60001573

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-125-95
AUTHOR	C. Muerhoff; S. King
DATE OF DOC(S)	1995
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 101' handwritten notes 4p.

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-125-95

SOUTH ZONE / 725 N

6000 1573 4010

- [ ] quartz, chalcedony, silicification
- [ ] faults, fractures, joints
- [ ] FeO_X
- [ ] sulfide
- [ ] calcite, carbonate
- [ ] argillization, white clays
- [ ] propylitization
- [ ] potassic alteration
- [ ] chlorite, chloritic clays

Hecla MINING COMPANY

ROSEBUD PROJECT DIAMOND DRILL LOG

L0001873

HOLE NUMBER	D-125-95	LOCATION	South Zone / 725N	REMARKS	
PAGE 1 OF	2	NORTHING	2,203,779.683	Drilled from decline @ station 13½	
DATE	10/31/95	EASTING	481,652.133	NW Drilling - Hagby On-Ram 1000	
LOGGED BY	C. Muerhoff	ELEVATION	4660.204	NDBGM Core (2.2" diameter)	
SCALE	1" = 10'	AZIMUTH	Collar: 121.5° (S58.5° E)	50': 122.5° (S57.5°E)	100': 122.5°(S57E)
TOTAL DEPTH	101'	INCLINATION	Collar: -56°	50': -56°	100': -56°

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		0'-101' LBT 0'-5.8' Mildy convoluted, vfg, thinly to thickly laminated ash tuff. Flow banding/bedding orientation to core axis changes rapidly (& conformably) over v. short length. Banding is identifiable due to preferential K-alteration & propylitization. Contains a few tan, sub-rounded vfg fragments which have been incorporated into ash flow (i.e., disturts flow banding) - small bombs? 5.8'-23.9' Clast-supported volcanic breccia - conformable, gradational contact with preceeding unit. First few feet display subtle flow banding of groundmass & alignment of breccia clasts @ ±20° to c.a. Heterolithic w/ 2 clast lithologies: small (≤ ½") sub-angular, bleached vfg ash frags >> sub-rounded to locally sub-angular, large (≤ core diameter) flow banded/thinly laminated ash flow fragments (mildly K-altered to propylitized). Light grey fg to locally fragmental groundmass. 24.9'-101.0' Very fine-grained ash tuff with extremely subtle flow banding/foliation - distinguishable in most places by slight variations of alteration. Foliation/flow banding @ ±40° to c.a. for first 20', then rapidly & conformably changes to 60° to c.a. to end of hole. Generally light grey in color with preferential propylitization &/or argillization or K-alt of individual "beds". Local variations described below: ~37'-50' Flow banding becomes very prominent (40° to ca) & convoluted w/ large elongated blocks of pyritic, argillized vfg ash incorporated into flow	10 20 30 40 50	60' 50' 30' 0'	0'-5.8' Laminated ash displays bedding plane fractures (regardless of bedding orientation) w/ minor grey &/or green waxy clay ± occassional med-gr. "flattened" pyrite blebs. 5.8'-23.9' Groundmass & clasts display faint FeO_x staining to 10' downhole. Entire interval is cut by thin calcite+pyrite ± grey clay stringers, generally @ 30°-50° to c.a. Also occassional zone of calcite replacing groundmass 24.9' slicked, planar slip @ 50° to c.a. separating breccia from underlying laminated unit with v. minor slicks @ 60° in white "gooey" clay & light green waxy clay. Don't believe there is much offset as it appears breccia was beginning to grade into laminated unit. 24.9'-50' One distinct fracture/joint set @ 70° to c.a. w/ green waxy clay & white clay & pyrite. (~2/ft). 39.8' 2" fault breccia w/ rock frags cemented by weakly siliceous grey clay. ±50° to c.a. offset appears v. minor.	0'-5.8' Interval is cut by thin (≤ ⅛") black (pyritic?) clay ± minor calcite stringers along bedding planes & ±10° to c.a. 5.8'-23.9' Occassional fractures (~1/2 ft.) @ 50° to c.a. w/ minor light green waxy clay ± pyrite. Slicks @ 60° to c.a., but appears to v. little to no offset. A little chalcopyrite on fracture surfaces? 20.5' 2" massive-textured calcite vein @ 50° to c.a. w/ v. minor fg pyrite along selvages 24.9'-40'(±) dark pyritic stringers @ ±25° to c.a. (7-10/ft.) cut by occassional calcite+clay ± pyrite veinlets @ 40° to c.a. ~40'-90' Strong, dense stockwork of pyrite ± calcite ± chlorite along "bedding" planes, 40° to c.a. & very random. Cross-cut by randomly oriented stringers of light green clay ± chlorite ± pyrite

ANALYTICAL DATA (opt)

FROM	TO	W	Au	Ag	Au2	Ag2
0'	5.8'	5.8'	0.001	<0.02		
5.8'	10'	4.2'	0.001	0.02	0.001	
10'	15'	5'	0.003	0.03		
15'	20'	5'	0.001	0.03		
20'	24.9'	4.9'	0.001	0.03		
24.9'	30'	5.1'	0.001	0.03		
30'	35'	5'	0.001	0.03		
35'	39.8'	4.8'	0.002	0.05		
39.8'	45'	5.2'	0.002	0.08		
45'	51'	6'	0.040	0.15		

HOLE NUMBER D-125-95 PAGE 2 OF 2

REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		~49'-51' As flow banding/bedding grades back into a more subtle, planar character - includes "beds" of med-grain, strongly argillized ash. -past 51'(±), unit is vfg; light tan to light grey in color, with minor zone of propylitization (generally bleeding into ash tuff outward from chlorite stringers).	60 70		50'~90' Fracture set @ ± 50° to c.a. is joined by another set @ ±30° to c.a. w/ light green waxy clay w/ slicks @ ±50°. (±1/3 ft.) 57.0' Fault @ 65° to c.a. w/ ±2" pyritic, grey clay rock flour & clay gouge. -past 60' to ± 80', both fracture joint sets have chlorite ± pyrite ± calcite ± white clay on surfaces.	minor brecciation; healed with calcite + grey clay ± chalcedony ± pyrite to ~60°. -past 60' stringers become thicker (up to 1/4") & contain white clay & masses of pyrite "clots." Dominant orientation changes to 20°, but stringers @ 40° & random continue.
		~78' - 96'(±) bedding / flow banding cannot be distinguished except for bedding plane mineralization - extremely subtle (60° to c.a.).	80			
		@ 89', healed fault? grey clay, irregular @ 10° to c.a. with short interval of tectonic brecciation. Doesn't seem to have much offset.	90		90'-101.' lose fractures @ 50° & 30° to c.a. One dominant set @ ± 20° to c.a. with "clean" smooth surfaces. (Joint set).	-past 96', abrupt cessation of mineralization with only minor chloritic stringers @ ± 40° to c.a. & irregular, randomly oriented calcite veinlets.
		~96'-101' does flow banded / foliated unit grade into massive, vfg ash tuff? As mineralization & associated alteration wanes, cannot distinguish bedding characteristics. Light green in color (natural color - doesn't appear to be propylitized)	100	T.D. 101'		

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
51'	57'	6'	0.008	0.09		
57'	62'	5'	0.014	0.09		
62'	67'	5'	0.064	0.23		
67'	72'	5'	0.011	0.10		
72'	77'	5'	0.012	0.09		
77'	83'	6'	0.011	0.10		
83'	89'	6'	0.011	0.16		
89'	90.7'	1.7'	0.073	0.77		
90.7'	96'	5.3'	0.012	0.49		
96'	101'	5'	<0.001	<0.02		

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP036349

American Assay Laboratories

P.O. BOX 11530
RENO, NV,,USA
Ph.1-702-356-0606, Fax.1-702-356-1413

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: D-125-95 RECEIVED : 6 NOV 1995

No. SAMPLES : 20 REPORTED : 16 NOV 1995

MAIN SAMPLE TYPE : DRILL CORE

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

SIGNATORY : Sue King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP036349

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-125-95

REPORTED : 16 NOV 1995

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
D-125-95 0-5.8	0.001		<0.02
D-125-95 5.8-10	0.001	0.001	0.02
D-125-95 10-15	0.003		0.03
D-125-95 15-20	0.001		0.03
D-125-95 20-24.9	0.001		0.03
D-125-95 24.9-30	0.001		0.03
D-125-95 30-35	0.001		0.03
D-125-95 35-39.8	0.002		0.05
D-125-95 39.8-45	0.002		0.08
D-125-95 45-51	0.040		0.15
D-125-95 51-57	0.008		0.09
D-125-95 57-62	0.014		0.09
D-125-95 62-67	0.064		0.23
D-125-95 67-72	0.011		0.10
D-125-95 72-77	0.012		0.09
D-125-95 77-83	0.011		0.10
D-125-95 83-89	0.011		0.16
D-125-95 89-90.7	0.073		0.77
D-125-95 90.7-96	0.012		0.49
D-125-95 96-101	<0.001		<0.02