60001531

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-83-94
AUTHOR	C. Winterer; C. Muerhoff; S. Fairchild
DATE OF DOC(S)	1994
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Hecla Mining Co., South Zone
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 210' handwritten notes 7p.

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 5/29/08
Initials Date
DB: mah
Initials Date
SCANNED: NV Blue
Initials Date

Revised: 1/22/08

D-83-94

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Hecla MINING COMPANY

ROSEBUD PROJECT DIAMOND DRILL LOG

HOLE NUMBER	D-83-94	LOCATION	South Zone	REMARKS	ORIENTATIONS STATED AS
PAGE 1 OF	4	NORTHING	2203996.4		∡ TO CORE AXIS; CORE PHOTO'D;
DATE	10-5-94	EASTING	481822.6		WHOLE CORE ASSAY SAMPLES; COLLAR
LOGGED BY	CB WINETEER	ELEVATION	4654.6		LOC. DDS #19 SSS'E BEARING;
SCALE	1" = 10'	AZIMUTH	124.0°		SECTION 1000N; NQ CORE
TOTAL DEPTH	210'	INCLINATION	+24°		

%REC	RQD	SOLID CORE REC%	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
90	.60 9	.60	0-3' Vitrophere: fine-grained, well-sorted vitroclastic w/ chloritic microphenos; massive-bedded, argillized; chlorite micro stockwork - spheroidal locally. Pale green, moderate hardness.			3' bedded wavy contact @ 70°	0-3' mod. int. arg-T + wk g/m chl-T; chl ± silic on micro frac stkwk; Tr-1% py-T cubic py adj to vn lts; min7 stx 5/ft @ 20' 0.05-0.10" w/ chl + chalc.? f.g. silic + marc ± euh to subhedral sericite?.
95	.53 19	.80	3-5' Airfall tephra: massive to crudely laminated @ 50°, well-sorted, dense pinkish & greenish grey, moderately hard. 5-7.3' Lithic tuff breccia: matrix-supported angular poorly-sorted f.g. tephra fragments in a siliceous f.g. tuffaceous matrix; massive / chaotic bedded. moderately hard; pinkish tan matrix w/ grey (SiO_2 ± f.g. sulf) & white (arg.) tephra clasts.	10		16-17' ill frac-fill in crackle bx @ 30' ⊥ to lam's	3-5' mod. silic + wk alun + chl-T on frac's + Tr py-T w/ loc. int. repl. by py adj. to min stx's; 8/ft 0.05 to 0.15" w/ ferrugenous SiO_2 + pale green sericite + tannished f.g. marc. + $CaCO_3$ @ 10' & 50' stx's w/ op. sp. f.g. Q → ill → marc.
95	.57 29	.75	7.3-30' Wavy-laminated airfall(?) tephra: f. to m.g. moderately well-sorted, slightly porphyritic w/ elongated chlorite & clay altered feldspar microphenocrysts.	20		21-22' chl frac-fill w/in crackle bx conformable w/ lam's	5-7.3' s.a.a. w/ incr. chl + brassy-tannished marc. + strong 1st order RR's w/ silic. core + white bleached arg-sulf-silic rims.
80	.59 39	.68	30-46' Leopard skin texture w/in airfall tephra: intensely argillized-chloritized g/m w/ banded silica-alunite-chlorite-illite clotts / vesicles. Lam. @ 70' ∆ing to 60'	30		29-30' f.g. open space Q + ill frac-fill in clast-supp. crackle bx	7.3-13.5' banded ~~mod.~~ wk. arg-T / wk alun / silic.; chl-T on lam's & frac's; Tr-1% py-T min stx's 8/ft @ 60° par. to lam's & 45° ⊥ to lam w/ chl + op. sp. f.g. Q + ill + tannish brassy to cpy repl. marc w/ polybasite tannish ± Tr ss + spl
94	.58 49	.73	46-49' Wavy-laminated airfall(?) tephra as above 7.3-30'. Conformable w/ leopardskin texture. 49-53.6' siliceous f.g. dense, hard pale to medium green, airfall tephra: thin to medium-bedded, crude wavy-laminated well-sorted, lam. at 60'	40		47-49' chloritic frac's w/ no offset of lam's @ 15', 35' & 50'	13.5-30' strongly banded int. arg-T / mod alun / mod. silic / chl-T; 1-3% py-T on lam's; min stx's @ 20-30' ⊥ to lam & 60-70' par. to lams 0.01-0.15" w/ chl → f.g. Q → ill → py-ohedron to massive py & marc w/ exsolved/adhered ss + ruby Ag intergrown w/ cpy. - vuggy bar-bearing s.a.a. 13-17'
				50			30-46' int. arg-T + wk chl-T of g/m (+ Tr-2% py-T) w/ banded vesicles - clotts of SiO_2 + alun ± chl ± ill ± marc.; min stx's 0-8/ft @ 25' & 60' (par. to lam's) 0.01 to 0.3" w/ chl → Q → ill → py & marc / marc + cpy intergths w/ ss / Ruby Ag / Tr v.g.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0	3	3.0'	<.001	.03		
3	5	2.0'	.035	.07		
5	7.3	2.3	.003	.08		
7.3	13.5	6.2'	.803	.28	.770 (g)	
13.5	18	4.5'	1.208	.86	1.367 (g)	
18	23	5.0'	.080	.19	.084 (g)	
23	29	6.0'	.037	.09		
29	33	4.0'	.323	.25	.65 (g)	
33	37.5	4.5'	.583	1.03	.644 (g)	
37.5	42	4.5'	.044	.17		
42	47	5.0'	.050	.13		
47	49	2.0'	<.001	.02		

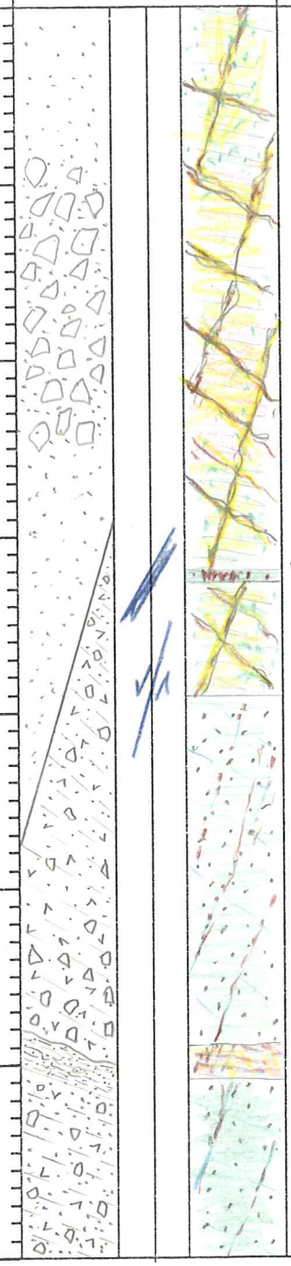
HOLE NUMBER D-83-94 PAGE 2 OF 4

%REC	RQD		LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	54		53.6-55.5' leopard skin texture w/in airfall tephra w/ banded SiO_2 + alun rims & chl core'd vesicles - clotts.				30-46' cont. cpy in part & pyrn ± Tr c.g. bar. [29-37.5' *]
95	.70	.90	55.5-65' Airfall tephra: f.g., well-sorted thin-bedded, dense, hard, siliceous, slightly porphyritic, occ. pumice "bombs". Laminations at 50'				46-49' s.a. 13.5-30' w/ incr. chl-sulf frac's.
	60			60			49-65' wk silic + v. wk alun + banded g/m sev-T ± chl-T on frac's & bdd planes Tr py-T + wk arg-T; except 53.6-55.5' w/ leopard skin texture banded silic/alun/chl clotts in wk arg-T g/m min stx's 2-5/ft 0.05" w/ f.g. Q + $CaCO_3$ + ill + marc,
	65		65-78' Wavy-laminated airfall tephra w/ intermittant leopard skin texture. Laminations at 40'				
75	.17	.50					
	70			70			65-79' banded downward incr. arg-T + chl-T + alun-silic. into leopard skin texture; Tr py-T; min stx's 4-10/ft 0.05-0.3" chl → Q, ill + minor py & marc at 15' & 35-40'
90	.67	.70	78-98' Airfall tephra: fine-grained w/ 0.2 to 0.5cm "bombs" of rounded devitrified pumice, massive to crude planar-wavy lamination.				
	80			80			79-159' wk to mod. silic + wk to mod arg-T + wk py-T + mod. speckled chl-T + wk alun in bx zones; min stx's 2-6/ft @ 30' & 10' 0.01 to 0.25" w/ minor f.g. op. space Q + major ill + minor py & marc commonly py-ohedron ± Tr spl.
90	.51	.75	80-90' CORE COMPLETELY OUT OF ORDER SPENT 20 MIN. PIECING BACK IN CORRECT ORDER.				
	90			90			
93	.84	.90	98-159' Airfall tephra, vitropheric tephra & homolithic tephra lithic tuff breccia.				
	100			100			
94	.79	.90					
	110			110			
95	.81	.90					
	120			120			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
49	53.6	4.6'	<.001	<.02		
53.6	55.5	1.9'	<.001	<.02		
55.5	60	4.5'	.001	.02		
60	65	5.0'	.002	<.02		
65	70		.002	.04		
70	75		.017	.10	.014	
75	80		.018	.08		
80	85		.006	.08		
85	90		.002	.02		
90	95		.005	.06		
95	100		.004	.06		
100	105		.003	.06		
105	110		.004	.06		
110	115		.006	.07		
115	120		.003	.05		

HOLE NUMBER D-83-94 PAGE 3 OF 4

%REC	RQD		LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
98	.79 130	95		130			
91	.57 140	83		140			
99	.59 150	88		150			
96	.79 160	80	No! CBW OR TOS "Bud Like" Epiclastic & ash-flow-tuff 159-210' BUD TUFF: 159-179' Lithic-lapilli-crystal fragment flow-laminated tuff, flow-lamination at 50°, pumice lapilli w/ 5:1 to 10:1 flattening ratios; trace to 5% white clay altered subhed. feldspar, 2 to 5% subrounded lithic fragments incr. ↑. reverse-graded 179-181' Fine-grained, well-sorted, planar & contorted-laminated (flow-shear) waterlain tuff. Conformable lower contact (179'), upper contact unknown (smoothed end). Flow-lam @ 70°	160		152' chloritic fault bx on 30° stx w/ angular silic frags in green clay gouge (152-152.7'	
97	.66 170	00 friable		170		159' sharp slick contact @ 15°-sericite slick	159-210' silic limited to lithic fragments; arg-T limited to feldspar crystal fragments & select lithic fragments; ND. alun; Tr to 1% py-T; min stx's 0-4/ft @ 50-70° par. w/lam & 25° ⊥ to lam's 0.02-0.08' w/ $CaCO_3$ + py; mod to mod. intense chl-T of g/m & select lithic frags. 179-181' banded arg-T, silic ± alun; and FeOx stn. $CaCO_3$ + cubic & bladed sulf mrcro hairline stkwk + 3% py-T.
93	.56 180		181-210' lithic-lapilli-crystal fragment-rich ash flow tuff w/ minor interbedded thin-units of epiclastic reworked (clast-supported) tuff. Flow-lamination at 65-70°	180			
97	.78 190			190			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
120	125	5.0'	.004	.07		
125	130		.002	.05		
130	135		.005	.07		
135	140		.020	.09	.013	
140	145		.002	.07		
145	150		<.001	<.02		
150	155		.005	.05		
155	159	4.0	.001	.02		
159	165	6.0'	<.001	<.02		
165	170	5.0'	<.001	<.02		
170	175	5.0'	.004	.02		
175	179	4.0'	<.001	<.02		
179	181	2.0'	<.001	.03		
181	185	4.0'	<.001	<.02		
185	190	5.0'	<.001	.02		

HOLE NUMBER D-83-94 PAGE 4 OF 4

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
97	.88	00 friable	200			
98	.81		210			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
190	195	5.0'	.003	.06		
195	200	5.0'	.001	.02		
200	205	5.0'	<.001	<.02		
205	210	5.0'	<.001	.03		

ANALYSIS REPORT

American Assay Laboratories Inc.

P.O. BOX 71060
RENO, NV,,U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF

:

:

:

CLIENT REFERENCE No: D-83-94

LABORATORY JOB No. : SP031230

SAMPLE TYPE :

RECEIVED : 10 OCT 1994

REPORTED : 24 OCT 1994

No. SAMPLES : 46

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-83-94
JOB NUMBER : SP031230
REPORTED : 24 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-83-94 0-3	<0.001			0.03
D-83-94 3-5	0.035			0.07
D-83-94 5-7.3	0.003			0.08
D-83-94 7.3-13.5	0.803		0.770	0.28
D-83-94 13.5-18	1.208		1.367	0.86
D-83-94 18-23	0.080		0.084	0.19
D-83-94 23-29	0.037			0.09
D-83-94 29-33	0.323		0.651	0.25
D-83-94 33-37.5	0.583		0.644	1.03
D-83-94 37.5-42	0.044			0.17
D-83-94 42-47	0.050			0.13
D-83-94 47-49	<0.001			0.02
D-83-94 49-53.6	<0.001			<0.02
D-83-94 53.6-55.5	<0.001			<0.02
D-83-94 55.5-60	0.001			0.02
D-83-94 60-65	0.002			<0.02
D-83-94 65-70	0.002			0.04
D-83-94 70-75	0.017	0.014		0.10
D-83-94 75-80	0.018			0.08
D-83-94 80-85	0.006			0.08
D-83-94 85-90	0.002			0.02
D-83-94 90-95	0.005			0.06
D-83-94 95-100	0.004			0.06
D-83-94 100-105	0.003			0.06
D-83-94 105-110	0.004			0.06

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories Inc.

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-83-94
JOB NUMBER : SP031230
REPORTED : 24 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-83-94 110-115	0.006			0.07
D-83-94 115-120	0.003			0.05
D-83-94 120-125	0.004			0.07
D-83-94 125-130	0.002			0.05
D-83-94 130-135	0.005			0.07
D-83-94 135-140	0.020	0.013		0.09
D-83-94 140-145	0.002			0.07
D-83-94 145-150	<0.001			<0.02
D-83-94 150-155	0.005			0.05
D-83-94 155-159	0.001			0.02
D-83-94 159-165	<0.001			<0.02
D-83-94 165-170	<0.001			<0.02
D-83-94 170-175	0.004			0.02
D-83-94 175-179	<0.001			<0.02
D-83-94 179-181	<0.001			0.03
D-83-94 181-185	<0.001			<0.02
D-83-94 185-190	<0.001			0.02
D-83-94 190-195	0.003			0.06
D-83-94 195-200	0.001			0.02
D-83-94 200-205	<0.001			<0.02
D-83-94 205-210	<0.001			0.03