60001225

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-325-98
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 209' receipt; handwritten notes; downhole camera images 30p 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 5/14/08
Initials Date
DB: mdr
Initials Date
SCANNED: NB
Initials Date

Revised: 1/22/08

D-325-98

60001225 4010

6000 1225

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

Ba SO4

Hecla MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-325-98	LOCATION	STOPE 50 NORTH SEC 1725
PAGE 1 OF 4		NORTHING	
DATE	11/8-9/98	EASTING	
LOGGED BY	ALLYN NILES	ELEVATION	
SCALE	1"=10'	AZIMUTH	125
TOTAL DEPTH	209	INCLINATION	38

REMARKS

LITH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0 – 17.0 PLANAR LAMINAR		0.0 – 17.0 PINKISH → LT. GREEN → GREEN FINE GRAIN FLOW W/ COMMON PLANAR FEATURES OF FLOW BANDS & VESICLE TRAINS, MINOR LAMINAR PARTINGS ALONG SOME PLANAR LINES. 14.0 – 17.0 VESICLES INCREASING IN SIZE	10	45 60 45 50 20 29 55	0.0 – 121.5 NATURAL FRACTURES RARE, GENERALLY HIGH RQD. 0.0 – 96.0 SHORTENED SAMPLE INTERVALS DUE TO LITH CONTACTS EXCEPT FAULT/ARG. ALT 26.5 – 29.5, 17.0 GRADATIONAL CONTACT	0.0 – 30.0 MINOR CALCITE VEINING W/ MINOR PYRITE,
17.0 – 29.0 F6 MASSIVE		17.0 – 24.0 GREEN VERY FINE GRAIN VOLCANIC CLAY W/ PINKISH-BROWN IRREGULAR SHAPED VESICLE TRAINS IN PREFERRED ALIGNMENT WORMY SPLAT 24.0 – 29.0 GREEN, VERY FINE GRAIN FLOW W/ FRACT. PATTERN SIMILAR TO VITROPHYRE	20	30 52		27.0 – 29.0 WEAK → MOD. ARGILLIC ALT. ASSOC W/ FAULT, DISSEM PYRITE ALSO. 29.0 CEMENTED W/ QUARTZ PYRITE, HARD CLAY, MINOR MARC
29.0 – 67.3 VITROPHYRE		29.0 – 67.3 GREEN, EXTREEMLY FINE GRAIN, PERLITIC TEXTURE W/ CRACKED GLASS FRACTURE PATTERN.	30 40 50	45 30 60	29.0 FAULT CONTACT 4"ø BXA	30.0 – 68.0 MODERATE CALCITE VEINING & STRINGERS USUALLY W/ MINOR PYRITE, VERY RARE QUARTZ

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag
0.0	5.0					
5.0	9.0					
9.0	14.0					
14.0	17.0					
17.0	19.0					
19.0	24.0					
24.0	26.5					
26.5	29.5					
29.5	34.0					
34.0	39.0					
39.0	44.0					
44.0	49.0					

HOLE NUMBER D-325-98 PAGE 2 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
29.0 - 67.3 VITROPHYRE		29.0 - 67.3 SEE DESCRIPTION PAGE 1	60	40, 20, 50	67.3 GRADATIONAL CONTACT	
67.3 - 94.5 F.G. MASSIVE		67.3 - 94.5 GREEN, CHANGING TO GRAY @ 70', VERY FINE GRAIN TO FINE GRAIN FLOW, RARE ISOLATED FLOW BANDS.	70	45, 50, 53		68.0 - 100.0 MOD. CALCITE VEINING W/ MINOR PYRITE.
94.5 - 121.5 PLANAR LAMINAR? MAYBE F.G. MASSIVE		94.5 - 118.5 LT. YELLOW-GREEN FINE GRAIN FLOW. AUTOBXA BASE? W/ PEA SIZE ROUND CLASTS OF F.G. MASSIVE IN A PINKISH VOLCANIC CLAY MATRIX. RARE ISOLATED FLOW BANDS. AUTO BXA 114.7 - 118.5' W/ ROUND SMALL CLASTS IN A PINKISH VOLCANIC CLAY MATRIX. NO OBSERVED FLOW BANDS OR VESICLES AS COMMONLY SEEN IN PLANAR UNIT. PIMA	80	4, 25, 50, 40, 45, 26, 55, 40, 40	97.0 - 98.0 SHEAR LINE 100.0 - 118.5 MOD → STRONG VEINING, DEFINATE ORIENTATION ~40° TO CORE 114.7 - 118.5 AUTO BXA	100.0 - 118.5 VEINS FILLED W/ CALCITE, HARD LT. GREEN CLAY, MINOR BLADED MARC. &/OR PYRITE. 109.0 - 114.0 INCREASED BLADED MARC., LOCALIZED PODS. OF DISSEM. PYRITE
		118.5 - 121.5 LT. GREEN, VITROPHYRE-LIKE W/ VESICLES & CRACKED GLASS TEXTURE.	120		120.0 - 120.3 AUTO BXA CONTACT	

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	A
49.0	54.0					
54.0	59.0					
59.0	64.0					
64.0	67.3					
67.3	69.0					
69.0	74.0					
74.0	79.0					
79.0	84.0					
84.0	89.0					
89.0	94.0					
94.0	99.0					
99.0	104.0					
104.0	109.0					
109.0	111.5					
111.5	114.0					
114.0	119.0					

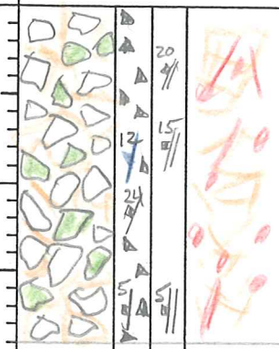
HOLE NUMBER D-325-98 PAGE 3 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
94.5 – 121.5		PLANAR LAMINAR OR F.G. MASSIVE				
121.5 – 141.0		121.5 – 141.0				
PLANAR LAMINAR		DK. GREEN CHANGING TO PINKISH TO DK. PURPLE & LT. GREEN, FLOW BANDED W/ COMMON AUTO BXA ZONES OR OLDER PRE-MIN. HEALED FAULTS.	130		125.0 – 130.2 AUTO BXA ?	
					131.5 – 138.3 HEALED BXA NEAR 0° TO CORE, REACTIVATED FOR MOST OF ITS' LENGTH THEN WEAKLY HEALED AGAIN, 138.0 – 141.0 AUTO BXA. ?	131.5 – 138.3 MOD. ARGILLIC ALT. OF CEMENT, STRONG CALCITE VEINING.
141.0 – 209.0		141.0 – 190.0	140		141.0 – 209.0 THICK FAULT ZONE HEALED, SOME REACT. IN PLACES,	141.0 – 149.5 STRONG VEINING W/ HARD LT. GRN CLAY, BLADED MARC.,
FAULT ZONE		FAULT BXA. MOSTLY ROUND, SOME SUBANGULAR CLASTS, SEEMS TO BE HOMOLITHIC W/ PURPLEISH FRAGS OF POSSIBLE PLANAR LAM. UNIT, W/ SOME CLASTS SHOWING DISTINCT LINEAR FEATURES. CEMENT IS PRIMARILY HARD LT. GREEN TO WHITE CLAYS W/ VARIABLE; ZONED QUARTZ.	150		147.3 – 149.5 FAULT BXA, HEALED, REACT. PORTION OF LARGER FAULT. 149.5 – 160.5 STRONG VEINING, VUGS.	147.3 – 149.5 BLEACHING OF MATRIX & CLASTS, WEAK ARGILLIC ALT. HARD WHITE CLAY CEMENT
			160		160.5 – MOD VUGS ASSOC. W/ SILICA.	149.5 – [illegible] VEINS FILLED W/ HARD LT. GRN CLAY, QUARTZ, WHITE CLAY, VUGS LINED W/ DRUZY QUARTZ, BLADED MARC., INFLUX OF SILICA FLOODING NEAR 160.5
		PIMA →				160.5 – 163.5 COMPLETE SILICA FLOODING, SRF-TYPE FABRIC ALIGNMENTS FOLLOW CORE AXIS 161.0 – W/ SILICA FLOODING ALONG LINEAMENT BUT NOT INVADING WALL ROCK. STRONG PYRITE & MINOR-MOD MARC. ASSOC W/ SILICA,
			170			177.4 – 180.0 STRONG PROPYL & ARGIL. ALT.
		186.0 – 189.0 SOME LARGER CLASTS ARE BXA IN THE BXA	180		180.0 – 184.0 VERY STRONG VUG FORMATION	180.0 – 184.0 VUGS LINED W/ DRUZY QUARTZ, PYRITE, BLADED MARC. & PYRITE ON MARC.
		189.0 – 190.0 INTERVAL IS SEPARATED DUE TO CONSIDERABLE CAVE MATERIAL	190			184.0 – 198.0 CEMENT/MATRIX IS HARD LT. GREEN → WHITE CLAY, PYRITE & MARC. VEINS.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	A
119.0	121.5					
121.5	124.0					
124.0	129.0					
129.0	131.2					
131.2	134.0					
134.0	137.0					
137.0	139.0					
139.0	141.5					
141.5	144.7					
144.7	147.3					
147.3	149.5					
149.5	153.0					
153.0	156.0					
156.0	158.0					
158.0	160.5					
160.5	162.0					
162.0	165.0					
165.0	168.0					
168.0	171.0					
171.0	174.0					
174.0	177.4					
177.4	180.4					
180.4	183.0					
183.0	186.0					
186.0	189.0					
189.0	190.0					

HOLE NUMBER D-325-98 PAGE 4 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	A
141.0 - 209.0 FAULT ZONE		190.0 - 209.0 CONTINUED FAULT BXA, COMPOSED OF DK. PURPLE TO LT. GREEN MOSTLY ROUND, SOME SUBANGULAR CLASTS. MOST CLASTS ARE FEATURELESS BUT A FEW HAVE REMNANT FLOW BANDS. CLASTS ARE CEMENTED W/ HARD LT. GREEN TO WHITE CLAY W/ MINOR SOFT WHITE CLAY. 199.0-209.0 SIGNIFICANT PINA → CORE LOSS, 8' REC. FOR 10' DRILLED T.D. 209	200 209		198.0 - 209.0 MOD. VEINING, MINOR VUGS / OPEN FRACTS.	198.0 - 209.0 VUGS LINED W/ CLAY & BLADED MARC. VEINS FILLED W/ PYRITE, SOME MARC., MINOR CLAY. PODS OF DISSEM. PYRITE ARE ASSOC. W/ VEINS.	190.0 194.5 199.0 204.0	194.5 199.0 204.0 209.0					

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-325-98 DATE: 11/8/98 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	74.0	86.0	42.0										
5.0	9.0	90.0	90.0	45.0										
9.0	14.0	90.0	90.0	70.0										
14.0	19.0	104.0	104.0	90.0										
19.0	24.0	102.0	102.0	60.0										
24.0	29.0	106.0	106.0	80.0										
29.0	34.0	100.0	100.0	86.0										
34.0	39.0	96.0	96.0	96.0										
39.0	44.0	104.0	104.0	104.0										
44.0	49.0	100.0	100.0	100.0										
49.0	54.0	84.0	84.0	84.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-325-98 DATE: 11/8/98 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)
54.0	59.0	94.0	94.0	76.0										
59.0	64.0	100.0	100.0	82.0										
64.0	69.0	100.0	100.0	98.0										
69.0	74.0	100.0	100.0	100.0										
74.0	79.0	104.0	104.0	102.0										
79.0	84.0	100.0	100.0	90.0										
84.0	89.0	100.0	100.0	88.0										
89.0	94.0	100.0	100.0	92.0										
94.0	104.0	100.0	100.0	61.0										
104.0	114.0	102.0	102.0	80.0										
114.0	124.0	100.0	100.0	58.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-325-98 DATE: 11/8-9/98 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)
124.0	134.0	100.0	100.0	68.0										
134.0	144.0	108.0	105.0	28.0										
144.0	154.0	100.0	100.0	32.0										
154.0	164.0	90.0	100.0	42.0										
164.0	174.0	.6 85.0	1.0 100.0	0 10.0										
174.0	184.0	100.0	100.0	10.0										
184.0	190.0	88.3	105.0	60.0										
190.0	199.0	88.8	88.8	67.7										
199.0	209.0	74.0	83.0	48.0										

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051625

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

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

NSI

CLIENT REFERENCE No: D-325-98 RECEIVED : 18 NOV 1998

No. SAMPLES : 59 REPORTED : 8 DEC 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
Ag(OZ.)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051625

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-325-98

REPORTED : 8 DEC 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-325-98 0-5	<0.001		0.04
D-325-98 5-9	<0.001		<0.02
D-325-98 9-14	<0.001		<0.02
D-325-98 14-17	<0.001		<0.02
D-325-98 17-19	<0.001		<0.02
D-325-98 19-24	<0.001		<0.02
D-325-98 24.0-26.5	<0.001		<0.02
D-325-98 26.5-29.5	0.003		0.04
D-325-98 29.5-34.0	<0.001	<0.001	0.02
D-325-98 34-39	<0.001		<0.02
D-325-98 39-44	<0.001		<0.02
D-325-98 44-49	<0.001		<0.02
D-325-98 49-54	<0.001		<0.02
D-325-98 54-59	0.002		<0.02
D-325-98 59-64	<0.001	<0.001	<0.02
D-325-98 64.0-67.3	<0.001		<0.02
D-325-98 67.3-69.0	<0.001		<0.02
D-325-98 69-74	<0.001		<0.02
D-325-98 74-79	<0.001		<0.02
D-325-98 79-84	<0.001		<0.02
D-325-98 84-89	<0.001		<0.02
D-325-98 89-94	<0.001		<0.02
D-325-98 94-99	<0.001		<0.02
D-325-98 99-104	<0.001		<0.02
D-325-98 104-109	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051625

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-325-98

REPORTED : 8 DEC 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
D-325-98 109.0-111.5	0.002		0.03
D-325-98 111.5-114.0	0.002		<0.02
D-325-98 114-119	<0.001		0.03
D-325-98 119.0-121.5	0.001		<0.02
D-325-98 121.5-124.0	0.001		<0.02
D-325-98 124-129	<0.001		<0.02
D-325-98 129.0-131.2	<0.001		<0.02
D-325-98 131.2-134.0	<0.001		<0.02
D-325-98 134-137	0.006		0.08
D-325-98 137-139	<0.001		<0.02
D-325-98 139-141.5	0.001		<0.02
D-325-98 141.5-144.7	0.001		0.03
D-325-98 144.7-147.3	0.003		0.05
D-325-98 147.3-149.5	0.004		0.02
D-325-98 149.5-153.0	0.005	0.003	0.04
D-325-98 153-156	0.005		0.05
D-325-98 156-158	0.004		0.04
D-325-98 158.0-160.5	0.006		0.04
D-325-98 160.5-162.0	0.006		0.11
D-325-98 162-165	0.009		0.13
D-325-98 165-168	0.019		0.13
D-325-98 168-171	0.016		0.31
D-325-98 171-174	0.003		0.08
D-325-98 174.0-177.4	0.004		0.04
D-325-98 177.4-180.4	0.021		0.14

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051625

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-325-98

REPORTED : 8 DEC 1998

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)	
D-325-98 180.4-183.0	0.015		0.10	
D-325-98 183-186	0.002		0.06	
D-325-98 186-189	0.003	0.004	0.06	
D-325-98 189-190	0.001		0.05	
D-325-98 190.0-194.5	0.002	0.002	0.06	
D-325-98 194.5-199.0	0.002		0.07	
D-325-98 199-204	0.002		0.05	
D-325-98 204-209	0.002		0.04	
46613 K, nbodc	0.506		4.85	STANDARD

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 0051625-IN
INVOICE DATE: 12/08/98

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-325-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
59	SAMPLES RECEIVED	.00	.00
58	DRYING	1.00	58.00
58	JAW CRUSHING CHARGE	1.30	75.40
58	COARSE MILLING CHARGE	4.50	261.00
58	SPLITTING CHARGE	2.40	139.20
58	RING MILLING CHARGE	2.00	116.00
59	Au (1 A.T. FIRE ASSAY)	8.00	472.00
59	HYDROCHLORIC/NITRIC DIGESTION	2.00	118.00
59	Ag ANALYSES	1.00	59.00

86-5110-477
FDA

NET INVOICE:	1,298.60
LESS DISCOUNT:	259.72
FREIGHT:	.00
INVOICE TOTAL:	1,038.88

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051625

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-325-98 RECEIVED : 18 NOV 1998

No. SAMPLES : 59 REPORTED : 8 DEC 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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051625

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-325-98

REPORTED : 8 DEC 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-325-98 0-5	<0.001		0.04
D-325-98 5-9	<0.001		<0.02
D-325-98 9-14	<0.001		<0.02
D-325-98 14-17	<0.001		<0.02
D-325-98 17-19	<0.001		<0.02
D-325-98 19-24	<0.001		<0.02
D-325-98 24.0-26.5	<0.001		<0.02
D-325-98 26.5-29.5	0.003		0.04
D-325-98 29.5-34.0	<0.001	<0.001	0.02
D-325-98 34-39	<0.001		<0.02
D-325-98 39-44	<0.001		<0.02
D-325-98 44-49	<0.001		<0.02
D-325-98 49-54	<0.001		<0.02
D-325-98 54-59	0.002		<0.02
D-325-98 59-64	<0.001	<0.001	<0.02
D-325-98 64.0-67.3	<0.001		<0.02
D-325-98 67.3-69.0	<0.001		<0.02
D-325-98 69-74	<0.001		<0.02
D-325-98 74-79	<0.001		<0.02
D-325-98 79-84	<0.001		<0.02
D-325-98 84-89	<0.001		<0.02
D-325-98 89-94	<0.001		<0.02
D-325-98 94-99	<0.001		<0.02
D-325-98 99-104	<0.001		<0.02
D-325-98 104-109	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051625

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-325-98

REPORTED : 8 DEC 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-325-98 109.0-111.5	0.002		0.03
D-325-98 111.5-114.0	0.002		<0.02
D-325-98 114-119	<0.001		0.03
D-325-98 119.0-121.5	0.001		<0.02
D-325-98 121.5-124.0	0.001		<0.02
D-325-98 124-129	<0.001		<0.02
D-325-98 129.0-131.2	<0.001		<0.02
D-325-98 131.2-134.0	<0.001		<0.02
D-325-98 134-137	0.006		0.08
D-325-98 137-139	<0.001		<0.02
D-325-98 139-141.5	0.001		<0.02
D-325-98 141.5-144.7	0.001		0.03
D-325-98 144.7-147.3	0.003		0.05
D-325-98 147.3-149.5	0.004		0.02
D-325-98 149.5-153.0	0.005	0.003	0.04
D-325-98 153-156	0.005		0.05
D-325-98 156-158	0.004		0.04
D-325-98 158.0-160.5	0.006		0.04
D-325-98 160.5-162.0	0.006		0.11
D-325-98 162-165	0.009		0.13
D-325-98 165-168	0.019		0.13
D-325-98 168-171	0.016		0.31
D-325-98 171-174	0.003		0.08
D-325-98 174.0-177.4	0.004		0.04
D-325-98 177.4-180.4	0.021		0.14

AMERICAN ASSAY LABORATORIES

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REFERENCE : D-325-98

REPORTED : 8 DEC 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-325-98 180.4-183.0	0.015		0.10
D-325-98 183-186	0.002		0.06
D-325-98 186-189	0.003	0.004	0.06
D-325-98 189-190	0.001		0.05
D-325-98 190.0-194.5	0.002	0.002	0.06
D-325-98 194.5-199.0	0.002		0.07
D-325-98 199-204	0.002		0.05
D-325-98 204-209	0.002		0.04
46613	0.506		4.85

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051625

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-325-98 RECEIVED : 18 NOV 1998

No. SAMPLES : 59 REPORTED : 8 DEC 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
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP051625

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-325-98

REPORTED : 8 DEC 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-325-98 0-5	<0.001		0.04
D-325-98 5-9	<0.001		<0.02
D-325-98 9-14	<0.001		<0.02
D-325-98 14-17	<0.001		<0.02
D-325-98 17-19	<0.001		<0.02
D-325-98 19-24	<0.001		<0.02
D-325-98 24.0-26.5	<0.001		<0.02
D-325-98 26.5-29.5	0.003		0.04
D-325-98 29.5-34.0	<0.001	<0.001	0.02
D-325-98 34-39	<0.001		<0.02
D-325-98 39-44	<0.001		<0.02
D-325-98 44-49	<0.001		<0.02
D-325-98 49-54	<0.001		<0.02
D-325-98 54-59	0.002		<0.02
D-325-98 59-64	<0.001	<0.001	<0.02
D-325-98 64.0-67.3	<0.001		<0.02
D-325-98 67.3-69.0	<0.001		<0.02
D-325-98 69-74	<0.001		<0.02
D-325-98 74-79	<0.001		<0.02
D-325-98 79-84	<0.001		<0.02
D-325-98 84-89	<0.001		<0.02
D-325-98 89-94	<0.001		<0.02
D-325-98 94-99	<0.001		<0.02
D-325-98 99-104	<0.001		<0.02
D-325-98 104-109	<0.001		<0.02

AMERICAN ASSAY LABORATORIES
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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-325-98 109.0-111.5	0.002		0.03
D-325-98 111.5-114.0	0.002		<0.02
D-325-98 114-119	<0.001		0.03
D-325-98 119.0-121.5	0.001		<0.02
D-325-98 121.5-124.0	0.001		<0.02
D-325-98 124-129	<0.001		<0.02
D-325-98 129.0-131.2	<0.001		<0.02
D-325-98 131.2-134.0	<0.001		<0.02
D-325-98 134-137	0.006		0.08
D-325-98 137-139	<0.001		<0.02
D-325-98 139-141.5	0.001		<0.02
D-325-98 141.5-144.7	0.001		0.03
D-325-98 144.7-147.3	0.003		0.05
D-325-98 147.3-149.5	0.004		0.02
D-325-98 149.5-153.0	0.005	0.003	0.04
D-325-98 153-156	0.005		0.05
D-325-98 156-158	0.004		0.04
D-325-98 158.0-160.5	0.006		0.04
D-325-98 160.5-162.0	0.006		0.11
D-325-98 162-165	0.009		0.13
D-325-98 165-168	0.019		0.13
D-325-98 168-171	0.016		0.31
D-325-98 171-174	0.003		0.08
D-325-98 174.0-177.4	0.004		0.04
D-325-98 177.4-180.4	0.021		0.14

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051625

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REFERENCE : D-325-98

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
D-325-98 180.4-183.0	0.015		0.10
D-325-98 183-186	0.002		0.06
D-325-98 186-189	0.003	0.004	0.06
D-325-98 189-190	0.001		0.05
D-325-98 190.0-194.5	0.002	0.002	0.06
D-325-98 194.5-199.0	0.002		0.07
D-325-98 199-204	0.002		0.05
D-325-98 204-209	0.002		0.04
46613	0.506		4.85

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

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Tucson, AZ 85706
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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: BOX 2610

City WINNEMUCCA State NV Zip 89445

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

Project Name: DEVELOPMENT Purchase Order Number:

Date Submitted: 11/16/98 Number of Samples: 58

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

Au-Ag ACCORDING TO ROSEBUD MINE PROTOCOL

D-325-98 SAMPLE IDENTIFICATION			TYPE	ELEMENTS REQUIRED
0-5	64-67.3	124-129		165-168
5-9	67.3-69	129-131.2		168-171
9-14	69-74	131.2-134		171-174
14-17	74-79	134-137		174-177.4
17-19	79-84	137-139		177.4-180.4
19-24	84-89	139-141.5		180.4-183
24-26.5	89-94	141.5-144.7		183-186
26.5-29.5	94-99	144.7-147.3		186-189
29.5-34	99-104	147.3-149.5		189-190
34-39	104-109	149.5-153		190-194.5
39-44	109-111.5	153-156		194.5-199
44-49	111.5-114	156-158		199-204
49-54	114-119	158-160.5		204-209 TD
54-59	119-121.5	160.5-162		
59-64	121.5-124	162-165		

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

D-325-98	35	38	114.7
	104	38	115.2
	209	38	115.2

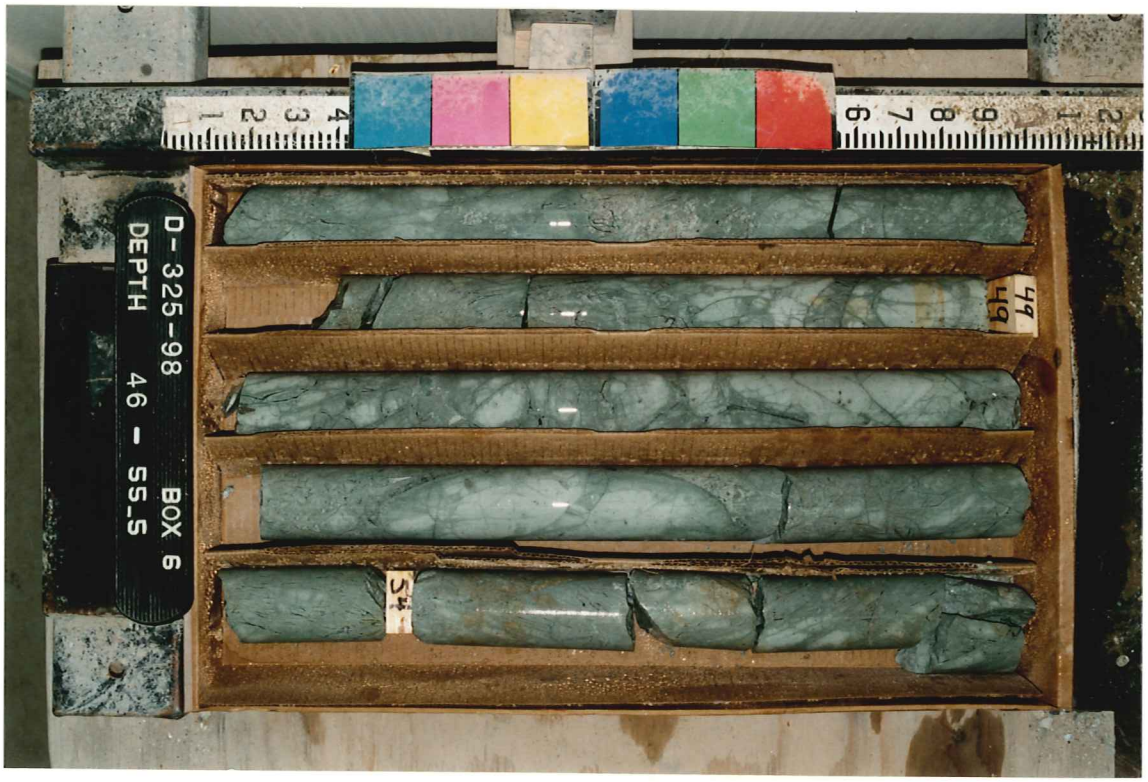
19
14
14
D-325-98 BOX 2
DEPTH 9_5 - 19

5
9
D-325-98 BOX 1
DEPTH 0 - 9_5

D-325-98 BOX 3
DEPTH 19 - 28
27

D- 325-98 BOX 5
DEPTH 37 - 46
39
44

D- 325-98 BOX 4
DEPTH 28 - 37
29
34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DEPTH 46 - 55.5
49
54

D- 325-98 BOX 8
DEPTH 65 - 74

59
64
D- 325-98 BOX 7
DEPTH 55_5 - 65

D- 325-98 BOX 9
DEPTH 74 - 83

94
D-325-98 BOX 11
DEPTH 92 - 101

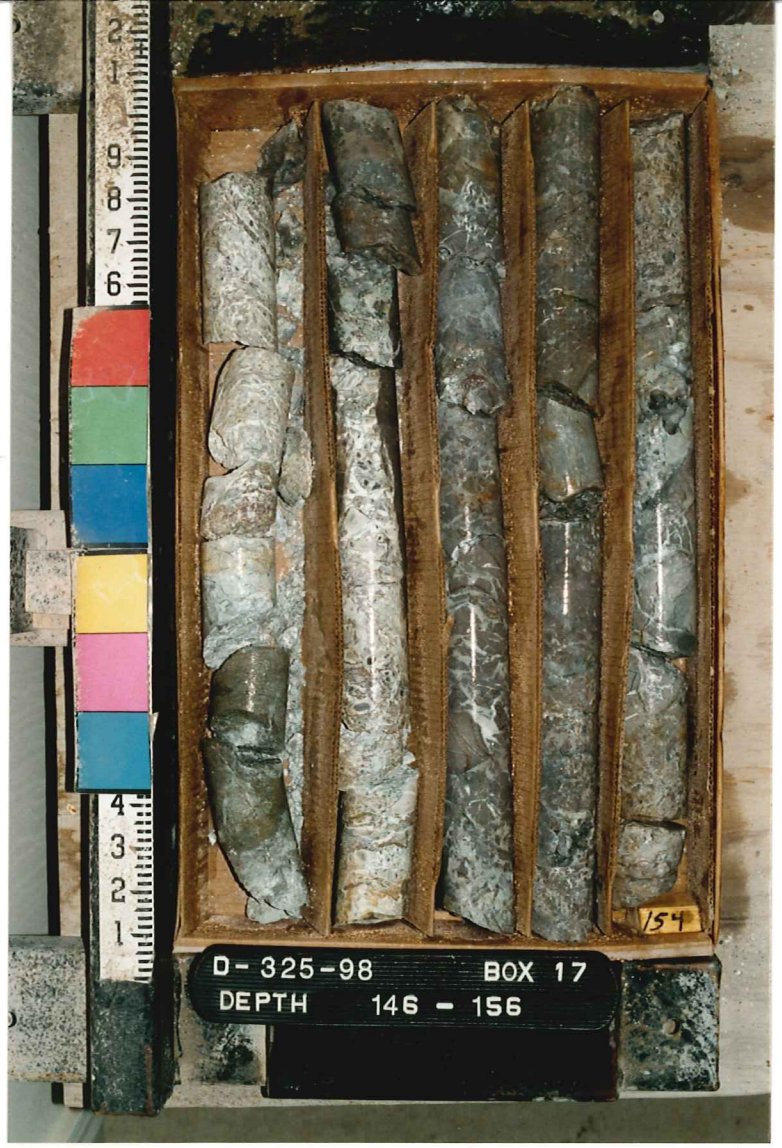
84
89
D-325-98 BOX 10
DEPTH 83 - 92

104
D-325-98 BOX 12
DEPTH 101 - 110

D-325-98 BOX 14
DEPTH 119 - 128

D-325-98 BOX 13
DEPTH 110 - 119

D-325-98 BOX 15
DEPTH 128 - 137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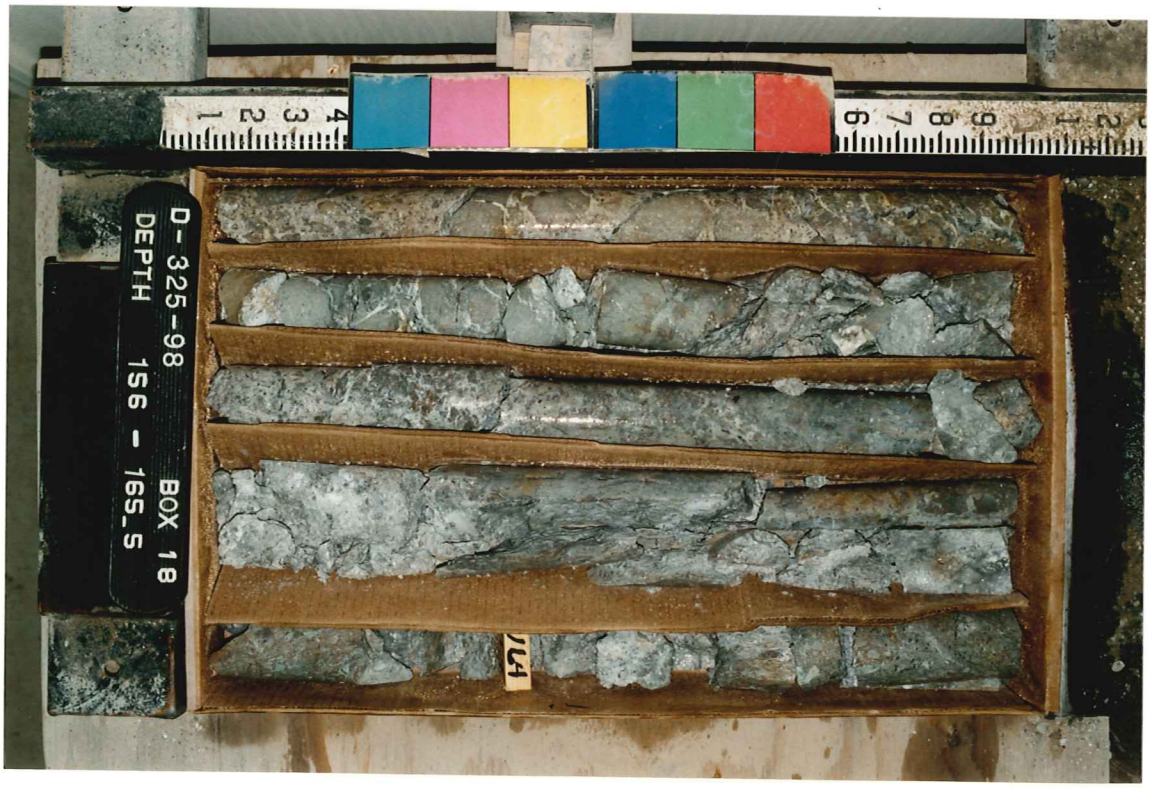
154

D- 325-98 BOX 16
DEPTH 137 - 146
144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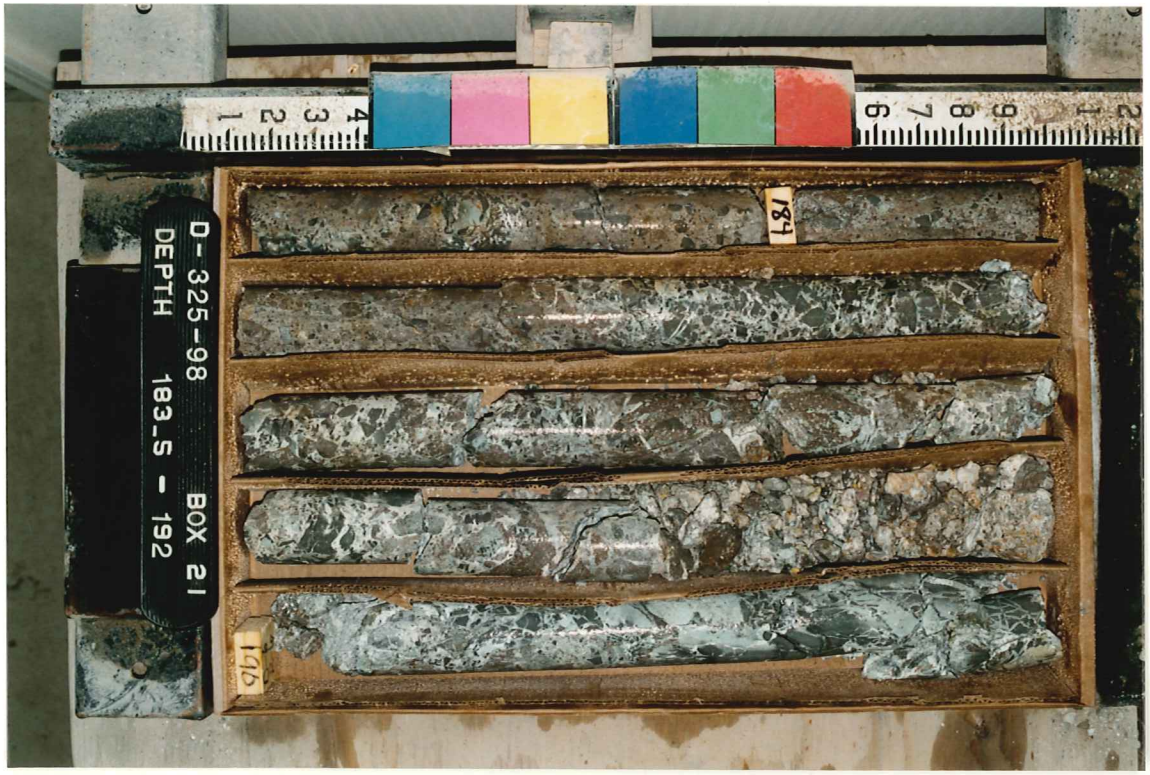
164

D- 325-98 BOX 20
DEPTH 174 - 183_5
174

D- 325-98 BOX 19
DEPTH 165_5 - 174

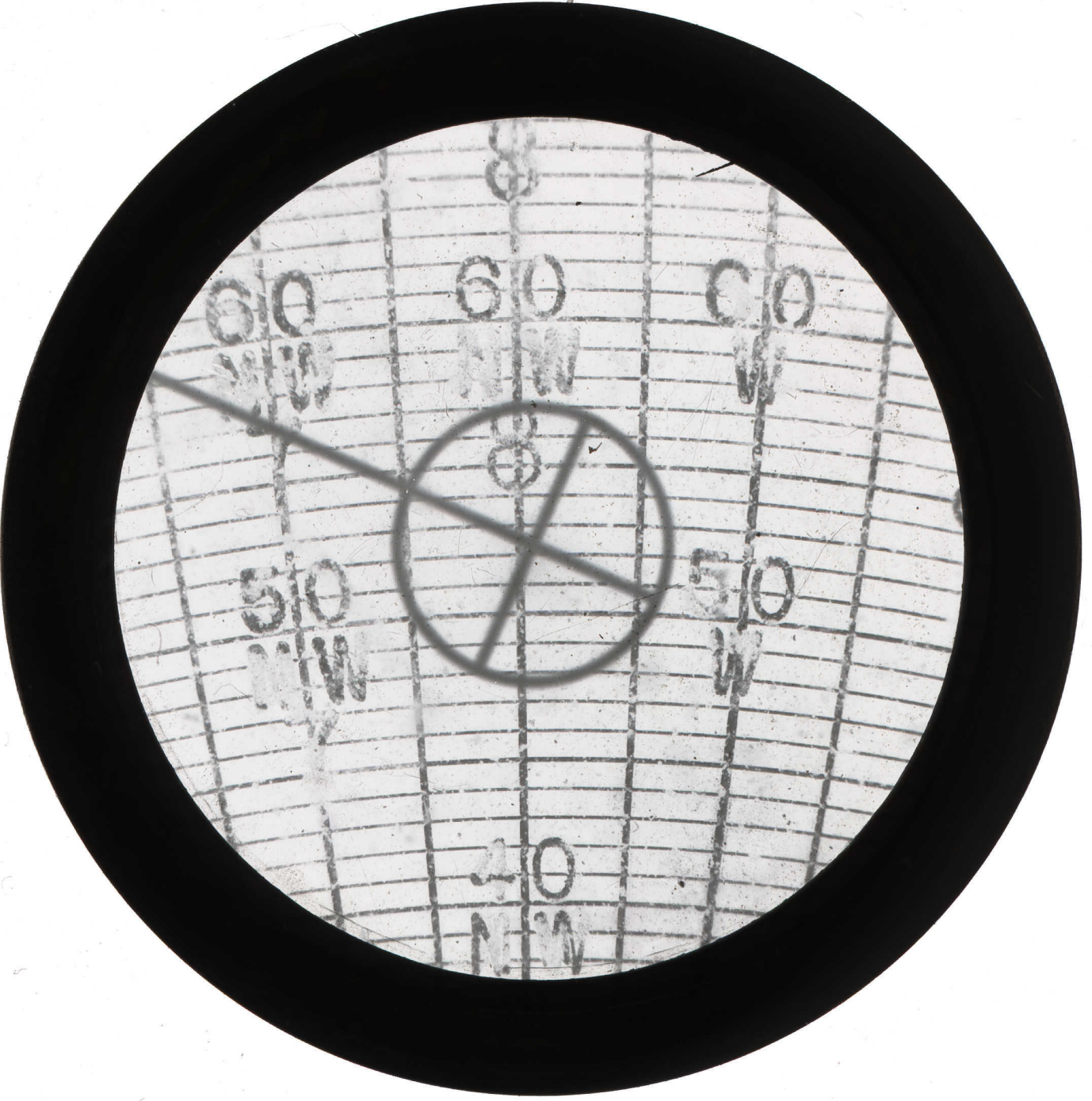

D- 325-98 BOX 21
DEPTH 183_5 - 192
184
192

209
209
D- 325-98 BOX 23
DEPTH 202 - 209 TD

199
199
D- 325-98 BOX 22
DEPTH 192 - 202

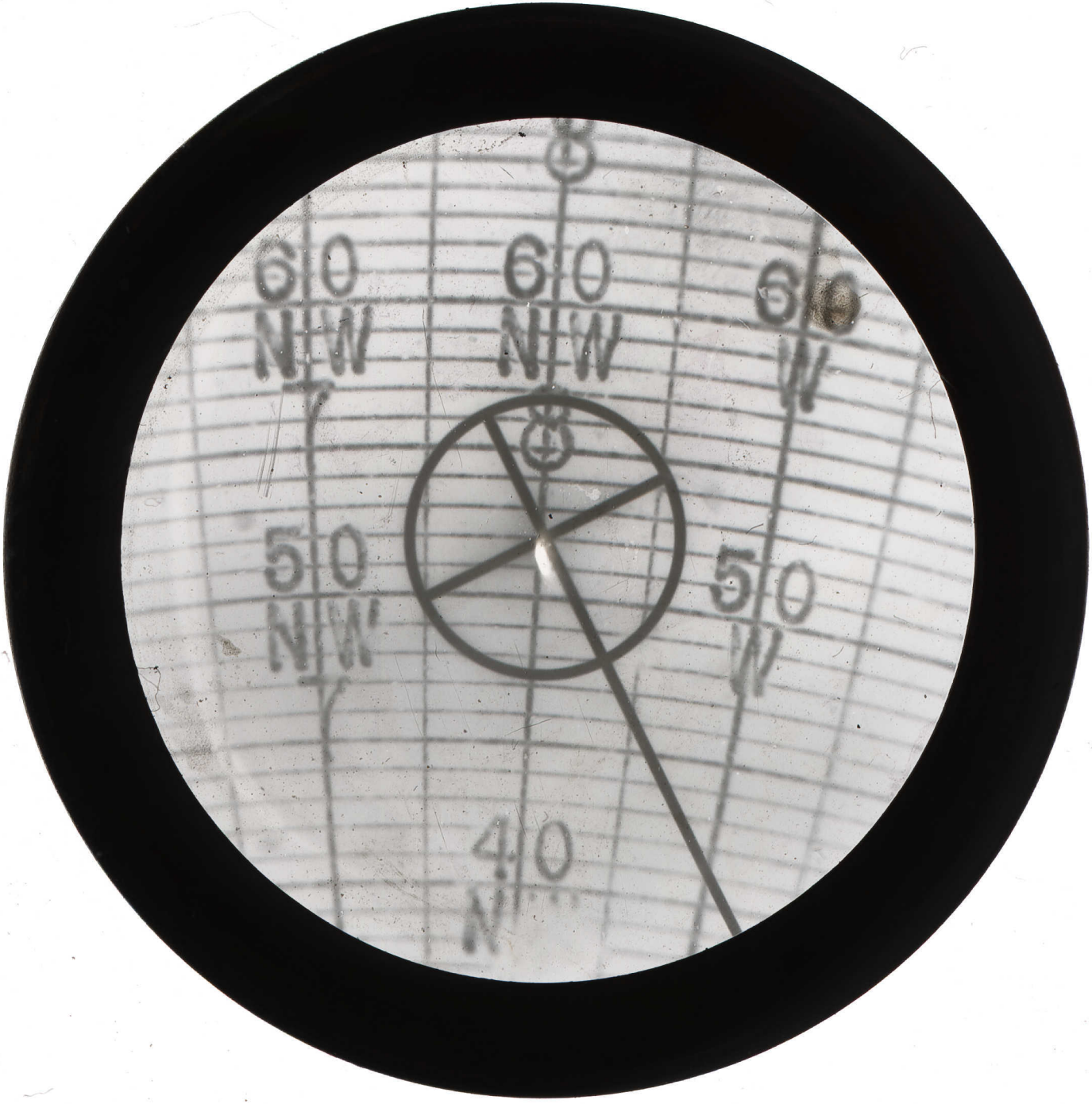
SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-325-98
LEASE
TAKEN BY Hutchco
DEPTH 209
DATE 10-7-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408


60
MW
60
MW
60
W
50
MW
50
W
40
MW

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-325-98
LEASE
TAKEN BY Hughes
DEPTH 104
DATE 10-7-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408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NW
60
W
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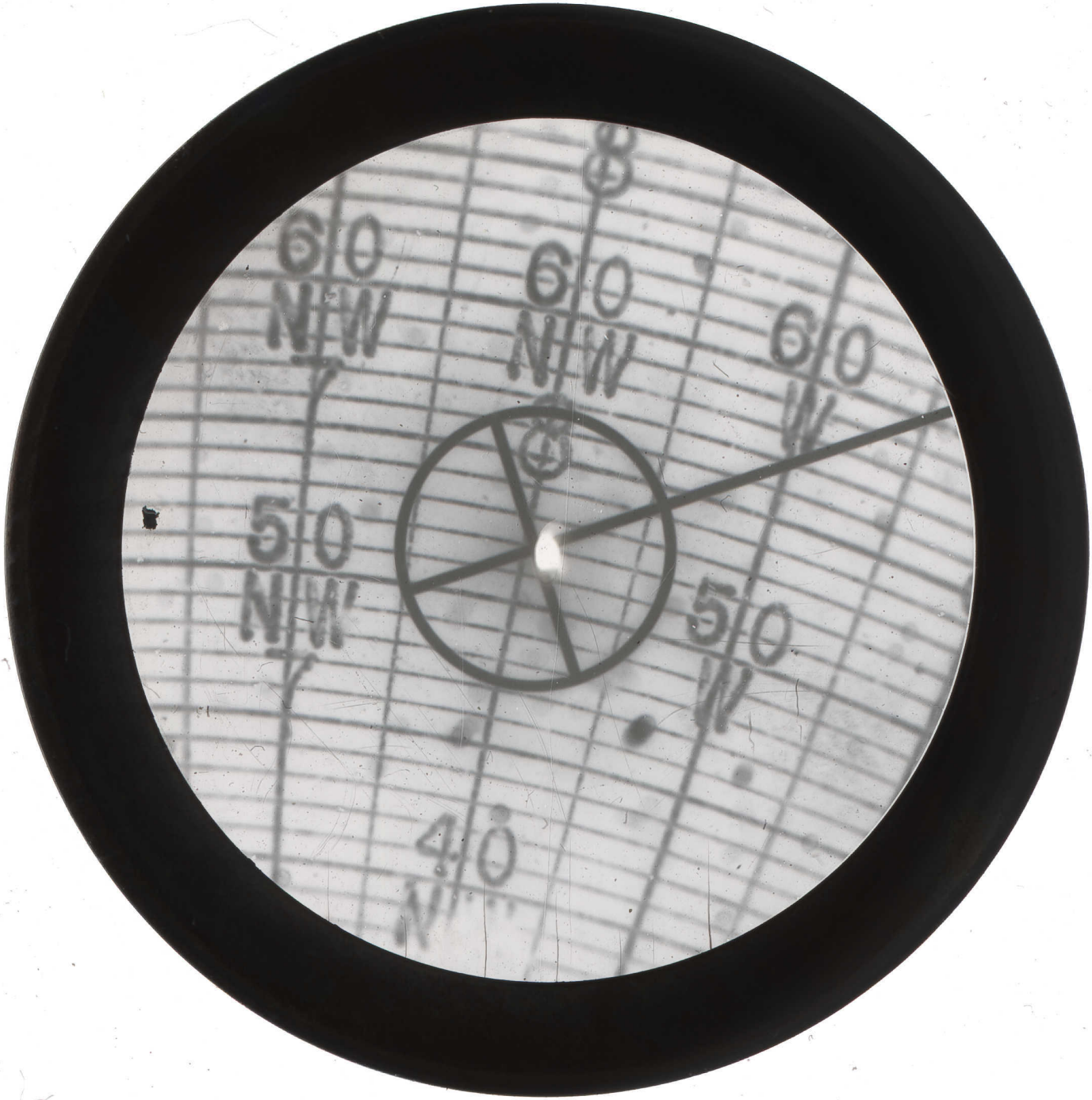
NW
50
W
40
N

SINGLE SHOT
PHOTO DISC RECORD

COMPANY HECLA
WELL NAME D-325-98
LEASE
TAKEN BY Hughes
DEPTH 35
DATE 10-7-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408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NW
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NW
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W
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NW
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W
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N