60001193

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-292-98
AUTHOR	S. King; K. Allen; A. Niles
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 217' receipt; handwritten notes; downhole camera images 30 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 5/14/08
Initials Date
DB: mch
Initials Date
SCANNED: NB
Initials Date

Revised: 1/22/08

D-292-98

60001193 4010

60001193

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

Hecla MINING COMPANY

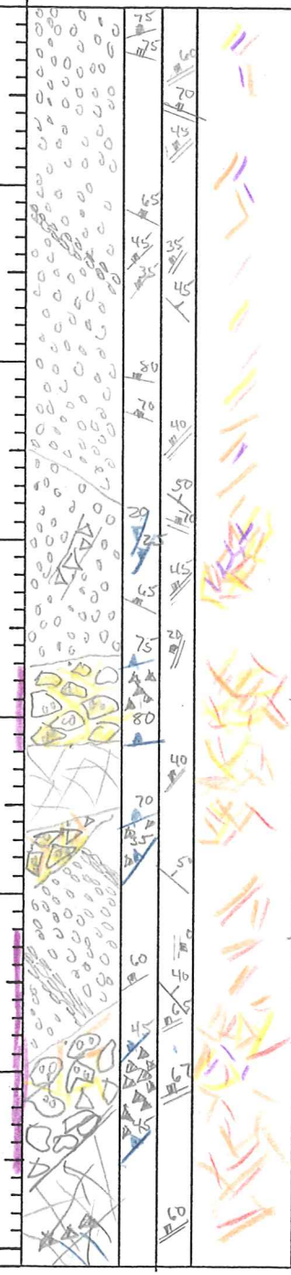
ROSEBUD PROJECT DIAMOND DRILL LOG

HOLE NUMBER	D-292-98	LOCATION	STOPE 15, NORTH SEC 15-25	REMARKS	
PAGE 1 OF 4		NORTHING			
DATE	10/1-7/98	EASTING			
LOGGED BY	ALLYN NILES	ELEVATION			
SCALE	1" = 10'	AZIMUTH	125		
TOTAL DEPTH	217'	INCLINATION	0		

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 - TOS	11.2	0.0 - 11.2 PINK, HETEROLITIC LAPILLI TUFF. PINK → GRAY F.G. ANGULAR → ROUND LIPILLIS, SOME ARE GRAINY & SILICA REPLACED. MATRIX/CEMENT IS PINK, FINE GRAIN			0.0 - 11.2 MOD, VUGS, MAYBE FORMED FROM LEACHING OF LAPILLIS.	0.0 - 11.2 VUGS LINED W/ DRUZY QUARTZ, BLADED MARC, PYRITE.
11.2 - F.G. MASSIVE	28.0	11.2 - 28.0 LT. GREEN, FINE TO VERY FINE GRAIN. FLOW W/ ZONED DISSEM MARC. BLADES. DEVOID OF ALIGNMENT FEATURES.	10 20		11.2 CONTACT BRECCIATED, 1" ø ZONE OF TOS/F.G. MASS FRAGS. 11.2 - 22.0 BRECCIA ZONE, ANGULAR → SUB-ROUND FRAGS IN VARIBLE CEMENTS/MATRIX, MOSTLY CLAST SUPPORTED. VUGS & OPEN FRACTURES COMMON TO 16.0	11.2 - 22.0 VUGS, OPEN FRACTS LINED W/ DRUZY QUARTZ, BLADED MARC, MINOR PYRITE & WHITE CLAY. GREEN CLAY & PYRITE IS CEMENTING AGENT 16-21. VERY STRONG QUARTZ VEINING 21-22.
28.0 - PINK MATRIX BXA ?	47.0	28.0 - 47.0 MAY NOT BE MAPPABLE UNIT. LT. GREEN ANGULAR FINE GRAIN CLASTS IN A FINE GRAIN PINK VOLCANIC CLAY MATRIX.	30 PINK → 40		28.0 CONTACT IRREGULAR BRECCIATED 28.0 - 31.6 BRECCIA ANGULAR → ROUND CLASTS MATRIX → CLAST SUPPORT. STRONG VUGS/VEINING. 33.5 - 47.0 BXA, PINK F.G. VOLCANIC CLAY MATRIX SUPPORTING CLASTS MOD → STRONG VEIN/VUG DEVELOPMENT.	28.0 - 31.6 VUGS/FRACTS LINED W/ DRUZY QUARTZ, MARC, MINOR PYRITE, VEINS FILLED W/ QUARTZ, GREEN CLAY, PYRITE & MARC. 33.5 - 47.0 VARIABLE LEACHING OF MATRIX & CLASTS TO FORM VUGGY POCKETS LINED W/ DRUZY QUARTZ, BLADED MARC. & WHITE CLAY, VEINS & FRACTS FILLED W/ HARD LT. GREEN CLAY, BLADED MARC., PYRITE, QUARTZ. ZONE SILICA PER. OF CLASTS & MATRIX ASSOC. W/ THICKER QUARTZ FILLED VEINS.
47.0 - PLANAR LAMINAR	131.4	47.0 - 131.4 SEE DESCRIPTION PAGE 2	50			

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag
0.0	5.0					
5.0	8.8					
8.8	11.2					
11.2	14.0					
14.0	16.6					
16.6	19.5					
19.5	22.0					
22.0	24.0					
24.0	28.0					
28.0	30.0					
30.0	32.0					
32.0	35.8					
35.8	39.1					
39.1	42.0					
42.0	45.0					
45.0	47.0					

HOLE NUMBER D-292-98 PAGE 2 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
47.0 - 131.4 PLANAR LAMINAR		47.0 - 121.5. PINK -> LT. GRAY & GRAYISH PINK, FINE GRAIN, VESICULAR FLOW(S) OR TUFFS W/ NO DEFINED FLOW/BED CONTACTS. ISOLATED WEAK PLANAR FEATURES ARE VESICLE TRAINS OR FLOW BANDS. POSSIBLE LAMINAR NATURE INDICATED BY GENERAL ORIENTATION OF SOME FRACTURE SETS.	60 70 80 90 100 110 120 AMA →		57.0 - 61.0 MOD. VEINING/FRACT. FILLING 74.2 - 80.0 MOD. VEINING 80.0 - 82.0 BXA, VERY VUGGY, HEALED, SUB-ANGULAR FRAGS. 87.0 - 91.8 HEALED BXA, MOSTLY ROUND FRAGS. HOMOLITHIC. 91.8 - 95.8 CRACKLE ZONE 95.8 - 97.9 HEALED BXA, MOSTLY ANGULAR SOME ROUND FRAGS. 103.0 - 108.0 MOD. FRACTURE FILLING/VEINING. 108.3 - 114.5 HEALED BXA, ROUNDED FRAGS, 114.5 - 121.5 CRACKLE ZONE W/ SOME ROTATION OF FRAGS
						50 - 54 MOD. BARITE LINING SOME OPEN FRACTS 57.0 - 61.0 FRACTS/VEINS FILLED W/ WHITE CLAY, PYRITE, BLADED MARC., BARITE. 74.2 - 80.0 VEINS FILLED W/ WHITE CLAY, MARC., HARD GREEN CLAY, SOME QUARTZ 80.0 - 82.0 CEMENTED W/ QUARTZ, BLADED MARC. VUGS LINED W/ DRUZY QUARTZ STRONG BARITE, BLADED MARC., WHITE CLAY. 87.0 - 91.8 CEMENED W/ STRONG QUARTZ AS STOCK-WORK VEINING, BLADED MARC., MINOR WHITE CLAY 91.8 - 95.8 CRACKLE FRACTS FILLED W/ HARD LT. GRA CLAY, MINOR QUARTZ & MARC. 95.8 - 97.9 CEMENTED W/ HARD LT. GRA CLAY QUARTZ, BLADED MARC., SOME VUGS LINED W/ DRUZY QUARTZ, MARC. STRONG SILICA REP. OF CLASTS 103.0 - 108.0 FRACTS/VEINS FILLED W/ WHITE CLAY, BLADED MARC., MINOR-MOD QUARTZ 108.3 - 114.5 CEMENTED W/ STOCKWORK QUARTZ, HARD WHITE CLAY, BARITE, BLADED MARC.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
47.0	52.7				
52.7	57.0				
57.0	62.0				
62.0	67.0				
67.0	72.0				
72.0	74.2				
74.2	77.0				
77.0	80.0				
80.0	82.0				
82.0	87.0				
87.0	89.5				
89.5	92.0				
92.0	95.6				
95.6	98.0				
98.0	102.0				
102.0	105.0				
105.0	108.0				
108.0	112.0				
112.0	115.3				
115.3	118.8				

HOLE NUMBER D-292-98 PAGE 3 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
47.0 - 131.4 PLANAR LAMINAR		121.5 - 131.4 SYMPATHIC BXA ASSOC. W/ SRF. MINOR SILICA REPLACEMENT, HOMOLITHIC.	130		121.5 - 131.4 BXA/ FAULT ZONE, HOMOLITHIC W/ ROUNDED CLASTS, CLAST SUPPORTED. SOME VUGS, STRONG FRACTURING, LOW RQD	121.5 - 131.4 CEMENTED W/ WHITE CLAY, QUARTZ BLADED MARC., VUGS LINED W/ DRUZY QUARTZ BLADED MARC., SOME WHITE CLAY.
131.4 - 150.5 SRF		131.4 - 150.5 GREEN -> DK. GRAY, ROUND CLASTS TO 2" DIA, MOST PEA SIZE; HETEROLITHIC W/ CLASTS OF DOZER, LBT & POSSIBLE ALS. MOST CLASTS SILICAIZED IN A GREEN SILICIOUS ROCK FLOUR MATRIX W/ ZONES OF INTENSE SILICA FLODDING 142.0-146.0 SIGNIFICANT CORE LOSS, 1.5' REC. FOR 4' DRILLED	PIMA 140		131.4 - 150.5 STRONG FRACTURING, FRACTURE FILLINGS, VEINING, ASSOC. W/ BXA.	131.4 - 150.5 CEMENT IS MOSTLY SILICA/QUARTZ FLODDING W/ VARIABLE WHITE CLAY. OPEN FRACTURES FILLED W/ WHITE CLAY, BARITE, MINOR -> MOD PYRITE & BLADED MARC.
150.5 - 155.1 FAULT ZONE		150.5 - 155.1 BXA, MOSTLY HOMOLITHIC W/ ROUND DOZER CLASTS, MOSTLY SILICIFIED, IN A SILICIOUS ROCK FLOUR MATRIX	150			153.0 - 217.0 ROUND -> IRREGULAR SHAPED SULFIDIC SELVAGES (PYRITE) ASSOC. W/ SULFIDE FILLED FRACTURES / VEINLETS
155.1 - 217.0 DOZER		155.1 - 159.5 GRAY VERY FINE GRAIN, MYLONITIC TEXTURE W/ WELL DEFINED FABRIC ALIGNMENT RARE, ISOLATED, ROUND SILICIFIED CLASTS 159.5 - 217.0 GRAY, VERY FINE GRAIN FLOW(S) W/ WELL HEALED BXA ZONES WHICH ARE PROBABLY AUTOBXA'S AT FLOW TOP/BASE.	160 170 180 190		155.1 - 159.5 STRONG VUGS/ FRACTURES, 161.0 - 161.5 HEALED BXA 159.5 - 171.5 MOD. VEINING, FRACTURE FILLING 171.5 - 203.3 WEAK -> MOD. VEINING W/ SOME VUGS & OPEN FRACS 187.3 - 196.5 AUTO BXA	155.1 - 159.5 LINED W/ BARITE, DRUZY QUARTZ, WHITE CLAY 161.0 - 161.5 CEMENTED W/ SILICA, SULFIDE SELVAGES 169.0 STIBNITE ON QUARTZ, LINING VUG. 159.5 - 171.5 VEINS/FRACTS FILLED W/ WHITE CLAY, PYRITE, SOME OPEN FRACTS LINED W/ DRUZY QUARTZ, BARITE, VERY RARE STIBNITE. 171.5 - 203.3 VEINS FILLED W/ 188.0 2" Ø FAULT W/ SMALL ROUND SILICIOUS CLASTS IN SOFT CLAY GOUGE

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
118.8	122.0				
122.0	125.0				
125.0	128.5				
128.5	131.4				
131.4	135.6				
135.6	138.5				
138.5	142.0				
142.0	146.0				
146.0	150.5				
150.5	153.0				
153.0	155.0				
155.0	158.0				
158.0	161.5				
161.5	167.0				
167.0	170.0				
170.0	174.0				
174.0	179.0				
179.0	184.2				
184.2	187.0				

HOLE NUMBER D-292-98 PAGE 4 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
155.1 - DOZER	217.0	159.5 - 217.0 SEE DESCRIPTION PAGE 3	200 210 217		191.0 - 191.5 HEALED BXA. 203.3 - 207.5 MOD. → STRONG OPEN FRACTURES/ VUGS/ VEINS. 207.5 - 217.0 MOD. VEINING. 214.5 - 217.0 AUTOBXA	191.0-191.5 CEMENTED W/ QUARTZ, BLADED MARC., WHITE CLAY 203.3 - 207.5 VEINS FILLED W/ WHITE CLAY, MINOR PYRITE & MARC. OPEN FRACTS & VUGS LINED W/ DRUZY QUARTZ, PYRITE, BARITE. 197.0 - 207.5 MOD., ZONED SILICA REPLACEMENT OF DOZER 207.5 - 217.0 VEINS FILLED W/ PYRITE, WHITE CLAY, SOME QUARTZ, MINOR MARC.
		T.D. 217.0				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
187.0	192.0				
192.0	197.0				
197.0	199.8				
199.8	203.6				
203.6	207.5				
207.5	212.0				
212.0	217.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-292-98 DATE: 10/1/98 LOGGED BY: ALLYN NILES 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)
0.0	5.0	94.0	100.0	60.0										
5.0	12.0	105.7	105.7	57.0										
12.0	22.0	98.0	100.0	67.0										
22.0	24.0	100.0	100.0	0										
24.0	32.0	98.0	100.0	52.5										
32.0	42.0	100.0	100.0	72.0										
42.0	52.0	101.0	104.0	48.0										
52.0	62.0	100.0	100.0	46.0										
62.0	72.0	98.0	98.0	48.0										
72.0	82.0	100.0	100.0	45.0										
82.0	92.0	100.0	100.0	76.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-292-98 DATE: 10/5/98 LOGGED BY: _____ 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)
92.0	102.0	100.0	100.0	75.0										
102.0	112.0	90.0	91.0	50.0										
112.0	122.0	83.0	97.0	50.0										
122.0	132.0	30.0	100.0	17.0										
132.0	138.5	21.5	95.4	27.7										
138.5	142.0	0	108.5	42.9										
142.0	146.0	0	35.0	0										
146.0	151.0	56.0	80.0	22.0										
151.0	155.0	0	87.5	22.5										
155.0	161.0	75.0	108.3	23.3										
161.0	167.0	98.3	110.0	58.3										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-292-98 DATE: 10/5/98 LOGGED BY: ALLYN NILES 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
167.0	177.0	98.0	98.0	77.0										
177.0	187.0	107.0	107.0	85.0										
187.0	197.0	105.0	105.0	85.0										
197.0	207.0	103.0	103.0	76.0										
207.0	217.0	100.0	100.0	95										

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 89431-5902

(702) 356-0606

INVOICE NO: SP 0051050-IN
INVOICE DATE: 10/29/98

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-292-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
63	SAMPLES RECEIVED	.00	.00
62	DRYING	1.00	62.00
62	JAW CRUSHING CHARGE	1.30	80.60
62	COARSE MILLING CHARGE	4.50	279.00
62	SPLITTING CHARGE	2.40	148.80
62	RING MILLING CHARGE	2.00	124.00
63	Au (1 A.T. FIRE ASSAY)	8.00	504.00
20	Au ANALYSES/GRAVIMETRIC	8.75	175.00
63	HYDROCHLORIC/NITRIC DIGESTION	2.00	126.00
63	Ag ANALYSES	1.00	63.00
1	Ag (ore grade) ANALYSES	5.00	5.00

86-5110-477
CAA

NET INVOICE:	1,567.40
LESS DISCOUNT:	313.48
FREIGHT:	.00
INVOICE TOTAL:	1,253.92

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051050

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-292-98

No. SAMPLES : 63

MAIN SAMPLE TYPE : DRILL CORE

RECEIVED : 13 OCT 1998

REPORTED : 13 OCT 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 SP051050

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-292-98 0-5	0.006			0.05
D-292-98 5.0-8.8	0.001			0.04
D-292-98 8.8-11.2	0.002			0.03
D-292-98 11.2-14.0	0.006			0.07
D-292-98 14.0-16.6	0.003			0.05
D-292-98 16.6-19.5	0.012			0.05
D-292-98 19.5-22.0	0.041			0.07
D-292-98 22-24	0.002			0.04
D-292-98 24-28	0.009			0.04
D-292-98 28-30	0.010			0.06
D-292-98 30-32	0.005			0.27
D-292-98 32.0-35.8	0.317		0.236	0.09
D-292-98 35.8-39.1	3.213		3.906	5.47
D-292-98 39.1-42.0	0.691		0.610	0.29
D-292-98 42-45	0.117		0.093	0.30
D-292-98 45-47	0.118		0.082	0.15
D-292-98 47-52	0.267		0.309	0.38
D-292-98 52-57	0.023			0.11
D-292-98 57-62	0.026			0.44
D-292-98 62-67	0.013			0.14
D-292-98 67-72	0.027			0.14
D-292-98 72.0-74.2	0.012			0.11
D-292-98 74.2-77.0	0.032			0.13
D-292-98 77-80	0.063		0.059	0.21
D-292-98 80-82	0.107		0.077	0.46

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051050

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-292-98 167-170	0.002			0.11
D-292-98 170-174	0.002			0.06
D-292-98 174-179	0.003			0.24
D-292-98 179.0-184.2	0.003			0.43
D-292-98 184.2-187.0	0.003			0.05
D-292-98 187-192	0.004			0.30
D-292-98 192-197	0.004			0.22
D-292-98 197.0-199.8	0.002			0.04
D-292-98 199.8-203.6	0.002			0.47
D-292-98 203.6-207.5	0.006			1.13
D-292-98 207.5-212.0	0.002			0.10
D-292-98 212-217	0.002			0.05
43539	0.516			2.98

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051050

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-292-98 RECEIVED : 13 OCT 1998

No. SAMPLES : 63 REPORTED : 13 OCT 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.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051050

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-292-98 0-5	0.006			0.05
D-292-98 5.0-8.8	0.001			0.04
D-292-98 8.8-11.2	0.002			0.03
D-292-98 11.2-14.0	0.006			0.07
D-292-98 14.0-16.6	0.003			0.05
D-292-98 16.6-19.5	0.012			0.05
D-292-98 19.5-22.0	0.041			0.07
D-292-98 22-24	0.002			0.04
D-292-98 24-28	0.009			0.04
D-292-98 28-30	0.010			0.06
D-292-98 30-32	0.005			0.27
D-292-98 32.0-35.8	0.317		0.236	0.09
D-292-98 35.8-39.1	3.213		3.906	5.47
D-292-98 39.1-42.0	0.691		0.610	0.29
D-292-98 42-45	0.117		0.093	0.30
D-292-98 45-47	0.118		0.082	0.15
D-292-98 47-52	0.267		0.309	0.38
D-292-98 52-57	0.023			0.11
D-292-98 57-62	0.026			0.44
D-292-98 62-67	0.013			0.14
D-292-98 67-72	0.027			0.14
D-292-98 72.0-74.2	0.012			0.11
D-292-98 74.2-77.0	0.032			0.13
D-292-98 77-80	0.063		0.059	0.21
D-292-98 80-82	0.107		0.077	0.46

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051050

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-292-98 82-87	0.073		0.082	0.37
D-292-98 87.0-89.5	0.338		0.253	0.33
D-292-98 89.5-92.0	0.165		0.141	0.16
D-292-98 92.0-95.6	0.127		0.119	0.08
D-292-98 95.6-98.0	0.066		0.052	0.35
D-292-98 98-102	0.099		0.081	0.14
D-292-98 102-105	0.267		0.237	0.35
D-292-98 105-108	0.256		0.284	0.51
D-292-98 108-112	0.137		0.152	0.21
D-292-98 112.0-115.3	0.153		0.159	0.27
D-292-98 115.3-118.8	0.047			0.14
D-292-98 118.8-122.0	0.007			0.06
D-292-98 122-125	0.057		0.064	0.12
D-292-98 125.0-128.5	0.031			0.15
D-292-98 128.5-131.4	0.010			0.06
D-292-98 131.4-135.6	0.036			0.05
D-292-98 135.6-138.5	0.244		0.287	0.22
D-292-98 138.5-142.0	0.036			0.08
D-292-98 142-146	0.020			0.60
D-292-98 146.0-150.5	0.002			0.41
D-292-98 150.5-153.0	0.002			0.04
D-292-98 153-155	0.002			0.07
D-292-98 155-158	0.002			0.04
D-292-98 158.0-161.5	0.002			0.06
D-292-98 161.5-167.0	0.002			0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051050

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-292-98 167-170	0.002			0.11
D-292-98 170-174	0.002			0.06
D-292-98 174-179	0.003			0.24
D-292-98 179.0-184.2	0.003			0.43
D-292-98 184.2-187.0	0.003			0.05
D-292-98 187-192	0.004			0.30
D-292-98 192-197	0.004			0.22
D-292-98 197.0-199.8	0.002			0.04
D-292-98 199.8-203.6	0.002			0.47
D-292-98 203.6-207.5	0.006			1.13
D-292-98 207.5-212.0	0.002			0.10
D-292-98 212-217	0.002			0.05
43539	0.516			2.98

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 11530
Reno, NV 89510
Telephone
(702) 356-0606
Fax
(702) 356-1413

Tucson Office
2775 E. Ganley
Tucson, AZ 85706
Telephone
(520) 294-8078
Fax
(520) 294-6352

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

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

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: ROSEBUD MINING LLC

Address: P.O. Box 2610

City WINNEMUCCA State NV Zip 89445

Telephone Number: (702) 623-6917 Fax Number: (702) 623-6967

Project Name: DEVELOPMENT Purchase Order Number: _____

Date Submitted: _____ Number of Samples: _____

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

AU-AG ACCORDING TO ROSEBUD MINE PROTOCOL

D-292-98 SAMPLE IDENTIFICATION			TYPE	ELEMENTS REQUIRED	
0-5	45.0-47.6	98-102		150.5-153	207.5-212
5-8.8	47.0-52.0	102-105		153-155	212-217
8.8-11.2	52.0-57.0	105-108		155-158	
11.2-14.0	57.0-62.0	108-112		158-161.5	
14.0-16.6	62.0-67.0	112-115.3		161.5-167.0	
16.6-19.5	67.0-72.0	115.3-118.8		167.0-170	
19.5-22.6	72.0-74.2	118.8-122		170-174	
22.0-24.0	74.2-77.0	122-125		174-179	
24.0-28.0	77.0-80.0	125-128.5		179-184.2	
28.0-30.0	80.0-82.0	128.5-131.4		184.2-187	
30.0-32.0	82.0-87.0	131.4-135.6		187-192	
32.0-35.8	87.0-89.5	135.6-138.5		192-197	
35.8-39.1	89.5-92.0	138.5-142.0		197-199.8	
39.1-42.0	92.0-95.6	142.0-146		199.8-203.6	
42.0-45.0	95.6-98.0	146-150.5		203.6-207.5	

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

PROVISIONAL REPORT SP051050

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-292-98 RECEIVED : 13 OCT 1998

No. SAMPLES : 63 REPORTED : 13 OCT 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.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051050

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-292-98 0-5	0.006			0.05	
D-292-98 5.0-8.8	0.001			0.04	
D-292-98 8.8-11.2	0.002			0.03	
D-292-98 11.2-14.0	0.006			0.07	
D-292-98 14.0-16.6	0.003			0.05	
D-292-98 16.6-19.5	0.012			0.05	
D-292-98 19.5-22.0	0.041			0.07	
D-292-98 22-24	0.002			0.04	
D-292-98 24-28	0.009			0.04	
D-292-98 28-30	0.010			0.06	32-52=20'
D-292-98 30-32	0.005			0.27	
D-292-98 32.0-35.8 3.8	0.317		0.236	0.09	
D-292-98 35.8-39.1 3.3	3.213		3.906	5.47	0.787 Au
D-292-98 39.1-42.0 2.9	0.691		0.610	0.29	1.12 Ag
D-292-98 42-45 3	0.117		0.093	0.30	
D-292-98 45-47 2	0.118		0.082	0.15	
D-292-98 47-52 5	0.267		0.309	0.38	
D-292-98 52-57	0.023			0.11	
D-292-98 57-62	0.026			0.44	
D-292-98 62-67	0.013			0.14	
D-292-98 67-72	0.027			0.14	
D-292-98 72.0-74.2	0.012			0.11	
D-292-98 74.2-77.0	0.032			0.13	
D-292-98 77-80	0.063		0.059	0.21	
D-292-98 80-82	0.107		0.077	0.46	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051050

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ.)	Au(RZ.)	AuGRAV	Ag(OZ.)	87-92=5'
D-292-98 82-87	0.073		0.082	0.37	
D-292-98 87.0-89.5	0.338		0.253	0.33	0.252 Au
D-292-98 89.5-92.0	0.165		0.141	0.16	0.25 Ag
D-292-98 92.0-95.6	0.127		0.119	0.08	
D-292-98 95.6-98.0	0.066		0.052	0.35	102-115.3
D-292-98 98-102	0.099		0.081	0.14	=13.3'
D-292-98 102-105 3	0.267		0.237	0.35	
D-292-98 105-108 3	0.256		0.284	0.51	0.197 Au
D-292-98 108-112 4	0.137		0.152	0.21	0.32 Ag
D-292-98 112.0-115.3 3.3	0.153		0.159	0.27	
D-292-98 115.3-118.8	0.047			0.14	
D-292-98 118.8-122.0	0.007			0.06	
D-292-98 122-125	0.057		0.064	0.12	
D-292-98 125.0-128.5	0.031			0.15	
D-292-98 128.5-131.4	0.010			0.06	
D-292-98 131.4-135.6	0.036			0.05	
D-292-98 135.6-138.5	0.244		0.287	0.22	
D-292-98 138.5-142.0	0.036			0.08	
D-292-98 142-146	0.020			0.60	
D-292-98 146.0-150.5	0.002			0.41	
D-292-98 150.5-153.0	0.003			0.04	
D-292-98 153-155	0.002			0.07	
D-292-98 155-158	0.002			0.04	
D-292-98 158.0-161.5	0.002			0.06	
D-292-98 161.5-167.0	0.002			0.04	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051050

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-292-98

REPORTED : 13 OCT 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-292-98 167-170	0.002			0.11
D-292-98 170-174	0.002			0.06
D-292-98 174-179	0.003			0.24
D-292-98 179.0-184.2	0.003			0.43
D-292-98 184.2-187.0	0.003			0.05
D-292-98 187-192	0.004			0.30
D-292-98 192-197	0.004			0.22
D-292-98 197.0-199.8	0.002			0.04
D-292-98 199.8-203.6	0.002			0.47
D-292-98 203.6-207.5	0.006			1.13
D-292-98 207.5-212.0	0.002			0.10
D-292-98 212-217	0.002			0.05
43539	0.516			2.98

D-292-98	40	-0.5	124.5
	100	-1	124.7
	190	-0.75	125.2

12
D - 292 - 98 BOX 2
DEPTH 9.5 - 19

5'
D - 292 - 98 BOX 1
DEPTH 0 - 9.5

D - 292 - 98 BOX 3
DEPTH 19 - 28
24'
27'

D- 292 - 98 BOX 4
DEPTH 28 - 37
32

D- 292 - 98 BOX 5
DEPTH 37 - 47
42

D- 292 - 98 BOX 6
DEPTH 47 - 55.5
52

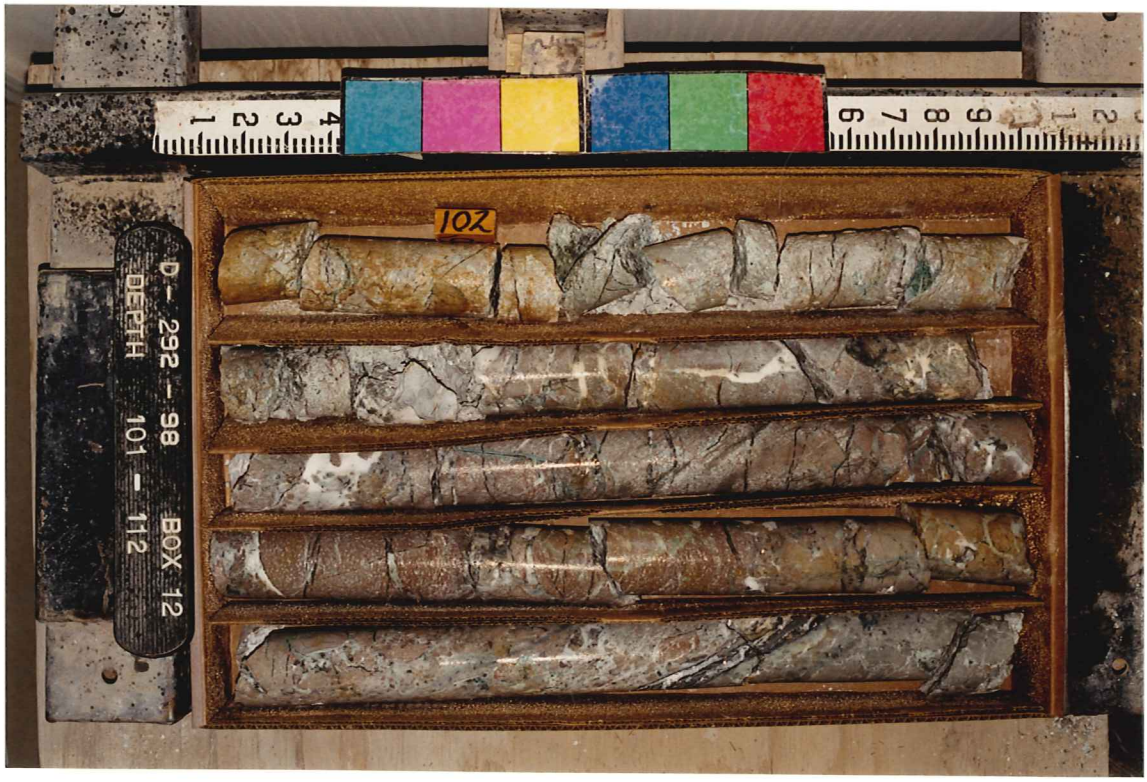
72'
D - 292 - 98 BOX 8
DEPTH 65 - 74

D - 292 - 98 BOX 7
DEPTH 55_5 - 65

D - 292 - 98 BOX 9
DEPTH 74 - 83_5
82'

D - 292 - 98 BOX 11
DEPTH 92 - 101

97'
D - 292 - 98 BOX 10
DEPTH 83_5 - 92


102
D - 292 - 98 BOX 12
DEPTH 101 - 112

D - 292 - 98 BOX 14
DEPTH 122 - 130_5
122

D - 292 - 98 BOX 13
DEPTH 112 - 122
112

D - 292 - 98 BOX 15
DEPTH 130_5 - 140
132

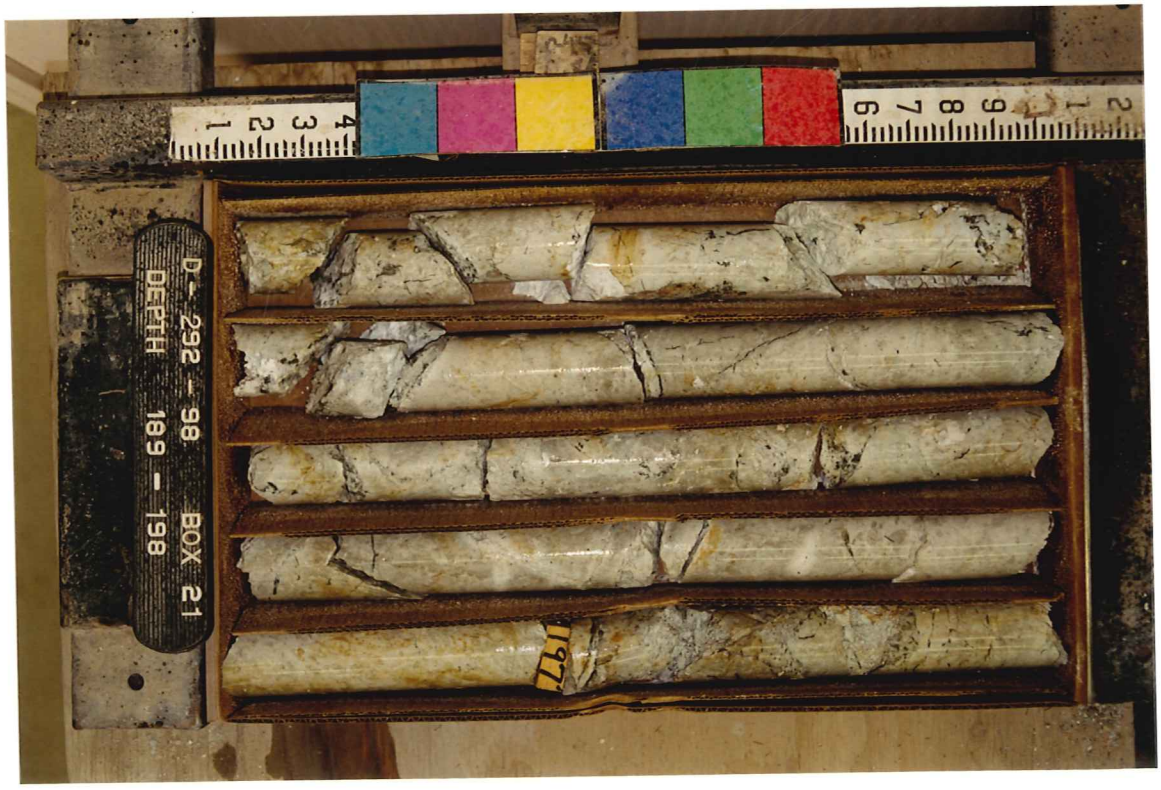
D - 292 - 98 BOX 17
DEPTH 152_5 - 161
155
161

D - 292 - 98 BOX 16
DEPTH 140 - 152_5
142
146
151

D - 292 - 98 BOX 18
DEPTH 161 - 170_5
167

187
D- 292 - 98 BOX 20
DEPTH 180 - 189

172
D- 292 - 98 BOX 19
DEPTH 170_5 - 180

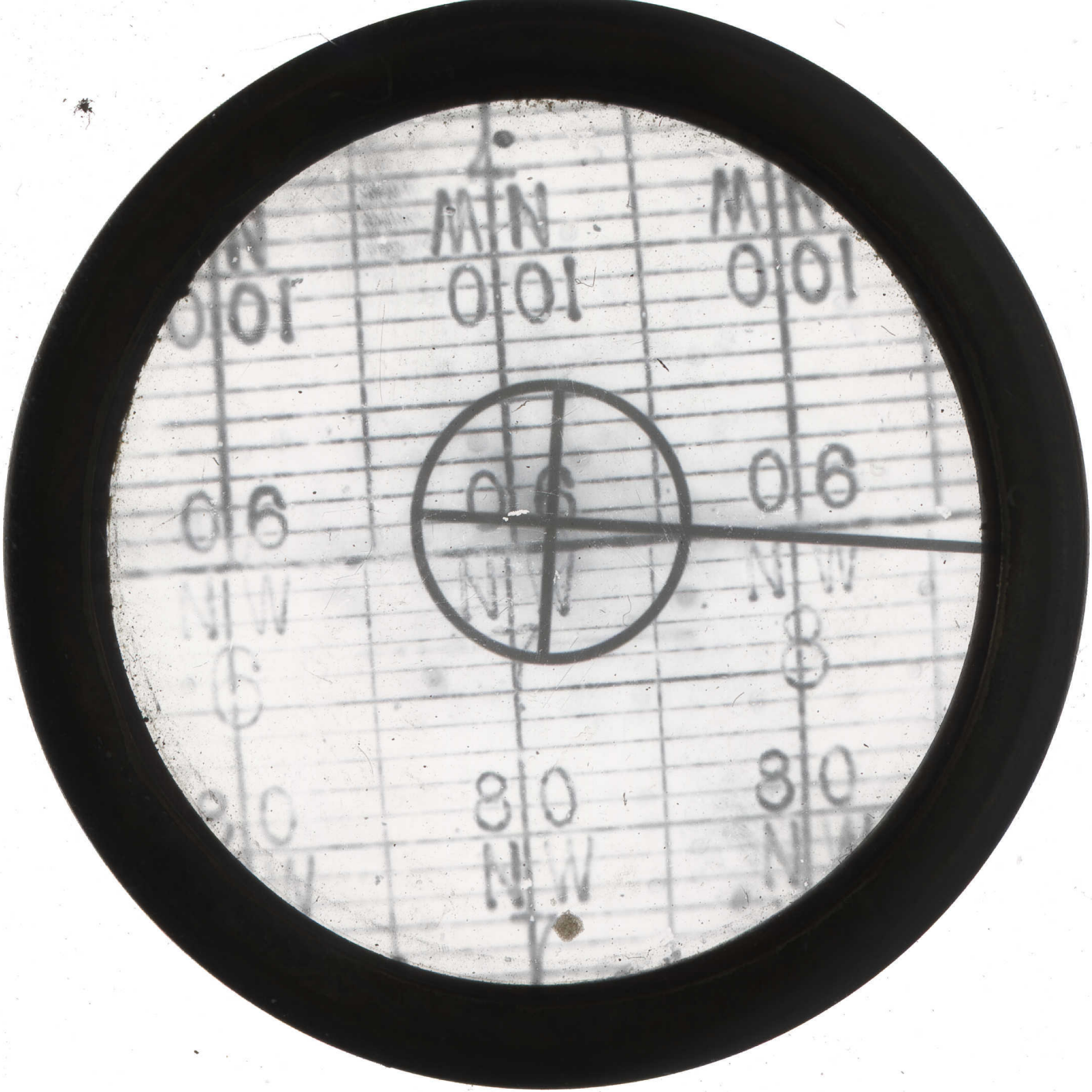

D- 292 - 98 BOX 21
DEPTH 189 - 198
197

217TD
D - 292 - 98 BOX 23
DEPTH 207.5 - 217TD

207
D - 292 - 98 BOX 22
DEPTH 198 - 207.5

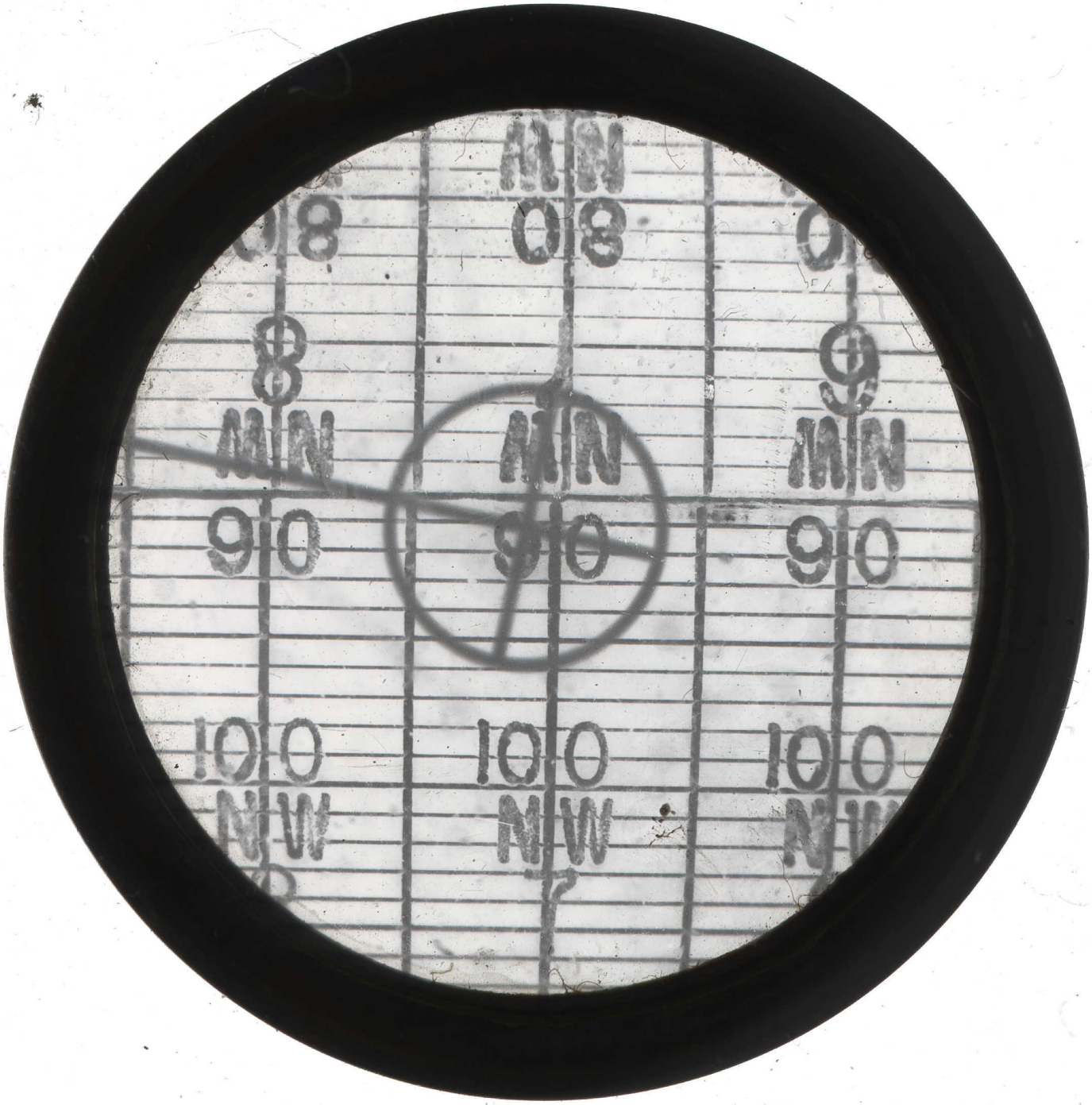
SINGLE SHOT
PHOTO DISC RECORD

COMPANY HECLA
WELL NAME D29298
LEASE
TAKEN BY BAMFORD
DEPTH 40'
DATE 8-16-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


MIN
0 10
0 6
NW
8 0

SINGLE SHOT
PHOTO DISC RECORD

COMPANY HECLA
WELL NAME D29298
LEASE
TAKEN BY BAMFORD
DEPTH 100
DATE 8-16-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


MN
80
90
100
NW

SINGLE SHOT
PHOTO DISC RECORD

COMPANY HECLA
WELL NAME D29298
LEASE
TAKEN BY BAMFORD
DEPTH 190
DATE 8-16-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408

80
NE
90
NE
100
NE
80
NE
90
NE
100
NE
80
NE
90
NE
100
NE