6000 0665

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-180-98
AUTHOR	K. Allen; S King
DATE OF DOC(S)	1998
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine, Hecla Mining Co, Rosebud Project Rosebud Mining Co., LLC
COMMODITY If not obvious	gold; silver
NOTES	drill logs; assay; geology; photographs; receipts; total depth 260'; handwritten notes down hole camera images 33p 5 down hole camera images

Keep docs at about 250 pages if no oversized maps attached (for every 1 oversized page (>11x17) with text reduce the amount of pages by ~25)

SS: DD 4/28/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D-180-98

6600 0665
4010

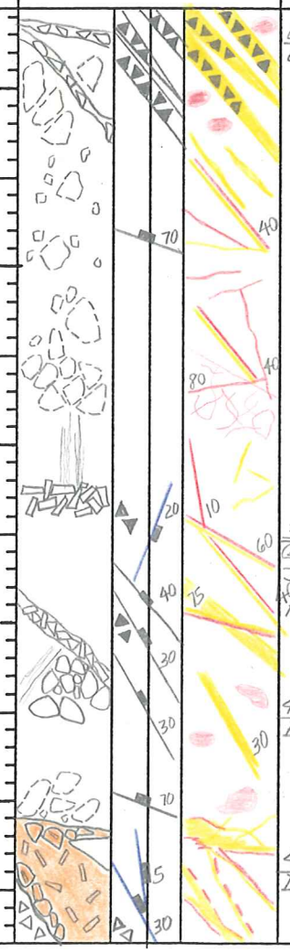
Hecla MINING COMPANY

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

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-180-98	LOCATION	EAST, ACCESS 43
PAGE 1 OF 4		NORTHING	
DATE	02/19/98	EASTING	
LOGGED BY	HJM	ELEVATION	
SCALE	1" = 10'	AZIMUTH	N54W
TOTAL DEPTH	260'	INCLINATION	-9

REMARKS

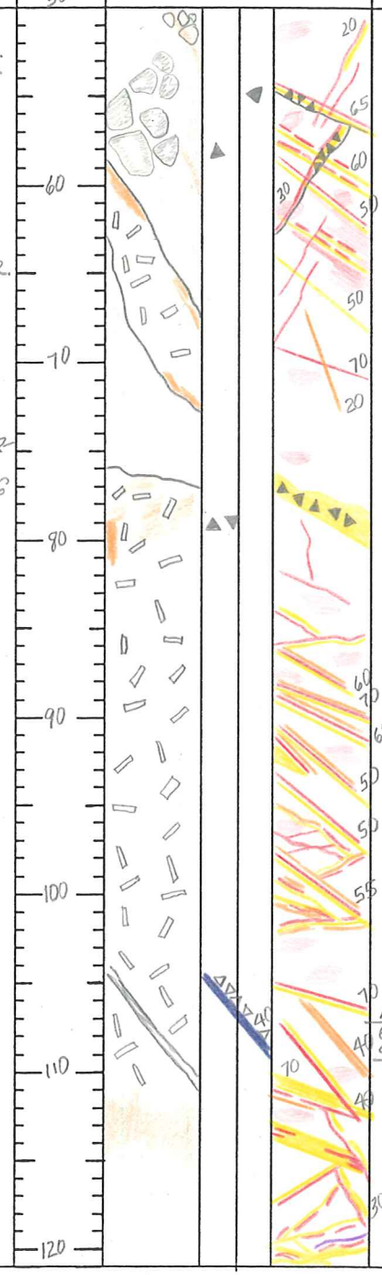
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0-46.2' DOZER	0- REDUCED	0'- : BUFF GRAY-~~GRN~~ AUTOBRECCIATED DOZER. MOTTLED WITH FAINT RUDDY HmOx. 0'-6.1': AUTOBRECCIA IS CUT & OVERPRINTED BY HYDROTHERMAL VEIN BRECCIA. 20.8-21.5': INTERSTITIAL SULFIDES IN OTHERWISE CLAST-SUPPORTED AUTOBRECCIA. ~25': WELL-DEVELOPED AUTOBRECCIA TEXTURE FADES AWAY, RK BECOMES MASSIVE & FLOW BANDED. SILICIFIED & QUARTZ-MARCASITE VEINED CRACKLE BXA IN INTERVALS BELOW 25'. MAY BE AUTOBXA W/ STR. HYDROTHERMAL OVERPRINT.	0 10 20 30 40 50		0-6.1': HYDROTHERMAL VN CRACKLE BXA. 31': THIN SHEAR W/O CLAY GOUGE AT 20° TO C/A. JOINTING PICKS UP BELOW SHEAR. COATED WITH MARCASITE +/- FINE DRUSY QZ.	0-6.0': STRONG SILICA-CEMENTED CRACKLE BXA VNS. LEACHED/VUGGY SILICA. TR. MARCASITE, WK/TR. WHT CLAY. SPOTTY ARGILLIZATION OF WALLROCK VARYING FROM TRACE TO WK/MOD. NEAR VNS. 6.1': PYRITIC BLEBS APPEAR IN WALLROCK. MOD./WK. 6.1-46.2': MOD. TO STRONG SILICA + MARCASITE VNLTS, VNS AND VN BXA. TRACE ARGILLIZATION THRU OUT. 20.8-21.5': MOD/WK DARK Py + MARCASITE +/- QUARTZ INTERSTITIAL MATRIX IN (POSSIBLE) AUTO BRECCIA. MINERALS IN PLACE OF DOZER ROCK FLOUR. 28.2-29.0': SILICA CEMENTED CRACKLE BRECCIA. 35.6-36.0': SILICA CEMENTED CRACKLE BRECCIA BTWN VUGGY SILICA + MARCASITE VNS AT 50° TO C/A. 46.2-52.8': PUNKY SAGE GRN ~~AR~~ STRONG ARGILLIZATION. MOD./STR. QUARTZ + MARCASITE VNLTS. 55.0'-56.7': SILICA BRECCIA VEINS BEARING MARCASITE + BLACK MINERAL.
46.2-52.8' PORPHYRITIC DIKE		46.2-52.8': SKIFF OF SAGE GREEN, PLAG-BEARING PUNKY, STR'LY ARGILLIZED DIKE W/IN DOZER. 46.2'-47.3': BRECCIATED MARGIN OF A STRONGLY CLAY ALTERED PORPHYRITIC DIKE. TIGHTLY-PACKED, RUBBLIZED, MARGIN BXA. 51.7-52.8': MARGINAL BXA W/IN DIKE. 52.8-62.8': MULTI-EPISODE ~~BR~~ DOZER BRECCIA. DIFFUSE BLEACHING PSEUDOBRECCIA.			46.2-47.3': DK MARGIN BRECCIA. 46.2-52.8': SHEARS IN PUNKY DIKE AT LOW ∠ TO C/A.	

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	A
0.0	2.0					
2.0	6.1					
6.1	9.1					
9.1	11.0					
11.0	14.6					
14.6	20.0					
20.0	25.0					
25.0	30.0					
30.0	34.9					
34.9	40.0					
40.0	41.9					
41.9	46.3					
46.3	50.0					

HOLE NUMBER D-180-98 PAGE 2 OF

LITH.	OX/RED.	LITHOLOGY
52.8'-62.8' DOZER	0'- REDUCED	62.8-64.9': LARGELY UNALTERED SKIFF OF PORPHYRITIC DIKE. BUFF-GRY APHANITIC GROUNDMASS, WHT CLAYSHOT PLAG PHENOCRYST RELICT
62.8'-64.9' DIKE		
64.9'-76.7' DOZER		64.9-76.7': PSEUDOBRECCIATED-MASSIVE, & MASSIVE DOZER. STRINGERS OF BLCHING & "FRAGMTS" OF DISS'D SULFIDE CREATES A PSEUDOBXA TEXTURE IN MASSIVE DOZER.
76.7'- DIKE		76.7'- : BUFF-GRY, PORPHYRITIC, DIKE, ESSENTIALLY UNALTERED VARIABLY WK TO MODERATE PERVASIVE ARGILLIZATION OF APHANITIC GROUNDMASS. GLOMEROPORPHYRITIC PLAG PHENOCRYSTS SHOT TO WHT CLAY +/- MARC. SAME LITHOLOGY AS THE OVERLYING DIKE SLIVERS DESCRIBED ABOVE.
		115.2-116.1': FAINT PEBBLY/SANDY TEXTURE IN GROUNDMASS OF ~~[illegible]~~ PHENOCRYST-POOR STRETCH OF DIKE.

FT



GRAPHIC LOG

STRUCTURE

107.6-107.8': 2" WHITE CLAY GOUGE WITH SOME MILLED SILICA GRIT.

ALTERATION AND MINERALIZATION

52.8'-62.8': MOD./STR. QZ + MARCASITE VNLTS & VN BXA TRACE ARGILLIZATION IN WALLROCK.

62.8-64.9': STR. PUNKY SAGE GRN CLAY AT DIKE MARGIN, PLAG → WHT CLAY +/- MARC. MOD./STR. SILICA + MARC VNLTS.

64.9-76.7': MOD./WK QUARTZ + MARCASITE +/- WHT CLAY VNING. TRACE WALLROCK ARGILLIZATION.

76.7'-~85': MOD/WK QUARTZ + MARC +/- WHT CLAY IN VNS & PHENOS. WK. ARGILLIZATN.

78.8-79.4': SILICA-CEMENTED BRECCIA VEIN.

~85'-102': CONT'D WK WALLROCK ARGILLIZATION. ~~##~~ SILICA + MARCASITE VNING INCREASES TO MOD/STR; VERY LEACHED YUGGY TEXTURE. THIN WISPY MARC VNLTS COMMON + DISS'D PYRITIC BLEBS IN WALLROCK. LOCAL TRACE SILICA(?) IN WALLROCK GROUNDMASS.

102-111': MOD ~~[illegible]~~ QUARTZ + MARCASITE VNING. CONT'D WK WALLROCK ARGILLIZATN.

110-111: PAVÉE BARITE FILLS OPEN SPACE IN QZ + MARC VNS

112.5-113.5': ZONE OF ELEVATED WALLROCK ARGILLIZATN BTWN THICK SILICA VNS. WK/MOD. W/ TR. BLCHING.

111-115': MOD/STR. QUARTZ + MARC VNING.

119.0': PAVÉE BLOCKY BARITE 1ST SEEN IN CTRS. OF QUARTZ VNS

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
50.0	52.8				
52.8	55.9				
55.9	60.8				
60.8	65.0				
65.0	68.7				
68.7	73.4	—			
73.4	76.7				
76.7	80.5				
80.5	84.1				
84.1	88.7				
88.7	94.2				
94.2	98.7				
98.7	102.2	—			
102.2	106.8				
106.8	110.6				
110.6	114.5				
114.5	118.5				

HOLE NUMBER D-180-98 PAGE 3 OF 4

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
76.7-201.0 DIKE PORPHYRY	0- REDUCED	FROM 76.7': GRY PORPHYRY DIKE. TO 201.0' 130.7-135.5': HYDROTHERMAL CRACKLE BXA. ~~TOBA~~ MONOLITHIC DIKE, LOCAL PURE SILICA MATRIX, ELSEWHERE SILICIFIED DIKE ROCK FLOUR. GRADES BTWN BRECCIA & VN STKWK. 138.5-145.7': AS ABOVE.	120 130 140		130.7-135.5': SILICA +/- MARC-CEMENTED CRACKLE BRECCIA THRU VN STKWK. 138.5'-145.7': SILICA +/- MARC CEMENTED HYDROTHERMAL CRACKLE BXA.	~115'-130.7': MOD. QUARTZ +, MARCASITE VNING. CONT'D MOD. DISS'D WALLROCK SULFIDES: BLEBS & WISPY VNLTS. 130.7-135.5': STRONG QZ + MARCASITE +/- WHT CLAY VNING. WK LOCAL WALLROCK SILICIFICATION. CONTINUOUS TRACE WALLROCK ARGILLIZATION. ~139': STIBNITE NEEDLES +/- WHT CLAY & BLOCKY BARITE LATE LAYERS ON QUARTZ +/- MARCASITE COATED OPEN FRACTURES.
		LOSS				
		150.0'-161.0': UNBRECCIATED, FAIRLY MASSIVE, PORPHYRITIC GRAY DIKE. AS ABOVE. 161.0-163.2': MONOLITHIC DIKE, SILICA-CEMENTED, CRACKLE/MOSAIC BRECCIA. 178.1-179.3': VEIN BRECCIA? VEIN OF GRY SILICA FLOODING OVERPRINTS PARTIALLY PULVERIZED GRAY PORPHYRY DIKE. 179.3'-201.0': DIKE GROUNDMASS IS TRACE BLEACHED AND FINELY STOCKWORKED FROM VN BXA TO CONTACT. FINE ~~SOB~~ IRREGULAR BLACK SILICEOUS VNLTS FORM A FINE STOCKWORK THAT INCREASES IN DENSITY DOWNWARDS TOWARDS FAULT CONTACT. THIS ENTIRE ZONE IS WKLY TECTONIZED.	150 160 170 180 190		FROM 150': JOINTING PICKS UP IN UNBRECCIATED ROCK. 163.6-167.1': WKLY SILICIFIED RUBBLY/PEBBLY BRECCIA/STOCKWORK. 167.1-178.1': MOD./STR. JNT SET +/- VNS AT 60° TO C/A 178.1-179.3': SILICA HEALED ROCK FLOUR VEIN BXA.	150.0'-161.0' MOD/WK QZ + MARCASITE VNLTS - MOD. PYRITIC BLEBBING & ~~STR~~ STRINGERS. 161.0'-163.2' STR. SILICA +/- MARCASITE 163.6-167.1': WK/MOD. SILICA +/- PYRITE AS VEINLET STOCKWORK TO DISS'D. CONT'D MOD. PYRITIC BLEBBING. 167.1-178.1': INCREASE TO MOD./STR. SILICA +/- PY VNLT STKWK, TRENDING ~60° TO C/A. 178.1-179.3': STRONG GRAY SILICA OVERPRINTS DIKE & BXA'D DIKE. 182.8-~193': DULL YELLOW-GREEN CLAY MATRIX/STKWK ON TIGHT-PACKED RUBBLE BXA. OVERPRINTED BY LATER BLK-GRY SILICA STKWK.

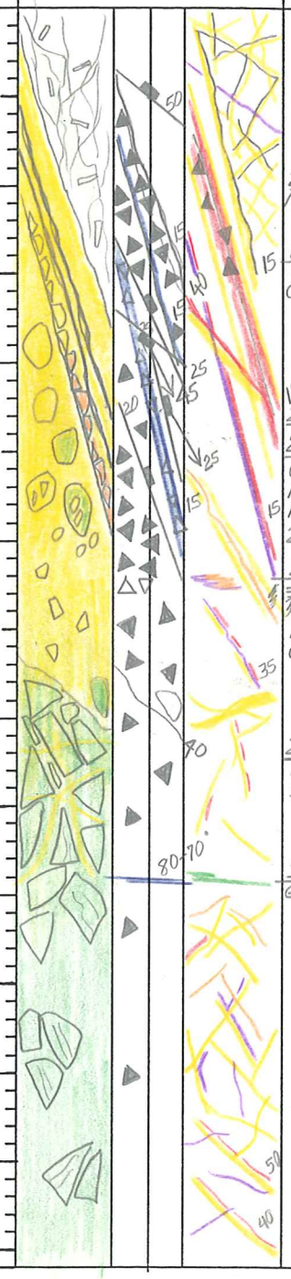
ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
118.5	123.1				
123.1	127.2				
127.2	130.7				
130.7	135.4				
135.4	140.6				
140.6	145.7				
150.0	155.1				
155.1	160.7				
160.7	163.6				
163.6	167.1				
167.1	170.0				
170.0	174.0				
174.0	178.1				
178.1	179.6				
179.6	182.8				
182.8	188.1				

HOLE NUMBER D-180-98 PAGE 4 OF 4

LITH.	OX/RED.	LITHOLOGY
76.7-201' PORPHYRY DIKE	0-260 REDUCED	
201.0'-227.6 SOUTH RIDGE FAULT ZONE		200.5'-204.6': INTENSELY SILICIFIED MOD'LY TEXTURE-OBSCURED FAULT BRECCIA. 201-202.4': TAN/BRN, PEBBLE-SIZED POSS. DIKE OR DOZER FRAGMTS FLOAT IN GRY SILICIFIED MUSH. 202.4-204.6': DK BLKISH PYRITIZED FRAGMTS IN GRY SILICIFIED MUSH. 204.6-207.9': 2 ZONED SILICA-SULFIDE MICROBRECCIA VEINS IN SILICA REPLACEMENT ZONE. DARK BLK SILICA + SULFIDE MATRIXED BXA VNS ~1-2" WIDE ARE RIMMED WITH GRY-BLUE LEACHED SILICA-SULFIDE (1) AND AN OUTER RIM OF CRM-GRY LEACHED SILICA (2). 207.9-210.3': INTENSE, TEXTURE-DESTRUCTIVE GRAY SILICA OVERPRINTS MIXED LITHOLOGY FAULT BRECCIA. SOME LATE CATACLASTIC TEXTURE OVERPRINTS BOTH SILICA & UNDERLYING BRECCIA. 210.3-212.0': SEMI-HEALED TO UNHEALED LATE FAULT ZONE CUTS STR, PERVASIVELY SILICIFIED BRECCIA. ROCK SAND OF SURROUNDING SILICIFIED MAT'L + WHT CLAY GOUGE IN THE CORE OF THE FAULT; SILICA + DARK PYRITE LAYERS COAT THE WALLS.
227.6-260' LBT (MASSIVE)		212.0-219.8': ≥90% MULTI-EPISODIC REPLACEMT SILICA. GREY SILICA FLOODED HETEROLITHIC MATRIX-SUPPORTED BRECCIA LIKE THAT ABOVE & BELOW ~~IS "INTRUDED"~~ IS OVERPRINTED AND REBRECCIATED BY MILKY WHT TO LT. MILKY GRN SILICA. MILKINESS MAYBE DUE TO WHT CLAY W/ SILICA. 219.8-222.8': GRY SILICA FLOODED HETEROLITHIC, MULTI-EPISODIC, MATRIX-SUPPORTED FAULT BXA. FRAGMTS = EARLIER BXAS & LBT MAT'L. TR/WK GRN CLAY IN LBT. 222.8'-227.6': MIXED LITH? SHATTERED OR WKLY CATACLASTIC ZONE. STRLY SILICA-FLOODED W/ WK ORIGINAL GRN CLAY ALT'N. PALER & MORE APHANITIC THAN UNDERLYING LITHOLOGY. POSS. JUVENILE? IRREGULAR UPPER CONTACT WITH: 227.6'-260': CRACKLE BRECCIATED TO STOCKWORKED, MEDIUM SAGE GRN LBT, ~~MASSIVE SUBUNIT?~~ PROBABLE WAVY LAMINATED SUBUNIT. MONOLITHIC. BXATN, & STKWKING ARE FAULT-RELATED.

FT



STRUCTURE	ALTERATION AND MINERALIZATION
200.5'-212': WELL-DEFINED MINERALIZED FAULT ZONE. 204.6': BLACK-GRY MICROBXA VN CORED WITH A LT. GRY GOUGE. 210.2': JNT IN SiO_2 15°, 25°. 210.0-212.0': UNHEALED, WKLY GOUGEY, NARROW, FAULT. REPLACEMT SILICA FRAGMENTS IN W/ WHT CLAY. 212- 222.6-222.8': UNHEALED ~~BR~~ CRACKLE/MOSAIC BXA; SILICA-FLOODED ~~MA~~ FRAGMTS PACKED IN WHT CLAY + BARITE. 227.6-260': SILICA-CEMENTED CRACKLE BXA TO STKWK. 239.3': 1" LT. GRN CLAY GOUGE	~191.-201': BLK/GRY SILIC VNLT STOCKWORK INCREASES TO STRONG TO CONTACT. 195': FIRST BLOCKY BARITE ON JOINT. 200.5': BLK-GRN SILICEOUS MICROBXA VNLT. POSSIBLE // TO CONTACT? CONTACT LOST AT DRILL BREAK. 200.5'-204.6': INTENSE TO TOTAL GRY SILICA REPLACEMENT. MOD. DISS'D DARK SULFIDE TO 202.4. STR/INTENSE DARK SULFIDES TO 204.6. 204.6-207.7': BANDED SULFIDE + SILICA VEINS ~1-2" BLK SILICA-SULFIDE MICROBRECCIA VEIN WITH AN UPPER 1" RIM OF VUGGY (LEACHED) BLK-GRY SILICA-SULFIDE FOLLOWED BY A 2" RIM OF CRM-GRY LEACHED ~~LE~~ SILICA W/ ONLY TR. DISS'D SULFIDE. 2ND MICROBXA VN AT 206.5-207.7, WHICH ALSO GRADES DOWN INTO VUGGY CRM-GRY SILICA. REPLACEMT SILICA THRU OUT. 207.7-210.3': INTENSE/STR. SILICA MOD/~~WK~~ DISS'D SULFIDES. 210.3-212': STR. SILICA, MOD. CLAY IN FAULT GOUGE. MOD/WK SULFIDES. 212-219.8': INTENSE SiO_2, WK SULFIDES 219.8-227.6': STR. SiO_2, WK SULFIDES. BLOCKY LATE BARITE +/- WHT CLAY MOD. FROM 222.5'. 227.6-~234': GRY TO MILKY SILICA-CEMENTED CRACKLE/MOSAIC BXA. = STR. SiO_2 VNING + WK MARC. ~234'-260': VARIABLY STR. TO MOD./STR. SiO_2 VNING & BRECCIA CEMENT. LOCALLY W/ WHT CLAY. MOD./WK MARC. BLOCKY BARITE AS LATE VN & VUG FILL = MOD. EXPLOITS LEACH HOLES IN SiO_2. CHL? RIMS SiO_2 VNS BELOW 254' ESP.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
188.1	193.2				
193.2	196.6				
196.6	200.5				
200.5	202.4				
202.4	204.5				
204.5	207.9				
207.9	210.3				
210.3	212.0				
212.0	215.8				
215.8	219.8				
219.8	222.8				
222.8	227.6				
227.6	230.0				
230.0	235.0				
235.0	240.0				
240.0	245.0				
245.0	250.0				
250.0	255.0				
255.0	260.0				

TD 260'

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-180-98 DATE 02/19/98 LOGGED BY: KDM PAGE 1 OF 54

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	10.0	105.0	105.0	53.0										
10.0	20.0	100.0	100.0	76.0										
20.0	30.0	90.0	90.0	57.0										
30.0	40.0	99.0	99.0	74.0										
40.0	50.0	102.0	102.0	45.0										
50.0	58.0	100.0	100.0	42.5										
58.0	65.0	100.0	100.0	40.0										
65.0	74.0	96.7	96.7	53.3										
74.0	80.5													
80.5	90.0	89.5	89.5	36.8										
90.0	100.0	99.0	99.0	55.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-180-98 DATE 02/20/98 LOGGED BY: KSM 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)
100.0	110.0	99.0	99.0	77.0										
110.0	120.0	101.0	101.0	59.0										
120.0	130.0	97.0	97.0	65.0										
130.0	140.0	99.0	99.0	57.0										
140.0	150.0	57.0	57.0	16.0										
150.0	160.0	101.0	101.0	70.0										
160.0	170.0	97.0	97.0	75.0										
170.0	180.0	103.0	103.0	69.0										
180.0	189.0	100.0	100.0	62.2										
189.0	199.0	100.0	100.0	84.0										
199.0	204.0	92.0	92.0	42.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-180-98 DATE: 02/21/98 LOGGED BY: HBM PAGE ~~4~~ 3 OF ~~5~~ 4

DRILL RUN		SOLID CORE	TOTAL CORE	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO	RECOVERY (%)	RECOVERY (%)		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)
204.0	209.0	94.0	94.0	20.0										
209.0	212.0	110.0	110.0	46.7										
212.0	215.0	93.3	93.3	43.3										
215.0	216.0	95.0	95.0	45.0										
216.0	218.0	85.0	85.0	50.0										
218.0	220.0	105.0	105.0	75.0										
220.0	225.0	100.0	100.0	40.0										
225.0	230.0	100.0	100.0	68.0										
230.0	235.0	94.0	94.0	68.0										
235.0	240.0	90.0	90.0	44.0										
240.0	245.0	88.0	88.0	78.0										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-180-98 DATE 02/21/98 LOGGED BY: HBM 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)
245.0	250.0	78.0	78.0	54.0										
250.0	254.0	125.0	125.0	86.0										
254.0	259.0	100.0	100.0	85.0										
259.0	260.0	100.0	100.0	100.0										

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048248

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-180-98 RECEIVED : 5 MAR 1998

No. SAMPLES : 66 REPORTED : 16 MAR 1998

MAIN SAMPLE TYPE : DRILL CORE

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

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

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048248

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-180-98

REPORTED : 16 MAR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)	
D-180-98 0-2	0.006			0.06	
D-180-98 2.0-6.1	0.006			0.03	
D-180-98 6.1-9.1	0.004			0.02	
D-180-98 9.1-11.0	0.010	0.012		0.10	
D-180-98 11.0-14.6	0.006			0.04	
D-180-98 14.6-20.0	0.007	0.008		0.02	
D-180-98 20-25	0.006			0.05	
D-180-98 25-30	0.009			0.03	
D-180-98 30.0-34.9	0.005			0.03	
D-180-98 34.9-40.0	0.013			0.04	
D-180-98 40.0-41.9	0.003			0.05	
D-180-98 41.9-46.3	0.002			0.02	
D-180-98 46.3-50.0	0.027			0.12	
D-180-98 50.0-52.8	0.117		0.104	0.60	
D-180-98 52.8-55.9	0.144		0.166	2.19	
D-180-98 55.9-60.8	0.011			0.03	
D-180-98 60.8-65.0	0.022			0.03	
D-180-98 65.0-68.7	0.133		0.087	0.06	73.4-102.2'
D-180-98 68.7-73.4	0.029			0.06	288' @
D-180-98 73.4-76.7 3.3	0.302		0.220	0.10	
D-180-98 76.7-80.5 3.8	0.044	0.062		0.06	0.218 Au
D-180-98 80.5-84.1 3.6	0.120		0.105	0.20	0.24 Au
D-180-98 84.1-88.7 4.6	0.207		0.198	0.27	
D-180-98 88.7-94.2 5.5'	0.237		0.231	0.42	
D-180-98 94.2-98.7 4.5	0.341		0.402	0.30	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048248

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-180-98

REPORTED : 16 MAR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-180-98 98.7-102.2 3.5	0.365		0.333	0.20
D-180-98 102.2-106.8	0.036			0.11
D-180-98 106.8-110.6	0.037			0.12
D-180-98 110.6-114.5	0.083		0.085	0.17
D-180-98 114.5-118.5	0.196		0.182	0.11
D-180-98 118.5-123.1	0.098		0.145	0.08
D-180-98 123.1-127.2	0.059	0.033	0.088	0.10
D-180-98 127.2-130.7	0.057		0.104	0.11
D-180-98 130.7-135.4	0.123		0.127	0.13
D-180-98 135.4-140.6	0.118		0.108	1.01
D-180-98 140.6-145.7	0.133		0.139	0.22
D-180-98 150.0-155.1	0.017	0.018		0.07
D-180-98 155.1-160.7	0.136		0.108	0.12
D-180-98 160.7-163.6	0.065		0.053	0.16
D-180-98 163.6-167.1	0.026			0.06
D-180-98 167.1-170.0	0.019			0.21
D-180-98 170-174	0.036			0.07
D-180-98 174.0-178.1	0.051		0.049	0.06
D-180-98 178.1-179.6	0.048		0.044	0.10
D-180-98 179.6-182.8	0.015			0.07
D-180-98 182.8-188.1	0.012			0.07
D-180-98 188.1-193.2	0.026	0.028		0.54
D-180-98 193.2-196.6	0.003			0.06
D-180-98 196.6-200.5	0.004			0.03
D-180-98 200.5-202.4	0.006	0.007		0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048248

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-180-98

REPORTED : 16 MAR 1998

SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-180-98 202.4-204.5	0.003			0.04
D-180-98 204.5-207.9	0.011			0.04
D-180-98 207.9-210.3	0.010			0.05
D-180-98 210.3-212.0	0.004			0.05
D-180-98 212.0-215.8	<0.001			<0.02
D-180-98 215.8-219.8	0.005			<0.02
D-180-98 219.8-222.8	0.004			0.07
D-180-98 222.8-227.6	0.007			0.07
D-180-98 227.6-230.0	0.009			0.10
D-180-98 230-235	0.009			0.07
D-180-98 235-240	0.010			0.11
D-180-98 240-245	0.005			0.08
D-180-98 245-250	0.003			0.11
D-180-98 250-255	0.004			0.11
D-180-98 255-260	0.007			0.33
27752	0.543			4.82

American Assay Laboratories

INVOICE

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

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431

(702) 356-0606

INVOICE NO: SP 0048248-IN
INVOICE DATE: 03/17/98

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

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

CUSTOMER P.O.	PROJECT	TERMS
D-180-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
66	SAMPLES RECEIVED	.00	.00
65	JAW CRUSHING CHARGE	1.30	84.50
65	COARSE MILLING CHARGE	4.50	292.50
65	SPLITTING CHARGE	2.40	156.00
65	RING MILLING CHARGE	2.00	130.00
66	Au (1 A.T. FIRE ASSAY)	8.00	528.00
21	Au ANALYSES/GRAVIMETRIC	8.75	183.75
66	HYDROCHLORIC/NITRIC DIGESTION	2.00	132.00
66	Ag ANALYSES	1.00	66.00
1	Ag (ore grade) ANALYSES	5.00	5.00

86-5110-477
KBA

NET INVOICE:	1,577.75
LESS DISCOUNT:	315.55
FREIGHT:	.00
INVOICE TOTAL:	1,262.20

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048248

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-180-98 RECEIVED : 5 MAR 1998

No. SAMPLES : 66 REPORTED : 16 MAR 1998

MAIN SAMPLE TYPE : DRILL CORE

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

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

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048248

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-180-98

REPORTED : 16 MAR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-180-98 0-2	0.006			0.06
D-180-98 2.0-6.1	0.006			0.03
D-180-98 6.1-9.1	0.004			0.02
D-180-98 9.1-11.0	0.010	0.012		0.10
D-180-98 11.0-14.6	0.006			0.04
D-180-98 14.6-20.0	0.007	0.008		0.02
D-180-98 20-25	0.006			0.05
D-180-98 25-30	0.009			0.03
D-180-98 30.0-34.9	0.005			0.03
D-180-98 34.9-40.0	0.013			0.04
D-180-98 40.0-41.9	0.003			0.05
D-180-98 41.9-46.3	0.002			0.02
D-180-98 46.3-50.0	0.027			0.12
D-180-98 50.0-52.8	0.117		0.104	0.60
D-180-98 52.8-55.9	0.144		0.166	2.19
D-180-98 55.9-60.8	0.011			0.03
D-180-98 60.8-65.0	0.022			0.03
D-180-98 65.0-68.7	0.133		0.087	0.06
D-180-98 68.7-73.4	0.029			0.06
D-180-98 73.4-76.7	0.302		0.220	0.10
D-180-98 76.7-80.5	0.044	0.062		0.06
D-180-98 80.5-84.1	0.120		0.105	0.20
D-180-98 84.1-88.7	0.207		0.198	0.27
D-180-98 88.7-94.2	0.237		0.231	0.42
D-180-98 94.2-98.7	0.341		0.402	0.30

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048248

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-180-98

REPORTED : 16 MAR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-180-98 98.7-102.2	0.365		0.333	0.20
D-180-98 102.2-106.8	0.036			0.11
D-180-98 106.8-110.6	0.037			0.12
D-180-98 110.6-114.5	0.083		0.085	0.17
D-180-98 114.5-118.5	0.196		0.182	0.11
D-180-98 118.5-123.1	0.098		0.145	0.08
D-180-98 123.1-127.2	0.059	0.033	0.088	0.10
D-180-98 127.2-130.7	0.057		0.104	0.11
D-180-98 130.7-135.4	0.123		0.127	0.13
D-180-98 135.4-140.6	0.118		0.108	1.01
D-180-98 140.6-145.7	0.133		0.139	0.22
D-180-98 150.0-155.1	0.017	0.018		0.07
D-180-98 155.1-160.7	0.136		0.108	0.12
D-180-98 160.7-163.6	0.065		0.053	0.16
D-180-98 163.6-167.1	0.026			0.06
D-180-98 167.1-170.0	0.019			0.21
D-180-98 170-174	0.036			0.07
D-180-98 174.0-178.1	0.051		0.049	0.05
D-180-98 178.1-179.6	0.048		0.044	0.10
D-180-98 179.6-182.8	0.015			0.07
D-180-98 182.8-188.1	0.012			0.07
D-180-98 188.1-193.2	0.026	0.028		0.54
D-180-98 193.2-196.6	0.003			0.06
D-180-98 196.6-200.5	0.004			0.03
D-180-98 200.5-202.4	0.006	0.007		0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048248

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-180-98 202.4-204.5	0.003			0.04
D-180-98 204.5-207.9	0.011			0.04
D-180-98 207.9-210.3	0.010			0.05
D-180-98 210.3-212.0	0.004			0.05
D-180-98 212.0-215.8	<0.001			<0.02
D-180-98 215.8-219.8	0.005			<0.02
D-180-98 219.8-222.8	0.004			0.07
D-180-98 222.8-227.6	0.007			0.07
D-180-98 227.6-230.0	0.009			0.10
D-180-98 230-235	0.009			0.07
D-180-98 235-240	0.010			0.11
D-180-98 240-245	0.005			0.08
D-180-98 245-250	0.003			0.11
D-180-98 250-255	0.004			0.11
D-180-98 255-260	0.007			0.33
27752	0.543			4.82

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP048248

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-180-98 RECEIVED : 5 MAR 1998

No. SAMPLES : 66 REPORTED : 16 MAR 1998

MAIN SAMPLE TYPE : DRILL CORE

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

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

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048248

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-180-98

REPORTED : 16 MAR 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-180-98 0-2	0.006			0.06
D-180-98 2.0-6.1	0.006			0.03
D-180-98 6.1-9.1	0.004			0.02
D-180-98 9.1-11.0	0.010	0.012		0.10
D-180-98 11.0-14.6	0.006			0.04
D-180-98 14.6-20.0	0.007	0.008		0.02
D-180-98 20-25	0.006			0.05
D-180-98 25-30	0.009			0.03
D-180-98 30.0-34.9	0.005			0.03
D-180-98 34.9-40.0	0.013			0.04
D-180-98 40.0-41.9	0.003			0.05
D-180-98 41.9-46.3	0.002			0.02
D-180-98 46.3-50.0	0.027			0.12
D-180-98 50.0-52.8	0.117		0.104	0.60
D-180-98 52.8-55.9	0.144		0.166	2.19
D-180-98 55.9-60.8	0.011			0.03
D-180-98 60.8-65.0	0.022			0.03
D-180-98 65.0-68.7	0.133		0.087	0.06
D-180-98 68.7-73.4	0.029			0.06
D-180-98 73.4-76.7	0.302		0.220	0.10
D-180-98 76.7-80.5	0.044	0.062		0.06
D-180-98 80.5-84.1	0.120		0.105	0.20
D-180-98 84.1-88.7	0.207		0.198	0.27
D-180-98 88.7-94.2	0.237		0.231	0.42
D-180-98 94.2-98.7	0.341		0.402	0.30

AMERICAN ASSAY LABORATORIES

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D-180-98 98.7-102.2	0.365		0.333	0.20
D-180-98 102.2-106.8	0.036			0.11
D-180-98 106.8-110.6	0.037			0.12
D-180-98 110.6-114.5	0.083		0.085	0.17
D-180-98 114.5-118.5	0.196		0.182	0.11
D-180-98 118.5-123.1	0.098		0.145	0.08
D-180-98 123.1-127.2	0.059	0.033	0.088	0.10
D-180-98 127.2-130.7	0.057		0.104	0.11
D-180-98 130.7-135.4	0.123		0.127	0.13
D-180-98 135.4-140.6	0.118		0.108	1.01
D-180-98 140.6-145.7	0.133		0.139	0.22
D-180-98 150.0-155.1	0.017	0.018		0.07
D-180-98 155.1-160.7	0.136		0.108	0.12
D-180-98 160.7-163.6	0.065		0.053	0.16
D-180-98 163.6-167.1	0.026			0.06
D-180-98 167.1-170.0	0.019			0.21
D-180-98 170-174	0.036			0.07
D-180-98 174.0-178.1	0.051		0.049	0.05
D-180-98 178.1-179.6	0.048		0.044	0.10
D-180-98 179.6-182.8	0.015			0.07
D-180-98 182.8-188.1	0.012			0.07
D-180-98 188.1-193.2	0.026	0.028		0.54
D-180-98 193.2-196.6	0.003			0.06
D-180-98 196.6-200.5	0.004			0.03
D-180-98 200.5-202.4	0.006	0.007		0.02

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-180-98 202.4-204.5	0.003			0.04
D-180-98 204.5-207.9	0.011			0.04
D-180-98 207.9-210.3	0.010			0.05
D-180-98 210.3-212.0	0.004			0.05
D-180-98 212.0-215.8	<0.001			<0.02
D-180-98 215.8-219.8	0.005			<0.02
D-180-98 219.8-222.8	0.004			0.07
D-180-98 222.8-227.6	0.007			0.07
D-180-98 227.6-230.0	0.009			0.10
D-180-98 230-235	0.009			0.07
D-180-98 235-240	0.010			0.11
D-180-98 240-245	0.005			0.08
D-180-98 245-250	0.003			0.11
D-180-98 250-255	0.004			0.11
D-180-98 255-260	0.007			0.33
27752	0.543			4.82

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
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(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. 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: 03/04/98 Number of Samples: 65

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

D-180-98 SAMPLE IDENTIFICATION			TYPE	ELEMENTS REQUIRED	
0.0-2.0	55.9-60.8		CORE	AU-AG ACCORDING TO ROSEBUD	
2.0-6.1	60.8-65.0			MINING PROTOCOL	
6.1-9.1	65.0-68.7	118.5-123.1			212.0-215.8
9.1-11.0	68.7-73.4	123.1-127.2		174.0-178.1	215.8-219.8
11.0-14.6	73.4-76.7	127.2-130.7		178.1-179.6	219.8-222.8
14.6-20.0	76.7-80.5	130.7-135.4		179.6-182.8	222.8-227.6
20.0-25.0	80.5-84.1	135.4-140.6		182.8-188.1	227.6-230.0
25.0-30.0	84.1-88.7	140.6-145.7		188.1-193.2	230.0-235.0
30.0-34.9	88.7-94.2			193.2-196.6	235.0-240.0
34.9-40.0	94.2-98.7	150.0-155.1		196.6-200.5	240.0-245.0
40.0-41.9	98.7-102.2	155.1-160.7		200.5-202.4	245.0-250.0
41.9-46.3	102.2-106.8	160.7-163.6		202.4-204.5	250.0-255.0
46.3-50.0	106.8-110.6	163.6-167.1		204.5-207.9	255.0-260.0
50.0-52.8	110.6-114.5	167.1-170.0		207.9-210.3	
52.8-55.9	114.5-118.5	170.0-174.0		210.3-212.0	

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month

[ ] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

KURT ALLEN

Results to:

KURT ALLEN

Comments:

CLIENT FILE COPY

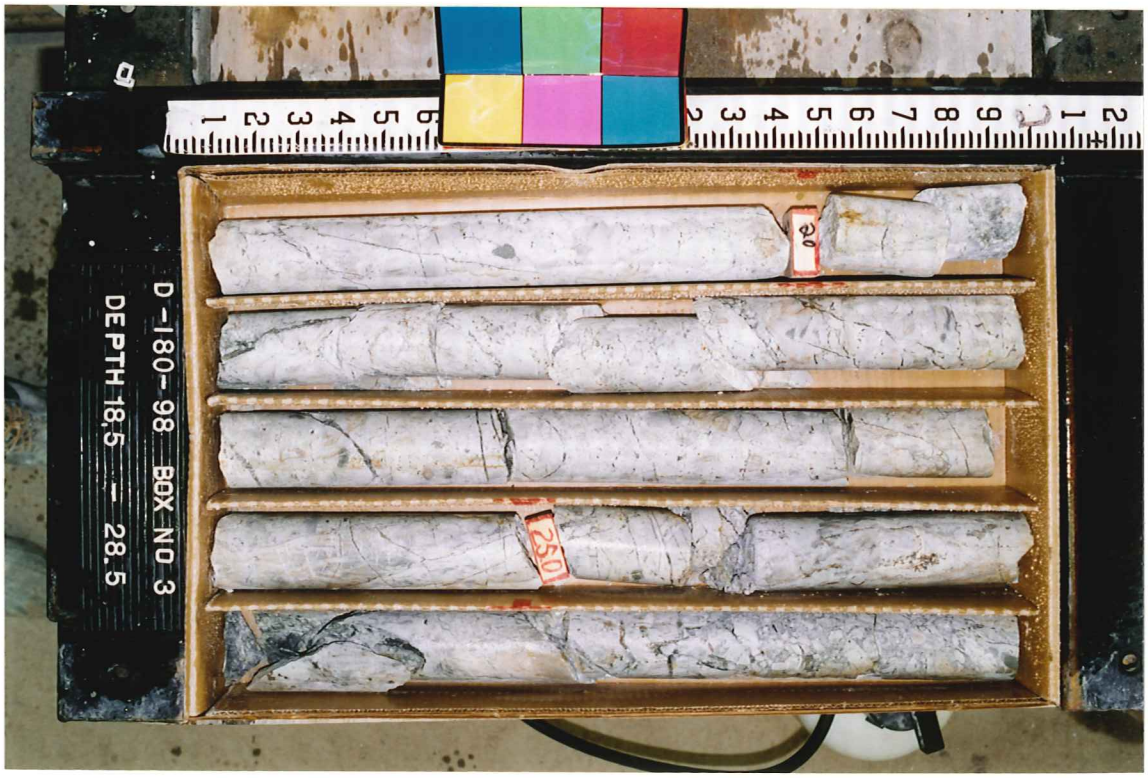
Down Hole Survey

Dec. 15. 7

Hole #	Depth	Bearing	Dip	True Bearing	True Dip
D-180-98	Collar	S 72.0° E	98.5°	N 56.3° W	-8.5°
	130'	S 71.0° E	99.0°	N 55.3 W	-9.0°
	260'	S 70.5° E	99.0°	N 54.8 W	-9.0°

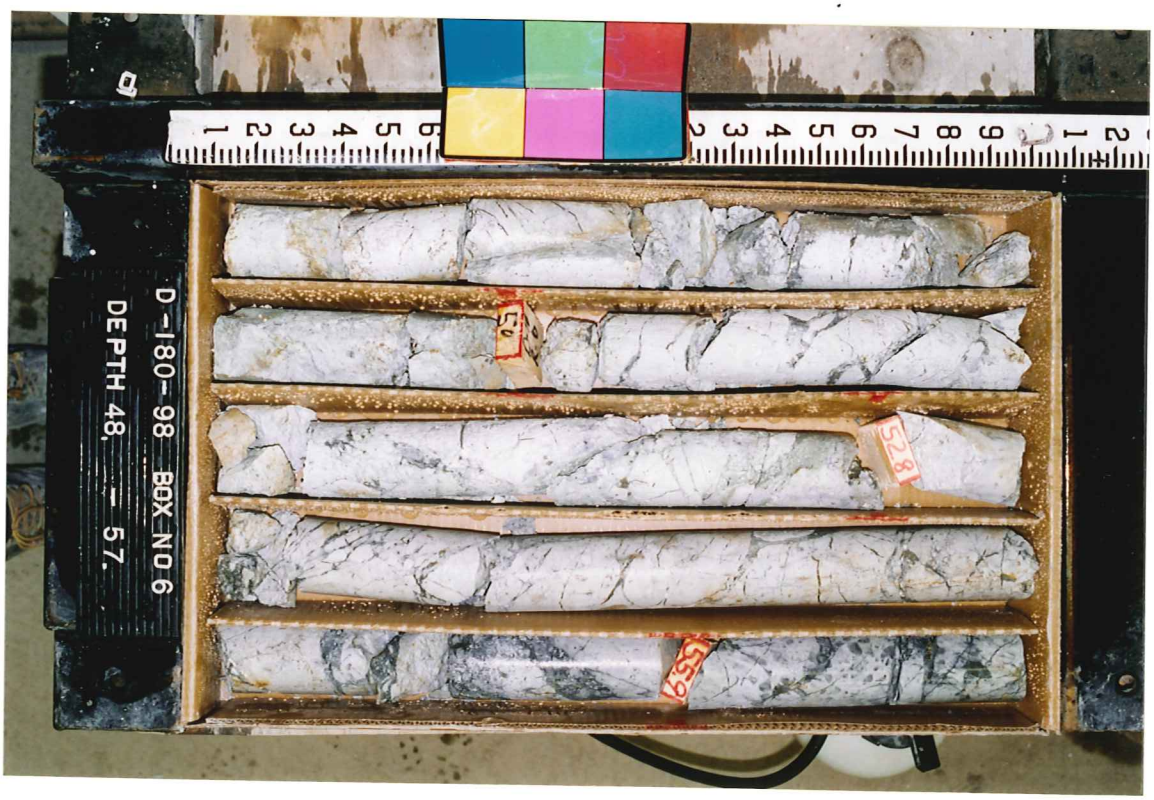
14.6
10
11.0
D-180-98 BOX NO 2
DEPTH 9.5 - 18.5

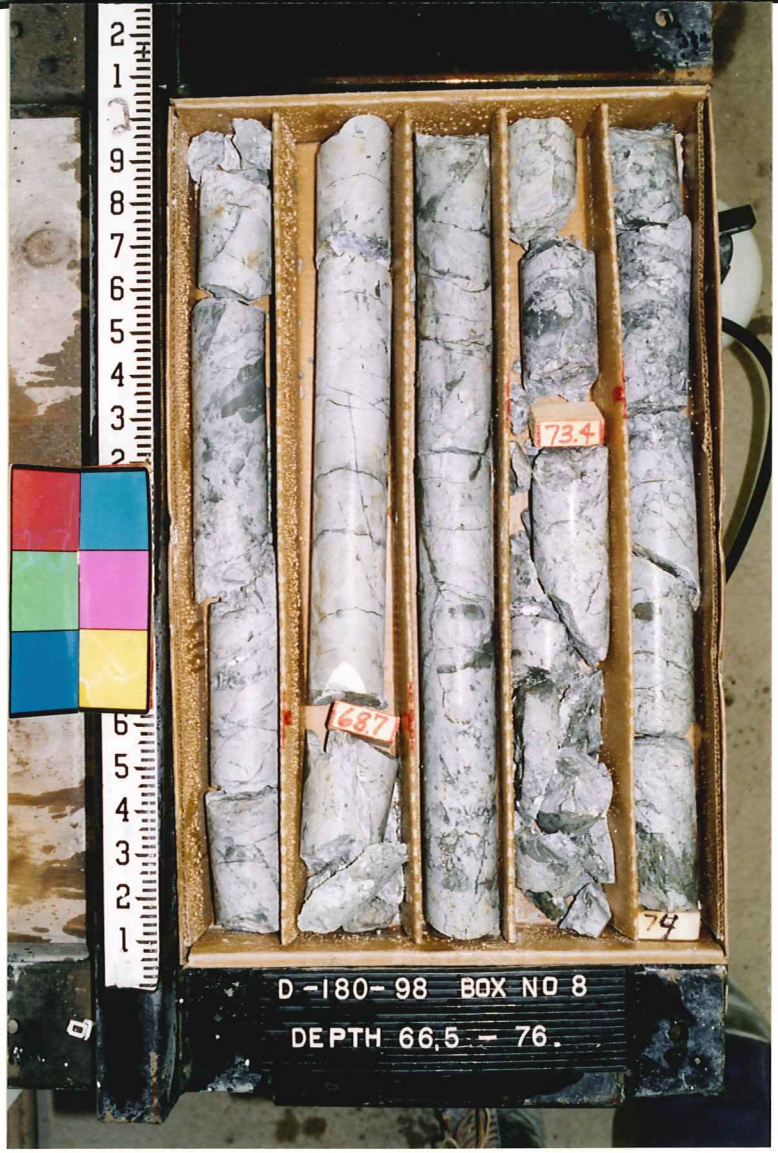
2.0
9.1
6.1
D-180-98 BOX NO 1
DEPTH 0.0 - 9.5


20
23.0
D-180-98 BOX NO 3
DEPTH 18.5 - 28.5

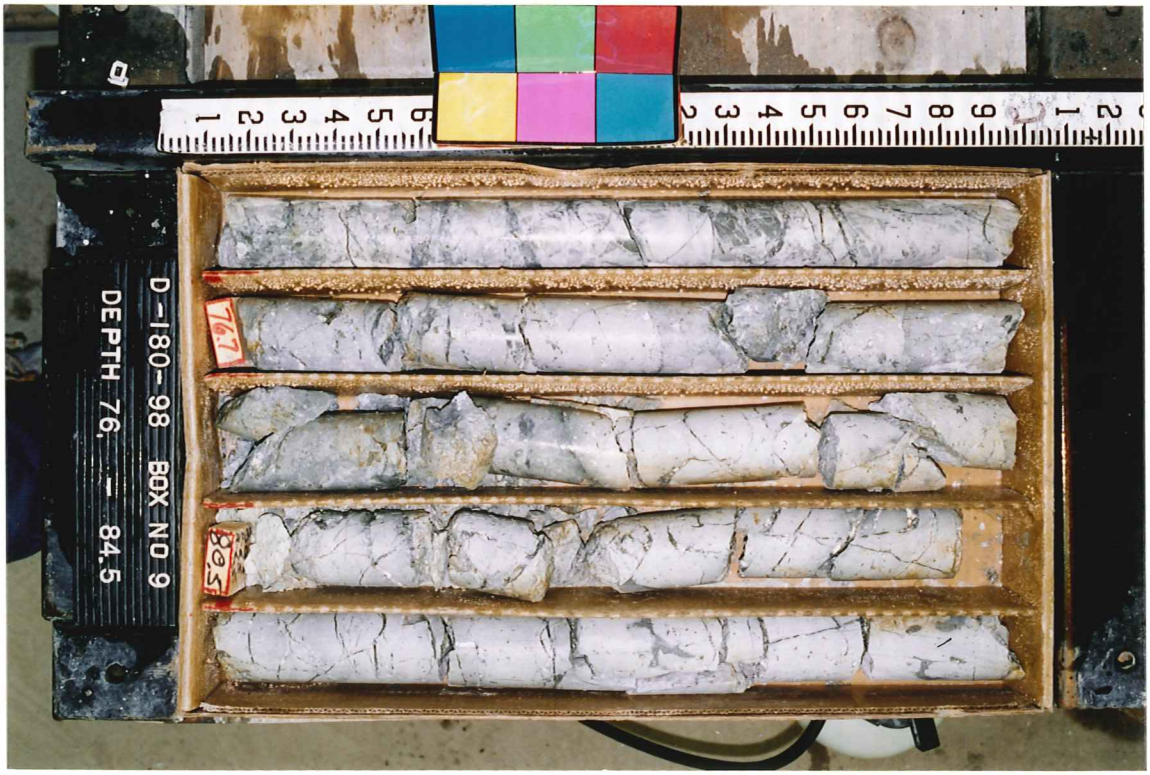
D-180-98 BOX NO 5
DEPTH 38.5 - 48.
40
419
463

D-180-98 BOX NO 4
DEPTH 28.5 - 38.5
30
349


D-180-98 BOX NO 6
DEPTH 48. - 57.
50
528
659


73.4
68.7
74
D-180-98 BOX NO 8
DEPTH 66.5 - 76.

58
65
60.8
D-180-98 BOX NO 7
DEPTH 57. - 66.5


76.7
80.5
D-180-98 BOX NO 9
DEPTH 76. - 84.5

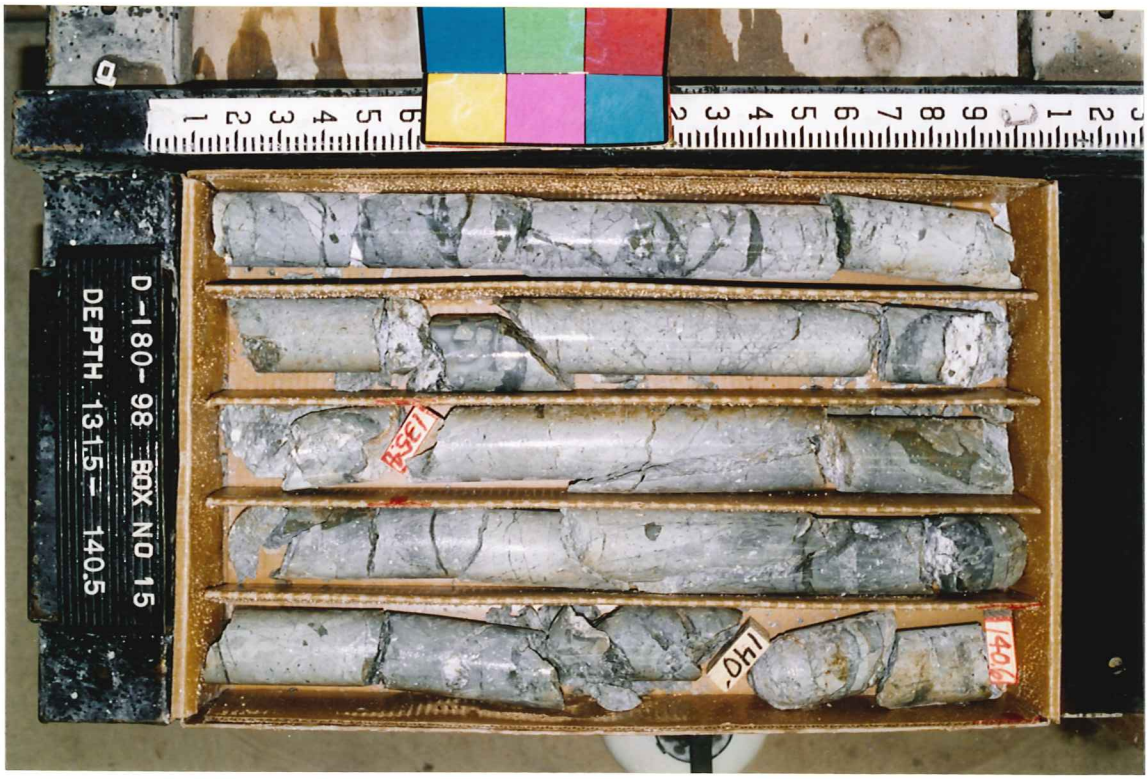
100'
98.7
102.2
D-180-98 BOX NO 11
DEPTH 94.5 - 104

90'
94.2
84.1
88.7
D-180-98 BOX NO 10
DEPTH 84.5 - 94.5

D-180-98 BOX NO 12
DEPTH 104 - 113
110'
110.6

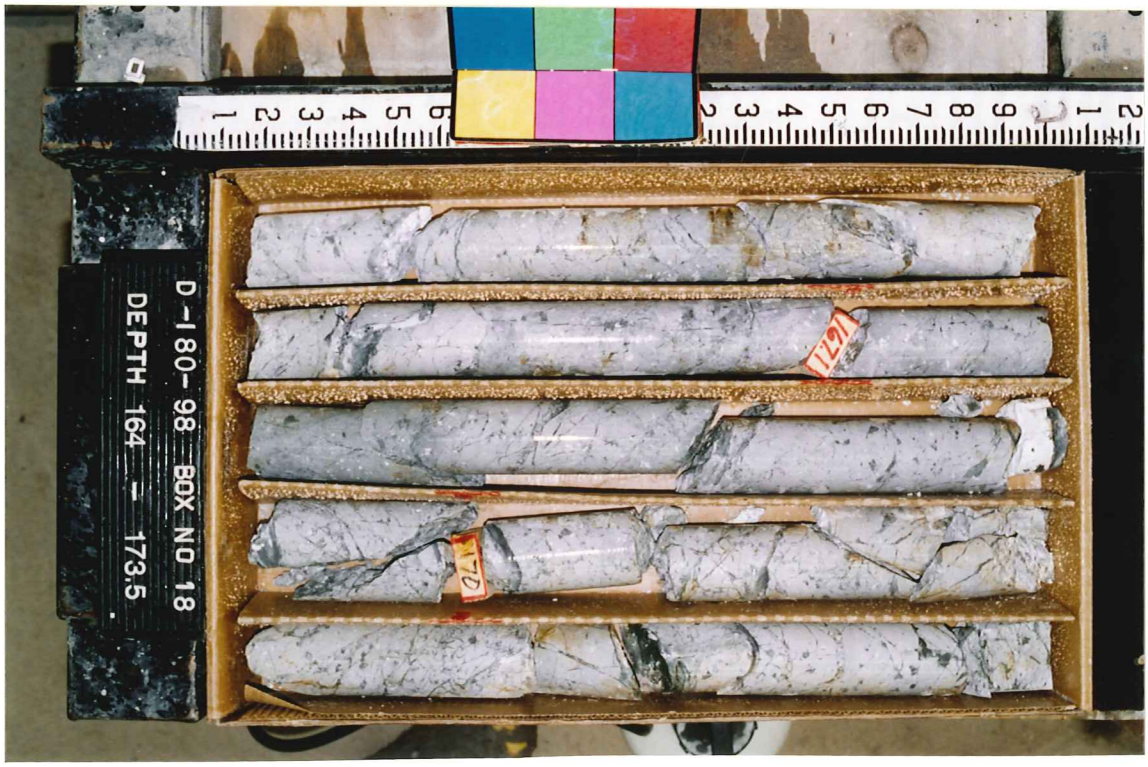
D-180-98 BOX NO 13
DEPTH 113 - 122
118.5
120

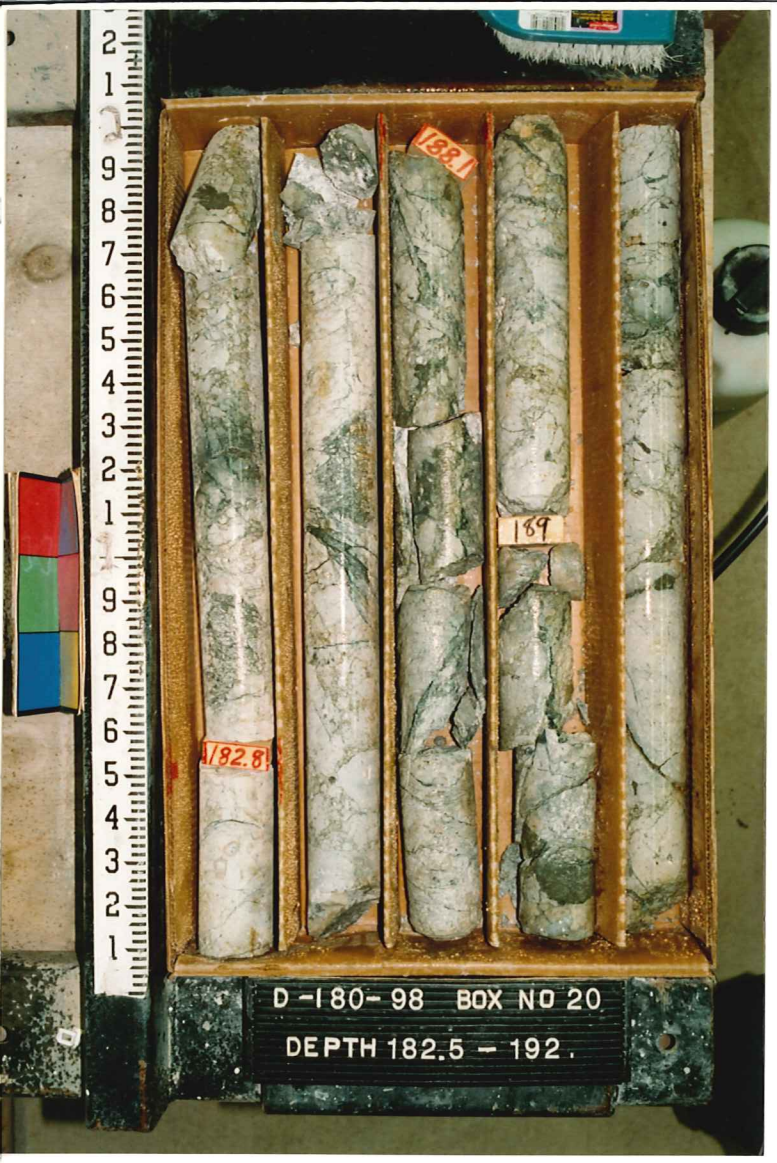
D-180-98 BOX NO 14
DEPTH 122 - 131.5
123.1
127.2
130.1
130

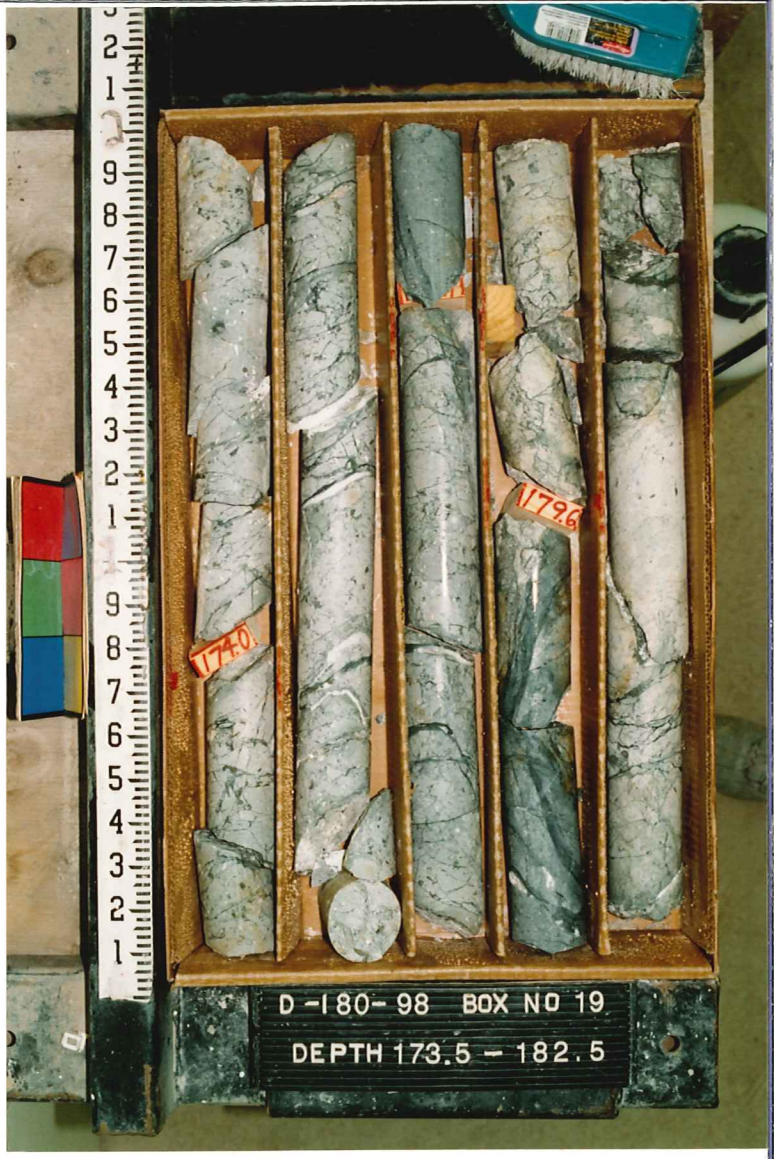

D-180-98 BOX NO 15
DEPTH 131.5 - 140.5
135.4
140
140.6

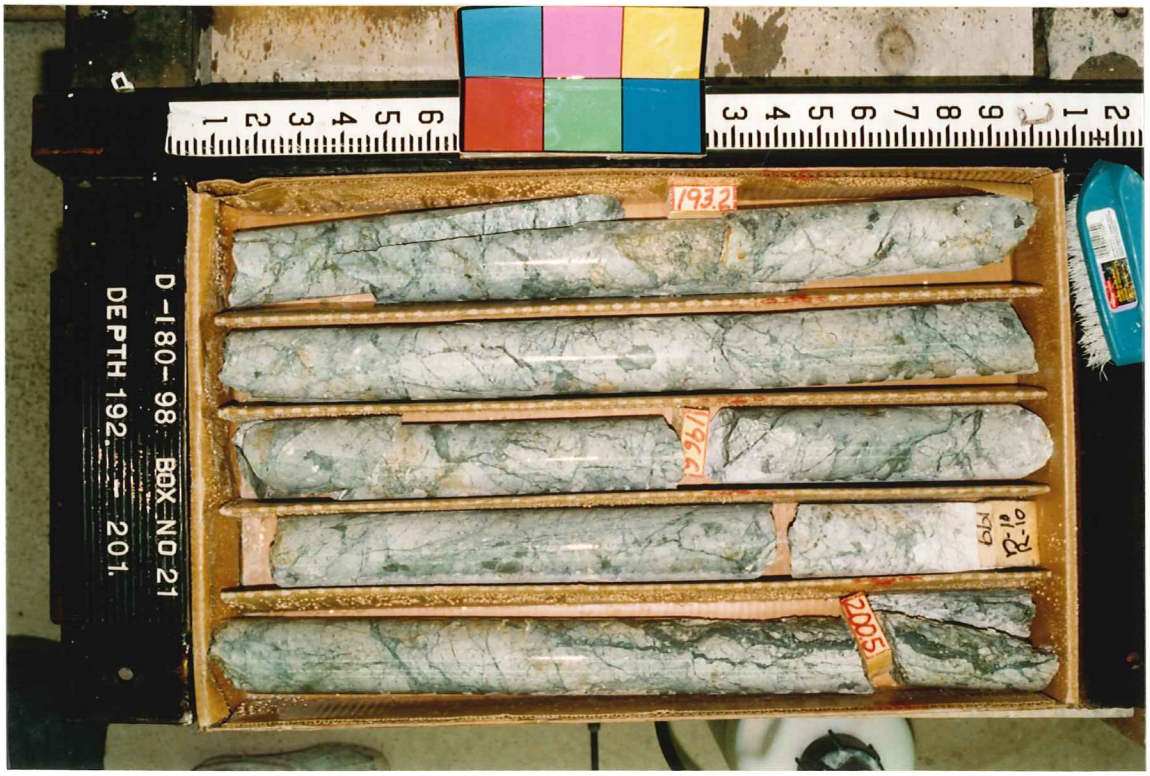
D-180-98 BOX NO 17
DEPTH 154.5 - 164
155.1
160
163.4
160.7

D-180-98 BOX NO 16
DEPTH 140.5 - 154.5
150
LOSS
145.7


D-180-98 BOX NO 18
DEPTH 164 - 173.5
172.1
170

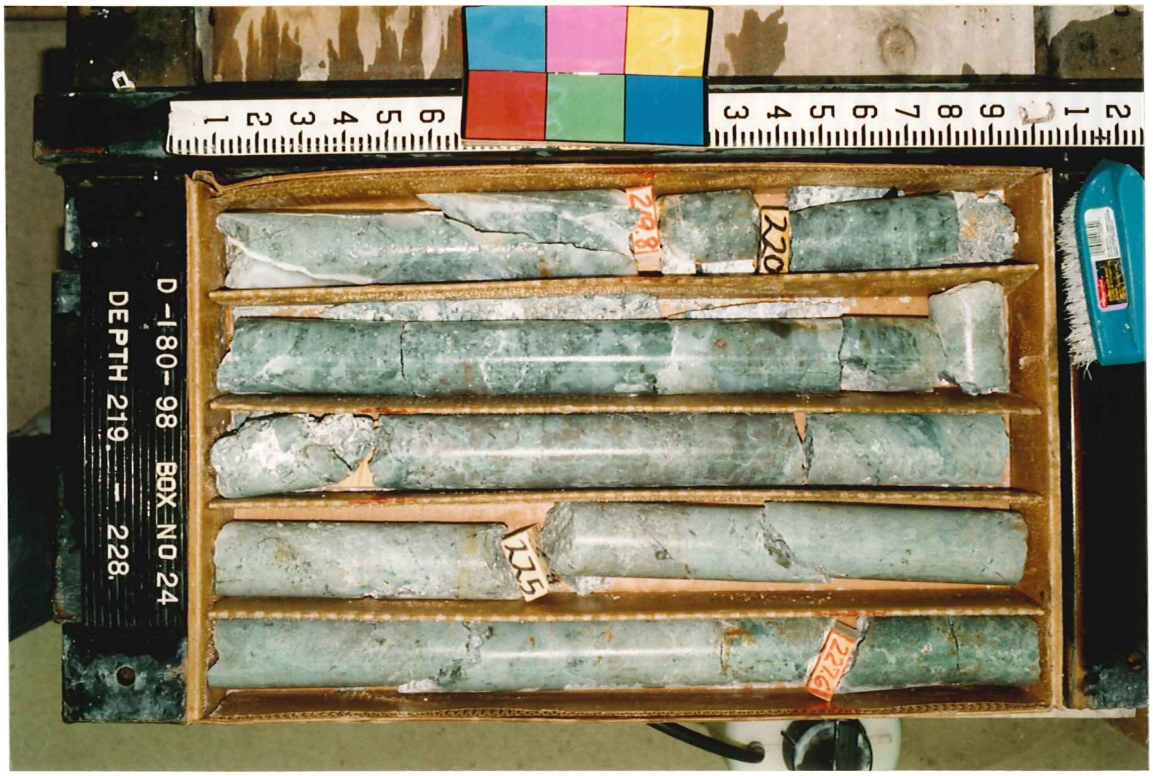

188.1
189
182.8
D-180-98 BOX NO 20
DEPTH 182.5 - 192.


179.6
174.0
D-180-98 BOX NO 19
DEPTH 173.5 - 182.5


193.2
196.7
R-10
200.5
D-180-98 BOX NO 21
DEPTH 192. - 201.

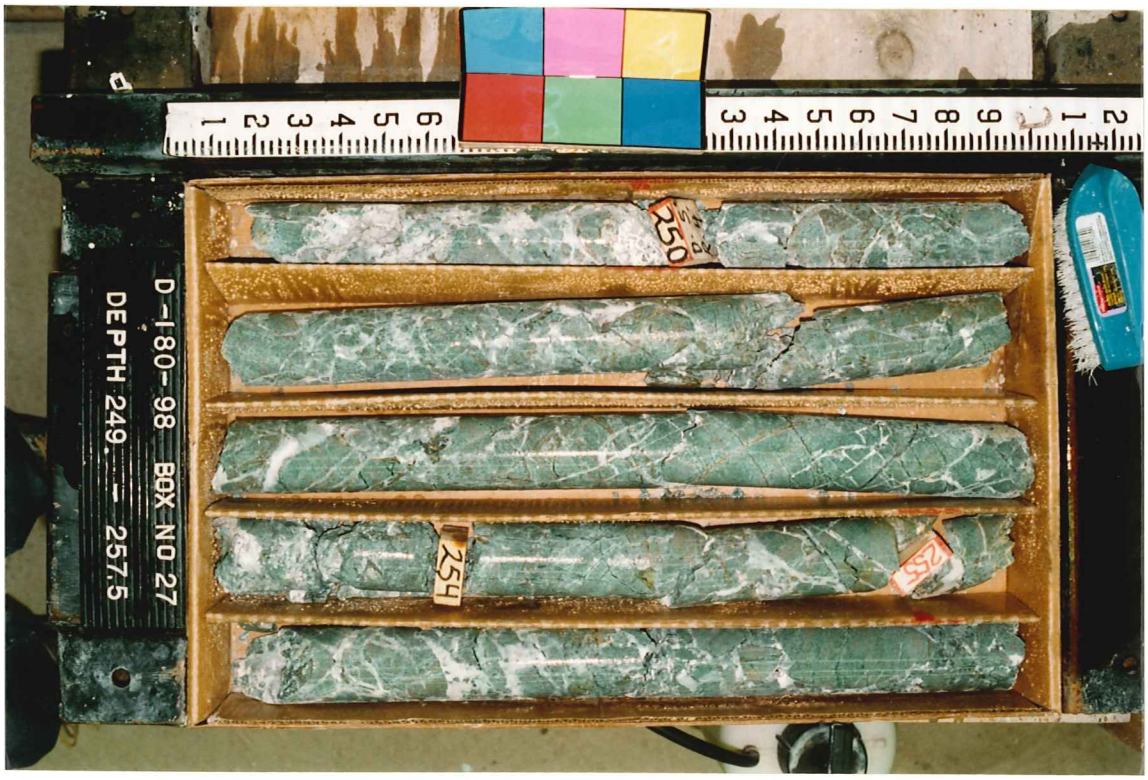
D-180-98 BOX NO 23
DEPTH 210.5 - 219.
213
215.8
215
216
218

D-180-98 BOX NO 22
DEPTH 201. - 210.5
204.5
207.9
204

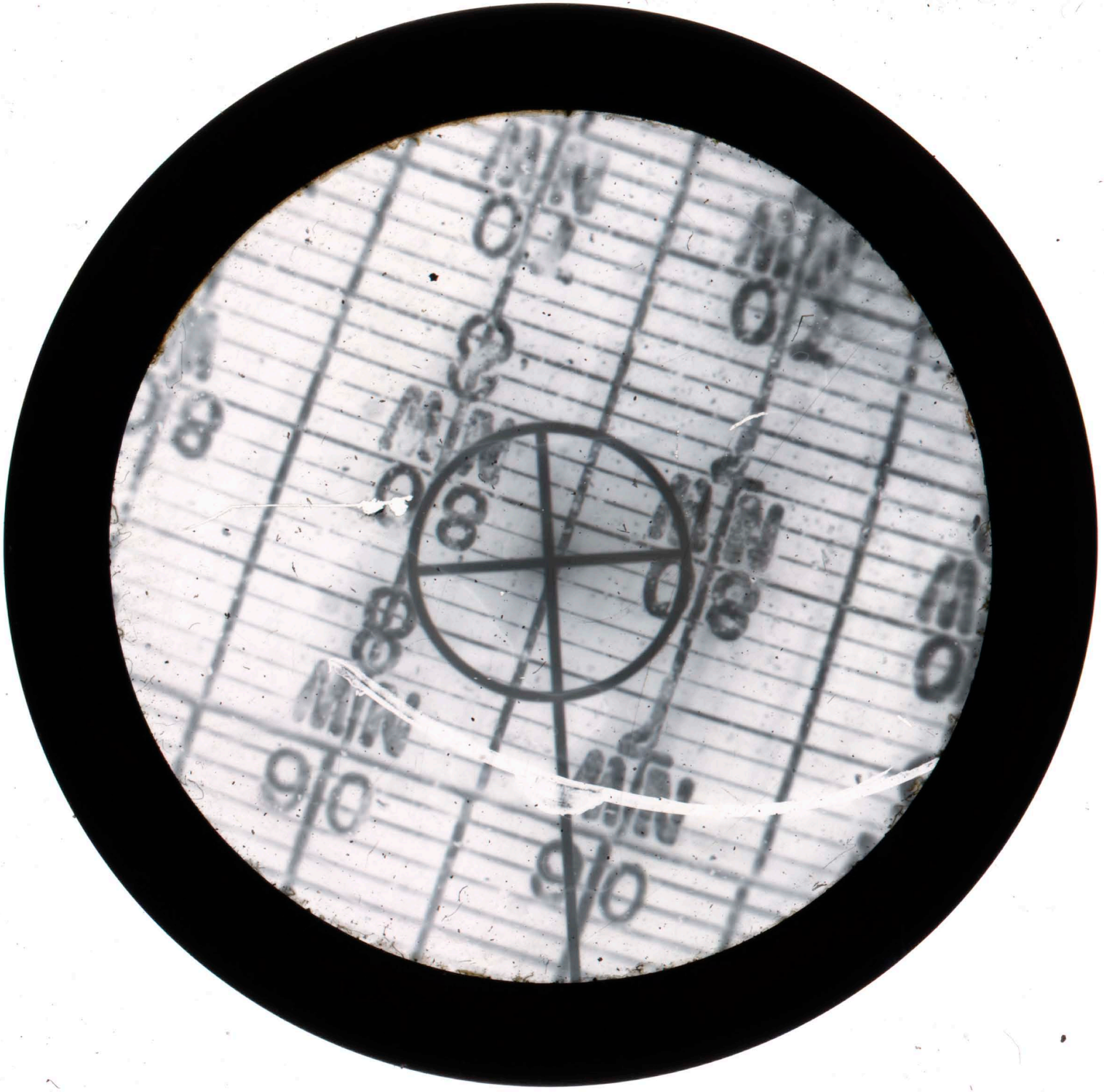

D-180-98 BOX NO 24
DEPTH 219. - 228.
220
225
222.6

240
245
D-180-98 BOX NO 26
DEPTH 238. - 249.

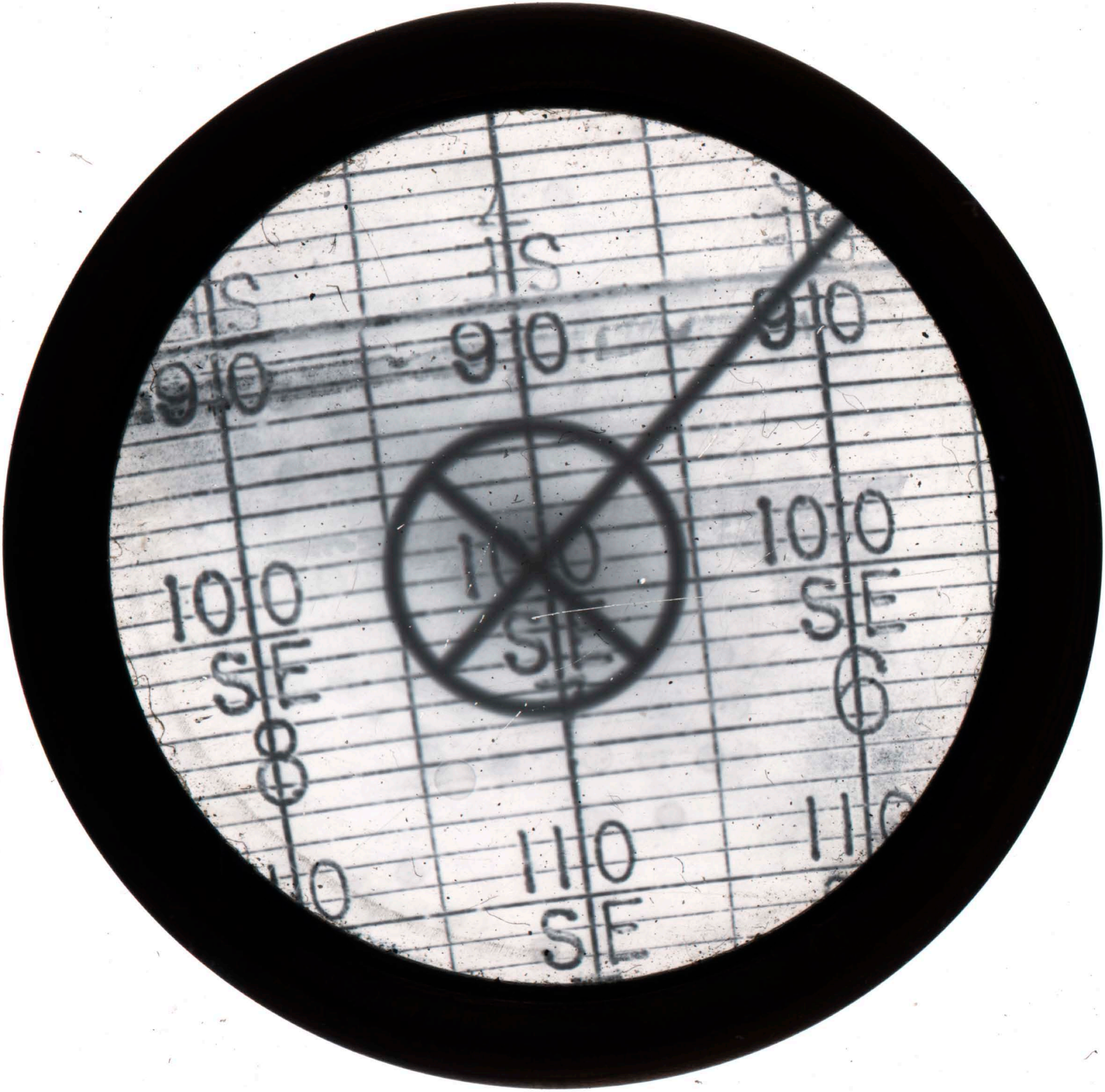
230
235
D-180-98 BOX NO 25
DEPTH 228. - 238.


250
254
255
D-180-98 BOX NO 27
DEPTH 249. - 257.5

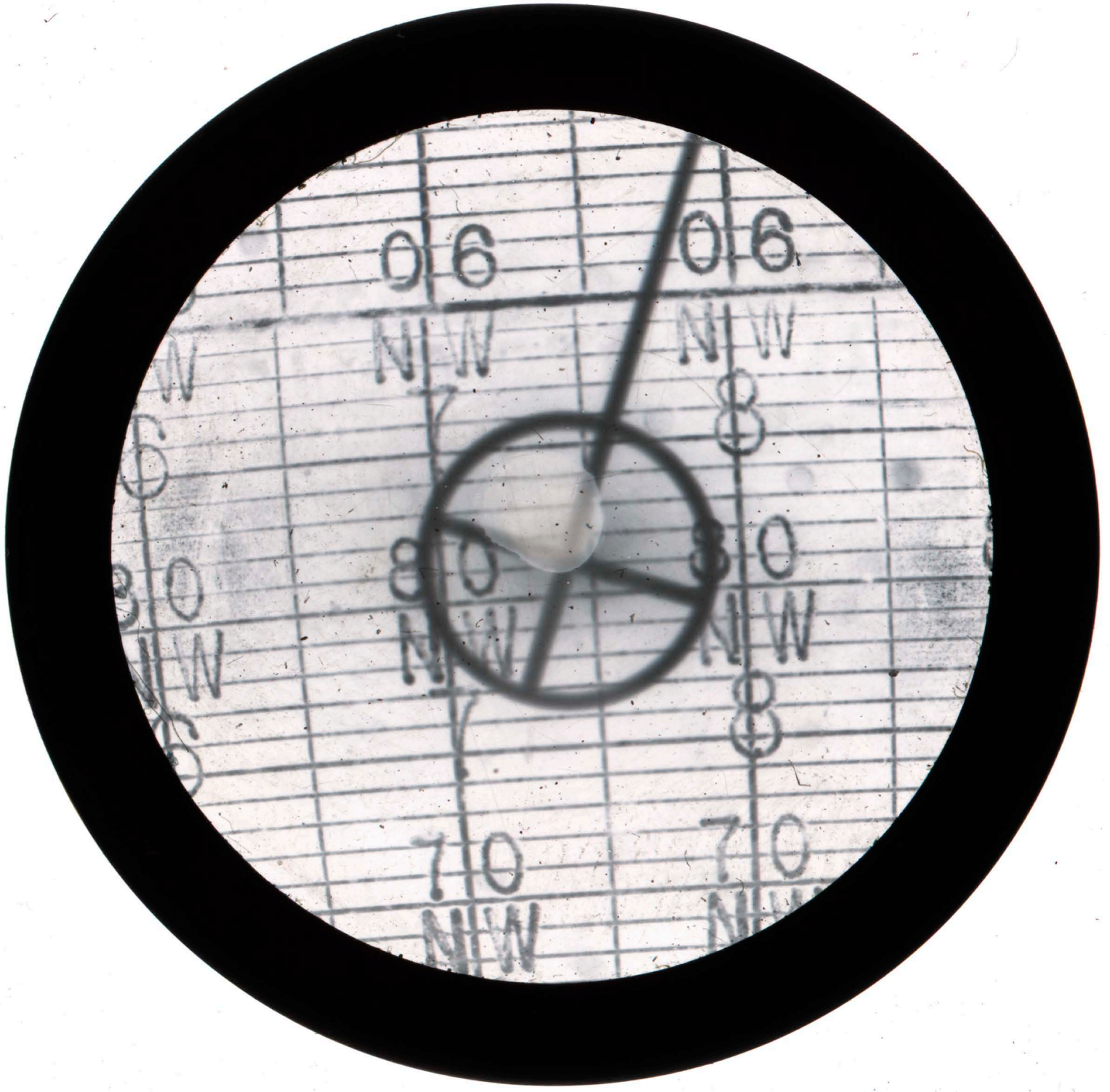
NO. 17-505 HQ DIV.
260 TD
D-5
R-5
D-180-98 BOX NO 28
DEPTH 257.5 - 260.
TD



90
100
110
90
100
110
90
100
110


S
9 0
10 0
S E
8
11 0
S E
6

90
SE
100
SE
110
SE
90
SE
100
SE
110
SE


06
NW
06
NW
80
NW
80
NW
70
NW
70