6000 0850

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-48-94
AUTHOR	C. Winetee; 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; Hecla Mining Co; Rosebud Project South Zone
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; total depth 127'; receipt; handwritten notes 8p.

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 5/1/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D-48-94

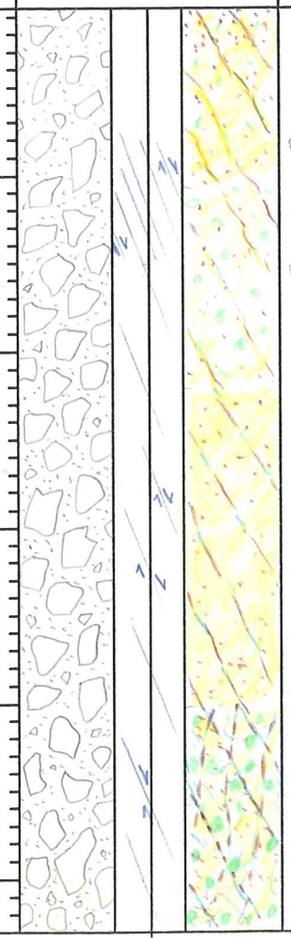
6000 0850
4010

6000 0850

Hecla
MINING COMPANY

ROSEBUD PROJECT
DIAMOND DRILL LOG

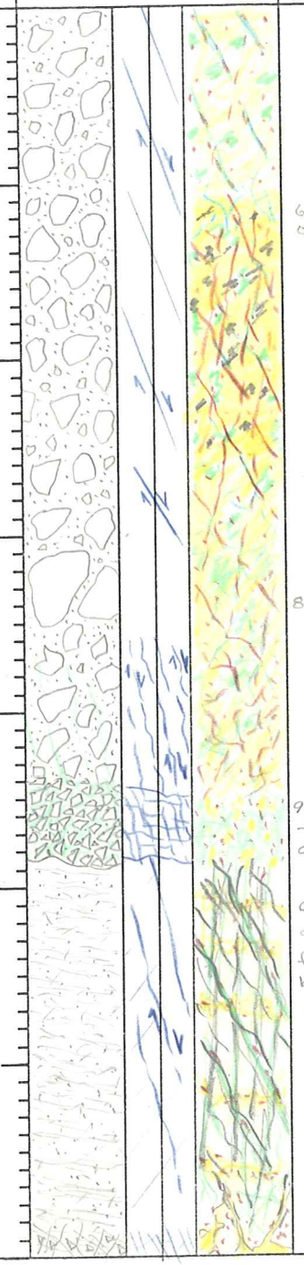
HOLE NUMBER	D-48-94	LOCATION	South Zone	REMARKS	ORIENTATIONS STATED AS
PAGE 1 OF	3	NORTHING	2,203,748.3		∡ TO CORE AXIS; CORE PHOTO'D; WHOLE
DATE	9-15-94	EASTING	481,648.4		CORE ASSAY SAMPLES; COLLAR LOC.
LOGGED BY	CBWINETEER	ELEVATION	4678.4		DRILL STA. 13; SECTION 700N; NQ
SCALE	1"=10'	AZIMUTH	132.5°		CORE
TOTAL DEPTH	127'	INCLINATION	+46°		

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0	94	Lithic tuff breccia; poorly-sorted w/ clasts ranging from ash to block (> core diam.); matrix supported; choatic-bedded; heterolithic; fine-grained siliceous-tuffaceous groundmass w/ largely planar-laminated fine-grained tephra/tuff clasts ∡ 60'; incr. in vitroclastic-spheroidal clasts & polylithic clasts from 60 ∡ 78'. ✳ CST-9 42-42.45'	10 20 30 40 50		0-11 pink matrix 8-15' post-sulf slicks @ 20' 2-3/ft. 15-78' occ. post-sulf slick @ 20' ∠ 0.5/ft.	0-11' mod to mod intense silic of g/m.; mod. arg + mod chl. of clasts w/ 2nd order RR's + 3' & 1ST order RR + 11'; mod. py-T 3-5% + 3' & 1-4% + 11' Miny. frac's 2-3/ft @ 5; 20; 40' hairline py after marc + minor Q ± Tr ill.; pref. py-T of bx clasts 11-22' S.A.A. w/ decr. silic of g/m decr. py-T, arg.; 1ST order RR's, minor frac-fill; 11-15 pale grn clay gouge on irreg. 5' frac's + marc. (SAME) 22-40' mod intense to intensely silic. g/m w/ strong 1ST order RR (clay rim & silic.-chl core) or intensely silic. clasts; mod py-T 1-4%; 4-6/ft. miny. frac fill of marc-py + $CaCO_3$ @ 20' & 15' 40-60' mod intense silic pinkish brown g/m w/ sage green & pinkish brown banded clasts; pref. py-T of clasts w/ strong 1ST & 2nd order RR's; wk micro hairline $CaCO_3$ stkwk flooding; 2-4/ft. 0.05"-0.5" $CaCO_3$ + py + py ∡ marc ± cpy ± V.E. ± V.G. ± Native Ag; py-T 1-3%

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0	3	3.0'	.008	.90		
3	11	8.0'	.002	.12		
11	16	5.0'	.002	.03		
16	22	6.0'	.002	.02		
22	28	6.0'	.003	.06		
28	34	6.0'	.034	.14		
34	40	6.0'	.012	.17		
* 40	42	2.0'	.187	.33		
42	47	5.0'	.012	.09		
47	52	5.0'	.013	.10		

HOLE NUMBER D-48-94 PAGE 2 OF 3

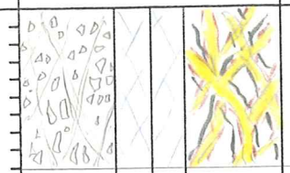
%REC	RQD	LITHOLOGY	FT	STRUCTURE	ALTERATION AND MINERALIZATION
		-82-84' >> core diam. clasts of vitrophyric airfall tephra	60, 70, 80	61.5 reddish brown ferrogenous $CaCO_3$ str stkwk irreg.	60-96' brown w/ pink tint mod. intense silic g/m.; mod. arg/chl-T + py-T clasts & mod to intensely silic + py-T light to dark brown clasts; py-T wk to mod (1-4% loc.); loc. mod. arg. frags; min'l. frac's 3-10/ft @ 5' & 30' stkwk of discont. tear or dilulation w/ $CaCO_3$ + py + py ft more.
				86-98.5' pale green clay gouge slicks - irreg. @ 5-15' incr. density to stkwk +	
94	98.5'	Crackle breccia Δ ing + to fault breccia w/in fine-grained, vitroclastic tephra/tuff. Clast-supported angular frags in med to dk grn chl. matrix	90, 100	96-98.5' clast-supported fault bx. 98.5 Irreg. contact @ 85°	96-98.5' silic. loc. of bx frag's in chl-clay gouge matrix
98.5	118.5'	Fine-grained tephra/tuff. Planar and wavy laminated, well-sorted, fine to medium grained, slightly porphyritic w/ chlorite & pyrite replacement of ferromag min'l's; spherical angillized clotts - bedded in pinkish silicified g/m - airfall tephra approaching acer. lap.		crude wavy-lam (@ 70-80' 98.5 - 118.5' vn bx's on frac's @ 10' & 40-35' - healed by $CaCO_3$ - chl - py in part.) 10's post-dike 35-40'	98.5 - 118.5' wk to mod. silic. w/ loc. patches, clotts + bands of mod intense silic.; mod. arg-T + chl-T.; diss. py-T wk (Tr - 1%); densely frac'd 10-30/ft w/ frac-fill consisting of: dk grn chl + $CaCO_3$ + py + spl marc + ill @ 20', 70-80', 5'; 20' stk w/ open-space f.g. Q → $CaCO_3$ → ill w/ py + polybasite ± cpy ± spl + 118.5 pos. mineralized.
118.5	129'	* CST-10 115-115.4' ← SAMPLE BROKEN BY SAMPLER - NO 3.5" SEGMENTS LEFT. Hydrothermally silicified tectonic breccia, w/in banded airfall tephra; both silic & arg. frags in chalcedonic silic stockwork	120		



ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
52	56	4.0'	.002	.07		
56	60	4.0'	.019	.06		
60	65	5.0'	.001	.04		
65	70	5.0'	.002	.05		
70	75	5.0'	.010	.05		
75	80	5.0'	.002	.05		
80	85	5.0'	.002	.05		
85	90	5.0'	.001	.05		
90	94	4.0'	.004	.03		
94	98.5	4.5'	<.001	.03		
98.5	104	5.5'	.006	.14		
104	110	6.0'	.004	.10		
110	115	5.0'	.014	.17		
115	118.5	3.5'	.018	.39		

HOLE NUMBER D-48-94 PAGE 3 OF 3

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
		END OF HOLE @ 127'	130 / 140 / 150			118-129 hydrothermally silicified tectonic bx; w/ chalcedonic SiO_2 stockwork & vein hydo-T bx's. frac's w/ open-space Q + ill ± open-space f. toc. g. bar. bladed py & marc. w/ loc. blk coatings. marc. loc. in chalc. SiO_2 discont. ill ± mg @ 30° Leopard skin texture

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
118.5	124	5.5'	.013	.17		
124	127 ~~129~~	3.0' ~~5.0~~'	.028	.12		

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-48-94 DATE: 9-15-94 LOGGED BY: CBW PAGE 1 OF

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	7	31	62	.18	3	RZ	1.0	20°	R	py	3	284	120	2.37
7	17	80	84	.51	12	RZ	1.3	20°	K	py	12	289.5	120	2.41
17	27	90	93	.66	22	RZ	0.8	50°	R	py	22	354	145	2.44
27	37	85	88	.65	32	RZ	1.3	45°	R	marc-Ca	32	337.5	140	2.41
37	47	90	95	.66	42	RZ	1.2	20°	R to K	py-Ca	42	270	115	2.35
47	57	80	90	.58	52	RZ	1.1	40°	R	chlic clay	52	352	145	2.43
57	67	70	83	.53	62	RZ	1.7	30°	R	Ca-py	62	401	165	2.43
67	77	85	90	.71	72	RZ	0.7	30°/60°	K	chlic clay	72	394	160	2.46
77	87	97	100	.67	82	RZ	1.4	60°	R-K	chl ± py	82	388.5	160	2.43
87	97	70	83	.45	92	RZ	2.3	10°	K	clay gouge	92	338.5	140	2.42
97	107	47	87	.33	102	RI	3.3	80°/20°	R/K	chl-py	102	368	155	2.38

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-48-94 DATE: 9-15-94 LOGGED BY: CRW PAGE 2 OF 2

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)
107	117	39	85	.26	112	R2	6.0	80°	R	chl-py	112	339	140	2.42
117	127	59	87	.46	122	R2	4.0	70°/5°	R	chl-py-ill	122	324.5	135	2.40

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-48-94
LABORATORY JOB No. : SP030960
SAMPLE TYPE :

RECEIVED : 21 SEP 1994
REPORTED : 4 OCT 1994
No. SAMPLES : 26

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 Faircloth M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-48-94
JOB NUMBER : SP030960
REPORTED : 4 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
D-48-94 0-3	0.008		0.90
D-48-94 3-11	0.002		0.12
D-48-94 11-16	0.002		0.03
D-48-94 16-22	0.002		0.02
D-48-94 22-28	0.003		0.06
D-48-94 28-34	0.034		0.14
D-48-94 34-40	0.012		0.17
D-48-94 40-42	0.187		0.33
D-48-94 42-47	0.012		0.09
D-48-94 47-52	0.013		0.10
D-48-94 52-56	0.002		0.07
D-48-94 56-60	0.019		0.06
D-48-94 60-65	0.001		0.04
D-48-94 65-70	0.002		0.05
D-48-94 70-75	0.010		0.05
D-48-94 75-80	0.002		0.05
D-48-94 80-85	0.002		0.05
D-48-94 85-90	0.001		0.05
D-48-94 90-94	0.004		0.03
D-48-94 94-98.5	<0.001		0.03
D-48-94 98.5-104	0.006		0.14
D-48-94 104-110	0.004		0.10
D-48-94 110-115	0.014		0.17
D-48-94 115-118.5	0.018		0.39
D-48-94 118.5-124	0.013		0.17

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-48-94
JOB NUMBER : SP030960
REPORTED : 4 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
D-48-94 124-127	0.028		0.12

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 COMPANY

Address:

Telephone Number: ( ) Fax Number: ( )

Project Name: ROSEBUD Purchase Order Number:

Transport Company: Waybill Number:

Date Shipped: Number of Packages: 26 [ ] Prepaid [ ] Collect

9-15-94

ANALYSIS REQUIRED

SAMPLE		TYPE	ELEMENTS REQUIRED
D-48-94 0-3	75-80	CORE	2 AT FIRE ASSAY Au & Ag
3-11	80-85		w/ HECLA ROSEBUD
11-16	85-90		CUSTOM PREP
16-22	90-94		
22-28	94-98.5		
28-34	98.5-104		* GRAV FINISH ON ALL
34-40	104-110		Au ≥ 0.05 opt
40-42	110-115		
42-47	115-118.5		
47-52	118.5-124		
52-56	124-129		
56-60			
60-65			
65-70			
70-75			

COARSE REJECTS (Normally Discarded)

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

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month
[ ] 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

IN.
CM.
D-48 94
CST-9
D-48-94
42-42.45

IN.
CM.
CST-9
D-48-94
CST-9
D-48-94
42-42.45