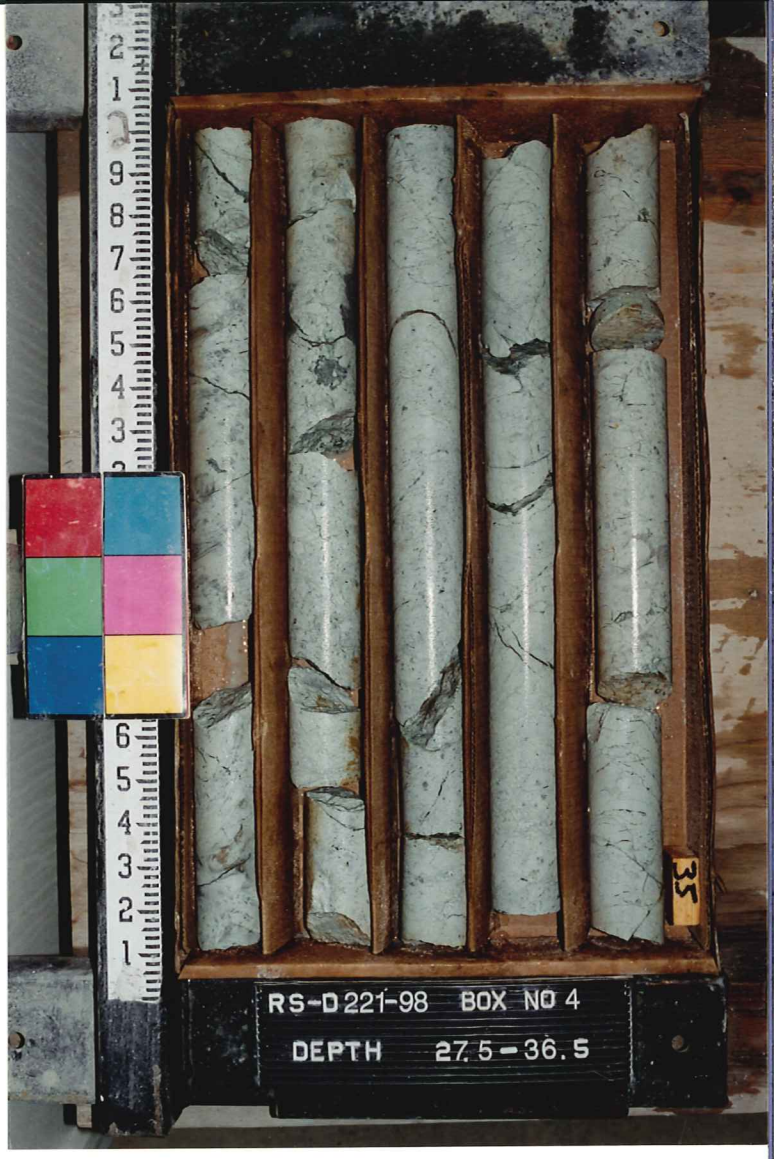
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RS-D221-98 BOX NO 6
DEPTH 46 - 55.5

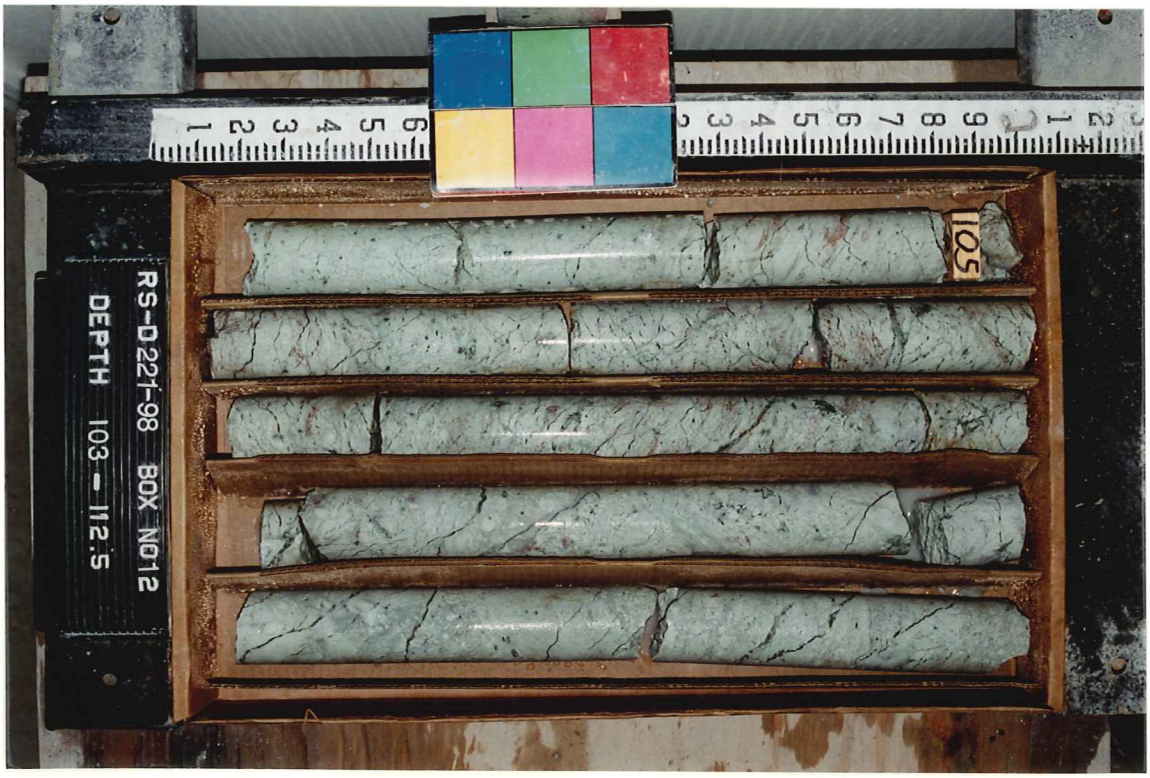
RS-D221-98 BOX NO 8
DEPTH 65 - 74.5

65'
RS-D221-98 BOX NO 7
DEPTH 55.5 - 65

75'
O.D.
RS-D221-98 BOX NO 9
DEPTH 74.5 - 84.5

95
RS-D221-98 BOX N011
DEPTH 94 - 103

89.5
RS-D221-98 BOX N010
DEPTH 84.5 - 94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DEPTH 122 -131.5

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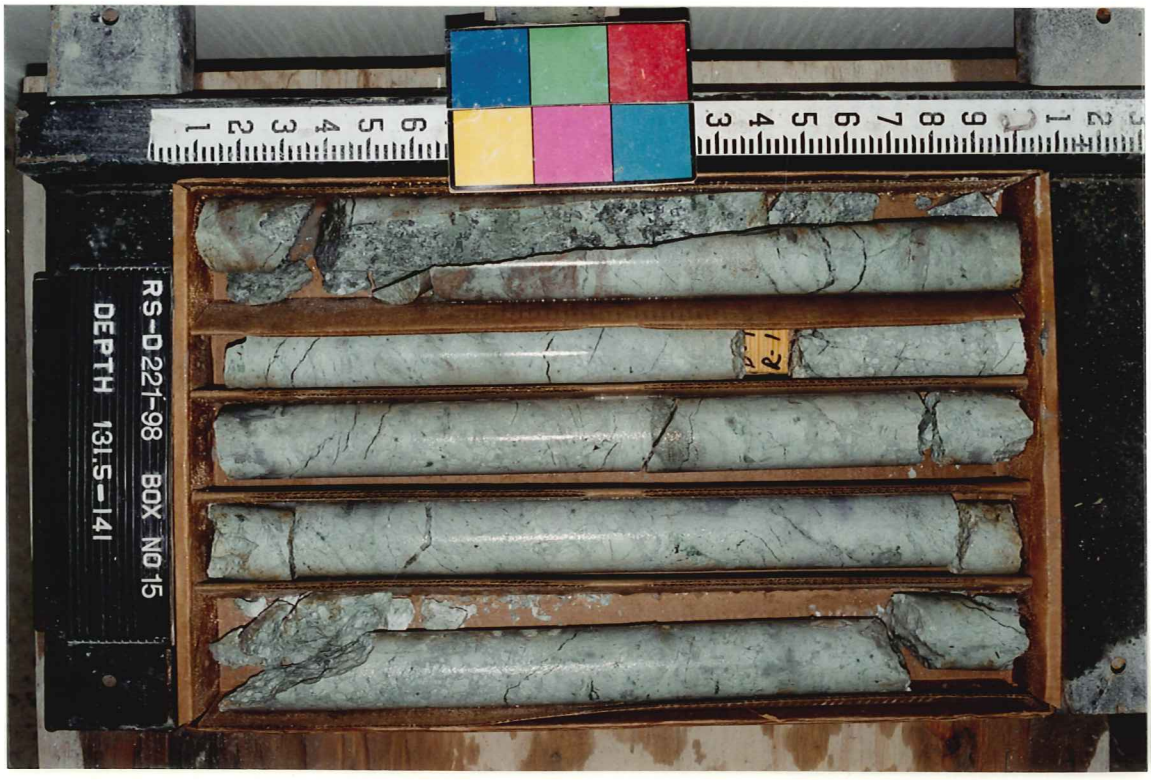
DEPTH 112.5-122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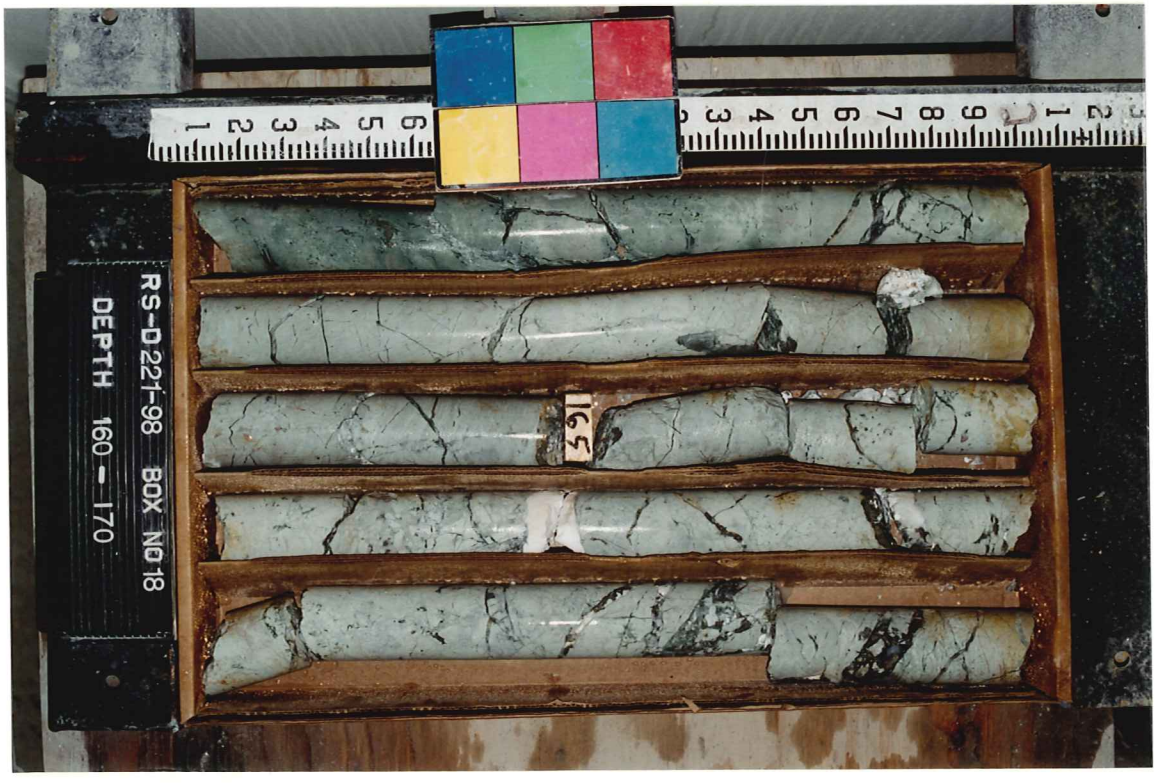
DEPTH 141 -150.5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DEPTH 160 - 170
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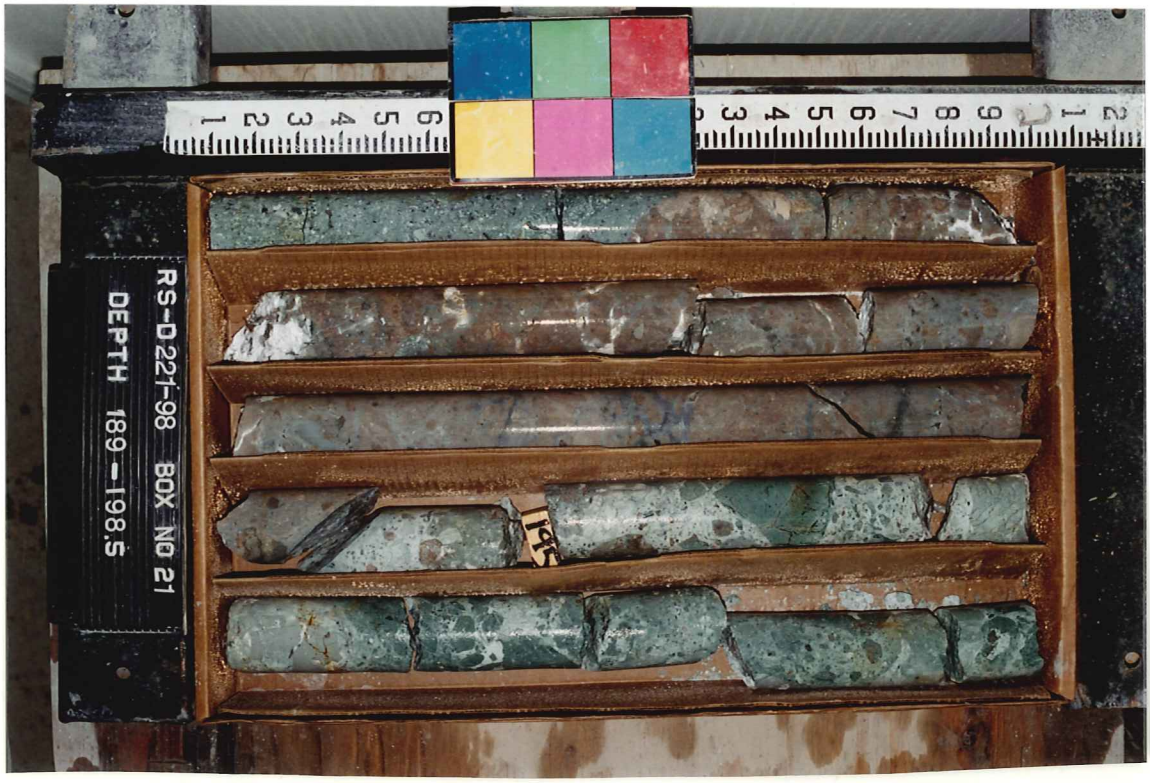
DEPTH 179.5-189

RS-D 221-98 BOX NO 19
DEPTH 170 - 179.5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DEPTH 189 - 198.5

RS-D 221-98 BOX NO 23
DEPTH 207.5 - 212 TD

RS-D 221-98 BOX NO 22
DEPTH 198.5 - 207.5

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla

WELL NAME D-221-98

LEASE

TAKEN BY

DEPTH 105'

DATE 4-7-98

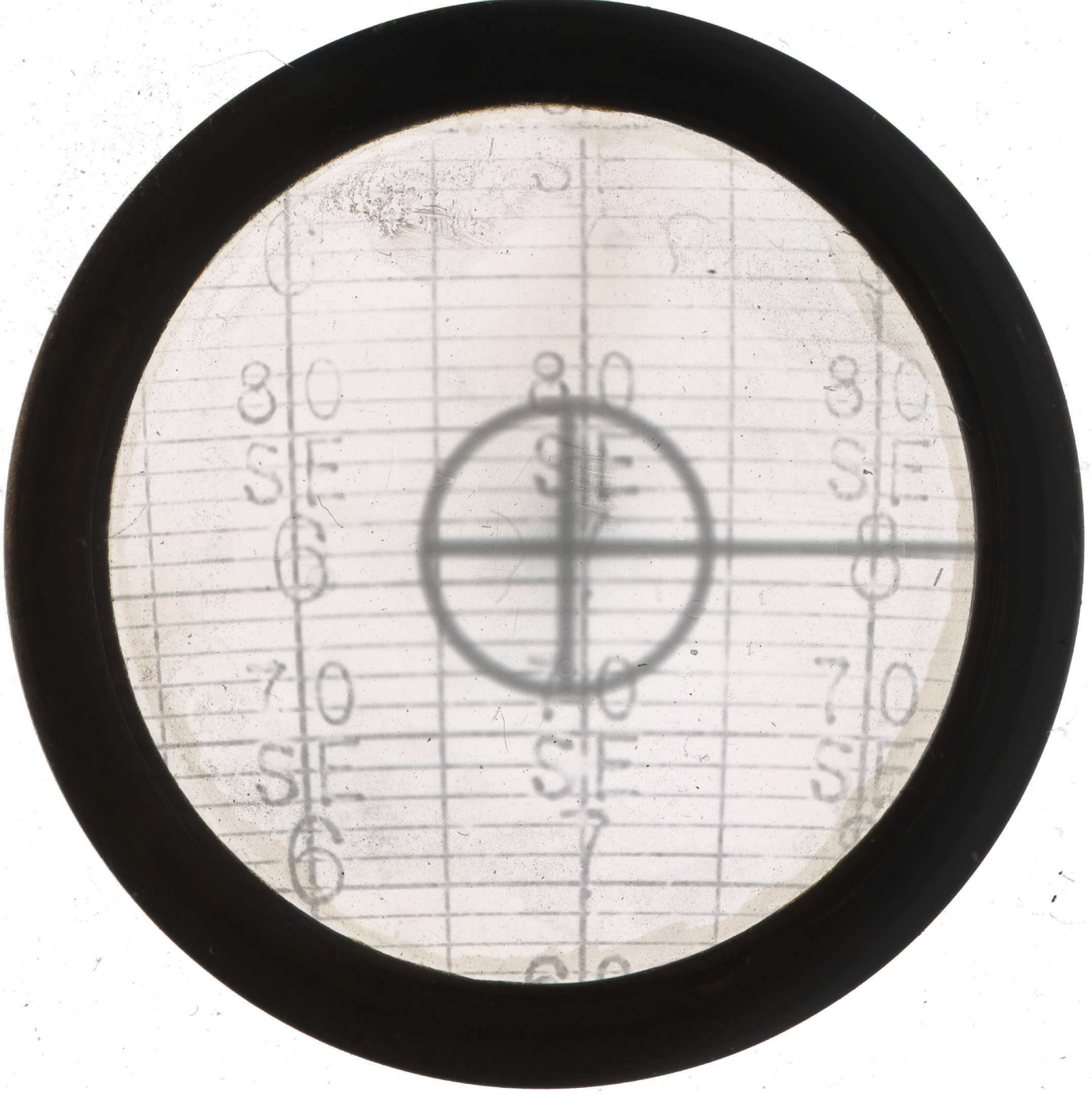
DRIFT ANGLE +15°

DIRECTION

TYPE

JOB NO.

HI-1408



SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-221-95
LEASE
TAKEN BY
DEPTH Collar
DATE 4-7-95
DRIFT ANGLE +15°
DIRECTION
TYPE
JOB NO.
HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla

WELL NAME D-221-98

LEASE

TAKEN BY

DEPTH 212'

DATE 4-7-98

DRIFT ANGLE +15°

DIRECTION

TYPE

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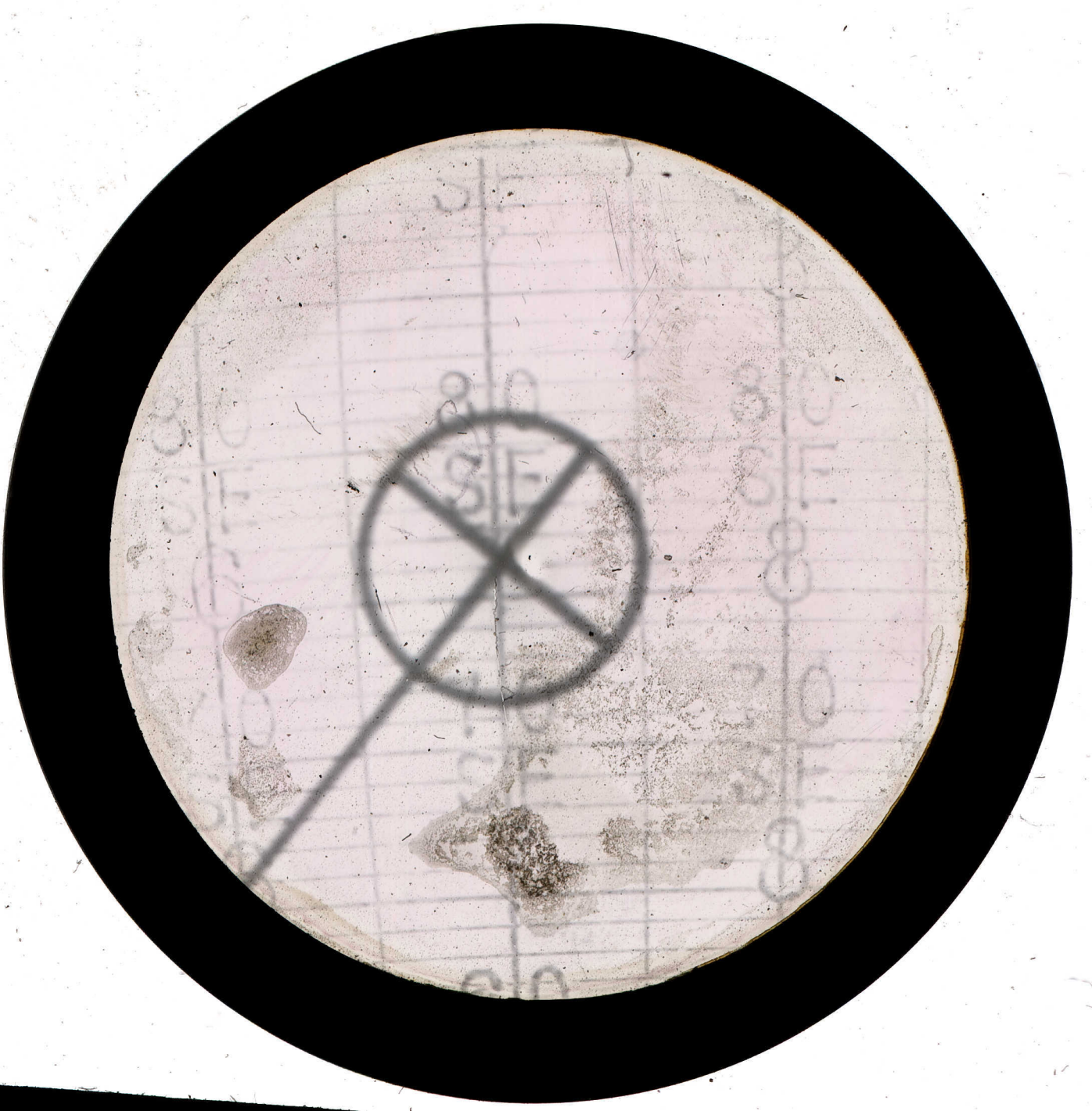
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