60001133

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-254-98
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 166' receipt; handwritten notes; downhole camera images 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: DP 5/13/08
Initials Date
DB: MEL
Initials Date
SCANNED:
Initials Date

Revised: 1/22/08

D-254-98

60001133 4010

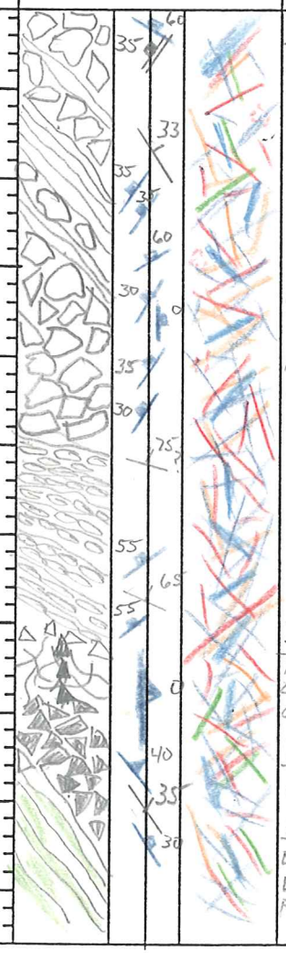
6000 1133

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

Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

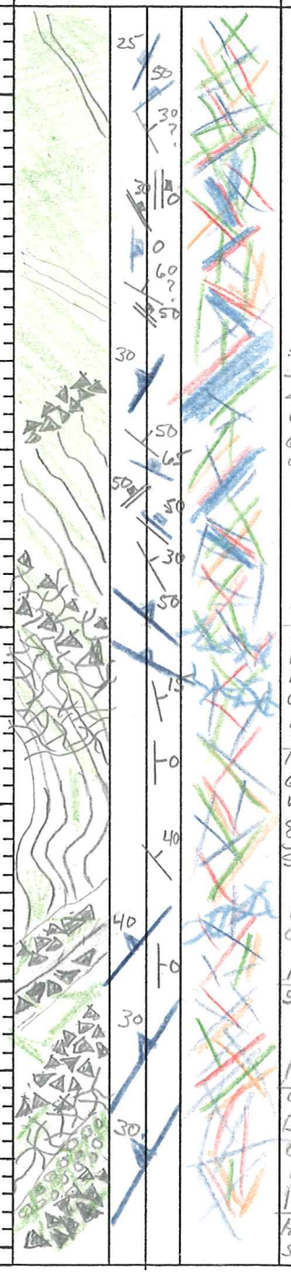
HOLE NUMBER	D-254-98	LOCATION	STOPE 13 SEC 100	REMARKS	
PAGE	1 OF 3	NORTHING			
DATE	7/25-26/98	EASTING			
LOGGED BY	ALLYN NILES	ELEVATION			
SCALE	1" = 10'	AZIMUTH	240		
TOTAL DEPTH	166	INCLINATION	+15		

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0.0-44.5 PINK MATRIX BRECCIA		0.0 - 44.5 INTERBEDDED FLOWS & PYROCLASTIC BRECCIAS, VERY LT. GREEN TO GRAY MOSTLY ROUND, SOME ANGULAR FRAGS IN GRAYISH PINK TO GREENISH VERY FINE GRAIN VOLCANIC CLAY. FLOWS ARE THIN BANDED W/ ALTERNATING LT. GREEN TO PURPLE GRAY AND SOME CONTORTED & FOLDED BANDS, OCCASIONAL AUTO BRECCIA ZONES TO 6" Ø W/ CLAST SUPPORTED MOZAIC DESIGNS. 25.0 - 36.0 POSSIBLE LAPILLI TUFF, SMALL ELONGATE, ROUND FRAGS W/ DEFINATE ALIGNMENT IN A PINKISH TO GRAYISH PINK FINE GRAIN CLAYEY, WEAKLY ARGILLIZED MATRIX. 36.5 - 44.5 FAULT / FRACTURE ZONE	10 20 30 40 50		0.0 - 16.0 MODERATE FRACTURING W/ ORIENTATION @ 30°-35° & 55°-60° 16.0 - 56.0 VERY STRONG FRACTURING, RARE RQD 36.5 - 44.0 FRACTURE / FAULT ZONE CRACKLE BRECCIA GRADING INTO MOSAIC BRECCIA, ALL W/ PROPYL. STAINED CLAY IN FRACS @ AS CEMENT & MATRIX FOR BXA. LOWER CONTACT SEEMS TO CONFORM TO DIP OF FLOW SO IT MAY BE ALTERATION OF PYROCLASTIC BXA.	0.0 - 13.5 VEINING IS MADE UP OF WHITE CLAY, CALCITE W/ MINOR MARCASITE. VARIABLE GREEN CLAY. CALCITE VEINS TO 1" Ø 13.5 - 38.0 BLACK & WHITE CLAY VEINS W/ VARIABLE CALCITE, MOSTLY THIN VEINS, MINOR PROPALITIC STAIN & CLAY 35.0-38.0 25.0 - 38.0 DISSEM. PYRITE IS COMMON 38.0 - 89.5 MOD. VEINING OF WHITE AND/OR GREEN CLAYS WITH BLADED MARCASITE. SOME VEIN MARCASITE SEEMS TO BE LATER THAN CLAYS, VARIABLE PYRITE IN CLAYS & SOMETIMES ON MARCASITE
44.5-130.0 LBT		44.5 - 130.0 FLOWS OR FLOWS W/ INTRUSIVE BODY, GREEN, CHANGING TO GRAY @ 92.0, THEN TO PINKISH GRAY @ 102.0, FLOW BANDS AT IRREGULAR INTERVALS. APHANITIC TEXTURE				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
0.0	5.0					
5.0	7.5					
7.5	10.0					
10.0	13.1					
13.1	15.0					
15.0	17.5					
17.5	20.0					
20.0	22.4					
22.4	25.0					
25.0	27.3					
27.3	30.0					
30.0	32.2					
32.2	35.0					
35.0	38.0					
38.0	40.0					
40.0	42.3					
42.3	45.0					
45.0	49.0					

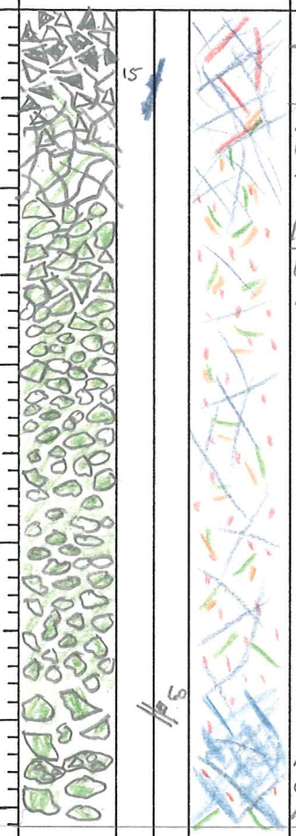
HOLE NUMBER D-254-98 PAGE 2 OF 3

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
44.5-130.0 LBT		44.5-130.0 VARIABLE PROPYLLITIC ALT. & STAIN. 51.5-74.5 MASSIVE FLOW? OR ALT. INTRUSIVE? STRONG GREEN PROPYLLITIC STAIN & VEINING, CRACKLE STYLE FRACTURE PATTERN MAY BE RELATED TO GLASSY COMPOSITION OF PROTOLITH. VERY RARE PROPYLLITIC CLAY FILLED RECTANGULAR FEATURES MAYBE "GHOSTS" OF PHENO'S. RARE FLOW BAND-LIKE REMNANT STRUCTURES. GRADES BACK INTO DEFINATE FLOW. ANY DIKES IN THIS AREA?	60 70 80 90 100 110 120		71.0-72.5 BRECCIA ZONE W/ANGULAR GREEN FRAGS IN CALCITE CEMENT 84.4-85.0 HEALED FAULT BRECCIA ROUND → SUBANG. FRAGS IN MOSAIC PATTERN, CLAST SUPPORTED 86.8-87.3 FAULT BRECCIA, SMALL GREEN FRAGS CEMENTED W/BREEN ROCK FLOUR 87.3-92.0 STRONG FRACTURING 102.0-103.5 MOSAIC CLAST SUPPORTED BXA 104.7-105.5 CLAST SUPPORTED BRECCIA 109.0-115.0 CRACKLE/FAULT ZONE BXA 109.0-111.5. CRACKLE ZONE 111.5-115.0 115.0-130.0 HIGH ANGLE FAULTS, SYMPATHETIC TO SRF	51.0-87.4 PERVASIVE GREEN PROPYLITIC STAIN & FRACTURE FILLING 71.0-72.5 ABOUNDANT CALCITE VEINING, W/ SULFIDES. 73.0-89.5 STRONG CALCITE VEINING. USUALLY W/ SULFIDES. 84.4-85.0 CEMENTED W/ROCK FLOUR & CALCITE 89.5-12 WEAK TO MOD. CALCITE VEINING. 89.5-130.0 WEAK GREEN & WHITE CLAY VEINING. 102.0-103.5 CEMENTED W/ WHITE & GREEN CLAY FRAGMENTED SULFIDE VEINS. 104.7-105.5 CEMENTED W/ CALCITE 109.0-115.0 CEMENTED W/ WHITE & GREEN CLAY W/ MARCASITE. 115.0-130 COMMON GREEN → WHITE CLAY W/ MARCASITE, MINOR CALCITE.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
49.0	51.5				
51.5	55.0				
55.0	59.0				
59.0	62.0				
62.0	65.0				
65.0	67.3				
67.3	69.5				
69.5	71.0				
71.0	73.0				
73.0	74.5				
74.5	76.5				
76.5	79.5				
79.5	81.5				
81.5	84.5				
84.5	86.3				
86.3	87.4				
87.4	89.5				
89.5	92.0				
92.0	94.5				
94.5	98.0				
98.0	100.0				
100.0	102.0				
102.0	105.0				
105.0	107.0				
107.0	109.0				
109.0	112.0				
112.0	115.0				
115.0	117.5				
117.5	120.7				

HOLE NUMBER D-254-98 PAGE 3 OF 3

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
44.5 – 130.0 LBT		44.5 – 130.0 SEE DESCRIPTION PAGES 1 & 2			115.0 – 117.5 RUBBLE ZONE. 115.0 – 130.0 HIGH 4 FRACTURES ASSOC. W/ FAULTS MAKE FOR LITTLE OR NO RQD.	128.0 – 130.0 STRONG CALCITE VEINING
130.0 – 166.0 SRF		130.0 – 166.0 FAULT ZONE BRECCIA: VARIABLE SIZE CLASTS, MOSTLY SMALL (AVG. 1/4") OF ROUND, RARELY ANGULAR, SHADES OF GREEN & PINK. FRAGMENTED CALCITE & MARCASITE ARE MODERATE TO LOCALLY STRONG. CLASTS ARE MOSTLY MATRIX SUPPORTED W/ SOME ZONED CLAST SUPPORTE BXA W/ WHITE CLAY AND/OR CALCITE CEMENT. MATRIX IS GREEN TO GRAY CLAY DERIVED FROM CRUSHED ROCK.	130 140 150 160		130.0 – 166.0 W/ FEW EXCEPTIONS MATRIX IS SOFT & EASILY PENETRATED BY PROBE. 163.0 CLASTS OF GREEN BXA FRAGS IN THE BXA CLASTS	130.0 – 166.0 NO OBSERVED CONTEMPORANEOUS OR POST-FAULT INFLUX OF SULFIDES. 158.0 – 166.0 CALCITE VEINS ARE DEVOID OF SULFIDES INDICATING LATE STAGE IMPLACEMENT.
		T.D. 166'				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
120.7	122.5				
122.5	125.0				
125.0	128.0				
128.0	130.0				
130.0	134.0				
134.0	137.0				
137.0	139.5				
139.5	141.5				
141.5	143.5				
143.5	145.5				
145.5	147.5				
147.5	150.0				
150.0	153.0				
153.0	155.0				
155.0	157.0				
157.0	158.0				
158.0	160.5				
160.5	163.2				
163.2	166.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-254-98 DATE: 7/25/98 LOGGED BY: ALLYN NILES. PAGE 1 OF 4

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	80.0	98.0	16.0										
5.0	10.0	75.0	96.0	20.0										
10.0	15.0	94.0	102.0	10.0										
15.0	17.5	0	100.0	0										
17.5	20.0	0	84.0	0										
20.0	25.0	0	84.0	0										
25.0	30.0	0	80.0	0										
30.0	35.0	0	96.0	0										
35.0	40.0	0	100.0	0										
40.0	45.0	0	90.0	0										
45.0	49.0	25.0	100.0	10.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-254-98 DATE: _____ LOGGED BY: _____ PAGE 2 OF 4

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)
49.0	51.5	0	80.0	0										
51.5	55.0	17.7	100.0	0										
55.0	60.0	56.0	104.0	28.0										
60.0	65.0	0	98.0	0										
65.0	69.5	0	82.2	0										
69.5	74.5	50.0	100.0	26.0										
74.5	79.5	50.0	92.0	20.0										
79.5	81.5	100.0	95.0	50.0										
81.5	84.5	50.0	96.6	13.3										
84.5	89.5	80.0	98.0	8.0										
89.5	94.5	24.0	92.0	12.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-254-98 DATE: 7/26/98 LOGGED BY: _____ PAGE 3 OF 4

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)
94.5	98.0	0	94.2	0										
98.0	100.0	0	110.0	25.0										
100.0	102.0	0	100.0	0										
102.0	105.0	21.0	93.3	0										
105.0	107.0	0	100.0	0										
107.0	111.0	17.5	87.5	22.5										
111.0	112.0	0	100.0	0										
112.0	115.0	0	86.6	16.6										
115.0	117.5	0	84.0	0										
117.5	122.5	36.0	88.0	24.0										
122.5	125.0	0	88.0	0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-254-98 DATE: 7/26/98 LOGGED BY: ALLYN NILES PAGE 4 OF 4

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)
125.0	128.0	0	83.0	0										
128.0	133.0	0	48.0	0										
133.0	137.0	0	90.0	0										
137.0	141.5	0	93.3	0										
141.5	145.5	0	93.0	0										
145.5	147.5	0	95.0	0										
147.5	153.0	0	92.7	0										
153.0	157.0	0	100.0	0										
157.0	160.5	0	100.0	0										
160.5	166.0	42.0	91.0	18.2										

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) 358-0606

INVOICE NO: SP 0049896-IN
INVOICE DATE: 08/21/98

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-254-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
67	SAMPLES RECEIVED	.00	.00
66	JAW CRUSHING CHARGE	1.30	85.80
66	COARSE MILLING CHARGE	4.50	297.00
66	SPLITTING CHARGE	2.40	158.40
66	RING MILLING CHARGE	2.00	132.00
67	Au (1 A.T. FIRE ASSAY)	8.00	536.00
4	Au ANALYSES/GRAVIMETRIC	8.75	35.00
67	HYDROCHLORIC/NITRIC DIGESTION	2.00	134.00
67	Ag ANALYSES	1.00	67.00
4	Ag (ore grade) ANALYSES	5.00	20.00

(4200) 13-9999-477
~~86 SHIP 477~~
FDA

NET INVOICE:	1,465.20
LESS DISCOUNT:	293.04
FREIGHT:	.00
INVOICE TOTAL:	1,172.16

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049896

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-254-98 RECEIVED : 3 AUG 1998

No. SAMPLES : 67 REPORTED : 20 AUG 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 SP049896

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-254-98

REPORTED : 20 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-254-98 0-5	0.008			0.11
D-254-98 5-7	0.041			0.13
D-254-98 7-10	0.002			0.04
D-254-98 10.0-13.1	0.001			0.06
D-254-98 13.1-15.0	0.010			0.11
D-254-98 15.0-17.5	0.026			0.09
D-254-98 17.5-20.0	0.025			0.63
D-254-98 20.0-22.4	0.010			0.28
D-254-98 22.4-25.0	0.006			0.11
D-254-98 25.0-27.3	0.048			0.22
D-254-98 27.3-30.0	0.014			0.22
D-254-98 30.0-32.2	0.016			0.32
D-254-98 32.2-35.0	0.008			0.25
D-254-98 35-38	0.028			0.25
D-254-98 38-40	0.020			0.25
D-254-98 40.0-42.3	0.057		0.046	0.85
D-254-98 42.3-45.0	0.012			1.01
D-254-98 45-49	0.016			0.13
D-254-98 49.0-51.5	0.001			0.08
D-254-98 51.5-55.0	0.001			0.05
D-254-98 55-59	0.002			0.07
D-254-98 59-62	0.011			0.17
D-254-98 62-65	0.030			1.34
D-254-98 65.0-67.3	0.103		0.167	11.80
D-254-98 67.3-69.5	0.004			0.59

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049896

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-254-98

REPORTED : 20 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-254-98 69.5-71.0	0.042			6.76
D-254-98 71-73	3.684		4.667	115.00
D-254-98 73.0-74.5	0.128		0.133	18.50
D-254-98 74.5-76.5	0.035			1.01
D-254-98 76.5-79.5	0.007			0.29
D-254-98 79.5-81.5	0.002			0.10
D-254-98 81.5-84.5	0.003			0.07
D-254-98 84.5-86.3	0.004			0.17
D-254-98 86.3-87.4	0.017			0.11
D-254-98 87.4-89.5	0.005			0.05
D-254-98 89.5-92.0	0.010			0.06
D-254-98 92.0-94.5	0.008			0.10
D-254-98 94.5-98.0	0.002			0.05
D-254-98 98-100	0.002			0.06
D-254-98 100-102	0.001			0.07
D-254-98 102-105	0.005			0.10
D-254-98 105-107	0.001			0.03
D-254-98 107-109	<0.001			0.03
D-254-98 109-112	0.008			0.08
D-254-98 112-115	0.006			0.05
D-254-98 115.0-117.5	0.011			0.06
D-254-98 117.5-120.7	0.005			0.06
D-254-98 120.7-122.5	0.007			0.05
D-254-98 122.5-125.0	0.008			0.06
D-254-98 125-128	0.004			0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049896

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-254-98

REPORTED : 20 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-254-98 128-130	0.005			0.06
D-254-98 130-134	0.007			0.08
D-254-98 134-137	0.008			0.07
D-254-98 137.0-139.5	0.009			0.05
D-254-98 139.5-141.5	0.016			0.08
D-254-98 141.5-143.5	0.006			0.03
D-254-98 143.5-145.5	0.006			0.04
D-254-98 145.5-147.5	0.007			0.06
D-254-98 147.5-150.0	0.011			0.07
D-254-98 150-153	0.013			0.07
D-254-98 153-155	0.009			0.13
D-254-98 155-157	0.007			0.04
D-254-98 157-158	0.011			0.10
D-254-98 158.0-160.5	0.003			<0.02
D-254-98 160.5-163.2	0.003			0.02
D-254-98 163.2-166.0	0.006			<0.02
34502	0.510			4.56

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049896

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-254-98 RECEIVED : 3 AUG 1998

No. SAMPLES : 67 REPORTED : 20 AUG 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
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SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP049896

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-254-98

REPORTED : 20 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-254-98 0-5	0.008			0.11
D-254-98 5-7	0.041			0.13
D-254-98 7-10	0.002			0.04
D-254-98 10.0-13.1	0.001			0.06
D-254-98 13.1-15.0	0.010			0.11
D-254-98 15.0-17.5	0.026			0.09
D-254-98 17.5-20.0	0.025			0.63
D-254-98 20.0-22.4	0.010			0.28
D-254-98 22.4-25.0	0.006			0.11
D-254-98 25.0-27.3	0.048			0.22
D-254-98 27.3-30.0	0.014			0.22
D-254-98 30.0-32.2	0.016			0.32
D-254-98 32.2-35.0	0.008			0.25
D-254-98 35-38	0.028			0.25
D-254-98 38-40	0.020			0.25
D-254-98 40.0-42.3	0.057		0.046	0.85
D-254-98 42.3-45.0	0.012			1.01
D-254-98 45-49	0.016			0.13
D-254-98 49.0-51.5	0.001			0.08
D-254-98 51.5-55.0	0.001			0.05
D-254-98 55-59	0.002			0.07
D-254-98 59-62	0.011			0.17
D-254-98 62-65	0.030			1.34
D-254-98 65.0-67.3	0.103		0.167	11.80
D-254-98 67.3-69.5	0.004			0.59

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-254-98 69.5-71.0	0.042			6.76
D-254-98 71-73	3.684		4.667	115.00
D-254-98 73.0-74.5	0.128		0.133	18.50
D-254-98 74.5-76.5	0.035			1.01
D-254-98 76.5-79.5	0.007			0.29
D-254-98 79.5-81.5	0.002			0.10
D-254-98 81.5-84.5	0.003			0.07
D-254-98 84.5-86.3	0.004			0.17
D-254-98 86.3-87.4	0.017			0.11
D-254-98 87.4-89.5	0.005			0.05
D-254-98 89.5-92.0	0.010			0.06
D-254-98 92.0-94.5	0.008			0.10
D-254-98 94.5-98.0	0.002			0.05
D-254-98 98-100	0.002			0.06
D-254-98 100-102	0.001			0.07
D-254-98 102-105	0.005			0.10
D-254-98 105-107	0.001			0.03
D-254-98 107-109	<0.001			0.03
D-254-98 109-112	0.008			0.08
D-254-98 112-115	0.006			0.05
D-254-98 115.0-117.5	0.011			0.06
D-254-98 117.5-120.7	0.005			0.06
D-254-98 120.7-122.5	0.007			0.05
D-254-98 122.5-125.0	0.008			0.06
D-254-98 125-128	0.004			0.04

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REFERENCE : D-254-98

REPORTED : 20 AUG 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-254-98 128-130	0.005			0.06
D-254-98 130-134	0.007			0.08
D-254-98 134-137	0.008			0.07
D-254-98 137.0-139.5	0.009			0.05
D-254-98 139.5-141.5	0.016			0.08
D-254-98 141.5-143.5	0.006			0.03
D-254-98 143.5-145.5	0.006			0.04
D-254-98 145.5-147.5	0.007			0.06
D-254-98 147.5-150.0	0.011			0.07
D-254-98 150-153	0.013			0.07
D-254-98 153-155	0.009			0.13
D-254-98 155-157	0.007			0.04
D-254-98 157-158	0.011			0.10
D-254-98 158.0-160.5	0.003			<0.02
D-254-98 160.5-163.2	0.003			0.02
D-254-98 163.2-166.0	0.006			<0.02
34502	0.510			4.56

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 CO.

Address: PO. 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: 7-30-98 Number of Samples: 64

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
D-254-98		Au-Ag ACCORDING TO ROSEBUD
0.0-5.0 38.0-40.0 79.5-81.5		MINE PROTOCOL
5.0-7.0 46.0-48.3 81.5-84.5		
7.0-10.0 42.3-45.0 84.5-86.3		112.0-115.0 143.5-145.5
10.0-13.1 [illegible]-49.0 86.3-87.4		115.0-117.5 145.5-147.5
13.1-[illegible] 49.0-51.5 87.4-89.5		117.5-120.0 147.5-150.0
[illegible] 51.5-55.0 89.5-92.0		120.0-122.5 150.0-153.0
[illegible] 55.0-59.0 92.0-94.5		122.5-125.0 153.0-155.0
[illegible] 59.0-62.0 94.5-98.0		125.0-128.0 155.0-157.0
22.4-25.0 62.0-65.0 98.0-100.0		128.0-130.0 157.0-158.0
[illegible] 69.5-71.0 100.0-102.0		130.0-134.0 158.0-160.5
[illegible]-30.0 71.0-73.0 102.0-105.0		134.0-137.0 160.5-163.2
[illegible] 73.0-74.5 105-107.0		137.0-139.5 163.2-166.0
32.2-35.8 74.5-76.5 107.0-109.0		139.5-141.5
[illegible] 76.5-79.5 109.0-112.0		141.5-143.5

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 SP049896

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-254-98 RECEIVED : 3 AUG 1998

No. SAMPLES : 67 REPORTED : 20 AUG 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 SP049896

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REFERENCE : D-254-98

REPORTED : 20 AUG 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-254-98 0-5	0.008			0.11
D-254-98 5-7	0.041			0.13
D-254-98 7-10	0.002			0.04
D-254-98 10.0-13.1	0.001			0.06
D-254-98 13.1-15.0	0.010			0.11
D-254-98 15.0-17.5	0.026			0.09
D-254-98 17.5-20.0	0.025			0.63
D-254-98 20.0-22.4	0.010			0.28
D-254-98 22.4-25.0	0.006			0.11
D-254-98 25.0-27.3	0.048			0.22
D-254-98 27.3-30.0	0.014			0.22
D-254-98 30.0-32.2	0.016			0.32
D-254-98 32.2-35.0	0.008			0.25
D-254-98 35-38	0.028			0.25
D-254-98 38-40	0.020			0.25
D-254-98 40.0-42.3	0.057		0.046	0.85
D-254-98 42.3-45.0	0.012			1.01
D-254-98 45-49	0.016			0.13
D-254-98 49.0-51.5	0.001			0.08
D-254-98 51.5-55.0	0.001			0.05
D-254-98 55-59	0.002			0.07
D-254-98 59-62	0.011			0.17
D-254-98 62-65	0.030			1.34
D-254-98 65.0-67.3	0.103		0.167	11.80
D-254-98 67.3-69.5	0.004			0.59

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D-254-98 76.5-79.5	0.007			0.29
D-254-98 79.5-81.5	0.002			0.10
D-254-98 81.5-84.5	0.003			0.07
D-254-98 84.5-86.3	0.004			0.17
D-254-98 86.3-87.4	0.017			0.11
D-254-98 87.4-89.5	0.005			0.05
D-254-98 89.5-92.0	0.010			0.06
D-254-98 92.0-94.5	0.008			0.10
D-254-98 94.5-98.0	0.002			0.05
D-254-98 98-100	0.002			0.06
D-254-98 100-102	0.001			0.07
D-254-98 102-105	0.005			0.10
D-254-98 105-107	0.001			0.03
D-254-98 107-109	<0.001			0.03
D-254-98 109-112	0.008			0.08
D-254-98 112-115	0.006			0.05
D-254-98 115.0-117.5	0.011			0.06
D-254-98 117.5-120.7	0.005			0.06
D-254-98 120.7-122.5	0.007			0.05
D-254-98 122.5-125.0	0.008			0.06
D-254-98 125-128	0.004			0.04

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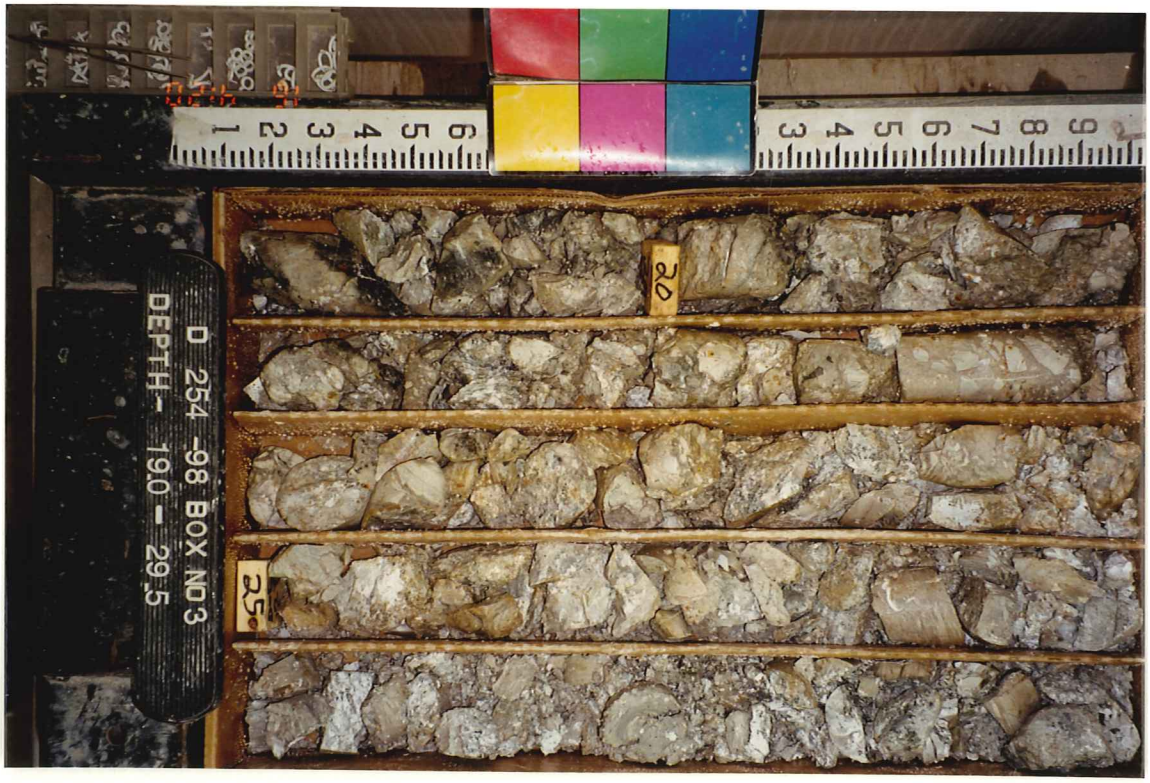
D-254-98 130-134	0.007			0.08
D-254-98 134-137	0.008			0.07
D-254-98 137.0-139.5	0.009			0.05
D-254-98 139.5-141.5	0.016			0.08
D-254-98 141.5-143.5	0.006			0.03
D-254-98 143.5-145.5	0.006			0.04
D-254-98 145.5-147.5	0.007			0.06
D-254-98 147.5-150.0	0.011			0.07
D-254-98 150-153	0.013			0.07
D-254-98 153-155	0.009			0.13
D-254-98 155-157	0.007			0.04
D-254-98 157-158	0.011			0.10
D-254-98 158.0-160.5	0.003			<0.02
D-254-98 160.5-163.2	0.003			0.02
D-254-98 163.2-166.0	0.006			<0.02
34502	0.510			4.56

D 254 -98 BOX NO 2
DEPTH- 9.5- 19.0

D 254 -98 BOX NO 1
DEPTH- 0.0- 9.5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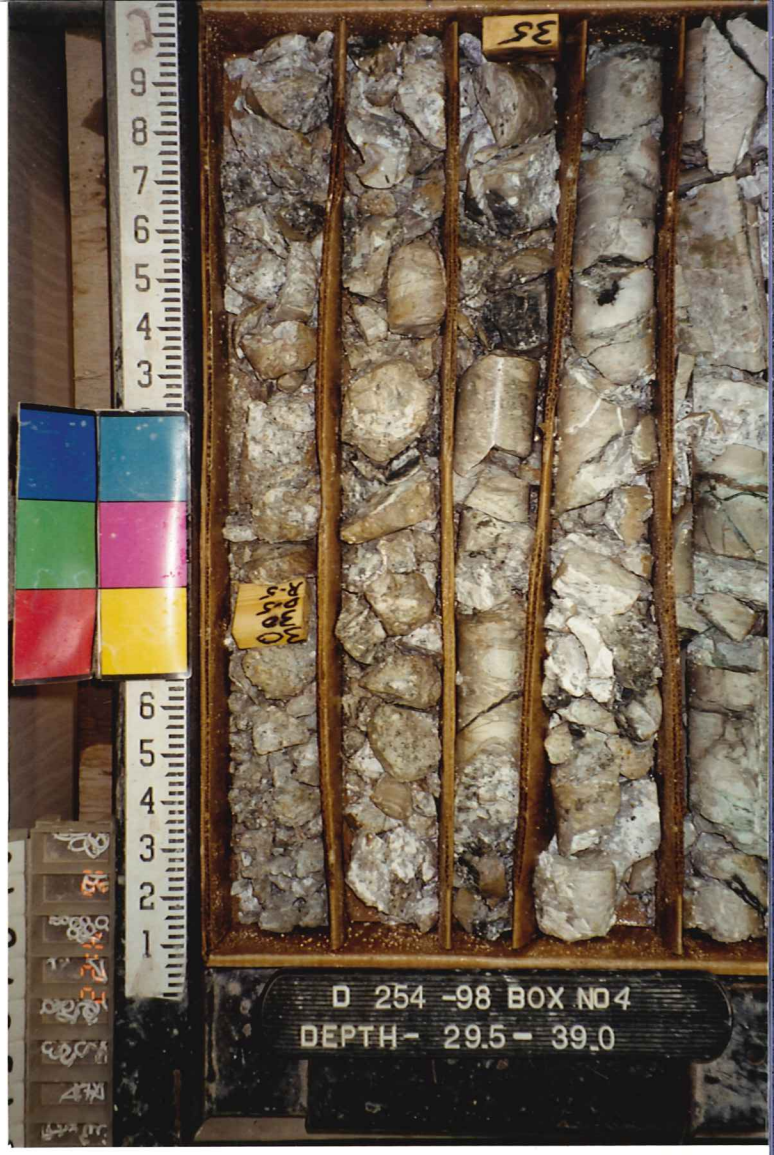
DEPTH- 19.0- 29.5

D 254 -98 BOX NO5
DEPTH- 39.0- 48.5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DEPTH- 29.5- 39.0

D 254 -98 BOX NO5
DEPTH- 48.5- 57.5

D 254 -98 BOX NO 8
DEPTH- 66.5- 67.5

D 254 -98 BOX NO 7
DEPTH- 57.5- 66.5

D 254 -98 BOX NO 9
DEPTH- 76.5- 86.5

105
102
100
86
D 254 -98 BOX NO 11
DEPTH- 96.5-105.5

89.5
97.5
94.5
D 254 -98 BOX NO 10
DEPTH- 86.5- 96.5

D 254 -98 BOX NO 12
DEPTH- 105.5- 114.5

128
133
D 254 -98 BOX NO 14
DEPTH - 124.5 - 136.0

122.5
112.5
D 254 -98 BOX NO 13
DEPTH - 114.5 - 124.5

137
145
155
D 254 -98 BOX NO 15
DEPTH - 136.0 - 145.5

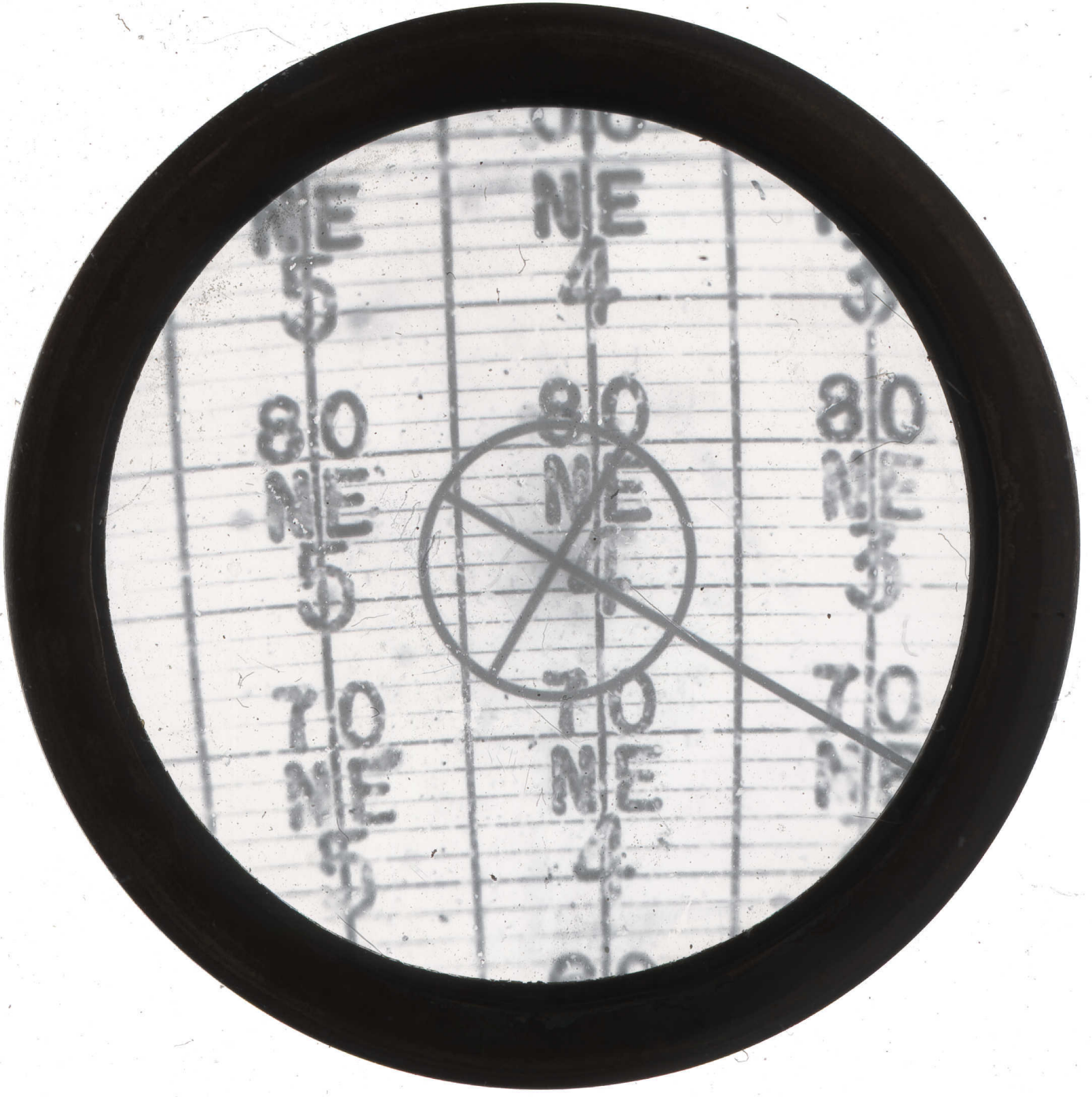
D 254 -98 BOX NO 17
DEPTH - 155.5 - 164.5

147.5
153
D 254 -98 BOX NO 16
DEPTH - 145.5 - 155.5

D 254 -98 BOX NO 18
DEPTH - 164.5 - 166.0

SINGLE SHOT
PHOTO DISC RECORD

COMPANY D-251-98
WELL NAME
LEASE
TAKEN BY
DEPTH Collar
DATE 5-13-98
DRIFT ANGLE +15°
DIRECTION
TYPE
JOB NO.
HI-1408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SINGLE SHOT
PHOTO DISC RECORD

COMPANY D-254-94

WELL NAME

LEASE

TAKEN BY

DEPTH [redacted]'

DATE 5-13-98

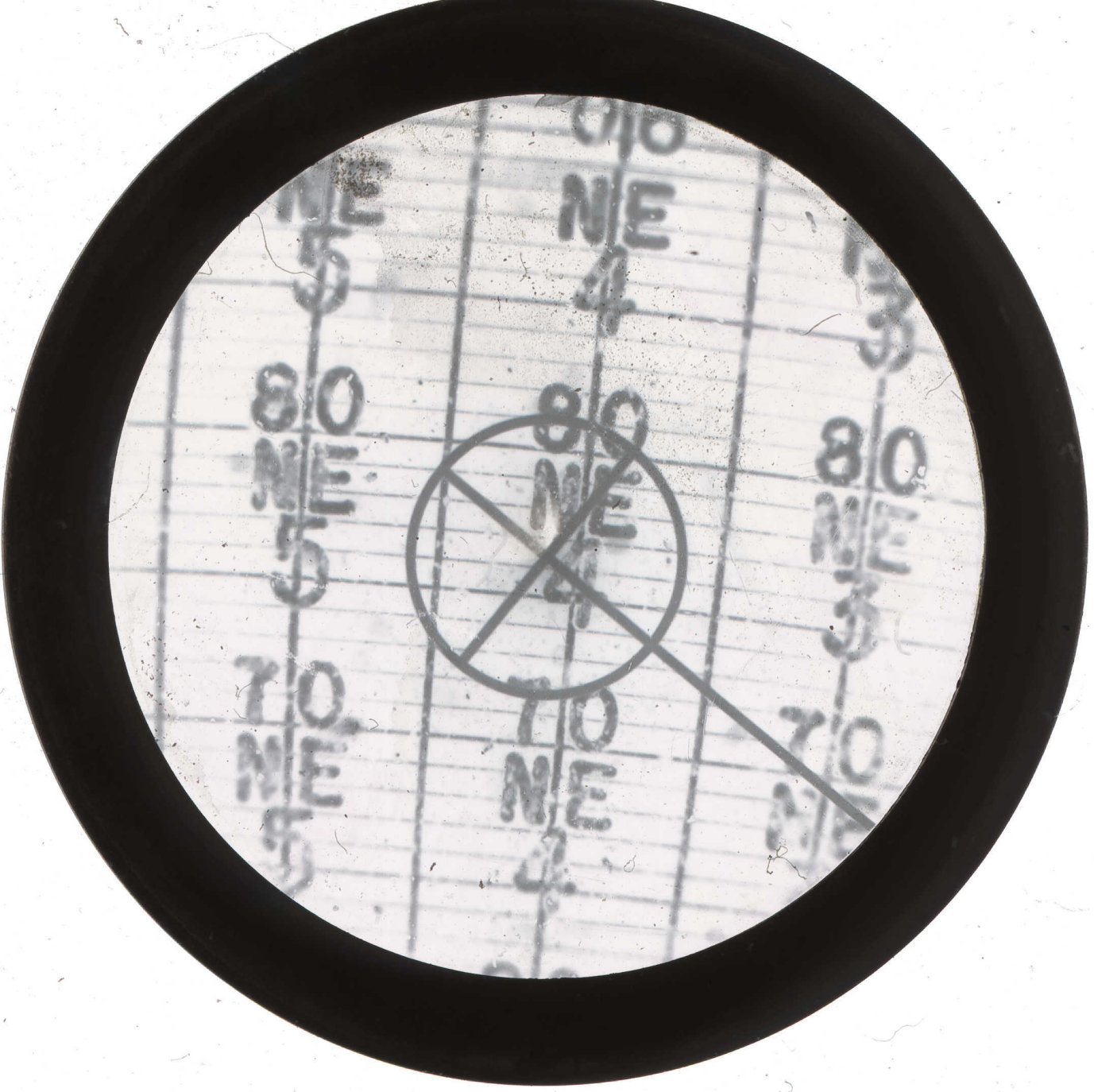
DRIFT ANGLE 15°

DIRECTION

TYPE

JOB NO.

HI-1408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70
NE
4
3
80
NE
3
70

SINGLE SHOT
PHOTO DISC RECORD

COMPANY D-254-98
WELL NAME
LEASE
TAKEN BY
DEPTH 166'
DATE 5-13-98
DRIFT ANGLE +15°
DIRECTION
TYPE
JOB NO.
HI-1408

NE
5
80
NE
5
70
NE
5
NE
4
80
NE
4
70
NE
4
80
NE
5
70