60001519

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-69-94
AUTHOR	C. Winteer; C. Muerhoff; S. Fairclotb
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 148' handwritten notes 7 p.

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: MAG
Initials Date
SCANNED: NV Blue
Initials Date

Revised: 1/22/08

D-69-94

60001519 40KD ✓

C0001519

Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-69-94	LOCATION	South Zone	REMARKS	DDS #16 ; SECTION 850N ;
PAGE 1 OF 3		NORTHING	220388.6		NDBGM CORF
DATE	10-26-94	EASTING	481730.8		
LOGGED BY	CBWINETEER	ELEVATION	4662.6		
SCALE	1"=10'	AZIMUTH	188.5°		
TOTAL DEPTH	148'	INCLINATION	+90°		

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		0-14.6' Lithic tuff breccia: matrix-supported chaotic & flow-laminated, poorly-sorted, angular, rounded and elongated fine-grained tuff of mixed lithologies (heterolithic) locally displaying internal flow-lamination in a pale pinkish tan siliceous groundmass.			Ba	0-14.6' mod. silic + mod int. alun + mod arg-T of g/m & int. arg-T of clasts + 2-6% f.g. cubic py-T: clasts are pref. py-T/arg-T/or silic: min stx's 3-6/ft @ 20°, 40° & ⊥ 60° 0.05-1.0" w/ Q → ill → carbon-coated py & marc → bar + acc. sp/.
90	.70		10			
100	.87	14.6-24.5' silicified, heterolithic tuff breccia: clast-supported angular fragments of mixed lithology tuff in a silica-sericitic-pyritic groundmass.		43°	14.5-14.7' silicified bx contact at 43°	14.6-24.5' strongly banded arg-T & silic (mod int.) SiO_2 matrix + 3-5% f.g. cubic py-T + mod. alun (clasts) + patchy clotts of relic ser-T: min stx's fragmented s.a.a. w/out bar & decr. carbon-coating
			20			
97	.79	24.5-27.5' Silicified crackle breccia w/in heterolithic, clast-supported lithic tuff breccia. Fracture-fill consisting of silica-sericite-FeOx.		53°	24.5' fault contact w/ sericite slicks @ 53°	
		27.5-35.2' Clast-supported, heterolithic tuff breccia: angular to sub-rounded fine-grained tuff fragments in a clayey-siliceous-pyritic matrix.	30		27.5' gradational contact	24.5-35.2' mod decr. ↓ to wk silic + mod to wkly mod. alun + 2-loc. 7% f.g. cubic py-T + wk to mod. arg-T: 1ST order RR's: min stx's 4-9/ft 0.05-0.10" @ 30° & 60° w/ ser → f.g. xln Q → $CaCO_3$ → marc + py & marc.
97	.78			70° 50°	35.2' fault contact w/ 50° & 70° slicks w/ internal bx & $CaCO_3$ unit.	
		35.2-74.3' Coarse-grained, clast-supported, heterolithic, poorly-sorted tuff breccia: angular fine-grained mixed lithology ash to block size (> core diam.) tuff fragments in ferruginous fine-grained matrix (FeOx Δing + sericite). FAULT BRECCIA	40		43-46.5' arcuate slicks & rubbly bx on 50° & 20° stxs	35.2-46.5' wk silic + wk-mod. arg-T + wk ser-T (in clasts + patchy irreg. clotts of relic chl-T + tr py + wk to mod int. $CaCO_3$ fld (pref. in clasts) + wk to int. dark reddish brown FeOx stain. Min stx's micro stk wk $CaCO_3$
100	.73		50			

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0	5	5.0'	.010	.14		
5	10	5.0'	.009	.14		
10	14.6	4.6	.007	.12		
14.6	20	5.4'	.006	.13		
20	24.5	4.5'	.014	.08		
24.5	30	5.5'	.013	.13		
30	35.2	5.2'	.004	.06		
35.2	40	4.8'	<.001	<.02		
40	46.5	6.5'	<.001	<.02		
46.5	50	3.5'	<.001	<.02		

HOLE NUMBER D-69-94 PAGE 2 OF 3

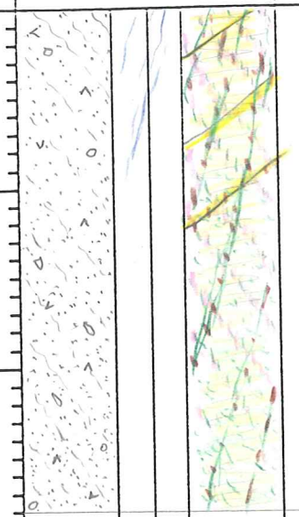
REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
100	.68		60		51–53.5' clayey slicks (ser) @65'	46.5–74.3 clasts w/wk to mod. silic & alun + tr–1% cubic py-T + wk to mod. arg-T; g/m sericite slicks w/ $CaCO_3$ + sheared bladed-tarnished sulf ± dimorph py. min stx's discont 30' py-ill-$CaCO_3$
100	.39		70	40'	54–74.3' ser slicks – stkwk @ 30' & 60' → fault bx w/ser. matrix & rounded to angular more silic-alunitic clasts.	
100	.58	74.3–84' Vitrophere: very fine-grained, vitroclastic groundmass, strong angillization w/ stockwork chloritization – w/ pronounced spheroidal texture. Basal vitrophere to airfall tephra/tuff.	80	55' Ba	74.3' sharp (depositional ?) contact @55° w/ small normal offset on ⊥ 40' SiO_2-ill-py & marc-bar unit.	74.3–84' wk silic + mod to int. arg-T + chl micro hairline stkwk + 1-3% f. to m. g. bladed py-T: min stx's 4-8/ft @ 50' & 31' w/ 0.01–0.15" chl → f.g. xln Q → tr ill → py & marc w/ partly carbon-coated surfs ± med. g. yellowish euhedral bar. ± tr v.v.f. exsolved V.G.
100	.60	84–148' Fine to medium-grained, moderate to well-sorted, wavy-laminated w/ local speckled, spotted and leopard skin alteration texture developed. Flow-lamination at 40-60', becoming more massive-bedded upward. Isolated (floating) 0.1–0.3" rounded lithic or devitrified pumice fragments. – Airfall tephra/tuff.	90	30'	84' Undulating depositional contact @ ~30° w/ normal displ. offset by 20' chl-ill-py unit.	84–109' mod to loc int. silic + mod to int. arg (lam'd) + wk to mod. lam'd alun + tr – 1% py-T + speckled chl/alun/silica; min stx's 5-10/ft @ 15'–30'; 50-60' & parallel to lam's 0.01–0.2" w/ ill + f. to m.g. marc rosets / or Q → py + py & marc + marc + acc. spl. → + strong chl & brassy py below 100'
90	.30 97.5		20'	60'	95–109' bx units on 15' stx's w/ Q-ill Δ + to chl-Q Δ + to Q-ill-chl.	
92	.41 102.5		100	40'		
94	.57 112.5		110		109–128' narrow chloritic frac's – micro bx @ 15'	109–148' mod. silic + wk arg-T + mod ser-T + chl-T + speckled alun/silic/chl-T + tr py-T; min stx's 5-10/ft decr. + 0.001–0.1" w/ dark green chl → ± chalc. SiO_2 + high @ 15' & 50' → yellow py → w/ Q + ill + py & marc.
	117.5					
98	.83		120			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
50	55	5.0'	<.001	<.02		
55	60	5.0'	<.001	.02		
60	65	5.0'	<.001	<.02		
65	70	5.0'	<.001	.02		
70	74.3	4.3	.006	.05		
74.3	79	4.7'	.103	.18	.102 (g)	
79	84	5.0'	.002	.05		
84	89	5.0'	.127	.10	.238 (g)	
89	94	5.0'	.029	.12		
94	99	5.0'	.051	.19	.039 (g)	
99	104	5.0'	.060	.85	.060 (g)	
104	109	5.0'	.011	.05		
109	114	5.0'	.001	.06		
114	119	5.0'	.004	.04		

HOLE NUMBER D-69-94 PAGE 3 OF 3

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	122.5					
	128					
95	.65		130			
98	.91		140			
98	.80		148			
		END OF HOLE @ 148'				



ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
119	124	5.0'	.005	.06		
124	129	5.0'	.009	.09		
129	134	5.0'	.007	.06		
134	139	5.0'	.015	.07		
139	144	5.0'	.001	.03		
144	148	4.0'	<.001	.02		

SAMPLE SUBMITTAL FORM

American Assay Laboratories Inc.

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 71060
Reno, NV. 89570
Telephone
(702) 356-0606
Fax
(702) 356-1413

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

Company: HECLA MINING CO.

Address:

Telephone Number: ( ) Fax Number: ( )

Project Name: ROSEBUD Purchase Order Number:

Transport Company: Waybill Number:

Date Shipped: Number of Packages: 30 [ ] Prepaid [ ] Collect

ANALYSIS REQUIRED 10-26-94

D-69-94	SAMPLE	TYPE	ELEMENTS REQUIRED
0-5	74.3-79	CORE	2 AT FIRE ASSAY Au & Ag
5-10	79-84		w/ HECLA ROSEBUD
10-14.6	84-89		CUSTOM PREP
14.6-20	89-94		
20-24.5	94-99		
24.5-30	99-104		* GRAV FINISH ON ALL
30-35.2	104-109		
35.2-40	109-114		Au ≥ 0.05 opt
40-46.5	114-119		
46.5-50	119-124		
50-55	124-129		
55-60	129-134		
60-65	134-139		
65-70	139-144		
70-74.3	144-148		

COARSE REJECTS (Normally Discarded)

[ ] Return COD after analysis complete
[X] By prior arrangements

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month
[X] By prior arrangements

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Charlie Muerhoff

(2)

(3)

Comments:

CLIENT FILE COPY

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-69-94
JOB NUMBER : SP031528
REPORTED : 11 NOV 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-69-94 124-129	0.009			0.09
D-69-94 129-134	0.007			0.06
D-69-94 134-139	0.015			0.07
D-69-94 139-144	0.001			0.03
D-69-94 144-148	<0.001			0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-69-94
JOB NUMBER : SP031528
REPORTED : 11 NOV 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-69-94 00-05	0.010			0.14
D-69-94 05-10	0.009			0.14
D-69-94 10-14.6	0.007			0.12
D-69-94 14.6-20	0.006			0.13
D-69-94 20-24.5	0.014			0.08
D-69-94 24.5-30	0.013			0.13
D-69-94 30-35.2	0.004			0.06
D-69-94 35.2-40	<0.001			<0.02
D-69-94 40-46.5	<0.001			<0.02
D-69-94 46.5-50	<0.001			<0.02
D-69-94 50-55	<0.001			<0.02
D-69-94 55-60	<0.001			0.02
D-69-94 60-65	<0.001			<0.02
D-69-94 65-70	<0.001			0.02
D-69-94 70-74.3	0.006			0.05
D-69-94 74.3-79	0.103		0.102	0.18
D-69-94 79-84	0.002			0.05
D-69-94 84-89	0.127		0.238	0.10
D-69-94 89-94	0.029			0.12
D-69-94 94-99	0.051		0.039	0.19
D-69-94 99-104	0.060		0.060	0.85
D-69-94 104-109	0.011			0.05
D-69-94 109-114	0.001			0.06
D-69-94 114-119	0.004			0.04
D-69-94 119-124	0.005			0.06

ANALYSIS REPORT

American Assay Laboratories

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-69-94

LABORATORY JOB No. : SP031528

SAMPLE TYPE :

RECEIVED : 7 NOV 1994

REPORTED : 11 NOV 1994

No. SAMPLES : 30

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

OK to pay
140140-477
CA

SIGNATORY : Sue Faircloth M.S.